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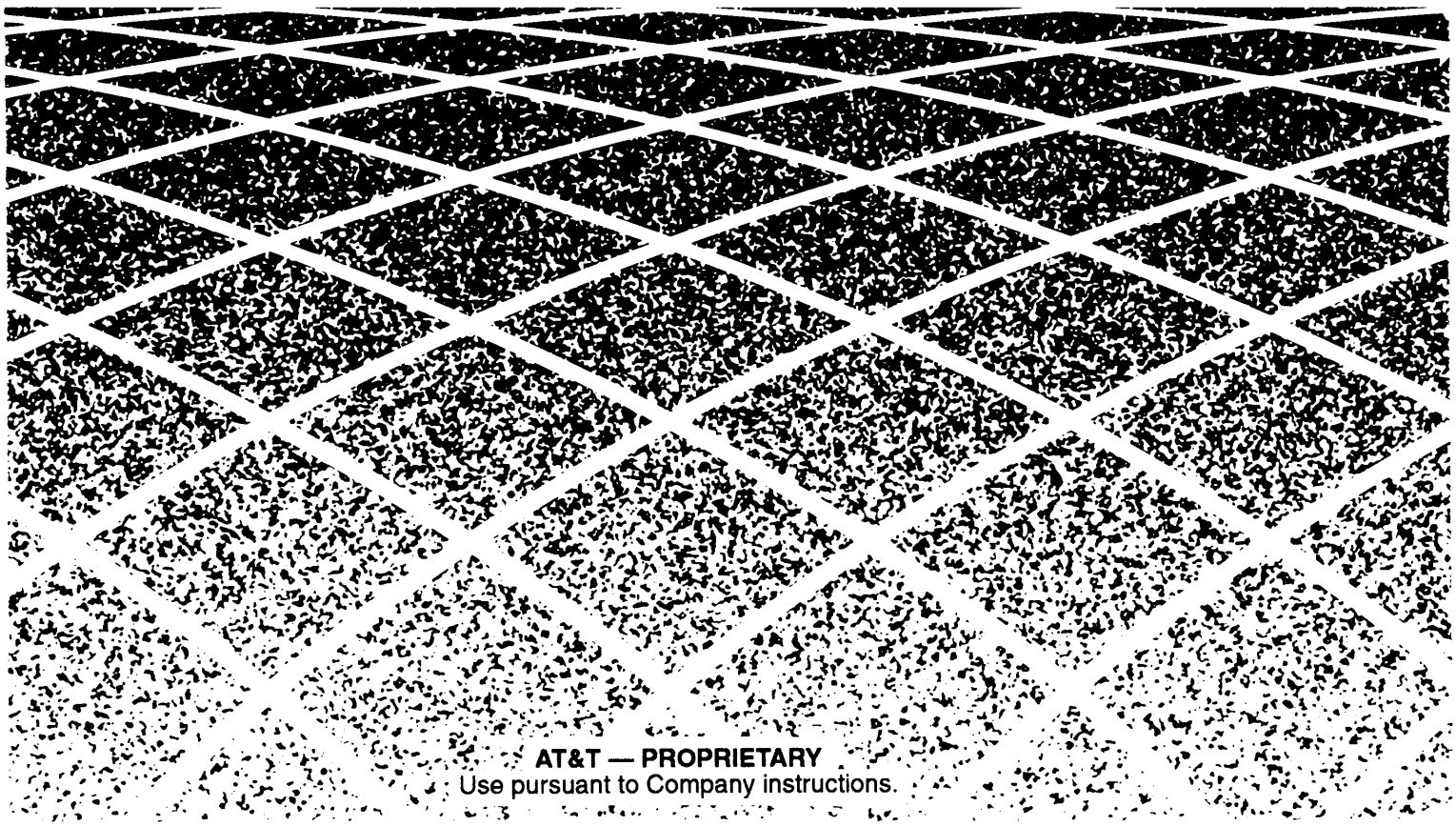
Issue 2
August 1994

Integrated Solution III

for System 75 and DEFINITY® Communications System

Installation and Maintenance



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Introduction

1

Overview of the System

This manual is designed to assist AT&T field technicians and AT&T Authorized Dealers in installing and maintaining Integrated Solution III (IS III). This manual provides procedures for connecting major system components, adding application packages, customizing applications, recovering from catastrophic failure, and troubleshooting.

The System 75 and DEFINITY® Communications System Integrated Solution III[1] consists of a Master Controller processor that is delivered to the customer with the UNIX® System V/386 Release 3.2.2 operating system, the IS III Platform Software, the application packages ordered by the customer, and the appropriate expansion boards already installed.[2] You wiII, however, need to know how to install the system software in case the customer's system experiences a hard disk crash, or if a customer purchases an application to be installed after delivery of a pre-assembled system.

NOTE:
Throughout this guide, references to the Master Controller apply to the Master Controller II+ (desktop model), the Master Controller III (tower model), or the Multi-Application Platform/5. Any information that differs among the processors will be noted specifically.

1 IS 111 is supported for System 75 R1V3 and XE, and for DEFINITY Gl, G3i, G3r, G3s, and G3vs only.

2 Only new Master Controllers are delivered with ordered hardware and software installed. If an existing Master Controller is used, any additional hardware and software must be installed or updated at the customer site.

NOTE:
The Master Controller II+ is also known as the Applications Controller in some documentation.

NOTE:
AT&T FAX Attendant System™ is not supported on the Master Controller II+.

The IS III Platform Software is an “umbrella” program for the following software packages:

- Integrated Solution Call Accounting System
- AUDIX® Voice Power™
- AT&T FAX Attendant System™

The IS III Platform Software is designed to do the following:

- Assist with the installation, update, and customization of IS III applications.
- Provide a single window for an end-user to access each application package and any user-specific maintenance items.
- Provide a single window for a Systems Technician to access each application package, user-specific maintenance items, and Systems Technician-specific maintenance items.
- Provide a remote access capability to allow access to each application package and maintenance item from a remote location.
- Limit installation of software applications to those supported.

System Configuration

The Master Controller's main components are the system unit, the video display, the keyboard, and the remote maintenance device (not shown).

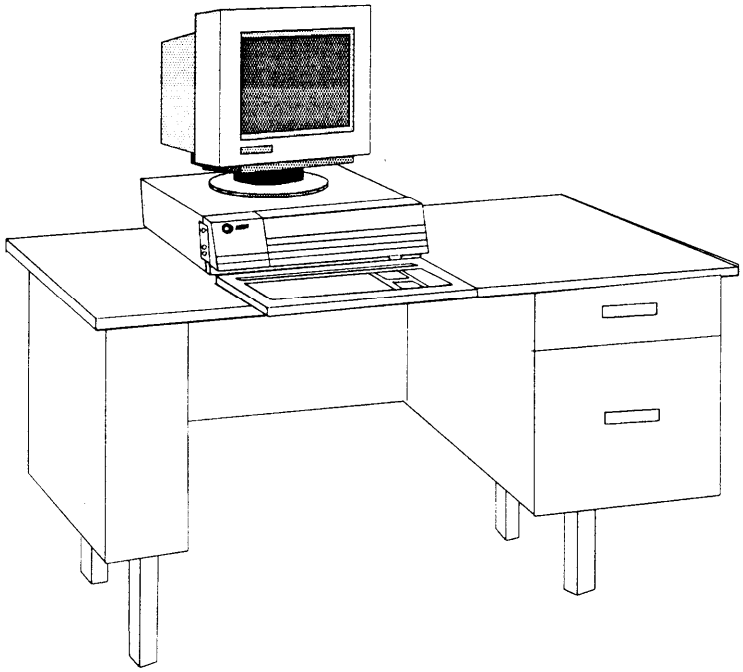


Figure 1-1. The Master Controller II+

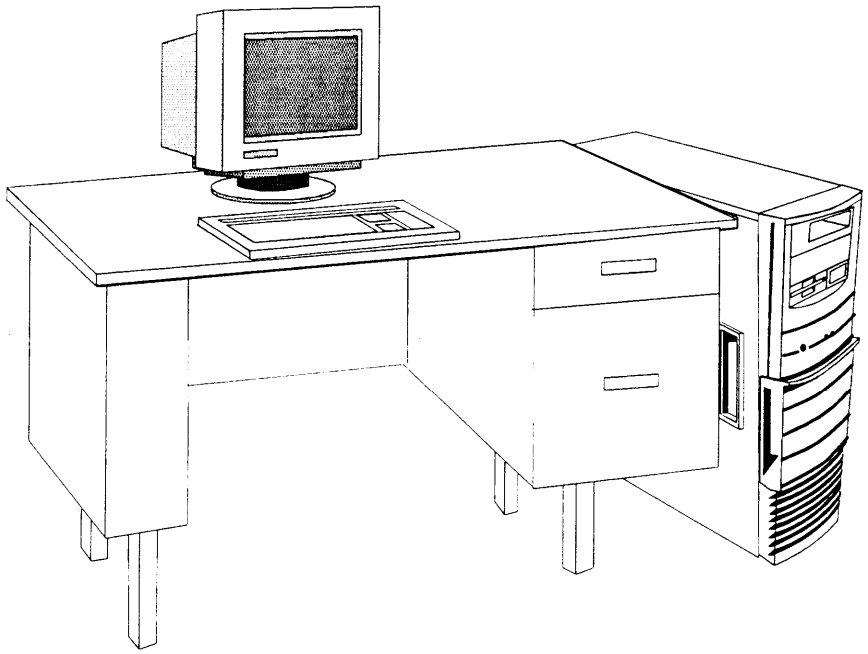


Figure 1-2. The Master Controller III

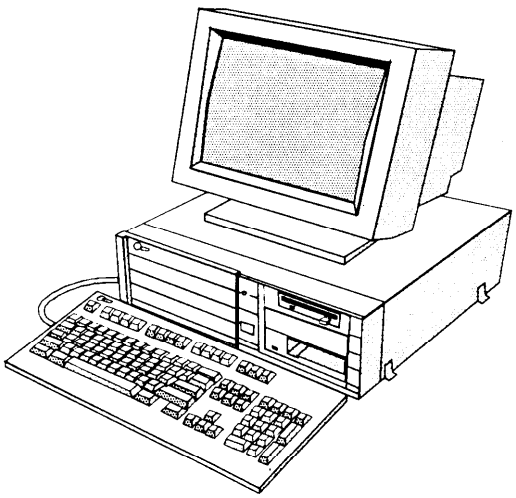


Figure 1-3. The Multi-Application Platform/5

The system unit contains the main board, internal peripherals, the power supply, and slots for expansion boards. Features of the Master Controller configured for use with IS III include:

- A 20 MHz 80386SX CPU (MC II+),
  20 MHz 80486SX CPU (MC III or
  33 MHz 80486SX CPU (MAP/5)
- A 100 or 200 MB hard disk (MC II+),
  200 or 500 MB hard disk (MC III), or
  210, 250, or 500 MB hard disk (MAP/5)[3]
- A 1.44 MB diskette drive
- 8 MB of onboard system Random Access Memory (RAM)
- A video graphics adapter (VGA) controller
- A built-in hard disk interface
- A real-time clock/calendar with battery backup
- Two available expansion slots (MC II+) or
  five available expansion slots (MC III and MAP/5)
- 128-Kbyte ROM (read-only memory) BIOS
- Two built-in serial ports and one printer (parallel) port
- A 125 MB tape drive (MC II+) or
  250 MB tape drive (MC III and MAP/5)

The MC III or MAP/5 can run Integrated Solution Call Accounting System (IS CAS), AUDIX Voice Power, and FAX Attendant at the same time. The size of the hard disk drive (200 MB to 500 MB) and the number of voice (4 to 12) and fax (2 to 12) interface ports may limit the number of subscribers to the Voice and Fax Mail Services.

An existing Master Controller II+ may require upgrading to increase memory or to install a larger hard disk before it can be used with IS III. (AT&T FAX Attendant System is not supported on the MC II+.) Eight MB of memory and at least a 100 MB hard disk are required. Chapter 3 contains procedures for upgrading an existing Master Controller II+.

[3] Additional sizes may be available for upgrade.

Port Requirements

The voice ports and the fax ports must be connected to analog ports on the switch. The Digital Communications Protocol (DCP) port must be connected to a digital port on the switch.

Using This Guide

The information in this guide is organized into nine chapters and three appendices:

Chapter 1, Introduction: This chapter offers an overview of Integrated Solution III (IS III) including basic components and software applications supported.

Chapter 2, Installing the Hardware: This chapter provides all information necessary to install the hardware platform for IS III.

Chapter 3, Upgrading the Hardware: This chapter provides all information necessary to upgrade the hardware platform for IS III.

Chapter 4, Adding and Removing IS III Applications: This chapter explains how to install each application package. It also explains how to remove applications.

Chapter 5, Completing CAS Implementation: This chapter describes how to complete the Call Accounting System implementation.

Chapter 6, Recovering from Catastrophic Failures: This chapter categorizes possible failure conditions and describes recovery procedures.

Chapter 7, Upgrading the Software: This chapter describes how to upgrade configurations to IS III, and how to update software to the latest release.

Chapter 8, Maintaining IS III: This chapter describes technician-level maintenance procedures that may be needed occasionally.

Chapter 9, Troubleshooting: This chapter describes common problems that may be encountered and how to rectify them.

Appendix A: CAS Alarm Notification: This appendix describes the parameters required to set the CAS alarms.

Appendix B: Terminal Types: This appendix describes the remote access terminal types that IS III supports.

Appendix C: AT&T 570/571 and 473/474 Printer Setup: This appendix provides procedures for preparing and initializing existing printers that are no longer available on new configurations.

Conventions Used in This Guide

The following conventions are used in this guide:

- Commands and text that you should type appear as follows: ***Type this.***
- Values, instructions, and prompts that display on the screen appear as follows: `Read this .`
- Keys that are always located in the same place on the PC keyboard appear in key-shaped boxes, as in [ENTER].
- Key combinations (holding down one key while pressing another key) are connected with hyphens; for example: [CTRL] – [ALT] – [DEL].
- Function keys that have changeable names appear in plain rectangular boxes, as in SAVE.
- IS III and application software function keys (keys that start with an F, followed by a number) appear in boxes with the current meaning following in parentheses, such as [F3] (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 wiII 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 the [F8] (CHG-KEYS) key has been pressed. Pressing [F8] (CHG-KEYS) again restores the first set of labels.

Related Documents

You need to be familiar with the following documents:

- AT&T Integrated Solution III
  for System 75 and DEFINITY® Communications System
  System Manager's Guide
  Document No. 555-230-715

- AT&T AUDIX™ Voice Power Release 2.1.1
  System Manager's Guide
  Document No. 585-310-520
- AT&T AUDIX™ Voice Power Release 2.1.1
  User's Guide
  Document No. 585-310-521
- AT&T AUDIX™ Voice Power Release 2.1.1
  Planning Guide and Forms
  Document No. 585-310-901
- AT&T AUDIX™ Voice Power Release 2.1.1
  Switch Notes
  for System 75 Communications System
  Document No. 585-310-010

- AT&T FAX Attendant System™ Release 2.1.1
  User's Guide
  Document No. 555-007-102
- AT&T FAX Attendant System™ Release 2.1.1
  System Manager's Guide
  Document No. 555-007-100
- AT&T FAX Attendant System™ Release 2.1.1
  Planning and Forms
  Document No. 555-007-101
- AT&T FAX Attendant System™ Release 2.1.1
  Implementation and Switch Notes
  for System 75 and DEFINITY® Communications System
  Generic 1 and Generic 3
  Document No. 555-007-201

- AT&T Diagnostic Program User's Guide
  Document No. 560-407-151
- AT&T Applications Controller User's Guide
  Document No. 585-249-710
- AT&T Master Controller III User's Guide
  Document No. 560-407-150
- AT&T Multi-Application Platform/5 User's Guide
  Document No. 585-211-110
- AT&T MAP/5 Diagnostic Program User's Guide
  Document No. 585-211-111

- AT&T Call Accounting System (CAS) Integrated Solution II
  Planning Guide and Forms
  Document No. 585-247-050
- AT&T Call Accounting System (CAS) integrated Solution II
  Site Installation and Implementation Guide
  Document No. 585-247-010
- AT&T Call Accounting System (CAS) Integrated Solution
  User's Guide
  Document No. 585-247-120
- AT&T Call Accounting System (CAS) Integrated Solution
  Quick Reference Card
  Document No. 585-247-121
- HackerTracker™ for Integrated Solution
  Call Accounting System
  Document No. 585-247-122

- AT&T System 75 Implementation Manual, Release 1, Version 3
  Document No. 555-200-652, Issue 3
- AT&T DEFINITY® Communications System Generic 1
  and System 75 and System 75XE
  Administration and Measurement Reports
  Document No. 555-200-500, issue 5
- AT&T DEFINITY® Communications System Generic 1 and Generic 3
  System Management
  Document No. 555-230-500, Issue 1, January, 1992
  Document No. 555-230-500ADD, Addendum 1, September, 1992
  Document No. 555-230-500ADD2, Addendum 2 for DEFINITY G3vs,
  March, 1993
- AT&T DEFINITY® Communications System Generic 3i
  Implementation
  Document No. 555-230-650, Issue 1, January, 1992
  Document No. 555-230-650ADD, Addendum 1, September, 1992
  Document No. 555-230-650ADD2, Addendum 2, March 1993
  Document No. 555-230-650ADD3, Addendum 3 for DEFINITY G3vs,
  March, 1993
- AT&T DEFINITY® Communications System Generic 1 and Generic 3i
  System Reports
  Document No. 555-204-510
- AT&T DEFINITY® Communications System Generic 3r
  System Reports
  Document No. 555-230-510

Training Materials

Technical product training is available to AT&T technical associates. The following Individualized Learning Programs (ILPs) are available for DEFINITY IS III:

- DEFINITY IS III Platform
  Course Number: S09223W
  Document Number: GBCS-1800-PLT
- AUDIX Voice Power, Rel 2.1.1, for DEFINITY IS III
  Course Number: S09103W
  Document Number: GBCS-1800-AVP
- DEFINITY IS CAS and HackerTracker
  Course Number: S09111Y
  Document Number: GBCS-1800-CAS

To obtain copies of ILPs, call the Documentation Distribution Center (DDC) at 800-252-4076.

Getting Help

If you have questions or problems with IS III that are not resolved by this document and the other related documents, you should call the AT&T Support Center at 1-800-562-8349 or your AT&T Authorized Dealer for assistance.

Installing the Hardware

2

This chapter provides information for setting up a new installation. For upgrade procedures, see Chapter 3, “Upgrading the Hardware,” and Chapter 7, “Upgrading the Software. ”

The Master Controller comes loaded with IS III and all of the ordered software applications when shipped from AT&T. Even though all of the software is loaded, a boot disk and tape copy of the software are also supplied to use in case of catastrophic failure.

This chapter includes the following information on setting up the system:

- Preparation
- Required tools and equipment
- Specific procedures for setting up, connecting, and checking the system

Preparing for Installation

Before you begin installing the hardware, you should complete the following tasks that are detailed in this section:

- Select an appropriate site for the system.
- Collect the necessary tools.
- Verify that all ordered equipment is on-site.

In addition, if you are installing AUDIX Voice Power or AT&T FAX Attendant System, you should have access to planning Form A that was filled out using the instructions contained in *AT&T AUDIX™ Voice Power Release 2.1.7 Planning Guide and Forms* or *AT&T FAX Attendant System™ Release 2.7.7 Planning and Forms* document. This form identifies the ports to be used during installation.

Selecting a Site for the System

The Master Controller can be used in a variety of environments.

NOTE:
References to the Master Controller apply to the Master Controller II+, the Master Controller III, or the MAP/5. Any information that differs among the three processors will be noted specifically. The Master Controller II+ is also described as the Applications Controller in some documentation.

To insure proper system operation, the Master Controller must be located in an area that meets all of the following requirements:

- The Master Controller must be connected to a grounded power outlet. Ungrounded machines may be harmed by static electricity, may fail to work properly, and can be a safety hazard. Improper program execution, unreadable disks, and extensive machine damage can result.
- The area must be clean and dust free. Airborne dust, dirt, copy machine toner, and smoke can cause excessive wear on the disks and read/write errors.
- The installation site must be well-ventilated and away from heat sources. Excessive heat and direct sunlight can cause undesirable conditions such as low humidity, which can cause static problems.
- The Master Controller must be isolated from strong electromagnetic fields produced by electrical devices (for example, air conditioners, large fans, large electric motors, radio and television transmitters, and high-frequency security devices).
- The Master Controller must be installed away from water and excessive humidity.
- The Master Controller must be close to a phone if AUDIX Voice Power/FAX Attendant is used, so that the connections through to the voice and fax ports can be tested, and so that AUDIX Voice Power and FAX Attendant can be administered.

Required Tools

Make sure you have the proper tools ready:

- 3/16“ flat-blade screwdriver
- #1 Phillips® head screwdriver
- 3/16“ nut driver
- an antistatic grounded wrist strap
- an antistatic grounded work mat

DANGER:

The system unit power supply contains AC voltage at levels that can cause injury or death on contact. Before removing any system unit covers, turn off the system and unplug the power cord from the AC outlet.

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.

Equipment Inventory

Verify that all ordered and shipped equipment is on the premises and not damaged in any way. Unpack the system components from the boxes and make sure they are in good condition. Check for the following:

- ❑ Master Controller system unit:
  - ■ Master Controller II+ (desktop)
  - ■ Master Controller III (tower)
  - ■ MAP/5
- ❑ Two keys for system unit chassis lock
- ❑ System unit power cord
- ❑ Video display and cables
- ❑ Keyboard with cable
- ❑ Two-outlet surge protector with power strip
- ❑ Diagnostic diskette
- ❑ Utility diskette (MC II+ and MC III only)
- ❑ Equipment Log form
- ❑ Two blank tape cartridges
- ❑ IS III Boot Diskette
- ❑ IS III Installation Tape
- ❑ RMD or RMD-HS with power supply and modular cable
- ❑ Switch box kit with:
  - ❑ A/B switchbox (not used)
  - ❑ M-M gender changer
  - ❑ 25-pin M-F cable
  - ❑ 25-pin M-M cable
- ❑ 9-pin to 25-pin adapter
- ❑ For CAS (SMDR) connection (provided only if CAS ordered):
  - ❑ 355AF adapter
  - ❑ D8W-87 8-conductor modular cable
  - ❑ 355A adapter
- ❑ Wiring kits for any installed voice port and fax port boards
- ❑ D8W-87 cord for DCP board

- ❑ Optional printer with cables (power and data)
  - ■ AT&T Applications Printer (wide carriage)
  - ■ AT&T Call Accounting System Printer (narrow carriage)
  - ■ HP® LaserJet® Series II compatible printer
- ❑ The following documents:
  - ❑ *AT&T Integrated Solution III for System 75 and DEFINITY® Communications System Installation and Maintenance* (this guide)
  - ❑ *AT&T Integrated Solution III for System 75 and DEFINITY® Communications System System Manager's Guide*
  - ❑ *AT&T Master Controller III User's Guide* (MC III) **or** *AT&T Applications Controller User's Guide* (MC II+) **or** *AT&T Multi-Application Platform/5 User's Guide* (MAP/5)
  - ❑ *AT&T Diagnostic Program User's Guide* (MC II+ and MC III) **or** *AT&T MAP/5 Diagnostic Program User's Guide* (MAP/5)
  - ❑ *AT&T 14-inch VGA Monitor User's Guide*
  - ❑ Printer Guide (optional)
  - ❑ Applications documents

Check the system unit, video display, and keyboard. Make sure all associated cables and power cords are present. If voice port (Integrated Voice Power™ (IVP4 or IVP6)) boards are included, verify that the correct number have been installed. If fax port (Integrated Fax Processing (IFP2 or IFP4)) boards are included, verify that the correct number have been installed. A set of matching keys is provided with the system unit to operate the mechanical chassis lock. (Tell the customer to keep the keys in a secure place.)

Maintaining the Equipment Log

The Equipment Log is completed by AT&T or an AT&T Authorized Dealer prior to shipment of the equipment and is included with the equipment when shipped. Store the form in a safe place with this guide so that it will be available when needed. Doing so will be helpful should the equipment become lost, stolen, or damaged. Update this Equipment Log whenever options are added so that it can provide a complete warranty record of when equipment was placed in service, upgraded, and reconfigured.

Activity Checklist

The system should be set up in the following order:

1. Configure and install any additional voice port (IVP) boards.
2. Configure and install any additional fax port (IFP) boards.
3. Connect the video display to the system unit.
4. Connect the keyboard to the system unit.
5. Install the printer (if one is being used).
6. Connect the voice port boards to analog ports.
7. Connect the fax port boards to analog ports if FAX Attendant is included.
8. Connect the DCP board to a digital port.
9. Connect the remote access device to an analog port or an outside line.
10. Connect the CAS (SMDR) ports on the Master Controller and the switch if CAS is included.
11. Supply power to the Master Controller and video display.
12. Turn on the system.
13. Observe the Power On Self Test (POST).
14. Log into IS III.
15. Make sure that the proper software packages are installed.
16. Check CAS (SMDR) port connection if CAS is included.
17. Check remote access port connection.
18. Initialize printer setup (if applicable).
19. Test the optional printer.
20. Test the DCP board and port.
21. Run voice port board (IVP) diagnostics.
22. Run fax port board (IFP) diagnostics (if applicable).
23. Perform additional switch administration or application customization (as applicable).
24. Make a complete backup of the system on tape.

Interconnection Overview

An overview of the equipment interconnection cabling is shown in Figure 2-1, Separate step-by-step procedures follow for making each connection.

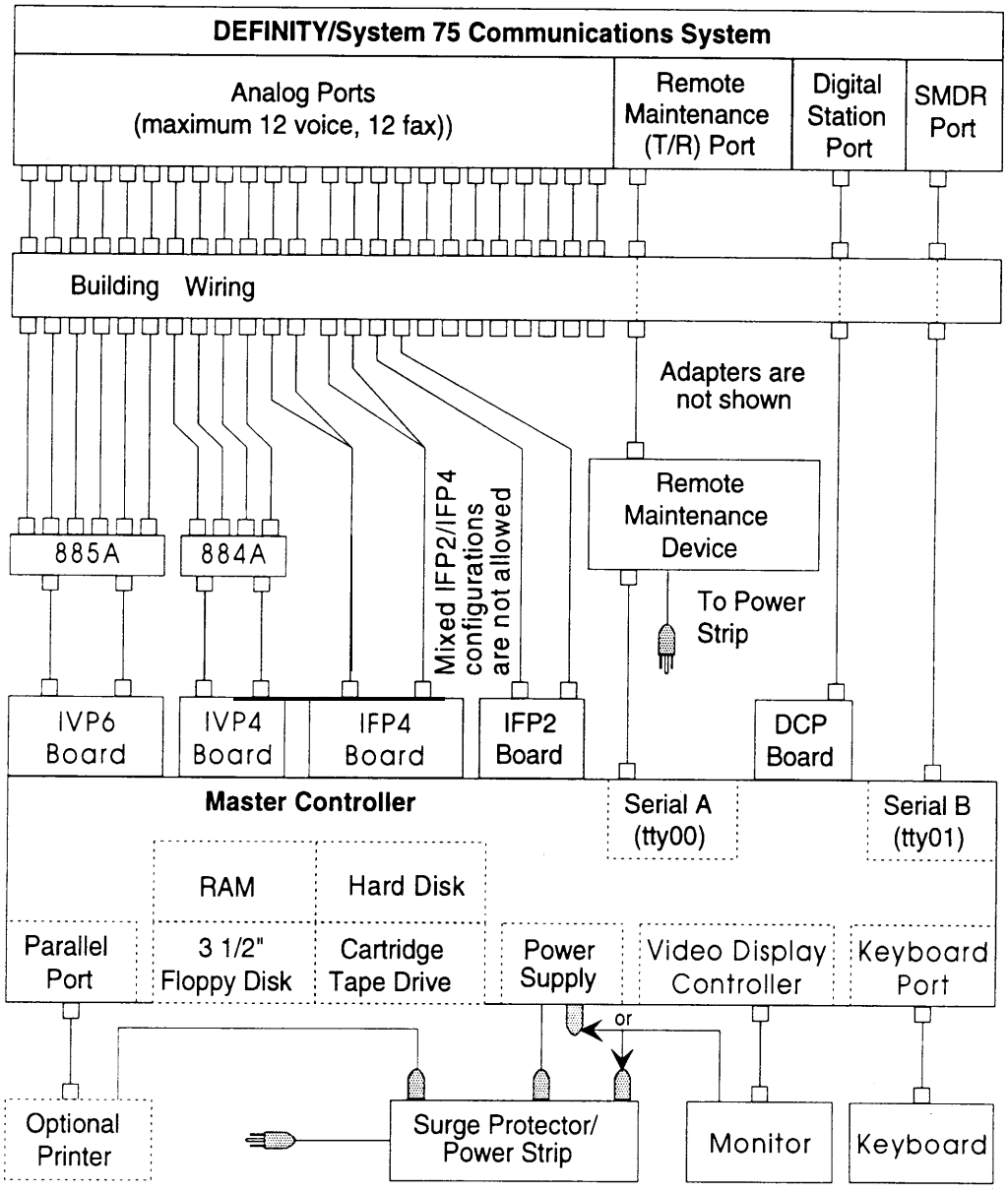


Figure 2-1. Equipment Interconnection Overview

Location of Connectors

Refer to these figures as you connect the components together.

The connectors for the Master Controller II+ are on the rear and left side. The connectors are shown in Figure 2-2:

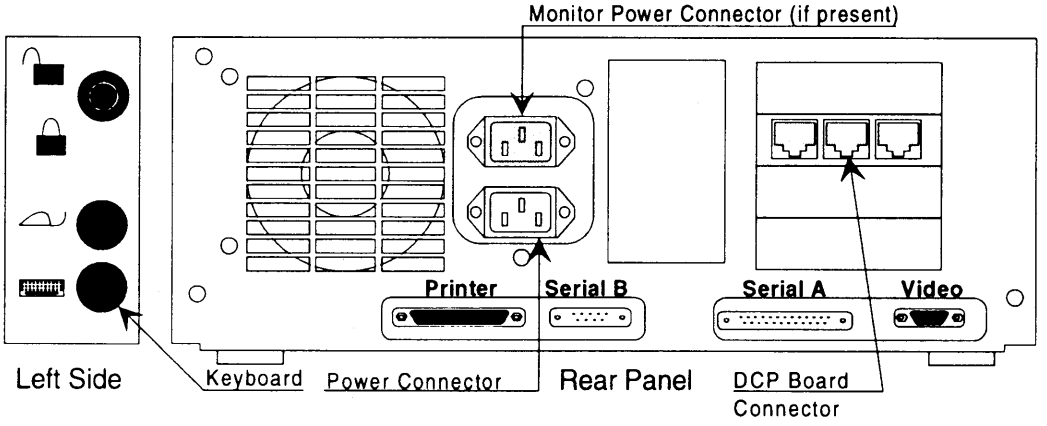


Figure 2-2. Master Controller II+ Connector Locations

The connectors for the Master Controller III are on the rear. The connectors are shown in Figure 2-3:

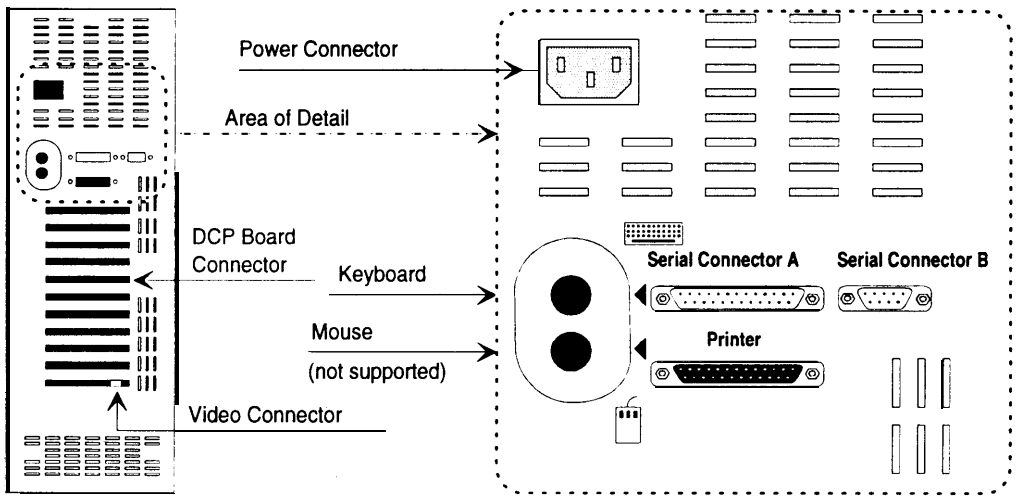


Figure 2-3. Master Controller III Connector Locations

The connectors for the MAP/5 are on the rear and on one side (left for desktop, right for tower) near the front. The connectors are shown in Figure 2-4 (desktop) and Figure 2-5 (tower).

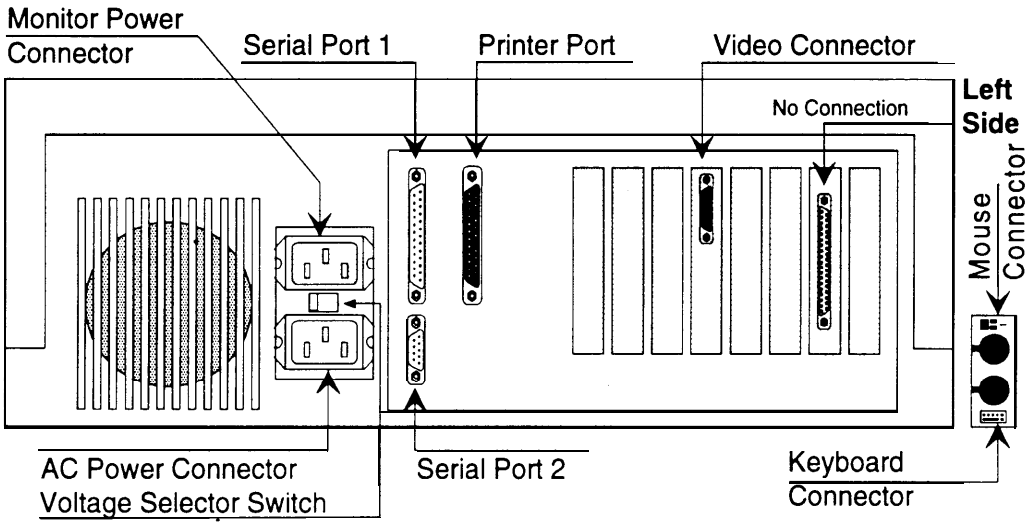


Figure 2-4. MAP/5 Connector Locations (Desktop Configuration)

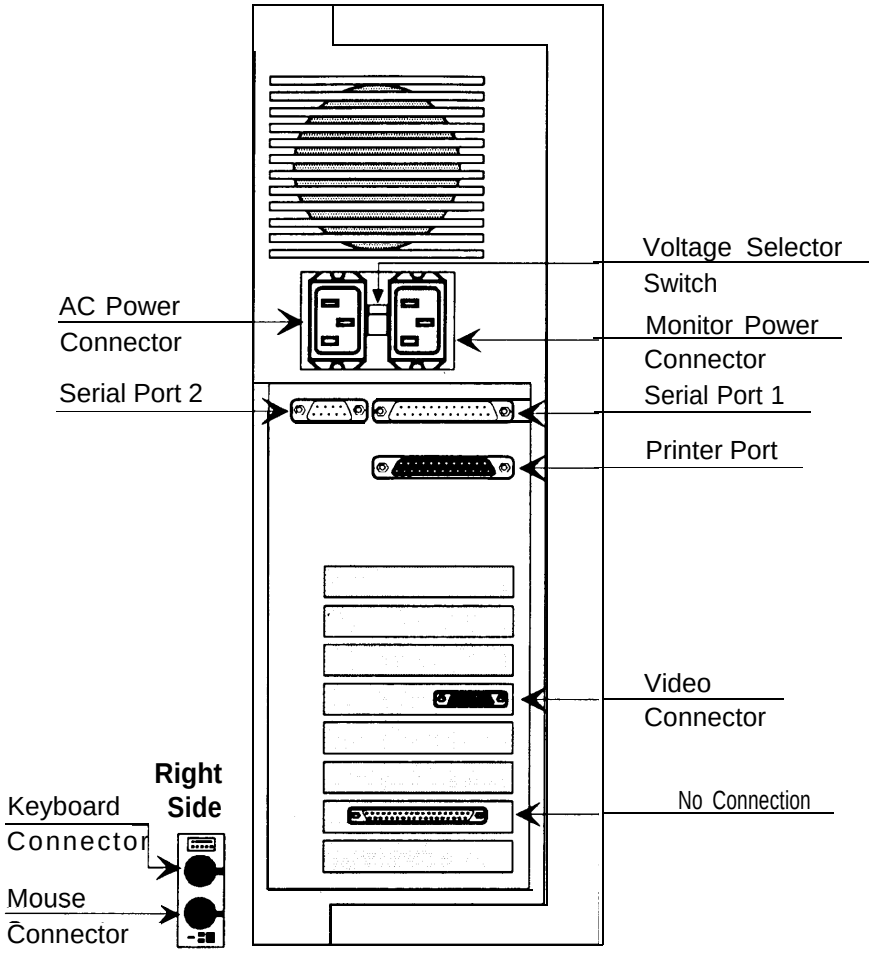


Figure 2-5. MAP/5 Connector Locations (Tower Configuration)

Setting Up the Hardware

When you have selected the proper site, gathered all required tools, and checked the components, you are ready to set up the system. To prevent damage from electrostatic discharge, remember to take precautions in handling, packing, and storing circuit packs; and remember to ground yourself.

Procedures for upgrading hardware are given in Chapter 3.

Installing Additional Boards

Procedure 2-1: Install Voice Port (IVP) Boards

All systems are shipped preconfigured with the necessary expansion boards installed. It is necessary to install additional expansion boards only when:

- the customer has IVP boards from an existing system
- IVP boards are being added to the configuration after shipping

The procedures for opening and closing the Master Controller system unit, and for identifying and installing IVP4 and IVP6 boards are given in Chapter 3, “Upgrading the Hardware. ”

Procedure 2-2: Install Fax Port (IFP) Boards

All systems are shipped preconfigured with the necessary expansion boards installed. It is necessary to install additional expansion boards only when additional IFP boards have been added to the configuration after shipping. The procedures for opening and closing the Master Controller system unit, and for identifying and installing IFP2 and IFP4 boards are given in Chapter 3, “Upgrading the Hardware. ”

Connecting Components

Procedure 2-3: Connect the Video Display

To connect the video display, follow these steps:

1. Connect the video display cable to the connector on the system unit with the same size shell and the same number of pins. The connector has three rows totaling 15 pins. The other, similarly sized connector on the system unit has two rows totaling 9 pins. Connector locations are shown in Figure 2-2, Figure 2-3, Figure 2-4 and Figure 2-5.
2. Tighten the screws that hold the connector in place. Do not over tighten.
3. Attach the video-display power cord to the power socket on the back of the video display.
4. Connect the other end of the power cord to the surge protector/power strip or to the Master Controller (see note).

NOTE:
All MAP/5 system units and some Master Controller II+ system units have a power connector for the monitor immediately above the power connector for the system unit. In this case, an alternate power cord for the monitor is shipped with the system unit. This alternate power cord should be used instead of the cord shipped with the monitor. The monitor power outlet on the system unit is controlled by the system unit power switch. This allows you to turn on the system unit and video display from a single switch.

NOTE:
If you turn on the monitor when the system unit is off, the power indicator may light (if the monitor connects directly to the AC outlet), but the screen will remain blank.

NOTE:
A surge protector and power strip are supplied with new systems. We recommend that a surge protector be added to existing configurations that do not have one.

Procedure 2-4: Connect the Keyboard

Connect the keyboard by inserting the keyboard cable plug into the socket on the system unit. The keyboard cable plug has an indent in the metal shell (called a keyway) that is used to align the plug with the socket.

— On the Master Controller II+, the socket for the keyboard connector is located on the left side at the bottom. Refer to Figure 2-2. The keyway should face upward.

— On the Master Controller Ill, the socket for the keyboard connector is located on the rear. It is the upper of two similar connectors. Refer to Figure 2-3. The keyway should face upward.

— On the MAP/5, in the desktop configuration, the socket for the keyboard connector is located on the left side at the bottom. Refer to Figure 2-4. On the MAP/5, in the tower configuration, the socket for the keyboard connector is the upper of the two sockets located on the right side near the bottom of the system unit. Refer to Figure 2-5. In both cases, the keyway should face toward the front of the system unit.

On all of these system units, the keyboard socket is identified by a picture of a miniature keyboard ( ).

Procedure 2-5: Install the Optional Printer

For installations that require fax printing, IS Ill supports any printer fully compatible with the HP® LaserJet® Series II. For installations that require printed reports, but not fax printing, IS Ill supports the AT&T Applications Printer (dot matrix, wide carriage) and the AT&T Call Accounting System Printer (dot matrix, narrow carriage).[1] All printers must use a Centronics®-type parallel interface.

Do *not* connect the printer cable to the Master Controller yet.

1. Unpack the printer and install the ribbon or toner cartridge according to instructions in the printer documentation.
2. Load the printer with paper according to the instructions in the printer documentation.
3. Connect the power cable from the back of the printer to an AC outlet.
4. Turn on the printer power switch.
5. Follow the testing procedures in the printer documentation.
6. Set any options indicated in the printer documentation.[2]
7. Turn off the printer power switch.

You are now ready to connect the printer to the Master Controller. The printer uses a standard 36-contact Centronics-type connector on one end and a 25-pin DB-25P connector on the other. Connect the interface cable as follows:

1. Plug the 36-contact Centronics-type connector on one end of the cable into the matching connector on the printer, and push the two spring clips into position to hold the connector in place.
2. Plug the other end of the cable into the parallel port socket on the Master Controller. Refer to Figure 2-2, Figure 2-3, Figure 2-4, or Figure 2-5.
3. Tighten the screws that hold the connector in place. Do not over tighten.

[1] Existing type 570/571 and type 473/474 printers can also be used.

[2] See Appendix C for setup information for 570/571 and 473/474 printers.

Connecting the IVP Board Voice Lines

Voice lines must be connected to the IVP boards.

— 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 for line pairs 3 and 4.

Use Procedure 2-6 for connecting IVP4 boards.

— Each IVP6 board has two 6-position modular jacks. Each of these modular jacks is used to connect three voice lines on the three wire pairs. The top jack is used for line pairs 1, 2, and 3. The bottom jack is for line pairs 4, 5, and 6.

If an 885A adapter is available, use Procedure 2-7a for connecting IVP6 boards. If an 885A adapter is not available, use Procedure 2-7b for connecting IVP6 boards.

Procedure 2-6: Connect IVP4 (4-Port) Boards

Connect IVP4 (4-port) boards as follows:

- If the line pairs are run two per jack (RJ14C), use two standard, 4-conductor modular cables.
- If the line pairs are run individually (RJ11C), a type 884A adapter may be used to consolidate the four individual line pairs into two pairs (RJ14C) in each of two cables. (All necessary cables are supplied.) See Figure 2-6.

WARNING:

There may be a magnet on the back of the 884A adapter. Be sure that you do not place this near the floppy diskettes or tape cartridges.

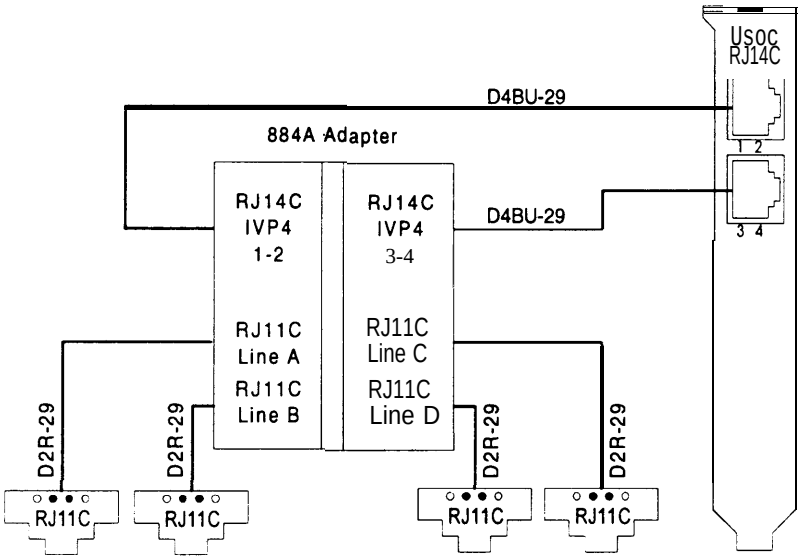


Figure 2-6. IVP4 Board with 884A Adapter for RJ11C

Procedure 2-7a: Connect IVP6 (6-Port) Boards: Using 885A Adapter

Connect IVP6 (6-port) boards as follows:

1. Make sure that the line pairs were run individually (RJ11C).
2. Use a type 885A adapter to consolidate the six individual line pairs into three pairs in each of two cables. (See Figure 2-7.)
3. There is an adhesive strip on the back of the 885A adapter. Remove the protective coating paper and attach the 885A adapter in a convenient place.

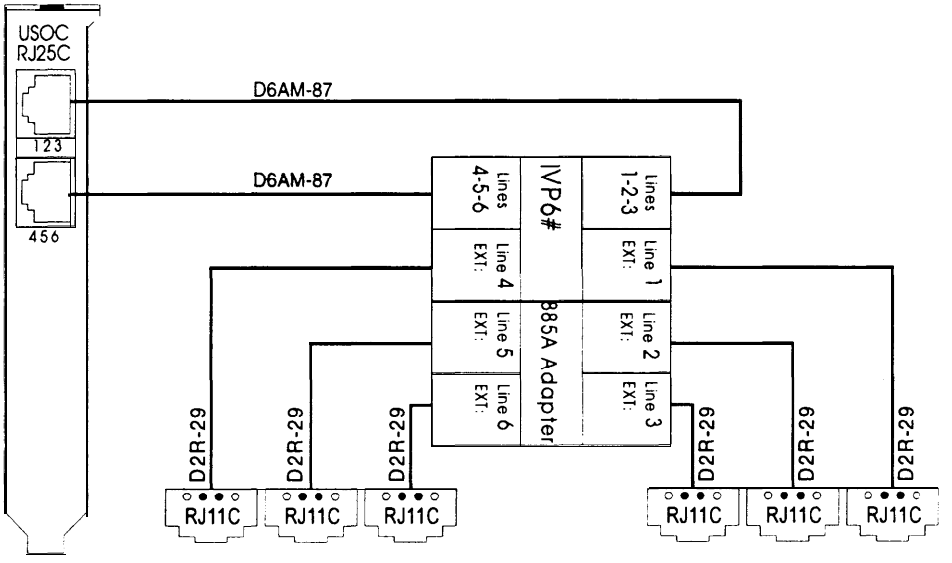


Figure 2-7. IVP6 Board with 885A Adapter for RJ11C

4. Use the supplied 6-conductor modular cables between the IVP6 board and the adapter.
5. Use the supplied 2- or 4- conductor modular cables between the adapter and the RJ11C modular jacks.
6. Label the connections in the space provided on the 885A adapter.

Procedure 2-7b: Connect IVP6 (6-Port) Boards Without 885A Adapter

Connect IVP6 (6-port) boards as follows:

1. Make sure that the building wire pairs were run together to a type 104A or 108B connecting block or equivalent. Refer to Figure 2-8.
2. Use the supplied D6AM-87 6-conductor modular cables between the IVP6 board and the connecting block.
3. The numbers in circles in Figure 2-8 are the punch-down connector positions.

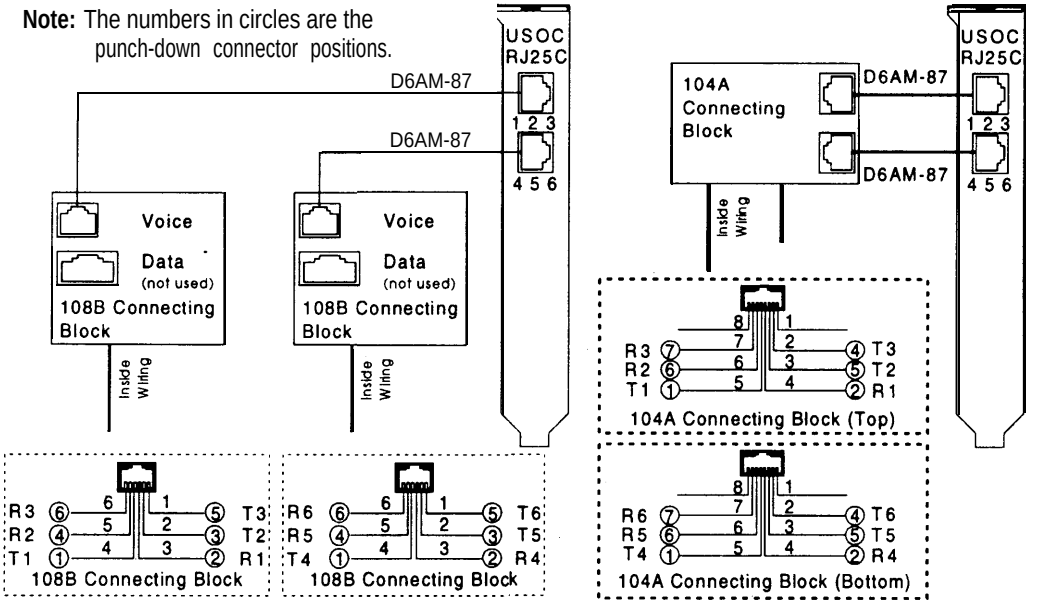


Figure 2-8. IVP6 Board Direct Connection

Connecting the IFP Board Fax Lines

Voice lines must be connected to the IFP boards,

— Each IFP2 board has two 6-position modular jacks. Each of these modular jacks is used to connect one voice line. The top jack is used for line pair O. The bottom jack is for line pair 1.

— Each IFP4 board has two 8-position modular jacks. Each of these modular jacks is used to connect two voice lines. The top jack is used for line pairs O and 1. The bottom jack is for line pairs 2 and 3.

Procedure 2-8: Connect IFP2 (2-Port) Boards

Each IFP2 board is supplied with two 2- or 4-conductor modular cables having modular plugs wired as RJ11C at both ends. Connect IFP2 (2-port) boards by following these steps:

1. Plug one end of one of the supplied modular cables into the line 1 modular jack on the IFP2 board.
2. Plug the other end of the modular cable into a RJ11C modular jack for line 1.
3. Repeat the above steps for the second line (line 2).

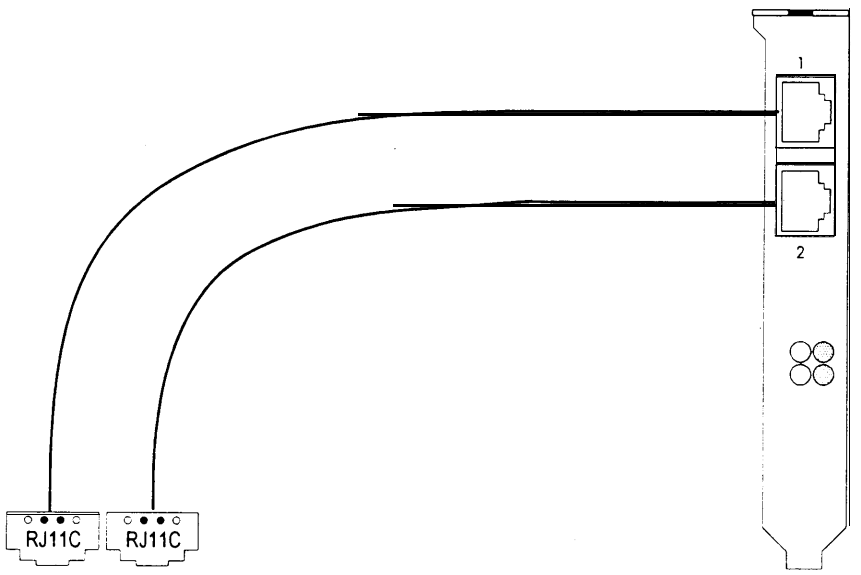


Figure 2-9. IFP2 Board Connections for RJ11C

Procedure 2-9: Connect IFP4 (4-Port) Boards

Each IFP4 board is supplied with two special “Y” cables having an 8-position modular plug on one end and having 6-position, 2-conductor modular plugs wired as RJ11C on the other two ends. Connect IFP4 (4-port) boards by following these steps:

1. Plug one 8-position modular plug into the matching modular jack on the top of the IFP4 board.
2. Plug the 6-position modular plugs into separate RJ11C modular jacks for each line. The two 6-position ends of the cable are labeled “A” for port 1 and “B” for port 2.
3. Plug the second 8-position modular plug into the matching modular jack on the bottom of the IFP4 board.
4. Plug the 6-position modular plugs into separate RJ11C modular jacks for each line. The two 6-position ends of the cable are labeled “A for port 3 and “B” for port 4.

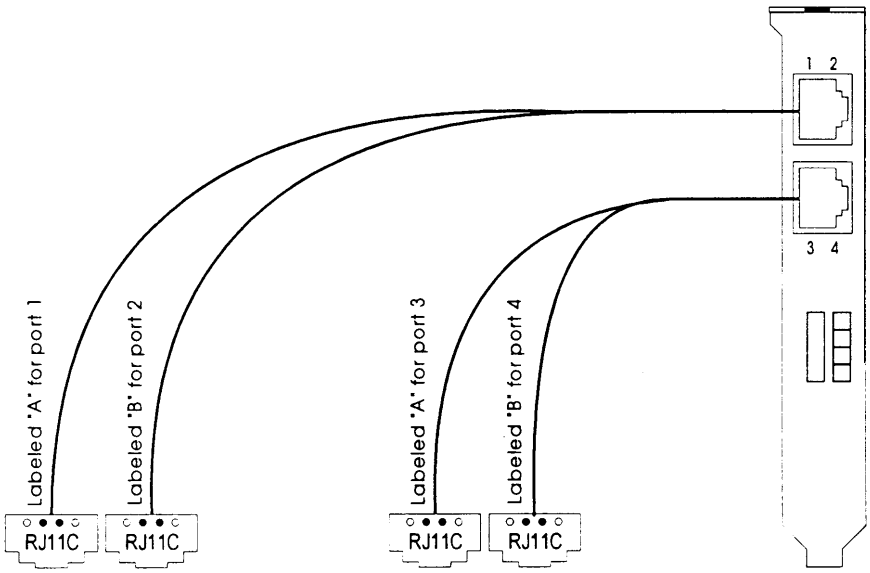


Figure 2-10. IFP4 Board with Two “Y” Cord Adapters for RJ11C

Connecting the DCP Board Digital Port Line

The DCP board must be connected to a digital port.

— The DCP board has three 8-position modular jacks. The middle jack (labeled LINE) is used to connect to the digital port.

— The DCP board is supplied with an 8-conductor (D8W-87) modular cable.

Procedure 2-10: Connect DCP Board

Connect the DCP board by following these steps:

1. Plug one end of the supplied D8W-87 modular cable into the middle modular jack on the DCP board (labeled LINE).
2. Plug the other end of the modular cable into the digital port modular jack assigned for use with the DCP board.

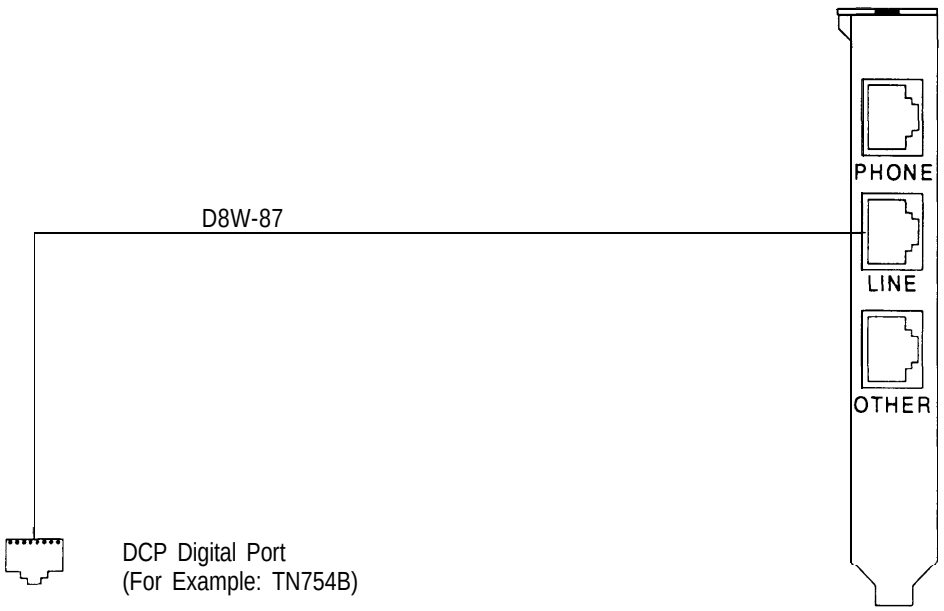


Figure 2-11. DCP Board Connection

Connecting Remote Maintenance and CAS (SMDR) Ports

The Master Controller communicates with the System 75 or DEFINITY Communications System and with the outside world through the system unit TTY ports.

— Serial Connector A (tty00) is used for remote access to the Master Controller.

— Serial Connector B (tty01) is used for the Call Accounting System.

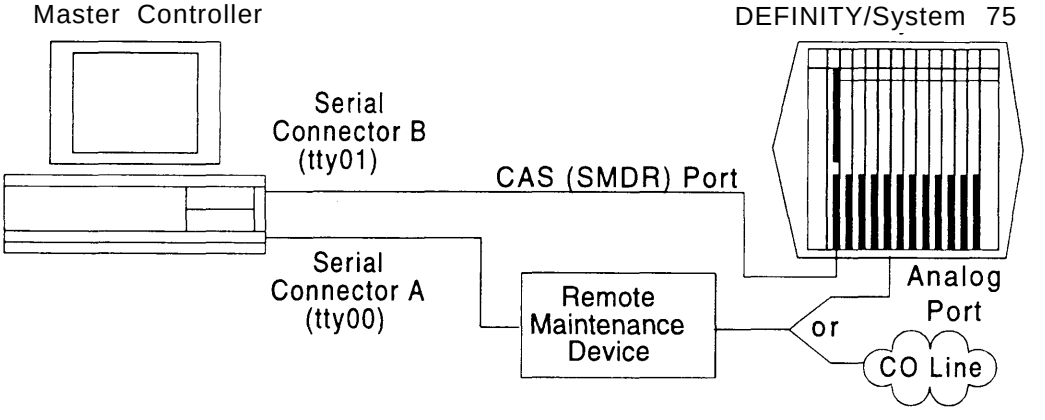


Figure 2-12. Remote Access and SMDR Port Connections

NOTE:
The circuit packs available in the telephone switch and the distance between the Master Controller and the telephone switch affect the method by which the CAS (SMDR) port connection is made.

- Connections under 1000 feet can be made directly to the DCE port on the switch as detailed in Procedure 2-12A.
- Connections under 2000 feet can be made to a type TN-726 data line port using an Asynchronous Data Unit (ADU) as detailed in Procedure 2-12B.
- Connections under 5000 feet can be made to type TN-754 digital line port using a 7400A data module as detailed in Procedure 2-12C.

Procedure 2-11: Connect Remote Maintenance Device

The location of connectors, switches, and indicators on the two RMD-HS models are shown in Figure 2-13 and Figure 2-14 and those on the two RMD models are shown in Figure 2-15. Connect the system unit to the remote access port by following these steps:

1. Connect one end of the RS-232 25-pin male-to-female cable supplied with the A/B Switch Kit to Serial Connector A (Serial Port 1 on MAP/5) of the Master Controller,
2. Connect the other end of the cable to the matching connector on the RMD or RMD–HS.
3. Connect one end of the modular cable supplied with the RMD or RMD-HS device to the modular jack marked LINE on the RMD or RMD-HS.
4. Connect the other end of the modular cable to the CO line or analog port for the remote access line.
5. If you have the RMD with switches on the bottom, set the switches as shown in Figure 2-15. The RMD Mk II and both types of RMD-HS do not have switches.
6. Connect the power supply to the round connector marked POWER on the RMD or RMD-HS.
7. Plug the power supply into an AC power outlet.
8. If the RMD or RMD-HS has an on/off switch, make sure the switch is on.

RMD-HS Mk IV

The Remote Maintenance Device-F S Mk IV (RMD-HS Mk IV) replaces all earlier models. It is installed in exactly the same way as earlier models and does not require any switches to be set.

When you have connected the power supply to the RMD-HS Mk IV, turn the switch on the back of the RMD to the ON position. The indicators should appear as follows:

- AA (Automatic Answer, on, green)
- RX (Received Data, off, red)
- TX (Transmitted Data, off, red)
- CD (Carrier Detect, off, red)
- OH (off Hook, off, green)
- HS (High Speed, on, green)
- TR (Terminal Ready, on, red)
- MR (Modem Ready, on, red)

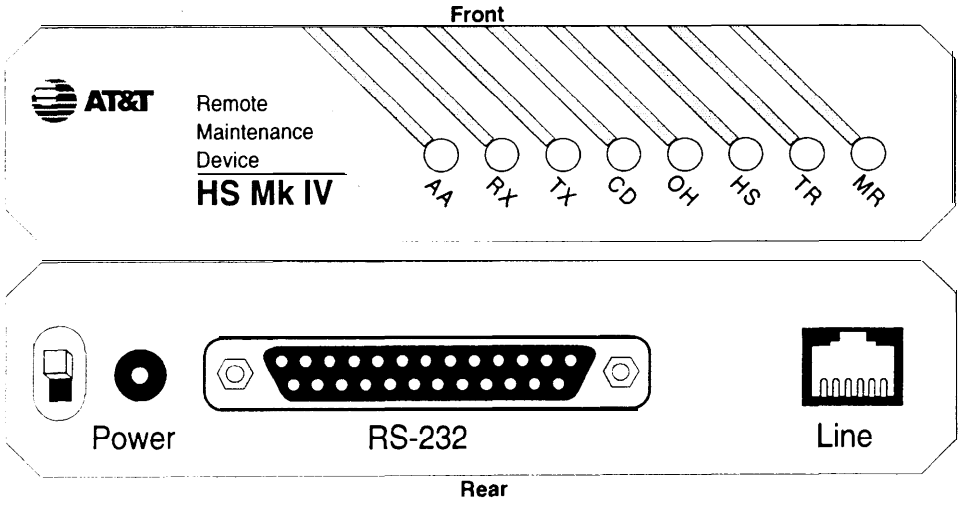


Figure 2-13. RMD-HS Mk IV Connector Locations

RMD-HS

When the power supply is connected the RMD-HS will automatically come on. The indicators should appear as follows:

- ■ MR (Modem Ready, on)
- ■ TR (Terminal Ready, on)
- ❑ TX (Transmitted Data, off)
- ❑ RX (Received Data, off)
- ❑ OH (Off Hook, off)
- ❑ CD (Carrier Detect, off)
- ■ AA (Automatic Answer, on)
- ■ HS (High Speed, on)
- ❑ EC (Error Correction, off)
- ❑ DC (Data Compression, off)

The HS indicator is orange when lit. All other lamps are red when lit.

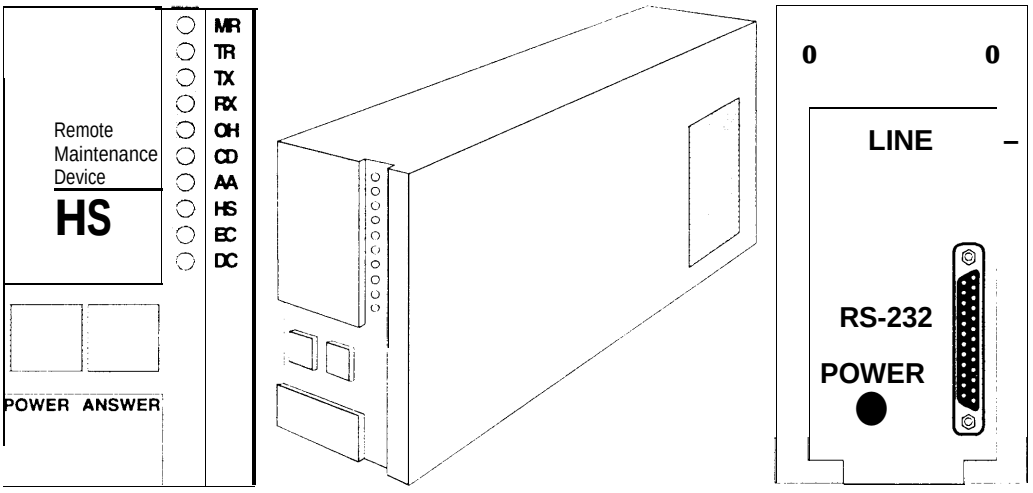


Figure 2-14. RMD-HS Connector Locations

RMD

When you have connected the power supply to the RMD, turn the switch on the back of the RMD to the ON position. The indicators should appear as follows:

- H S (High Speed, on)
- A A (Automatic Answer, on)
- C D (Carrier Detect, off)
- O H (Off Hook, off)
- R D (Received Data, off)
- T D (Transmitted Data, off)
- T R (Terminal Ready, on)
- M R (Modem Ready, on)

All indicators are red when lit.

NOTE:
The CD and OH indicators are positioned slightly differently on the RMD Mk II.

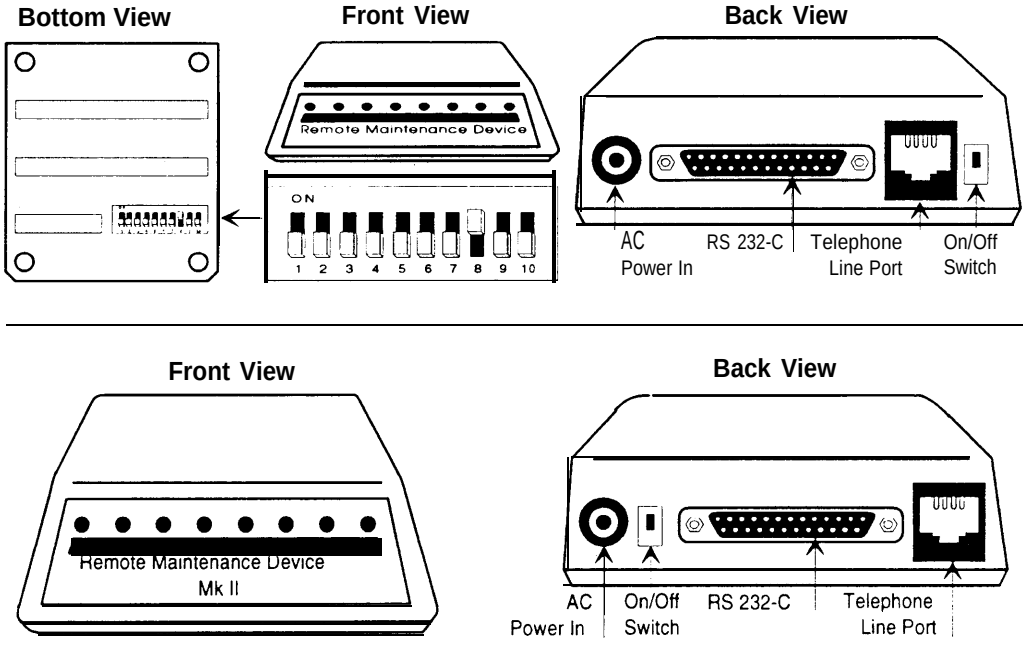


Figure 2-15. RMD Connectors and Switches

Connecting the CAS (SMDR) Port

There are three possible methods for connecting the CAS (SMDR) ports on the communications system and the Master Controller. Select the method to use based on the availability of the DCE port on the communications system, the distance between the Master Controller and the communications system, and the availability of circuit packs installed in the communications system.

- System *75* XE, DEFINITY G1, G3i, G3s, and G3vs Communications Systems have DCE ports and can use any of the three connection methods based on other criteria. System 75 R1V3 and DEFINITY G3r Communications Systems do not have DCE ports and can only use circuit pack connections (Procedures 2-12B and 2-12 C).
- The simplest, direct connection to the DCE port (Procedure 2-12A) has a limitation of 1000 feet (300 meters). If the distance between the Master Controller and the communications system exceeds 1000 feet, one of the other methods should be used.
- For communications systems that do not have DCE ports, or where the DCE port is already in use for another purpose, connections are made to TN-726 circuit packs (Procedure 2-12B, up to 2000 feet or 600 meters), or to TN-754 circuit packs (Procedure 2-12C, up to 5000 feet or 1500 meters).

Procedure 2-12A: Connect CAS (SMDR) Port (DCE Port, Within 1000 Feet)

This method requires the DCE port. It can only be used with the System 75 XE or DEFINITY G1, G3i, G3s, and G3vs Communications Systems. It has a suggested maximum distance of 1000 feet (300 meters).

The following part is supplied with the Master Controller

- ❑ DB-9S to DB-25P Adapter

The following parts are supplied with DEFINITY IS Ill systems that include Call Accounting System:

- ❑ 355A Adapter
- ❑ 355AF Adapter
- ❑ 25-foot D8W-87 Modular Cord

Connect the Master Controller and the communications system SMDR port by following these steps:

1. Attach the 9-pin end of the 9-to-25-pin adapter to Serial Connector B (Serial Port 2 on the MAP/5) of the Master Controller.
2. Attach the 25-pin end of the 9-to-25-pin adapter to the 355AF adapter.
3. Connect one end of the D8W-87 modular cord to the 355AF adapter.
4. Connect the other end of the D8W-87 modular cable to the 355A adapter.
5. Attach the 355A adapter to the DCE port of the communications system.

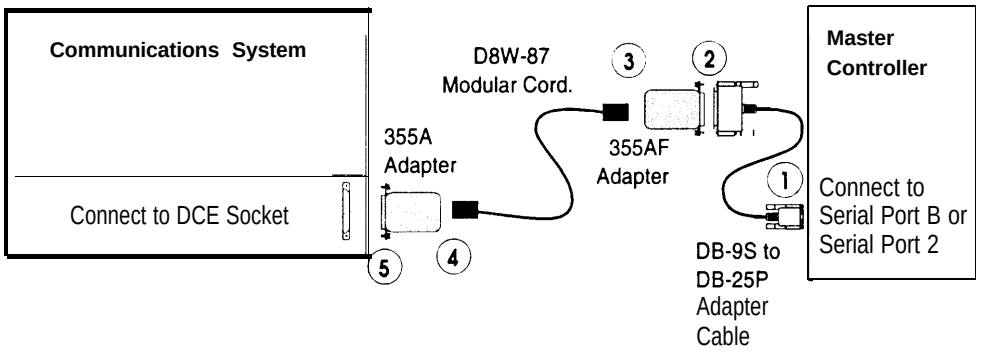


Figure 2-16. CAS (SMDR) Connection to DCE Port Within 1000 Feet

Procedure 2-12B: Connect CAS (SMDR) Port (TN-726 Circuit Pack, Within 2000 Feet)

This method requires an available data line port on a TN-726 circuit pack. It is used primarily for System 75 R1V3 and DEFINITY G3r configurations. (These configurations do not have DCE ports), It can also be used with the System 75 XE or DEFINITY G1, G3i, G3s, and G3vs Communications Systems when the DCE port is already in use for another purpose. Use this method when the distance is within 2000 feet (600 meters).

The following part is supplied with the Master Controller:

- ❑ DB-9S to DB-25P Adapter

The following part is supplied with DEFINITY IS Ill systems that include Call Accounting System:

- ❑ 25-foot D8W-87 Modular Cord

The following additional parts are required:

- ❑ Z3A2 ADU
- ❑ M8AJ-87 Cable

NOTE:
ADUs must be used in pairs. In this case the TN726 Data Line Pack has built-in ADUs, so only one external ADU is necessary.

NOTE:
The combination of a Z3A2 ADU and a M8AJ-87 cable is equivalent to a Z3A4 ADU. You should order both pieces together by ordering the Z3A4.

NOTE:
Inside wire must be 4-pair, suitable for data; type 3 UTP data cable or better.

Connect the Master Controller and the communications system by following these steps:

1. Attach the 9-pin end of the 9-to-25-pin adapter to Serial Connector B (Serial Port 2 on the MAP/5) of the Master Controller.
2. Attach one end of the M8AJ-87 cable to the 25-pin end of the 9-to-25-pin adapter.
3. Attach the other end of the M8AJ-87 cable to the Z3A2 ADU.
4. Attach one end of a D8W-87 modular cord to the modular jack marked WALL on the Z3A2 ADU.

5. Attach the other end of the D8W-87 modular cord to the data line port wall jack for the circuit leading to the TN-726 circuit pack.

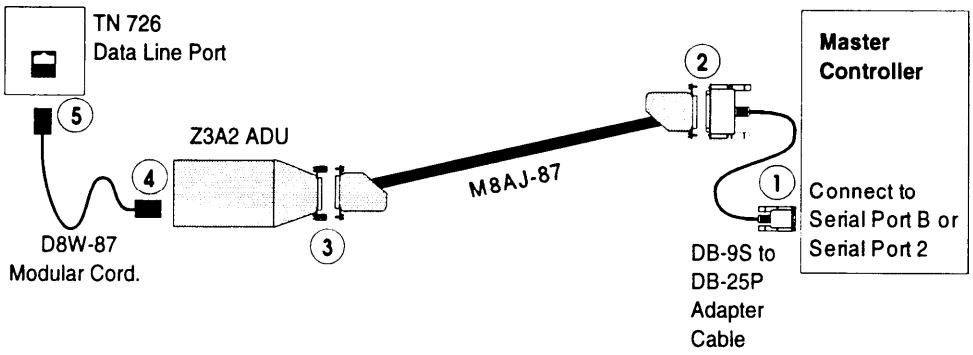


Figure 2-17. CAS (SMDR) Connection to TN-726 Circuit Pack Within 2000 Feet

Procedure 2-12C: Connect CAS (SMDR) Port (TN-754 Circuit Pack, Within 5000 Feet)

This method requires an available digital line port on a TN-754 circuit pack. It is used primarily for System 75 R1V3 and DEFINITY G3r configurations. (These configurations do not have DCE ports). It can also be used with the System 75 XE or DEFINITY G1, G3i, G3s, and G3vs Communications Systems. Use this method when the distance is within 5000 feet (1500 meters).

The following part is supplied with the Master Controller:

- ❑ DB-9S to DB-25P Adapter

The following parts are supplied with DEFINITY IS Ill systems that include Call Accounting System:

- ❑ 25-foot D8W-87 Modular Cord
- ❑ 355A Adapter
- ❑ 355AF Adapter

The following additional parts are required:

- ❑ 7400A Data Module
- ❑ Power Supply

The following part is supplied with the 7400A Data Module:

- ❑ D8W-87 Modular Cord (25-foot)

Connect the Master Controller and the Communications System by following these steps:

1. Attach the 9-pin end of the 9-to-25-pin adapter to Serial Connector B (Serial Port 2) of the Master Controller.
2. Attach the 25-pin end of the 9-to-25-pin adapter to a 355AF adapter.
3. Attach one end of a D8W-87 modular cord to the 355AF adapter.
4. Attach the other end of the D8W-87 cord to the 355A adapter.
5. Attach the 355A adapter to a type 7400A Data Module.
6. Attach one end of a D8W-87 modular cord to the Data Module.
7. Attach the other end of the D8W-87 modular cord to the digital line port wall jack for the circuit leading to the TN-754 circuit pack.
8. Connect the power supply to the 7400A Data Module.
9. Connect the power supply to an AC outlet.

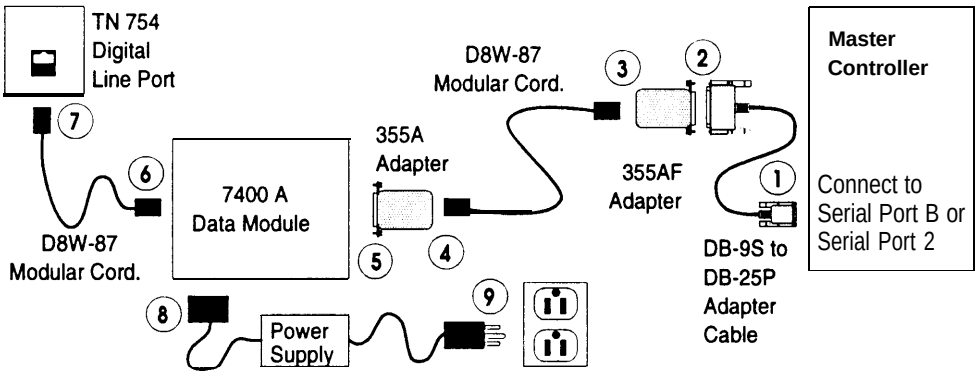


Figure 2-18. CAS (SMDR) Connection to TN-754 Circuit Pack Within 5000 Feet

Starting the Master Controller

CAUTION:
Before doing anything else, make sure that the voltage and the frequency of the wall power outlet are identical to those specified on the sticker affixed to the back panel of the system.

Procedure 2-13: Supply Power to the Master Controller

The standard power cord supplied with the system is detachable and plugs into the input power connector at the rear of the chassis. The input end terminates in a standard 3-prong plug for 115 VAC operation. Do not change the line voltage select switch that is set for 115 VAC.

DANGER:
You must use a 3-prong grounded outlet to eliminate the danger of shock.

1. Be sure the system unit power is OFF and that the voltage select switch located near the power connector on the rear of the system unit is preset for 115 VAC operation.
2. Connect the female end of the power cord to the connector at the rear of the system unit.
3. Connect the male end of the power cord to the surge protector/power strip.
4. Connect the surge protector/power strip power cord to an AC power source.

NOTE:
A surge protector/power strip is supplied with new Master Controller systems. We recommend that a surge protector be added to existing configurations that do not have one.

Procedure 2-14: Start the System

1. Remove the shipping insert from the tape drive by pushing it into the tape drive until it clicks and then releasing it.
2. Turn on the monitor.
3. Make sure that there is paper in the printer. Then turn on the printer. (Refer to the printer manual.)
4. Press the system-unit power switch to the ON position.
5. Adjust the video display to obtain a readable screen display. (Refer to the video display manual.)

Procedure 2-15: Observe the Power On Self-Test (POST)

Each time the system is turned on or reset, POST runs automatically and checks the CPU, keyboard, video display, memory, and most built-in peripheral devices. The memory test takes 3 to 15 seconds to complete. During a soft boot (pressing the [CTRL] – [ALT] – [DEL] keys at the same time), the system executes all POST tests except the memory test.

CAUTION:
Do not perform the [CTRL] – [ALT] – [DEL] *soft boot unless you are prompted to do so.*

When POST is completed, the system beeps once. A display similar to the following will appear.

```
xxxxxxxxxx BIOS Vx.xRx.x

008192 KB Memory Good
128 KB Shadow RAM Good (MC III only)


1 Diskette Drive(s)
1 Fixed Disk(s)
1 Parallel Port(s)
2 Serial Port(s)

Memory Cache On (MC III only)
RAM BIOS Disable
Video ROM BIOS
```

Individual component tests are not reported unless the test fails. If the floppy disk, hard disk, or tape drive is not shown, refer to the following documentation:

- Chapter 9, “Troubleshooting, ” in this document.
- *AT&T Master Controller Ill User’s Guide*
- *AT&T Applications Controller User’s Guide* (for the Master Controller II+)
- *AT&T MAP/5 User’s Guide*

NOTE:
On an existing Master Controller II+, if the BIOS version displayed is lower than `V1.1R2.5,` you must return the Master Controller II+ and request a replacement.

On an existing Master Controller III, if the BIOS version displayed is lower than `V1.2R1.2,` you must return the Master Controller Ill and request a replacement.

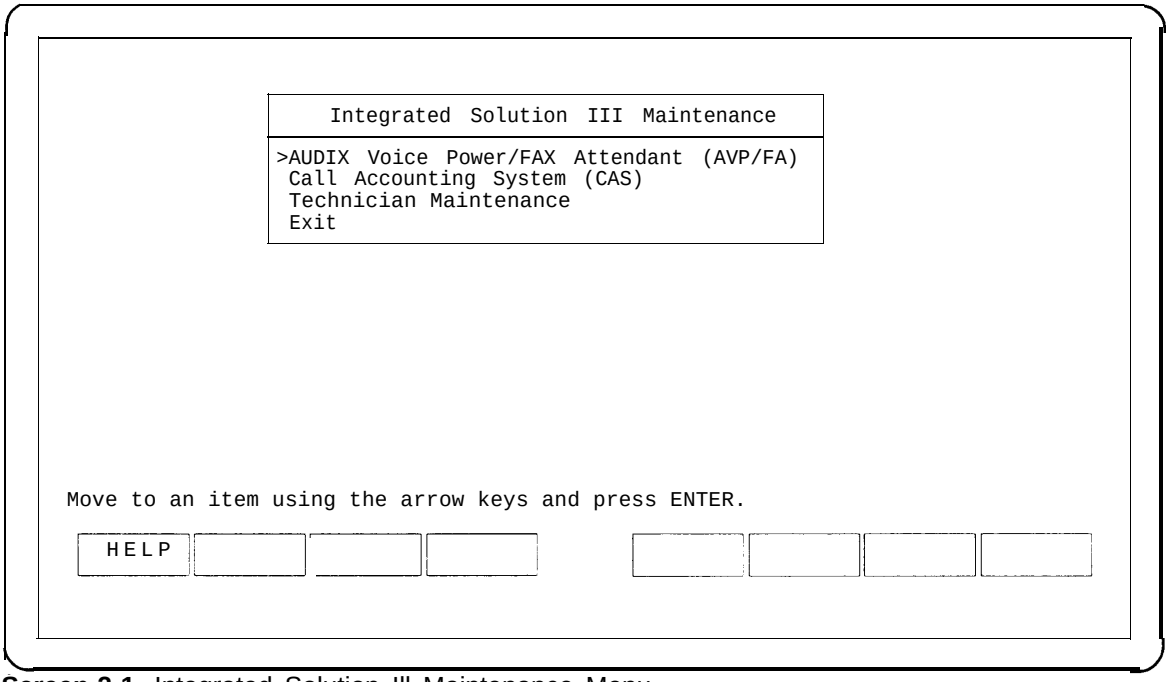
The system will continue to boot displaying several messages. This process will take 2 to 6 minutes depending on the applications installed.

Procedure 2-16: Log Into IS III

1. At the `Login:` prompt, type *maint* and then press [ENTER]
2. At the `Password:` prompt, type the password and then press [ENTER]

The Integrated Solution Ill Maintenance menu is displayed showing all the applications that are installed.

NOTE:
Only the applications installed are displayed. If AUDIX Voice Power and FAX Attendant are both installed, they will appear as one option. Either may be present alone.



Screen 2-1. Integrated Solution Ill Maintenance Menu

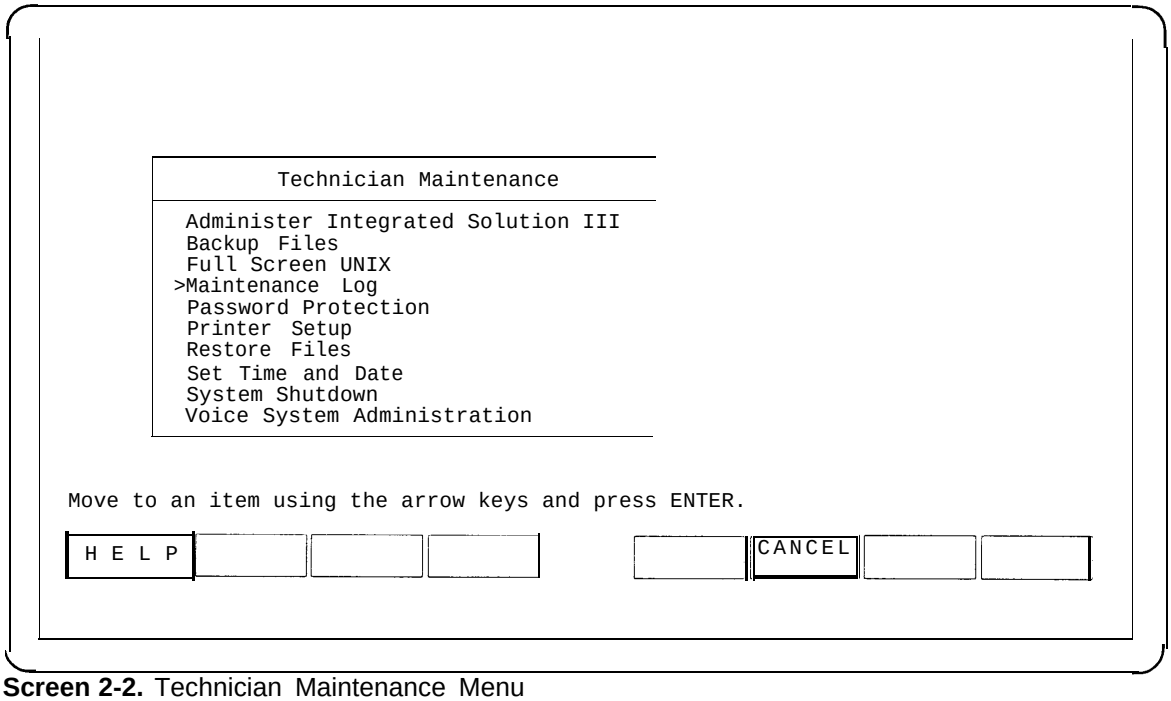
Testing and Adjusting the Installation

Procedure 2-17: Check Application Packages

1. After you have logged in and the Integrated Solution Ill Maintenance menu appears, select `Technician Maintenance` and press [ENTER].

NOTE:
To select any item in a menu, you can use the arrow keys to move the cursor or type the first few characters of the menu item until the cursor moves to it. For any additional information on screen navigation, see "Screen Navigation" in the *AT&T Integrated Solution III System Manager's Guide.*

The Technician Maintenance menu is displayed.

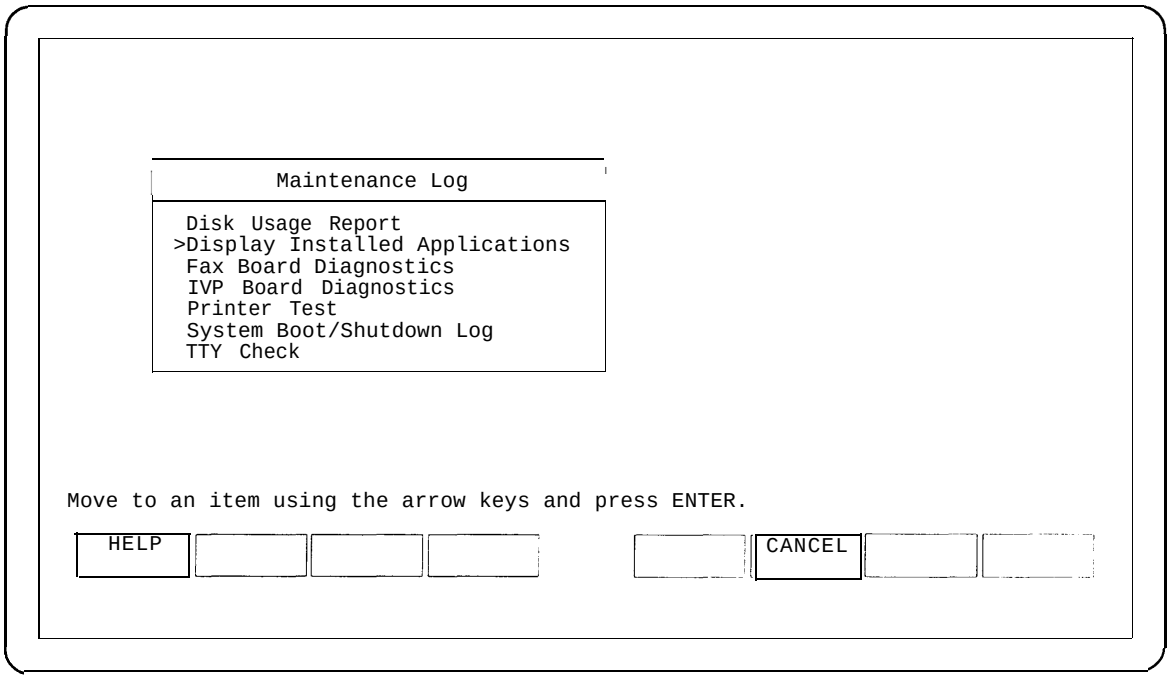


Screen 2-2. Technician Maintenance Menu

NOTE:
Application-specific selections such as `Voice System Administration` only appear if the corresponding application(s) are installed.

2. Select `Maintenance Log` and press [ENTER].

   The Maintenance Log menu is displayed.



Screen 2-3. Maintenance Log Menu

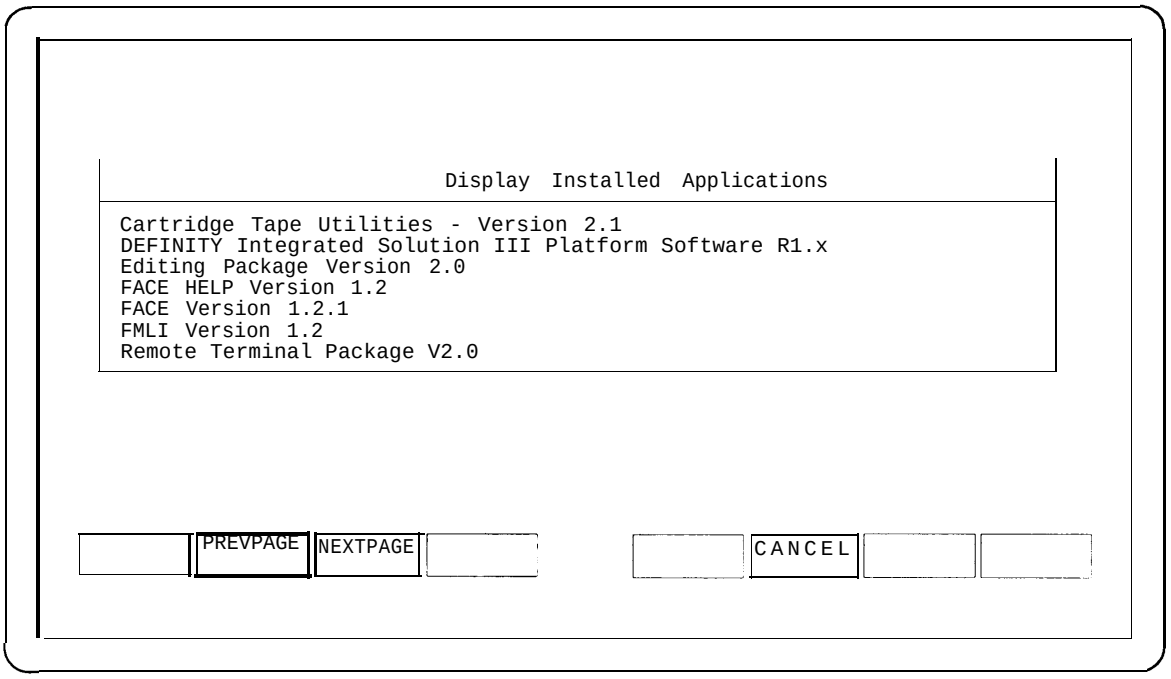
NOTE:
Application-specific selections such as `Fax Board Diagnostics` or `IVP Board Diagnostics` only appear if the corresponding application(s) are installed.

3. Select `Display Installed Applications.`

   If any of the essential software necessary to run Integrated Solution Ill, shown on Screen 2-4, or the ordered applications do not display on the screen, the software has not been installed properly.

   The software list should also include all installed application packages. Refer to Chapter 4, “Adding and Removing IS III Applications” for more information on application software display.

NOTE:
It may be necessary to press [F3] (NEXTPAGE) to see all installed packages.



Screen 2-4. Display Installed Applications

NOTE:
The "x” following the applications listed on the menu represents the release number of the software. Your display will contain the actual release number of the applications installed on the system.

4. To exit, back out of the menus by using the [F6] (CANCEL) function key.

Procedure 2-18: Test the CAS (SMDR) Port

To determine whether the CAS (SMDR) port is connected properly, follow these steps:

1. The switch must be administered to send SMDR.
2. From the Integrated Solution Ill Maintenance Menu, select `Technician Maintenance` and press [ENTER].

   The Technician Maintenance menu appears.
3. Select `Maintenance Log` and press [ENTER].

   The Maintenance Log menu appears.
4. Select `TTY Check` and press [ENTER].

   If a message appears that the port is not connected, verify that the switch has been administered to send SMDR. Then check the physical connections, cables, and connectors.
5. Press [F3] (CONT) to return to the Maintenance Log menu.
6. Press [F1] (CANCEL) twice to return to the Integrated Solution Maintenance menu.

Procedure 2-19: Test the Remote Access Port

To test the remote access port, call the AT&T Support Center and request the following services:

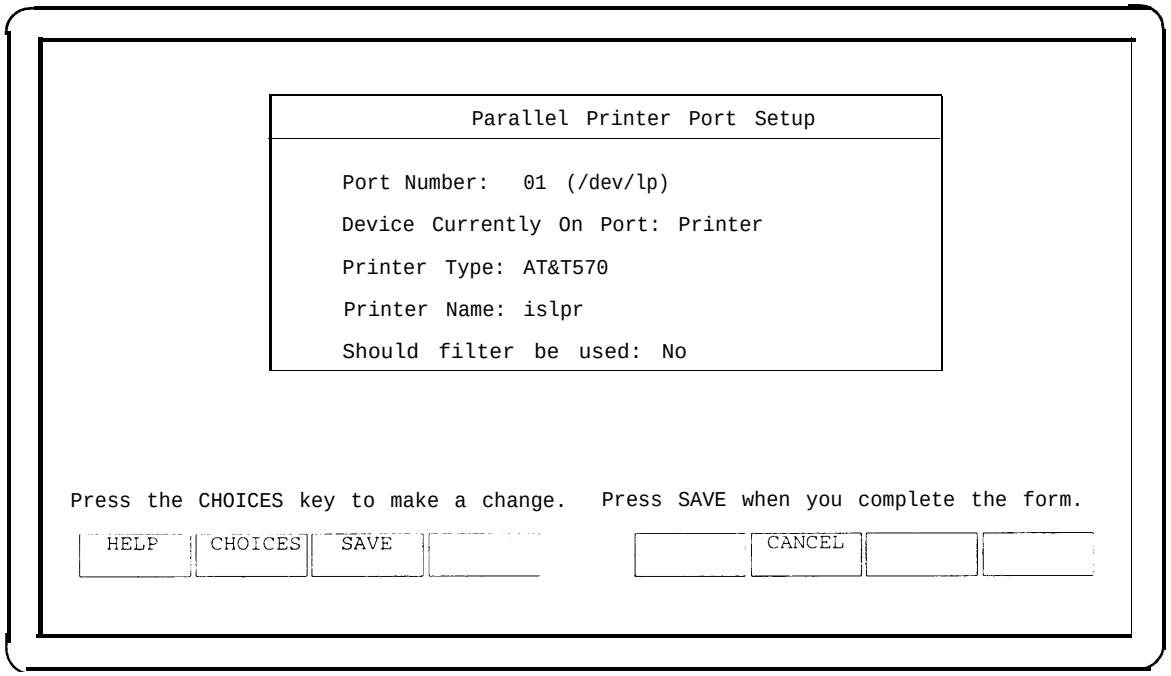
1. Request the Support Center to call the remote access port and log in to verify proper operation.
2. Request that the database maintenance group log the phone number for future use.

Procedure 2-20: Initialize the Printer Setup (If Applicable)

To initialize the printer setup, follow these steps:

1. Select `Printer Setup` from the Technician Maintenance menu, and then PRESS [ENTER].

   The Parallel Printer Port Setup window appears.



Screen 2-5. Parallel Port Setup

2. Press the [F2] (CHOICES) function key to display the list of available printers.

   — The AT&T Applications Printer (wide carriage model) requires that the value be set to `AT&T570.`[3]

   — The AT&T Call Accounting System Printer (narrow carriage model) requires that the value be set to `AT&T571.`[4]

   — An HP LaserJet Series II or equivalent requires that the value be set to `HPLASERJET.`

[3] Use this setting for AT&T 473 printer.

[4] Use this setting for AT&T 474 printer.

3. Use the arrow keys to make your selection, then press [ENTER].
4. Change the `Should Filter be used:` field to `Yes.`

> **NOTE:**
> No other fields can be changed.

5. Press [F3] (SAVE) to save the information you entered.

   The screen displays your selection and asks for confirmation.
6. Press [F3] (CONT) if it is correct or [F6] (CANCEL) if not.
7. Press [F3] (CONT) to return to the Technician Maintenance window.

Procedure 2-21: Test the Optional Printer

This test submits a job to the printer so that you can verify the connections.

> **NOTE:**
> Do not perform this operation if you are not using a printer. Use [F6] (CANCEL) if you have selected this test by mistake.

To run the Printer Test, do the following from the Maintenance Log:

1. Select `Printer Test` from the Maintenance Log window and press [ENTER].

   The Confirm Printer Test window is displayed.

   The system informs you that the current printer configuration defaults are being written to the printer.

   If the printer test fails, first check to see that the printer is powered, on-line, and has paper. Also check that any configuration jumpers or switches described in the printer documentation are properly set. Next check the printer cable for proper connections. Should the fault persist, substitute the cable and printer with known good units to determine the faulty component.
2. Press [F3] (CONT) to get the job output.
3. Press [F6] (CANCEL) to return to the Maintenance Log window.

Procedure 2-22: Test the DCP Board and Port

There is no procedure specifically designed to test the DCP board or port. In general, if any call can be processed by AUDIX Voice Power or by FAX Attendant, the DCP board and port are operating correctly. (There may still be other problems on some analog ports.) All calls are initially routed to the DCP port and then are transferred to an IVP port.

The following scenarios can occur:

- A call is made to the DCP channel and is answered: this generally indicates that the DCP channel is operating properly.
- A call is made to the DCP channel and it rings but does not answer: this usually indicates a problem in switch administration.
- A call is made to the DCP channel and the channel is busy: this generally indicates a problem with the DCP board.
- A call is made to the DCP channel but fails to transfer to a voice for additional processing: this generally indicates a problem with an analog port (wiring or hardware), a class of restriction problem, or a problem with administration in the switch, AUDIX Voice Power, or FAX Attendant.

NOTE:
If AUDIX Voice Power or FAX Attendant have not yet been administered, only the DCP port and board can be checked. Calls will not be transferred properly until after channel mapping has been completed and services have been assigned to channels.

As a troubleshooting procedure, follow these steps:

1. If the DCP channel is busy, unplug the D8W-87 cable from the LINE jack of the DCP board and connect it to a digital telephone set. Go to another telephone connected to the switch and make a call to the DCP extension. If the telephone connected to the DCP extension rings and can be answered, the switch and basic administration are okay, and the problem is most likely with the DCP board. If the telephone connected to the DCP extension does not ring, or cannot be answered, there is a problem with the administration of the DCP extension on the switch. If a problem with the DCP board is suspected:
   a. Verify all connections. The D8W-87 cable should be connected to the middle jack (labeled LINE) on the DCP board.
   b. Follow the instructions in Chapter 3 for opening the Master Controller case and examining the DCP board to determine that the correct version of the DCP board is installed.

2. If the DCP channel seems to work, but calls are not processed properly, unplug the D8W-87 cable from the LINE jack of the DCP board and connect it to a digital telephone set. Then attempt to call each of the analog extensions connected to the IVP (voice) and IFP (fax) channels. If you are blocked from calling any of these lines, there is a problem with the administration of class of restriction on the switch. If you are not blocked, there may be a problem with the administration of AUDIX Voice Power or FAX Attendant.

   NOTE:
   Before attempting to administer AUDIX Voice Power or FAX Attendant, use Procedure 2-23 and Procedure 2-24 to run the voice and fax board diagnostics.

3. If it is necessary to test AUDIX Voice Power or FAX Attendant, you must first administer the channel to extension mapping and then assign services to the channels. For additional information, see:

   — *AT&T AUDIX™ Voice Power Release 2.1.1 Planning Guide and Forms*

   — *AT&T AUDIX™ Voice Power Release 2.1.1 Switch Notes for System 75 Communications System*

   — *AT& T AUDIX™ Voice Power Release 2.1.1 System Manager's Guide*

   — *AT&T FAX Attendant System™ Release 2.1.1 Planning and Forms*

   — *AT&T FAX Attendant System™ Release 2.1.1 Implementation and Switch Notes for System 75 and DEFINITY® Communications System Generic 1 and Generic 3*

   — *AT&T FAX Attendant System™ Release 2.1.1 System Manager's Guide.*

Procedure 2-23: Run Voice (IVP) Board Diagnostics

Diagnostics for the IVP boards should be run during and after initial setup to determine whether everything is connected properly and there is dial tone. To diagnose the IVP board, do the following:

1. Select `Maintenance Log` from the Technician Maintenance menu and press [ENTER].
2. Select `IVP Board Diagnostics` from the Maintenance Log window and then press [ENTER].

NOTE:
The diagnostic may take a long time to display results. If dial tone is not found on a channel, the diagnostic tries two more times (with three time-out delays) before going to the next channel.

The system searches for loop current and dial tones on the administered boards and then informs you if the IVP board passes the test. Use [F3] (NEXTPAGE) and [F2] (PREVPAGE) as necessary to view the *fins/* message for each channel.

— If the channel passes, its state is set to `INSERV.`

— If the channel fails, its state is set to `FOOS.`

If dial tone is not found, use an analog, single-line telephone to check for dial tone on the analog ports and check the analog connections. Also check the positions of the switches on the board against those shown in “IVP Board Configuration” in Chapter 3. Insure that the IVP board is properly seated in the main board connector.

If the failure persists, you will have to replace the board

NOTE:
If there is no IVP board present, or if the switches are set improperly so that the board cannot be found, the system responds:

```
Option 'immed' in effect
Invalid request to diagnose TipRing board 0.
      Current status NONEX.
```

3. Press [F6] (CANCEL) to return to the Maintenance Log window.

Procedure 2-24: Run Fax Board (IFP) Diagnostics (If Applicable)

Diagnostics for the fax boards should be run during and after initial setup (if applicable) to determine that there are proper connections and dial tone. To diagnose the fax board, do the following:

1. Select `Maintenance Log` from the Technician Maintenance menu and press [ENTER].
2. Select `Fax Board Diagnostics` from the Maintenance Log window and press `[ENTER]`.

   The system runs internal diagnostics searches for loop current and dial tones on the administered boards and then informs you if each fax channel passed or failed the test.

   If dial tone is not found, check the analog connections with an analog, single-line telephone set. Also check the positions of the switches on the board against those shown in "IFP2 Fax Board Configuration" or "IFP4 Fax Board Configuration" in Chapter 3. Insure that the fax board is properly seated in the main board connector.

   If the failure persists, you will have to replace the board.

   NOTE:
   If no IFP board is present, or if the IFP board is not working or has improperly set switches, the system responds:

   ```
   Fax Board Diagnostic FAILED
   ```

3. Press [F6] (CANCEL) to return to the Maintenance Log window.

Completing the Installation

Customizing the System

When you have completed all of the preceding procedures, and all ordered application packages are installed, proceed to Chapter 5 if CAS is installed.

It may be necessary for you to add software applications to the system if they were ordered after the system was already configured. If this is the case, refer to Chapter 4.

Making a Backup

After all other work is completed, make a backup of the system to be used in the event of a catastrophic failure. Follow the instructions for backing up the system to tape given in Chapter 4 of the *AT&T Integrated Solution III System Manager's Guide.*

Upgrading the Hardware

3

This chapter provides procedures for upgrading Master Controller II+, Master Controller Ill, and MAP/5 hardware.

When the customer uses existing hardware for a new IS Ill installation, and when the Master Controller is upgraded to provide more capacity, it is necessary to upgrade the hardware on-site. The following upgrades are possible:

- System units other than the Master Controller II+, Master Controller Ill, and MAP/5
  - — Upgrade to MAP/5.
  - — Save any voice or fax boards boards for installation in the new MAP/5. No other components from earlier models can be reused.
- Master Controller II+
  - — Add memory.
  - — Upgrade hard disk size to 250 MB.
- Master Controller Ill
  - — Upgrade hard disk size to 500 MB.
- MAP/5
  - — Upgrade hard disk size to 500 MB.
- General
  - — Add voice port (IVP) cards.
  - — Add fax port (IFP) cards.

All of these upgrades require that the Master Controller system unit be opened.

Preparing for Upgrade

Tools Required

Before you start, make sure you have the proper tools ready:

- 3/16“ flat-blade screwdriver
- #1 Phillips head screwdriver
- 3/16“ nut driver
- an antistatic grounded wrist strap
- an antistatic grounded work mat

DANGER:
The system unit power supply contains AC voltage at levels that can cause injury or death on contact. Before removing any system unit covers, turn off the system and unplug the power cord from the AC outlet.

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. When you remove expansion boards, place them on the antistatic grounded work mat until you replace them in the equipment.*

NOTE:
When reusing boards from systems other than the Master Controller II+ or Master Controller Ill, refer to the manuals provided with the system for instructions on opening the case and removing boards. Instructions for opening the case and removing boards from the Master Controller II+, Master Controller Ill, and MAP/5 are included in this document.

Procedure 3-1: Shut Down the UNIX System

CAUTION:
The UNIX system must be shut down before shutting off power or the UNIX file system will be damaged.

Integrated Solution Systems

To shut down the UNIX system on any Integrated Solution (IS, IS II, IS III) system, follow these steps:

1. Log in as *maint.*
2. At the Integrated solution Maintenance menu, select `Technician Maintenance` and press [ENTER].
3. At the Technician Maintenance menu, select `System Shutdown` and press [ENTER].

   A confirm window appears.
4. Press [F3] (CONT) to confirm and continue.

   The system shuts down. Many messages display. The last messages are:

   ```
   The system is down.
   Reboot the system now.
   ```

5. Shut off power. *Do not* reboot the system.

Other Systems

When reusing boards from other systems, shut down the UNIX system gracefully so that it will be possible to return to the old system if necessary. To shut down the UNIX system, follow these steps:

1. Log in as is appropriate.
2. Get to the full-screen UNIX prompt.
3. Type *`shutdown -i0 -g0 -y`* and press [ENTER].

   The system shuts down. Many messages display. The last messages are:

   ```
   The system is down.
   Reboot the system now.
   ```

4. Shut off power. *Do not* reboot the system.

Upgrading the Master Controller II+

The basic procedures for upgrading the Master Controller II+ are given in this section. If it is necessary to add voice or fax port cards, see the separate instructions later in this chapter.

Procedure 3-2: Open the Master Controller II+

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 unit, disconnect them, labeling them as you go so that they can be easily replaced later.
2. If necessary, unlock the cover lock. (A set of keys is packed in a plastic bag in the carton with the system unit.)
3. Remove the two main cover-securing screws (A and B) on the back panel as shown in Figure 3-1.

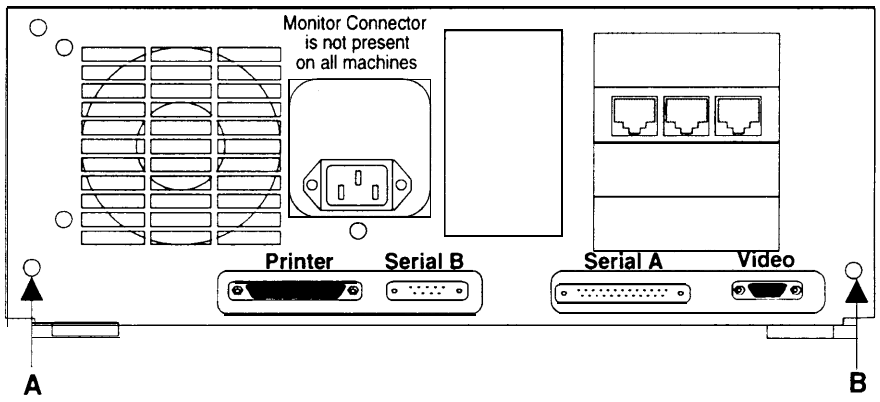


Figure 3-1. Master Controller II+ Cover Screws

4. Slide the cover off the system unit by pulling it completely forward until it clears the front of the chassis as shown in Figure 3-2. Then tilt the back of the cover up and remove it. Take care not to catch the cover on any internal cables or wires.

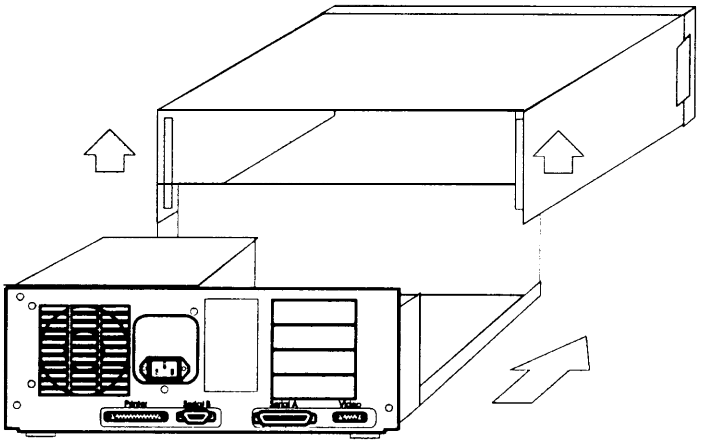


Figure 3-2. Master Controller II+ Cover Removal

Procedure 3-3: Remove the Card Securing Bracket

NOTE:
The card securing bracket may not be present on some systems. If the bracket is not present, skip this section.

Follow these steps to remove the card securing bracket:

1. Remove the screw holding the Card Securing Bracket to the Link Bracket.

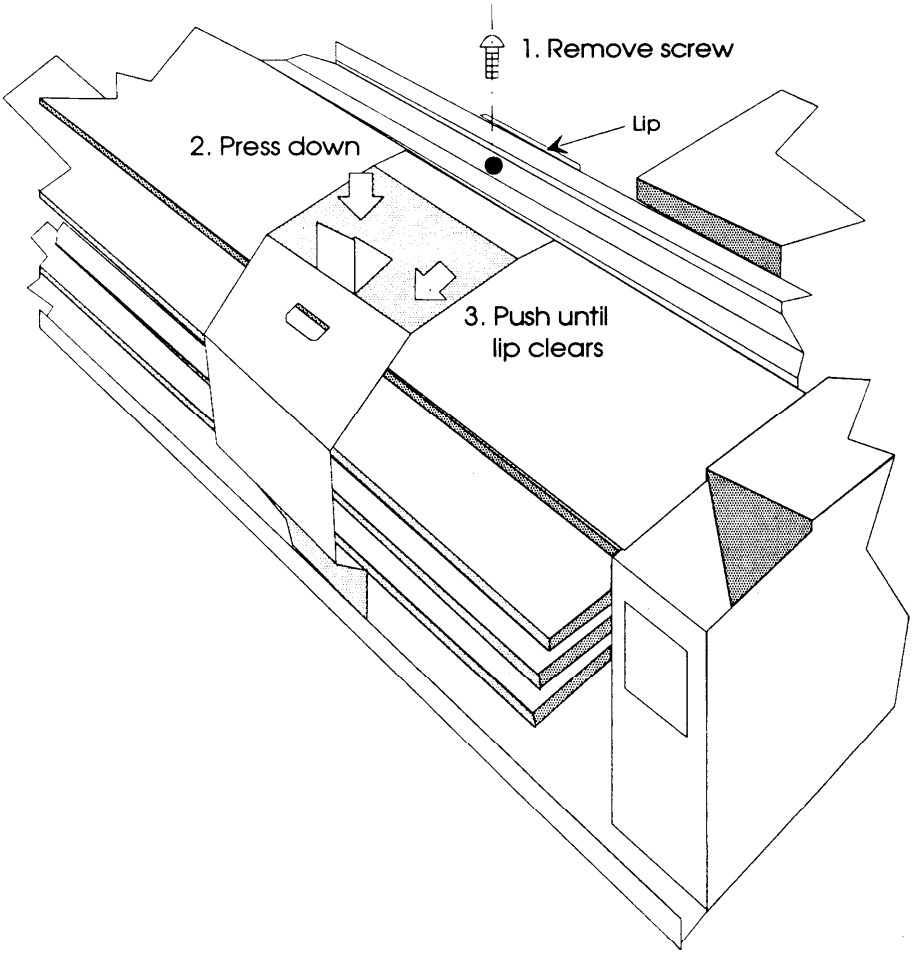


Figure 3-3. Removing Card Securing Bracket

2. Press down on the Card Securing Bracket so that the lip will clear the Link Bracket.
3. Slide the lip of the Card Securing Bracket out from under the Link Bracket.
4. Tilt the Card Securing Bracket outward and lift it off the stud.
5. When replacing the Card Securing Bracket, carefully line up and insert the expansion cards into the bracket as shown in Figure 3-4.

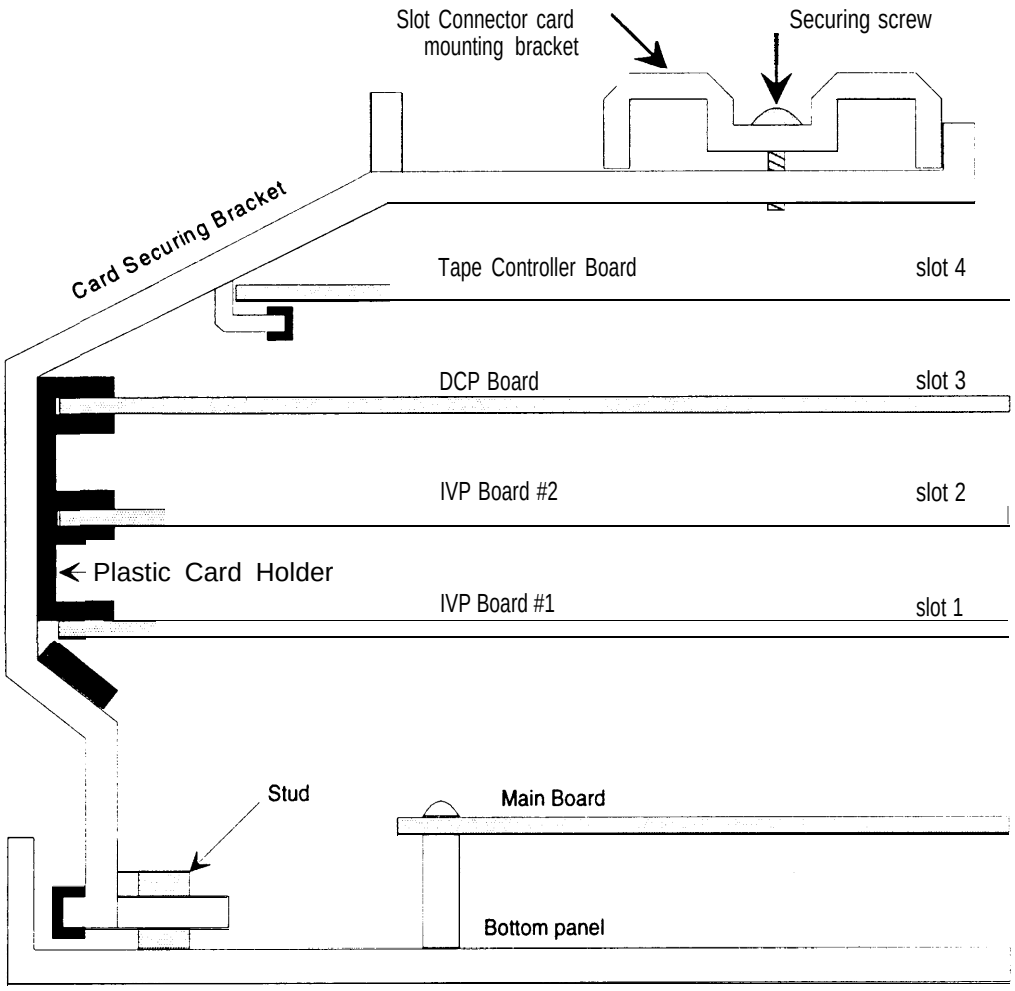


Figure 3-4. Replacing Card Securing Bracket

Installing Additional Memory in the Master Controller II+

If an existing Master Controller II+ is equipped with less than 8 MB or memory, it must be upgraded. To install additional memory, follow these steps:

1. If the UNIX system is running, shut it down using Procedure 3-1, given earlier in this chapter.
2. Turn off power to the system and remove the power cord from the system unit.
3. Disconnect all cables connected to the system unit, labeling them as you disconnect them so that they can be replaced later.
4. Open the Master Controller II+ using Procedure 3-2, given earlier in this chapter.
5. Locate the SIMM sockets. They are underneath any expansion boards that have been installed as shown in Figure 3-5.

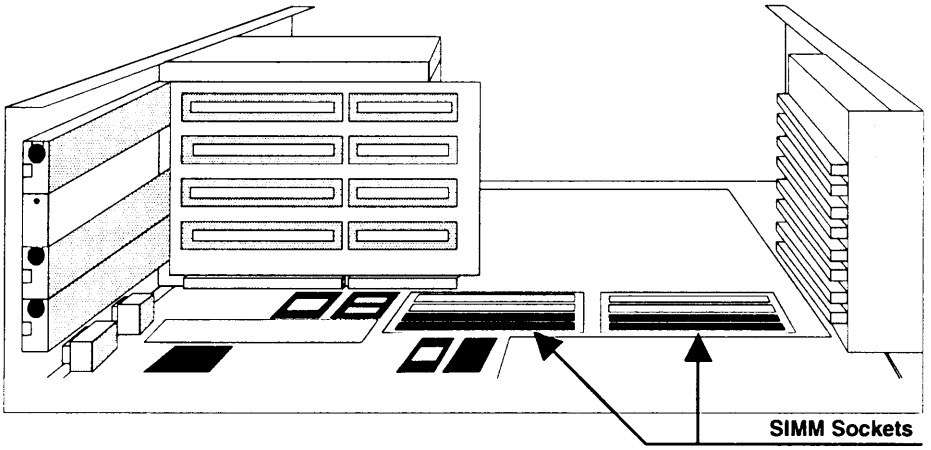


Figure 3-5. Location of SIMM Sockets Underneath Expansion Boards

6. Use Procedure 3-4 to remove (and later reinstall) expansion boards.
7. Use Procedure 3-5 to insert SIMMs.
8. Continue with the instructions given in the section “Completing Memory Installation” that follows Procedure 3-5.

Procedure 3-4: Remove Expansion Boards

Remove all expansion boards located in expansion slots using the following procedure:

1. Take precautions against electrostatic discharge as indicated earlier in this chapter.
2. Remove the Card Securing Bracket using Procedure 3-3, given earlier in this chapter.
3. Start with the tape controller board in the top-most slot.
   a. Disconnect the internal cables. Note which end of the internal cables has the tracer wire.
   b. Remove the screw holding the board mounting bracket.
   c. Slide the card out of the slot and put it aside on the antistatic mat.
4. Remove each remaining board working from the top down.
   a. Make sure that all external cables are removed from the board.
   b. Remove the screw holding the board mounting bracket.
   c. Slide the card out of, the slot and put it aside on the antistatic mat.

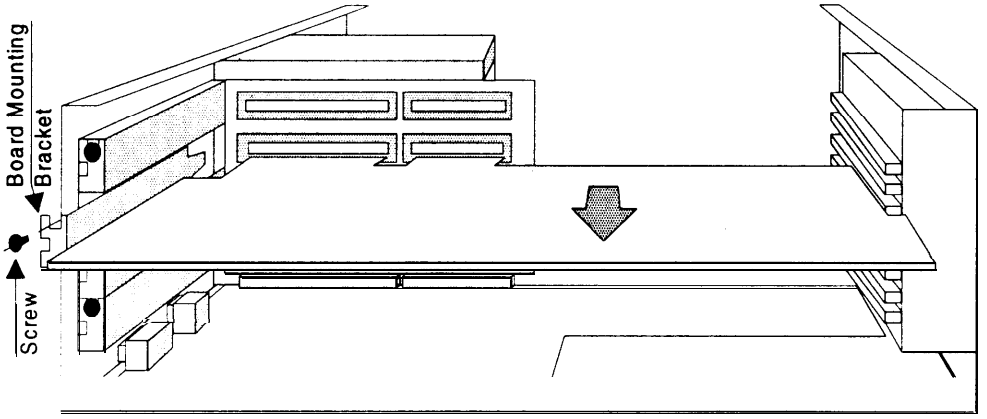


Figure 3-6. Removing Expansion Boards from Master Controller II+

Procedure 3-5: Install Memory SIMMs

To upgrade from 4 MB to 8 MB of memory, install four additional 1-by-9 SIMMs by following these steps:

NOTE:
Most 3-chip SIMMs and some 9-chip SIMMs do not perform properly in the Master Controller. Use only SIMMs obtained from AT&T to avoid this problem.

1. Start with the empty sockets nearest to you on each side (the third socket back on each side).
2. To insert a SIMM, hold it upright with the components facing away from you and the cutout notch on the right as shown in Figure 3-7.

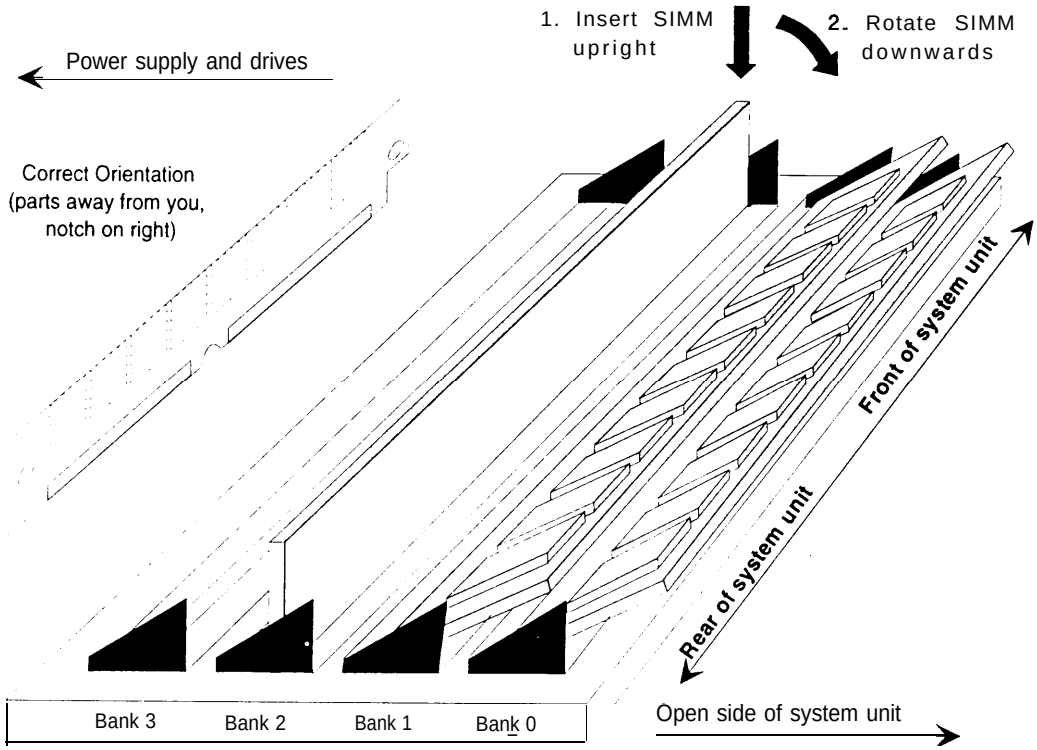


Figure 3-7. Inserting SIMMs in Socket

NOTE:
Both 80 ns SIMMs and 70 ns SIMMs are supported. These SIMMs can be mixed as long as the 80 ns SIMMs are placed in banks O and 1, and the 70 ns SIMMs are placed in banks 2 and 3. The speed of the SIMM is indicated by the characters “70” or “80” printed as part of the numbers on the individual chips.

3. Insert the SIMM straight down into the center of the socket.
4. Holding the SIMM firmly in place, rotate it toward you until it clicks into place.
5. Be sure the SIMM is seated correctly in its socket and that both ends are held by the retainer clips. If the SIMM is not seated correctly, gently spread the retainers, one end at a time, to allow the SIMM to be pulled away from the clips. Then reseat the SIMM and complete the installation.

Completing Memory Installation

To complete the memory installation, follow these steps:

1. Reinstall any expansion cards that were removed by reversing the removal procedure (Procedure 3-4).
2. When all cards have been reinstalled, reinstall the Card Securing Bracket. See Procedure 3-3.
3. Close the system unit by reversing the opening procedure (Procedure 3-2) and reconnect the power cord.

NOTE:
When you reboot the machine, the following message displays:

```
Memory size mismatch

RAM BIOS Disable
Video RAM BIOS
Press F1 key to continue or Ctrl_Alt_Esc for setup...
```

a. Press [CTRL] – [ALT] – [ESC] to get into the SETUP utility.

   The BIOS Setup Utility menu displays.

b. press [ESC] twice to reboot.

   The memory size is automatically adjusted.

For additional information, see Chapter 3, “Configuration Setup” in the *AT&T Applications Controller User’s Guide.*

Procedure 3-6: Removing SIMMs

If it becomes necessary to remove SIMMs, follow these steps:

1. Start with the sockets farthest away from you and work forwards.
2. Gently spread the retainers to release the top edge of the SIMM. Refer to Figure 3-8.

> **CAUTION:**
> *Apply only enough pressure on the retainers to release the unit. Too much pressure may break the retainers and damage the socket.*

3. Rotate the SIMM upward until it is upright.

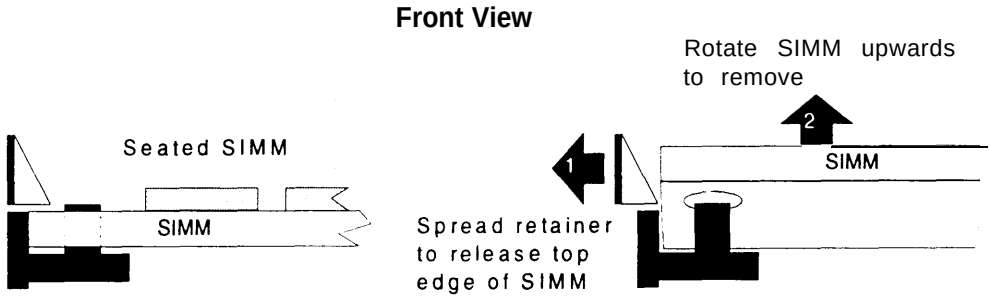


Figure 3-8. Removing SIMMs

4. Carefully lift the SIMM away from the socket.
5. Store the SIMM in a suitable static-free protective wrapper.

Procedure 3-7: Upgrade the Hard Disk in the Master Controller II+

To upgrade the disk in the Master Controller II+, follow these steps:

1. Back up the system to tape. See Chapter 4 of the *AT&T Integrated Solution III System Manager's Guide* for instructions.
2. If the UNIX system is running, shut it down using Procedure 3-1, given earlier in this chapter.
3. Take precautions against electrostatic discharge as indicated at the beginning of this chapter.
4. Turn off power to the system and remove the power cord from the system unit.
5. Disconnect all cables connected to the system unit, labeling them as you disconnect them so that they can be replaced later.
6. Open the Master Controller II+ using Procedure 3-2, given earlier in this chapter.
7. Locate the hard disk as shown in Figure 3-9.

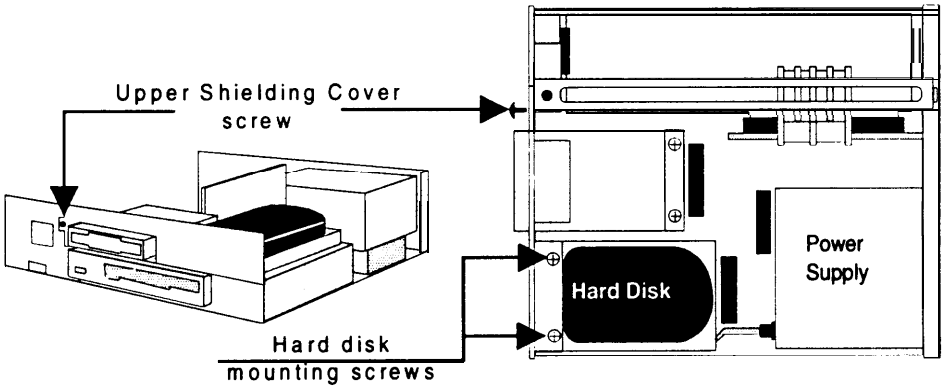


Figure 3-9. Master Controller II+ Internal Components

8. Remove the two screws near the disk drive and one screw from the front as shown in Figure 3-9. Lift off the Upper Shielding Cover.
9. Disconnect the cables from the back of the hard disk.
10. Slide the hard disk drive forward and remove it along with its mounting bracket.

11. Refer to Figure 3-10. Remove the metal mounting bracket from the old hard disk drive by removing the four screws.

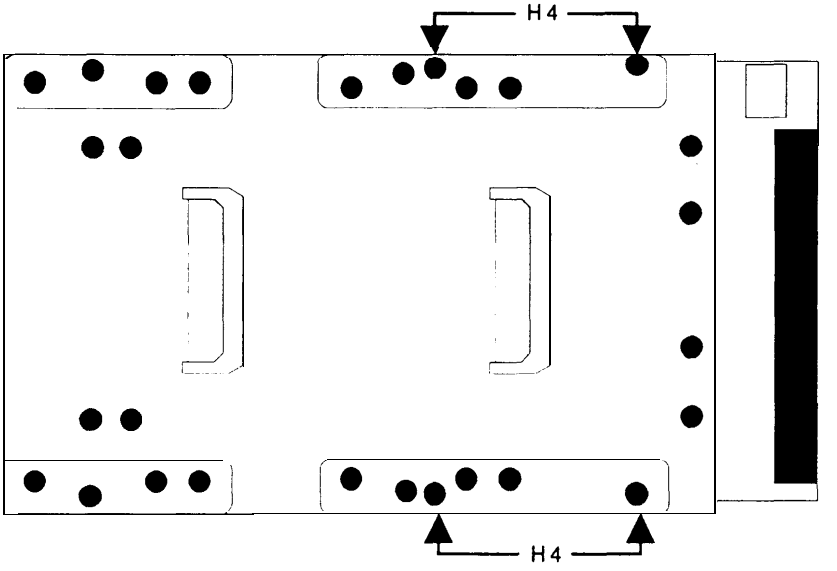


Figure 3-10. Hard Disk Drive Bracket

12. Attach the metal mounting bracket to the new hard disk drive using the same screws in the holes marked “H4.”

13. Slide the hard disk drive into place so that the tabs on the metal mounting bracket attached to the hard disk drive are in the slots of the drive frame. You should not be able to lift the hard disk drive straight up if it is installed properly.

14. Connect the hard disk control cable to the matching connector on the hard disk drive.

> **NOTE:**
> The hard disk cable connector is keyed. If it does not fit, turn it over.

15. Connect the power supply cable to the matching connector on the hard disk drive. Match the curved sides of the cable connector and the hard disk drive connector.

16. Put the Upper Shielding Cover back in place. Line up the front screw hole and secure the front screw.

17. Line up the two screw holes near the hard disk as shown in Figure 3-9 and secure the hard disk drive in place with the screws removed earlier.

18. Close the system unit by reversing Procedure 3-2 and reconnect the power cord.

19. Run the SETUP utility to reconfigure the system.

    a. Turn power on to boot the system.

    b. After the memory test is complete, and while the Power-On Self Test (POST) is still running, press [CTRL] – [ALT] – [ESC].

       The BIOS Setup Utility menu appears:

    c. Select `System Configuration Setup` and press [ENTER].

    d. Move the highlight bar to `Fixed Disk 0`.

    e. Based on the new hard disk model number or size, proceed as follows:

       — For fallback to disk model CP30104 (100 MB), enter *40* as the disk type. All other information will change automatically.

       — For fallback to disk model CP3204F (200 MB), enter *46* as the disk type. All other information will change automatically.

       — For disk model CP30254 (250 MB), enter 255 as the disk type. This will unlock the other fields. Enter the following data:

Field	Value
Cylinders	895
Heads	10
Sectors	55
Landing Zone	0
Precomp	0

    f. Press [ESC] to return to the BIOS Setup Utility menu.

    g. Press [ESC] to reboot the system.

    For additional information, see Chapter 3, “Configuration Setup,” in the *AT&T Applications Controller User's Guide.*

20. Install the UNIX system and the IS III Platform Software. See Chapter 6 for instructions.

21. Restore the tape backups made in step 1.

Adding Expansion Boards to the Master Controller II+

The Master Controller II+ has four expansion slots. The top slot is always used for the tape controller. The second from top slot is always used for the DCP board. The remaining two slots may be filled with voice port (IVP) boards. We recommend that the voice port boards be installed from the bottom slot up. Refer to Figure 3-4.

Procedure 3-8: Install Expansion Boards

To install expansion boards in the Master Controller II+, follow these steps:

1. If the UNIX system is running, shut it down using Procedure 3-1, given earlier in this chapter.
2. Take precautions against electrostatic discharge as indicated at the beginning of this chapter.
3. Turn off power to the system and remove the power cord from the system unit.
4. Open the Master Controller II+ using Procedure 3-2, given earlier in this chapter.
5. If the Card Securing Bracket is present, remove it using Procedure 3-3, given earlier in this chapter.
6. Remove the slot cover from the expansion slot. Save the screw to install the new card. Save the slot cover for future use.

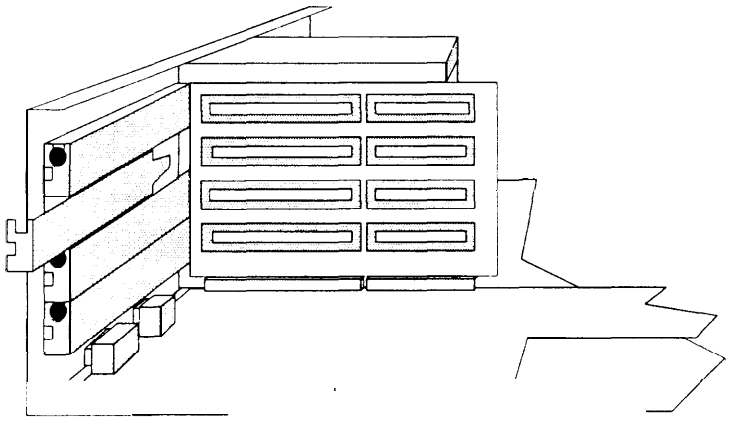


Figure 3-11. Removing the Slot Cover

7. Configure any jumpers and switches on the board being installed.

8. With the component side of the board facing up, align the expansion board bracket with the guides on the front and back panels.

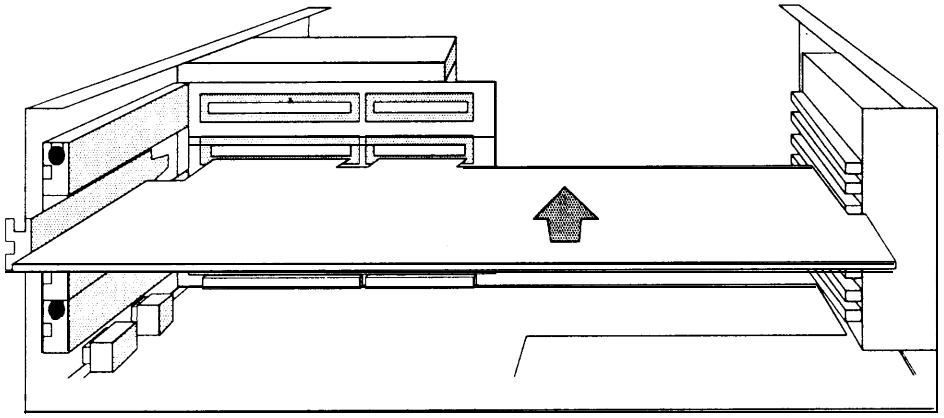


Figure 3-12. Installing a Board

9. While inserting the board into the slot, guide the foot of the board bracket into the slot on the back panel. You may need to bend the foot toward the back panel (away from the connector) so that the foot fits into the slot.

10. When the foot is properly aligned, you will be able to push the expansion board gently into the connector on the slot board. If necessary, rock it slowly into place.

11. Secure the board with the screw removed earlier.

CAUTION:
Do not neglect to secure the board; some expansion boards use the expansion board bracket as a frame ground.

12. If there was a Card Securing Bracket, reinstall it by reversing Procedure 3-3, given earlier in this chapter.

13. Replace the system unit cover by reversing Procedure 3-2, given earlier in this chapter and reconnect the power cord.

Upgrading the Master Controller III

The basic procedures for upgrading the Master Controller III are given in this section. If it is necessary to add voice or fax port cards, see the separate instructions later in this chapter.

Procedure 3-9: Open the Master Controller III

To remove the side panel, follow these steps:

1. Unlock the system unit by inserting the key in the lock and turning it to the unlocked ( ) position.
2. Remove the three side panel retaining screws as shown in Figure 3-13.

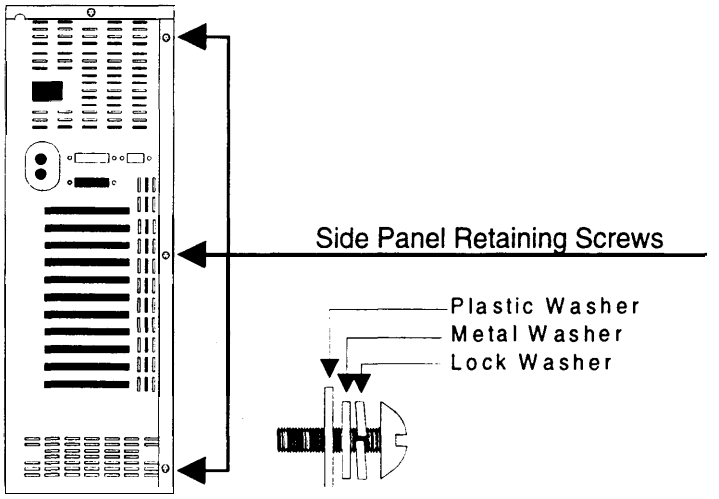


Figure 3-13. Side Panel Retaining Screw Locations

NOTE:
If the washers come off of the retaining screws, they should be replaced as shown in Figure 3-13 with the lock washer first, then the metal washer, and finally the plastic washer.

3. Slide the side panel back (toward the rear of the system unit) about one-half inch (1 cm).
4. Tilt the side panel outward and lift upward as shown in Figure 3-14.

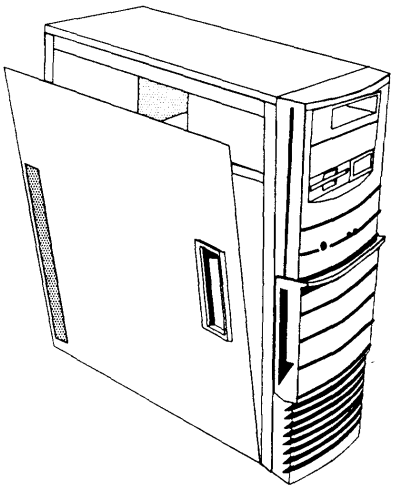


Figure 3-14. Removing the Side Panel

To replace the side panel, reverse the above instructions.

Procedure 3-10: Upgrade the Hard Disk in the Master Controller III

If an existing Master Controller III is to be upgraded to a larger hard disk, follow these steps:

1. Back up the system to tape. See Chapter 4 of the *AT&T Integrated Solution III System Manager's Guide* for instructions.
2. If the UNIX system is running, shut it down using Procedure 3-1, given earlier in this chapter.
3. Take precautions against electrostatic discharge as indicated at the beginning of this chapter.
4. Turn off power to the system and remove the power cord from the system unit.
5. Remove the side panel from the system unit using Procedure 3-9, given earlier in this chapter.
6. The hard disk drive is mounted in one of the bays at the bottom of the system unit as shown in Figure 3-15.

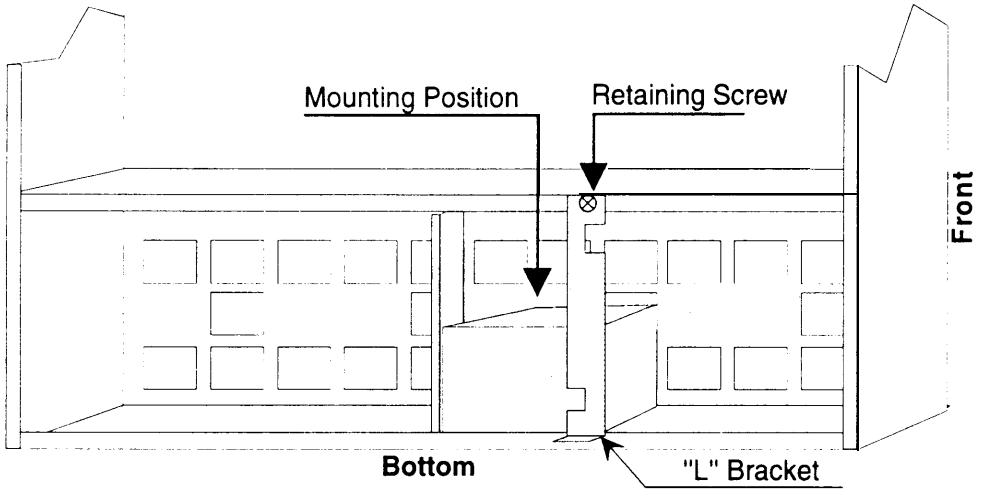


Figure 3-15. Location of Hard Disk Drive

7. Disconnect the power and control cables from the hard disk drive.
8. Remove the screw holding the "L" bracket and remove the bracket by pulling the top end forward.

9. Slide the hard disk drive out of the bay. It may be necessary to lift the hard disk drive slightly as you pull because there is tight clearance on the heads of the screws that hold the mounting rails to the bottom of the hard disk drive.

10. Remove the rails from the bottom of the hard disk drive and reattach them to the bottom of a new hard disk drive as shown in Figure 3-16.

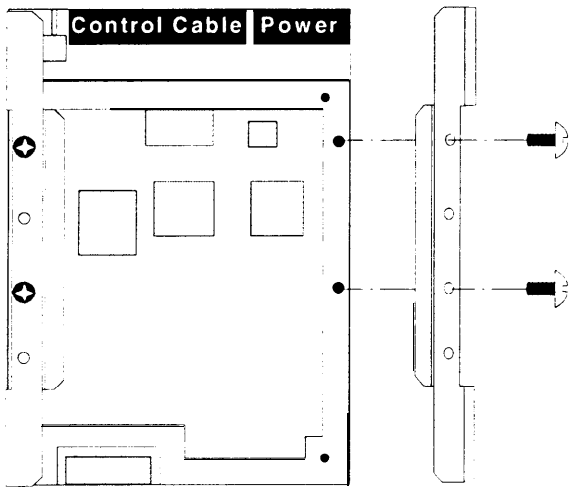


Figure 3-16. Hard Disk Drive Mounting Rails

11. Slide the new hard disk drive into the same bay as shown in Figure 3-15. It may be necessary to lift the hard disk drive slightly as you slide it in because there is tight clearance on the screw heads holding the mounting rails.

12. Attach the "L" bracket carefully, **exactly** as shown in Figure 3-15 and Figure 3-17.

CAUTION:

The "L" bracket must fit between the power connector and the mounting rail or the hard disk drive may come loose.

NOTE:

It is much easier to install the "L" bracket if the system unit is upright.

To attach the "L" bracket, slip the front edge of the bracket into the slot provided and push the bracket back so that the screw hole at the top lines up with the threaded hole in the chassis. Then insert the retaining screw and tighten it.

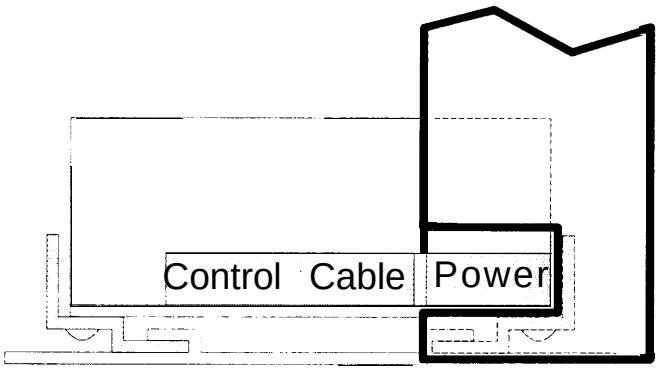


Figure 3-17. Attaching Hard Disk Drive “L” Bracket

13. Reconnect the power and control cables. The connectors are keyed so that they cannot be connected incorrectly. The tracer stripe on the control cable should be towards the right,

14. Replace the system unit side panel by reversing Procedure 3-9 and reconnect the power cord.

15. Run the SETUP utility to reconfigure the system.

    a. Turn power on to boot the system.

    b. After the memory test is complete, and while the Power-On Self Test (POST) is still running, press [CTRL] – [ALT] – [ESC]

       The BIOS Setup Utility menu appears:

    c. Select `System Configuration Setup` and press [ENTER].

    d. Move the highlight bar to `Fixed Disk 0.`

e. Based on the new hard disk model number or size, proceed as follows:

— For fallback to disk model CP3204F (200 MB), enter *46* as the disk type. All other information will change automatically.

— For disk model CP30254 (250 MB), enter *255* as the disk type. This will unlock the other fields. Enter the following data:

Field	Value
Cylinders	895
Heads	10
Sectors	55
Landing Zone	0
Precomp	0

— For disk model CP3544 (500 MB), enter *49* as the disk type. All other information will change automatically.

f. Press [ESC] to return to the BIOS Setup Utility menu.

g. Press [ESC] to reboot the system.

For additional information, see Chapter 3, "Configuration Setup," in the *AT&T Master Controller Ill User's Guide.*

16. Install the UNIX system and the IS Ill Platform Software. See Chapter 6 for instructions.

17. Restore the tape backups made in step 1.

Adding Expansion Boards to the Master Controller III

The Master Controller III has eight expansion slots. The top slot (8) is always used for the tape controller. The bottom slot (1) is always used for the video controller. The second slot from the top (7) is always used for the DCP board. The remaining five slots may be filled with voice port (IVP) and fax port (IFP) boards. We recommend that the voice port boards be installed from the lowest available slot upwards and that the fax port boards be installed highest available slot downwards.

Procedure 3-11: Add Expansion Boards to the Master Controller III

To install an expansion board, follow these steps:

1. If the UNIX system is running, shut it down using Procedure 3-1, given earlier in this chapter.
2. Take precautions against electrostatic discharge as indicated at the beginning of this chapter.
3. Turn off power to the system and remove the power cord from the system unit.
4. Remove the side panel from the system unit using Procedure 3-9, given earlier in this chapter.

5. Select the slot to be used for installing the expansion board. The slots are numbered from the bottom of the system unit toward the top as shown in Figure 3-18. IVP boards should be installed from the lowest available slot upwards. Fax boards should be installed from the highest available slot downwards.

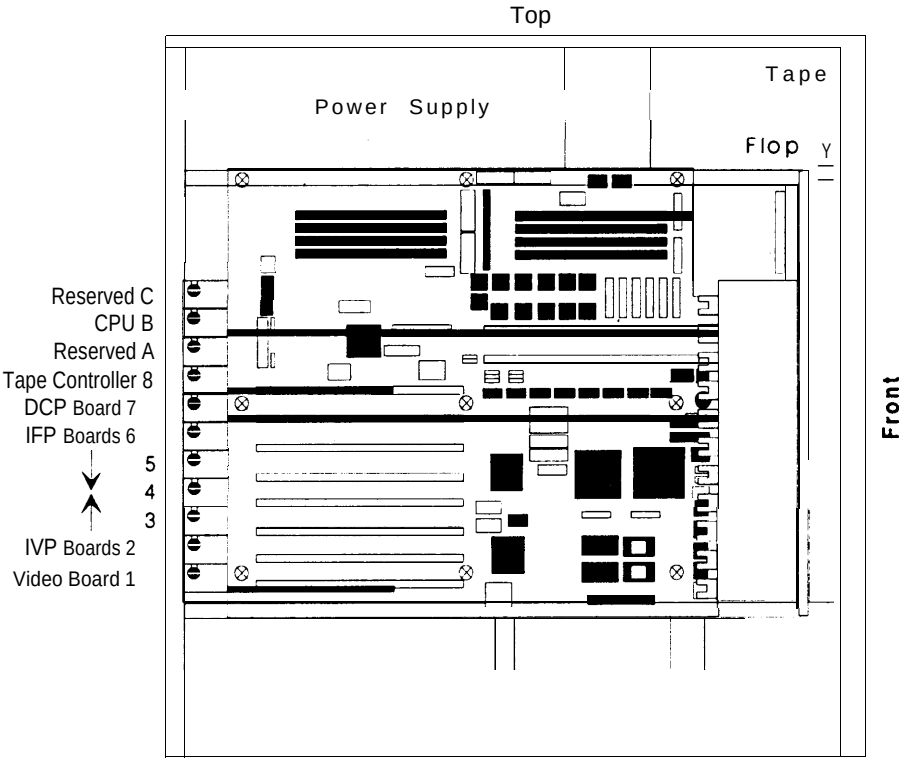


Figure 3-18. Location of Expansion Board Slots

6. Remove the screw holding the slot cover in place and remove the slot cover as shown in Figure 3-19. (Save the slot cover for use if the board is removed.)

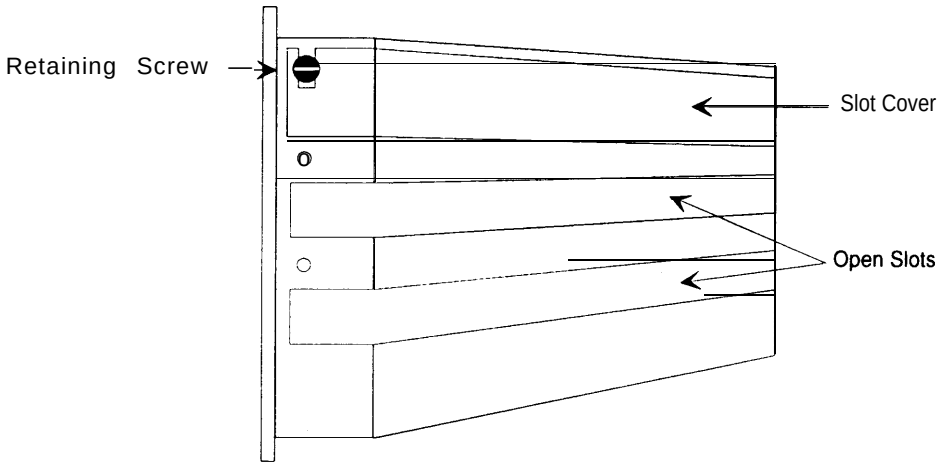


Figure 3-19. Removing the Slot Cover or Securing the Board

7. Slide the expansion board into the slot. Use the plastic guide on the right and the slot opening on the left to align the board with the connector.
8. Press the board firmly into the connector. The mounting bracket should seat completely so that the screw can be inserted easily.

> **NOTE:**
> On some boards, the mounting bracket will not fit perfectly when the board is fully seated in the connector. It may be necessary to adjust the mounting bracket or to allow one end of the board to be less than fully seated.

9. Secure the board in place by using the same screw in the mounting bracket that was removed from the slot cover as shown in Figure 3-19.
10. Replace the system unit side panel by reversing Procedure 3-9 and reconnect the power cord.

Upgrading the MAP/5

The basic procedures for upgrading the MAP/5 are given in this section. If it is necessary to add voice or fax port cards, see the separate instructions later in this chapter.

Opening and Closing the System Unit

DANGER:

The system unit power supply contains AC voltage at levels that can cause injury or death on contact. Before removing any system unit covers, turn off the system and unplug the power cord from the AC outlet.

The front panel must be removed for any access to the inside of the system unit. After the front panel has been removed, the system unit case can be unlocked and then removed.

Procedure 3-12: Opening the System Unit

To open the system unit, follow these steps:

1. If the system is running, shut it down using Procedure 3-1 described earlier in this chapter.

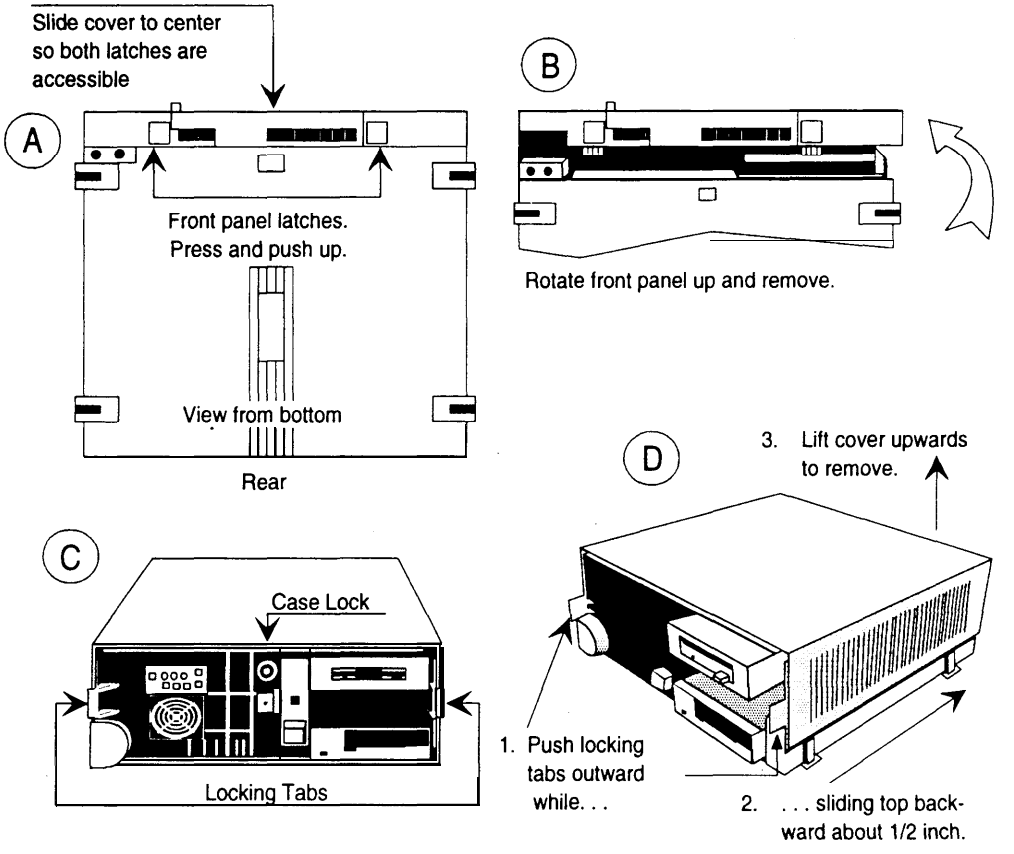


Figure 3-20. Opening the MAP/5 System Unit

2. Refer to Figure 3-20 (A). Place the system unit on its rear panel with the front panel latches facing you.
3. If the system unit is configured as a tower, remove the two feet on the (wide) side facing you.
4. Push inward and upward on the two front panel latches to release the bottom edge of the front panel. (The front panel is flexible enough for you to press one latch and then the other.)
5. Refer to Figure 3-20 (B). When the bottom of the front panel is loose, rotate and lift it to remove.

6. Refer to Figure 3-20 (C). Lower the system unit to the work table so that it rests on the wide side that was facing you.
7. Unlock the system unit by inserting the key in the lock and turning it counter-clockwise to the unlocked position.
8. Refer to Figure 3-20 (D). Press the locking tabs on each side outward to release the top cover while pushing the top cover away from you.
9. Slide the top cover as far back as it will go. It will slide about 1/2 inch.
10. Lift the top cover straight up to remove.

Procedure 3-13: Closing the System Unit

To close the system unit, follow these steps:

1. Refer to Figure 3-20 (D). Lower the top cover onto the chassis. It should be about 1/2 inch back from its closed position. Check that the sides of the top cover fit properly with the chassis.
2. Slide the top cover forward until the two locking tabs snap in place.
3. Lock the system unit by inserting the key in the lock and turning it clockwise to the locked position.
4. Raise the system unit so that it rests on the rear panel.
5. Refer to Figure 3-20 (A and B). Hook the top edge of the front panel on the top edge of the top cover and rotate the front panel downward until the latches snap into place.
6. If you removed any feet, replace them.
7. Reconnect the cables.

Upgrading the Hard Disk

To upgrade the hard disk drive, you must remove the auxiliary housing, remove the hard drive housing, and remove the drive housing.

NOTE:
The removal and replacement procedures are provided together first and then cross-referenced throughout this section.

Procedure 3-14: Removing the Auxiliary Housing

To remove the auxiliary housing, follow these steps:

1. Remove the screws at the top and front as shown in Figure 3-21. (The two top screws are not present on all models.)
2. Pull the face plate (with the power button) forward. The auxiliary housing and face plate will separate. The auxiliary housing can be lifted straight up while the face plate will remain attached to the power switch.

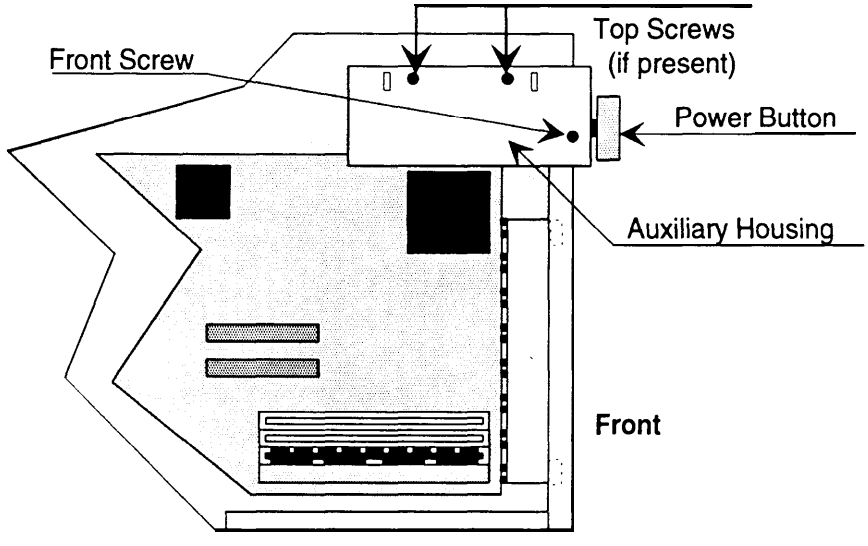


Figure 3-21. Removing Auxiliary Housing

Procedure 3-15: Replacing the Auxiliary Housing

To replace the auxiliary housing, refer to Figure 3-22 and follow these steps:

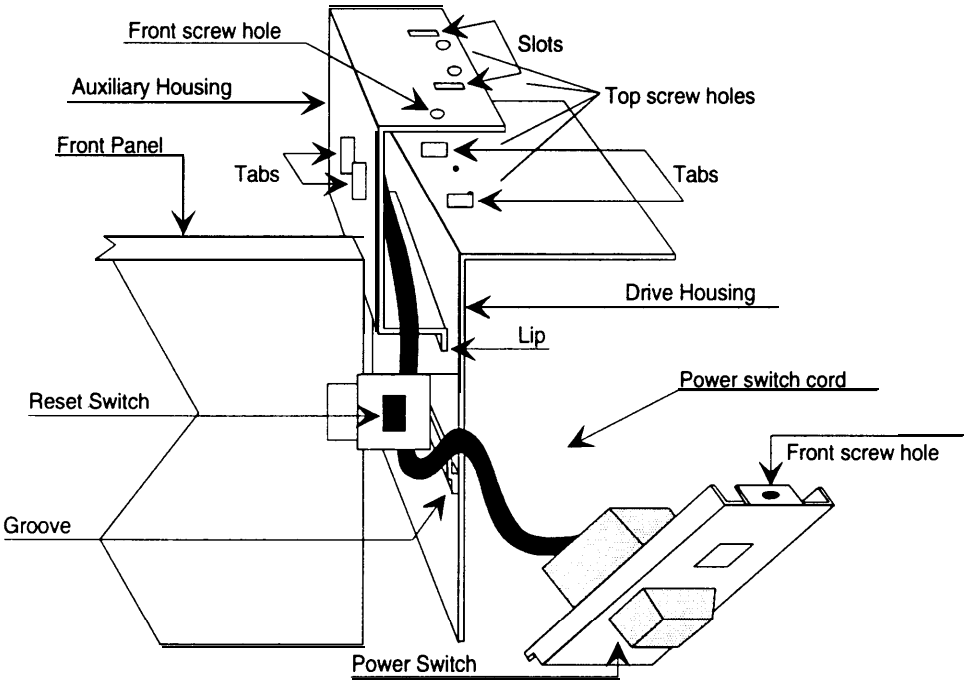


Figure 3-22. Replacing Auxiliary Housing

1. Facing the front of the MAP/5, hold the auxiliary housing near the drive housing. The opening in the shallow, U-shaped auxiliary housing should be to the right. On the top of the auxiliary housing along the side, you will see two slots that fit over tabs that stick up from the top of the drive housing. On the left side of the auxiliary housing, you will see two tabs that stick out. The tabs go on either side of the front of the chassis when you slide the auxiliary housing in place.
2. Make sure that the cord to the power button is inside the auxiliary housing. The cord should extend out of the front of the chassis underneath the reset switch.
3. Slide the auxiliary housing down so that it fits into the opening in the front of the chassis. The two tabs on the left of the auxiliary housing should go on either side of the front of the chassis. The lip on the bottom of the auxiliary housing should go into a groove on the side of the drive housing. The two slots on the top of the auxiliary housing should go over the tabs on the top of the drive housing.

4. When the auxiliary housing is in place, set the bottom lip of the face plate (below the power switch) on the bottom front edge of the auxiliary housing and tilt it into place with the screw hole at the top underneath the screw hole in the auxiliary housing. (You can pull the power button off of the power switch and push it back on later if this makes it easier to work.)
5. Secure the auxiliary housing and face plate by placing a screw into the top front hole.
6. If you removed two additional screws from the top of the auxiliary housing between the tabs on top of the drive housing, replace those screws.

Procedure 3-16: Removing/Replacing the Hard Drive Housing

To remove the hard drive housing, refer to Figure 3-23 and follow these steps:

1. Remove the four screws holding the hard drive housing.
2. Lift the hard drive housing out of the way.

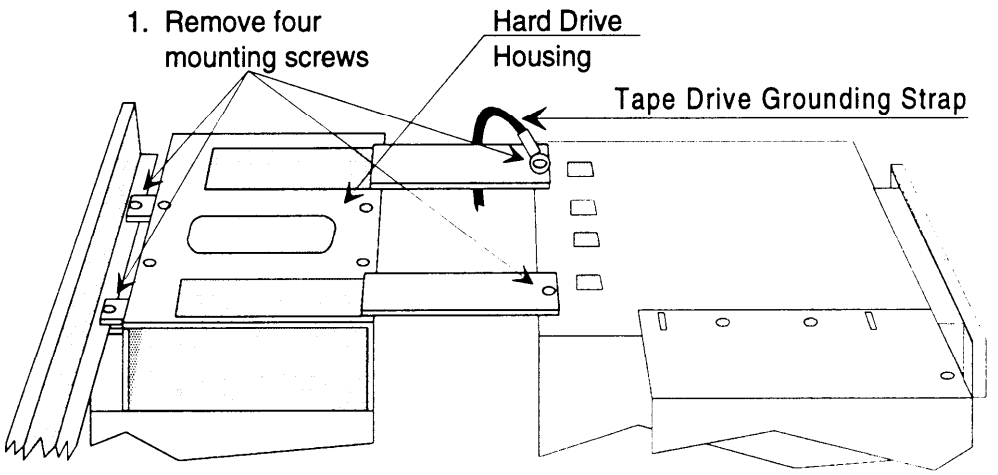


Figure 3-23. Removing/Replacing Hard Drive Housing

3. To replace the hard drive housing, put it in place over the power supply and secure it with the four mounting screws. Be sure that the tape drive grounding strap is secured under the front outside mounting screw.

Procedure 3-17: Removing/Replacing the Drive Housing

NOTE:
It is not necessary to disconnect the cables before removing the drive housing and drives.

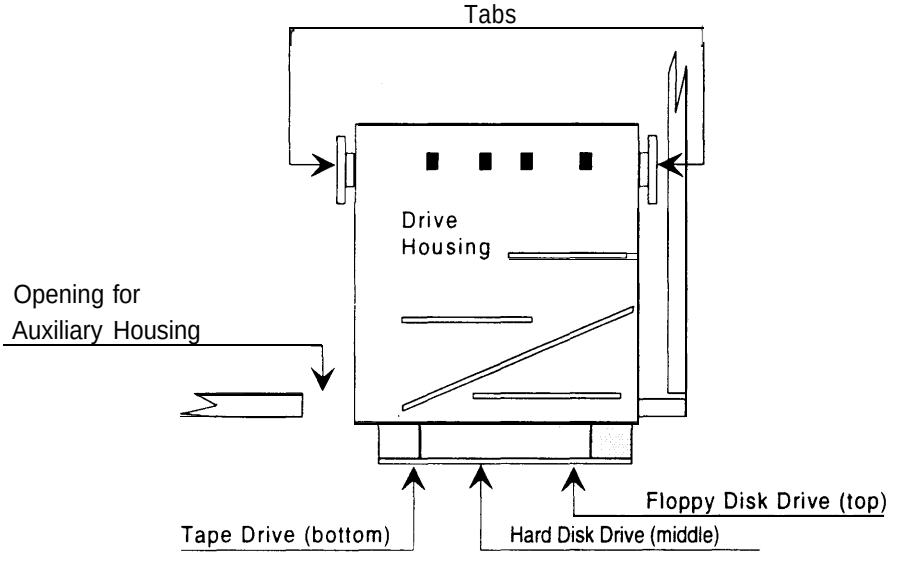


Figure 3-24. Location of Drive Housing Locking Tabs

To remove and replace the drive housing, refer to Figure 3-24 and follow these steps:

1. Remove the hard drive housing using Procedure 3-16 described earlier in this chapter.
2. Remove the auxiliary housing using Procedure 3-14 described earlier in this chapter.
3. Locate the locking tabs as shown in Figure 3-24. Using the tip of a screwdriver, pull the tabs out until you can lift the rear of the drive housing.
4. Lift the drive housing clear.
5. Before replacing the drive housing, connect any cables to the back of the drives. (It's easier to do this now than after the drive housing is installed.)
6. Align the drive housing with the opening in the front of the chassis and with the locking tabs.
7. Push the drive housing into place until the locking tabs lock.

8. Replace the auxiliary housing using Procedure 3-15 described earlier in this chapter.

9. Replace the hard drive housing using Procedure 3-16 described earlier in this chapter.

Procedure 3-18: Replacing the Hard Disk Drive

To replace the hard disk drive (in the drive housing), follow these steps:

1. Back up the system to tape. See Chapter 4 of the *AT&T Integrated Solution III System Manager's Guide* for instructions.
2. If the system is running, shut it down using Procedure 3-1 described earlier in this chapter.
3. Take precautions against electrostatic discharge as indicated at the beginning of this chapter.
4. Turn off power to the system and remove the power cord from the system unit.
5. Remove the front panel and cover from the system unit.
6. Remove the hard drive housing using Procedure 3-16 described earlier in this chapter.
7. Remove the auxiliary housing using Procedure 3-14 described earlier in this chapter.
8. Remove the drive housing using Procedure 3-17 described earlier in this chapter.
9. Disconnect the power and control cables from the back of the hard disk drive.

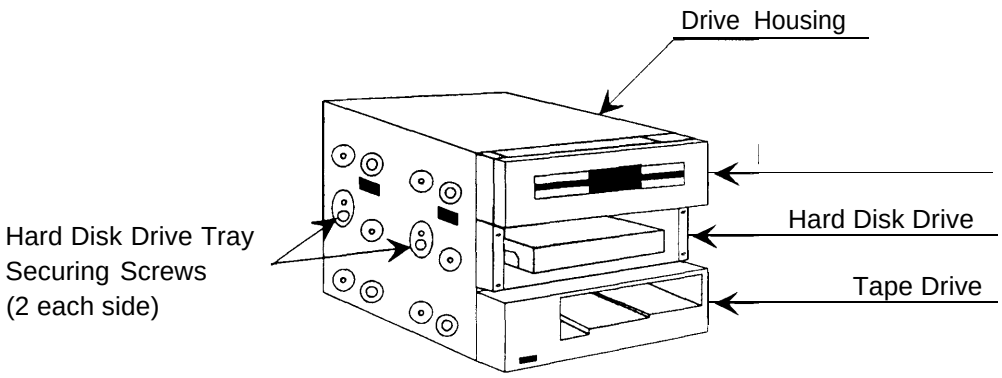


Figure 3-25. Hard Disk Drive Tray Securing Screws

10. Refer to Figure 3-25. Remove the two screws on each side of the drive housing that secure the hard disk drive tray.
11. Slide the hard disk drive and tray out the front of the drive housing.

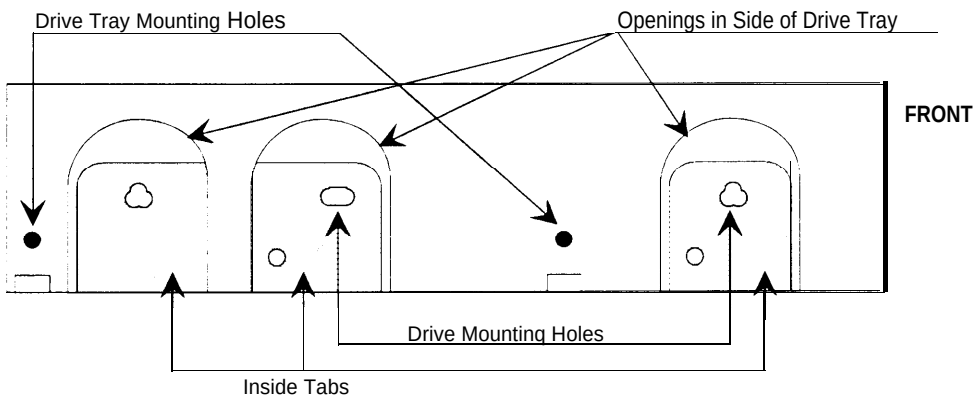


Figure 3-26. Drive Tray

12. Refer to Figure 3-26. Remove the two screws on each side of the drive tray that secure the hard disk.
13. Lift the hard disk drive out of the drive tray.
14. Refer to the *AT&T Multi-Application Platform/5 User's Guide* if you want to verify jumper settings for the new hard disk drive.
15. Place the new hard disk drive in the drive tray, component side down.
16. Secure the hard disk drive to the drive tray with the same two screws on each side that you removed earlier as shown in Figure 3-26.
17. Slide the drive tray in through the front of the drive housing.
18. Secure the drive tray to the drive housing with the same two screws on each side that you removed earlier as shown in Figure 3-25.
19. Reconnect the the large white power connector to the hard disk drive. The connector goes in rounded corners up and the red wire should be on the left (as you face the back of the drive).
20. Reconnect the control cable to the hard disk drive. The colored tracer wire should be on the right (as you face the back of the drive). The ribbon cable should exit the connector going upwards.
21. Replace the drive housing using Procedure 3-17 described earlier in this chapter.
22. Replace the auxiliary housing using Procedure 3-15 described earlier in this chapter.
23. Replace the hard drive housing using Procedure 3-16 described earlier in this chapter.
24. Replace the system unit cover and front panel and reconnect the power cord.

25. Run the SETUP utility to reconfigure the system.

    a. Turn power on to boot the system.

    b. After the memory test is complete, and while the Power-On Self Test (POST) is still running, press [CTRL] – [ALT] – [ESC]

       The SETUP main menu appears.

    c. Select `System Configuration` and press [ENTER].

       The System Configuration menu appears.

       NOTE:
       The warning message on the screen is not applicable to any of the supported MAP/5 configurations, and may be ignored.

    d. Select `Basic System Configuration` and press [ENTER].

    e. Move the highlight bar to `Fixed Disk 0.`

    f. Based on the new hard disk model number or size, proceed as follows:

       — For fallback to disk model CFS210A (210 MB), enter *46* as the disk type. All other information will change automatically.

       — For fallback to disk model CP32054H (250 MB), enter *88* as the disk type. All other information will change automatically.

       — For disk model CCFS420A (420 MB), enter *41* as the disk type. All other information will change automatically.

       — For disk model CP3544 or CP30544 (500 MB), enter *49* as the disk type. All other information will change automatically.

       — For disk model CFA540A (540 MB), enter *80* as the disk type. All other information will change automatically.

    g. Press [ESC] to return to the SETUP main menu.

    h. press [ESC] to reboot the system.

    For additional information, see Chapter 3, “Configuration Setup,” in the *AT& T Multi-Application Platform/5 User’s Guide.*

26. Install the UNIX system and the IS III Platform Software. See Chapter 6 for instructions.

27. Restore the tape backups made in step 1.

Adding Expansion Boards to the MAP/5

The MAP/5 has eight expansion slots. Slot 2 is always used for the tape controller. Slot 5 is always used for the video controller. Slot 8 is always used for the DCP board. The remaining five slots may be filled with voice port (IVP) and fax port (IFP) boards. We recommend that the voice port boards be installed from the highest available slot downwards and that the fax port boards be installed from the lowest available slot upwards.

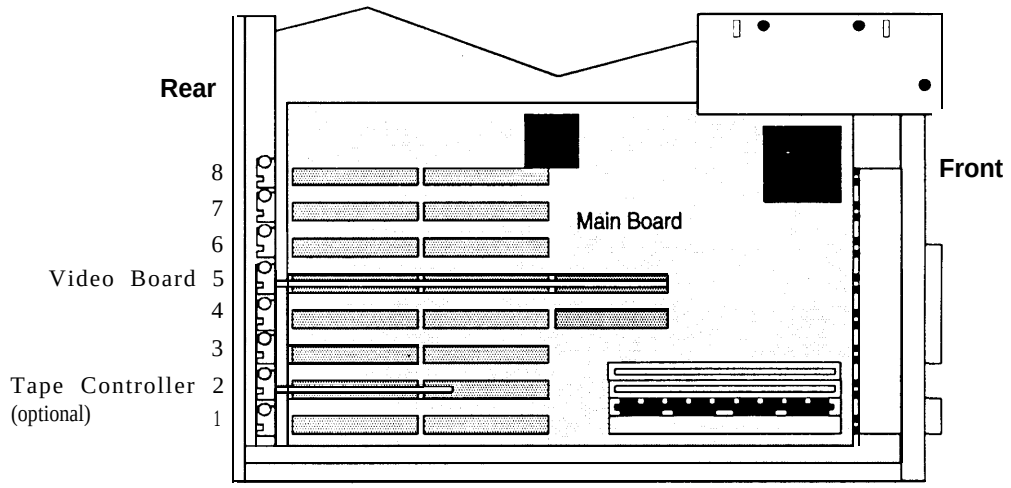


Figure 3-27. Standard Expansion Board Locations

Procedure 3-19: Installing an Expansion Board

To install an expansion board, follow these steps:

1. If the system is running, shut it down using Procedure 3-1 described earlier in this chapter.
2. Take precautions against electrostatic discharge as indicated at the beginning of this chapter.
3. Turn off power to the system and remove the power cord from the system unit.
4. Disconnect any cables from a board being removed or replaced.
5. Remove the front panel and cover from the system unit.
6. Select the slot to be used for installing the expansion board. The slots are numbered as shown in Figure 3-27.

7. Remove the screw holding the slot cover in place and remove the slot cover as shown in Figure 3-28. (Save the slot cover for use if the board is removed.) When replacing or moving a board, the slot cover may already have been removed.

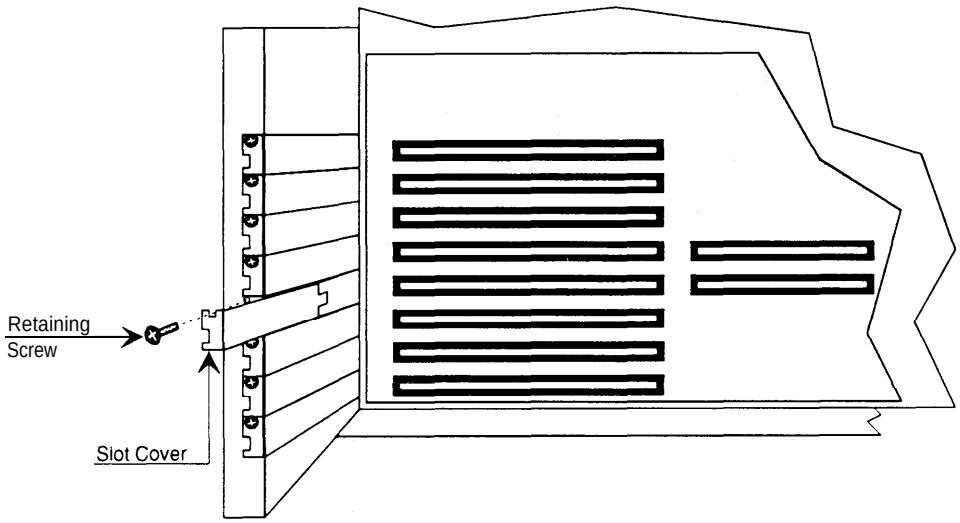


Figure 3-28. Removing Slot Cover

8. Refer to Figure 3-29. Slide the expansion board into the slot. For full-length boards, use the plastic guide on the far right and the slot opening on the left to align the board with the connectors.

9. Press the board firmly into the connector. The mounting bracket should seat completely so that the screw can be inserted easily.

NOTE:
On some boards, the mounting bracket will not fit perfectly when the board is fully seated in the connector. It may be necessary to adjust the mounting bracket or to allow one end of the board to be less than fully seated.

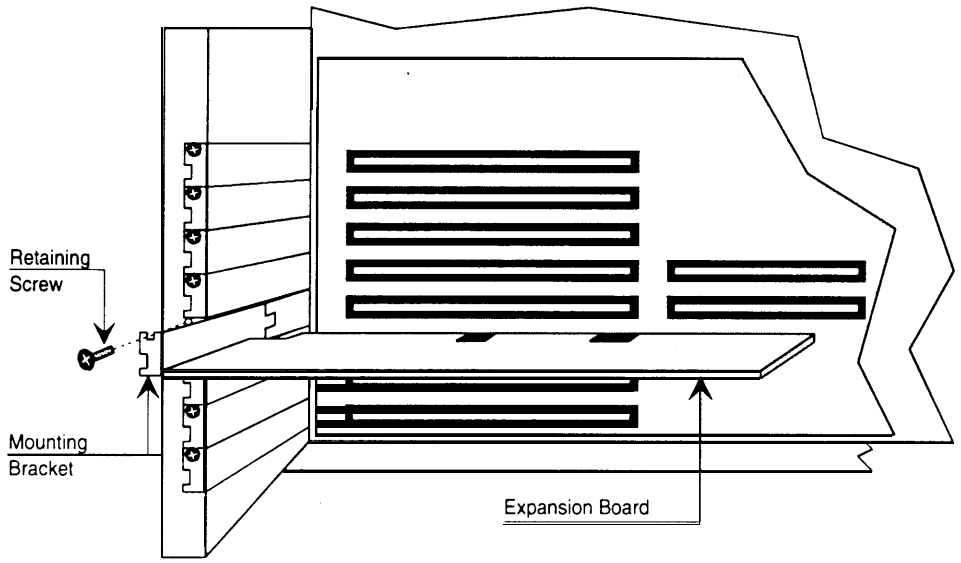


Figure 3-29. Installing or Removing Expansion Board

10. Secure the board in place by using the same screw in the mounting bracket that you removed from the slot cover.

Adding Voice and Fax Port Boards

The procedures for adding voice and fax port boards are similar for both the Master Controller II+, the Master Controller III, and the MAP/5:

1. Configure the boards.
2. Open the system unit case.
3. Install the boards.
4. Close the case.

The procedures in this section cover only board configuration. Refer to the preceding sections for information on opening and closing the system unit case and installing expansion boards.

Voice and Fax Port Configuration

A different number of voice and fax port boards can be installed in the available slots on the Master Controller II+, Master Controller III, and MAP/5 to meet the requirements of the customer. The configurations are:

- Master Controller II+ (two available slots)
  - at least one IVP4 or IVP6 board for AUDIX Voice Power
  - a maximum of two IVP boards (IVP4 and IVP6 can be mixed)
- Master Controller III and MAP/5 (5 available slots)
  - at least one IVP4 or IVP6 board for either AUDIX Voice Power or AT&T FAX Attendant System
  - at least one IFP2 or IFP4 board for AT&T FAX Attendant System
  - a maximum of 12 voice ports and 12 or fewer fax ports

NOTE:
Mixing IFP2 and IFP4 boards is not supported.

IVP Board Configuration

If you need to add IVP boards to the system, the IVP board(s) must be configured before they are installed. There are five variations of IVP4 boards and two variations of IVP6 boards. Use Table 3-1 and Figure 3-30 as a guide to identifying the boards.

Table 3-1. IVP Board Characteristics

Board Type	Description	Comments
IVP4 (A)	Old layout (two switch banks), rocker switches, 4 repeated sets of chips	
IVP4 (B & C)	Old layout (two switch banks), slide switches, 4 repeated sets of chips	Switches are reversed on layouts B & C with the open and closed positions not marked. Determine board type by existing switch settings or by testing (B & C cannot be visually distinguished).
IVP4 (D)	New layout (one switch bank), with audio jacks, 4 repeated sets of chips	**DO NOT USE** in MC II+ or MAP/5.
IVP4 (E)	New layout (one switch bank), no audio jacks, 4 repeated sets of chips	
IVP6 (C)	Old layout (two switch banks), rocker switches, 6 repeated sets of chips	
IVP6 (D)	New layout (one switch bank), with audio jacks, 6 repeated sets of chips	

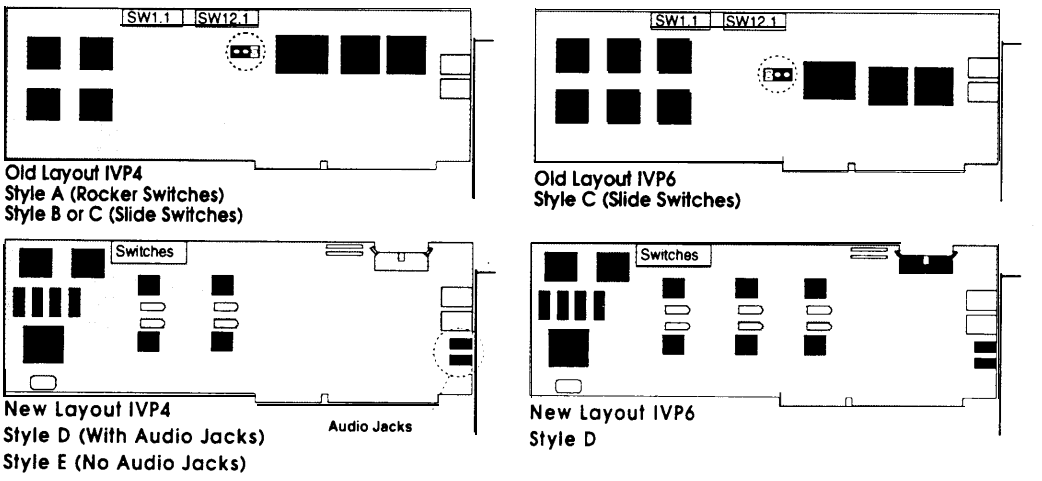


Figure 3-30. IVP Board Identification

IVP Board Jumper Settings

The jumpers on old layout boards are set at the factory and should not be changed. The jumpers are set differently for the IVP4 and IVP6 boards. Refer to Figure 3-30 to verify that the jumper is set as shown in the figure.

NOTE:
The new layout IVP4 and IVP6 boards do not have jumpers.

Mixing IVP4 and IVP6 Boards

IVP4 and IVP6 boards can be mixed in any combination to a maximum of 12 voice channels. Regardless of the board type, set the address switches based on the board number.

NOTE:
Even if more than 12 channels are installed, only a maximum of 12 will be supported.

Changing IVP Board Type

If you replace an IVP4 board with an IVP6 board, or vice versa, or whenever the relationship between channel numbers and board numbers changes, you should renumber the voice channels. Use Procedure 3-21, given later in this chapter.

Configuration of Previously Installed Boards

All new layout boards (both IVP4 and IVP6) **with** audio jacks are style D. All new layout boards **without** audio jacks are style E. (See Figure 3-31.)

All old layout IVP6 boards are style C. (See Figure 3-31.)

For old layout IVP4 boards, examine the second bank of switches (SW12.1, on the right, see Figure 3-31):

- If the board has rocker switches, the style 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 style 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 3-31. Use the style letter at the top of the column in which the match is found.
- If you are unable to determine the correct style by examining the switch settings, you will have to test the board as described later in this section to determine the correct style.

Mark the board with the corresponding style letter (A, B, C, D, or E) for reference in resetting the switches.

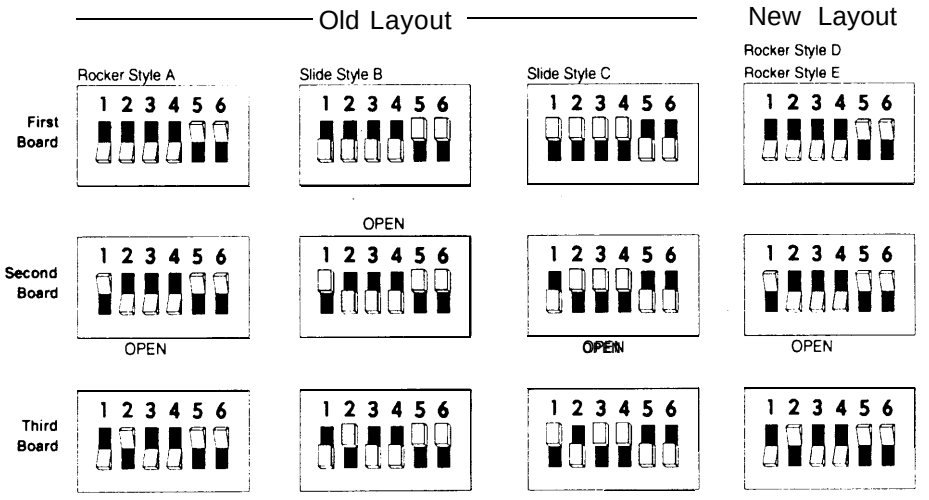


Figure 3-31. Address Switch Settings

Setting Line Impedance Switch

On old layout boards, the first switch bank (SW1.1) controls the line impedance. The settings should all be set to the OPEN position initially (as shown in Figure 3-32 for each style). If problems are encountered with touch-tone recognition on any channel, change the switch for the affected channel on the first bank (SW1.1) to the opposite (closed) position. Figure 3-32 shows the correspondence between switches and IVP channel numbers.

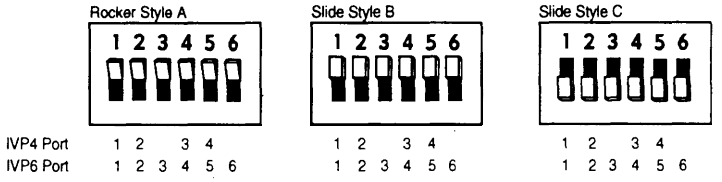


Figure 3-32. Settings for SW1.1 (Old Layout Boards Only)

NOTE:
All new layout boards have software controlled line equalization and switch SW1.1 is not present.

Setting Address Switch

On new layout boards, the single switch bank sets the board address.

On old layout boards, the second switch bank (SW12.1) sets the board address.

Figure 3-33 shows the correct settings for each of the four styles.

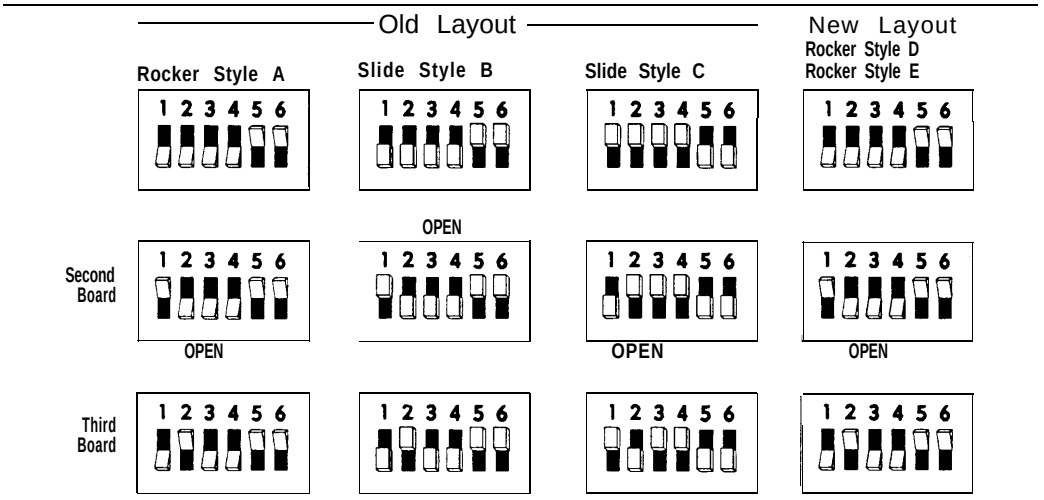


Figure 3-33. Address Switch Settings

NOTE:
The address settings are based on the board position (first, second, or third). They are the same for either an IVP4 or IVP6 board in the same position.

Procedure 3-20: Test the IVP Switch Settings

If you know the board style, set the switches on each board and then perform this test to verify the correctness of the switch settings. If the board has slide switches, you can also use this test determine whether it has style B or C.

1. Set the switches for each board according to its style and board position. See Figure 3-32 and Figure 3-33. If you are testing to determine board style, set the switches for style C the first time as most boards with slide switches are style C.
2. Install the board(s) and close the case.
3. Install the voice application software if it is not already installed. See Chapter 4 in this document.
4. All application software that uses the IVP System Software will have a "System Monitor" function available. Open the System Monitor window and examine the Service Status column. If the Service Status is blank, or if the System Monitor window shows no fields at all, the board is either defective, or it should have another style.

   Check the style and switch settings and test again. If the board is still not recognized, contact the next tier of AT&T Services support.

   NOTE:
   If any board is improperly configured during this test, do the following:

   a. Shut the system down.
   b. Reconfigure the board.
   c. Renumber the channels using Procedure 3-21 before rerunning the test.

   For additional information about the System Monitor see Chapter 5 of the *AT&T AUDIX™ Voice Power Release 2.1.1 System Manager's Guide.*

   NOTE:
   Each properly configured IVP4 board will provide 4 of the maximum 12 channels. Each properly configured IVP6 board will provide 6 of the maximum 12 channels.

Procedure 3-21: Renumber Voice Channels

You must renumber the voice channels in the following situations:

- If you replace an IVP4 board with an IVP6 board, or vice versa, the relationship between board ports and channel numbers changes.

  NOTE:
  Cabling between the IVP boards and the analog station ports must also be changed.

- If you bring up the voice system with address switches incorrectly set on any IVP board, the relationship between board ports and channel numbers is incorrect.

Before renumbering the voice channels, AUDIX Voice Power and/or FAX Attendant must be installed.

To renumber the voice channels, follow these steps:

1. Log in as *maint.*
2. At the Integrated Solution III Maintenance menu, move the cursor to `Technician Maintenance` and press [ENTER].
3. At the Technician Maintenance menu, move the cursor to `Voice System Administration` and press [ENTER].
4. At the Voice System Administration menu, move the cursor to `Configuration Management` and press [ENTER].
5. At the Configuration Management menu, move the cursor to `System Control` and press [ENTER].
6. At the System Control menu, move the cursor to `Renumber Voice Channels` and press [ENTER].

   The voice channels are renumbered.
7. Repeatedly press [F6] (CANCEL) and respond to prompts as necessary to exit the system.

IFP2 Board Configuration

NOTE:
IFP2 and IFP4 boards cannot be mixed in the same system.

If you need to add IFP2 boards to the system, the IFP2 board(s) must be configured before they are installed. Each IFP2 board has three banks of jumpers and a bank of switches. The locations of the jumpers and switches are shown in Figure 3-34.

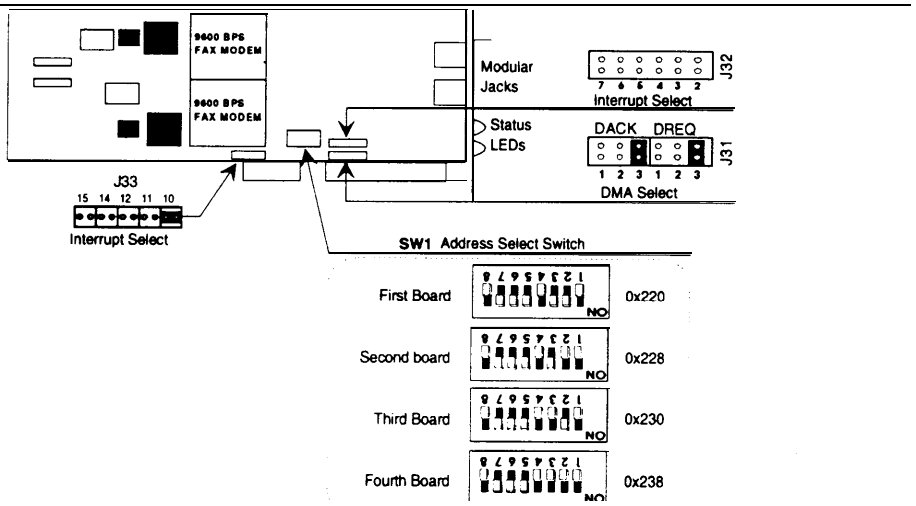


Figure 3-34. IFP2 Switch and Jumper Locations

Set the jumpers and switches as shown in Figure 3-34. If necessary, move the jumper from position 5 on jumper block J32 to position 10 on jumper block J33.

IFP4 Board Configuration

NOTE:
IFP2 and IFP4 boards cannot be mixed in the same system.

If you need to add IFP4 boards to the system, the IFP4 board(s) must be configured before they are installed. Each IFP4 board has two banks of jumpers and a bank of switches. The locations of the jumpers and switches are shown in Figure 3-35.

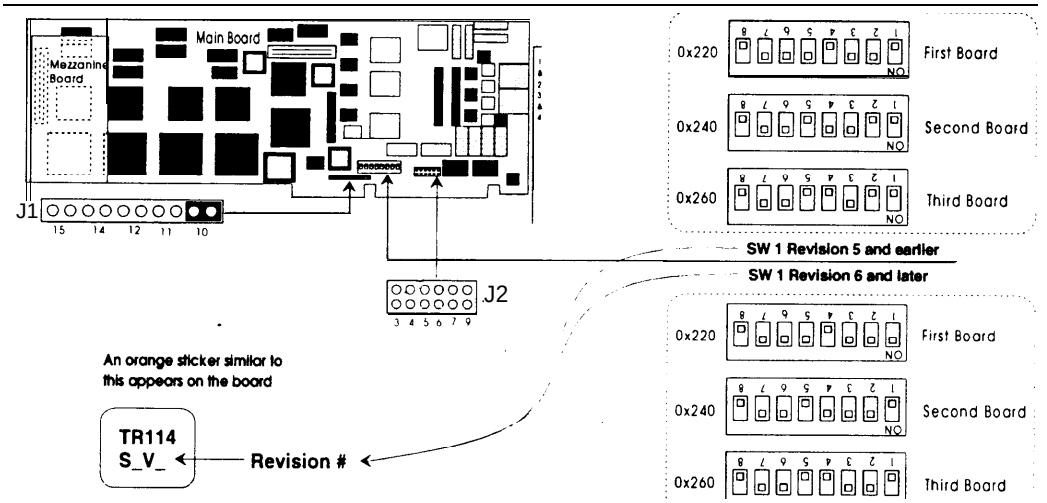


Figure 3-35. IFP4 Switch and Jumper Locations

An orange sticker will appear somewhere on the board. The revision level is the number at the end of the second line. Set the jumpers and switches as shown in Figure 3-35. If necessary, move the jumper from position 5 on jumper block J2 to position 10 on jumper block J1.

DCP Board Configuration

There are several variations of the DCP board that are not interchangeable. Before installing a DCP board, verify that it has one of the following COMCODEs printed on a label on the board:

- **106 627 292**
- **106 986 870**

A DCP board with any other COMCODE may not operate properly and should not be used.

If the DCP board does not have a COMCODE label, examine the 14-pin DIP circuit labeled "IC18" as shown in Figure 3-36. ("IC18" is printed on the DCP board below the DIP.) If the two pins indicated are connected by a small wire and solder bridge, you have the correct DCP board. If the two pins are not joined, the board will not operate properly and cannot be used.

NOTE:
This information is for identification purposes only. Adding a jumper between these pins will not make an incorrect board work properly.

if it becomes necessary to replace a DCP board, the DCP board must be configured before it is installed. To configure the DCP board, verify that the RAM and ROM jumpers are set as shown in Figure 3-36.

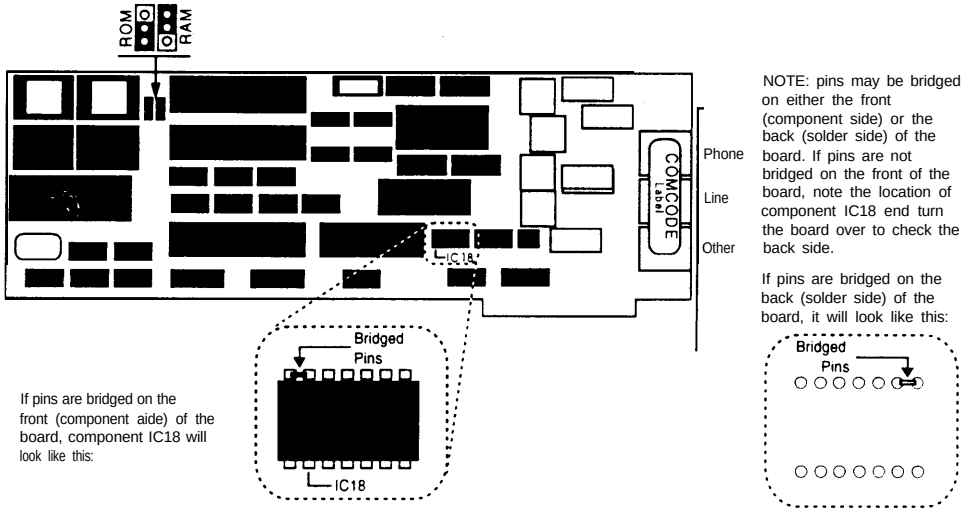


Figure 3-36. Location of Jumpers on DCP Board

Adding and Removing IS III Applications

4

This chapter provides procedures for adding and removing IS III applications. Use the installation procedures described in this chapter when the customer wants to add an application after initial system purchase. If you are installing IS III applications after a catastrophic failure, see Chapter 6. If you are installing an upgraded release of an application that the customer already has, see Chapter 7. Use the removal procedures described in this chapter when the customer has chosen to discontinue using an application.

Adding IS III Applications

This section describes how to perform the following procedures:

- Add AUDIX Voice Power (standalone).

  This procedure consists of adding AUDIX Voice Power to a system. AUDIX Voice Power cannot be added to a system that has standalone FAX Attendant (non-co-resident) installed.

- Add FAX Attendant to a system already using AUDIX Voice Power.

  This procedure consists of adding FAX Attendant (co-resident) to a system that already has AUDIX Voice Power installed. FAX Attendant exists in two versions: standalone (non-co-resident) and co-resident. Standalone FAX Attendant is used for systems that do not have AUDIX Voice Power installed. Co-resident FAX Attendant is used for systems that have AUDIX Voice Power installed.

- Add AUDIX Voice Power/FAX Attendant (co-resident).

  This procedure consists of adding AUDIX Voice Power and co-resident FAX Attendant to a system. FAX Attendant exists in two versions: standalone (non-co-resident) and co-resident. Standalone FAX Attendant is used for systems that do not have AUDIX Voice Power installed. Co-resident FAX Attendant is used for systems that have AUDIX Voice Power installed.

- Add FAX Attendant (standalone).

  This procedure consists of adding standalone FAX Attendant to a system that does not have AUDIX Voice Power installed. FAX Attendant exists in two versions: standalone (non-co-resident) and co-resident. Standalone FAX Attendant is used for systems that do not have AUDIX Voice Power installed. Co-resident FAX Attendant is used for systems that have AUDIX Voice Power installed.

- Add Call Accounting System (CAS).

  This procedure consists of adding Call Accounting System to a system.

NOTE:
If you are adding a software application package to an existing system, continue with the instructions in this section.

If you are installing application software after a catastrophic failure, see Chapter 6.

If you are installing an updated release of an application that the customer already has, see Chapter 7.

Adding AUDIX Voice Power

This section describes how to add AUDIX Voice Power to a system that already has the IS III Platform Software installed.

NOTE:
You cannot add AUDIX Voice Power to a system that already has standalone FAX Attendant (non-co-resident) installed. To add AUDIX Voice Power to a system with FAX Attendant, you must remove standalone FAX Attendant from the system using the remove procedure described in this chapter and then add AUDIX Voice Power/FAX Attendant using the procedure described in this chapter.

Software Required

To add AUDIX Voice Power, you need the IS III Installation Tape.

Activity Checklist

Installation of AUDIX Voice Power consists of the following procedures:

1. Install the software.
2. Reboot the system (when prompted) for the changes to take effect.
3. Confirm that the installation was successful.

Procedure 4-1: Install the Software

To add AUDIX Voice Power, perform the following steps:

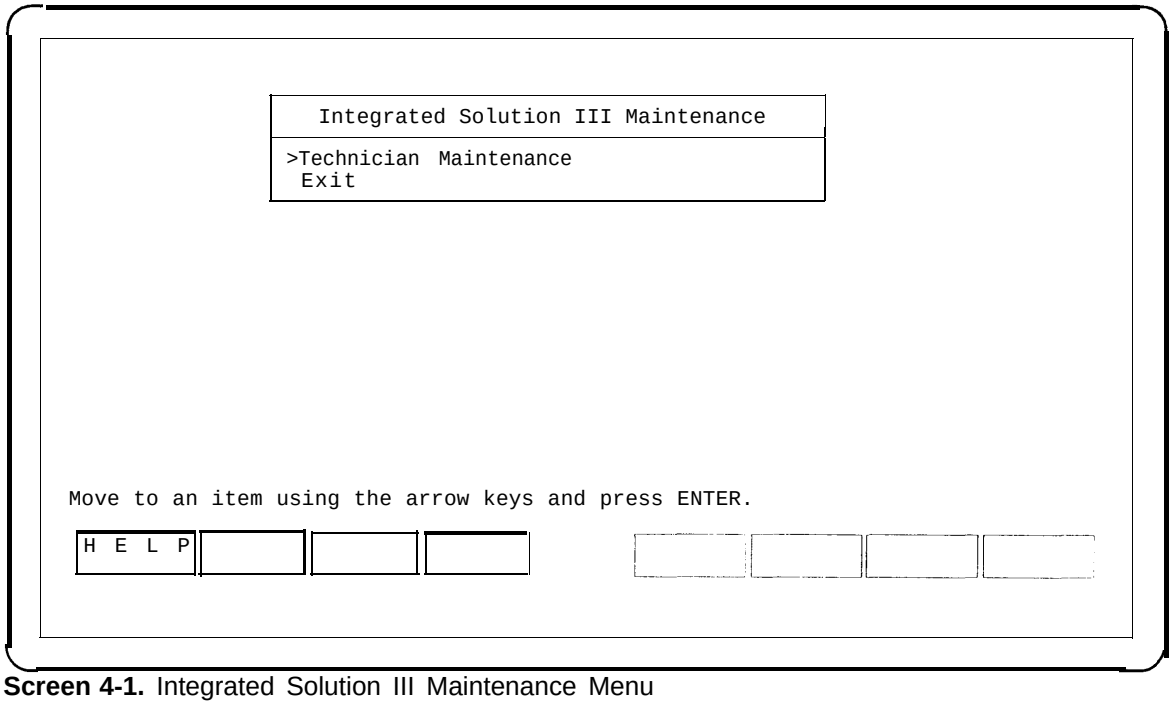
1. At the `Console Login:` prompt, type *`maint`* and press [ENTER].

   The `Password:` prompt appears.

2. At the `Password:` prompt, enter the password and then press [ENTER].

   The Integrated Solution III Maintenance Menu appears.

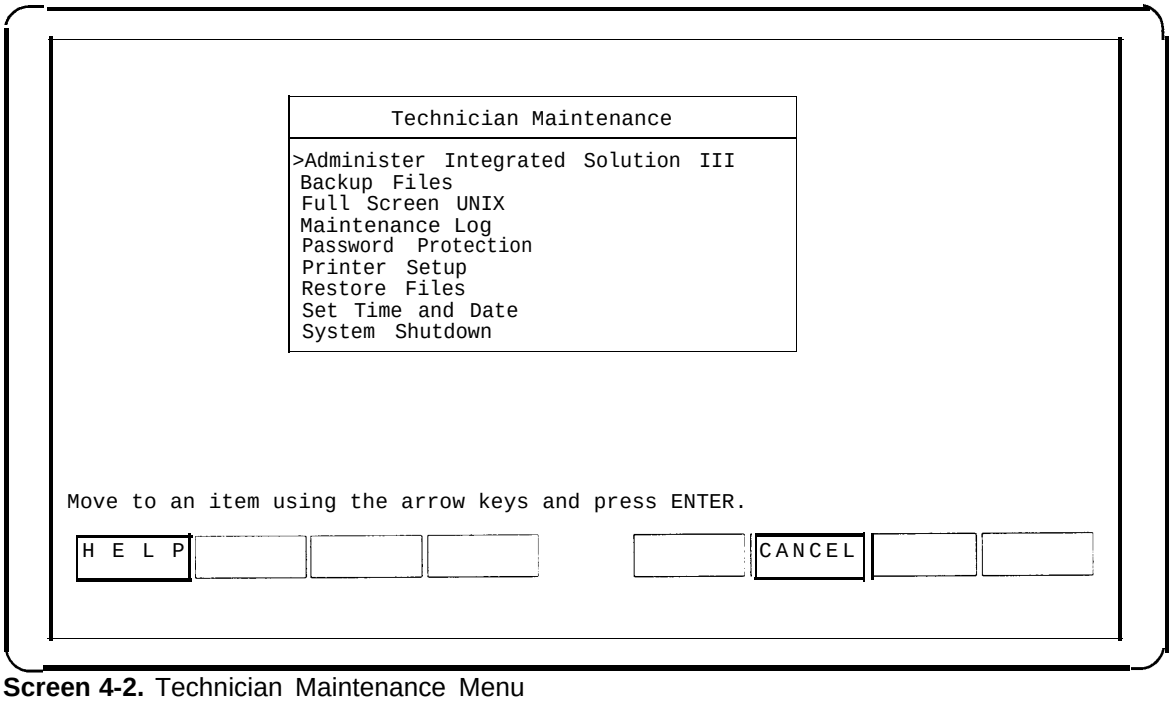
   NOTE:
   If any applications are already installed, their names appear in this menu.



Screen 4-1. Integrated Solution III Maintenance Menu

3. At the Integrated Solution III Maintenance Menu, select `Technician Maintenance` and press [ENTER].

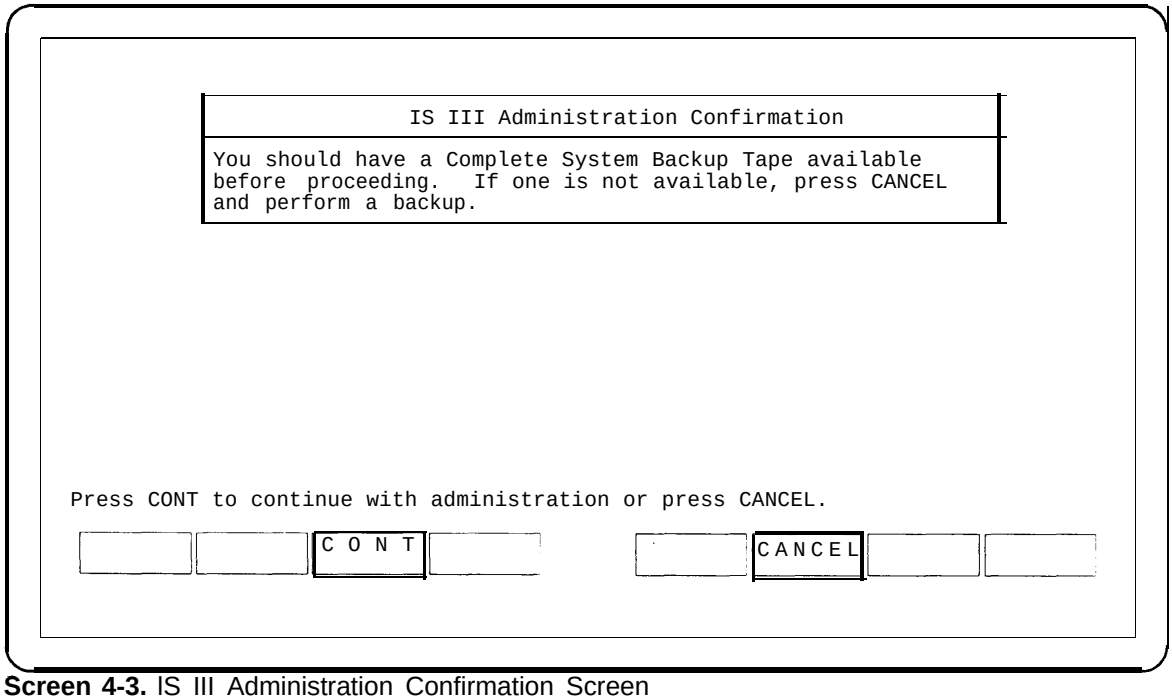
   The Technician Maintenance Menu appears.



Screen 4-2. Technician Maintenance Menu

4. At the Technician Maintenance Menu, select `Administer Integrated Solution III` and press [ENTER].

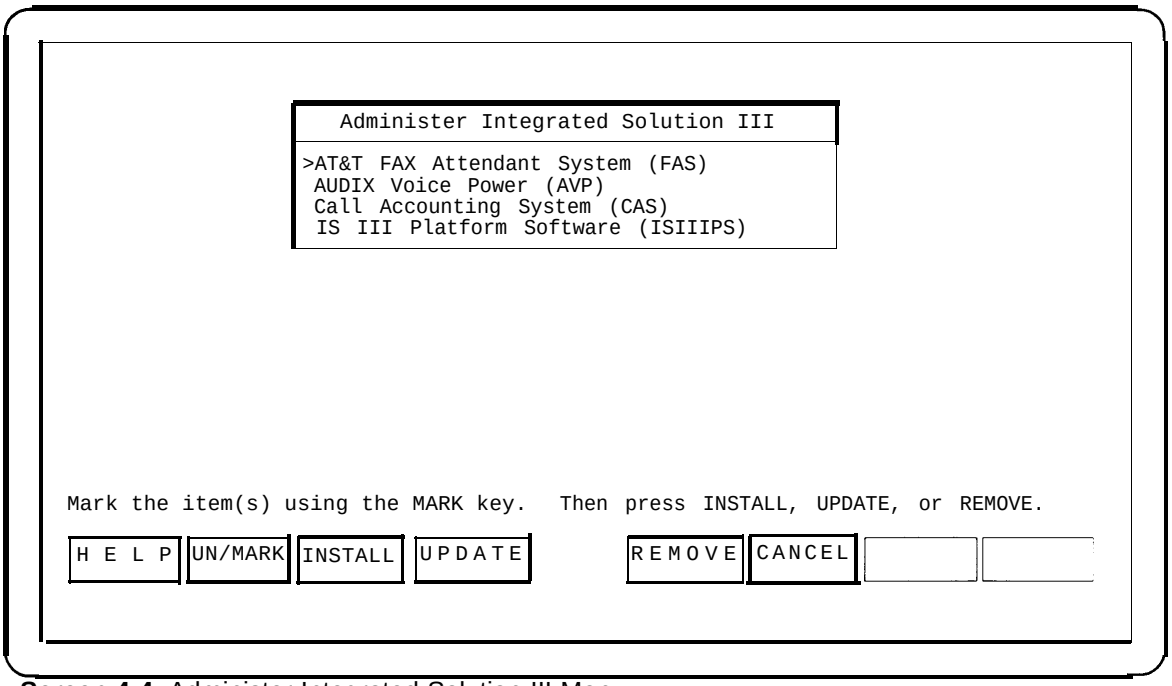
   The IS III Administration Confirmation screen appears.



Screen 4-3. IS III Administration Confirmation Screen

5. Press [F3] (CONT) to continue.

   The Administer Integrated Solution III Menu appears.



Screen 4-4. Administer Integrated Solution III Menu

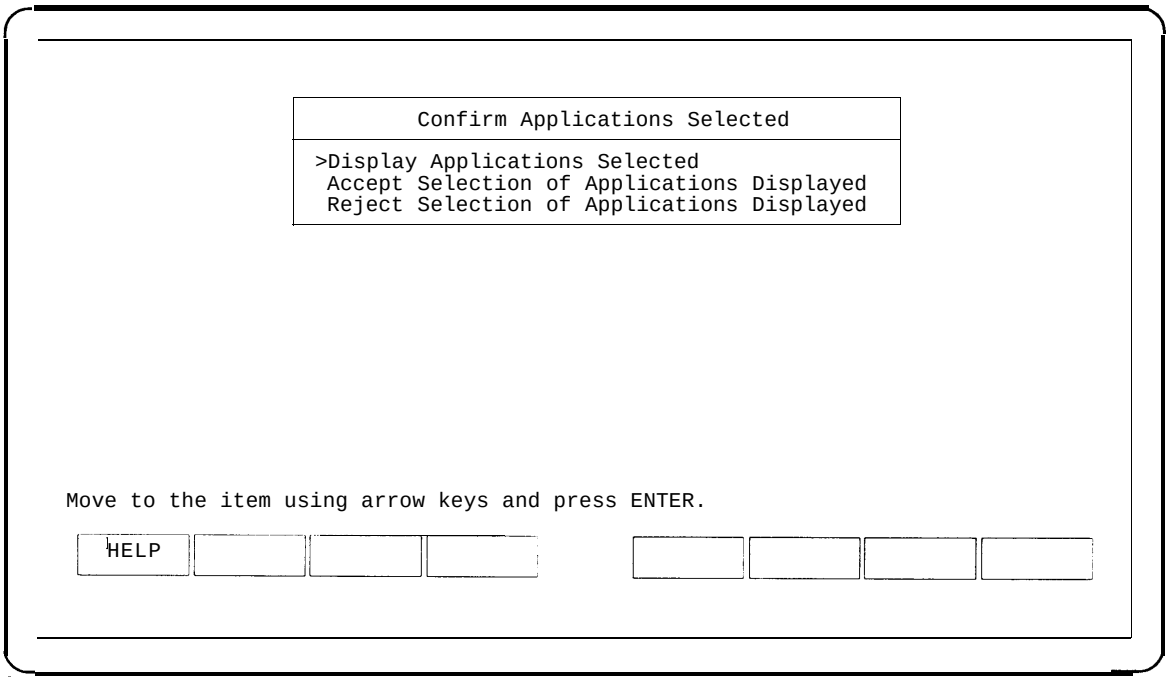
6. At the Administer Integrated Solution III Menu, select `AUDIX Voice Power (AVP)` and press [F2] (UN/MARK).

   An asterisk (*) appears in front of `AUDIX Voice Power (AVP).`

   NOTE:
   If you marked an application by mistake, move the cursor back to that application and press [F2] (UN/MARK) again to "undo" the selection.

7. Press [F3] (INSTALL) to begin the installation procedure.

   The Confirm Applications Selected Menu appears.



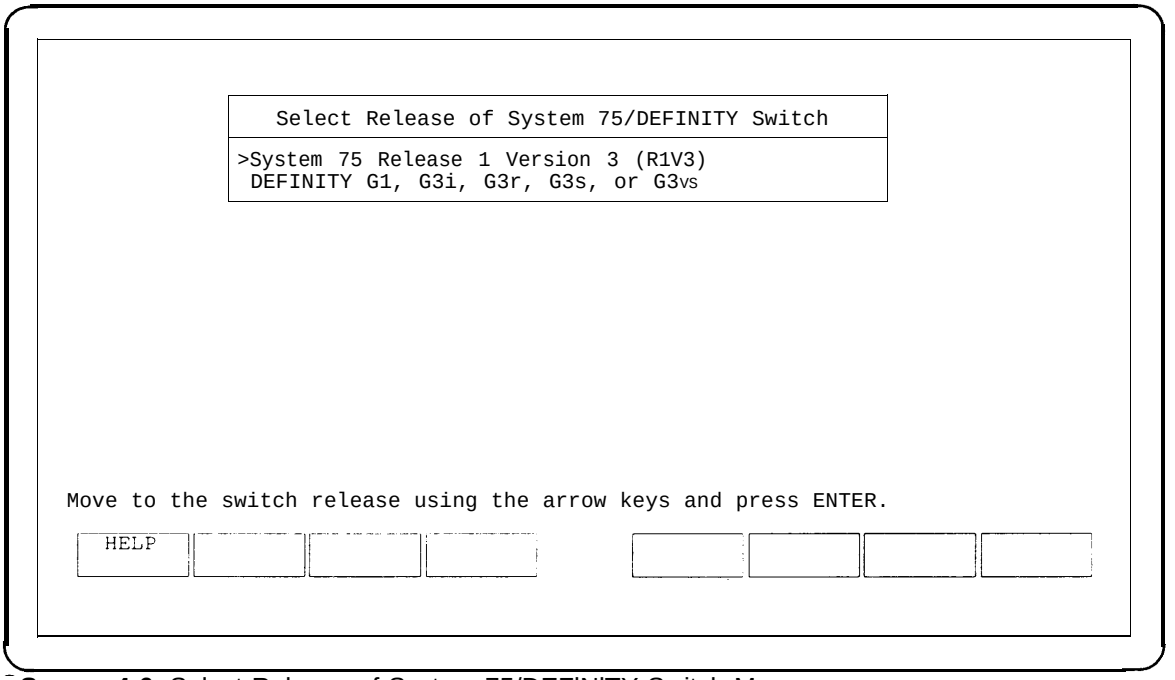
Screen 4-5. Confirm Applications Selected Menu

The Confirm Applications Selected Menu enables you to perform the following tasks:

- view a list of the applications that you selected to install on the system (`Display Applications Selected`)
- proceed with the installation you began (`Accept Selection of Applications Displayed`)
- abort the installation you began and return to the Administer Integrated Solution III Menu (`Reject Selection of Applications Displayed`)

8. At the Confirm Applications Selected Menu, select `Accept Selection of Applications Displayed` and press [ENTER].

   The Select Release of System 75/DEFINITY Switch Menu appears.



Screen 4-6. Select Release of System 75/DEFINITY Switch Menu

9. At the Select Release of System 75/DEFINITY Switch Menu, select the appropriate switch release and press [ENTER].

   The system responds:

```
Confirm

Please insert the DEFINITY IS III Installation Tape into
the tape drive.

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

10. Insert the IS III Installation Tape and press [ENTER].

    The system responds:

    ```
    Rewinding Tape ... Please Wait

    Verifying the DEFINITY IS III Installation Tape ... Please Wait
    ```

    The system then responds:

    ```
    Positioning Tape ... Please Wait
    ```

    The system then installs AUDIX Voice Power and the associated software. The name of each software package is displayed as the system installs it. This process takes approximately 40 to 45 minutes. After the software is installed, the system responds:

    ```
    Resetting Tape Drive . . . Please Wait

    The system will now be rebooted to install new kernel

    Confirm

    To complete the install/remove process a shutdown is now
    being initiated automatically.

    Make sure your floppy drive is empty. If you are
    installing or removing expansion boards, you may power
    down the system after the shutdown has completed.

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

11. After the tape drive indicator turns off, remove the IS lll Installation Tape and press [ENTER].

    The system shuts down, and then displays the following message:

    ```
    The system is down.
    Reboot the system now.
    ```

    At this point, you may shutoff the power and install or remove expansion boards (if necessary). When you are finished, proceed to the next step.

Procedure 4-2: Reboot the System

If you shutoff the power to the system and installed or removed expansion boards, power up the system. Otherwise, press the Reset button to reboot the system.

The system gives diagnostic information and notifies you that it is booting the UNIX system. The system then displays the `Console Login:` prompt.

Procedure 4-3: Confirm AUDIX Voice Power Installation

After rebooting the system, you must confirm that AUDIX Voice Power is installed on the Master Controller.

To confirm that AUDIX Voice Power is installed, perform the following steps:

1. Log into the system using the *maint* login and access the Integrated Solution III Maintenance Menu.

   The Integrated Solution III Maintenance Menu should include AUDIX voice Power (AVP) as an item.

2. At the Integrated Solution III Maintenance Menu, select Technician Maintenance and press [ENTER].

   The Technician Maintenance Menu appears.

3. At the Technician Maintenance Menu, select Maintenance Log and press [ENTER].

   The Maintenance Log Menu appears.

4. At the Maintenance Log Menu, select Display Installed Applications and press [ENTER].

   The system displays the software that is installed. Press [F2] (PREVPAGE) and [F3] (NEXTPAGE) to view all of the software. The list should include the following software:

```
AUDIX Voice Power Application Software R2.1.1:   Speech
AUDIX Voice Power Application Software R2.1.1:   Software
AUDIX Voice Power Application Software R2.1.1: Update 2
AUDIX Voice Power Switch Integration Software (for AT&T System 75 or Defi
DEFINITY Integrated Solution III Platform Software, Release 1.x
Integrated Voice Power System Software R2.0
Integrated Voice Power System Software R2.0:   Update 4
```

5. Press [F6] (CANCEL) three times to return to the Integrated Solution III Maintenance Menu.

Adding FAX Attendant to AUDIX Voice Power

This section describes how to add FAX Attendant to a system that already has AUDIX Voice Power installed,

NOTE:

- FAX Attendant installation stops the customer's voice system. During this installation, none of the AUDIX Voice Power services will operate. As a result, you should install FAX Attendant when the system is idle (for example, at night).
- The system must have either IFP2 or IFP4 boards installed for FAX Attendant. These boards cannot be mixed (that is, you must have all IFP2 boards or all IFP4 boards).

Software Required

To add FAX Attendant, you need the IS III Installation Tape.

Activity Checklist

Installation of FAX Attendant consists of the following procedures:

1. Install the software.
2. Confirm that the installation was successful.

Procedure 4-4: Install the Software

To add FAX Attendant, perform the following steps:

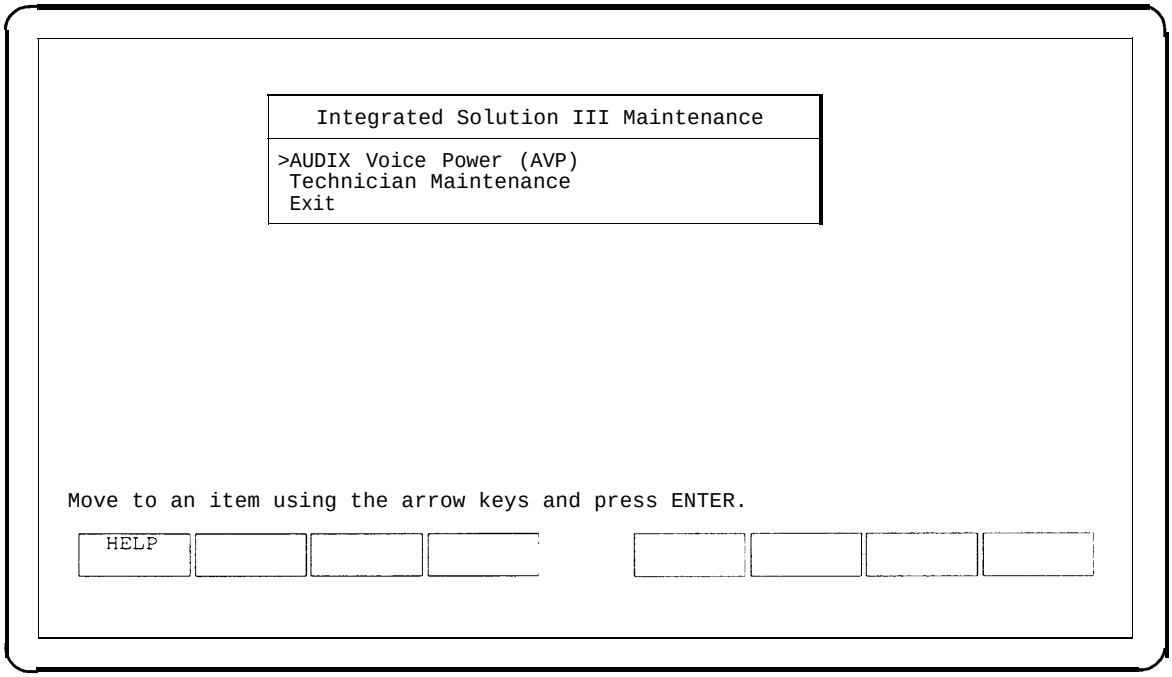
1. At the `Console Login:` prompt, type *`maint`* and press [ENTER].

   The `Password:` prompt appears.

2. At the `Password:` prompt, enter the password and then press [ENTER].

   The Integrated Solution III Maintenance Menu appears.

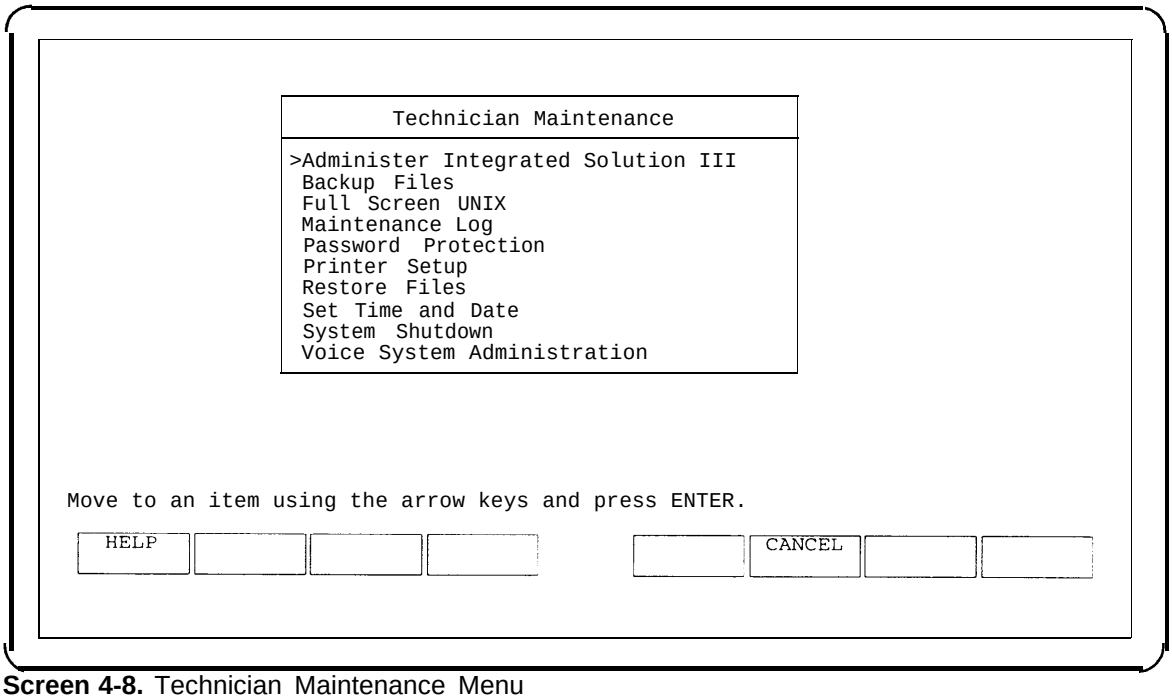
   NOTE:
   If any applications are already installed, their names appear in this menu.



Screen 4-7. Integrated Solution III Maintenance Menu

3. At the Integrated Solution III Maintenance Menu, select `Technician Maintenance` and press [ENTER].

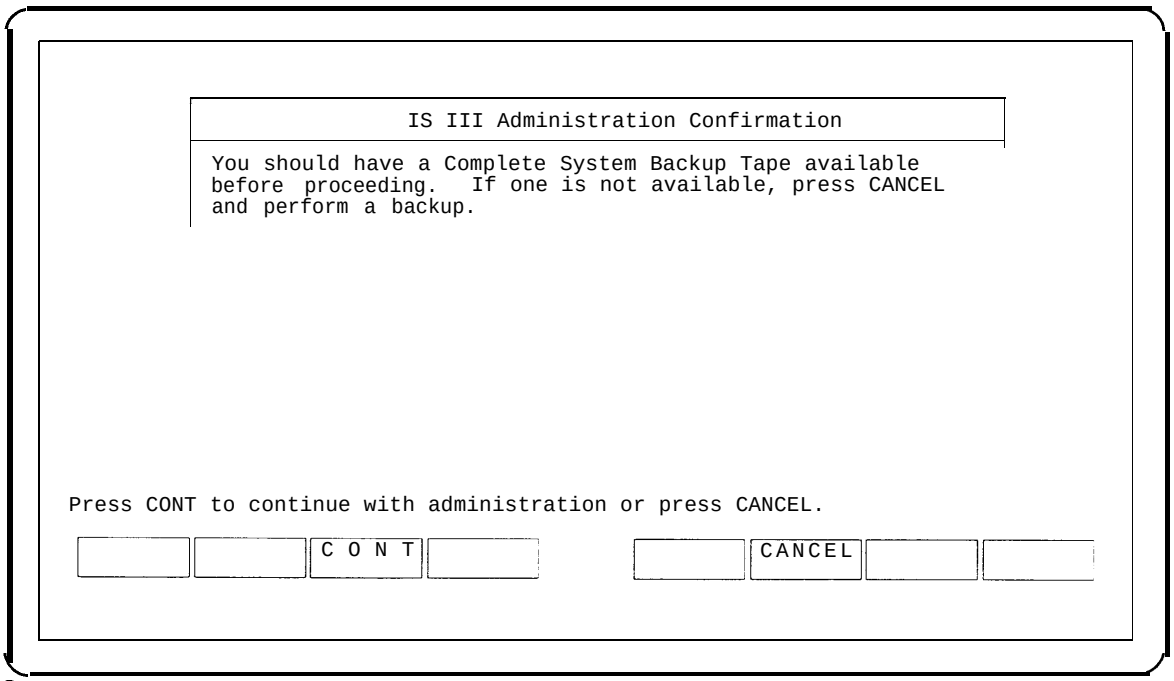
   The Technician Maintenance Menu appears.



Screen 4-8. Technician Maintenance Menu

4. At the Technician Maintenance Menu, select `Administer Integrated Solution III` and press [ENTER].

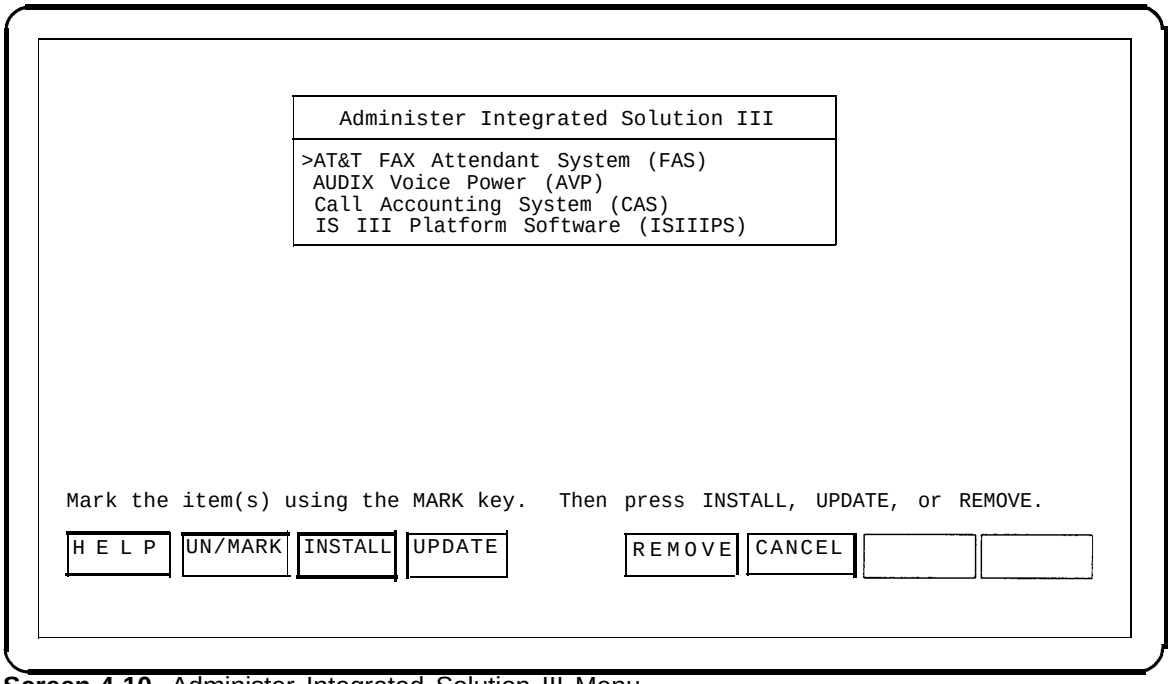
   The IS III Administration Confirmation screen appears.



Screen 4-9. IS III Administration Confirmation Screen

5. Press [F3] (CONT) to continue.

   The Administer Integrated Solution III Menu appears.



Screen 4-10. Administer Integrated Solution III Menu

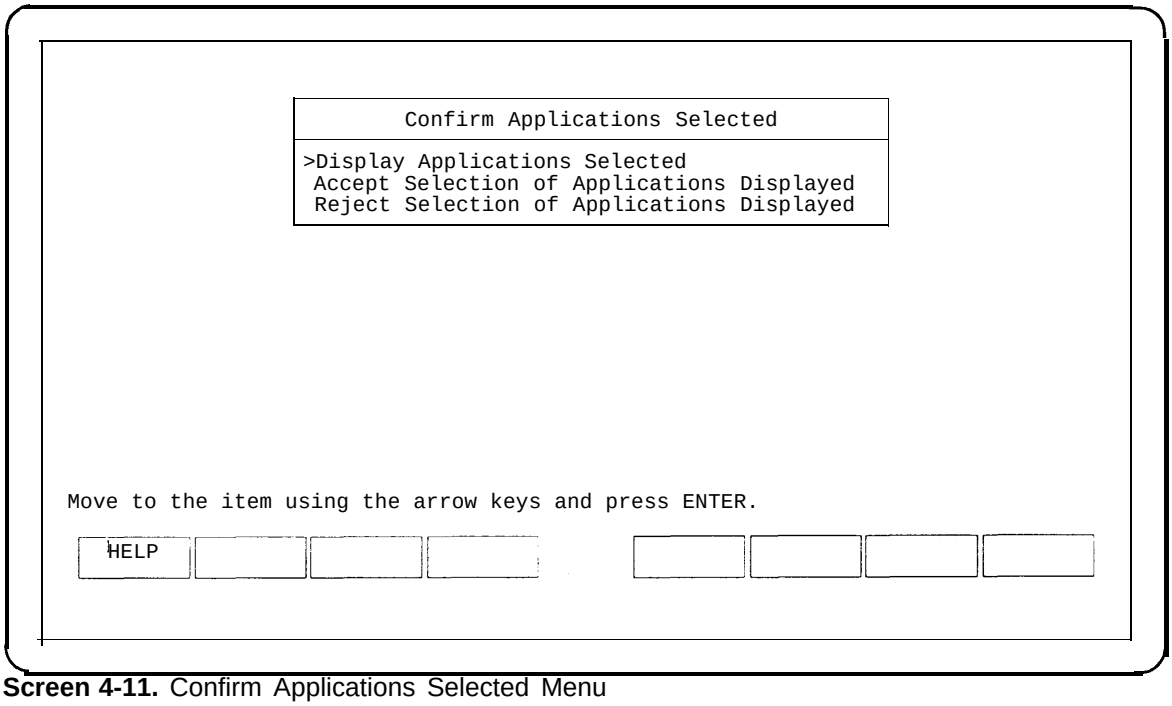
6. At the Administer Integrated Solution III Menu, Select `AT&T FAX Attendant System (FAS)` and press [F2] (UN/MARK).

   An asterisk (*) appears in front of `AT&T FAX Attendant System (FAS).`

   NOTE:
   If you marked an application by mistake, move the cursor back to that application and press [F2] (UN/MARK) again to “undo” the selection.

7. Press [F3] (INSTALL) to begin the installation procedure.

   The Confirm Applications Selected Menu appears.



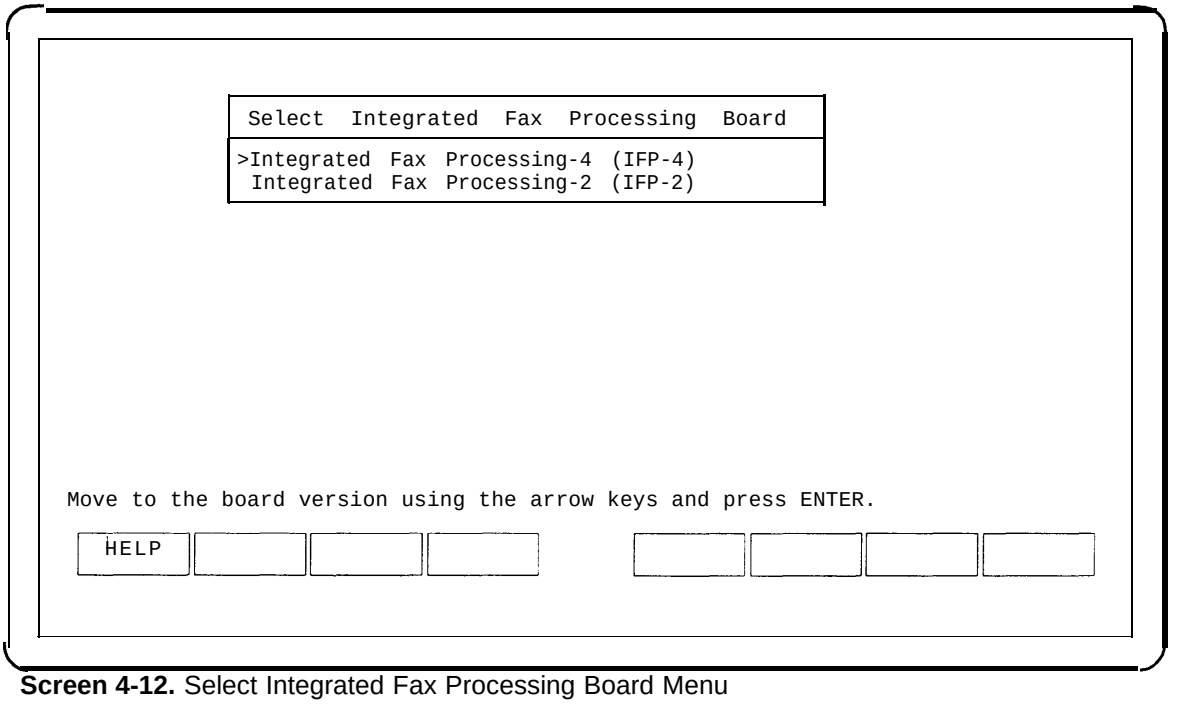
Screen 4-11. Confirm Applications Selected Menu

The Confirm Applications Selected Menu enables you to perform the following tasks:

- view a list of the applications that you selected to install on the system (`Display Applications Selected`)
- proceed with the installation you began (`Accept Selection of Applications Displayed`)
- abort the installation you began and return to the Administer Integrated Solution III Menu (Reject `Selection of Applications Displayed`)

8. At the Confirm Applications Selected Menu, select `Accept Selection of Applications Displayed` and press [ENTER].

   The Select Integrated Fax Processing Board Menu appears.



Screen 4-12. Select Integrated Fax Processing Board Menu

9. At the Select Integrated Fax Processing Board Menu, select the appropriate board used in your system and press [ENTER].

   The system responds:

```
Confirm

Please insert the DEFINITY IS III Installation Tape into
the tape drive.

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

10. Insert the IS III Installation Tape and press [ENTER].

    The system responds:

```
Rewinding Tape ... Please Wait

Verifying the DEFINITY IS III Installation Tape ... Please Wait
```

    The system then responds:

```
Positioning Tape ... Please Wait
```

    The system then installs FAX Attendant and the associated software. The name of each software package is displayed as the system installs it. This process takes approximately 25 to 30 minutes. After the software is installed, the system responds:

```
Resetting Tape Drive ... Please Wait

The system will now be rebooted to install new kernel

Confirm

To complete the install/remove process a shutdown is now
being initiated automatically.

Make sure your floppy drive is empty.  If you are
installing or removing expansion boards, you may power
down the system after the shutdown has completed.

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

11. After the tape drive indicator turns off, remove the IS lll Installation Tape and press [ENTER].

    The system shuts down, and then displays the following message:

```
The system is down.
Reboot the system now.
```

    At this point, you may shut off the power and install or remove expansion boards (if necessary). When you are finished, proceed to the next step.

Procedure 4-5: Reboot the System

If you shutoff the power to the system and installed or removed expansion boards, power up the system. Otherwise, press the Reset button to reboot the system.

The system gives diagnostic information and notifies you that it is booting the UNIX system. The system then displays the `Console Login:` prompt.

Procedure 4-6: Confirm FAX Attendant Installation

After rebooting the system, you must confirm that FAX Attendant is installed on the Master Controller.

To confirm that FAX Attendant is installed, perform the following steps:

1. Log into the system using the *maint* login and access the Integrated Solution III Maintenance Menu.

   The Integrated Solution III Maintenance Menu should include AUDIX Voice Power/FAX Attendant (AVP/FA) as an item.

2. At the Integrated Solution III Maintenance Menu, select Technician Maintenance and press [ENTER].

   The Technician Maintenance Menu appears.

3. At the Technician Maintenance Menu, select Maintenance Log and press [ENTER].

   The Maintenance Log Menu appears.

4. At the Maintenance Log Menu, select Display Installed Applications and press [ENTER].

   The system displays the software that is installed. Press [F2] (PREVPAGE) and [F3] (NEXTPAGE) to view all of the software. The list should include the following software:

   ```
   AT&T FAX Attendant Co-resident Application Software R2.1.1
   AT&T FAX Attendant S75/DEFINITY Co-resident Integration Software R2.1.1
   AUDIX Voice Power Application Software R2.1.1:   Speech
   AUDIX Voice Power Application Software R2.1.1:   Software
   AUDIX Voice Power Application Software R2.1.1:   Update 2
   AUDIX Voice Power Switch Integration Software (for AT&T System 75 or Defi
   DEFINITY Integrated Solution III Platform Software, Release 1.x
   Integrated Voice Power System Software R2.0
   Integrated Voice Power System Software R2.0: Update 4
   ```

5. Press [F6] (CANCEL) three times to return to the Integrated Solution III Maintenance Menu.

Adding AUDIX Voice Power/FAX Attendant

This section describes how to add AUDIX Voice Power/FAX Attendant to a system that already has the IS III Platform Software installed.

NOTE:
The system must have either IFP2 or IFP4 boards installed for FAX Attendant. These boards cannot be mixed (that is, you must have all IFP2 boards or all IFP4 boards).

Software Required

To add AUDIX Voice Power/FAX Attendant, you need the IS III Installation Tape.

Activity Checklist

Installation of AUDIX Voice Power/FAX Attendant consists of the following procedures:

1. Install the software.
2. Reboot the system (when prompted) for the changes to take effect.
3. Confirm that the installation was successful.

Procedure 4-7: Install the Software

To add AUDIX Voice Power/FAX Attendant, perform the following steps:

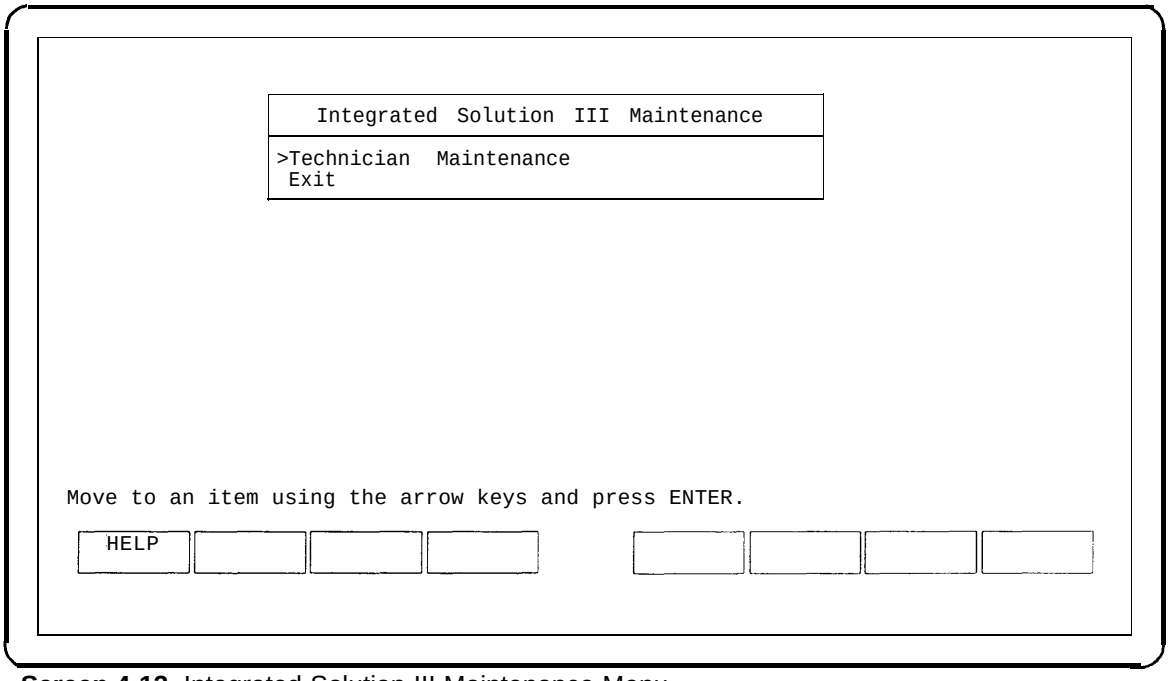
1. At the `Console Login:` prompt, type *`maint`* and press [ENTER].

   The `password:` prompt appears.

2. At the `Password:` prompt, enter the password and then press [ENTER].

   The Integrated Solution III Maintenance Menu appears.

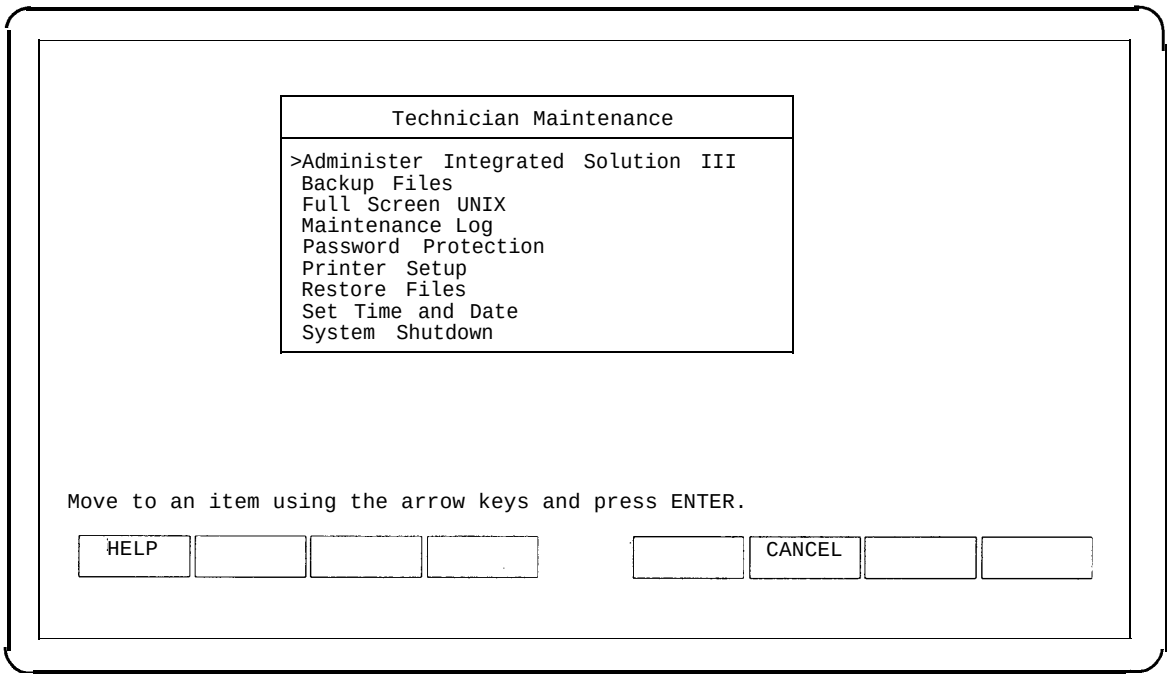
   NOTE:
   If any applications are already installed, their names appear in this menu.



Screen 4-13. Integrated Solution III Maintenance Menu

3. At the Integrated Solution III Maintenance Menu, select `Technician Maintenance` and press [ENTER].

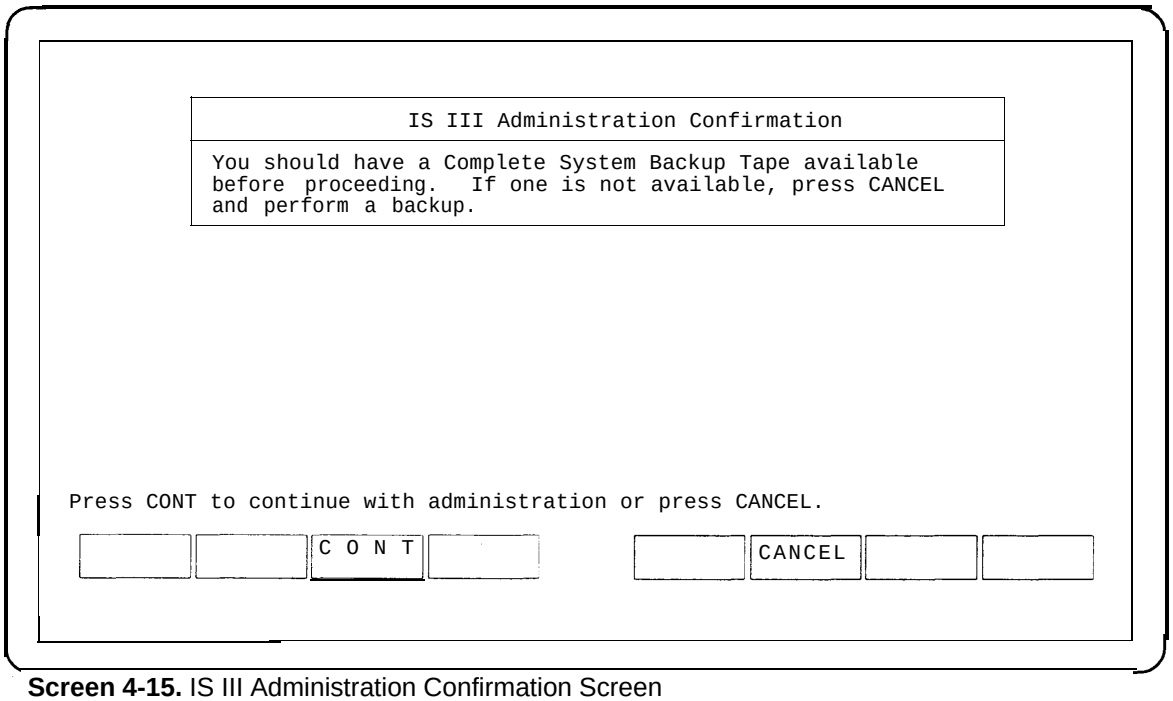
   The Technician Maintenance Menu appears.



Screen 4-14. Technician Maintenance Menu

4. At the Technician Maintenance Menu, select `Administer Integrated Solution III` and press [ENTER].

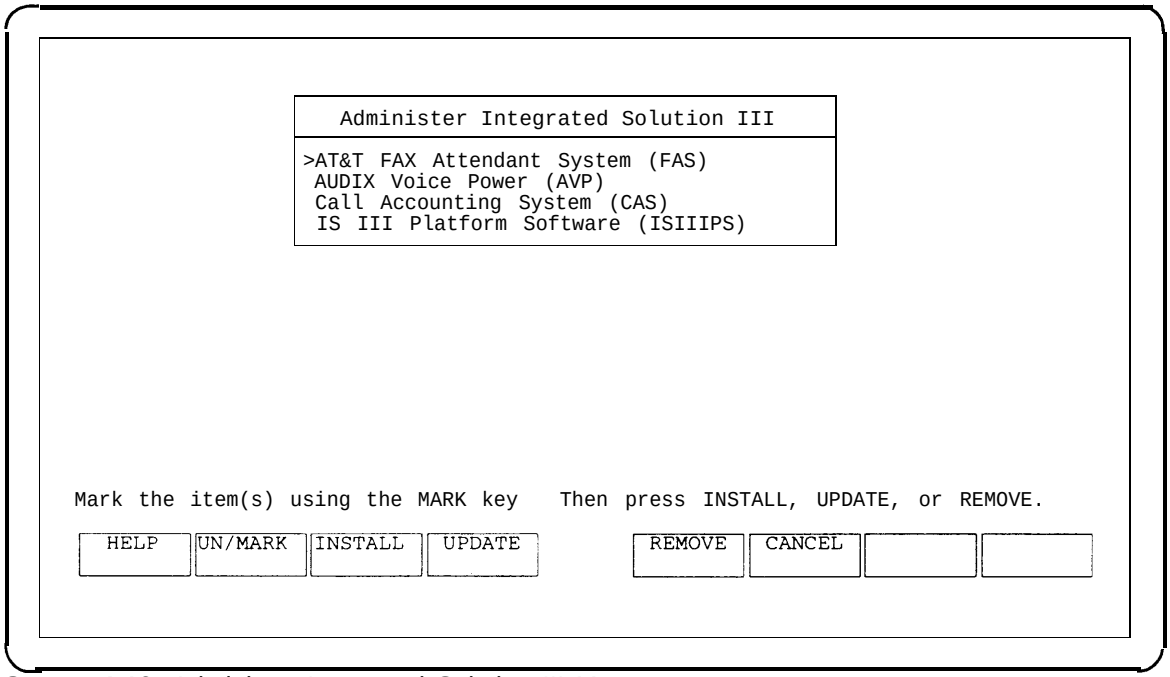
   The IS III Administration Confirmation screen appears.



Screen 4-15. IS III Administration Confirmation Screen

5. Press [F3] (CONT) to continue.

   The Administer Integrated Solution III Menu appears.



Screen 4-16. Administer Integrated Solution III Menu

6. At the Administer Integrated Solution III Menu, select AT&T FAX Attendant System (FAS) and press [F2] (UN/MARK).

   An asterisk (*) appears in front of AT&T FAX Attendant System (FAS).

   NOTE:
   If you marked an application by mistake, move the cursor back to that application and press [F2] (UN/MARK) again to "undo" the selection.

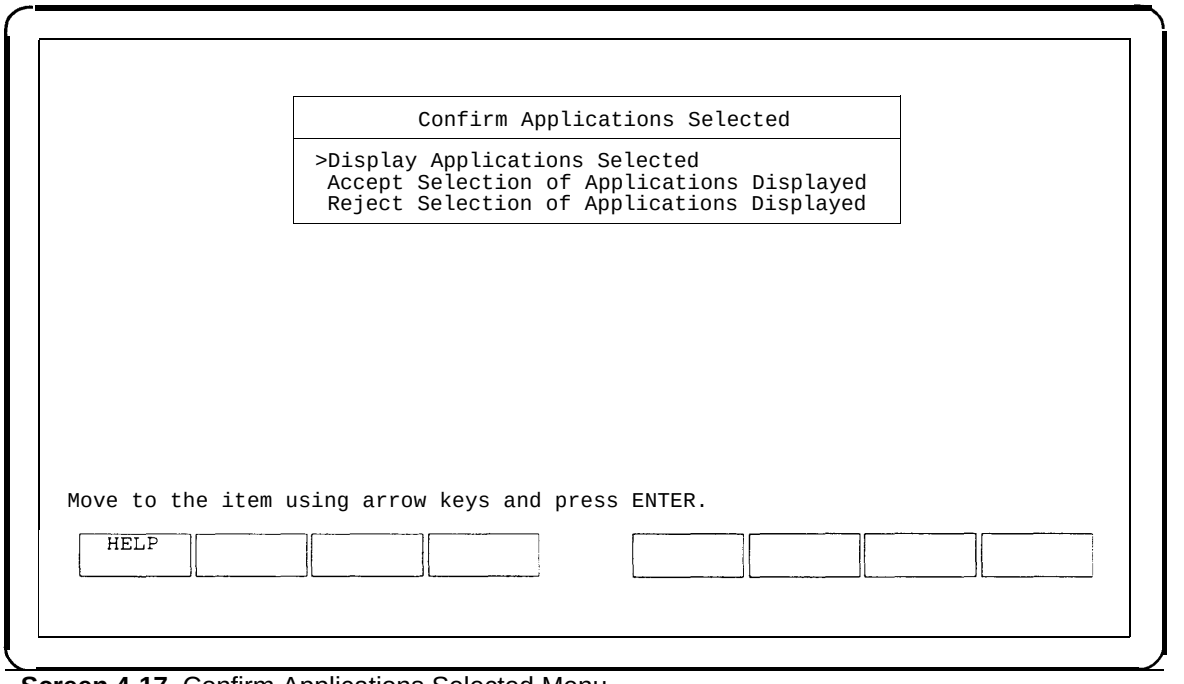
7. At the Administer Integrated Solution III Menu, select AUDIX Voice Power (AVP) and press [F2] (UN/MARK).

   An asterisk (*) appears in front of AUDIX Voice Power (AVP).

   NOTE:
   If you marked an application by mistake, move the cursor back to that application and press [F2] (UN/MARK) again to "undo" the selection.

8. Press [F3] (INSTALL) to begin the installation procedure.

   The Confirm Applications Selected Menu appears.



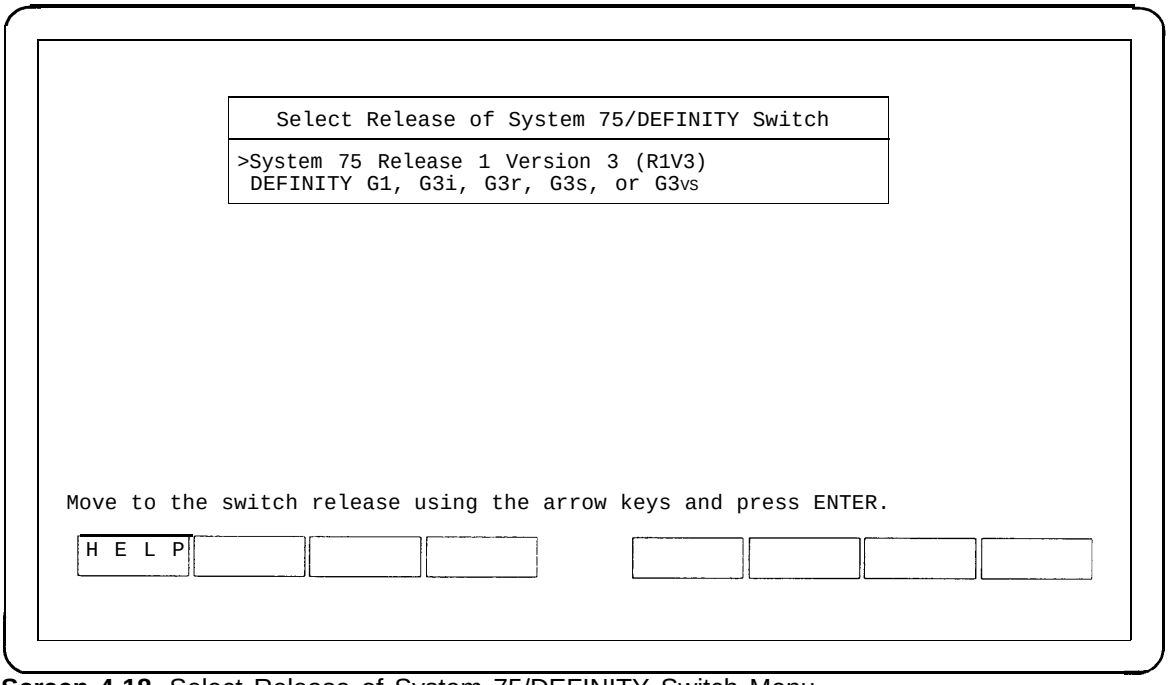
Screen 4-17. Confirm Applications Selected Menu

The Confirm Applications Selected Menu enables you to perform the following tasks:

- view a list of the applications that you selected to install on the system (`Display Applications Selected`)
- proceed with the installation you began (`Accept Selection of Applications Displayed`)
- abort the installation you began and return to the Administer Integrated Solution III Menu (`Reject Selection of Applications Displayed`)

9. At the Confirm Applications Selected Menu, select `Accept Selection of Applications Displayed` and press [ENTER].

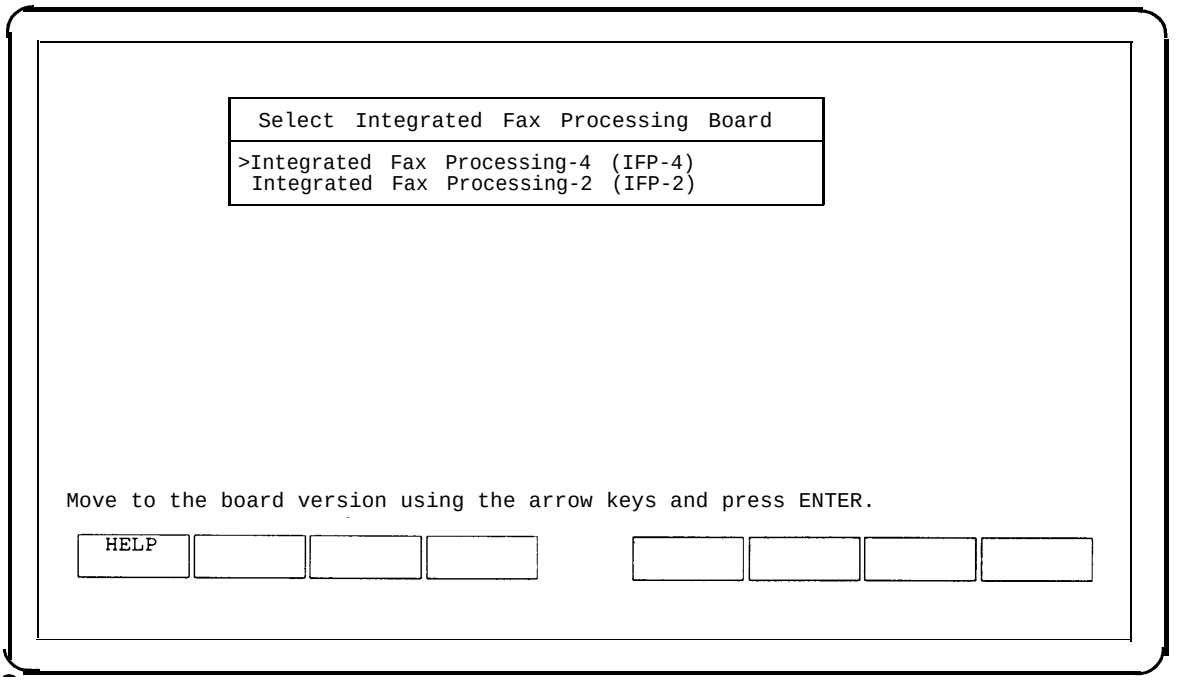
   The Select Release of System 75/DEFINITY Switch Menu appears.



Screen 4-18. Select Release of System 75/DEFINITY Switch Menu

10. At the Select Release of System 75/DEFINITY Switch Menu, select the appropriate switch release and press [ENTER].

    The Select Integrated Fax Processing Board Menu appears.



Screen 4-19. Select Integrated Fax Processing Board

11. At the Select Integrated Fax Processing Board Menu, select the appropriate board used in your system and press [ENTER].

    The system responds:

    ```
    Confirm

    Please insert the DEFINITY IS III Installation Tape into
    the tape drive.

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

12. Insert the IS III Installation Tape and press [ENTER].

    The system responds:

    ```
    Rewinding Tape ... Please Wait

    Verifying the DEFINITY IS III Installation Tape ... Please Wait
    ```

    The system then responds:

    ```
    Positioning Tape ... Please Wait
    ```

The system then installs AUDIX Voice Power/FAX Attendant and the associated software. The name of each software package is displayed as the system installs it. This process takes approximately 55 to 60 minutes. After the software is installed, the system responds:

```
Resettinq Tape Drive ... Please Wait

The system will now be rebooted to install new kernel

Confirm

To complete the install/remove process a shutdown is now
being initiated automatically.

Make sure your floppy drive is empty.  If you are
installing or removing expansion boards, you may power
down the system after the shutdown has completed.

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

13. After the tape drive indicator turns off, remove the lS III Installation Tape and press [ENTER].

    The system shuts down, and then displays the following message:

    ```
    The system is down.
    Reboot the system now.
    ```

    At this point, you may shutoff the power and install or remove expansion boards (if necessary). When you are finished, proceed to the next step.

Procedure 4-8: Reboot the System

If you shutoff the power to the system and installed or removed expansion boards, power up the system. Otherwise, press the Reset button to reboot the system.

The system gives diagnostic information and notifies you that it is booting the UNIX system. The system then displays the `Console Login:` prompt.

Procedure 4-9: Confirm AUDIX Voice Power/FAX Attendant Installation

After rebooting the system, you must confirm that AUDIX Voice Power/FAX Attendant is installed on the Master Controller.

To confirm that AUDIX Voice Power/FAX Attendant is installed, perform the following steps:

1. Log into the system using the *`maint`* login and access the Integrated Solution III Maintenance Menu.

   The Integrated Solution III Maintenance Menu should include `AUDIX Voice Power/FAX Attendant (AVP/FA)` as an item.

2. At the Integrated Solution III Maintenance Menu, select `Technician Maintenance` and press [ENTER].

   The Technician Maintenance Menu appears.

3. At the Technician Maintenance Menu, select `Maintenance Log` and press [ENTER].

   The Maintenance Log Menu appears.

4. At the Maintenance Log Menu, select `Display Installed Applications` and press [ENTER].

   The system displays the software that is installed. Press [F2] (PREVPAGE) and [F3] (NEXTPAGE) to view all of the software. The list should include the following software:

```
AT&T FAX Attendant Co-resident Application Software R2.1.1
AT&T FAX Attendant S75/DEFINITY Co-resident Integration Software R2.1.1
AUDIX Voice Power Application Software R2.1.1:  Speech
AUDIX Voice Power Application Software R2.1.1:  Software
AUDIX Voice Power Application Software R2.1.1: Update 2
AUDIX Voice Power Switch Integration Software (for AT&T System 75 or Defi
DEFINITY Integrated Solution III Platform Software, Release 1.x
Integrated Voice Power System Software R2.0
Integrated Voice Power System Software R2.0:  Update 4
```

5. Press [F6] (CANCEL) three times to return to the Integrated Solution III Maintenance Menu.

Adding FAX Attendant (Standalone)

This section describes how to add the standalone version of FAX Attendant to a system that already has the IS III Platform Software installed.

NOTE:
The system must have either IFP2 or IFP4 boards installed for FAX Attendant. These boards cannot be mixed (that is, you must have all IFP2 boards or all IFP4 boards).

Software Required

To add FAX Attendant, you need the IS III Installation Tape.

Activity Checklist

Installation of FAX Attendant consists of the following procedures:

1. Install the software.
2. Confirm that the installation was successful.

Procedure 4-10: Install the Software

To add FAX Attendant, perform the following steps:

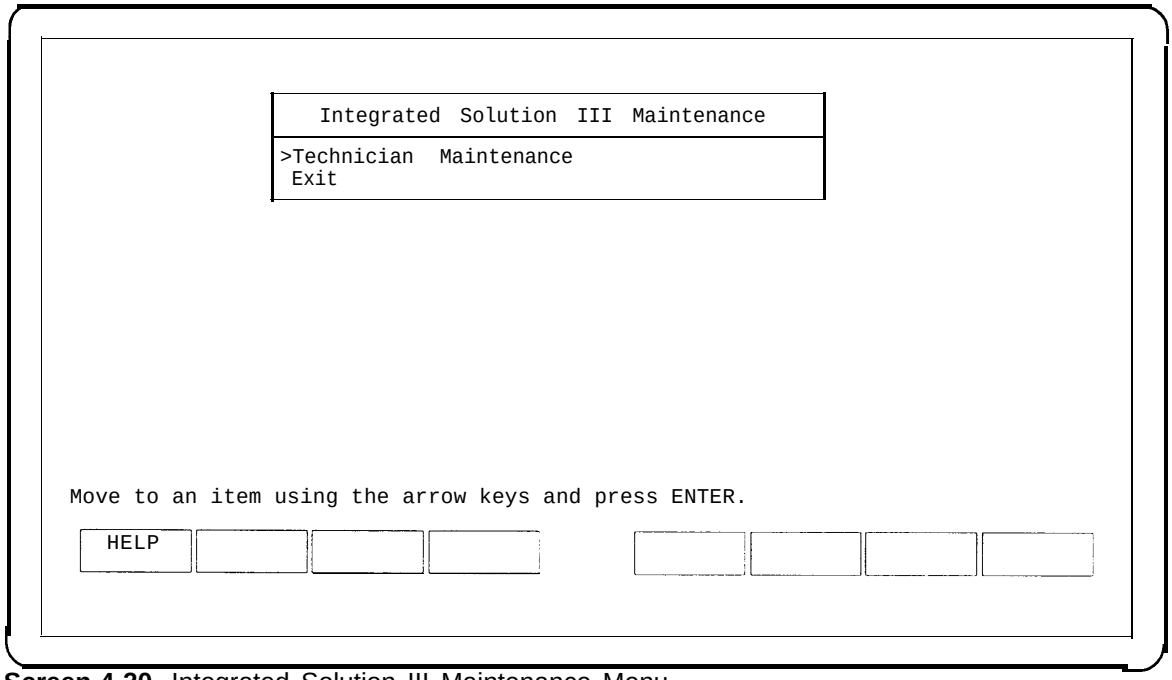
1. At the `console Login:` prompt, type *`maint`* and press [ENTER].

   The `Password:` prompt appears.

2. At the `Password:` prompt, enter the password and then press [ENTER].

   The Integrated Solution III Maintenance Menu appears.

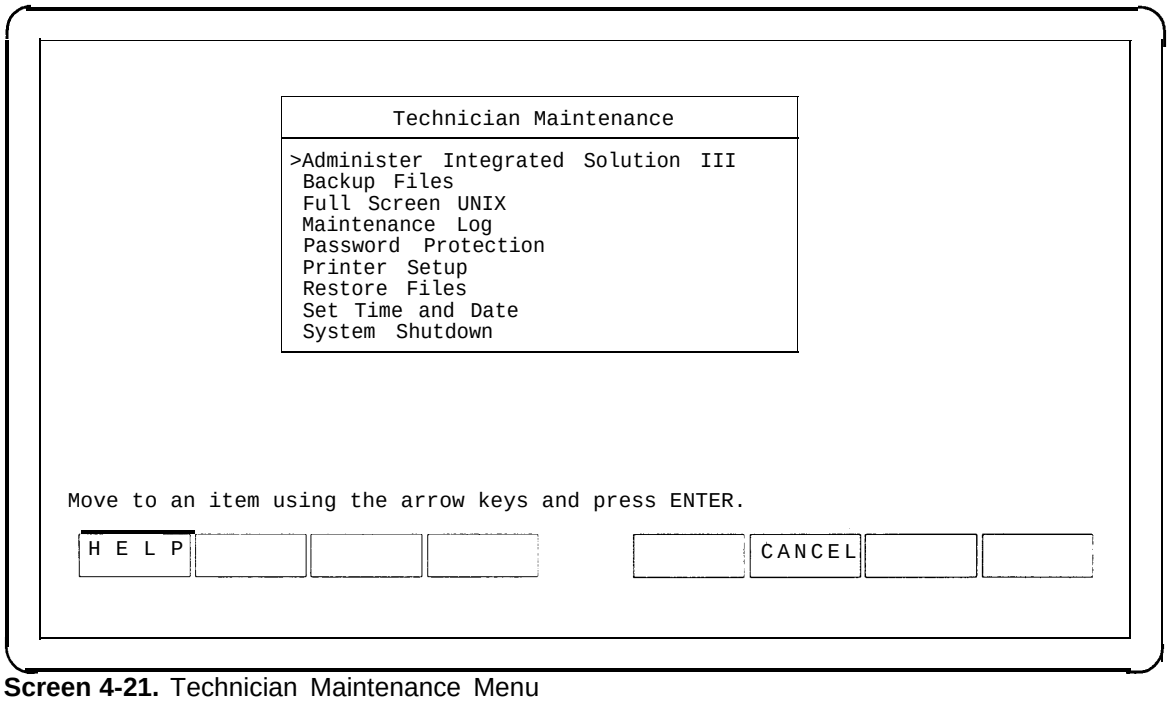
   NOTE:
   If any applications are already installed, their names appear in this menu.



Screen 4-20. Integrated Solution III Maintenance Menu

3. At the Integrated Solution III Maintenance Menu, select `Technician Maintenance` and press [ENTER].

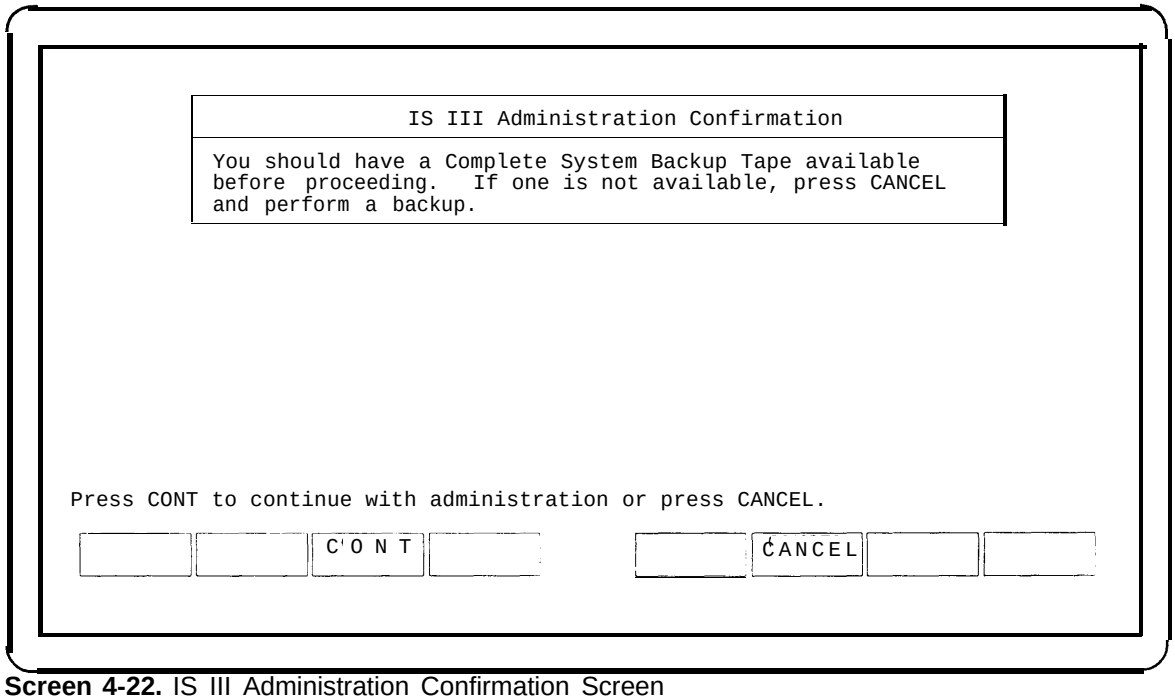
   The Technician Maintenance Menu appears.



Screen 4-21. Technician Maintenance Menu

4. At the Technician Maintenance Menu, select `Administer Integrated Solution III` and press [ENTER].

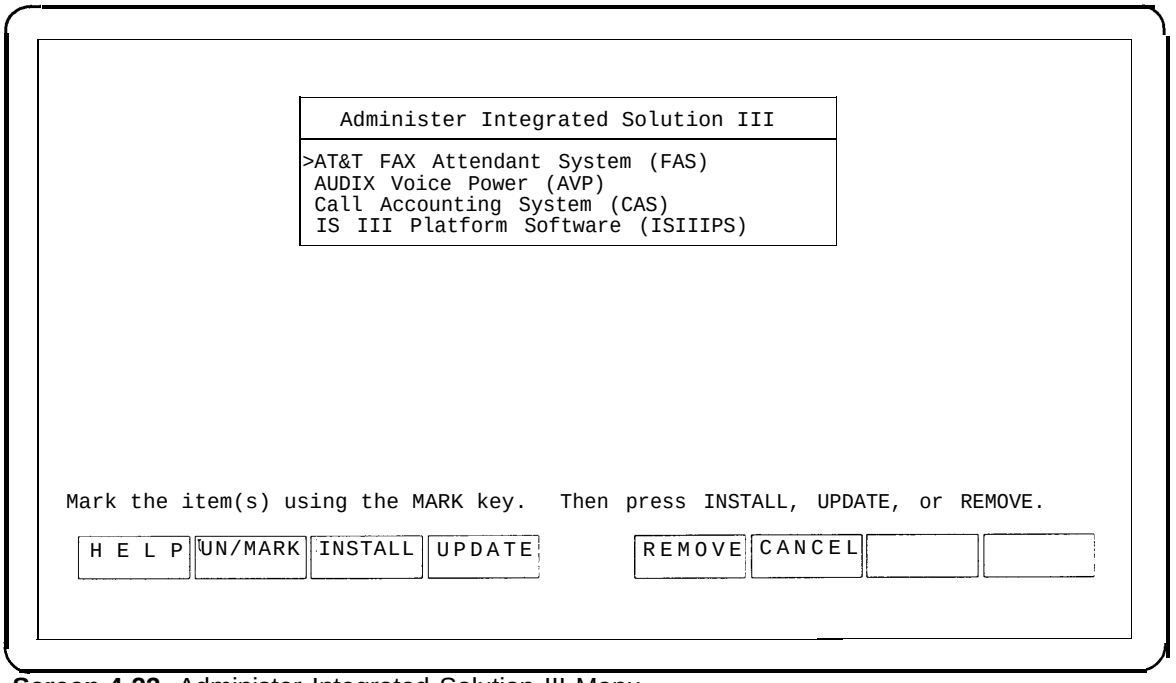
   The IS III Administration Confirmation screen appears.



Screen 4-22. IS III Administration Confirmation Screen

5. Press [F3] (CONT) to continue.

   The Administer Integrated Solution III Menu appears.



Screen 4-23. Administer Integrated Solution III Menu

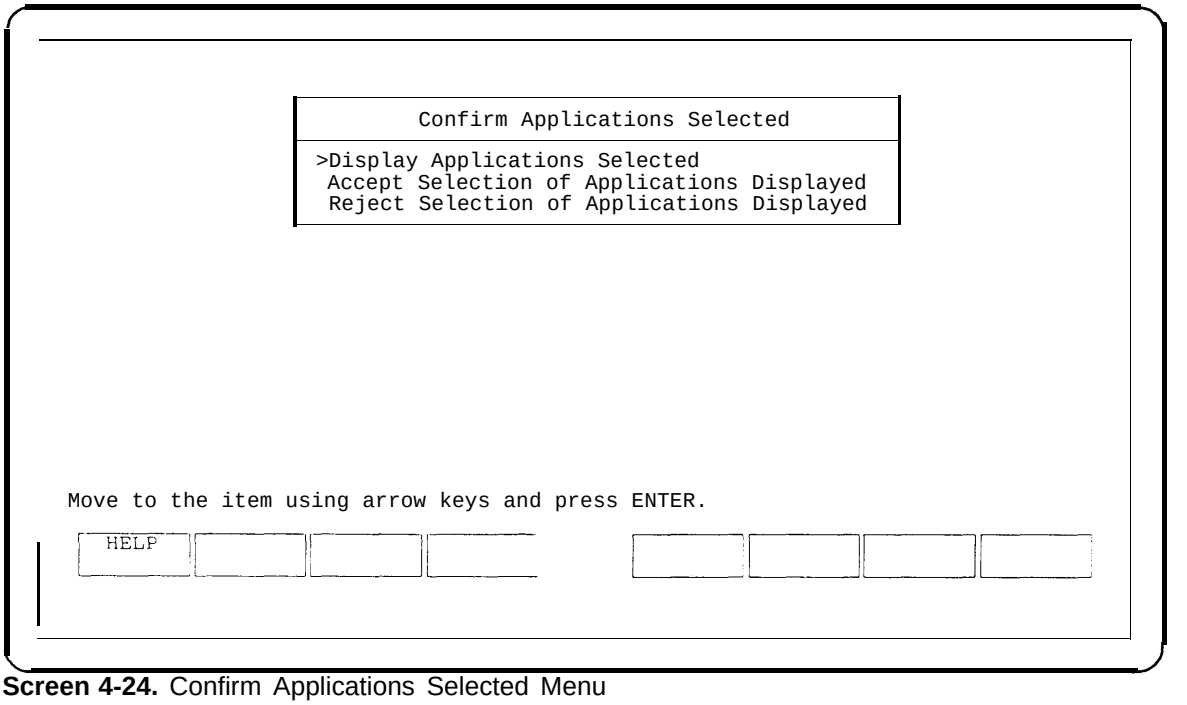
6. At the Administer Integrated Solution III Menu, select AT&T FAX Attendant System (FAS) and press [F2] (UN/MARK).

   An asterisk (*) appears in front of AT&T FAX Attendant System (FAS).

   NOTE:
   If you marked an application by mistake, move the cursor back to that application and press [F2] (UN/MARK) again to ''undo'' the selection.

7. Press [F3] (INSTALL) to begin the installation procedure.

The Confirm Applications Selected Menu appears.



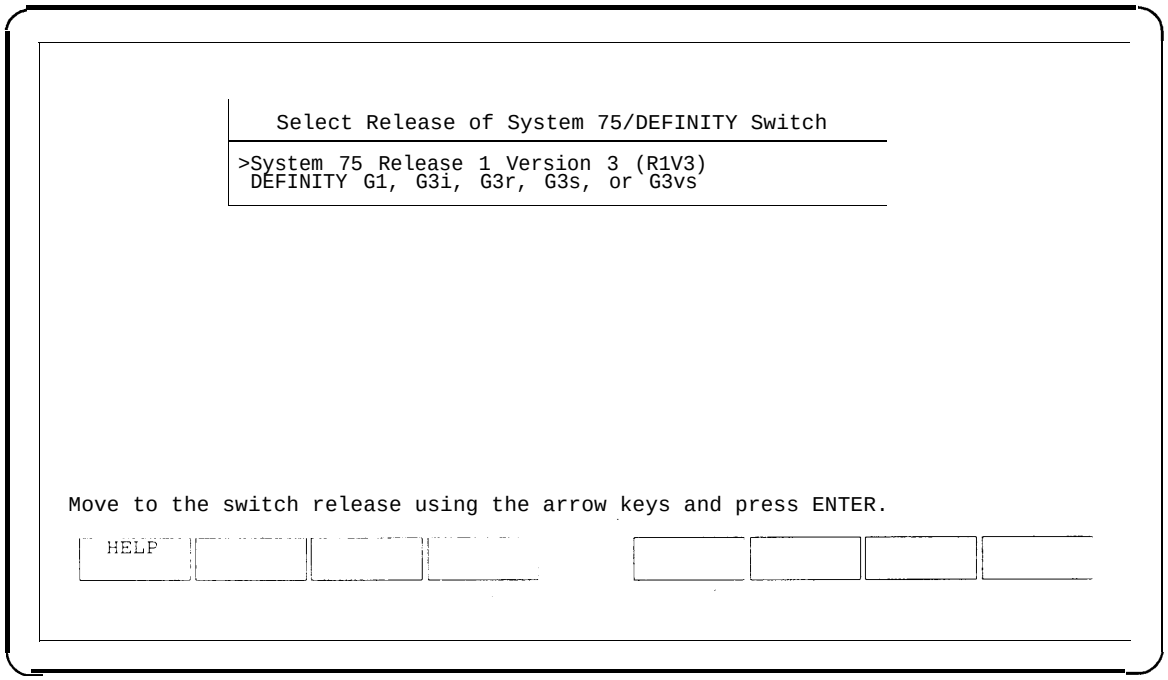
Screen 4-24. Confirm Applications Selected Menu

The Confirm Applications Selected Menu enables you to perform the following tasks:

- view a list of the applications that you selected to install on the system (`Display Applications Selected`)
- proceed with the installation you began (`Accept Selection of Applications Displayed`)
- abort the installation you began and return to the Administer Integrated Solution III Menu (`Reject Selection of Applications Displayed`)

8. At the Confirm Applications Selected Menu, select `Accept Selection of Applications Displayed` and press [ENTER].

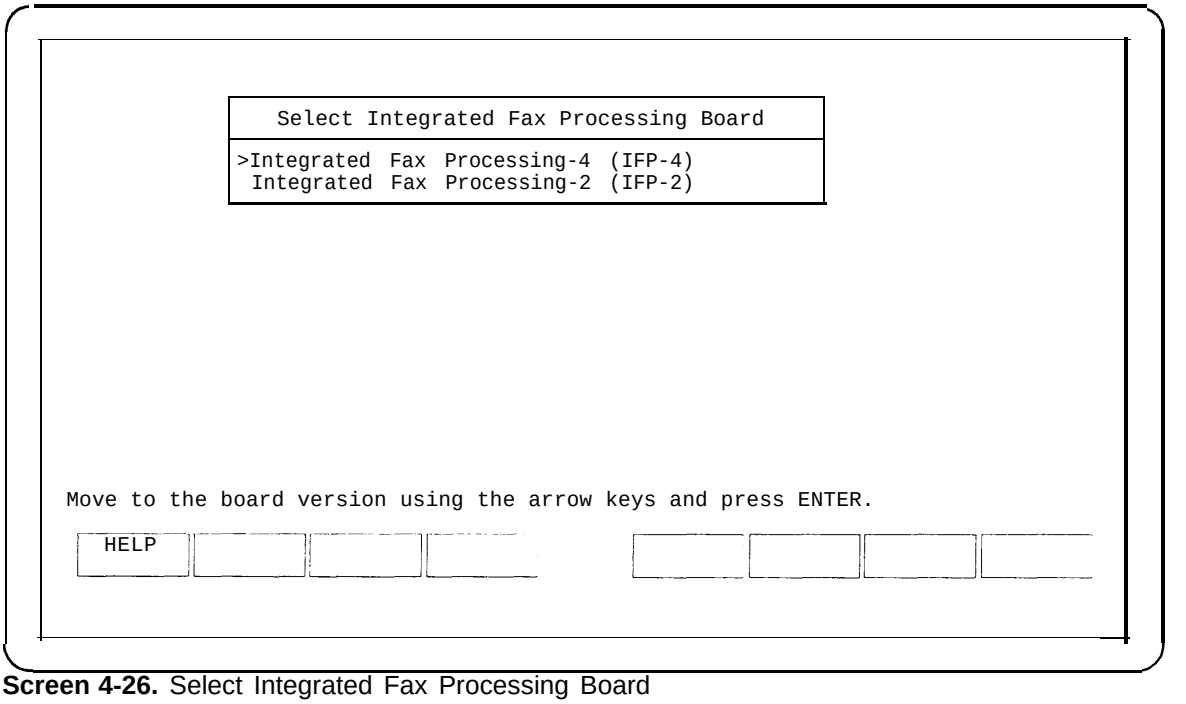
   The Select Release of System 75/DEFINITY Switch Menu appears.



Screen 4-25. Select Release of System 75/DEFINITY Switch Menu

9. At the Select Release of System 75/DEFINITY Switch Menu, select the appropriate switch release and press [ENTER].

   The Select Integrated Fax Processing Board Menu appears.



Screen 4-26. Select Integrated Fax Processing Board

10. At the Select Integrated Fax Processing Board Menu, select the appropriate board used in your system and press [ENTER].

    The system responds:

```
Confirm

Please insert the DEFINITY IS III Installation Tape into
the tape drive.
Strike ENTER when ready
or ESC to stop.
```

11. Insert the IS III Installation Tape and press [ENTER].

    The system responds:

    ```
    Rewinding Tape ... Please Wait

    Verifying the DEFINITY IS III Installation Tape ... Please Wait
    ```

    The system then responds:

    ```
    Positioning Tape ... Please Wait
    ```

    The system then installs FAX Attendant and the associated software. The name of each software package is displayed as the system installs it. This process takes approximately 40 to 45 minutes. After the software is installed, the system responds:

    ```
    Resetting Tape Drive ... Please Wait

    The system will now be rebooted to install new kernel

    Confirm

    To complete the install/remove process a shutdown is now
    being initiated automatically.

    Make sure your floppy drive is empty.  If you are
    installing or removing expansion boards, you may power
    down the system after the shutdown has completed.

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

12. After the tape drive indicator turns off, remove the IS III Installation Tape and press [ENTER].

    The system shuts down, and then displays the following message:

    ```
    The system is down.
    Reboot the system now.
    ```

    At this point, you may shutoff the power and install or remove expansion boards (if necessary). When you are finished, proceed to the next step.

Procedure 4-11: Reboot the System

If you shutoff the power to the system and installed or removed expansion boards, power up the system. Otherwise, press the Reset button to reboot the system.

The system gives diagnostic information and notifies you that it is booting the UNIX system. The system then displays the `Console Login:` prompt.

Procedure 4-12: Confirm FAX Attendant Installation

After rebooting the system, you must confirm that FAX Attendant is installed on the Master Controller.

To confirm that FAX Attendant is installed, perform the following steps:

1. Log into the system using the *maint* login and access the Integrated Solution III Maintenance Menu.

   The Integrated Solution III Maintenance Menu should include FAX Attendant (FA) as an item.

2. At the Integrated Solution III Maintenance Menu, select Technician Maintenance and press [ENTER].

   The Technician Maintenance Menu appears.

3. At the Technician Maintenance Menu, select Maintenance Log and press [ENTER].

   The Maintenance Log Menu appears.

4. At the Maintenance Log Menu, select Display Installed Applications and press [ENTER].

   The system displays the software that is installed. Press [F2] (PREVPAGE) and [F3] (NEXTPAGE) to view all of the software. The list should include the following software:

   ```
   AT&T FAX Attendant Non-co-resident Application Software R2.1.1
   AT&T FAX Attendant S75/DEFINITY Non-co-resident Integration Software
   DEFINITY Integrated Solution III Platform Software, Release 1.x
   Integrated Voice Power System Software R2.0
   Integrated Voice Power System Software R2.0:  Update 4
   ```

5. Press [F6] (CANCEL) three times to return to the Integrated Solution III Maintenance Menu.

Adding Call Accounting System (CAS)

This section describes how to add Call Accounting System (CAS) to a system that already has the IS III Platform Software installed.

Software Required

To add CAS, you need the following:

- IS III Installation Tape
- CAS Setup Software (three diskettes, to be used later)
- HackerTracker™ (optional) (one diskette, to be used later)

NOTE:
The four additional diskettes used for completing the CAS application package are designed to be used by an implementor. (Instructions for using these diskettes are in Chapter 5.)

Activity Checklist

Installation of CAS consists of the following procedures:

1. Install the software.
2. Confirm that the installation was successful.

Procedure 4-13: Install the Software

To add CAS, perform the following steps:

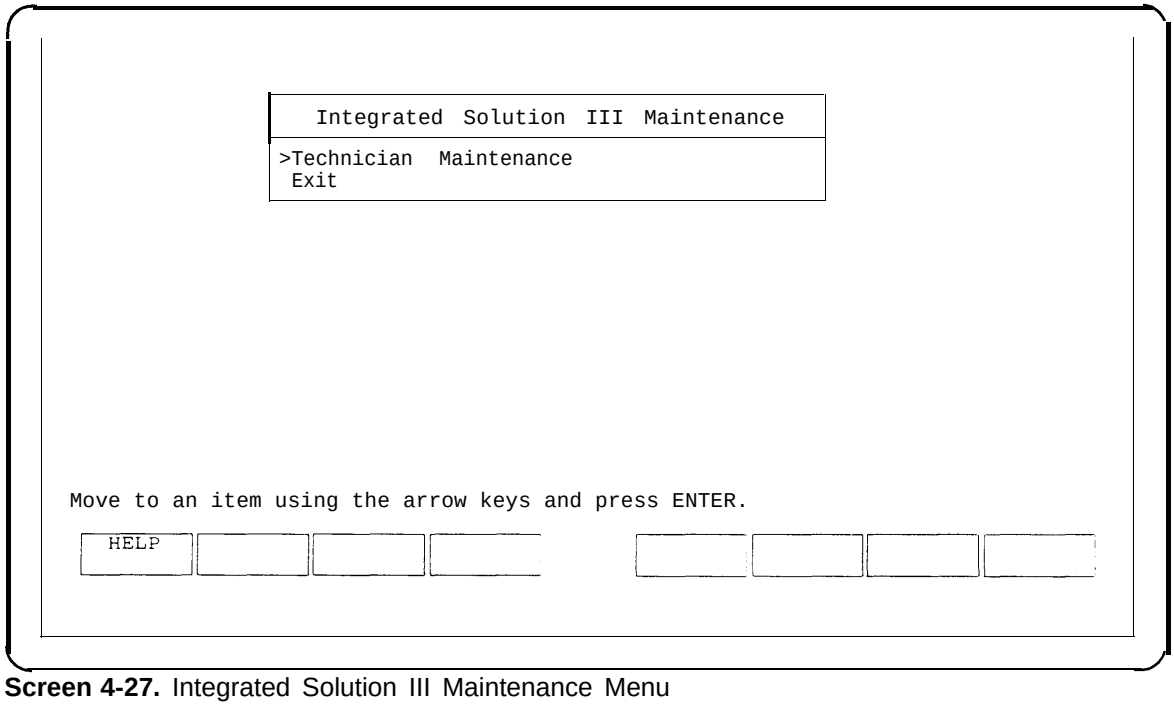
1. At the `Console Login:` prompt, type *`maint`* and press [ENTER].

   The `Password:` prompt appears.

2. At the `Password:` prompt, enter the password and then press [ENTER].

   The Integrated Solution III Maintenance Menu appears.

   NOTE:
   If any applications are already installed, their names appear in this menu.

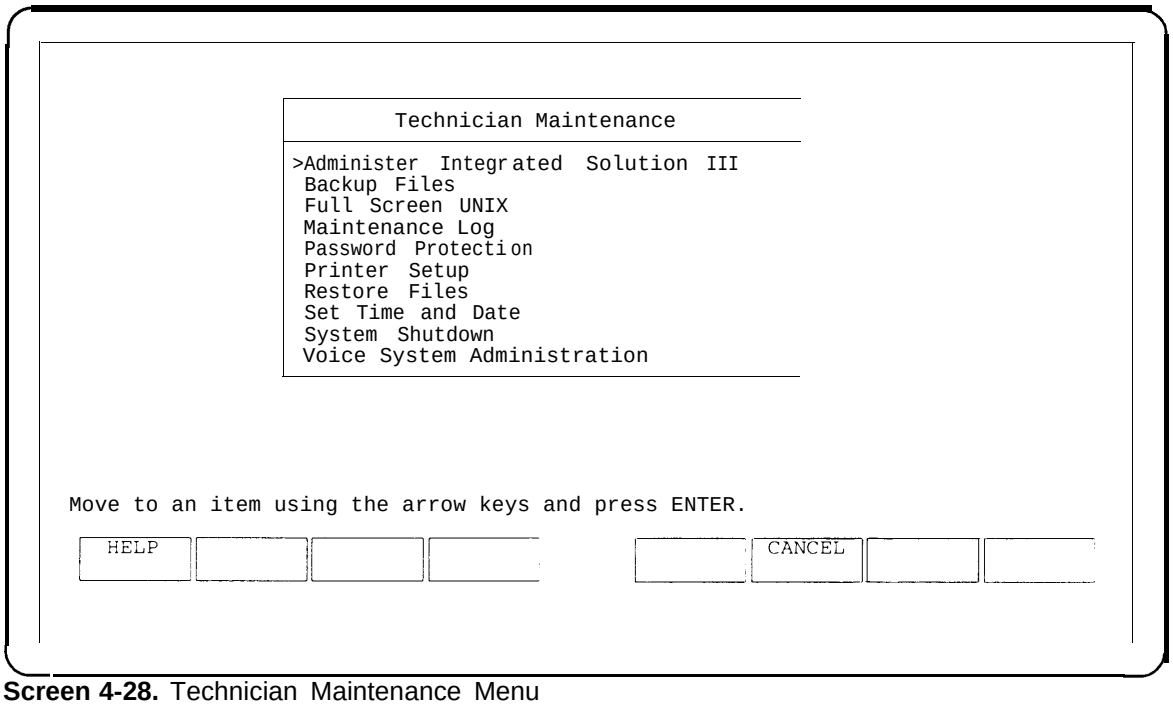


Screen 4-27. Integrated Solution III Maintenance Menu

3. At the Integrated Solution III Maintenance Menu, select `Technician Maintenance` and press [ENTER].

   The Technician Maintenance Menu appears.

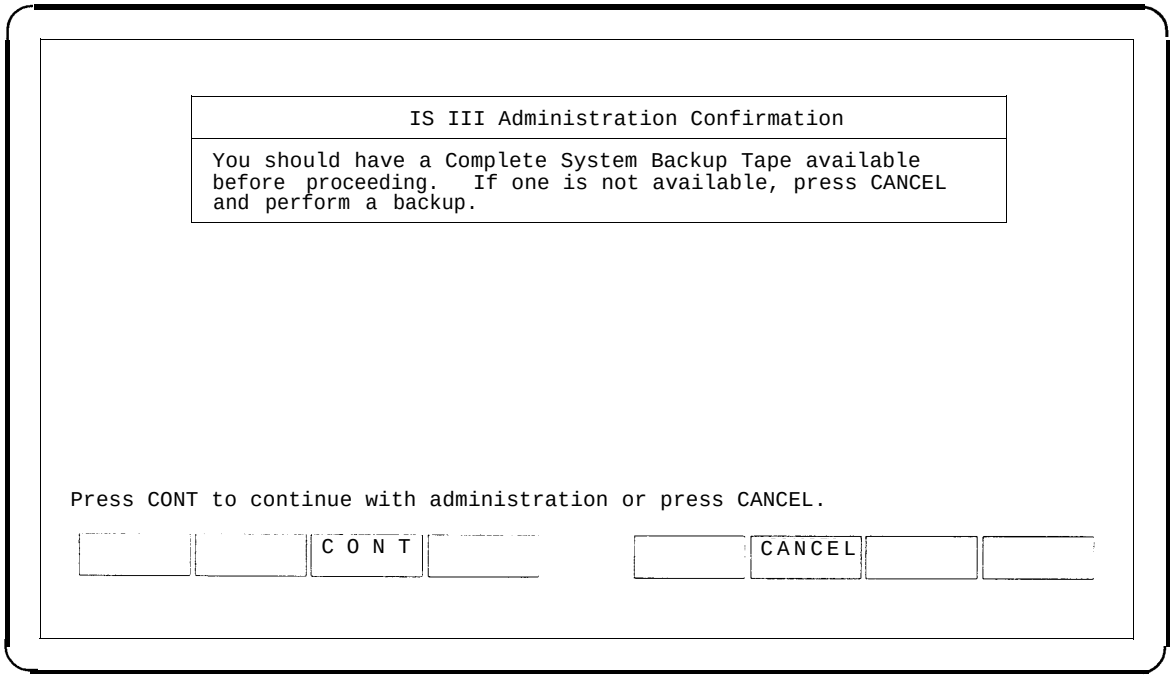
NOTE:
`Voice System Administration` appears if AUDIX Voice Power or FAX Attendant is installed.



Screen 4-28. Technician Maintenance Menu

4. At the Technician Maintenance Menu, Select `Administer Integrated Solution III` and press [ENTER]

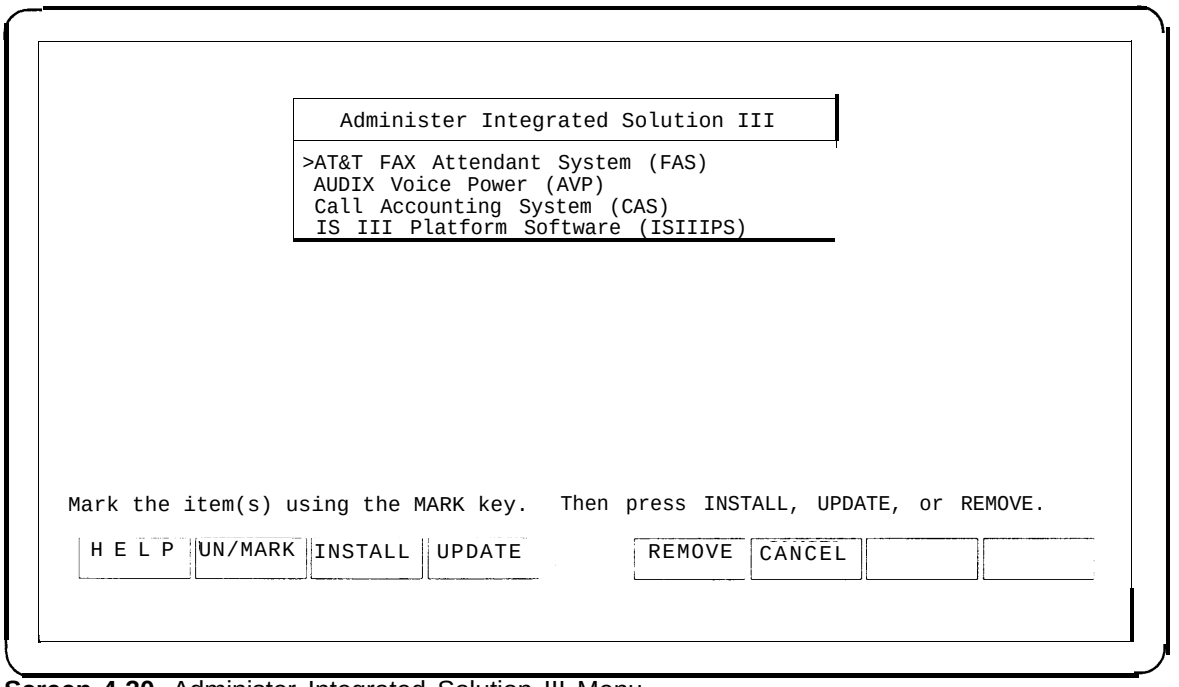
   The IS III Administration Confirmation screen appears.



Screen 4-29. IS III Administration Confirmation Screen

5. Press [F3] (CONT) to continue.

   The Administer Integrated Solution III Menu appears.



Screen 4-30. Administer Integrated Solution III Menu

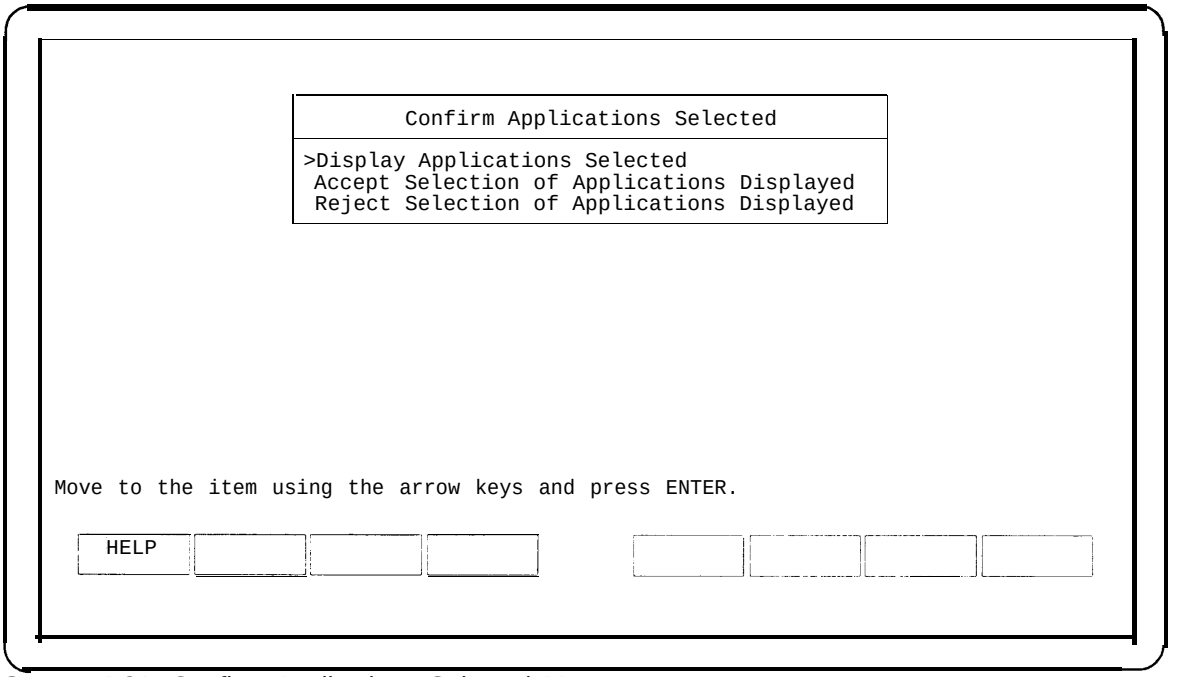
6. At the Administer Integration Solution III Menu, select `Call Accounting System (CAS)` and press [F2] (UN/MARK).

   An asterisk (*) appears in front of `Call Accounting System (CAS).`

   NOTE:
   If you marked an application by mistake, move the cursor back to that application and press [F2] (UN/MARK) again to ''undo'' the selection.

7. Press [F3] (INSTALL) to begin the installation procedure.

The Confirm Applications Selected Menu appears.



Screen 4-31. Confirm Applications Selected Menu

The Confirm Applications Selected Menu enables you to perform the following tasks:

- view a list of the applications that you selected to install on the system (`Display Applications Selected`)
- proceed with the installation you began (`Accept Selection of Applications Displayed`)
- abort the installation you began and return to the Administer Integrated Solution III Menu (`Reject Selection of Applications Displayed`)

8. At the Confirm Applications Selected Menu, select `Accept Selection of Applications Displayed` and press [ENTER].

   The system responds:

   ```
   Confirm

   Please insert the DEFINITY IS III Installation Tape into
   the tape drive.

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

9. Insert the IS III Installation Tape and press [ENTER].

   The system responds:

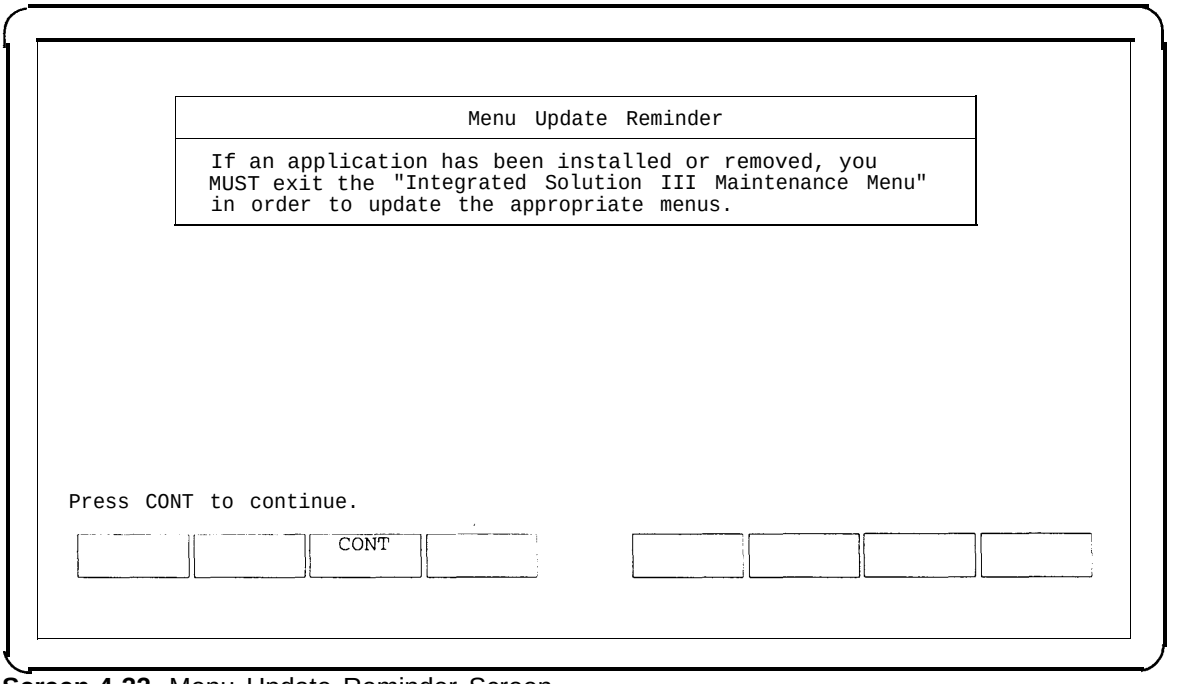
   ```
   Rewinding Tape . . . Please Wait


   Verifying the DEFINITY IS III Installation Tape . . . Please Wait
   ```

   The system then responds:

   ```
   Positioning Tape . . . Please Wait
   ```

   The system then installs CAS and the associated software. The name of each software package is displayed as the system installs it. This process takes approximately 25 to 30 minutes. After the software is installed, the Menu Update Reminder screen appears.



Screen 4-32. Menu Update Reminder Screen

10. Press [F3] (CONT).

    The Technician Maintenance Menu appears.

11. Press [F6] (CANCEL) to return to the Integrated Solution III Maintenance Menu.

12. Log out of the system.

The system then displays the console `Login:` prompt.

Procedure 4-14: Confirm CAS Installation

After logging out of the system, you must confirm that CAS is installed on the Master Controller.

To confirm that CAS is installed, perform the following steps:

1. Log into the system using the *`maint`* login and access the Integrated Solution III Maintenance Menu.

   The Integrated Solution III Maintenance Menu should include `Call Accounting System (CAS)` as an item.

2. At the Integrated Solution III Maintenance Menu, select `Technician Maintenance` and press [ENTER].

   The Technician Maintenance Menu appears.

3. At the Technician Maintenance Menu, select `Maintenance Log` and press [ENTER].

   The Maintenance Log Menu appears.

4. At the Maintenance Log Menu, select `Display Installed Applications` and press [ENTER].

   The system displays the software that is installed. Press [F2] (PREVPAGE) and [F3] (NEXTPAGE) to view all of the software. The list should include the following software:

   ```
   AUDIX Voice Power Send Phrase Utility R2.1.1 for CAS Monitor and Hacker
   DEFINITY Integrated Solution III Platform Software, Release 1.x
   Integrated Solution Call Accounting System 1.0
   ```

   NOTE:
   The AUDIX Voice Power Send Phrase Utility is only installed if AUDIX Voice Power is already installed.

5. Press [F6] (CANCEL) three times to return to the Integrated Solution III Maintenance Menu.

Procedure 4-15: Complete CAS Implementation

Proceed to Chapter 5 to complete the CAS implementation.

Removing IS III Applications

Use this function only if the customer has chosen to discontinue using an application.

CAUTION:
This procedure destroys all administrative files (and voice files, if any exist) that pertain to the marked application.

NOTE:

- You cannot remove AUDIX Voice Power by itself when AUDIX Voice Power/FAX Attendant is installed.
- You need the IS III Installation Tape to remove FAX Attendant when AUDIX Voice Power/FAX Attendant is installed.
- You can only remove software if the system has a DCP board installed. Otherwise, the remove procedure will fail.

To remove an application, perform the following steps:

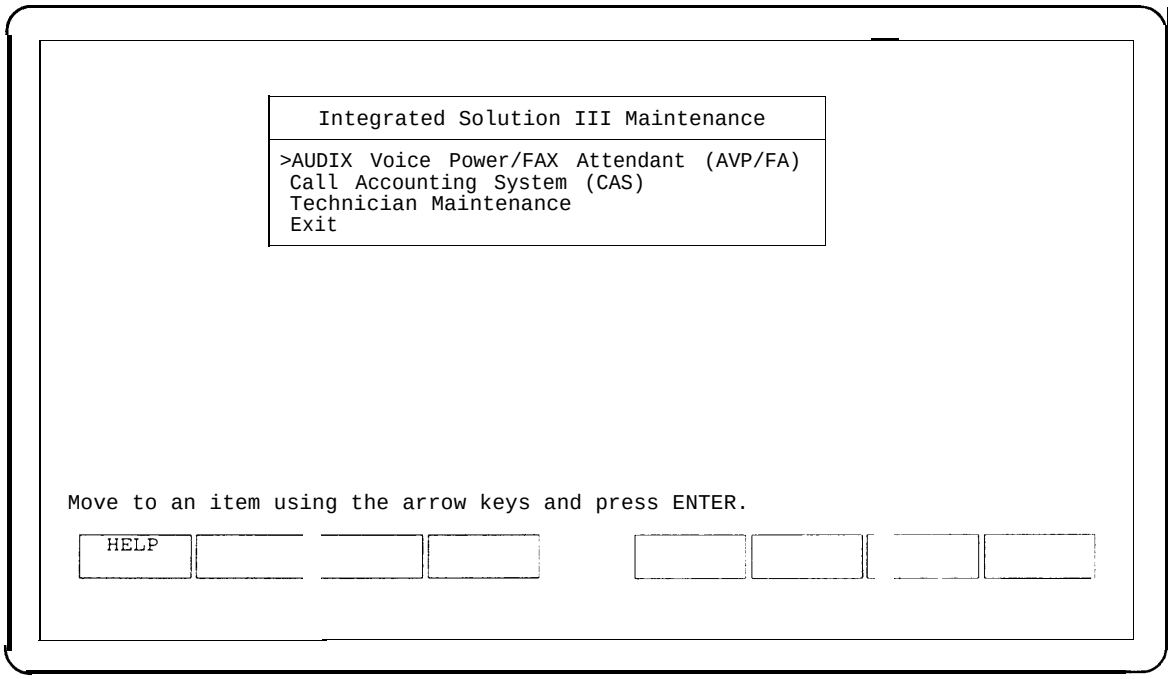
1. At the `Console Login:` prompt, type *`maint`* and press [ENTER].

   The `Password:` prompt appears.

2. At the `Password:` prompt, enter the password and press [ENTER].

   The Integrated Solution III Maintenance Menu appears.

   NOTE:
   If any applications are already installed, their names appear in this menu.

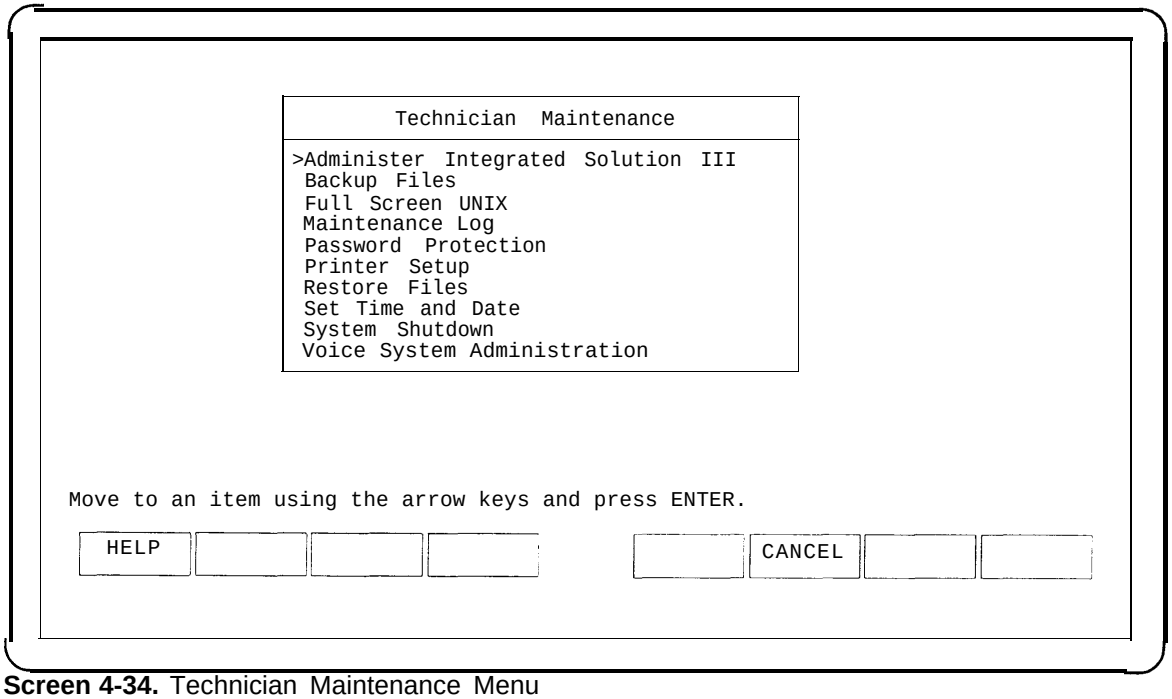


Screen 4-33. Integrated Solution III Maintenance Menu

3. At the Integrated Solution III Maintenance Menu, select `Technician Maintenance` and press [ENTER].

   The Technician Maintenance Menu appears.

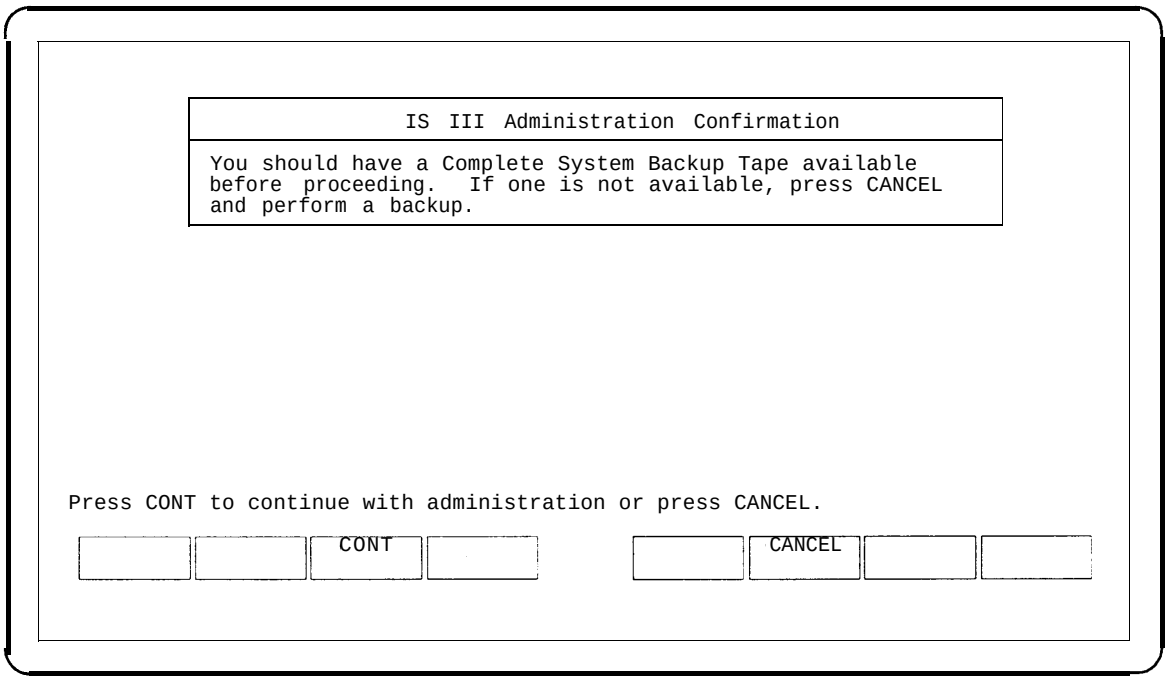
   NOTE:
   `Voice System Administration` appears if AUDIX Voice Power or FAX Attendant is installed.



Screen 4-34. Technician Maintenance Menu

4. At the Technician Maintenance Menu, select `Administer Integrated Solution` and press [ENTER].

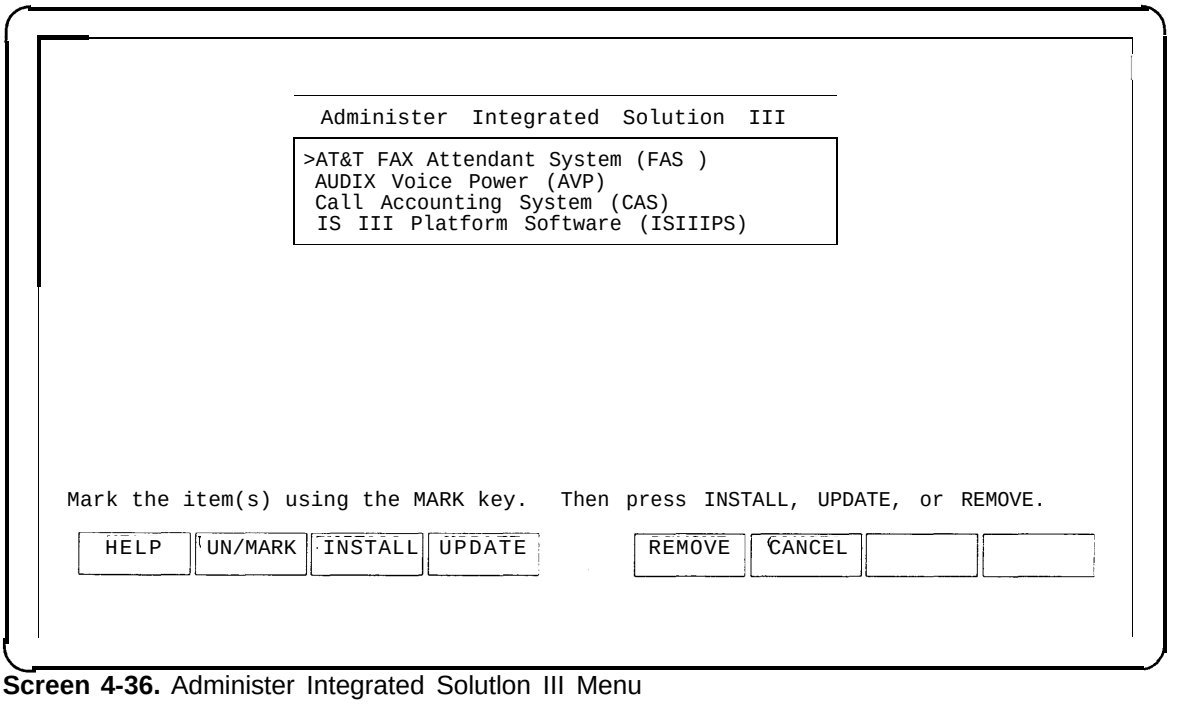
   The IS III Administration Confirmation screen appears.



Screen 4-35. IS III Administration Confirmation Screen

5. Press [F3] (CONT) to continue.

   The Administer Integrated Solution III Menu appears.



Screen 4-36. Administer Integrated Solutlon III Menu

6. At the Administer integration Solution III Menu, select the application(s) you want to remove and press [F2] (UN/MARK).

   An asterisk (*) appears in front of the applications you want to remove.

   NOTE:
   If you marked an application by mistake, move the cursor back to that application and press [F2] (UN/MARK) again to "undo'' the selection.

7. Press [F5] (REMOVE) to remove the application(s).

   The system prompts you to confirm that you want to remove the application(s) selected.

8. Press [ENTER].

   The system removes the application(s).

   NOTE:
   If you are removing co-resident FAX Attendant, the system prompts you again to confirm that you want to remove the application. Press [ENTER] to start the removal process.

If you removed Call Accounting System (CAS), the system displays the Menu Update Reminder screen after the application is removed. Perform the following steps:

1. Press [F3] (CONT).

   The Technician Maintenance Menu appears.

2. Press [F6] (CANCEL) to return to the Integrated Solution III Maintenance Menu.

3. Log out of the system for the changes to take effect.

If you removed AUDIX Voice Power or FAX Attendant, the system provides the following response after the application(s) are removed:

```
Resetting Tape Drive ... Please Wait


The system will now be rebooted to install new kernel


Confirm

To complete the install/remove process a shutdown is now
being initiated automatically.

Make sure your floppy drive is empty.  If you are
installing or removing expansion boards, you may power
down the system after the shutdown has completed.

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

Perform the following steps:

1. After the tape drive indicator turns off, remove the IS III Installation Tape and press [ENTER].

   The system shuts down, and then displays the following message:

   ```
   The system is down.
   Reboot the system now.
   ```

2. Press the Reset button.

   The system reboots and then displays the `Console Login:` prompt.

Completing CAS Implementation

5

NOTE:
This chapter is for the AT&T Implementor working with the System Manager. It is not intended for the AT&T Technician who installs the hardware or software. (Job titles may vary.)

Completing CAS implementation requires customization from floppy diskette, and, if voice mail notification of alarms is desired, administration of AUDIX Voice Power subscribers and group lists. For additional information on AUDIX Voice Power administration, see the *AT&T AUDIX™ Voice Power Release 2.7.7 System Manager's Guide.*

The following description leads you through the steps necessary to complete the CAS implementation process. For more detailed information, see the *AT&T Call Accounting System (CAS) Integrated Solution II Site Installation and Implementation Guide.* There are three required and one optional setup diskette sets to be configured before the application can be used.

The CAS User Setup process consists of the following steps:

1. Enter the Company Name exactly as it will appear in report headings
2. Install the PBX/KTS Interfaces
3. Verify the CDR port
4. Install the City/State diskette
5. Enter (or verify) the Call Record Collection Information Form and the Telephone System Configuration Form.
6. Install the Custom Rates (Sitegen) diskette
7. Edit the Organization Screens
8. Install the optional HackerTracker diskette
9. Set CAS Alarm Notification
10. Enable the CDR port
11. Test the PBX Interface
12. Administer AUDIX Voice Power subscribers and group lists
13. Test HackerTracker alarms (if HackerTracker is installed)
14. Install any update diskette(s).

Procedure 5-1A: Initial Installation

For the initial installation, perform these steps:

1. Select `Call Accounting System (CAS)` from the Integrated Solution III Maintenance Menu and press [ENTER].

   NOTE:
   The first time that this selection is made, special processing leads you through the steps necessary to enter the company name, install the PBX/KTS interfaces, and verify the port to be used. After these initial tasks have been completed, the Integrated Solution Call Accounting System menu appears. Additional steps are run from the Integrated Solution Call Accounting System menu. The steps that run differently the first time can also be repeated if necessary from the Integrated Solution Call Accounting System menu.

   If this procedure fails, go to Procedure 5-1B.

   The INSTALLATION screen appears.

```
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
                                INSTALLATION
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

The Integrated Solution Call Accounting System has been installed.

Now it is necessary to perform a variety of set-up operations.

You will be asked to:
        o Enter your company' s name
        o  Install  PBX/KTS  Interfaces
        o Enter the port (s) to be used

You must perform this configuration before you can access the
menu  system.

Press <RETURN> to continue.
```

2. Press [ENTER].

   The system responds:

```
COMMANDS : Update Exit
           Update the displayed record

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
        E D I T   C O M P A N Y   I N F O R M A T I O N
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
           Company Name: YOUR COMPANY NAME

Notes:

The Company Name appears in report headings exactly as entered here.
```

3. Press [ENTER] to move the cursor to the Company Name field.

   Line 2 of the display changes to read:

   ```
   Update - <ESC> to save, ^C to cancel
   ```

4. Type the customer's company name as it is to appear on each report.
5. Press [ESC]

   Line 25 of the display changes to read:

   ```
   Updated
   ```

6. Press [E] to exit.

   The system responds:

   ```
   - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
                                   INSTALLATION
   - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   To process calls from sites, you install PBX/KTS Interfaces.

   Please insert media for required PBX/KTS Interfaces.

   Press <RETURN> to continue.
   ```

7. Press [ENTER].

   The system responds:

   ```
   - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
                             INSTALL PBX/KTS INTERFACES
   - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
   Ready to read PBX/KTS Interfaces from media

   Please enter the root password when prompted below:
   Password:
   ```

8. Enter the root password and press [ENTER]. If you do not have this password, get it from your next tier of support.

   The system responds:

   ```
   Confirm

   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.
   ```

NOTE:
If you mistype the root password, you will receive the following messages:

```
su: Sorry
Please remove disk from disk drive.
Press <RETURN> to continue.
```

a. Remove the diskette and press [ENTER].

The system responds:

```
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
                              INSTALL PBX/KTS INTERFACES
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

Please wait

Press <RETURN> to continue.
```

b. Press [ENTER] to continue.

The system returns you to the System Configuration Menu.

c. At this point, use the Alternate Procedure 5-1B to install the PBX/KTS interfaces.

9. Press [F] for floppy.

The system responds:

```
Confirm

Please insert the floppy disk

If the program installation requires more than one floppy
disk, be sure to insert the disks in the proper order,
starting with disk number 1.
After the first floppy disk, instructions will be provided
for inserting the remaining floppy disks.

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

10. Insert the PBX/KTS Interfaces diskette and press [ENTER].

The system responds:

```
        Installation is in progress -- do not remove the floppy disk.

Installing Integrated Solution Call Accounting System PBX/KTS Interfaces

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All Rights Reserved
91 blocks
Please remove disk from disk drive.
Press <RETURN> to continue.
```

11. Remove the diskette and press [ENTER].

The system responds:

```
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
                    INSTALL  PBX/KTS  INTERFACES
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

Please wait

Press <RETURN> to continue.
```

12. Press [ENTER] to continue.

The system responds:

```
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
                                  INSTALLATION
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

To configure sites,  you must establish Communication Types.

Please enter all ports to be used for Call Record Collection.

Press <RETURN> to continue.
```

13. Press [ENTER] to continue,

The system responds:

```
COMMANDS: Query Next Previous Add Remove Exit
          Query for record
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
                            EDIT CDR PORT INFORMATION
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

              Port Name: tty01
    Communication  Type: 1
          Port Enabled? N
           Description: Comm Port 2
```

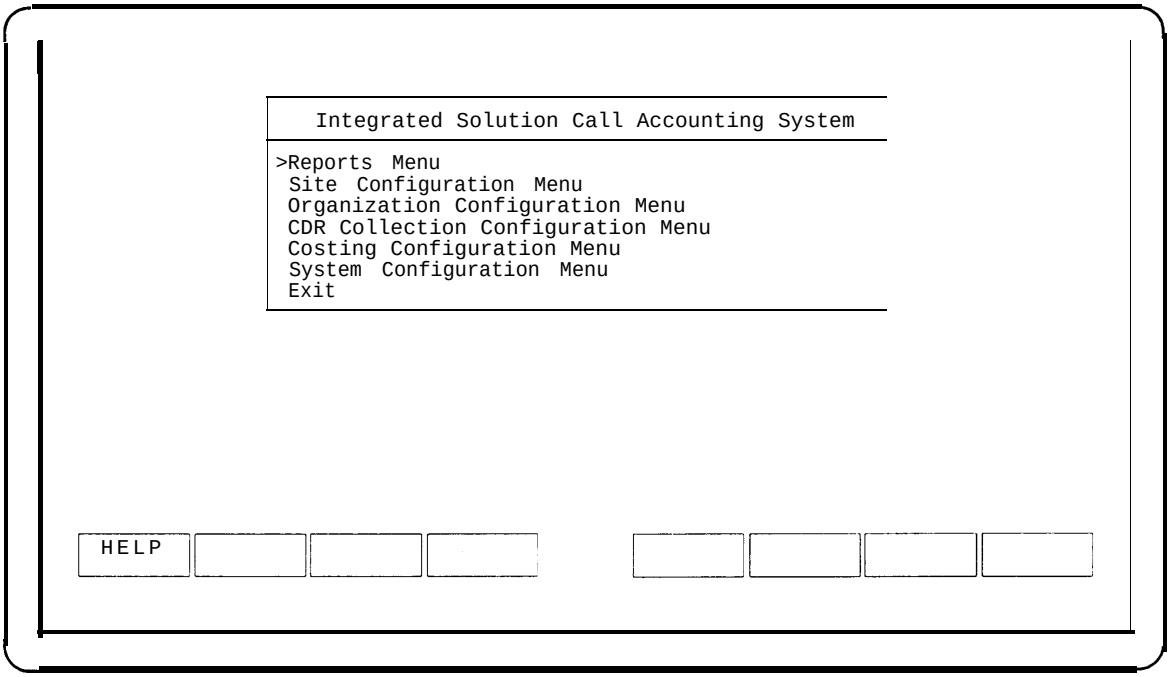
14. Verify that the `Port Name` is tty01 and that `Port Enabled` is `N`. Then press [E] for exit.

The system responds:

```
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
                                  INSTALLATION
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

Initial configuration of the Integrated Solution Call Accounting System
is complete.

You may now add the City/State disk using the “Install Update” menu
selection .

Press <RETURN> to continue.
```

15. Press [ENTER] to continue.

The Integrated Solution Call Accounting System menu appears.



Screen 5-1. Integrated Solution Call Accounting System Menu

Alternate Procedure 5-1B: Install the PBX/KTS Interfaces

NOTE:
Procedure 5-1A is automatically invoked the first time the Call Accounting System is run. Procedure 5-1A can fail because of incorrect entry of the root password. Use this procedure (5-1B) to install the PBX/KTS Interfaces only if Procedure 5-1A fails or if it is necessary to install the PBX/KTS Interfaces after the first time that the Call Accounting System is run.

To install the PBX/KTS Interfaces, follow these steps:

1. Select `System Configuration Menu` from the Integrated Solution Call Accounting System menu.

   The System Configuration Menu displays.

2. Select `Install PBX/KTS Interfaces` from the System Configuration menu.

   The system responds:

```
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
                          INSTALL  PBX/KTS  INTERFACES
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
Ready to read PBX/KTS Interfaces from media

Please enter the root password when prompted below:
Password:
```

3. Enter the root password and press [ENTER]. If you do not have this password, get it from your next tier of support.

   The system responds:

```
Confirm

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.
```

NOTE:
If you mistype the root password, you will receive the following messages:

```
su: Sorry
Please remove disk from disk drive.
Press <RETURN> to continue.
```

a. Remove the diskette and press [ENTER].

The system responds:

```
--------------------------------------------------
                                INSTALL PBX/KTS INTERFACES
--------------------------------------------------

Please wait

Press <RETURN> to continue.
```

b. Press [ENTER] to continue.

The system returns you to the System Configuration Menu.

c. At this point, return to step 1 of this procedure.

4. Press [F] for floppy.

The system responds:

```
Confirm

Please insert the floppy disk

If the program installation requires more than one floppy
disk, be sure to insert the disks in the proper order,
starting with disk number 1.
After the first floppy disk, instructions will be provided
for inserting the remaining floppy disks.

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

5. Insert the PBX/KTS Interfaces diskette and press [ENTER].

The system responds:

```
        Installation is in progress -- do not remove the floppy disK.

Installing Integrated Solution Call Accounting System PBX/KTS Interfaces

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91 blocks
Please remove disk from disk drive.
Press <RETURN> to continue.
```

6. Remove the diskette and press [ENTER].

   The system responds:

```
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
                    INSTALL  PBX/KTS  INTERFACES
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

Please wait

Press <RETURN> to continue.
```

7. Press [ENTER] to continue.

   The system returns you to the System Configuration Menu.

8. Press [F6] (CANCEL) to return to the lntegrated Solution Call Accounting System menu.

Procedure 5-2: Install the City/State Diskette

To install the City/State diskette, perform the following steps:

1. Select `System Configuration Menu` from the Integrated Solution Call Accounting System menu.

   The System Configuration Menu displays.

2. Select `Install Update` from the System Configuration Menu and press [ENTER].

   The system responds:

```
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
                                INSTALL UPDATE
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

Ready to read in software from media

Please enter the root password when prompted below:
Password:
```

3. Enter the root password and press [ENTER]. If you do not have this password, get it from your next tier of support.

   The system responds:

```
Confirm

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.
```

NOTE:
If you mistype the root password, you will receive the following messages:

```
su: Sorry
Please remove disk from disk drive.
Press <RETURN> to continue.
```

   a. Remove the diskette and press [ENTER].

      The system responds:

```
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
                                INSTALL UPDATE
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

Please wait

Press <RETURN> to continue.
```

b. Press [ENTER] to continue.

The system returns you to the System Configuration Menu.

c. At this point, return to step 1 of this procedure.

4. Press [F] for floppy.

The system responds:

```
Confirm

Please insert the floppy disk

If the program installation requires more than one floppy
disk, be sure to insert the disks in the proper order,
starting with disk number 1.
After the first floppy disk, instructions will be provided
for inserting the remaining floppy disks.

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

5. Insert the City/State diskette and press [ENTER].

The system responds:

```
        Installation is in progress -- do not remove the floppy disk.

Start City/State Tables Installation at hh:mm:ss on mm/dd/yy.

Installing City/States Tables.

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Setting mode and owner of City/State Tables.
End City/State Tables Installation at hh:mm:ss on mm/dd/yy.

Please remove disk from disk drive.
Press <RETURN> to continue.
```

6. Remove the City/State diskette and press [ENTER].

The system responds:

```
Press <RETURN> to continue.
```

7. Press [ENTER].

The system returns you to the System Configuration Menu.

Procedure 5-3: Verify the SMDR Settings

The parameters that tell the Call Accounting System how to read and interpret the Call Detail Records (CDR) must match the parameters that tell the communications system how to format and write the Call Detail Records. The necessary parameters should be provided on the Call Record Collection Information Form. Obtain a completed copy of this form from the System Manager.

To verify the communications system Call Detail Record parameter settings, you must use the Switch Administration Terminal (SAT). Request permission from the System Manager, and then follow these steps:

NOTE:
The procedure described below is typical, but the details may vary on different models of communications system.

1. If the SAT is logged in, type *logoff* on the command line and press [ENTER].
2. At the `login:` prompt, type *craft* and press [ENTER].
3. At the `password:` prompt, type the password and press [ENTER]. If you do not have this password, get it from your next tier of support.

   The communications system then requests the terminal type.
4. Enter the terminal type and press [ENTER]. The terminal type is usually printed on the lower edge of the frame around the display. If you can not identify the terminal type, just press [ENTER] to accept the default.

   The communications system displays the copyright screen. The cursor is positioned at the command line.
5. Type: *change system-parameters features* and press [ENTER].

   NOTE:
   On some communications systems, you may need to type: *change system-parameters cdr* and press [ENTER] to reach the CDR parameters.

   The communications system displays the first page of parameters.
6. Locate the SMDR information by pressing the [NEXT] function key (defined at the bottom of the screen) or the [PGDN] key if your terminal has that key. The correct page is titled: `Feature-Related System Parameters` and subtitled: `SMDR PARAMETERS`, or is titled `CDR System Parameters.` It is the second page on most, but not all, of the supported switch configurations.

7. Look for the field labeled: Use ISDN Layouts? or ISDN?

   - If the value is y, then the field labeled: Primary Output Layout: or Primary Output Format: must contain either expanded or unformatted.
     - expanded corresponds to CAS Call Record Format code g1g3-f24w.
     - unformatted corresponds to CAS Call Record Format code g1g3-u24w.

   NOTE:
   We recommend that this format be used if possible. It is not necessary to have ISDN to use this format. Specify Use ISDN Layouts? or ISDN? as y and specify Primary Output Layout or Primary Output Format as *unformatted.*

   - If the value is n, then the field labeled Primary Output Layout: or Primary Output Format must contain cdru/lsu, and the field labeled: SMDR Account Code Length: can contain 1 through 15.
     - A value of 5 or less corresponds to CAS Call Record Format code g1g3-lsu5.
     - A value from 6 to 12 corresponds to CAS Call Record Format code g1g3-lsu12.
     - A value of 13 or 14 corresponds to CAS Call Record Format code g1g3-lsu14.
     - A value of 15 corresponds to CAS Call Record Format code g1g3-lsu15.
   - All other combinations in these fields are invalid.

   NOTE:
   If a value greater than 5 is used for the account code length, authorization codes will not be reported to CAS.

8. Look at the field labeled: Primary Output Destination or Primary Output Ext. This field should contain either eia or the extension number of a digital or data line port. Refer to Procedures 2-12A through 2-12D in Chapter 2 for information on the physical hookup of the extension/port to the CAS (SMDR) input on the Master Controller.

   - If the field labeled Primary Output Destination or Primary Output Ext contains eia, the connection is made through the RS-232 port labeled DCE on the back of the communications system. This will correspond to Procedure 2-12A or 2-12B in Chapter 2.

- If the field contains an extension, the connection is made through the physical port associated with that extension on a TN-726 circuit pack (Procedure 2-12C) or a TN-754 circuit pack (Procedure 2-12D).

9. Look at the field labeled: `Secondary Output Layout.` This field should be blank.
10. Look at the field labeled: `EIA Device Bit Rate.` This field should contain `4800.` (The default value is 1200 and should be changed to 4800.)
11. Press the [ENTER] function key (defined at the bottom of the screen) to save any settings that you have changed.
12. Type *`logoff`* on the command line and press [ENTER].

If a data line port is used, it is necessary to set the data rate and parity parameters for the port. The parameters are set from the SAT. The settings should be:

— Data Rate: 4800

— Parity: None (N)

Consult the System Manager for assistance on verifying or setting these values for the data line port.

If a digital port is used, it is necessary to set the 7400A Data Module parameters. The parameters are set using switches on the 7400A rather than using the SAT. The settings should be:

— Data Rate: 4800

— Parity: None (N)

— Number of Bits: 8

— Number of Stop Bits: 1

Consult the *DEFINITY® Communications System 7400A Data Module User's Guide* for instructions.

The parameters that tell the Call Accounting System how to price calls must match the parameters that tell the communication system how the trunks are grouped and accessed. The necessary parameters should be provided on the Telephone System Configuration Form. Obtain a completed copy of this form from the System Manager. If a copy of this completed form is not available, the information may be obtained by examining the communications system setup from the SAT. Consult the System Manager for assistance on verifying or setting these values.

NOTE:
The field labeled `Trunk Line` should contain the dial access code followed by the two-digit trunk identifier (not just the trunk identifier alone) for each trunk.

Procedure 5-4: Install the Custom Rates (Sitegen) Diskette

NOTE
The Custom Rates (Sitegen) diskette replaces the Major Metro diskettes used in previous versions of CAS and must be installed.

Before you begin this procedure, you will need the information contained on the CAS Site Information Form, the Telephone System Configuration Form, and the Call Record Collection Information Form. Obtain these completed forms from the System Manager.

To install the Custom Rates (Sitegen) Diskette, perform the following steps:

1. From the System Configuration Menu, press [F6] (CANCEL) to return to the Integrated Solution Call Accounting System menu.
2. Select `Site Configuration Menu` and press [ENTER].

   The Site Configuration Menu appears.
3. Select `Install a Site` and press [ENTER].

   The INSTALL SITE - STOP COSTING screen appears along with a series of system messages.
4. Press [ENTER] when you are prompted to do so.

   The system responds:

```
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
                                  INSTALL SITE
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

Ready to read in site software from media.

Note:  Only one site can be installed at a time.

Please enter the root password when prompted below:
Password:
```

5. Enter the root password and press [ENTER]. If you do not have this password, get it from your next tier of support.

   The system responds:

```
Confirm

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.
```

NOTE:
If you mistype the root password, you will receive the following messages:

```
su: Sorry
Please remove disk from disk drive.
Press <RETURN> to continue.
```

a. Remove the diskette and press [ENTER].

The system responds:

```
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
                                    INSTALL SITE
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

Please wait

Press <RETURN> to continue.
```

b. press [ENTER] to continue.

The system returns you to the System Configuration Menu.

c. At this point, return to step 1 of this procedure.

6. Press [F] for floppy.

The system responds:

```
Confirm

Please insert the floppy disk

If the program installation requires more than one floppy
disk, be sure to insert the disks in the proper order,
starting with disk number 1.
After the first floppy disk, instructions will be provided
for inserting the remaining floppy disks.

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

7. Insert the Custom Rates (Sitegen) diskette and press [ENTER].

The system responds:

```
        Installation is in progress -- do not remove the floppy disk.

Installing Integrated Solution Call Accounting System Sitegen

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279 blocks
Please remove disk from disk drive.
Press <RETURN> to continue.
```

8. Remove the Custom Rates (Sitegen) diskette and press [ENTER].

   After a series of informational messages, the system prompts:

   ```
   Press <RETURN> to install this site,  or <E>xit <RETURN> to quit .
   ```

9. Press [ENTER].

   The system responds:

   ```
   Please wait - Updating system tables.
   ```

   A series of dots displays indicating that the data is being installed.

   The EDIT SITE INFORMATION screen appears automatically.

10. Press [U] for Update.
11. Fill in the Edit Site Information screen using data from the CAS Site Information Form. Use the [ENTER] key to move through the fields.
12. After all information has been entered, press [ESC] to save the screen.
13. Press [E] to exit this screen.

    The system displays the EDIT TELEPHONE SYSTEM CONFIGURATION - TRUNK GROUP screen.

14. Edit the SYSTEM CONFIGURATION screens using data from the Telephone System Configuration Form.
    a. Press [A] to add.
    b. Fill in the information.
    c. After all information has been entered, press [ESC] to save the information.
    d. Press [D] for detail to go to the next screen (EDIT TELEPHONE SYSTEM CONFIGURATION DIAL ACCESS CODE).
    e. Fill in the information (if any).
    f. Press [ESC] to save the information. (If no data was entered, [ESC] has no effect. Go to the next step.)
    g. Repeat steps a through f for each trunk group.
    h. Press [E] to exit.

    The system displays the EDIT DIALED DIGIT PROCESSING screen.

15. Press [E] to exit.

The EDIT CDR COLLECTION INFORMATION screen appears.

16. Edit the EDIT CDR COLLECTION INFORMATION screen:

    a. Press [U] for update,

    b. Fill in the information using data from the Call Record Collection Information Form.

    — Use the Call Record Format code appropriate to the way that the call record is set up on the switch. Only the following codes can be used:

Table 5-1. Call Record Format Codes

Code	Format
g1g3-lsu5	non-ISDN with 5-digit account code
g1g3-lsu12	non-ISDN with 12-digit account code
g1g3-lsu14	non-ISDN with 14-digit account code
g1g3-lsu15	non-ISDN with 15-digit account code
g1g3-u24w	24-word ISDN unformatted standard
g1g3-f24w	24-word ISDN formatted expanded

You can also press [CTRL] - [W] to get an on-line table showing these codes, but you cannot select from the table -- you must type the code.

— The `Communication Type` must be changed to *1.*

— The `Time Zone` can be specified as *4* (Atlantic), *5* (Eastern), *6* (Central), *7* (Mountain), *8* (Pacific), *10* (Alaska), or *11* (Hawaii).

`Daylight Savings` should be specified as *y* (yes) if used; otherwise as *n* (no).

c. Press [ESC] to save the information.

The EDIT CDR COLLECTION INFORMATION screen reappears with the Direct PBX Interface Parameter values appropriate for the System 75 or DEFINITY Communications System. They don't need to be changed.

17. Press [E] to exit this screen.

    The system responds:

```
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
                                INSTALL SITE
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

This site has been installed.
Press <RETURN> to continue.
```

18. Press [ENTER].

    The system responds:

```
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
                        INSTALL SITE - START COSTING
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

Call costing is not running.

Starting call costing. . .

Call costing started.

Press <RETURN> to continue.
```

19. Press [ENTER].

    The Site Configuration menu reappears.

20. Press [F6] (CANCEL) to return to the Integrated Solution Call Accounting System menu.

Procedure 5-5: Edit Organization Screens

Before you begin this procedure, you will need the information contained on the Company Organization planning forms. Obtain these completed forms from the System Manager.

To edit the Organization screens, perform these steps:

1. Select `Organization Configuration Menu` from the Integrated Solution Call Accounting System menu and then select `Edit Organization Table.`

   The system responds:

   ```
   - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
                                EDIT ORGANIZATION TABLE - SITE
   - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
   ```

   with some additional messages.

2. Press [D] for detail.
3. Press [A] to add information.
4. Enter the information for these screens using data from the Company Organization planning forms.
5. Press [ESC] to save information.
6. Repeat steps 3 through 5 as necessary until all information has been entered.
7. Press [E] to exit the screen.
8. Press [F6] (CANCEL) to return to the Integrated Solution Call Accounting System menu.

Procedure 5-6: Install the OptionaI HackerTracker Diskette

To install the HackerTracker diskette, perform the following steps:

1. Select `System Configuration Menu` from the Integrated Solution Call Accounting System menu and press [ENTER].
2. Select `Install Update` from the System Configuration menu and press [ENTER].

   The system responds:

```
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
                                INSTALL UPDATE
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

Ready to read in software from media

Please enter the root password when prompted below:
Password:
```

3. Enter the root password and press [ENTER]. If you do not have this password, get it from your next tier of support.

   The system responds:

```
Confirm

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.
```

NOTE:
If you mistype the root password, you will receive the following messages:

```
su: Sorry
Please remove disk from disk drive.
Press <RETURN> to continue.
```

   a. Remove the diskette and press [ENTER].

      The system responds:

```
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
                                INSTALL UPDATE
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

Please wait

Press <RETURN> to continue.
```

b. Press [ENTER] to continue.

The system returns you to the System Configuration Menu.

c. At this point, return to step 1 of this procedure.

4. Press [F] for floppy.

The system responds:

```
Confirm,

Please insert the floppy disk

If the program installation requires more than one floppy
disk, be sure to insert the disks in the proper order,
starting with disk number 1.
After the first floppy disk,  instructions  will  be  provided
for inserting the remaining floppy disks.

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

5. Insert the HackerTracker diskette and press [ENTER].

The system responds:

```
        Installation is in progress -- do not remove the floppy disk.
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
                    INSTALL HACKERTRACKER UPGRADE - STOP COSTING
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

Call costing is running.

stopping call costing...

Call costing stopped.

Press <RETURN> to continue.
```

6. Press [ENTER] to continue.

The system responds:

```
     Notice - You must exit this application from the main menu
              and reenter before the HackerTracker selection will
              appear on the main menu.

End HACKERTRACKER UPGRADE Procedure at hh:mm:ss on mm/dd/yy


Press <RETURN> to continue.
```

7. Press [ENTER].

   The system responds:

```
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
                  INSTALL HACKERTRACKER UPGRADE - START COSTING
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

Call costing is not running.

Starting call costing. . .

Call costing started.

Press <RETURN> to continue.
```

8. Press [ENTER].

   The system responds:

```
Please remove disk from disk drive.
Press <RETURN> to continue.
```

9. Remove the HackerTracker diskette and press [ENTER] to continue.

   The system responds:

```
Press <RETURN> to continue.
```

10. Press [ENTER].

    The system returns you to the System Configuration menu.

11. Press [F6] (CANCEL) to return to the Integrated Solution Call Accounting System menu.

12. Select Exit and press [ENTER].

    The system returns you to the Integrated Solution III Maintenance menu.

NOTE:
You must exit CAS in order for the CAS menu to be updated to include HackerTracker.

Procedure 5-7: Setting CAS Alarm Notification

Before you begin this procedure, you will need the information contained on the CAS Alarm Notification Form which is described in Appendix A. Obtain this completed form from the System Manager.

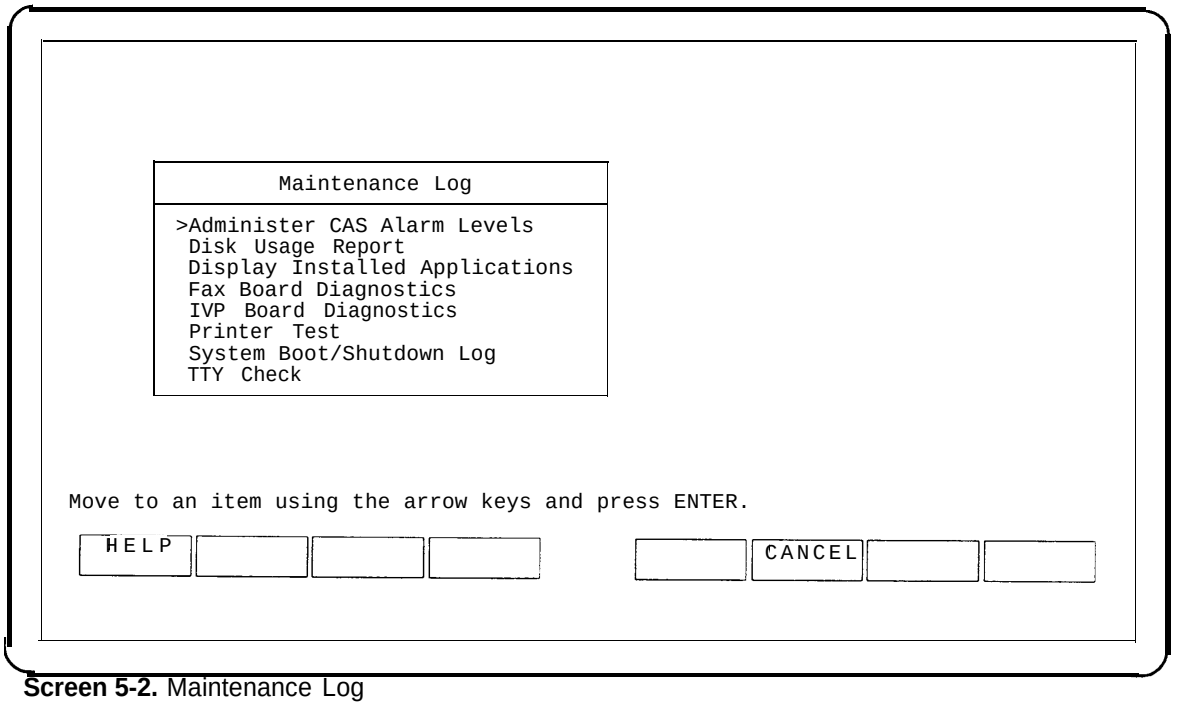
NOTE:
If voice mail alarms are not set, alarm notification will still appear on the system printer.

NOTE:
Voice mail alarm notification is only possible if AUDIX Voice Power is installed and administered. If AUDIX Voice Power is not installed, the `Administer CAS Alarm Levels` item will not appear on the Maintenance Log menu.

To set up the group list ID for voice mail alarm notification, follow these steps:

1. Select `Technician Maintenance` from the Integrated Solution III Maintenance menu.
2. Select `Maintenance Log` from the Technician Maintenance menu.

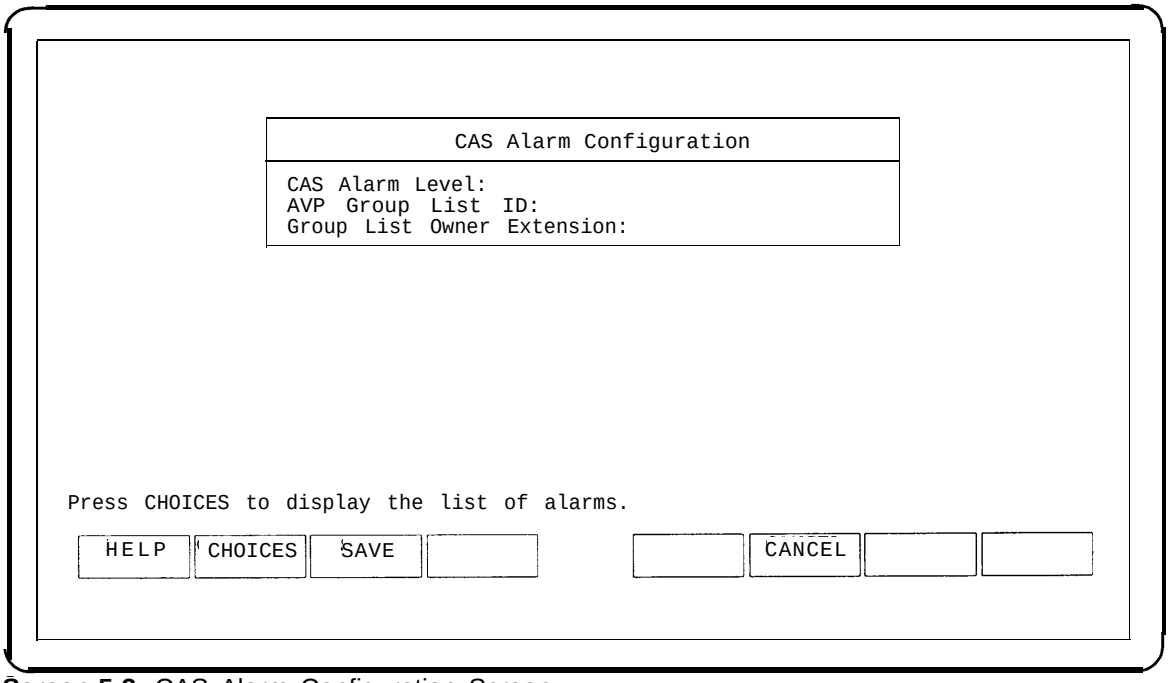
   The Maintenance Log Menu appears.



Screen 5-2. Maintenance Log

3. At the Maintenance Log Menu, move the cursor to `Administer CAS Alarm Levels` and press [ENTER].

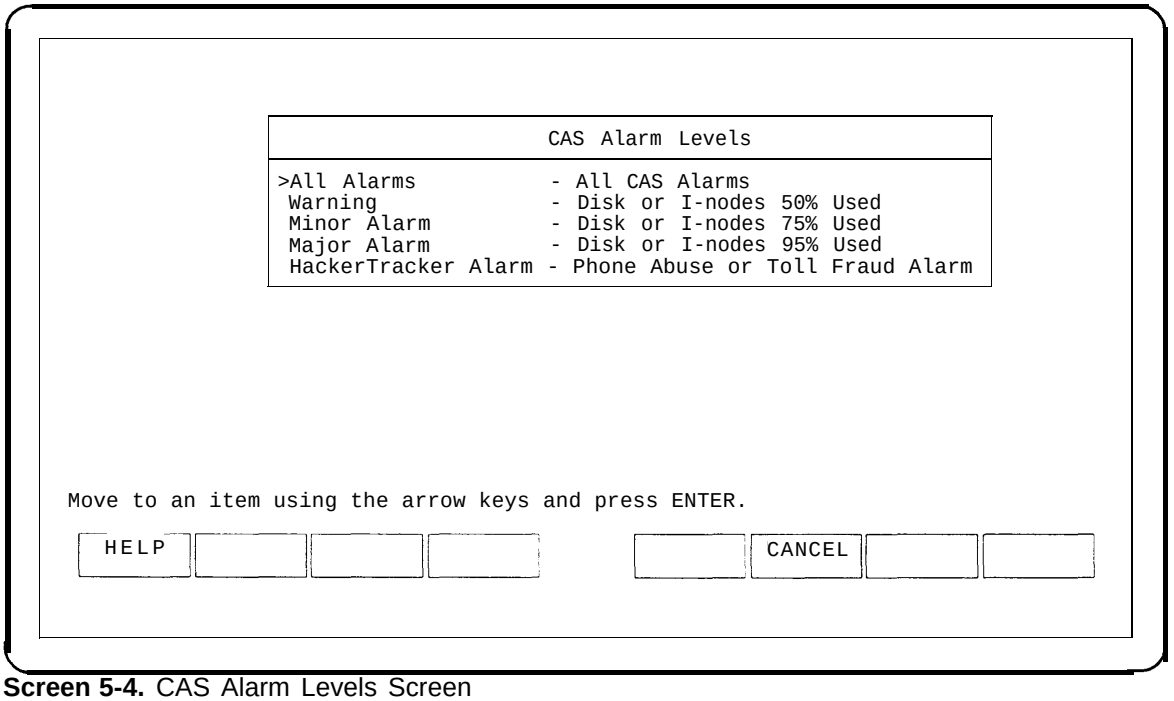
   The CAS Alarm Configuration screen appears.



Screen 5-3. CAS Alarm Configuration Screen

4. Make sure that the cursor is in the CAS `Alarm Level` field, and then press [F2] (CHOICES).

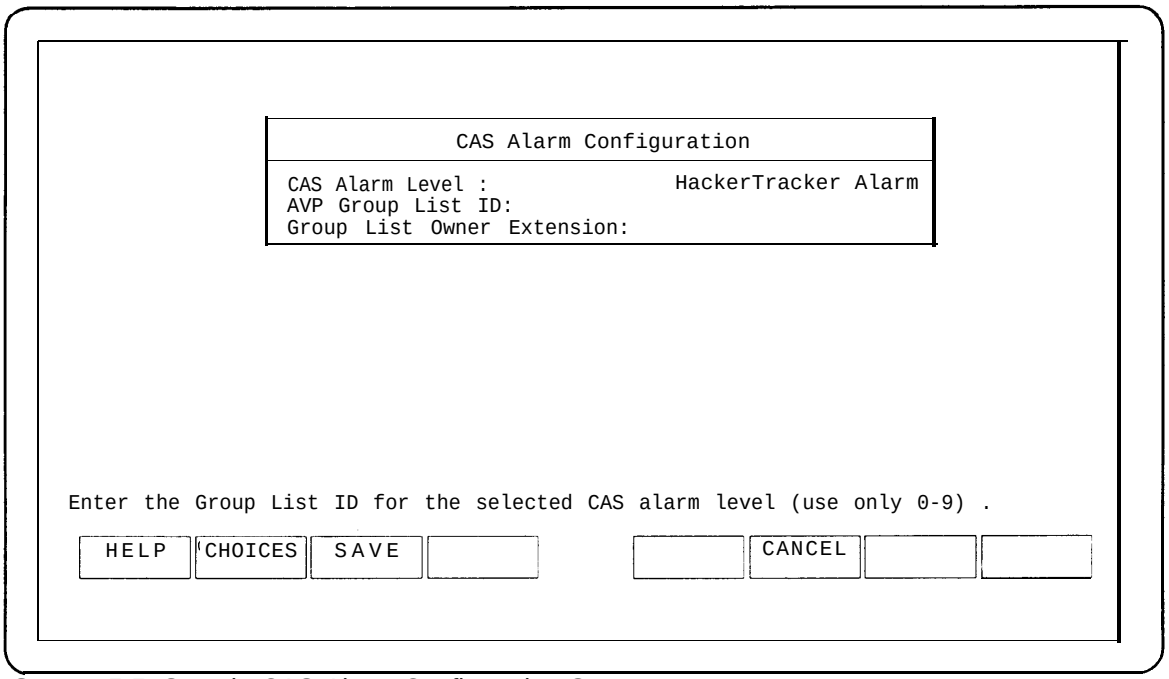
   The CAS Alarm Levels screen appears.



Screen 5-4. CAS Alarm Levels Screen

5. Move the cursor to the alarm you want to set from the CAS Alarm Notification Form and press [ENTER].

   The CAS Alarm Configuration screen returns, and the CAS Alarm Level field contains your selection. The following screen shows the HackerTracker Alarm selection.



Screen 5-5. Sample CAS Alarm Configuration Screen

6. Move the cursor to the `Group List ID` field, type the group list ID from the CAS Alarm Notification Form, and press [ENTER].

7. Move the cursor to the `Group List Owner Extension` field, type the group list owner's extension from the CAS Alarm Notification Form, and press [ENTER].

8. After you have entered the correct information, press [F3] (SAVE) to save the information and return to the Maintenance Log menu.

9. Configure additional CAS alarms as necessary by repeating steps 3 through 8.

10. When the Maintenance Log menu appears after your final change, press [F6] (CANCEL) twice to return to the Integrated Solution III Maintenance Menu.

NOTE:
The group lists must be administered through the touch-tone interface to AUDIX Voice Power before alarms will be received. See Chapter 4 of the *AT&T Integrated Solution III for System 75 and DEFINITY Communications System, System Manager's Guide* for the procedure.

Procedure 5-8: Enable the CDR Port

To enable the CDR port, perform these steps:

1. Select `Call Accounting System` from the Integrated Solution III Maintenance menu and press [ENTER].

   The Integrated Solution Call Accounting System menu appears.
2. Select `CDR Collection Configuration Menu` and press [ENTER].
3. Select `Edit CDR Port Information` and press [ENTER].
4. Press [U] for update.
5. Press [▼] twice to move to the `Port Enabled?` field.
6. Press [Y] to enable the port.
7. Press [ESC] to save the setting.
8. Press [E] to exit.
9. Press [F6] (CANCEL) to return to the Integrated Solution Call Accounting System menu.
10. Select `Exit` and press [ENTER] to return to the Integrated Solution III Maintenance menu.

Procedure 5-9: Test the PBX Interface

Test the PBX Interface when the switch is busy processing call traffic. Perform the test by following these steps:

1. Select `Call Accounting System` from the Integrated Solution III Maintenance menu.
2. Select `System Configuration Menu` from the Integrated Solution Call Accounting System menu and press [ENTER].
3. Select `Diagnostics and Monitoring Menu` from the System Configuration menu and press [ENTER] to begin testing the PBX interface.
4. Select `Monitor PBX/KTS SMDR` from the Diagnostics and Monitoring menu and press [ENTER].

   The MONITOR PBX/KTS SMDR screen appears.
5. Press [S] to start monitoring the site.

   The system responds:

   ```
   Please wait. . . <RETURN> for more
   ```
6. Press [ENTER] to continue.
7. Press [E] to exit.
8. Press [F6] (CANCEL) to return to the System Configuration menu.
9. Make several test calls.
10. Wait approximately 10 minutes.
11. Select `View Logs` from the System Configuration menu and press [ENTER].
12. Type the number for `SMDR_1` from the View Logs menu and press [ENTER] to look at records.

> **NOTE:**
> The SMDR_1 log doesn't exist until the first record is written. Records are buffered by the Call Accounting System for about 5 minutes before being sent to the CAS database, so it is possible that SMDR_1 may not appear on the View Logs menu if you do not wait for 10 minutes after making the test calls. In this case, go back to the System Configuration menu and wait.

If you do not see call detail records, check that a PBX/KTS interface was selected, and that the CDR port was enabled.

You can then view the logs and run reports as described in the *AT&T Call Accounting System (CAS) Integrated Solution User's Guide.* After looking at the records, press [Q] and then [ENTER] to quit.

13. Press [E] and then [ENTER] to exit this screen and return to the System Configuration menu.
14. When you are finished monitoring, select `Diagnostics and Monitoring Menu` from the System Configuration menu and press [ENTER].
15. Select `MONITOR PBX/KTS SMDR` from the Diagnostics and Monitoring menu and press [ENTER].

    The Monitor PBX/KTS SMDR screen appears.
16. Press [F] to finish monitoring.

    The system responds:

    ```
    Please wait. . .<RETURN> for more
    ```
17. Press [ENTER].
18. Press [E] to exit.
19. Press [F6] (CANCEL) twice to return to the Integrated Solution Call Accounting System menu.
20. Select `Exit` and press [ENTER] to return to the Integrated Solution III Maintenance menu.

Procedure 5-10: Test HackerTracker Alarms

HackerTracker may operate with or without AUDIX Voice Power. In either case, alarms will be sent to the printer following a banner (large type heading). If AUDIX Voice Power is installed, HackerTracker can also send alarm notification by voice mail.

NOTE:
For the purpose of this test, it is assumed that if AUDIX Voice Power is installed, the HackerTracker alarm notification has already been set using Procedure 5-7.

To complete this test, some additional procedures will be required that are detailed in the following documents:

- *AT&T AUDIX™ Voice Power Release 2.1.1 System Manager's Guide*
- *AT&T AUDIX™ Voice Power Release 2. 1.1 Planning Guide and Forms*
- *AT&T AUDIX™ Voice Power Release 2. 1.1 User's Guide*
- *AT&T Integrated Solution III for System 75 and DEFINITY® Communications System System Manager's Guide,*
- *HackerTracker™ for Integrated Solution Call Accounting System.*

To test HackerTracker alarm notification, perform these steps:

1. If voice mail notification will be tested, create the group list that was assigned for the HackerTracker alarm in Procedure 5-7. For details on creating group lists, refer to the *AT&T Integrated Solution III for System 75 and DEFINITY® Communications System System Manager's Guide* or to the *AT&T AUDIX™ Voice Power Release 2.1.1 User's Guide.*

   NOTE:
   It may also be necessary to administer voice mail subscribers and other aspects of AUDIX Voice Power. For additional information, refer to the *AT&T AUDIX™ Voice Power Release 2.1.1 System Manager's Guide* and the *AT&T AUDIX™ Voice Power Release 2.1.1 Planning Guide and Forms* document.

2. Administer HackerTracker to provide an alarm notification for calls to a nearby area code. For details on administering HackerTracker, refer to the *HackerTracker™ for Integrated Solution Call Accounting System* document.

3. Make a call to a number in the area code that was administered to cause a HackerTracker alarm.

   NOTE:
   If necessary, call the AT&T Technical Support group and remain on the call for at least one minute.

4. Wait at least 10 minutes for the Call Detail Record to be processed.
5. A banner (large type) indicating an alarm will print followed by the alarm message.
6. Log in to one of the mailboxes assigned to the HackerTracker group list and listen to the message.
7. After completing this test, readminister HackerTracker to eliminate the alarm on the nearby area code and delete the voice mail alarm notification from all mailboxes in the group list assigned to HackerTracker alarms.

Procedure 5-11: Installing Update Diskette(s)

To install any update diskette(s), perform the following steps:

1. Select `System Configuration Menu` from the Integrated Solution Call Accounting System menu and press [ENTER].
2. Select `Install Update` from the System Configuration menu and press [ENTER].

   The system responds:

```
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
                                INSTALL UPDATE
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

Ready to read in software from media

Please enter the root password when prompted below:
Password:
```

3. Enter the root password and press [ENTER]. If you do not have this password, get it from your next tier of support.

   The system responds:

```
Confirm

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.
```

NOTE:
If you mistype the root password, you will receive the following messages:

```
su: Sorry
Please remove disk from disk drive.
Press <RETURN> to continue.
```

   a. Remove the diskette and press [ENTER].

      The system responds:

```
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
                                INSTALL UPDATE
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

Please wait

Press <RETURN> to continue.
```

b. Press [ENTER] to continue.

The system returns you to the System Configuration Menu.

c. At this point, return to step 1 of this procedure.

4. Press [F] for floppy.

The system responds:

```
Confirm

Please insert the floppy disk

If the program installation requires more than one floppy
disk, be sure to insert the disks in the proper order,
starting with disk number 1.
After the first floppy disk,  instructions will be provided
for inserting the remaining floppy disks.

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

5. Insert the first update diskette and press [ENTER].

The system responds:

```
        Installation is in progress -- do not remove the floppy disk.
------------------------------------------------------------------
                  INSTALL <update name> - STOP COSTING
------------------------------------------------------------------
```

followed by messages and instructions specific to the update.

6. When prompted after the installation, press [ENTER].

The system responds:

```
Please remove disk from disk drive.
Press <RETURN> to continue.
```

7. Remove the update diskette and press [ENTER] to continue.

The system responds:

```
Press <RETURN> to continue.
```

8. Press [ENTER].

The system returns you to the System Configuration menu.

9. Press [F6] (CANCEL) to return to the Integrated Solution Call Accounting System menu.

10. Select `Exit` and press [ENTER].

The system returns you to the Integrated Solution III Maintenance menu.

Recovering from Catastrophic Failures

6

Although the initial installation of IS III and customer-ordered applications is done at an AT&T Staging Center, you may be responsible for recovering the system from the IS III Installation Tape after a catastrophic failure at the customer site. You may also be responsible for restoring the system from backup media (that is, tapes and/or diskettes). For example, the system manager might administer the system incorrectly and want to return the system to its previous state.

The procedures for recovering and restoring the Integrated Solution III system are outlined on the following pages. Most of the messages that appear on the Master Controller are shown in this section. There may be some system messages that appear on the screen that are not shown here.

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
- main board failure
- data corruption

Refer to Chapter 9, “Troubleshooting,” to determine what the problem is and how to resolve it. The remainder of this chapter explains how to recover after a hard disk failure or after data has become corrupt.

Recovering from Hard Disk Failure

If the customer has complete system backup tape(s), you will load UNIX and the IS III Platform Software from the IS III Boot Diskette and IS III Installation Tape, and then restore the system from the backup tape(s). If the customer does not have complete system backup tape(s), you will load the entire system (that is, UNIX, the IS III Platform Software, and the IS III applications) from the IS III Boot Diskette and IS III Installation Tape. (If the customer has administrative files backup diskette(s), you can restore the administrative files after loading the entire system from the IS III Boot Diskette and IS III Installation Tape.)

Materials Required

You need the following materials to recover and reinstall the system after a hard disk crash:

- MC II+, MC III, or MAP/5
- IS III Boot Diskette
- IS III Installation Tape
- complete system backup tape(s) (if the customer has performed a complete system backup)
- administrative files backup diskette(s) (if the customer has performed an administrative files backup)

Activity Checklist

If the customer has complete system backup tape(s), perform the following procedures to recover the system from a hard disk crash:

1. Replace the hard disk.
2. Reboot the system with the IS III Boot Diskette.
3. Reboot the system with the IS III Installation Tape.
4. Restore the IS III applications and associated files from the complete system backup tape(s).

If the customer does not have complete system backup tape(s), perform the following procedures to recover the system from a hard disk crash:

1. Replace the hard disk.
2. Reboot the system with the IS III Boot Diskette.
3. Reboot the system with the IS III Installation Tape.
4. Install the optional IS III applications from the IS III Installation Tape.
5. Restore the administrative files for the applications from the administrative files backup diskette(s) (if the customer has administrative files backup diskette(s)).
6. Re-administer the IS III applications.

Procedure 6-1: Replace the Hard Disk

For this information, see Chapter 3, “Upgrading the Hardware,” or the documentation supplied with the Master Controller.

Procedure 6-2: Install UNIX and IS III Platform Software

To install UNIX and the IS III Platform Software, perform the following steps:

1. With the Master Controller turned off, insert the IS III Boot diskette and power up the Master Controller.

NOTE:
The boot diskette must be enabled for writing (not write protected) or an error will occur.

NOTE:
A new boot diskette (Version 1.3) is provided with all Integrated Solution III systems. it includes two new features:

- The new boot diskette recognizes and partitions all sizes of hard disk drives. Attempting to install Integrated Solution III using the Version 1.2 or earlier boot diskette on one of the new hard disk sizes will result in error messages.
- The new boot diskette prevents accidentally destroying the system if it is left in the disk drive by mistake. When the system is booted with the new diskette, the following message displays:

```
WARNING: A new installation of the UNIX System will destroy
all files currently on the system.

Press ENTER to continue or DEL to quit .
```

— If the user presses [DEL] the following message displays:

```
You have aborted the installation of the UNIX system.
Please consult your "Installation and Maintenance Guide"
for further information.
#
```

At this point, the user should remove the floppy and reboot the system.

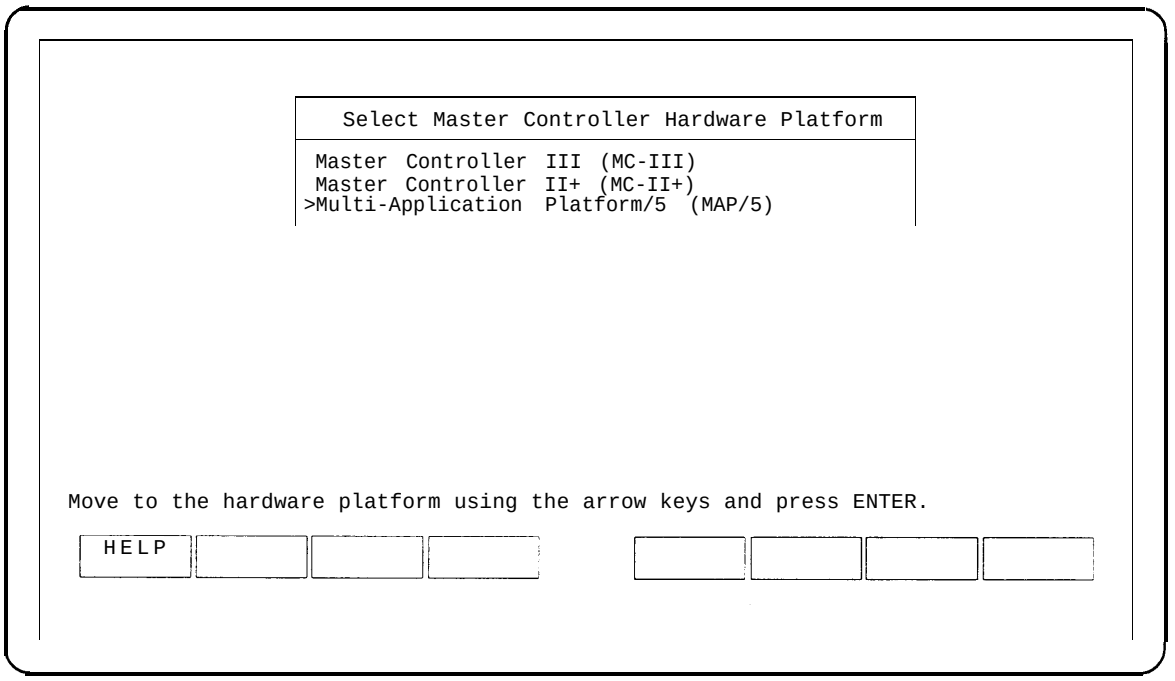
— If the user presses [ENTER], the new installation will continue.

The boot disk reformats the entire hard disk on the Master Controller, destroying all of the data on the hard disk. This process takes approximately 15 to 20 minutes. Once the hard disk is reformatted, the following prompt appears:

```
When you are prompted to reboot your system, remove the floppy disk
        from the diskette drive,  insert the Integrated Solution III
        Installation cartridge tape into the tape drive,
        and press <CTRL-ALT-DEL>.

Please wait for the prompt.

Reboot the system now.
```

2. Remove the IS III Boot diskette and insert the IS III Installation Tape.
3. Press the [RESET] button on the system unit.

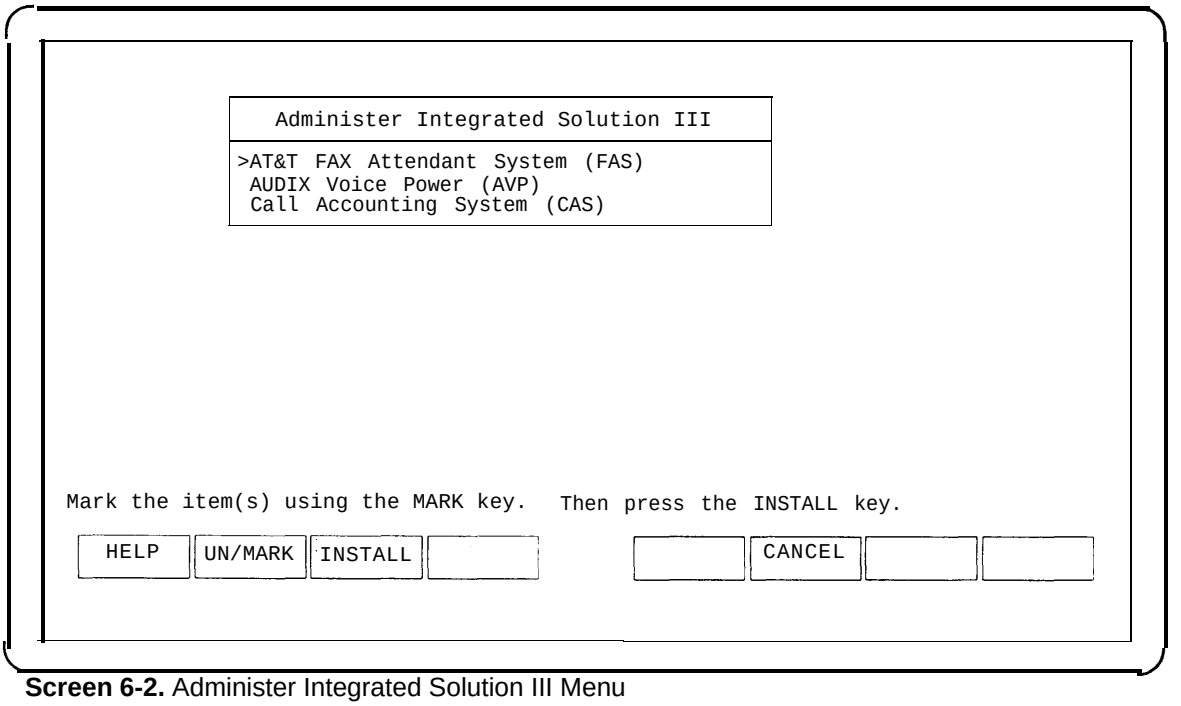
The system reboots and automatically loads the UNIX files and the IS III Platform Software from the tape onto the hard disk of the Master Controller. This process takes approximately 20 to 25 minutes. When the system finishes loading the tape, the Select Master Controller Hardware Platform Menu appears.



Screen 6-1. Select Master Controller Hardware Platform Menu

4. At the Select Master Controller Hardware Platform Menu, select the appropriate Master Controller and press [ENTER].

   The Administer Integrated Solution III Menu appears.



Screen 6-2. Administer Integrated Solution III Menu

You may now perform one of the following procedures:

- restore the complete system from tape backup (that is, if the customer has complete system backup tape(s))
- reinstall the IS III applications via the IS III Installation Tape

Restoring the Complete System from Tape Backup

The Complete System Restore from Tape procedure restores the following IS III files:

- UNIX system files
- application program files
- administrative files for each application (the CAS database and the system greetings for AUDIX Voice Power and FAX Attendant)
- all voice system files (if AUDIX Voice Power or FAX Attendant is installed), including all voice messages, system greetings, and personal greetings
- all fax messages (if FAX Attendant is installed), including Fax Response files
- call detail records (that is, records of every call)

You can use this procedure only if backup tapes are available. If backup tapes are not available, you must re-administer all applications.

If the customer has a tape backup of the system, perform the following steps:

1. At the Administer Integrated Solution III Menu, press [F6] (CANCEL).

   The Confirm Applications Selected Menu appears.

2. At the Confirm Applications Selected Menu, select `Accept Selection of Applications Displayed` and press [ENTER].

   The system configures the serial port for the RMD, rewinds the tape, and then reboots. The `Console Login:` prompt appears.

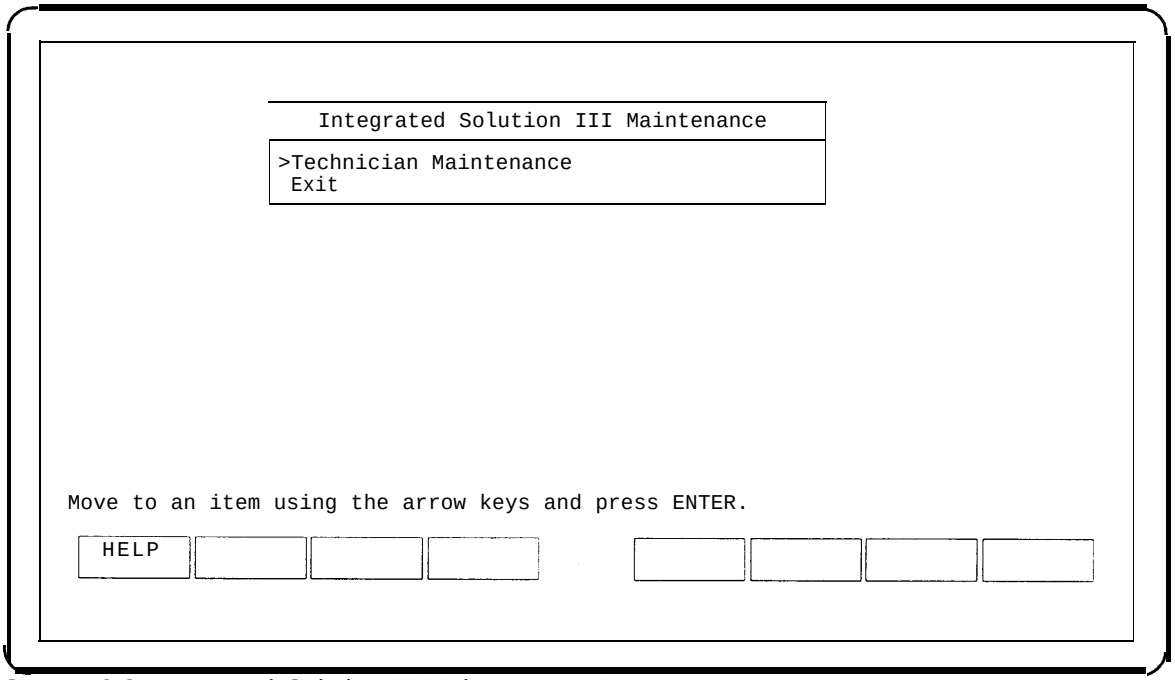
3. Remove the IS III Installation Tape.

4. Log in as *`maint`* and press [ENTER].

   The `Password:` prompt appears.

5. Enter the password and press [ENTER].

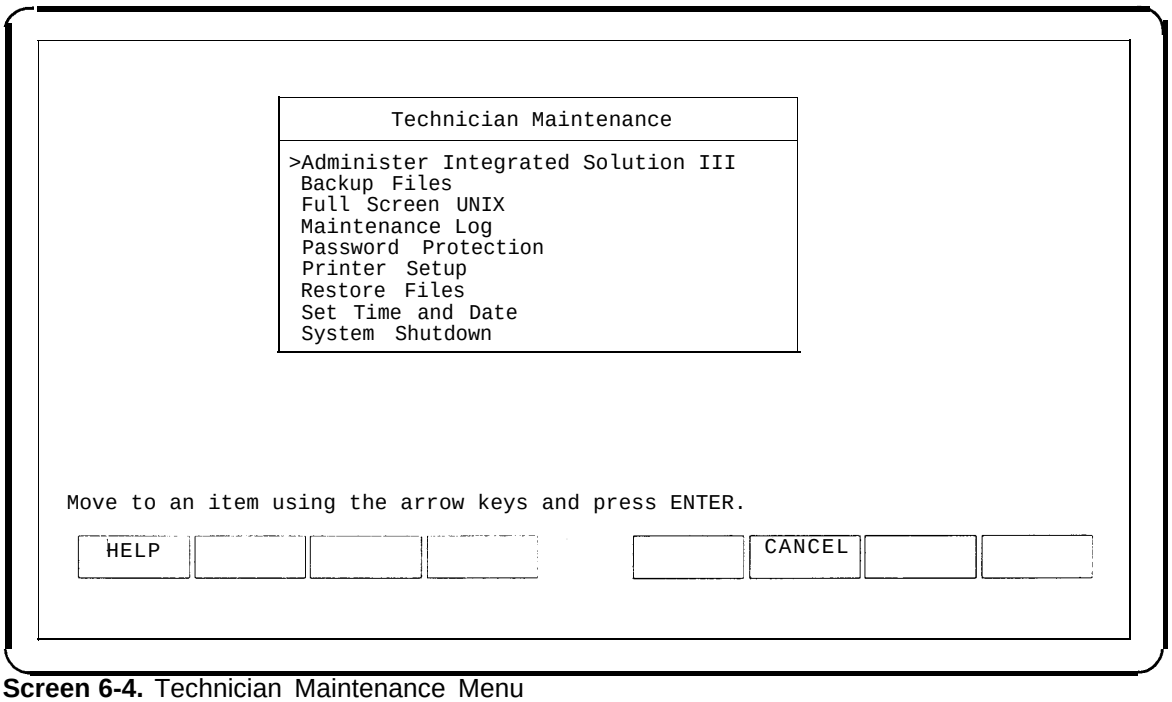
The Integrated Solution III Maintenance Menu appears.



Screen 6-3. Integrated Solution III Maintenance Menu

6. At the Integrated Solution III Maintenance Menu, select `Technician Maintenance` and press [ENTER].

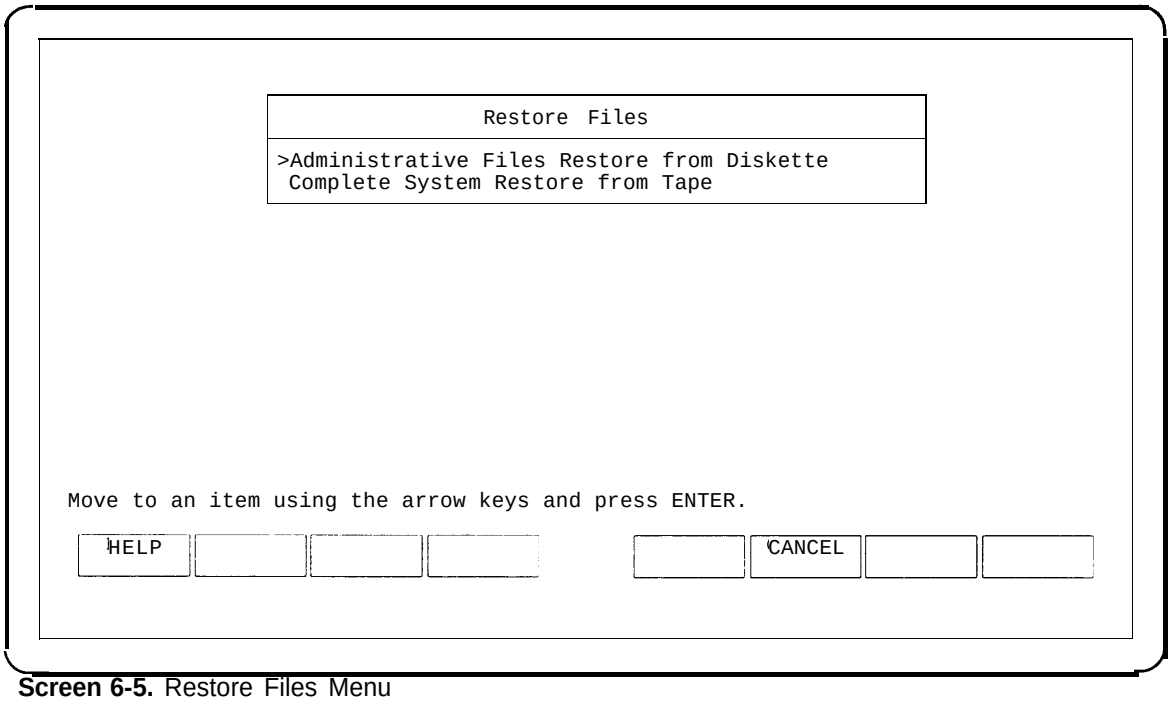
   The Technician Maintenance Menu appears.



Screen 6-4. Technician Maintenance Menu

7. At the Technician Maintenance Menu, select `Restore Files` and press [ENTER].

   The Restore Files Menu appears.



Screen 6-5. Restore Files Menu

8. At the Restore Files Menu, select `Complete System Restore from Tape` and press [ENTER].

   The system responds:

```
Confirm

A Complete System Restore will restore all application
files and system files.  This will usually take one
cartridge tape.  The restore will take less than a half
hour to complete.

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

9. Press [ENTER].

   The system responds:

```
Please insert the System Files cartridge tape and press ENTER
```

10. Insert the tape labeled “System Files” and press [ENTER].

    The system displays a long list of files that are being restored from tape. When this process is over, the system responds:

```
The application files and system files have been
successfully  restored.  After the light on the tape drive
goes out, remove the tape.

Strike ENTER when ready.
```

11. When the light on the tape drive goes out, remove the tape and press [ENTER].

    The Restore Files Menu appears.

12. Press [F6] (CANCEL).

    The Technician Maintenance Menu appears.

    NOTE:
    If the system does not have AUDIX Voice Power or FAX Attendant installed, the restore procedure is completed. At this point, performs system shutdown and reboot the system.

    If the system has AUDIX Voice Power or FAX Attendant installed, continue with the steps provided.

13. At the Technician Maintenance Menu, select `Full Screen UNIX` and press [ENTER].

    The system responds:

```
To return, type 'exit' or control-d
You are in /usr/maint
#
```

14. Type *`is2init`* and press [ENTER].

    The system responds:

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

    The system shuts down and displays the following prompt:

```
The system is down.
Reboot the system now.
```

15. Press the [Reset] button.

    The system reboots and performs an audit.

    NOTE:
    The system will find errors during the audit. However, these errors will be fixed after you restore the voice files (later in this procedure).

    After the system reboots, the `Console Login:` prompt appears.

16. Log in as *`maint`* and access the Integrated Solution III Maintenance Menu.

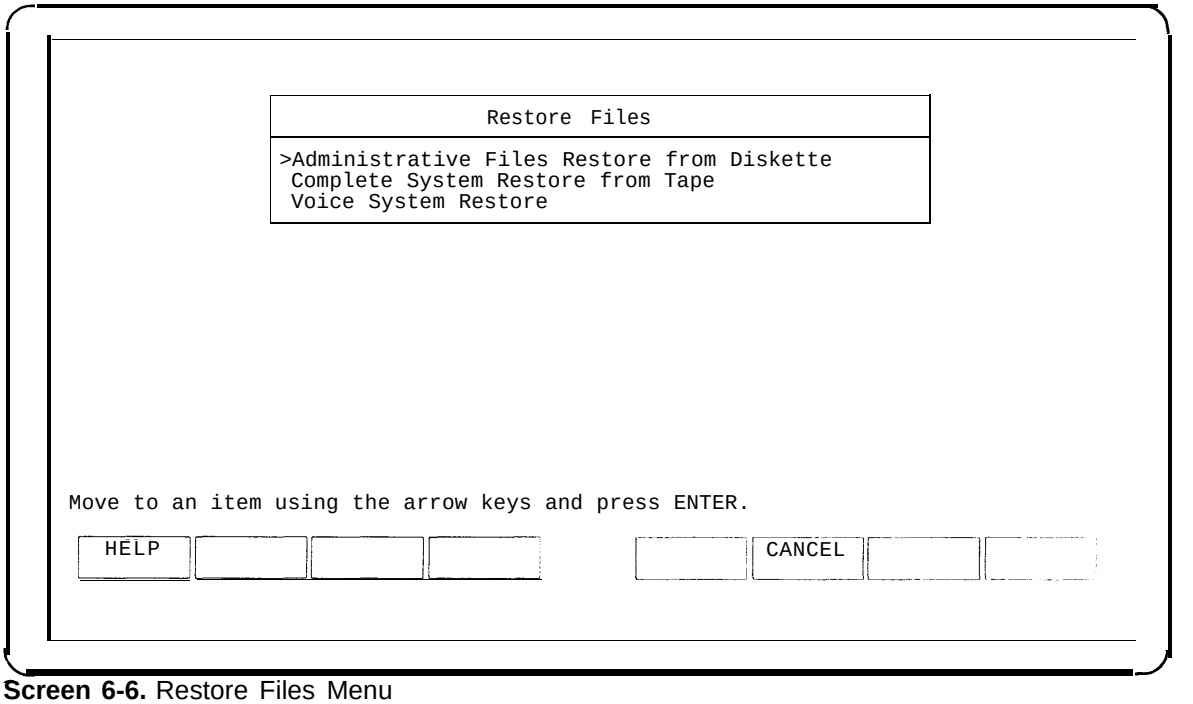
    The Integrated Solution III Maintenance Menu appears.

17. At the Integrated Solution III Maintenance Menu, select `Technician Maintenance` and press [ENTER].

    The Technician Maintenance Menu appears.

18. At the Technician Maintenance Menu, select `Restore Files` and Press [ENTER].

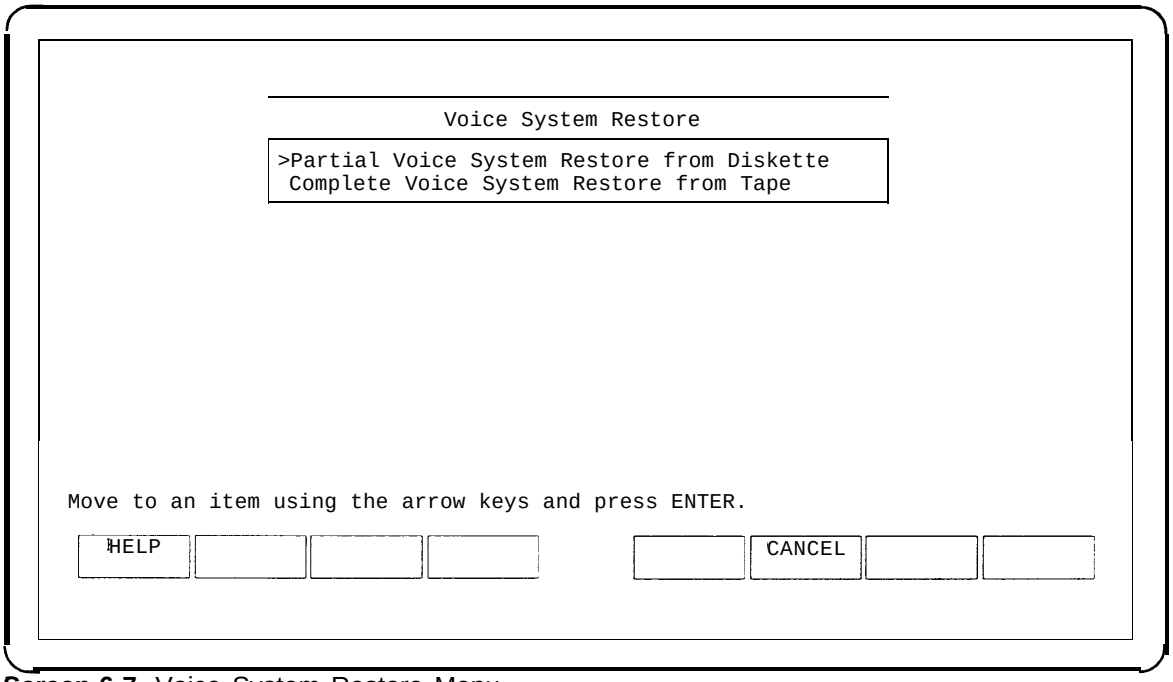
    The Restore Files Menu appears.



Screen 6-6. Restore Files Menu

19. At the Restore Files Menu, select `Voice System Restore` and press [ENTER].

    The Voice System Restore Menu appears.



Screen 6-7. Voice System Restore Menu

20. At the Voice System Restore Menu, select `Complete Voice System Restore from Tape` and press [ENTER].

    The system responds:

```
Confirm

The Voice System Restore from Tape will recover all the
voice files that were previously saved with the "Complete
System Backup to Tape" command.

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

21. Press [ENTER].

    The system responds:

```
WORKING.....

When prompted for "tape # 1" please insert the "Voice Files" tape.

Please insert tape # 1... then type <enter> to continue
```

22. Insert the tape labeled “Voice Files” and press [ENTER].

    The system displays a long list of the voice files that are being restored from tape. When this process is completed, the system responds:

```
The Voice System files have been successfully restored.
After the light on the tape drive goes out, remove the
tape.

Strike ENTER when ready.
```

23. When the light on the tape drive goes out, remove the tape and press [ENTER].

    The system responds:

```
The voice system will now be stopped and re-started for
changes to take effect.

Strike ENTER when ready.
```

24. Press [ENTER].

    System and informational status messages are displayed as the voice system is stopped and restarted.

    NOTE:
    When the system "comes up," you will see audit error messages. Ignore these messages.

    After the system is restarted, you are automatically returned to the Voice System Restore Menu.

25. Press [F6] (CANCEL) three times to return to the Integrated Solution III Maintenance Menu. .

At this point, the system is restored.

Installing IS III Applications

If the customer does not have complete system backup tapes, perform the following steps:

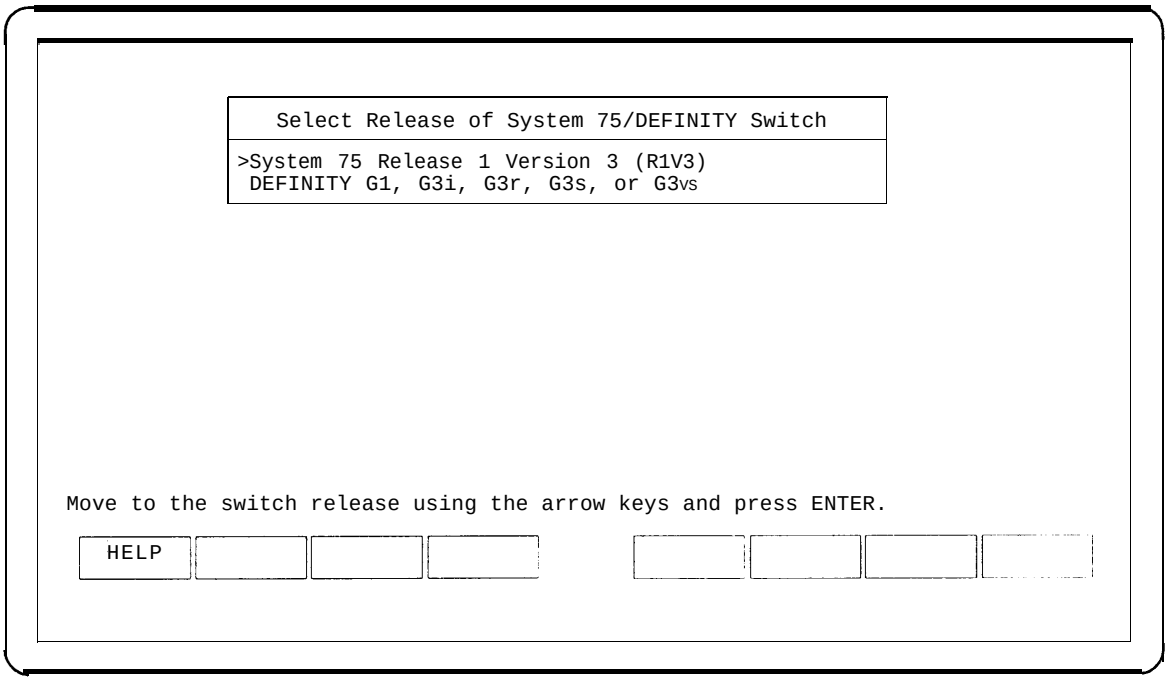
1. At the Administer Integrated Solution III Menu, select the application(s) you want to install and press [F2] (UN/MARK).

   An asterisk (*) appears in front of the application(s) you want to install.

   NOTE:
   If you marked an application by mistake, move the cursor back to that application and press [F2] (UN/MARK) again to "undo" the selection.

2. Press [F3] (INSTALL) to begin the installation procedure.

   The Select Release of System 75/DEFINITY Switch Menu appears.

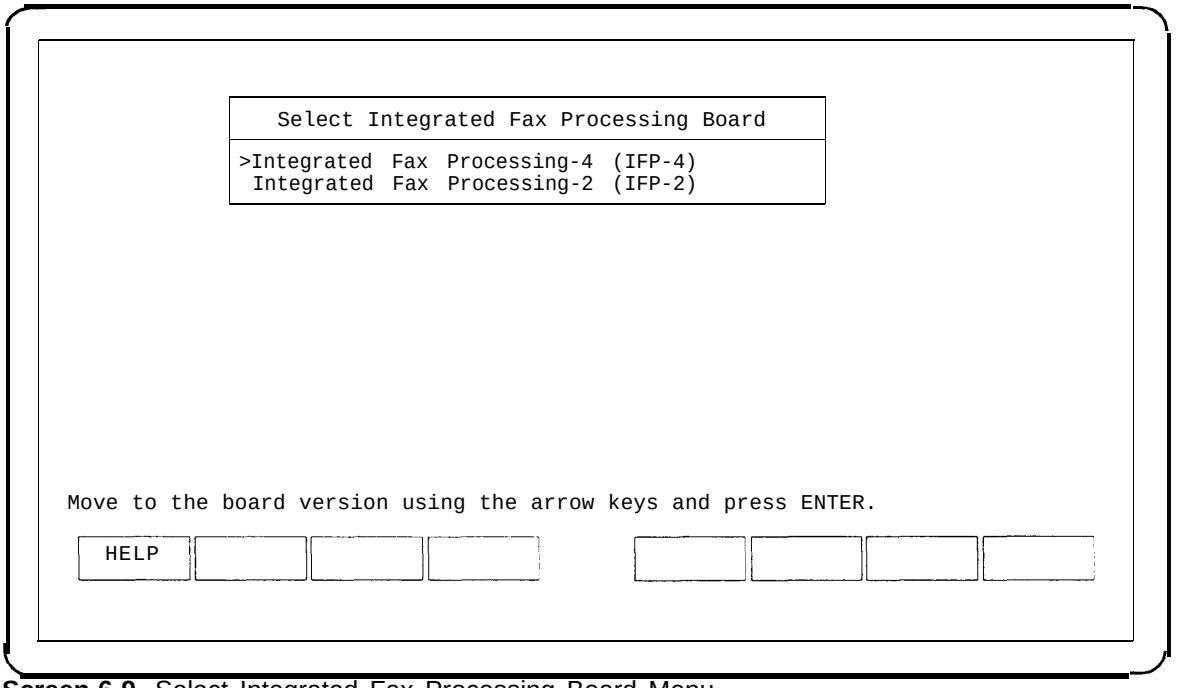


Screen 6-8. Select Release of System 75/DEFINITY Switch Menu

3. At the Select Release of System 75/DEFINITY Switch Menu, select the appropriate switch release and press [ENTER].

   If you are not installing FAX Attendant, the Confirm Applications Selected Menu appears. Proceed to step 5.

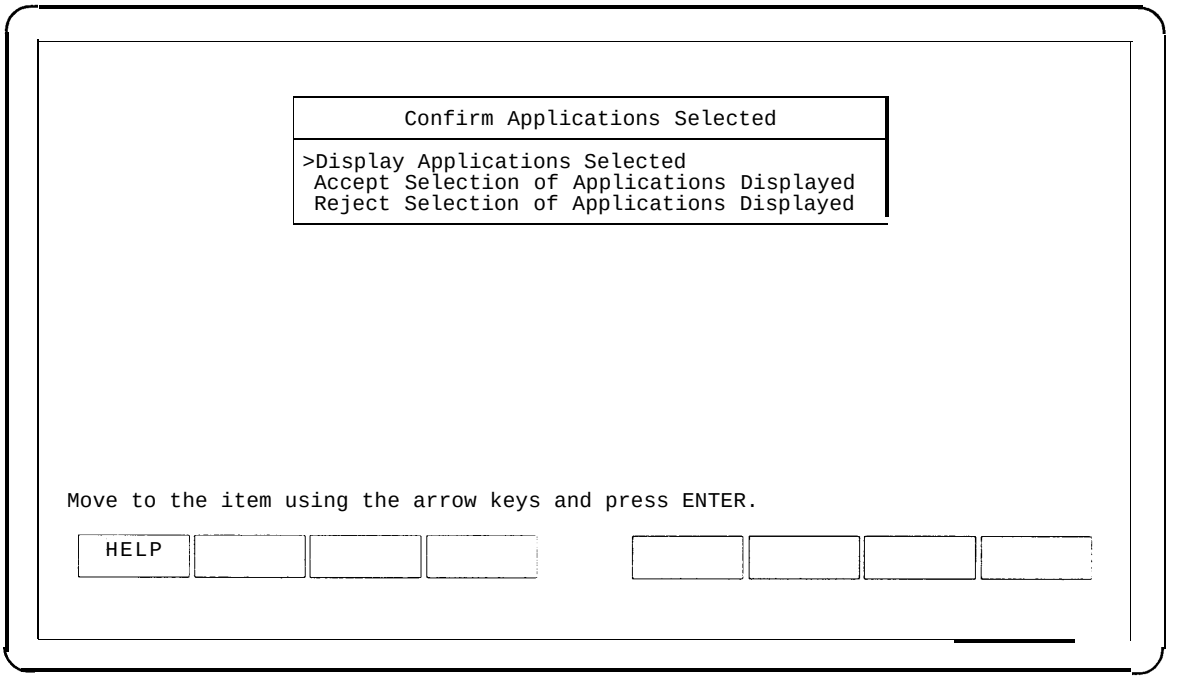
   If you are installing FAX Attendant, the Select Integrated Fax Processing Board Menu appears.



Screen 6-9. Select Integrated Fax Processing Board Menu

4. At the Select Integrated Fax Processing Board Menu, select the appropriate board and press [ENTER].

   The Confirm Applications Selected Menu appears.



Screen 6-10. Confirm Applications Selected Menu

The Confirm Applications Selected Menu enables you to perform the following tasks:

- view a list of the applications that you selected to install on the system (`Display Applications Selected`)
- proceed with the update you began (`Accept Selection of Applications Displayed`)
- abort the update you began and return to the Administer Integrated Solution III Menu (Reject `Selection of Applications Displayed`)

5. At the Confirm Applications Selected Menu, select `Accept Selection of Applications Displayed` and press [ENTER].

   The system configures the serial port for the appropriate Remote Maintenance Device (that is, RMD-HS or RMD) and then loads the software. This process takes approximately 65 to 70 minutes. After the software is loaded, the system automatically shuts down and reboots. The system then displays the `Console Login:` prompt.

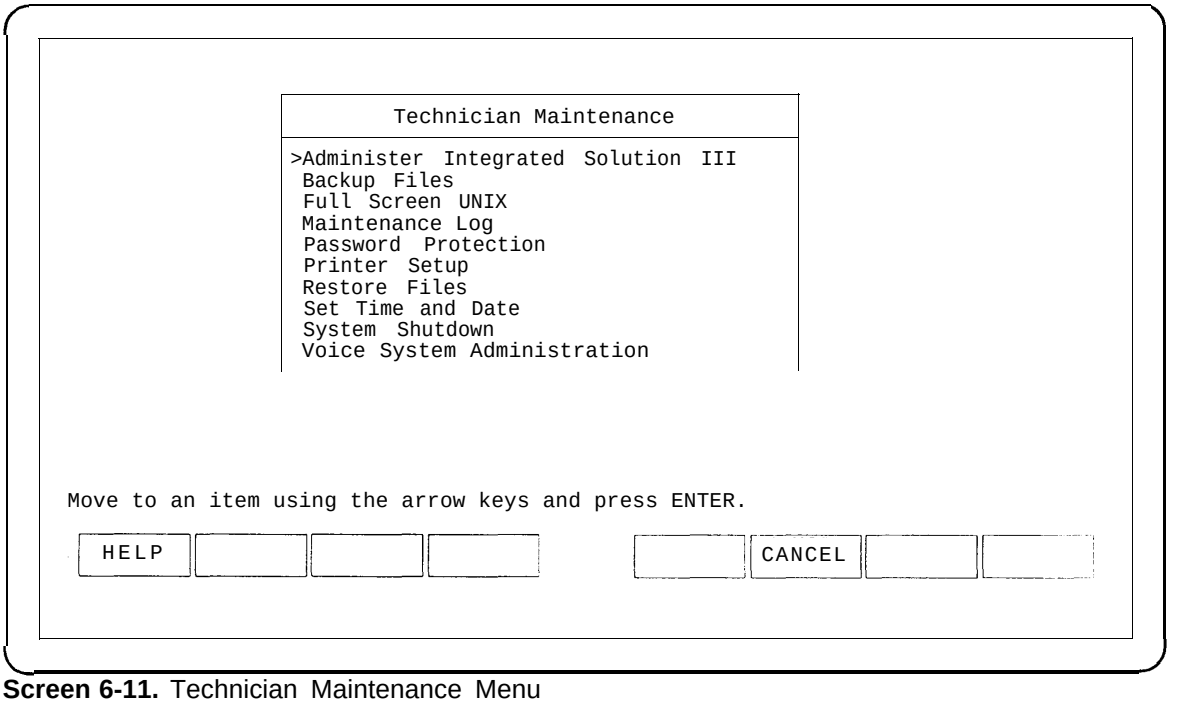
6. Log into the system using the *maint* login and access the Integrated Solution III Maintenance Menu.

   The Integrated Solution III Maintenance Menu should include AUDIX Voice Power FAX Attendant (AVP/FA) as an item if both were installed.

7. At the Integrated Solution III Maintenance Menu, select Technician Maintenance and press [ENTER].

   The Technician Maintenance Menu appears.

   NOTE:
   Voice System Administration appears if AUDIX Voice Power or FAX Attendant is installed.



Screen 6-11. Technician Maintenance Menu

8. At the Technician Maintenance Menu, select Maintenance Log and press [ENTER].

   The Maintenance Log Menu appears.

9. At the Maintenance Log Menu, select `Display Installed Applications` and press [ENTER].

   A list of all installed applications displays. For example, a system with co-resident AUDIX Voice Power/FAX Attendant applications would display:

```
AT&T FAX Attendant Co-resident Application Software R2.1.1
AT&T FAX Attendant S75/DEFINITY Co-resident Integration Software R2.1.1
AUDIX Voice Power Application Software R2.1.1:   Speech
AUDIX Voice Power Application Software R2.1.1:   Software
AUDIX Voice Power Application Software R2.1.1: Update 2
AUDIX Voice Power Switch Integration Software (for AT&T System 75 or Defi
DEFINITY Integrated Solution III Platform Software, Release 1.x
Integrated Voice Power System Software R2.0
Integrated Voice Power System Software R2.0: Update 4
```

10. Press [F6] (CANCEL) three times to return to the Integrated Solution III Maintenance Menu.

11. If there are administrative files backup diskettes, proceed to "Restoring the Administrative Files from Diskette," later in this chapter. After recovering any available backup files, readminister the IS III applications that you installed. For AUDIX Voice Power and FAX Attendant, refer to the System Manager's guides. For CAS, refer to Chapter 5.

Recovering From Data Corruption

IS III allows you to perform the following restore procedures:

- Complete System Restore from Tape
- Administrative Files Restore from Diskette
- Complete Voice System Restore from Tape

The type of restore you perform depends on the type of backup the customer performed.

Restoring the Complete System from Tape

NOTE:
This procedure assumes that the basic UNIX system and cartridge tape utilities are available on the hard disk. If you have replaced the hard disk, or if you encounter errors that indicate software corruption, restore the UNIX system and IS III Platform Software using Procedure 6-2 given earlier in this chapter before continuing.

The Complete System Restore from Tape procedure restores the following IS III files:

- UNIX system files
- application program files
- administrative files for each application (the CAS database and the system greetings for AUDIX Voice Power and FAX Attendant)
- all voice system files (if AUDIX Voice Power or FAX Attendant is installed), including all voice messages, system greetings, and personal greetings
- all fax messages (if FAX Attendant is installed), including Fax Response files
- call detail records (that is, records of every call)

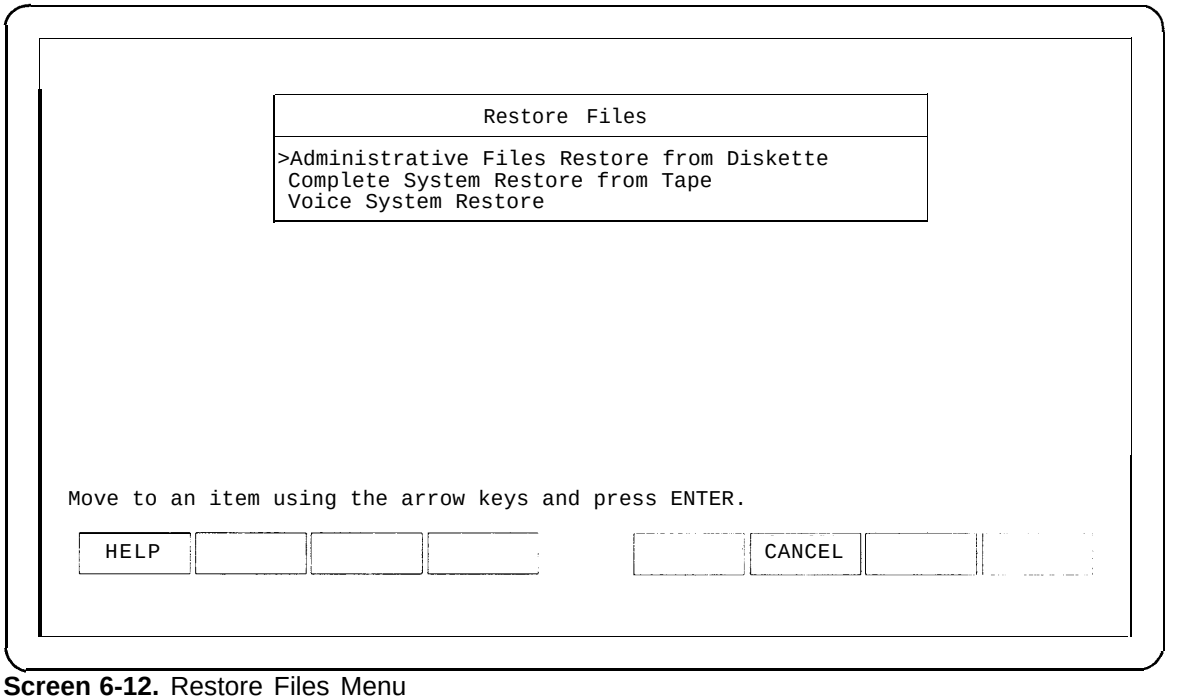
You can use this procedure only if backup tapes are available.

To restore the entire system from tape backup, perform the following steps:

1. At the Technician Maintenance Menu, select `Restore Files` and Press [ENTER].

   The Restore Files Menu appears.

   NOTE:
   `Voice System Restore` appears if AUDIX Voice Power or FAX Attendant is installed.



Screen 6-12. Restore Files Menu

2. At the Restore Files Menu, select `Complete System Restore from Tape` and press [ENTER].

   The system responds with a message telling you how many tapes you will need.

   If AUDIX Voice Power or FAX Attendant is installed, the system displays the following message:

```
Confirm

A Complete System Restore will restore all application
files, system files and all voice files. This will usually
take two cartridge tapes.  Each tape will take less than a
half hour to complete.

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

   If AUDIX Voice Power or FAX Attendant is not installed, the system displays the following message:

```
Confirm

A Complete System Restore will restore all application
files and system files.  This will usually take one
cartridge tape.  The restore will take less than a half
hour to complete.

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

3. Press [ENTER].

   The system responds:

```
Please insert the System Files cartridge tape and press ENTER
```

4. Insert the backup tape labeled "System Files" and press [ENTER].

   The system displays along list of files that are being restored from tape. When this process is over, the system responds:

```
The application files and system files have been
successfully restored.  After the light on the tape drive
goes out, remove the tape.

Strike ENTER when ready.
```

5. When the light on the tape drive goes out, remove the tape and press [ENTER].

   The system responds:

```
Confirm

The Voice System Restore from Tape will recover all the
voice files that were previously saved with the "Complete
System Backup to Tape" command.

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

   NOTE:
   If AUDIX Voice Power or FAX Attendant is not installed, the system prompts you to press [ENTER], which returns you to the Restore Files Menu. The restore procedure is completed.

6. Press [ENTER].

   The system responds:

```
When prompted for "tape # 1" please insert the "Voice Files" tape.

Please insert tape # 1... then type <enter> to continue
```

7. Insert the backup tape labeled "Voice Files" and press [ENTER].

   The system displays along list of the voice files that are being restored from tape. When this process is completed, the system responds:

```
The Voice System files have been successfully restored.
After the light on the tape drive goes out, remove the tape.

Strike ENTER when ready.
```

8. When the light on the tape drive goes out, remove the tape and press [ENTER].

   The system responds:

```
The voice system will now be stopped and re-started for
changes to take effect.

Strike ENTER when ready.
```

9. Press [ENTER].

   System and informational status messages are displayed as the voice system is stopped and restarted. You are automatically returned to the Restore Files Menu.

Restoring the Administrative Files from Diskette

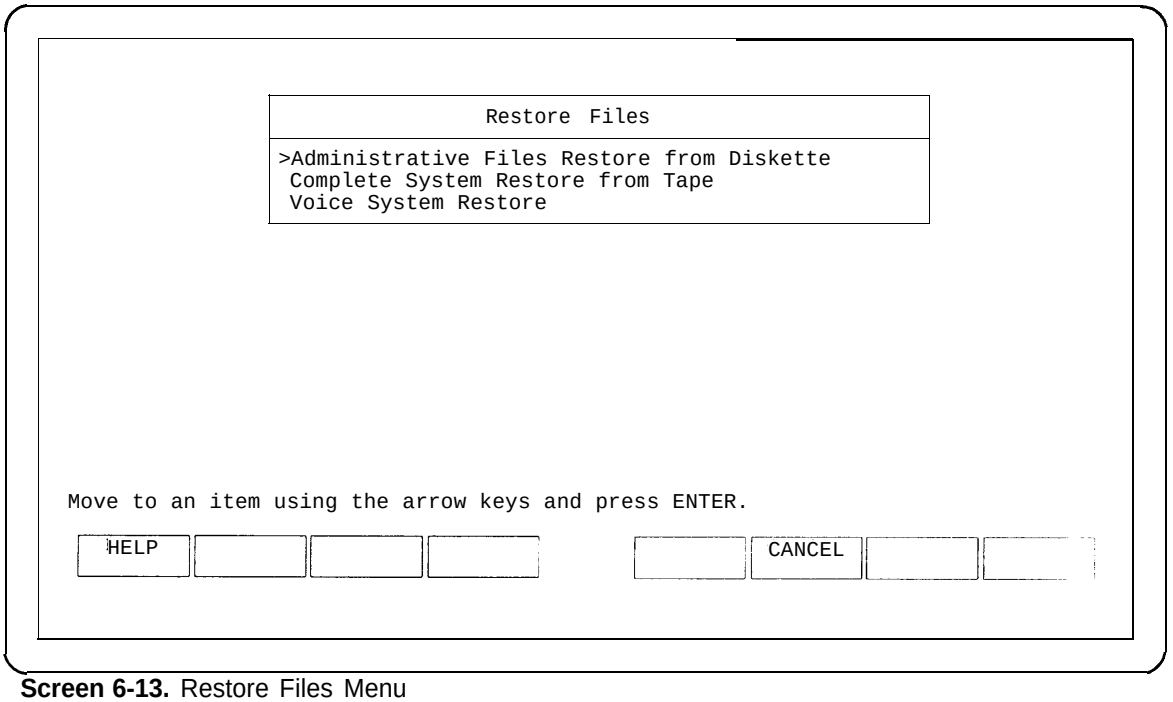
The Administrative Files Restore from Diskette procedure restores administrative files for each application and system greetings for AUDIX Voice Power and FAX Attendant. You can use this procedure only if backup diskettes are available. If backup diskettes are not available, you must re-administer all applications.

To restore the administrative files from diskette(s), perform the following steps:

1. At the Technician Maintenance Menu, select `Restore Files` and press [ENTER].

   The Restore Files Menu appears.

   NOTE:
   `Voice System Restore` appears if AUDIX Voice Power or FAX Attendant is installed.



Screen 6-13. Restore Files Menu

2. At the Restore Files Menu, select `Administrative Files Restore from Diskette` and press [ENTER].

   The system displays the following message:

```
Confirm

IS III Application Administrative Files Restore will
restore the administrative files associated with all
installed applications from diskette.

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

3. Press [ENTER].

   The system responds:

```
Starting IS III Application Administrative Files Restore.


Confirm

Insert System Files Backup diskette #1 from which to
restore.

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

4. Insert diskette #1 and press [ENTER].

   The system responds:

```
IS III Application Administrative Files restore in progress.
```

   After the files are restored, the system responds:

```
The IS III Application Administrative Files restore from
diskette was successful.  Remove the diskette from the
drive.

It is advisable to do a Voice System Restore now.  This
will be done automatically.

Strike ENTER when ready.
```

5. Remove the diskette and press [ENTER]

   The system responds:

```
Confirm

The Voice System Restore from diskette will recover the
custom voice prompts for AUDIX Voice Power services that
were previously saved with the "Voice System Backup to
Diskette" command.

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

6. Press [ENTER].

   The system prompts you to insert the Voice System Backup diskette(s).

7. Insert diskette #1 and press [ENTER].

   The system restores the files. After the files are restored, the system responds:

   ```
   The Voice System Restore from diskette was successful. Remove the
   diskette from the drive.

   Strike ENTER when ready.
   ```

8. Remove the diskette and press [ENTER].

   You are automatically returned to the Restore Files Menu.

NOTE:
If you have a back up tape of the voice files, proceed to "Restoring the Complete Voice System from Tape Backup."

Restoring the Complete Voice System from Tape Backup

To restore the complete voice system from tape backup, perform the following steps:

1. At the Technician Maintenance Menu, select `Restore Files` and press [ENTER].

   The Restore Files Menu appears.

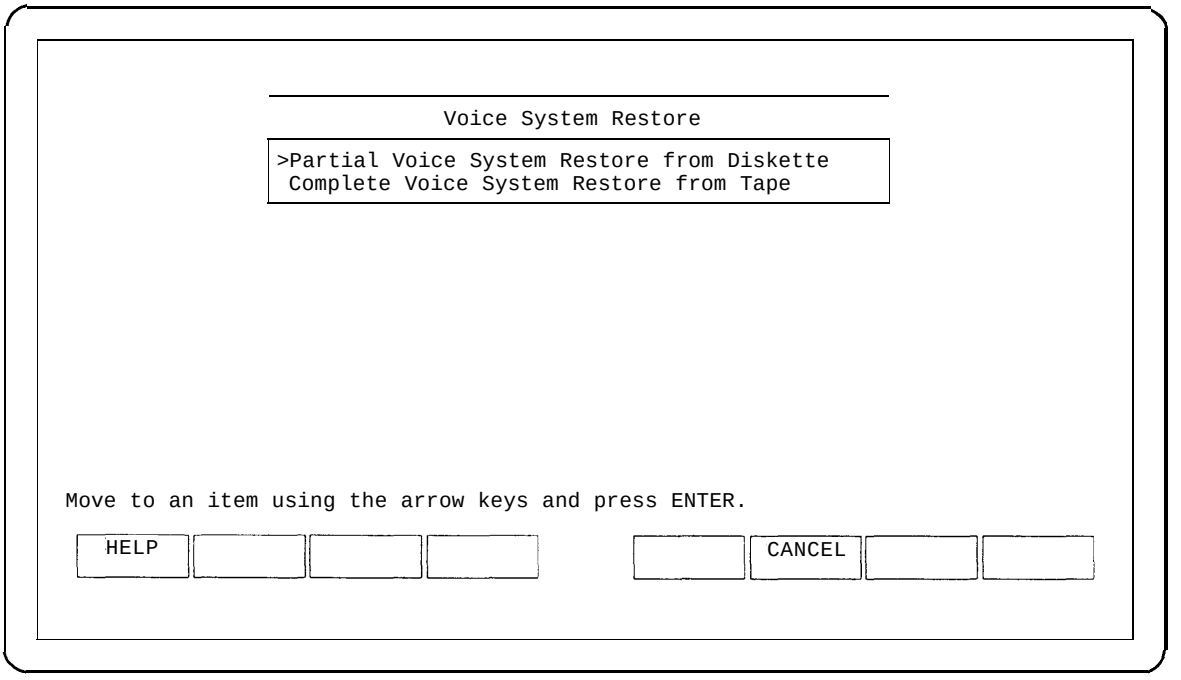
   NOTE:
   `Voice System Restore` appears if AUDIX Voice Power or FAX Attendant is installed.

```
                    Restore Files
>Administrative Files Restore from Diskette
 Complete System Restore from Tape
 Voice System Restore

Move to an item using the arrow keys and press ENTER.

 HELP                                          CANCEL
```

Screen 6-14. Restore Files Menu

2. At the Restore Files Menu, select `Voice System Restore` and press [ENTER].

   The Voice System Restore Menu appears.



Screen 6-15. Voice System Restore Menu

3. At the Voice System Restore Menu, select `Complete Voice System Restore from Tape` and press [ENTER].

   The system responds:

```
Confirm

The Voice System Restore from Tape will recover all the
voice files that were previously saved with the "Complete
System Backup to Tape" command.

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

4. Press [ENTER].

   The system responds:

```
When prompted for "tape # 1" please insert the "Voice Files" tape.

Please insert tape # 1... then type <enter> to continue
```

5. Insert the tape labeled "Voice Files" and press [ENTER].

   The system displays a long list of the voice files that are being restored from tape. When this process is completed, the system responds:

```
The Voice System files have been successfully restored.
After the light on the tape drive goes out, remove the
tape.

Strike ENTER when ready.
```

6. When the light on the tape drive goes out, remove the tape and press [ENTER].

   The system responds:

```
The voice system will now be stopped and re-started for
changes to take effect.

Strike ENTER when ready.
```

7. Press [ENTER].

   System and informational status messages are displayed as the voice system is stopped and restarted. After the voice system is restarted, you are automatically returned to the Voice System Restore Menu.

8. Press [F6] (CANCEL) three times to return to the Integrated Solution III Maintenance Menu.

Upgrading the Software

7

Upgrading from one release to another may include the installation of software, hardware, or both. This section describes how to perform software upgrades. Each procedure is complete and may be performed independently of the others. For information about hardware upgrades, see Chapter 3.

Upgrading to IS III

This section provides the procedures for upgrading to a DEFINITY IS III System from the following configurations:

- Standalone AUDIX Voice Power R2.1.1 for System 75/DEFINITY
- System 25 Integrated Solution II
- System 25 Integrated Solution III
- MERLIN LEGEND® Integrated Solution II
- MERLIN LEGEND Integrated Solution III

Materials Required

To upgrade to a DEFINITY IS III system, you will need the following materials:

- IS III Installation Tape
- IS III Boot Diskette
- two blank cartridge tapes
- CAS Setup diskettes
- UNIX formatted, blank diskettes

Activity Checklist

The procedures you must perform to upgrade a customer's existing system to a DEFINITY IS III system depend on the customer's existing system. If the customer's existing system has an MC II+, MC III, or MAP/5 that will be used for DEFINITY IS III, perform the following procedures:

1. Print the administration reports for each application installed on the current system.
2. Shut down the existing system.
3. Upgrade the hardware.
4. Install the DEFINITY IS III software.
5. Back up the new DEFINITY IS III system.

If the customer's existing system does not have an MC II+, MC III, or MAP/5, perform the following procedures:

1. Print the administration reports for each application installed on the current system.
2. Back up the existing system to floppy diskettes (only if the customer has standalone AUDIX Voice Power Release 2.1.1 for System 75/DEFINITY).
3. Restore selected administrative and voice system files to the new IS III system (only if the customer is upgrading from standalone AUDIX Voice Power Release 2.1.1 for System 75/DEFINITY).
4. Verify the restored administrative and voice system files (only if the customer is upgrading from standalone AUDIX Voice Power Release 2.1.1 for System 75/DEFINITY).
5. Verify the passwords for the General and Maintenance mailboxes (only if the customer is upgrading from standalone AUDIX Voice Power Release 2.1.1 for System 75/DEFINITY).
6. Shut down the system (only if the customer is upgrading from standalone AUDIX Voice Power Release 2.1.1 for System 75/DEFINITY).
7. Back up the new DEFINITY IS III system.

Procedure 7-1: Print out the Administration Reports for Each Application

Before starting the upgrade, print out the administration reports for each application installed on the customer's present system. These reports will be used to configure the new system so that it resembles the existing system as much as possible. Refer to the application documentation for information on how to print out these reports.

Procedure 7-2: Back Up the Existing System

NOTE:
Only perform this procedure if you are upgrading from standalone AUDIX Voice Power R2.1.1 for System 75/DEFINITY.

Back up the existing system only if the customer has standalone AUDIX Voice Power Release 2.1.1 for System 75/DEFINITY. None of the files from the other configurations can be used in DEFINITY IS III

You must back up the administrative files and speech files together. One without the other cannot be used to restore the system. You need formatted disks for backup. You should have at least 20 formatted disks available before beginning the backup procedure.

To back up the existing standalone AUDIX Voice Power Release 2.1.1 system, perform the following steps:

1. Log into the system as *root.*
2. At the # prompt, enter *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 `Backup to Removable Media` and press [ENTER].

   The Backup to Removable Media Menu appears.
5. At the Backup to Removable Media Menu, select `Personal Backup` and press [ENTER].

   The Personal Backup Menu appears.
6. At the Personal Backup Menu, select `Selective Backup of Files Under /` and press [ENTER].

   The Selective Backup of Files Under / screen appears.

   NOTE:
   If the system has more than one floppy disk drive, or it has a cartridge tape drive, the Select Removable Media menu appears. In this case, select a disk drive and press [ENTER]. The Selective Backup of Files Under / screen appears.

7. Enter the following four directories, and include a space between each directory: ***/usr/vmdb /usr/ocdb /avp/data /gendb***

8. Press [F3] (SAVE).

   The system calculates the number of disks required and the amount of time the backup will take.

   NOTE:
   If you do not have enough formatted disks available, press [F6] (CANCEL) and format the necessary number of diskettes. Refer to "Formatting a Floppy Disk" in the *AUDIX Voice Power Release 2.1.1 System Manager's Guide* (585-310-520) and then repeat steps 3 to 8.

9. When prompted, insert the first formatted disk and press [ENTER].

   The system backs up the administrative files.

10. When the system finishes backing up the administrative files, remove the last disk and press [ENTER].

    The Backup to Removable Media Menu appears.

11. At the Backup to Removable Media Menu, select `Speech Backup` and press [ENTER].

    The Speech Backup Menu appears.

12. At the Speech Backup Menu, select `Selective Backup of Talk files/Phrases` and press [ENTER].

    The Selective Backup of Speech Files screen appears.

13. Enter ***talkfile 46 phrase all*** and press [ENTER].

14. Enter ***talkfile 47 phrase all*** and press [ENTER].

15. Press [F3] (SAVE).

    The system calculates the number of disks required.

    NOTE:
    If the system has more than one floppy disk drive, or it has a cartridge tape drive, the Select Removable Media menu appears. In this case, select a disk drive and press [ENTER]. The system calculates the number of disks required.

NOTE:
If you do not have enough formatted disks available, press [DELETE] and format the necessary number of diskettes. Refer to "Formatting a Floppy Disk" in the *AUDIX Voice Power Release 2.1.1 System Manager's Guide* (585-310-520) and then repeat steps 11 to 15.

16. When prompted, insert the first formatted disk and press [ENTER].

    The speech files backup procedure begins.

17. When the backup procedure is complete, remove the last diskette and press [ENTER].

    The system returns to the Speech Backup Menu.

18. Press [F6] (CANCEL) repeatedly to return to the AT&T FACE Menu.

19. At the AT&T FACE Menu, select `Exit` and press [ENTER].

    The Confirm Exit screen appears.

20. Press [F3] (CONT) to return to the # prompt.

21. Enter ***exit*** and press [ENTER] to return to the `Console Login:` prompt.

Procedure 7-3: Shut Down the System

NOTE:
Only perform this procedure if the customer's existing system has an MC II+, MC III, or MAP/5 that will be used for the DEFINITY IS III system.

After backing up the existing system, perform a system shutdown. Once the system is shut down, shut off the power on the Master Controller and perform any hardware upgrades (Chapter 3). When you are finished upgrading the hardware, proceed to "Procedure 7-5: Install IS III."

Procedure 7-4: Upgrade the Hardware

NOTE:
Only perform this procedure if the customer's existing system has an MC II+, MC III, or MAP/5 that will be used for the DEFINITY IS III system.

The voice and fax boards in the current system can be used in the DEFINITY IS III system. Refer to Chapter 3 to upgrade the hardware to support DEFINITY IS III. After upgrading the hardware, proceed to "Procedure 7-5: Install IS III."

Procedure 7-5: Install IS III

NOTE:
Only perform this procedure if the customer's existing system has an MC II+, MC III, or MAP/5 that will be used for the DEFINITY IS III system.

To install the IS III software, perform the following steps:

1. With the Master Controller turned off, insert the IS III Boot diskette and power up the Master Controller.

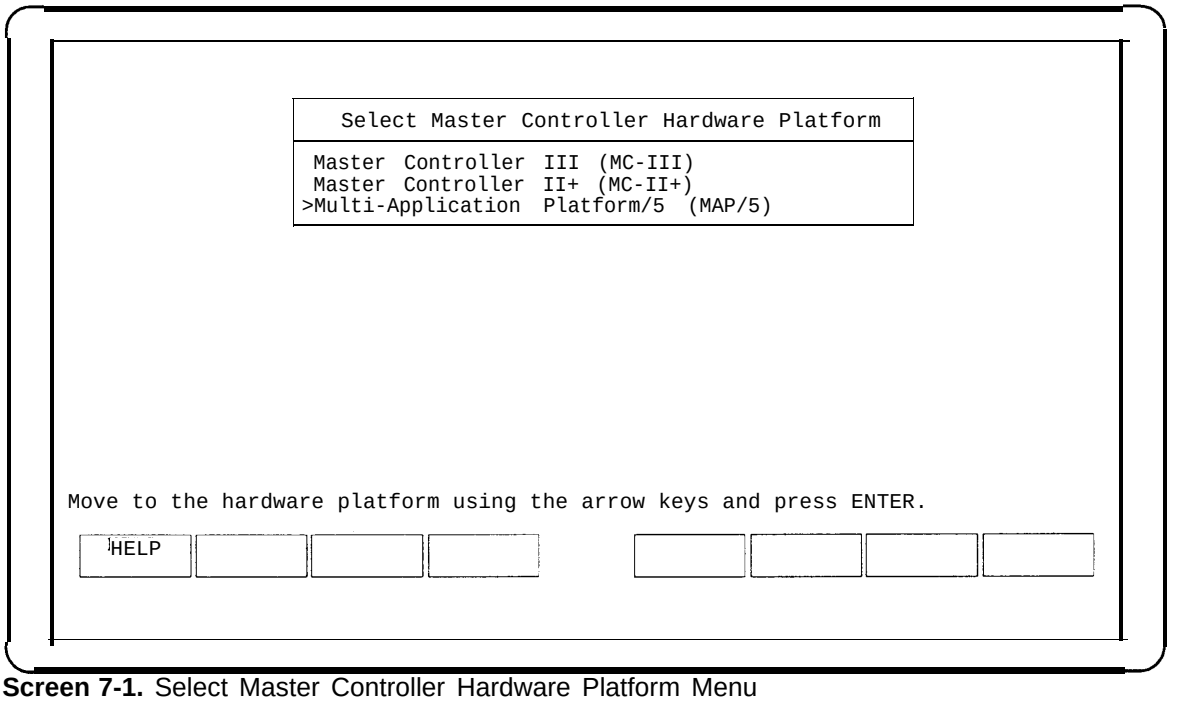
   The boot disk reformats the entire hard disk on the Master Controller, destroying all of the data on the hard disk. This process takes approximately 15 to 20 minutes. Once the hard disk is reformatted, the following prompt appears:

   ```
   When you are prompted to reboot your system, remove the floppy disk
           from the diskette drive, insert the Integrated Solution III
           Installation cartridge tape into the tape drive,
           and press <CTRL-ALT-DEL>.

   Please wait for the prompt.

   Reboot the system now.
   ```

2. Remove the IS III Boot diskette and insert the IS III Installation Tape.

3. Press the Reset button.

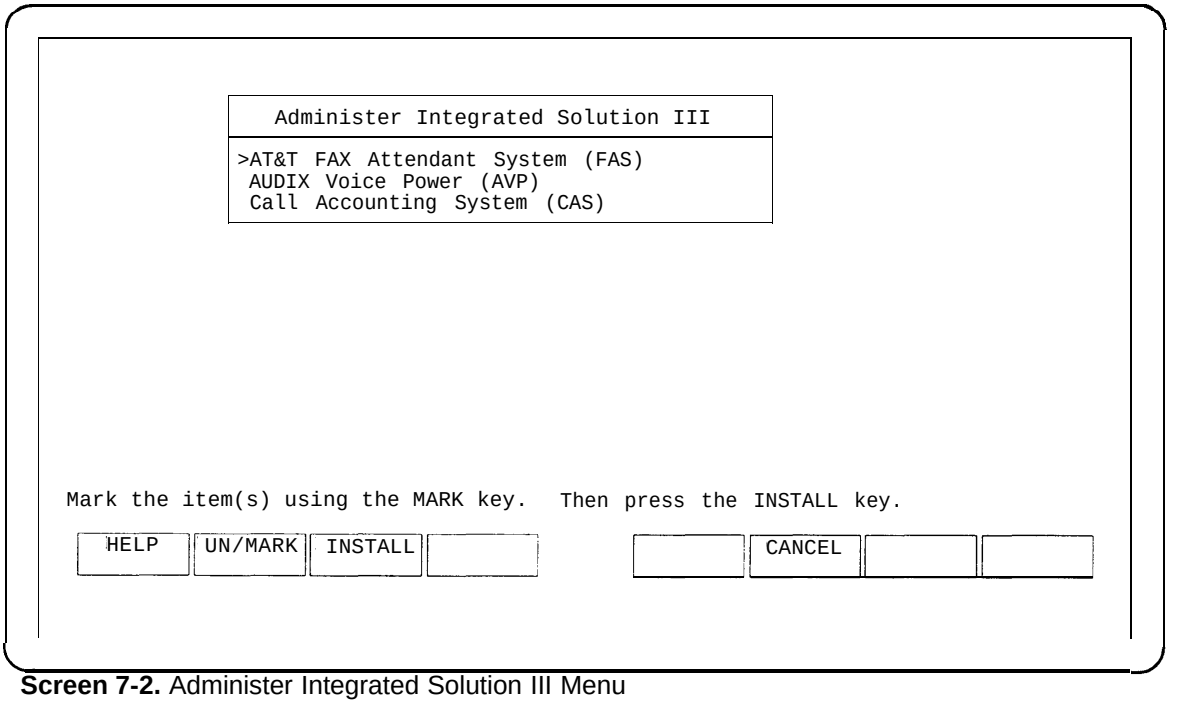
   The system reboots and automatically loads the UNIX files and the IS III Platform Software from the tape onto the hard disk of the Master Controller. This process takes approximately 20 to 25 minutes. When the system finishes loading the tape, the Select Master Controller Hardware Platform Menu appears.



Screen 7-1. Select Master Controller Hardware Platform Menu

4. At the Select Master Controller Hardware Platform Menu, select the appropriate Master Controller and press [ENTER].

   The Administer Integrated Solution III Menu appears.



Screen 7-2. Administer Integrated Solution III Menu

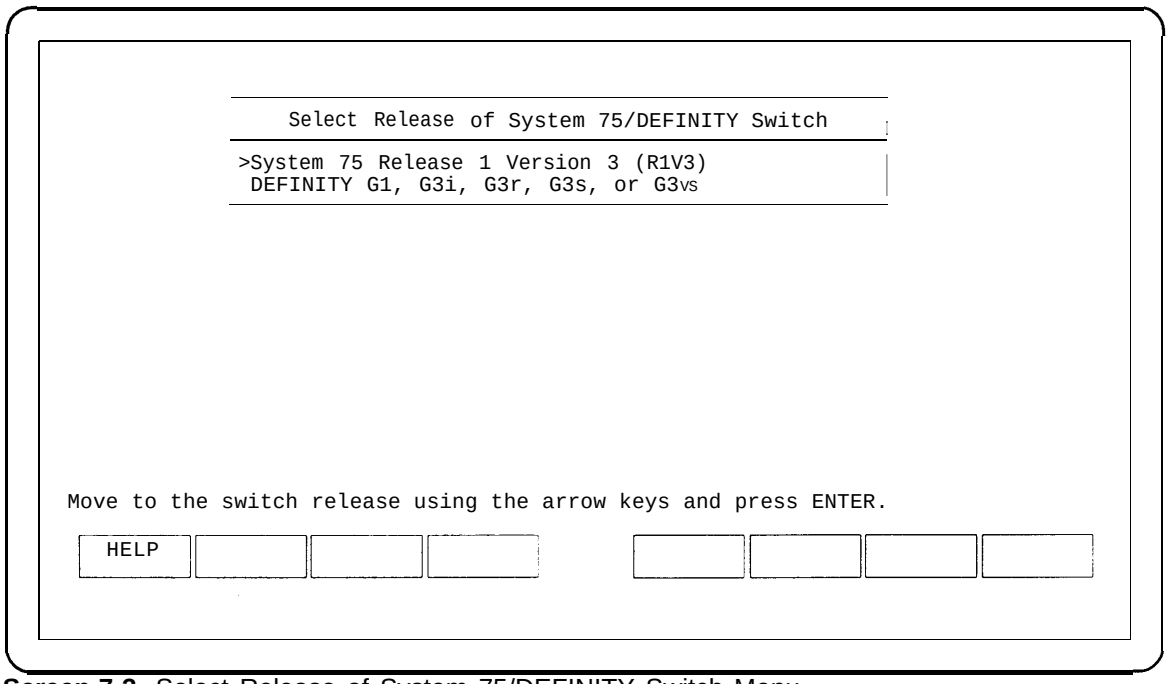
5. At the Administer Integrated Solution III Menu, select the application(s) you want to install and press [F2] (UN/MARK).

   An asterisk (*) appears in front of the application(s) you want to install.

   NOTE:
   If you marked an application by mistake, move the cursor back to that application and press [F2] (UN/MARK) again to "undo" the selection.

6. Press [F3] (INSTALL) to begin the installation procedure.

The Select Release of System 75/DEFINITY Switch Menu appears.

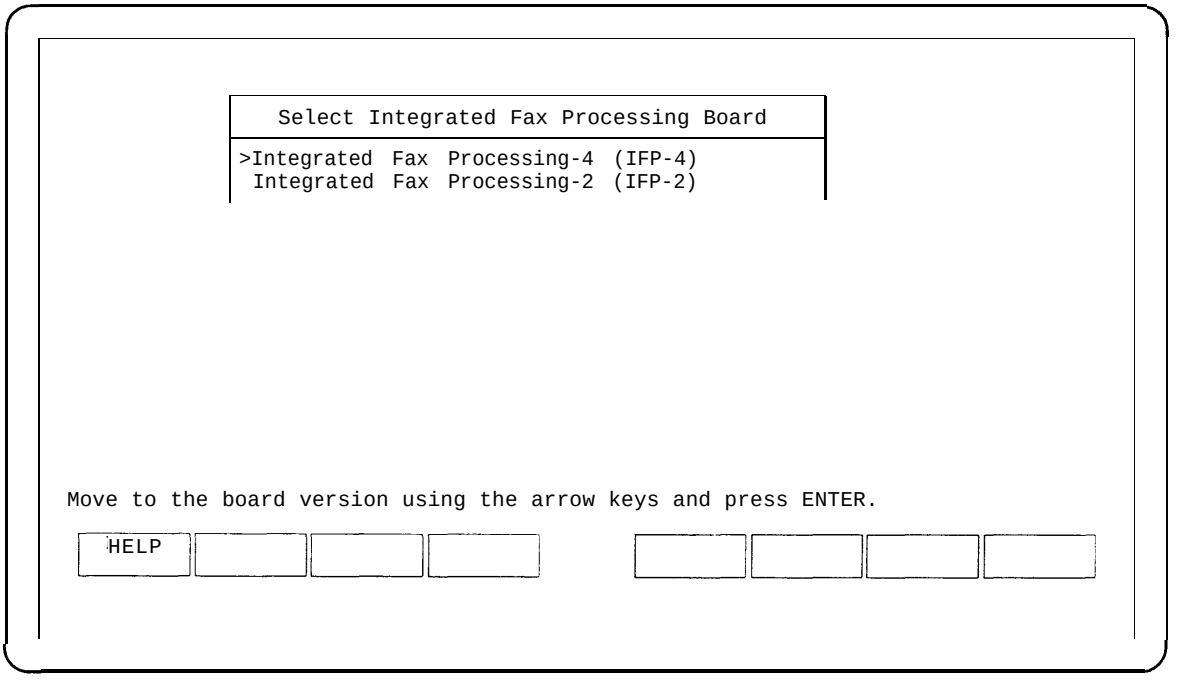


Screen 7-3. Select Release of System 75/DEFINITY Switch Menu

7. At the Select Release of System 75/DEFINITY Switch Menu, select the appropriate switch release and press [ENTER].

   If you are not installing FAX Attendant, the Confirm Applications Selected Menu appears. Proceed to step 9.

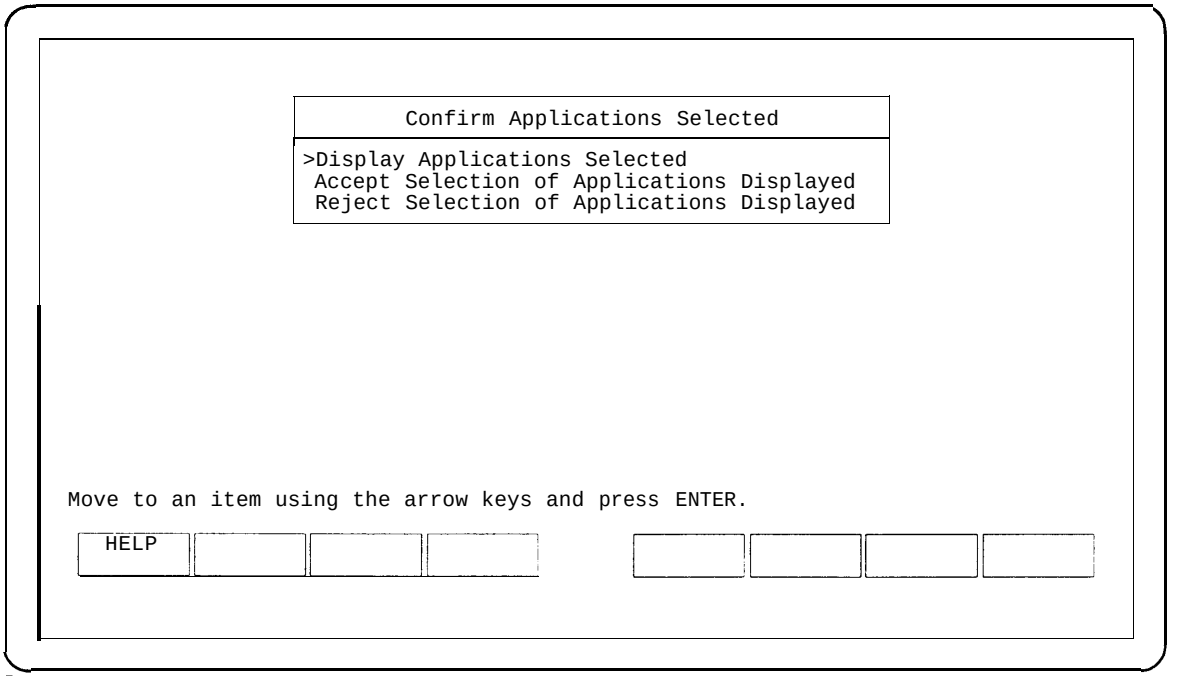
   If you are installing FAX Attendant, the Select Integrated Fax Processing Board Menu appears.



Screen 7-4. Select Integrated Fax Processing Board Menu

8. At the Select Integrated Fax Processing Board Menu, select the appropriate board used in your system and press [ENTER].

   The Confirm Applications Selected Menu appears.



Screen 7-5. Confirm Applications Selected Menu

The Confirm Applications Selected Menu enables you to perform the following tasks:

- view a list of the applications that you selected to install on the system (`Display Applications Selected`)
- proceed with the installation you began (`Accept Selection of Applications Displayed`)
- abort the installation you began and return to the Administer Integrated Solution III Menu (`Reject Selection of Applications Displayed`)

9. At the Confirm Applications Selected Menu, select `Accept Selection of Applications Displayed` and press [ENTER].

   The system configures the serial port for the appropriate Remote Maintenance Device (that is, RMD-HS or RMD) and then loads the software. This process takes approximately 65 to 70 minutes. After the software is loaded, the system automatically shuts down and reboots. The system then displays the `Console Login:` prompt.

10. Remove the IS III Installation Tape.

If you are upgrading from standalone AUDIX Voice Power R2.1.1 for System 75/DEFINITY, proceed to "Procedure 7-6: Restore Selected Files to IS III. Otherwise, proceed to "Procedure 7-9: Shut Down the System."

Procedure 7-6: Restore Selected Files to IS III

NOTE:
Only perform this procedure if you are upgrading from standalone AUDIX Voice Power R2.1.1 for System 75/DEFINITY.

To restore administrative files and speech files to IS III, perform the following steps:

1. At the `Console Login:` prompt, log in as ***maint.***

   The Integrated Solution III Maintenance Menu appears.

2. At the Integrated Solution III Maintenance Menu, select `Technician Maintenance` and press [ENTER].

   The Technician Maintenance Menu appears.

3. At the Technician Maintenance Menu, select `Full Screen UNIX` and press [ENTER].

   The system responds:

   ```
   To return, type 'exit' or control-d
   You are in /usr/maint
   #
   ```

4. At the # prompt, enter ***face*** and press [ENTER].

   The AT&T FACE Menu appears.

5. At the AT&T FACE Menu, select `System Administration` and press [ENTER].

   The System Administration Menu appears.

6. At the System Administration Menu, select `Restore from Removable Media` and press [ENTER].

   The Restore from Removable Media Menu appears.

7. At the Restore from Removable Media Menu, select `System Restore` and press [ENTER].

   The System Restore Menu appears.

8. At the System Restore Menu, select `Restore System` and press [ENTER].

   The Disk Restore form appears, asking if existing files on disk should be overwritten with files being restored.

   NOTE:
   If the system has more than one floppy disk drive, or it has a cartridge tape drive, the Select Removable Media Menu appears. In this case, select a disk drive and press [ENTER]. The Disk Restore form appears.

9. Enter ***Yes*** or press [F2] (CHOICES) to select yes.

   NOTE:
   If you enter ***Yes***, you must type capital ***Y*** and lowercase ***es*** or you will receive an `Invalid Input` message. It is unnecessary to press [ENTER]

10. Press [F3] (SAVE).

    A restore confirmation message appears prompting you to insert the disk containing the files that you want to restore.

11. Insert the diskette and press [ENTER].

    After the restore begins, the system displays the following message:

    ```
    Restore in progress.
    ```

12. When the system informs you that it has completed the restore, remove the last diskette and press [ENTER].

    The Restore from Removable Media Menu appears.

13. At the Restore from Removable Media menu, select `Speech Restore` and press [ENTER].

    The Speech Restore Menu appears.

14. At the Speech Restore Menu, select `Restore all talk files/phrases` and press [ENTER].

    A restore confirmation message appears prompting you to insert the disk containing files you want to restore.

    NOTE:
    If the system has more than one floppy disk drive, or it has a cartridge tape drive, the Select Removable Media Menu appears. In this case, select a disk drive and press [ENTER].

15. Insert the diskette and press [ENTER].

    After the restore begins, the system displays the following message:

    ```
    Restoring speech.
    ```

16. When the system informs you that it has completed the restore, remove the last diskette and press [ENTER].

17. Press [F6] (CANCEL) repeatedly to return to the AT&T FACE Menu.

18. At the AT&T FACE Menu, select `Exit` and press [ENTER].

    The Confirm Exit screen appears.

19. Press [F3] (CONT) to return to the # prompt.

20. At the # prompt, enter ***exit*** and press [ENTER].

    The system responds:

    ```
    Press RETURN to continue
    ```

21. Press [ENTER].

    The Technician Maintenance Menu appears.

22. At the Technician Maintenance Menu, select `Voice System Administration` and press [ENTER].

    The Voice System Administration Menu appears.

23. At the Voice System Administration Menu, select `Configuration Management` and press [ENTER].

    The Configuration Management Menu appears.

24. At the Configuration Management Menu, select `System Control` and press [ENTER].

    The System Control Menu appears.

25. At the System Control Menu, select `Stop Voice System` and press [ENTER].

    The Wait Time Menu appears.

26. At the Wait Time Menu, enter ***60*** and press [F3] (SAVE).

    The system responds:

    ```
    The Voice System is now stopping
    ```

    After the voice system is stopped, the system responds:

    ```
    Press ENTER to continue...
    ```

27. Press [ENTER].

    The System Control Menu appears.

28. At the System Control Menu, select `Start Voice System` and press [ENTER].

    The system starts the voice system.

    NOTE:
    There will be errors in the AUDIX Voice Power audit that is performed when the voice system is started.

    After the voice system is started, the system responds:

    ```
    Startup of the Voice System is complete

    Press ENTER to continue...
    ```

29. Press [ENTER].

    The System Control Menu appears.

30. Press [F6] (CANCEL) repeatedly to return to the Voice System Administration Menu.

Procedure 7-7: Verify the Restored Files

NOTE:
Only perform this procedure if you are upgrading from standalone AUDIX Voice Power R2.1.1 for System 75/DEFINITY.

After the voice system has been restarted, you must verify that the restored information is properly administered in the IS III system. To verify the information is properly administered, perform the following steps:

1. At the Voice System Administration Menu, select `Application Package Administration` and press [ENTER].

   The Application Package Administration Menu appears.

2. At the Application Package, Administration Menu, select `AUDIX Voice Power/Fax Attendant` or `AUDIX Voice Power` (depending on whether Fax Attendant is installed) and press [ENTER].

   The AUDIX Voice Power/Fax Attendant Menu or AUDIX Voice Power Menu appears.

3. `Select Subscriber Administration` and press [ENTER].

   The Subscriber Administration screen appears.

4. Press [F8] (CHG-KEYS).
5. Press [F3] (DB MGMT).

   The Subscriber Database Management Menu appears.
6. At the Subscriber Database Management Menu, select `Display Subscriber List` and press [ENTER].

   The Subscriber Database Management screen appears. You should see the names of all the subscribers from the standalone AUDIX Voice Power system.
7. Verify the subscriber list for the new IS III system with the print out of the subscriber list from the old standalone AUDIX Voice Power system. Press [F2] (PREVPAGE) and [F3] (NEXTPAGE) to view the entire subscriber's list.
8. After verifying the subscriber list, press [F6] (CANCEL).

   The Subscriber Database Management Menu appears.
9. At the Subscriber Database Management Menu, press [F6] (CANCEL) repeatedly to return to the Technician Maintenance Menu.

Procedure 7-8: Verify the Passwords for the General and Maintenance Mailboxes

NOTE:
Only perform this procedure if you are upgrading from standalone AUDIX Voice Power R2.1.1 for System 75/DEFINITY.

After verifying the restored files, you must verify the passwords for the General and Maintenance mailboxes. If the customer did not secure the General and Maintenance mailboxes on their standalone AUDIX Voice Power system (that is, these mailboxes have the passwords 1234), you must set the passwords to # for these mailboxes. When AUDIX Voice Power is loaded from the IS III Installation Tape, this is done automatically. However, by restoring the information from the standalone AUDIX Voice Power system, the new passwords are overwritten.

To verify the passwords for the General and Maintenance mailboxes, perform the following steps:

1. At the Technician Maintenance Menu, select `Full Screen UNIX` and press [ENTER].

   The system responds:

   ```
   To return, type 'exit' or control-d
   You are in /usr/maint
   #
   ```
2. At the #, enter ***cd /usr/vmdb*** and press [ENTER].

3. Enter ***grep 999 pwdb*** and press [ENTER].

   The system displays some lines of data. On one of the lines, for extension 999, after the first colon (:), there will be a number or some characters. If 1234 appears after the first colon, you must change the passwords to #. (You will do this in Step 5.)

4. Enter ***exit*** and press [ENTER].

   The system responds:

   ```
   Press RETURN to continue
   ```

5. Press [ENTER].

   The Technician Maintenance Menu appears.

   If the password was not `1234`, proceed to the next procedure.

   If the password was `1234`, perform the following steps:

   a. At the Technician Maintenance Menu, select `Voice System Administration` and press [ENTER].

      The Voice System Administration Menu appears.

   b. At the Voice System Administration Menu, select `Application Package Administration` and press [ENTER].

      The Application Package Administration Menu appears.

   c. At the Application Package Administration Menu, select `AUDIX Voice Power/FAX Attendant` or `AUDIX Voice Power` (depending on whether FAX Attendant is installed) and press [ENTER].

      The AUDIX Voice Power/FAX Attendant Menu or AUDIX Voice Power Menu appears.

   d. Select `Subscriber Administration` and press [ENTER].

      The Subscriber Administration screen appears.

   e. Enter ***9998*** in the `Extension` field.

   f. Press [F4] (DISPLAY) to display the administration parameters for this extension.

   g. Enter # in the `Password` field.

   h. Press [F3] (CHANGE) to save the modified password.

      The Confirm screen appears.

i. Press any key.

   The Subscriber Administration screen appears.

j. Enter ***9999*** in the `Extension` field.

k. Press [F4] (DISPLAY) to display the administration parameters for this extension.

l. Enter # in the `Password` field.

m. Press [F3] (CHANGE) to save the modified password.

   The Confirm screen appears.

n. Press any key.

   The Subscriber Administration screen appears.

o. Press [F6] (CANCEL) repeatedly to return to the Technician Maintenance Menu.

Procedure 7-9: Shut Down the System

NOTE:
Only perform this procedure if you are upgrading from standalone AUDIX Voice Power R2.1.1 for System 75/DEFINITY.

To shut down the system, perform the following steps:

1. At the Technician Maintenance Menu, select `System Shutdown` and press [ENTER].

   Shutting down the system insures that the IS III applications are properly initialized. The Shutdown screen appears.

2. Press [F3] (CONT) to shut down the system.

   The system shuts down, and the system responds:

```
The system is down.
Reboot the system now.
```

3. Press the Reset button to reboot the system.

   The system reboots, and then displays the `Console Login:` prompt.

Procedure 7-10: Back Up the IS III System

Log into the system using the `maint` login and perform a complete system backup to tape and an administrative files backup to diskette of IS III. To back up the complete system to tape and the administrative files to diskette, refer to Chapter 4 of the *AT&T Integrated Solution III System Manager's Guide.*

Updating the IS III Platform Software

To update to a new release of IS III you must update the IS III Platform Software and then update any applications that the customer has.

NOTE:
If you are installing new applications (that is, applications that the customer did not have in the previous release), update the Platform Software first and then install the new applications according to instructions in Chapter 4.

The IS III Platform Software update process preserves all administrative files (including voice files, if appropriate).

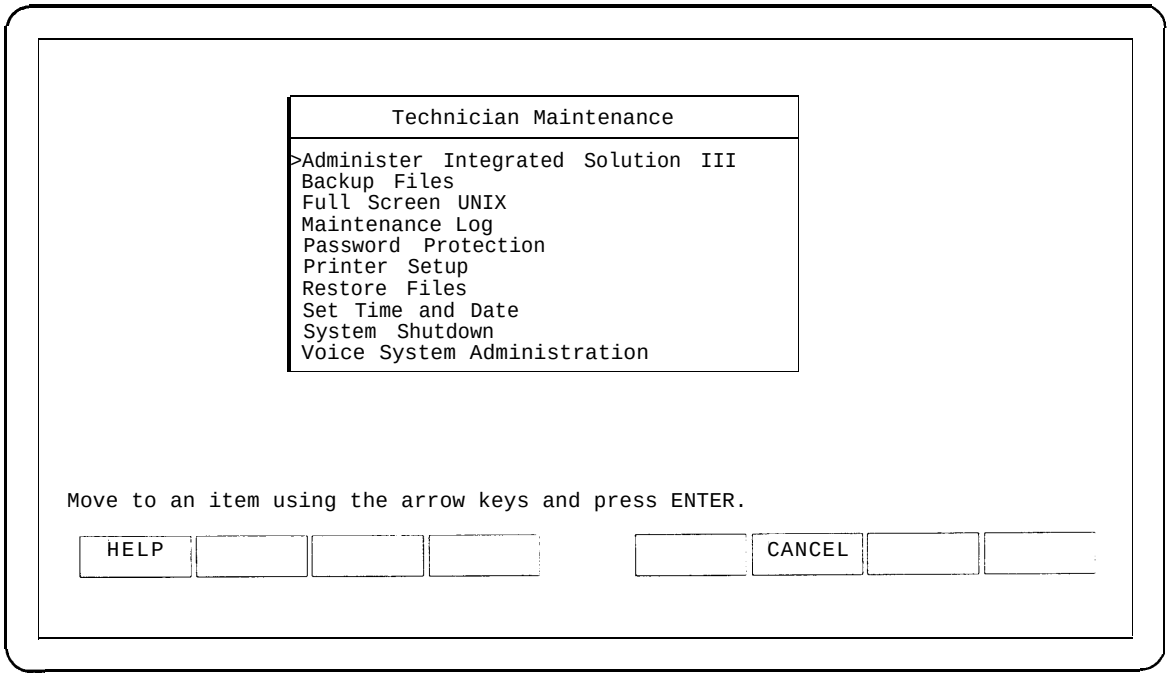
NOTE:
After updating the platform software or any applications, perform a complete system backup to tape so that the customer has the most recent copy of the system.

To update the IS III Platform Software, perform the following steps:

1. Log in as ***maint*** and access the Integrated Solution III Maintenance Menu.

2. At the Integrated Solution III Maintenance Menu, select `Technician Maintenance` and press [ENTER].

   The Technician Maintenance Menu appears.

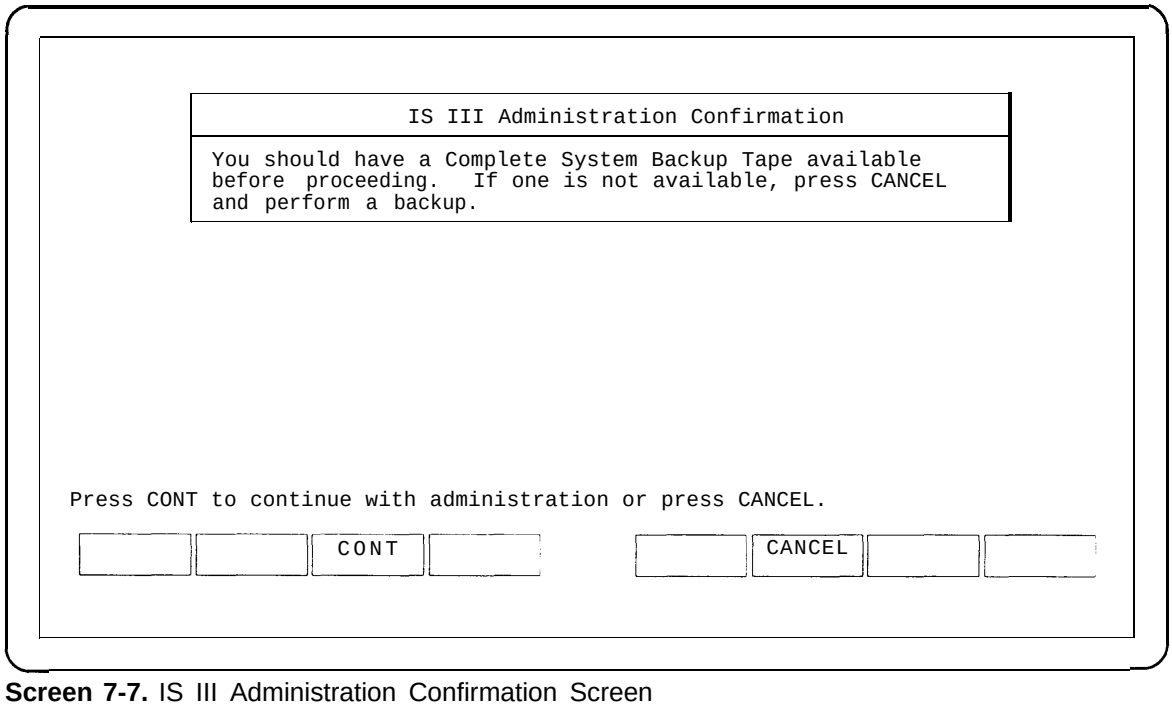


Screen 7-6. Technician Maintenance Menu

NOTE:
`Voice System Administration` is present if AUDIX Voice Power or FAX Attendant is installed.

3. At the Technician Maintenance Menu, select Administer Integrated Solution III and press [ENTER].

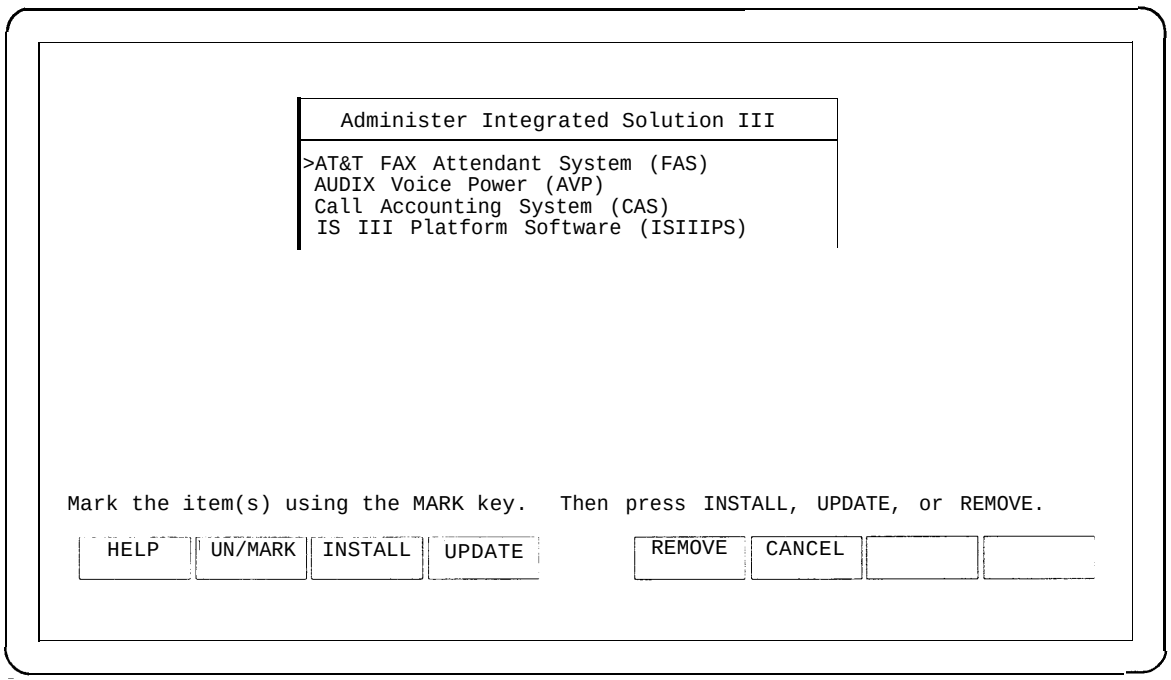
   The IS III Administration Confirmation screen appears.



Screen 7-7. IS III Administration Confirmation Screen

4. Press [F3] (CONT) to continue.

   The Administer Integrated Solution III Menu appears.



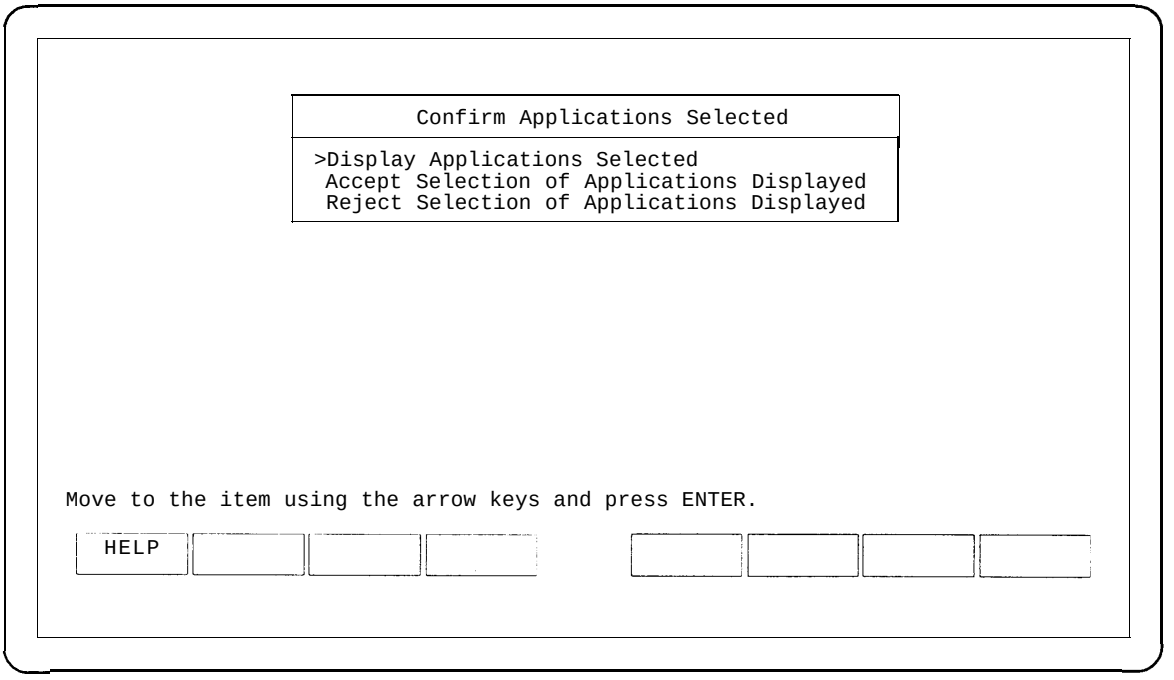
Screen 7-8. Administer Integrated Solution III Menu

5. At the Administer Integrated Solution III Menu, select `IS III Platform Software (ISIIIPS)` and press [F2] (UN/MARK).

   An asterisk (*) appears in front of `IS III Platform Software (ISIIIPS)`.

6. Press [F4] (UPDATE) to begin the update procedure.

   The Confirm Applications Selected Menu appears.



Screen 7-9. Confirm Applications Selected Menu

The Confirm Applications Selected Menu enables you to perform the following tasks:

- view a list of the applications that you selected to update on the system (`Display Applications Selected`)
- proceed with the update you began (`Accept Selection of Applications Displayed`)
- abort the update you began and return to the Administer Integrated Solution III Menu (`Reject Selection of Applications Displayed`)

7. At the Confirm Applications Selected Menu, select `Accept Selection of Applications Displayed` and press [ENTER].

   The system responds:

```
Updating DEFINITY Integrated Solution III Platform Software
will require removing the old version and installing
another.  Any administrative files (including voice files,
if appropriate) are preserved.


Confirm

Do you really want to update DEFINITY Integrated Solution
III Platform Software?

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

8. Press [ENTER].

   The system responds:

```
Confirm

Please insert the DEFINITY IS III Installation Tape into
the tape drive.

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

9. Insert the IS III Installation Tape and press [ENTER].

   The system responds:

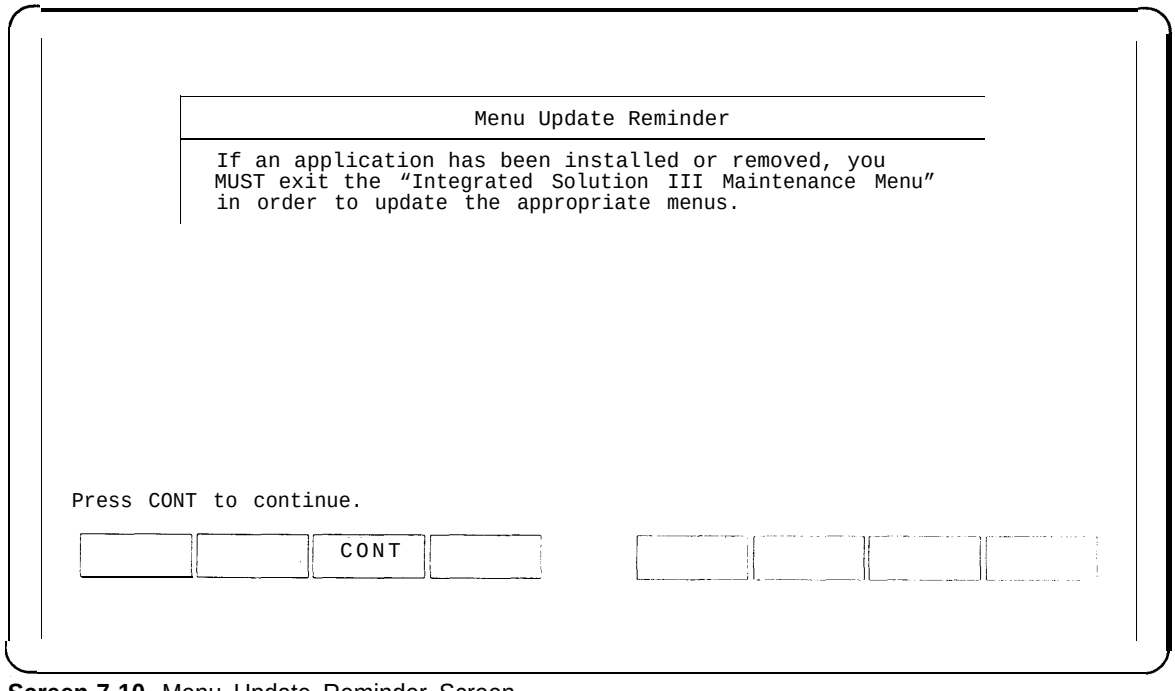
   ```
   Rewinding Tape ... Please Wait
   ```

   ```
   Verifying the DEFINITY IS III Installation Tape ... Please Wait
   ```

   The system then responds:

   ```
   Positioning Tape ... Please Wait
   ```

   The system then updates the IS III Platform Software. After the software is updated, the Menu Update Reminder screen appears. When tape drive indicator turns off, remove the IS III Installation Tape.



Screen 7-10. Menu Update Reminder Screen

10. Press [F3] (CONT).

    The Technician Maintenance Menu appears.

11. Press [F6] (CANCEL) to return to the Integrated Solution III Maintenance Menu.

12. Log out of the system.

The system then displays the `Console Login:` prompt.

Updating IS III Applications

Use this function to update a customer to a new release of an application that the customer is currently using. This procedure automatically removes the current version while retaining all administrative files (and voice files, if any exist).

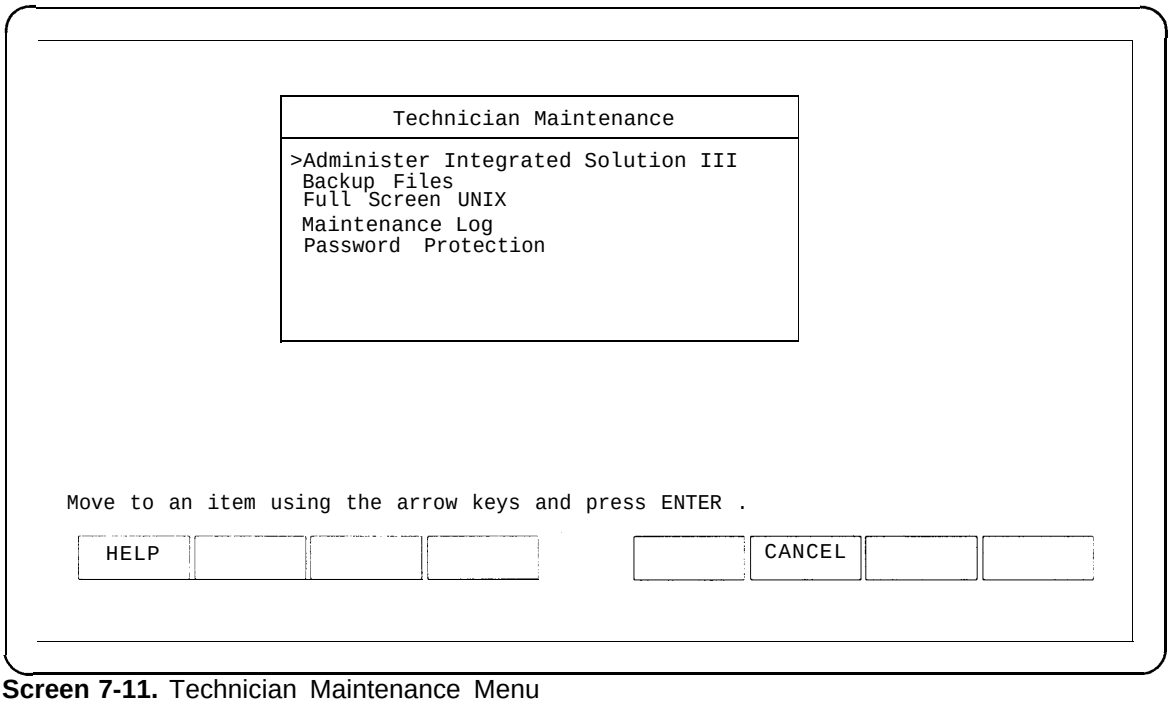
NOTE:

- You must update the IS III applications if the switch is updated.
- You can only update software if the system has a DCP board installed. Otherwise, the update procedure will fail.

To update IS III applications, perform the following steps:

1. Log in as ***maint*** and access the Integrated Solution III Maintenance Menu.
2. At the Integrated Solution III Maintenance Menu, select `Technical Maintenance` and press [ENTER].

   The Technician Maintenance Menu appears.

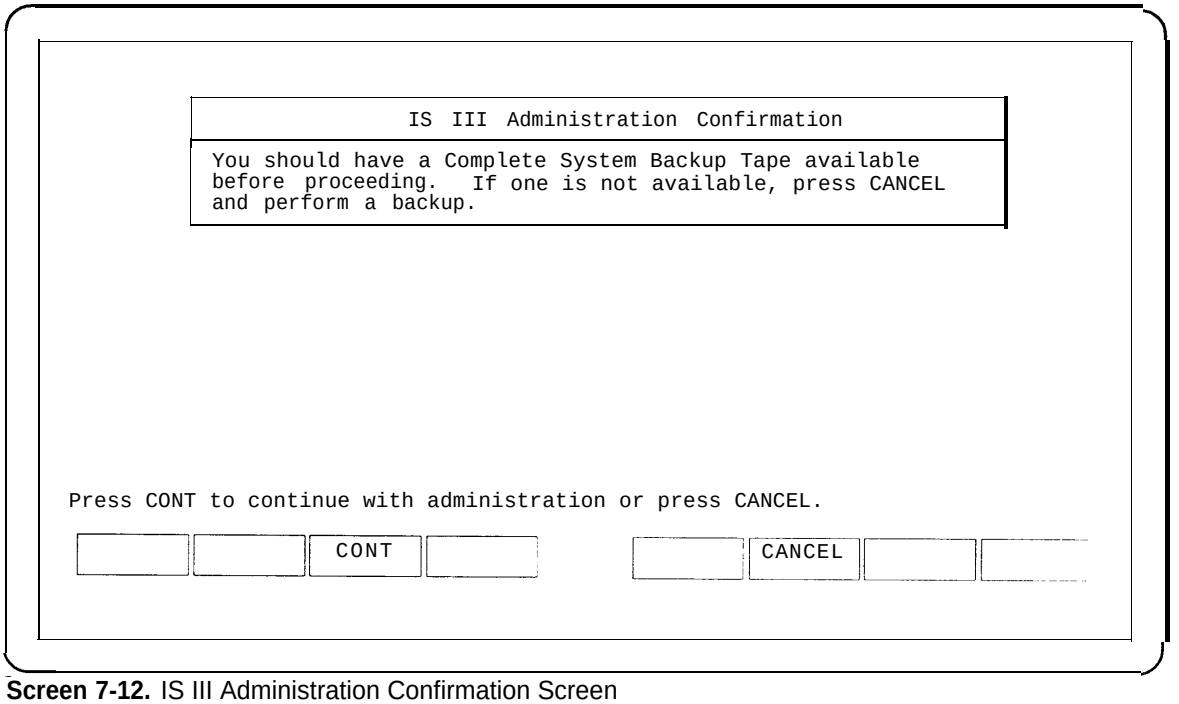


Screen 7-11. Technician Maintenance Menu

NOTE:
`Voice System Administration` is present if AUDIX Voice Power or FAX Attendant is installed.

3. At the Technician Maintenance Menu, select `Administer Integrated Solution III` and press [ENTER].

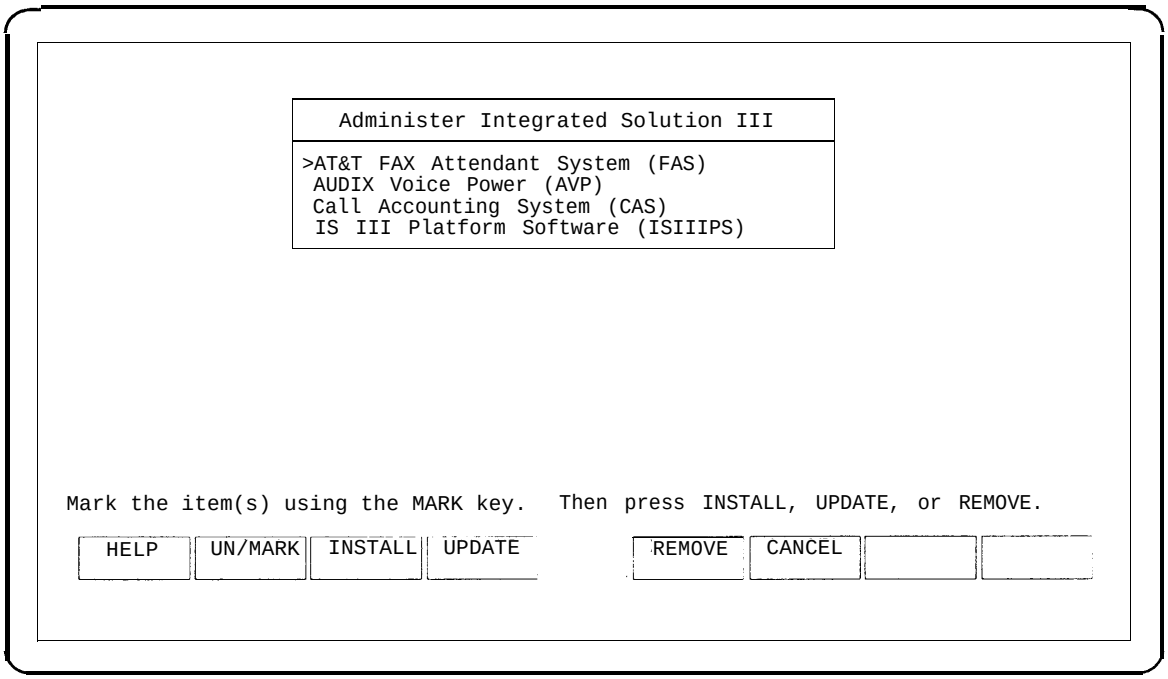
   The IS III Administration Confirmation screen appears.



Screen 7-12. IS III Administration Confirmation Screen

4. Press [F3] (CONT) to continue.

   The Administer Integrated Solution III Menu appears.



Screen 7-13. Administer Integrated Solution III Menu

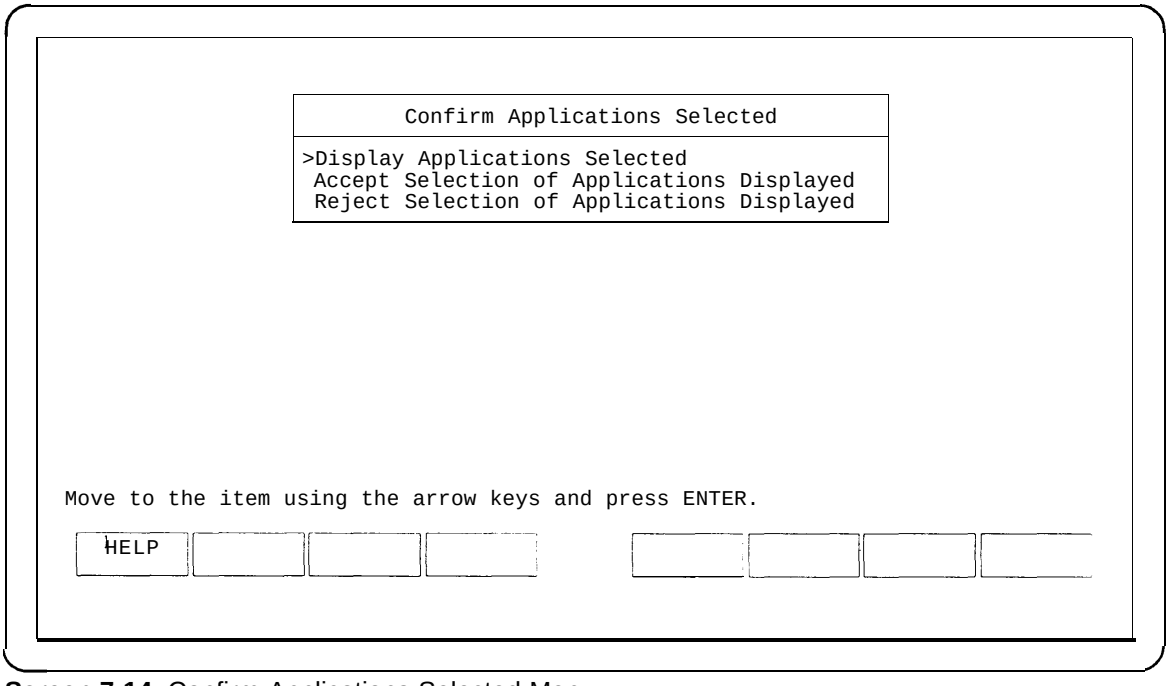
5. At the Administer Integration Solution Menu, select the application(s) you want to update and press [F2] (UN/MARK).

   An asterisk (*) appears in front of the application(s) you selected.

   NOTE:
   If you marked an application by mistake, move the cursor back to that application and press [F2] (UN/MARK) again to "undo" the selection.

6. Press [F4] (UPDATE).

The Confirm Applications Selected Menu appears.



Screen 7-14. Confirm Applications Selected Menu

The Confirm Applications Selected Menu enables you to perform the following tasks:

- view a list of the applications that you selected to update on the system (`Display Applications Selected`)
- proceed with the update you began (`Accept Selection of Applications Displayed`)
- abort the update you began and return to the Administer Integrated Solution III Menu (`Reject Selection of Applications Displayed`)

7. At the Confirm Applications Selected Menu, select `Accept Selection of Applications Displayed` and press [ENTER].

   The system responds:

```
Confirm

Please insert the IS III Installation tape into the tape
drive.

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

8. Insert the IS III Installation Tape and press [ENTER].

   The system responds

```
Rewinding Tape ... Please Wait

Verifying the DEFINITY IS III Installation Tape ... Please Wait
```

   The system then responds:

```
Positioning Tape ... Please Wait
```

   The system then prompts you to confirm that you want to update the selected application(s).

9. Press [Enter].

   The system then updates the selected application(s).

If you updated AUDIX Voice Power or FAX Attendant, the system provides the following response after the application(s) are updated:

```
Resetting Tape Drive ... Please Wait

The system will now be rebooted to install new kernel

Confirm

To complete the install/remove process a shutdown is now
being initiated automatically.

Make sure your 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.
```

Perform the following steps:

1. After the tape drive indicator turns off, remove the IS III Installation Tape and press [ENTER].

   The system shuts down, and then displays the following message:

   ```
   The system is down.
   Reboot the system now.
   ```

2. Press the Reset button.

   The system reboots and then displays the `Console Login:` prompt.

3. Log in as ***maint,*** access the Technician Maintenance Menu, and perform a complete system backup to tape and an administrative files backup to diskette. Refer to Chapter 4 of the *AT&T Integrated Solution III System Manager's Guide* for more information regarding these backup procedures.

If you updated Call Accounting System (CAS), the systems displays the Menu Update Reminder screen after the application is updated. Perform the following steps:

1. Press [F3] (CONT).

   The Technician Maintenance Menu appears.

2. Press [F6] (CANCEL) to return to the Integrated Solution III Maintenance Menu.

3. Log out of the system for the changes to take effect.

4. Log in as ***maint,*** access the Technician Maintenance Menu, and perform a complete system backup to tape and an administrative files backup to diskette. Refer to Chapter 4 of the *AT&T Integrated Solution III System Manager's Guide* for more information regarding these backup procedures.

Maintaining IS III

8

This chapter describes how to perform the following procedures:

- Administer passwords (that is, change and delete) for the `is` login and the applications that are installed on the system.
- Administer the IS III system from a remote location.
- Display the applications that are installed on the system.
- Test the printer.
- Change the setup of the printer.
- Access the System Boot/Shutdown Log.
- Refresh the Boot Diskette.

Administering Passwords

IS III enables you to change or delete passwords for the `is` login and the applications that are installed on the system.

Changing a Password

IS III enables you to change passwords for the `is` login and the applications that are installed on the system. After you change a password, the System Manager must enter the new password when he or she attempts to log into the system (if you changed the `is` login password) or access an application (if you changed the application password).

To change a password, perform the following steps:

1. Log into the system using the ***`maint`*** login and access the Integrated Solution III Maintenance Menu.

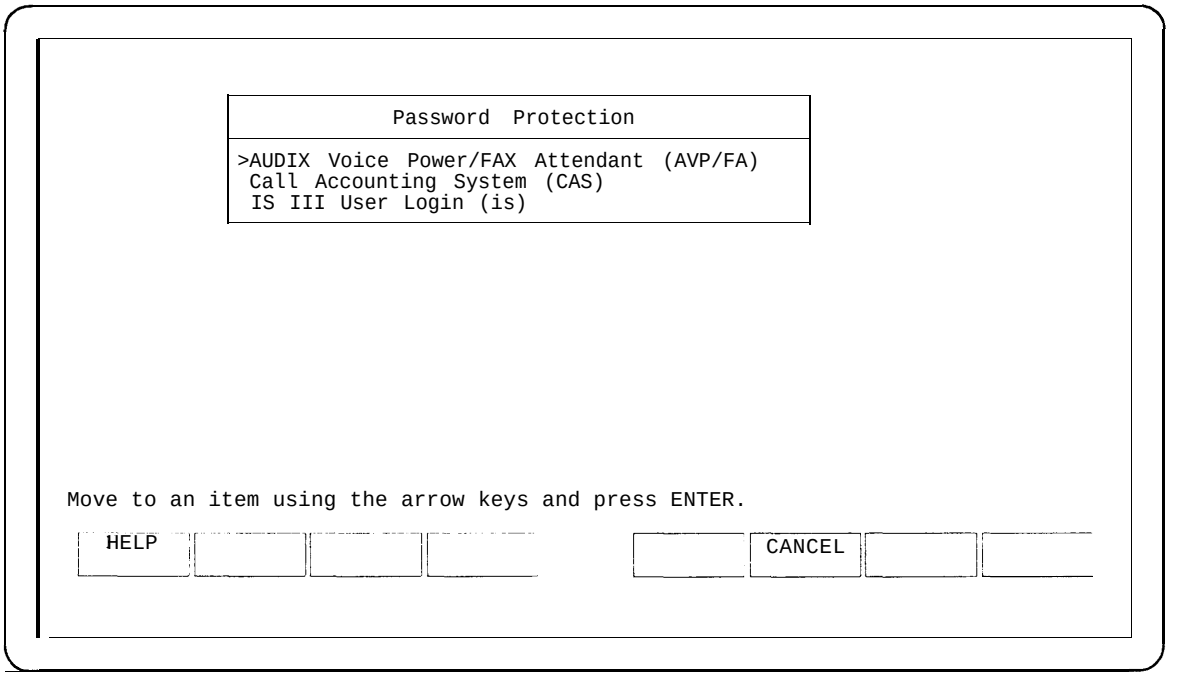
   The Integrated Solution III Maintenance Menu appears.

2. At the Integrated Solution III Maintenance Menu, select `Technician Maintenance` and press [ENTER].

   The Technician Maintenance Menu appears.

3. At the Technician Maintenance Menu, select `Password Protection` and press [ENTER].

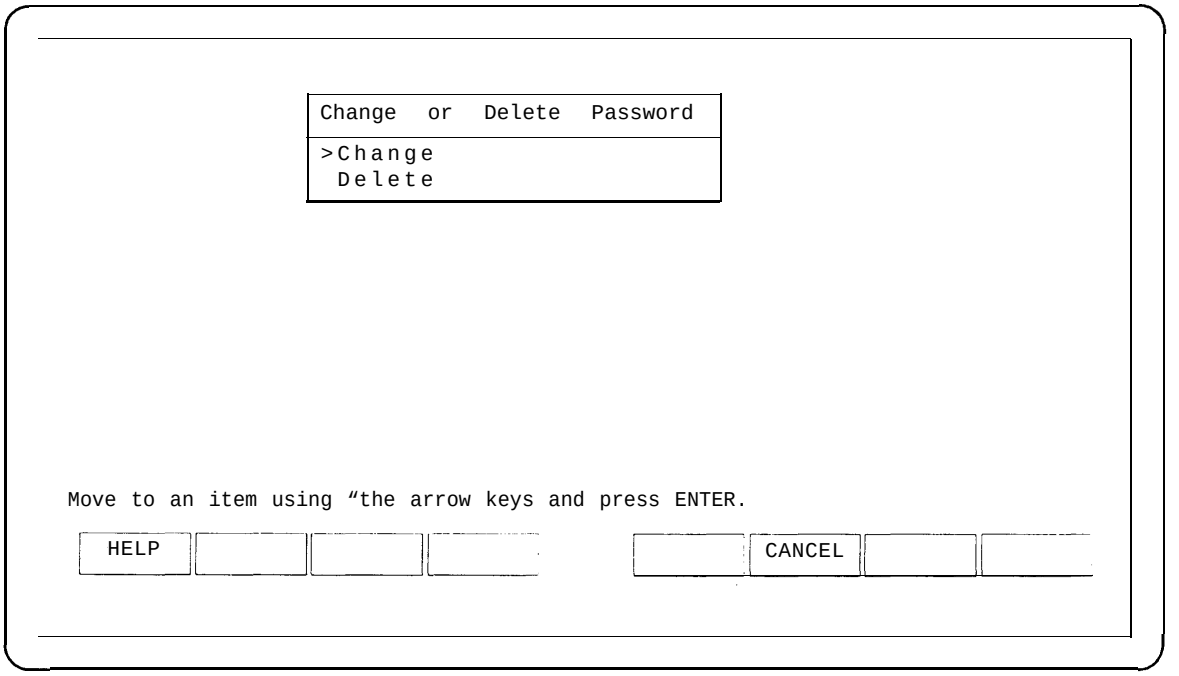
   The Password Protection Menu appears.



Screen 8-1. Password Protection Menu

4. At the Password Protection Menu, select the item whose password you want to change and press [ENTER].

   The Change or Delete Password Menu appears.



Screen 8-2. Change or Delete Password Menu

5. At the Change or Delete Password Menu, select Change and press [ENTER].

   The system responds:

   ```
   New password:
   ```

6. Enter the new password and press [ENTER].

   The system responds:

   ```
   Re-enter new password:
   ```

7. Re-enter the new password and press [ENTER].

   The system responds:

   ```
   Password has been changed.
   Strike ENTER when ready.
   ```

8. Press [ENTER].

   The Password Protection Menu appears.

9. Press [F6] (CANCEL) twice to return to the Integrated Solution III Maintenance Menu.

Deleting a Password

IS III enables you to delete passwords for the `is` login and the applications that are installed on the system. After you delete a password, the System Manager will be prompted to administer a new password when he or she attempts to log into the system (if you deleted the `is` login password) or access an application (if you deleted the application password).

To delete a password, perform the following steps:

1. Log into the system using the ***`maint`*** login and access the Integrated Solution III Maintenance Menu.

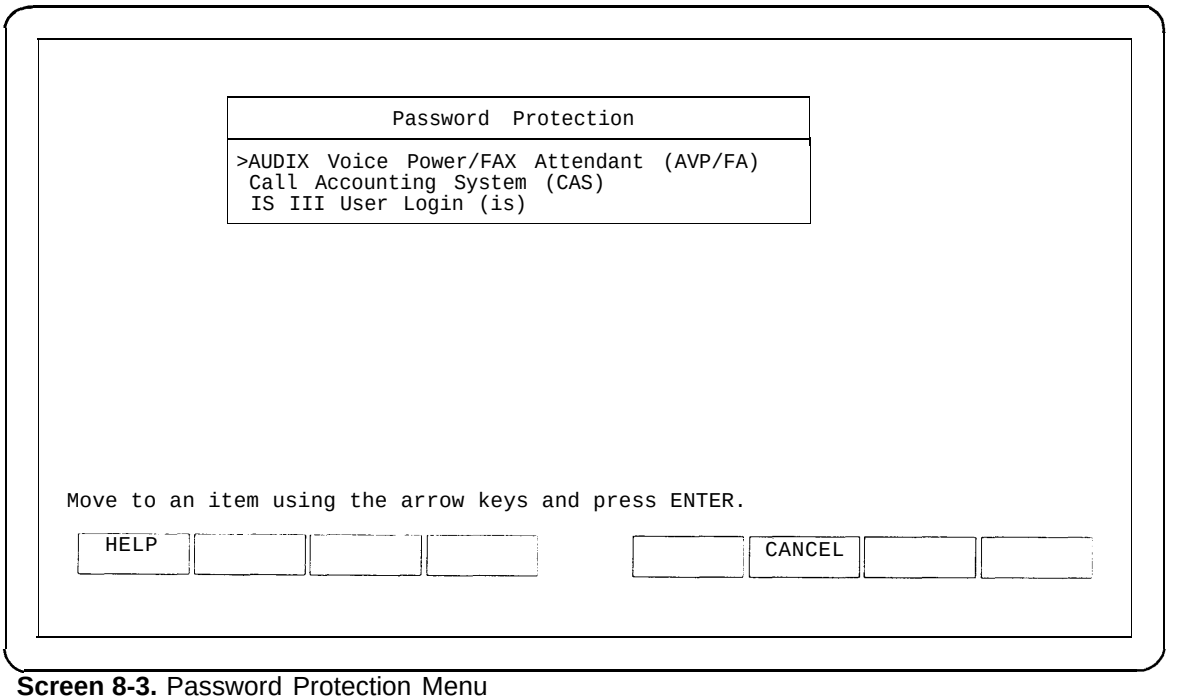
   The Integrated Solution III Maintenance Menu appears.

2. At the Integrated Solution III Maintenance Menu, select `Technician Maintenance` and press [ENTER].

   The Technician Maintenance Menu appears.

3. At the Technician Maintenance Menu, select `Password Protection` and press [ENTER].

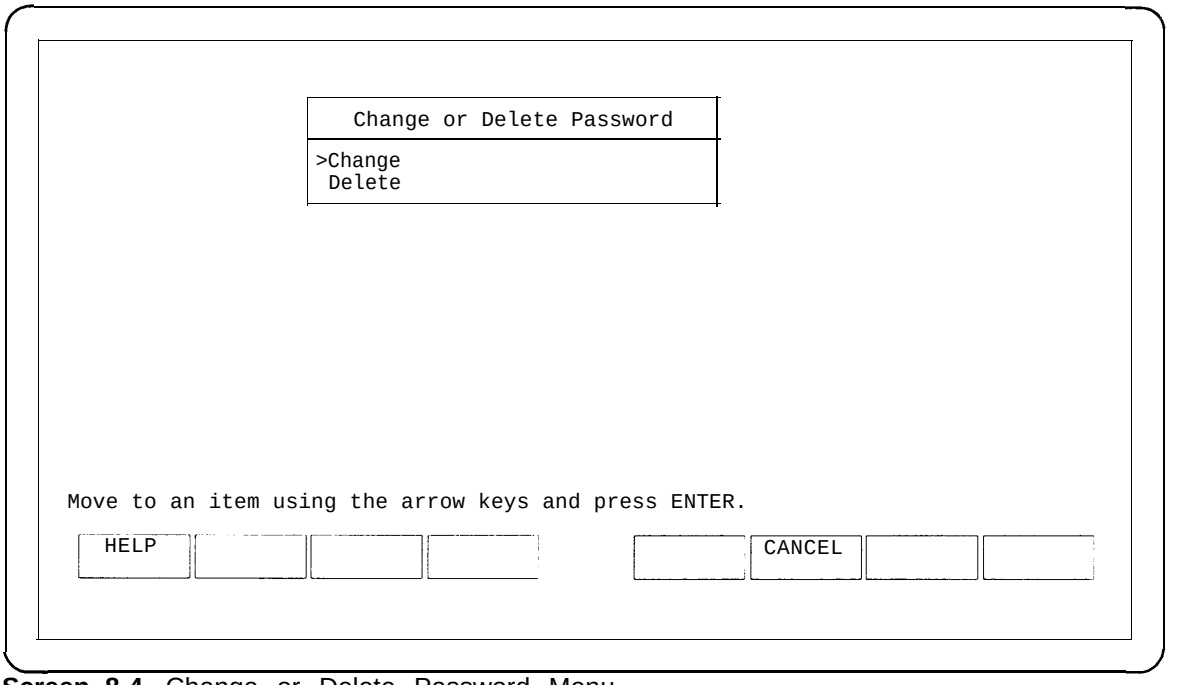
   The Password Protection Menu appears.



Screen 8-3. Password Protection Menu

4. At the Password Protection Menu, select the item whose password you want to delete and press [ENTER].

   The Change or Delete Password Menu appears.



Screen 8-4. Change or Delete Password Menu

5. At the Change or Delete Password Menu, select `Delete` and press [ENTER].

   The system responds:

   ```
   The password has been deleted.

   Strike ENTER when ready.
   ```

6. Press [ENTER].

   The Password Protection Menu appears.

7. Press [F6] (CANCEL) twice to return to the Integrated Solution III Maintenance Menu.

Administering an IS III System Remotely

IS III provides the ability for you to administer the system remotely. To administer a remote system, you must log into the system.

Logging into a Remote System

To log into IS III remotely, you need a terminal (or a PC with terminal emulation software) and a modem. The modem must be configured for the following transmission parameters:

- even parity
- seven data bits
- one stop bit
- a speed at which the customer's remote maintenance device can communicate (1200 bit per second (bps) for the RMD or up to 9600 bps for the RMD-HS)

Refer to Appendix B for a list of the terminal types that IS III supports for remote administration.

To log into IS III remotely, perform the following steps:

1. Dial the telephone number of the customer's remote maintenance device.

   The modem places the call. When the call is connected, the remote system displays the `Console Login:` prompt. If the `Console Login:` prompt does not appear, press the spacebar twice.

2. Enter *`remote`* and press [ENTER].

   The system displays the `Password:` prompt.

3. Enter the password and press [ENTER].

   The system displays the `TERM=` prompt.

4. Enter your terminal type and press [ENTER].

   The Integrated Solution III Maintenance Menu appears. At this point, you may administer the system. When you are finished administering the remote system, you must log out.

NOTE:
If you logged into IS III remotely and find that some screens do not display properly, or that some keys are not working properly, it is because the terminal emulation software on your PC does not provide the proper support.

You can still use IS III, provided you do the following:

- Instead of pressing function keys, press [CTRL]-[F] and then type the number of the function key. For example, instead of pressing [F6], press [CTRL]-[F] and then type 6.
- Instead of pressing cursor keys or the spacebar to select menu items, just type the first letter of the item you want to select.

Logging Out of a Remote System

To log out of a remote system, perform the following steps:

1. Return to the Integration Solution III Maintenance Menu.

   The Integrated Solution III Maintenance Menu appears.

2. At the Integrated Solution III Maintenance Menu, select `Exit` and press [ENTER].

   The Confirm Exit screen appears.

3. Press [F3] (CONT) to exit IS III.

   The `Console Login:` prompt appears.

4. Disconnect the call.

Displaying the Applications Installed on the IS III System

IS III enables you to view a list of the applications that are installed on the system. To view this list, perform the following steps:

1. Log into the system using the ***maint*** login and access the Integrated Solution III Maintenance Menu.

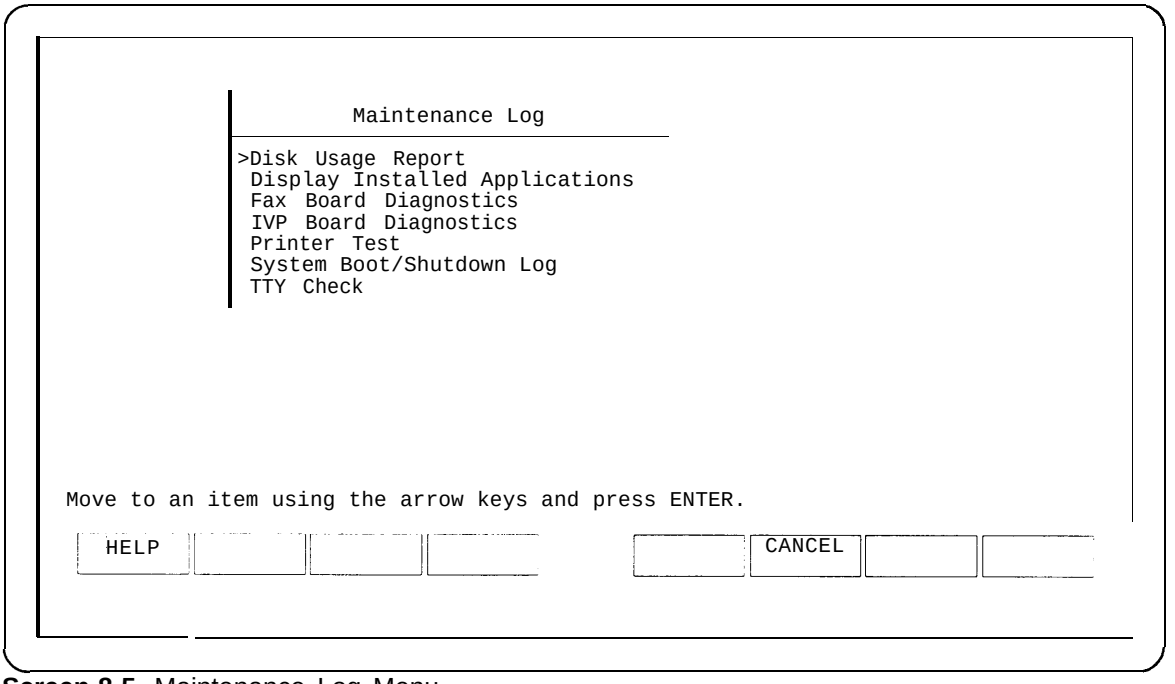
   The Integrated Solution III Maintenance Menu appears.

2. At the Integrated Solution III Maintenance Menu, select `Technician Maintenance` and press [ENTER].

   The Technician Maintenance Menu appears.

3. At the Technician Maintenance Menu, select `Maintenance Log` and press [ENTER].

   The Maintenance Log Menu appears.



Screen 8-5. Maintenance Log Menu

4. At the Maintenance Log Menu, select `Display Installed Applications` and press [ENTER].

   The Display Installed Applications screen appears. This screen lists the applications that are currently installed on the system. Press [F3] (NEXTPAGE) to view the next page of information.

5. When you are finished, press [F6] (CANCEL).

   The Maintenance Log Menu appears.

6. Press [F6] (CANCEL) twice to return to the Integrated Solution III Maintenance Menu.

Testing the Printer

IS III enables you to submit a job to the printer so that you can verify the connections.

WARNING:
Do not run this test unless the printer is connected, has paper, and is ready or on-line. Running this test without meeting these conditions may cause a reboot.

To test the printer, perform the following steps:

1. Log into the system using the ***maint*** login and access the Integrated Solution III Maintenance Menu.

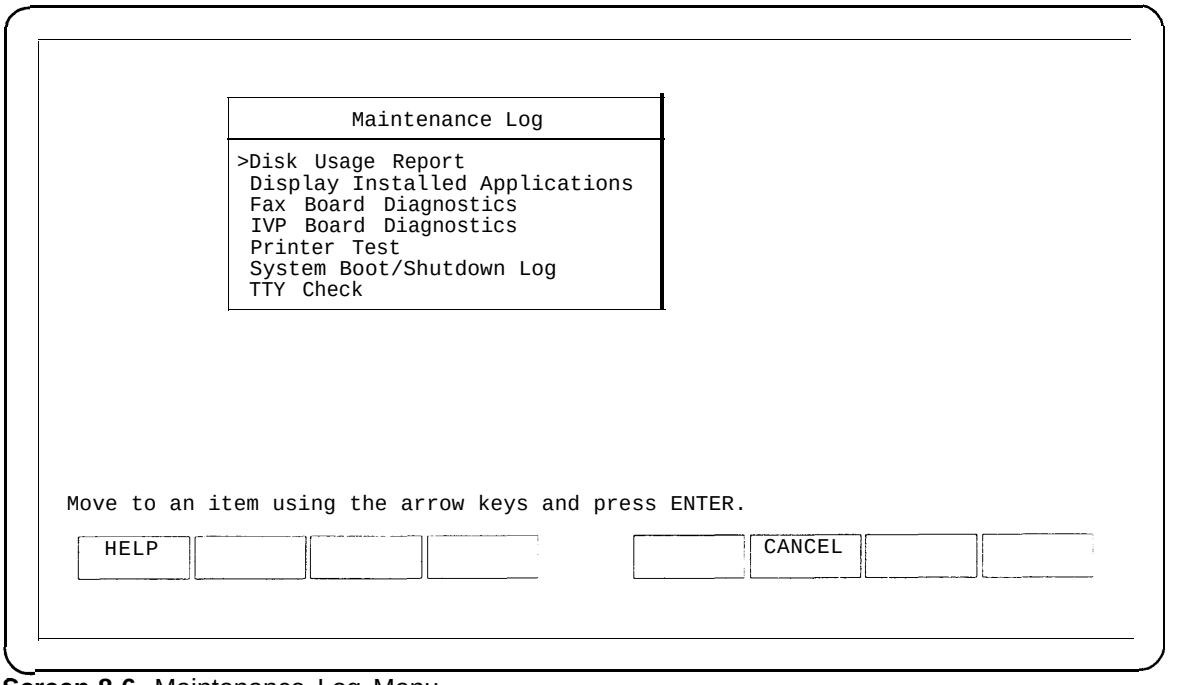
   The Integrated Solution III Maintenance Menu appears.

2. At the Integrated Solution III Maintenance Menu, select `Technician Maintenance` and press [ENTER].

   The Technician Maintenance Menu appears.

3. At the Technician Maintenance Menu, select `Maintenance Log` and press [ENTER].

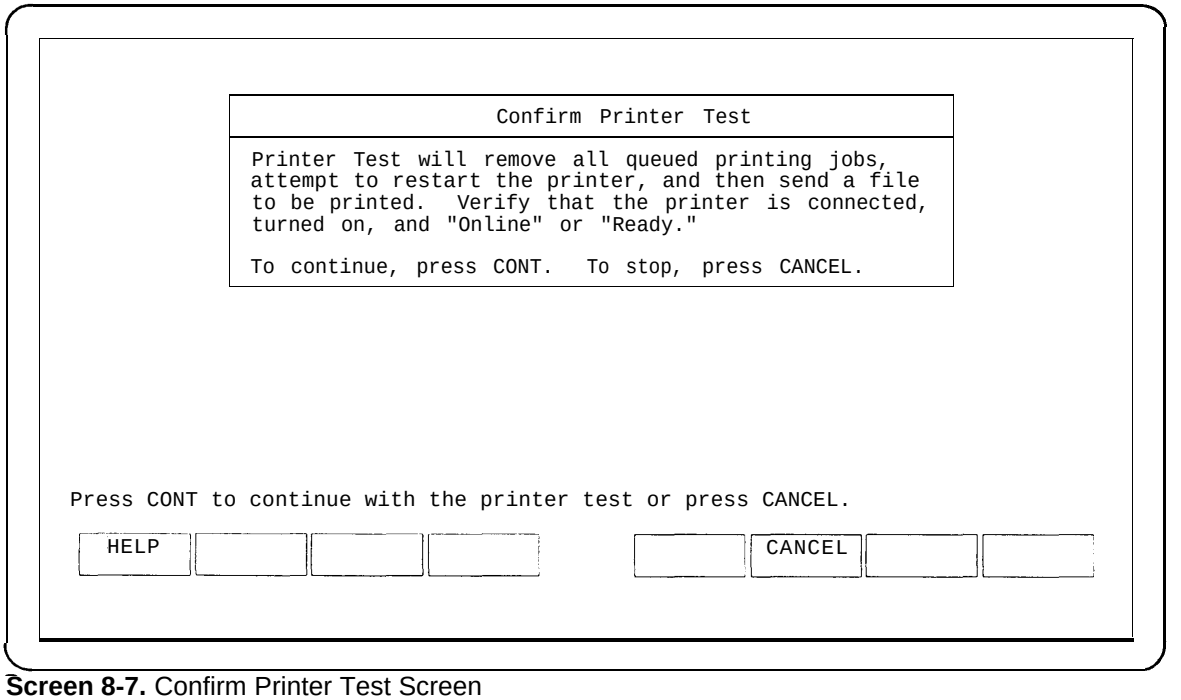
   The Maintenance Log Menu appears.



Screen 8-6. Maintenance Log Menu

4. At the Maintenance Log Menu, select `Printer Test` and press [ENTER].

   The Confirm Printer Test screen appears.



Screen 8-7. Confirm Printer Test Screen

The system informs you that the current printer configuration defaults are being written to the printer.

If the printer test fails, first check to see that the printer is powered, ready, and has paper. Next check the printer cable for proper connections. If the fault persists, substitute the cable and printer with known good units to determine the faulty component.

5. Press [F3] (CONT) to get the job output.

   The Printer Test screen appears, displaying the current printer configuration. Press [F3] (NEXTPAGE) to view the next page of information.

6. When you are finished, press [F6] (CANCEL).

   The Maintenance Log Menu appears.

7. Press [F6] (CANCEL) twice to return to the Integrated Solution III Maintenance Menu.

Changing the Printer Setup

If the customer acquires a new printer, you may need to change the printer setup. When changing the printer setup, you can only set the following options:

- the printer type
- whether the filter is used

To change the printer setup, perform the following steps:

1. Log into the system using the ***maint*** login and access the Integrated Solution III Maintenance Menu.

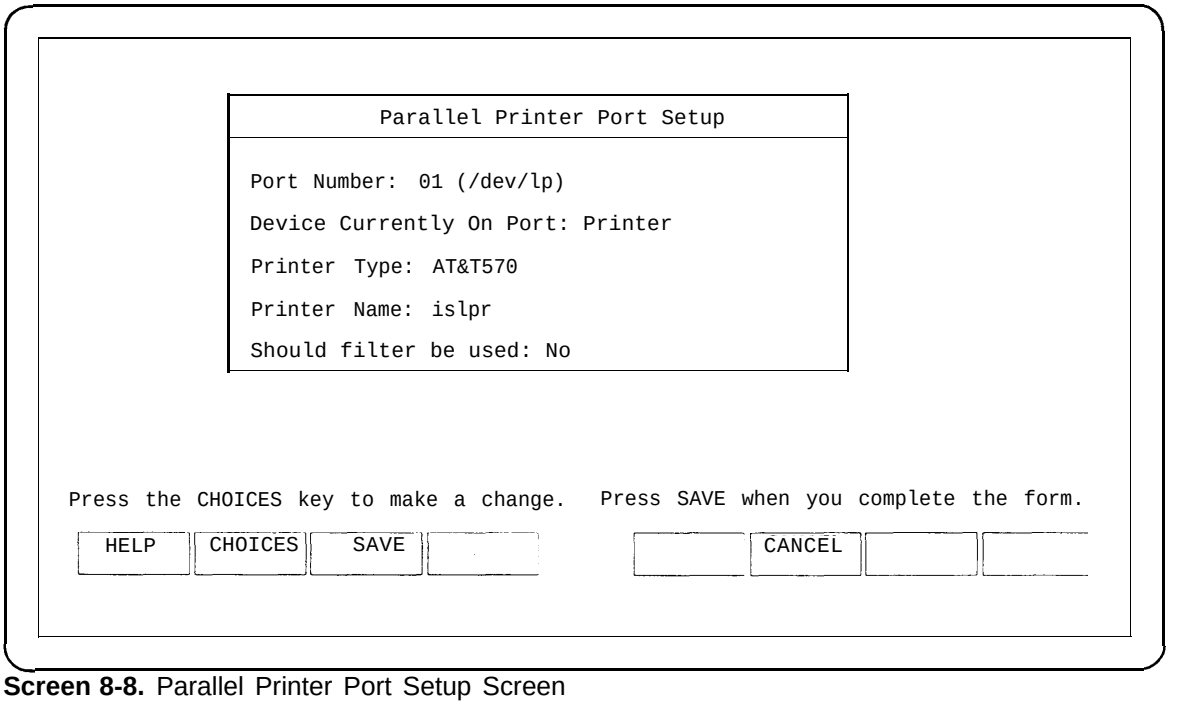
   The Integrated Solution III Maintenance Menu appears.

2. At the Integrated Solution III Maintenance Menu, select `Technician Maintenance` and press [ENTER].

   The Technician Maintenance Menu appears.

3. At the Technician Maintenance Menu, select `Printer Setup` and press [ENTER].

   The Parallel Printer Port Setup screen appears.



Screen 8-8. Parallel Printer Port Setup Screen

4. Press [F2] (CHOICES) to display the list of available printers.

   A screen appears displaying the available printers.

5. Select the appropriate printer and press [ENTER].

   The screen displaying the list of available printers disappears.

6. Press [F3] (SAVE) to save the information that you entered.

   The screen displays your selection and prompts you for confirmation.

7. Press [F3] (CONT).

8. Press [F3] (CONT) to return to the Technician Maintenance Menu.

9. Press [F6] (CANCEL) to return to the Integrated Solution III Maintenance Menu.

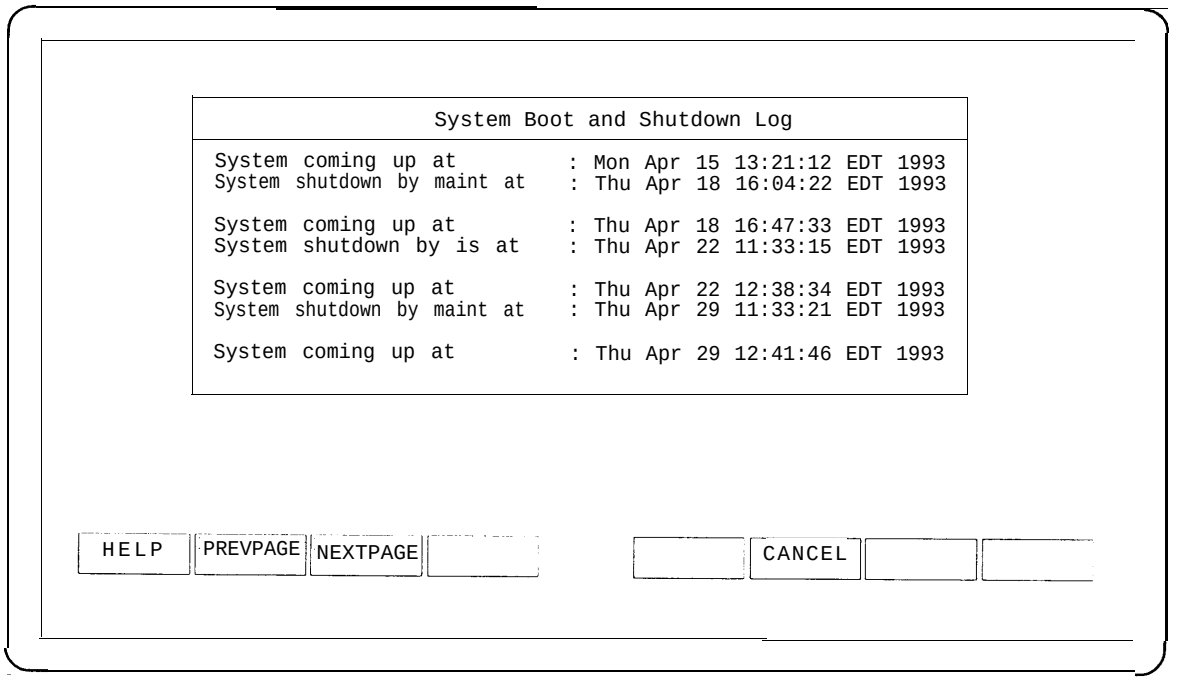
Accessing the System Boot/Shutdown Log

IS III maintains a log of when the system was shutdown and rebooted. This log contains the following information:

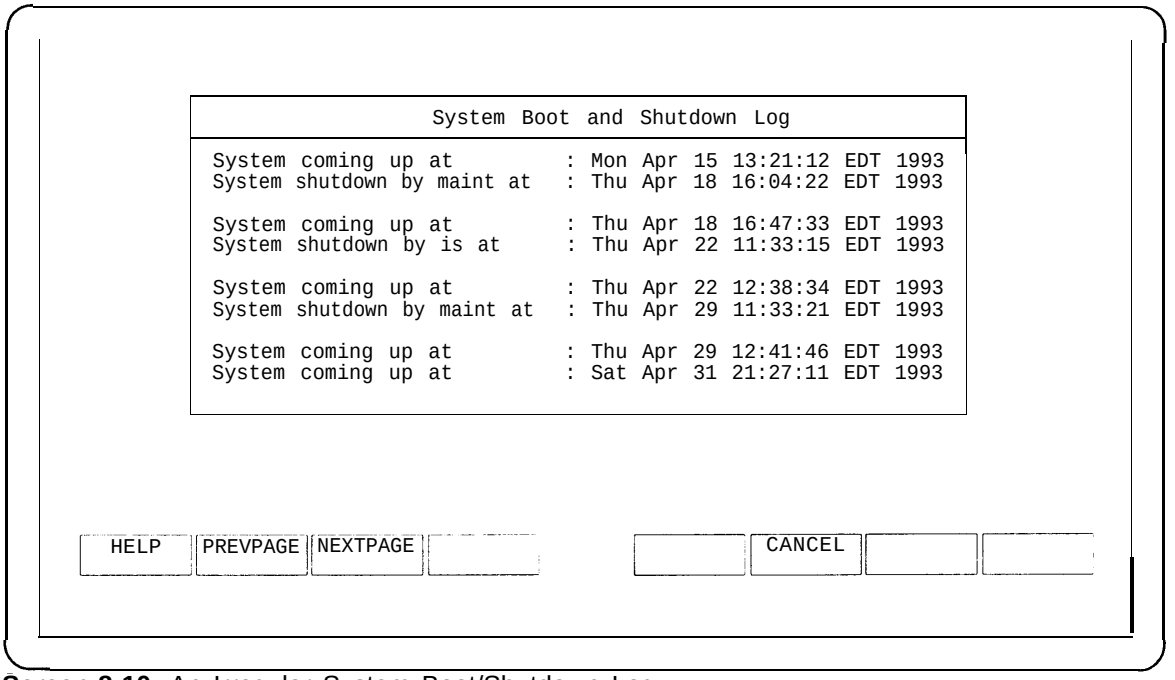
- the login that shut down the system and date and time that the system was shut down
- the date and time that the system rebooted (that is, came up)

The System Boot/Shutdown Log enables you to check the frequency that a system is shutdown and rebooted. Information from this report can be analyzed to determine if irregularities may exist that are causing many reboots. With the System Boot/Shutdown Log, you can find out if the system is being brought down without being shutdown (for example, due to a power failure).

The System Boot/Shutdown Log should contain pairs of records (one for boot-up and one for shutdown). The boot-up record contains the time and date when the boot-up occurred. The shutdown record contains the time and date when the shutdown occurred, as well as the login who performed the shutdown (that is, `is` or `maint).` Any time you see two (2) boot-up records together, it indicates that the system was brought down without being shut down (via the shutdown procedure). This would occur if power was interrupted or the system was turned off without being shut down. The following screens show a normal System Boot/Shutdown Log (that is, a log of a system that was not brought down without being shut down) and the System Boot/Shutdown Log of a system that was brought down without being shut down.



Screen 8-9. Normal System Boot/Shutdown Log



Screen 8-10. An Irregular System Boot/Shutdown Log

At the bottom of the irregular System Boot/Shutdown Log, there are two `System coming up at` messages next to one another, with no corresponding `System shutdown by` message between them. This signifies that the system was stopped without being shutdown.

To access the System Boot/Shutdown Log, perform the following steps:

1. Log into the system using the *`maint`* login and access the Integrated Solution III Maintenance Menu.

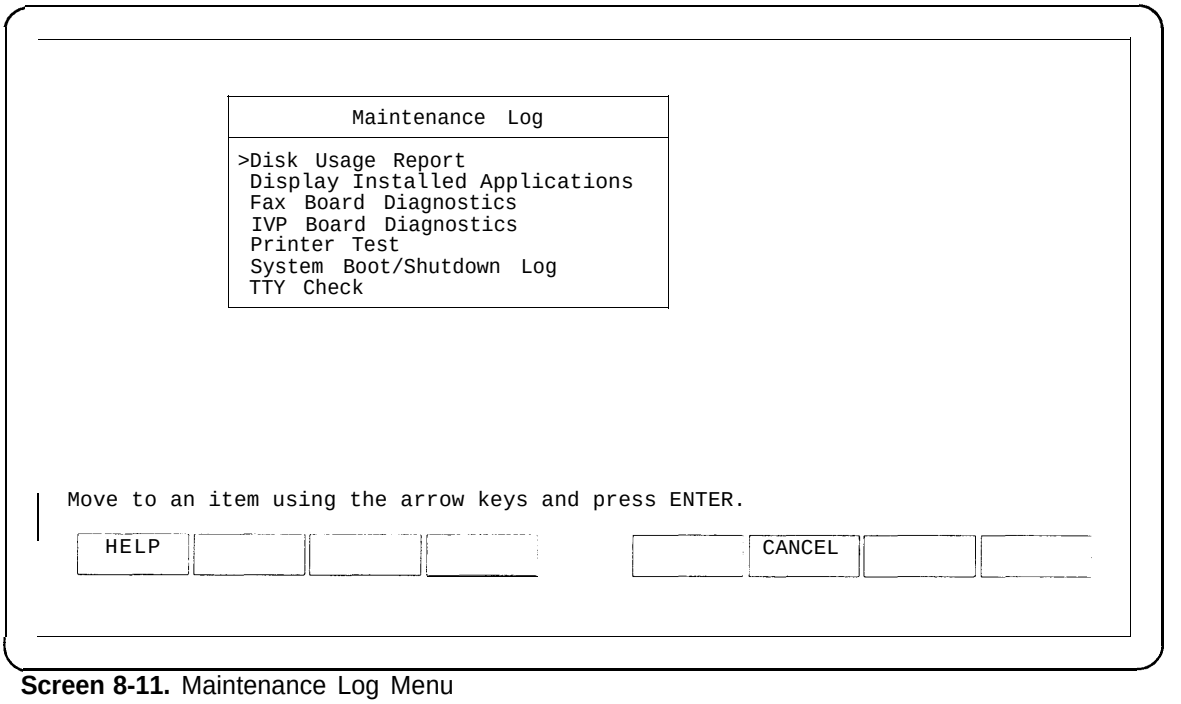
   The Integrated Solution III Maintenance Menu appears.

2. At the Integrated Solution III Maintenance Menu, select `Technician Maintenance` and press [ENTER].

   The Technician Maintenance Menu appears.

3. At the Technician Maintenance Menu, select `Maintenance Log` and press [ENTER].

   The Maintenance Log Menu appears.



Screen 8-11. Maintenance Log Menu

4. At the Maintenance Log Menu, select `System Boot/Shutdown Log` and press [ENTER].

   The System Boot and Shutdown Log screen appears. Press [F3] (NEXTPAGE) to view the next page of information.

5. When you are finished, press [F6] (CANCEL).

   The Maintenance Log Menu appears.

6. Press [F6] (CANCEL) twice to return to the Integrated Solution III Maintenance Menu.

Refreshing the IS III Boot Diskette

If the IS III Boot Diskette fails during an installation, you should refresh the diskette and retry the installation. Booting from a UNIX diskette and shutting down (which is done during the IS III installation) leaves an unreferenced file on the boot diskette. Eventually the space on the boot diskette is depleted. Refreshing the diskette removes unreferenced files and enables you to use the diskette again. Refresh the diskette before an upgrade or after the diskette has already failed.

NOTE:
The boot diskette must not be write protected during either installation or refreshing, or an error will occur.

To refresh the boot diskette, perform these steps:

1. At the Integrated Solution III Maintenance Menu, select `Technician Maintenance` and press [ENTER].

   The Technician Maintenance Menu appears.

2. At the Technician Maintenance Menu, select `Full Screen UNIX` and press [ENTER].

   The system responds:

   ```
   To return, type 'exit' or control-d
   You are in /usr/main:
   #
   ```

3. Make sure that the boot diskette is enabled for writing, insert the boot diskette into the diskette drive, and type *`fsck /dev/dsk/f0`* and press [ENTER].

   The system responds:

   ```
   RECONNECT?
   ```

4. Type *n* and press [ENTER].

   The system responds:

   ```
   CLEAR?
   ```

5. Type *y* and press [ENTER].

   The system responds:

   ```
   FIX?
   ```

6. Type *y* and press [ENTER].

   The system responds:

   ```
   SALVAGE?
   ```

7. Type *y* and press [ENTER].
8. When the light on the diskette drive turns off, remove the diskette.

   The boot diskette is now ready for use.

   NOTE:
   Leave the diskette enabled for writing or you will get an error during installation.

9. Type *exit* at the UNIX prompt.

   The Technician Maintenance Menu appears.

Troubleshooting

9

General Troubleshooting

If you encounter a problem with the system, review the suggestions in this section before calling the technical support center for service. In the United States, AT&T provides a toll-free customer helpline 24 hours a day. Call the AT&T Helpline at 1 800 562-8349 or contact your local AT&T Authorized Dealer. In Canada, please contact your local AT&T authorized representative.

General Failure

- Are all cables securely plugged in?
- Are all system components and peripherals turned on?
- Is the power outlet burned out? You may check this by plugging in and turning on some other piece of equipment.
- Are any cables damaged?

Screen Discoloration

If the monitor colors are incorrect or inconsistent (for example, red may appear green around the edges), turn off the monitor for approximately 15 minutes and then turn it on. This engages the monitor's automatic degaussing circuit to correct any magnetic interference.

If a monitor displays only in green or amber when it should be in color, it may have a switch set to force monochrome operation. Check the documentation supplied with the monitor.

Screen Failure (No Display)

- Is the monitor turned on? Is the screen brightness knob turned down?

DANGER:

Never open the monitor case. The monitor CRT retains very high voltage levels, even after the power is turned off. Refer all monitor service to a qualified service technician.

Keyboard Failure (No Response)

- Is the keyboard cable plugged in? Turn off the system unit and plug in the keyboard.

CAUTION:

Do not plug or unplug the keyboard while the power is turned on.

- Is the keyboard frozen? Check the keyboard cable and plug, then reboot the system.
- Is the Scroll Lock indicator on? Press the [SCROLL LOCK] key to turn off the indicator.

Operating System Booting Failure

- Make sure there is no floppy diskette in the diskette drive. Remove any floppy and try again.

Printer Failure

- Is the printer power on?
- Is the printer cable plugged in?
- Is the application configured for the correct printer type?
- Is the printer configured properly?
- Is the printer out of paper or jammed? Check the printer's operating panel lights.

Expansion Board Failure (Intermittent)

- Do two boards have conflicting addresses? (Switches set to the same address?)
- Are the boards fully seated in the expansion slots? Reseat the boards and see if the problem ceases.

UNIX Diagnostic Message

During start-up booting (when you power up) you may receive the following UNIX message on the screen:

```
Enter the name of the kernel to boot:
```

This message will occur if you inadvertantly press a key while the UNIX system is booting up or if certain files have been corrupted.

If the message should appear, type */unix* and press [ENTER].

If the system is operating properly, the UNIX booting procedure will restart and the login prompt will appear on the screen after booting is complete. If the login prompt does not appear, contact your next level of support.

Error Messages

Whenever you receive an error message of any type, write down the message and take corrective action. This section describes different types of error messages and suggests corrective actions.
There are two general types of error messages:

- software
- system

Software Error Messages

Software messages are returned by your operating system or application. They typically occur after the operating system has booted, when you are in your application or at the UNIX prompt. If you receive this type of message, consult your application or operating system manual for help.

System Error Messages

A system error message indicates a problem with the computer itself. It normally appears during the power-on self-test, before the operating system prompt appears. Table 9-1 and Table 9-2 list error messages for MC II+/MC III and for MAP/5 respectively.

NOTE:
Always run SETUP and verify that CMOS settings are correct before replacing hardware. Repeated problems with CMOS losing settings may be indicative of a bad battery.

Table 9-1. Error Message Chart for MC II+ and MC III

ERROR MESSAGE	ACTION
Bad CMOS battery	Replace the main board.
CMOS checksum error	Run SETUP and enter the correct configuration values.
Diskette drive controller error	Correct the cable connections, or replace the defective drive.
Diskette drive error	Check the power and control cable and correct any problems. If the error still exists, check the drive and replace if defective.
Equipment configuration error	Run SETUP.
Fixed disk 0 error	Check the power and control cable and correct any problems. If the error still exists, check the drive and replace if defective.
Fixed disk controller error	Check the power and control cable and correct any problems. If the error still exists, check the drive and replace if defective.
Keyboard error	Check the keyboard cable and check the connection of the keyboard cord to the system. On the MC II+, check keyboard connector board and it's connection to the main board.
Keyboard interface error	Check the keyboard cable and check the connection of the keyboard cord to the system. On the MC II+, check keyboard connector board and it's connection to the main board. Replace keyboard, keyboard connector board, or main board.
Memory error	Replace the faulty SIMM modules.
Memory size mismatch	Run SETUP to update the CMOS RAM data.
Non system disk or disk error Replace and strike any key when ready	Remove the diskette in drive A, then press [ENTER] to boot the system.
Protected mode test fail	Replace main board.
RAM BIOS error	Replace main board.
Real-time clock error	Replace main board.
System memory address error	Replace main board.

Table 9-2. Error Message Chart for MAP/5

ERROR MESSAGE	ACTION
Bad CMOS battery	Replace the clock/battery module.
CMOS checksum error	Run SETUP and enter the correct configuration values.
Diskette drive controller error	Correct the cable connections, or replace the defective drive.
Diskette drive error	Check the power and control cable and correct any problems. If the error still exists, check the drive and replace if defective.
DRAM Configuration Error	Check that all socketed chips on the main board are properly seated. Check that SIMM is properly seated. Replace the SIMM if defective.
Equipment configuration error	Run SETUP.
Fixed disk 0 error	Check the power and control cable and correct any problems. If the error still exists, check the drive and replace if defective.
Fixed disk controller error	Check the power and control cable and correct any problems. If the error still exists, check the drive and replace if defective.
Keyboard error	Check the keyboard cable and check the connection of the keyboard cord to the system. Check keyboard connector board and it's connection to the main board.
Keyboard interface error	Check the keyboard cable and check the connection of the keyboard cord to the system. Check keyboard connector board and it's connection to the main board. Replace keyboard, keyboard connector board, or main board.
Memory error	If the address is within the first 4 MB, replace the main board. If the address is above 4 MB, replace the faulty SIMM modules.
Memory size mismatch	Run SETUP to update the CMOS RAM data.
Non system disk or disk error Replace and strike any key when read y	Remove the diskette in drive A, then press [ENTER] to boot the system.
Protected mode test fail	Replace main board.
RAM BIOS error	Replace main board.
Real-time clock error	Replace main board.
System memory address error	Replace main board.

Correcting Error Conditions

As a general rule, if an error message says “Press F1 to continue,” it is caused by a configuration problem, which can be easily corrected. An equipment malfunction is more likely to cause a “fatal” error; that is, an error that causes complete system failure.

In order of increasing difficulty, here are corrective actions for error messages:

1. Run SETUP (described in Chapter 3 of the *AT&T Applications Controller User’s Guide,* the *AT&T Master Controller III User’s Guide,* or the *AT&T Multi-Application Platform/5 User’s Guide).* You must know the correct values for your particular system before you enter SETUP, which is why you should write them down when the system is correctly configured. An incorrect SETUP configuration is a major cause of power-on error messages, especially for a new system.

   The integrated circuits (chips) on the main board and expansion boards (in particular, the CMOS RAM chip) are extremely sensitive to electrostatic discharge. If you are sure that your configuration values are set correctly, the problem may lie in a damaged or defective chip. Contact your technical support center for assistance.

2. If you cannot access a new, never-used fixed disk at all, it may be unformatted. For the MC II+ and MC III, follow the directions in the *AT&T Diagnostic Program Guide* to format your fixed disk. For the MAP/5, follow the directions in Chapter 3 or the *AT&T Multi-Application Platform/5 User’s Guide.*
3. Run the AT&T Diagnostic Program (MC II+ and MC III) or the AT&T MAP/5 Diagnostic Program (MAP/5). Complete instructions are in the *AT&T Diagnostics Program User’s Guide* or the *AT&T MAP/5 Diagnostic Program User’s Guide.*
4. Following the directions in Chapter 2 of the *AT&T Applications Controller User’s Guide,* the *AT&T Master Controller III User’s Guide,* or the *AT&T Multi-Application Platform/5 User’s Guide,* remove the system unit cover. Check that the jumpers on the main board and any expansion boards are set correctly. Their settings must agree with the SETUP values.

   CAUTION:
   Do not handle integrated circuits (ICs) unless you are a qualified service technician, using tools and techniques that conform to accepted industry practices. ICs are extremely susceptible to damage from electrostatic discharge.

5. Check that all connectors and boards are securely plugged in. Review the sections in Chapters 2 and 3 of the *AT&T Applications Controller User's Guide,* the *AT&T Master Controller III User's Guide,* or the *AT&T Multi-Application Platform/5 User's Guide* as a checklist.

If you go through all the previous corrective steps and still receive an error message, the cause may be an equipment malfunction.

General Diagnostics

To perform diagnostics on the MC II+ or MC III, you need the AT&T Diagnostic Program diskette. To perform diagnostics on the MAP/5, you need the AT&T MAP/5 Diagnostic Program diskette. The appropriate diagnostics diskette is packed with your system unit. If you do not already have a diagnostics diskette, or if you have any questions regarding the use of this diskette, contact your technical support center.

Your technical support center also has remote diagnostics for applications. These remote diagnostics run only when your hardware is operating properly, but there appears to be an application software problem.

IVP Board Diagnostics

If the customer is experiencing trouble with calls not being answered in AUDIX Voice Power or FAX Attendant, perform the IVP board diagnostics described in Chapter 2.

IFP Board Diagnostics

If the customer is experiencing trouble with calls not being answered in AUDIX Voice Power or FAX Attendant, perform the IFP board diagnostics described in Chapter 2.

Hard Disk Failure

If the hard disk fails, do the following:

1. Check all connections.
2. Reboot the system.
3. Run diagnostic tests on the hard disk using the appropriate diagnostic diskette.
4. Replace the hard disk (if it still fails) and recover the system from disk or tape. Refer to the appropriate sections on recovering from a hard disk failure in Chapter 6.

Main Board Failure

If the main board fails, do the following:

1. Insert the appropriate diagnostic diskette.
2. Run tests for each item that failed. Refer to the Troubleshooting chapter in the *AT&T Applications Controller User's Guide,* the *AT&T Master Controller III Users Guide,* or the *AT&T Multi-Application Platform/5 User's Guide.*
3. Replace main board (if bad). Refer to the *AT&T Applications Controller Users Guide,* the *AT&T Master Controller III User's Guide,* or the *AT&T Multi-Application Platform/5 User's Guide.*
4. Reboot the system and run the SETUP utility as described in Chapter 3 of the *AT&T Applications Controller User's Guide,* the *AT&T Master Controller III User's Guide,* or the *AT&T Multi-Application Platform/5 User's Guide.*

   Set the hard disk configuration as follows:

Table 9-3. Fixed Disk Drive Type and Parameters

Model	Size (MB)	MC II+	MC III	MAP/5	Use when type = 255 only				
					Cylinders	Heads	Sectors	Landing Zone	Pre-Comp
CP30104	120	Type 40	N/A	N/A					
CP30124	120	Type 40	N/A	N/A					
CP3204F	200	Type 46	Type 46	N/A					
CFS210A	210	Type 46	Type 46	Type 46					
CP32054H	250	Type 255	Type 255	Type 88	895	10	55	0	0
CFS420A	420	Type 255	Type 255	Type 41	826	16	63	0	0
CP3544	500	N/A	Type 49	Type 49					
CP30544	500	N/A	Type 49	Type 49					
CFA540A	540	N/A	Type 255	Type 80	1024	16	63	0	0

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 restore the entire system. Refer to the section titled *Recovering from Data Corruption* in Chapter 6.

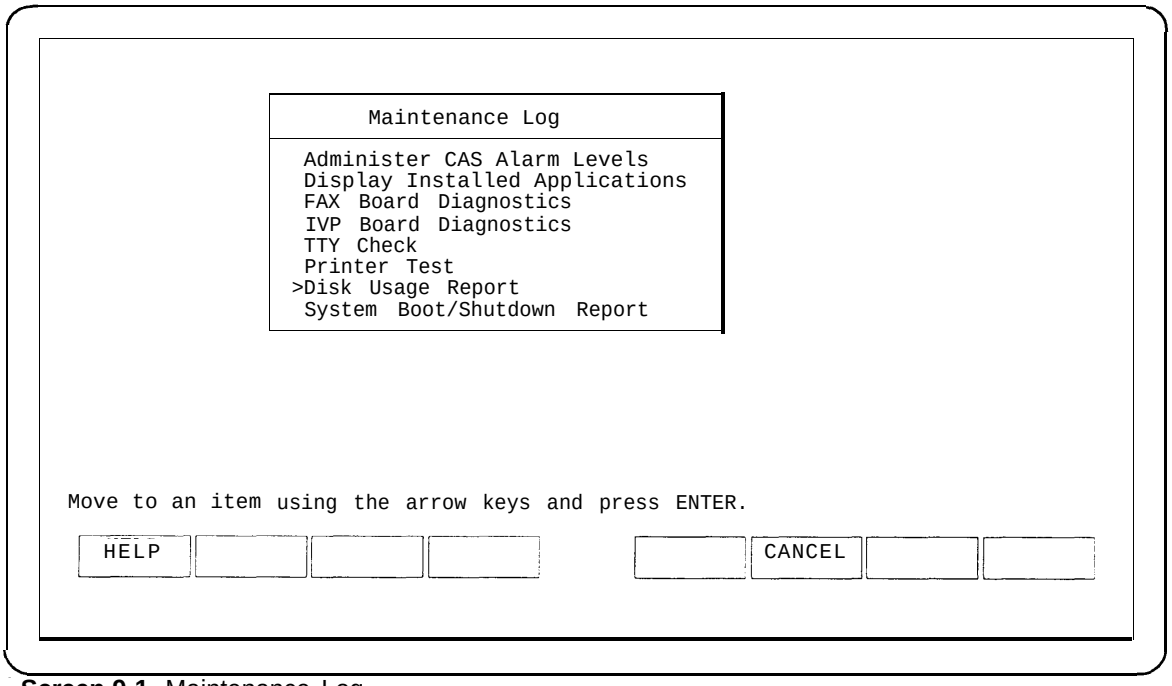
Displaying the Disk Usage Report

The Disk Usage Report provides information on the available disk space for System and Voice Partitions. If you are experiencing problems with AUDIX Voice Power/FAX Attendant or Call Accounting System, there may be a shortage of available disk space for voice messages, fax messages, or call records. The Disk Usage Report provides the current status of the hard disk for these applications.

To display the Disk Usage Report, perform the following steps:

1. From the Technician Maintenance window, select `Maintenance Log` and press [ENTER].

   The Maintenance Log is displayed.

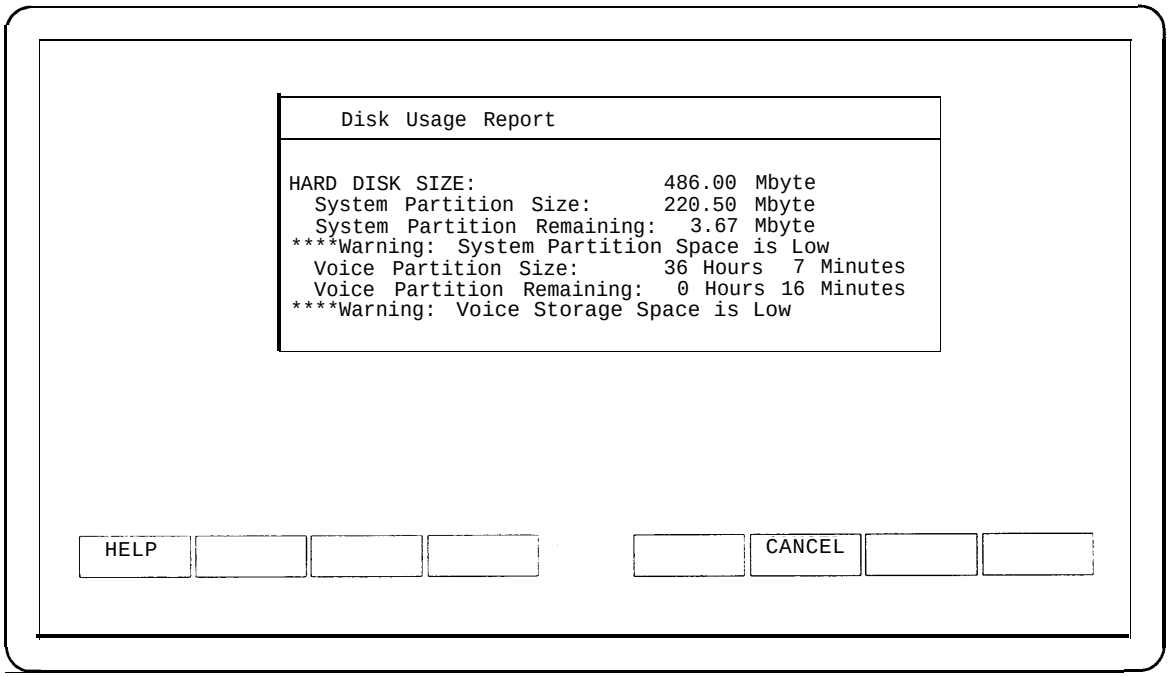


Screen 9-1. Maintenance Log

NOTE:
The `Administer CAS Alarm Levels` item appears only if both CAS and AUDIX Voice Power are installed.

2. Select `Disk Usage Report` and press [ENTER].

   The Disk Usage Report is displayed.



Screen 9-2. Disk Usage Report

The report will look slightly different depending on the hard disk size of the Master Controller. Warning messages for low partition space are displayed if available disk space is less than the system thresholds. Voice Partition information will redisplayed only if you are using AUDIX Voice Power or FAX Attendant System.

If the System Partition Warning (***** `Warning: System Partition Space is Low`) is displayed, the disk may contain too many CAS call records, too many faxes (incoming or outgoing), or too many spooled print jobs with the printer turned off. Refer to the documentation supplied with the Call Accounting System for instructions on how to remove old call records. *Refer to the AT&T FAX Attendant System™, Release 2.1.1, System Manager's Guide* for instructions on how to remove faxes.

If the Voice Partition Warning (***** `Warning: Voice Storage Space is Low`) is displayed, the disk contains too many voice mailbox messages. Ask the AUDIX Voice Power subscribers to remove messages from their mailboxes.

3. Press [F6] (CANCEL) to return to the Maintenance Log window.

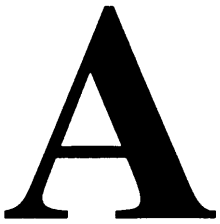
The following original and replacement hard disk drives are supported and have the capacities indicated:

Table 9-4. Hard Disk Capacities

Model	Size	MC II+	MC III	MAP/5	Number of CAS Records	Number of FAX Pages*	Hours of Voice Messages
CP3104 or CP30124	120	Yes	N/A	N/A	113,000	N/A	8
CP3204F	200	Yes	Yes	N/A	199,000	1175	12
CFS210A	210	Yes	Yes	Yes	199,000	1175	12
CP32054H	250	Yes	Yes	Yes	226,000	1625	16
CFS420A	420	Yes	Yes	Yes	405,000	3500	30
CP3544 or CP30544	500	N/A	Yes	Yes	478,000	4375	36
CFA540A	540	N/A	Yes	Yes	498,000	4575	38

* Fax storage applies only to the MC III and MAP/5. The numbers shown are the maximums assuming no call detail records. In addition to reserved space, fax pages also share the same space as call detail records. Approximately 280 call detail records take the same space as one full page of fax text.

Appendix A: CAS Alarm Notification



CAS and HackerTracker Alarms

The Call Accounting System sends alarms to the printer and, if AUDIX Voice Power is installed, also sends voice mail alarms to all members of the group list specified for the alarm type. Alarms are sent when hard disk usage exceeds 50%, 75%, and 95% so that previously collected call detail records can be processed and removed to make room for new call detail records, fax messages, and voice messages.

NOTE:
If the disk usage exceeds 95%, CAS will stop collecting call detail records so that the remaining space can be used for fax messages.

The optional HackerTracker also sends printer alarms and, if AUDIX Voice Power is installed, voice mail alarms whenever it detects possible phone abuse or toll fraud as defined by the System Manager. For additional information, see the *HackerTracker™ for Integrated Solution Call Accounting System* document.

Alarms sent to the printer do not require administration. The remainder of this appendix provides information on the administration of voice mail group lists used for voice mail alarm notification. The procedures used to implement the alarm notification are provided in Chapter 5.

To allow generality in how these voice mail alarms are processed, each alarm is sent to a voice mail group list. For each of the three levels of hard disk space alarms and for the HackerTracker alarm, the System Manager should specify the voice mail group list owner's extension, the voice mail group list identification, and the extensions of the members of the voice mail group who will receive the alarm messages. The group owner extension and the group list identification should be provided by completing the first column of the CAS Alarm Notification Form provided later in this Appendix. Each group list ID can have a maximum of six digits.

The second column of the form should contain the extensions of the AUDIX Voice Power subscribers who will receive the corresponding alarm messages. These extensions are entered when the group list is created via the AUDIX Voice Power touch-tone interface. The group list member extensions are not used during software installation.

NOTE:
The group lists must exist before voice mail alarm notification can occur. In addition, subscriber and other administration may be required for the operation of AUDIX Voice Power.

Alarm Strategy

The alarm strategy depends upon the size and nature of the business. In general, for a smaller business, use the “All Alarms” option to send all alarms to the same group of persons. For a larger business, use the individual alarm options to send different alarms to different groups of people.

- Use the “All Alarms” option at the top of the CAS Alarm Notification Form to specify the single group list ID and group list owner extension where all alarms will be sent. Do not use the remainder of the form.
- Use the individual alarm specifications at the bottom of the CAS Alarm Notification Form to send each alarm to a different group of people. Do not use the top of the form.
  - — Send the initial "Warning” (50% used) disk space alarm to whoever will be responsible for processing and deleting the collected call records.
  - — Send the next "Minor Alarm” (75% used) message to the same people, and also to whoever may be “covering” for them if they are out sick or on vacation.
  - — Send the final "Major Alarm” (95% used) message to all of these people and to their supervisor as well, so that coverage can be provided even in unusual situations.
  - — **Send the HackerTracker alarm directly to whoever is responsible for taking action about phone abuse or toll fraud.**

Suggested Defaults

We recommend you set the group owner extension to 9999 (the general mailbox) and the group list ID to 999999. For testing, be sure to administer extension 9999 as a member of group list 999999 via the touch-tone interface to AUDIX Voice Power. These values can be reassigned later for actual system operation.

Voice Mail Messages

The following voice mail messages are sent by the Call Accounting System and HackerTracker:

- HackerTracker Alarm

  "This is an alarm message from the HackerTracker. One of the criteria for detecting phone fraud or abuse has been exceeded. Please retrieve the HackerTracker alarm report immediately from the CAS application and determine the specific conditions that generated the alarm. Toll fraud or phone abuse may have occurred. Please act on this information immediately to prevent further fraud or abuse."

- Warning—50% Disk Usage

  "This is an urgent message from the Call Accounting System. The call record storage has reached 50% of the allowed capacity. Please back up the CAS system and then delete old call records. Please be sure to restart call processing."

- Warning—50% Inodes Used

  "This is an urgent message from the Call Accounting System. Call costing may not be running. If you stopped call processing on purpose, please restart it immediately. Otherwise, call the AT&T Help Line immediately to report a potential problem. Ignoring this warning will lead to a system problem."

- Minor Alarm—75% Disk Usage

  "This is a warning message from the Call Accounting System. CAS call record storage has reached 75% of the allowed capacity. Please back up the CAS system and then delete old call records. Please be sure to restart call processing. CAS will continue to store call records until 95% of the allowed capacity is reached. At 95% capacity, the call record collection process will be stopped resulting in permanent loss of call records from your PBX."

- Minor Alarm — 75% Inodes Used

  "This is a warning message from the Call Accounting System. Call costing may not be running. If you stopped it on purpose, please restart it immediately. otherwise, call the AT&T Help Line immediately to report the problem. Ignoring this warning can lead to a system lock-up and loss of voice mail. To avoid lock-up, call collection and processing will automatically be halted, resulting in irrecoverable loss of call record data from your PBX."

- Major Alarm—95% Disk Usage

  "This is an urgent warning from the Call Accounting System. Too many call records are stored on the CAS system hard disk. CAS call record collection has been stopped to prevent system lock–up. New call records are being permanently lost until some old call records are deleted. This action is being taken to prevent system lock-up. Please back up the CAS system and then delete old call records. Please be sure to restart call processing."

- Major Alarm—95% Inodes Used

  "This is an urgent warning from the Call Accounting System. Call accounting has used up more system resources than allocated to it. Call collection and processing has been halted to avoid a system lock-up. You are incurring irrecoverable loss of call records data from your PBX. Please call the AT&T Help Line immediately to report the problem."

CAS Alarm Notification Form

CAS Alarms	AUDIX Voice Power Group Member Extensions
Use this section of the form to send all alarms to the same group list.	
All Alarms Group List ID: _____ Group Owner Extension: _____	
Use this section of the form to send individual alarms to different group lists.	
Warning (50% disk/file usage) Group List ID: _____ Group Owner Extension: _____	
Minor Alarm (75% disk/file usage) Group List ID: _____ Group Owner Extension: _____	
Major Alarm (95% disk/file usage) Group List ID: _____ Group Owner Extension: _____	
HackerTracker Alarms Group List ID: _____ Group Owner Extension: _____	

Appendix B: Terminal Types

B

IS III Terminal Types

This appendix indicates the terminal types that IS III recognizes. In the following table, column 1 indicates the manufacturers, listed in alphabetical order column 2 indicates the name of the terminal; and column 3 indicates what you enter at the `TERM=` prompt when logging into IS III from a remote PC or terminal.

Manufacturer	Terminal	Your entry at the `TERM=` prompt
ADDS	Regent Series	*regent*
	Viewpoint	*viewpoint*
Ann Arbor	4080	*aa or annarbor*
ANSI	ANSI	*ansi*
AT&T	UNIX system 386 console	*at386*
	4410	*4410*
	4425	*4425*
	513	*513*
	5420	*5420*
	5620	*5620*
	605	*605*

(Continued on next page)

Terminal Types (Continued)

Manufacturer	Terminal	Your entry at the TERM= prompt
AT&T (continued)	615	615
	620	620
	630	630
	715	615
Beehive	Beehive	*sb* or *bh3m* or *microb*
Contel	C300	*c300*
	C301	*c301*
Control Data	CDC	*cdc456*
Data Media	Color Scan 10	*cs10*
	1520	*dm1520*
	2500	*dm2500*
DEC	VT100	*vt100*
	VT52	*vt52*
	VT220	*vt220*
Fortune	Fortune	*fortune*
General Terminal	100	*i100* or *gt100*
Hazeltine	1000	*h1000*
	2000	*h2000*
	Esprit	*esprit*
Heathkit	Heathkit	*h19* or *h19-a* or *heath-ansi*
Hewlett-Packard	HP262x where x is a number; for example, HP2621	*hp262x* or 262x where x is a number; for example, *hp2621* or *2621*

(Continued on next page)

Terminal Types (Continued)

Manufacturer	Terminal	Your entry at the TERM= prompt
Lear Siegler	ADM1A	adm1a
Microterm	Microterm	microterm or mime
Perkin Elmer	550	pe550
	1100	pe1100
Sperry	UTS30	*uts30*
Tektronix	4105	*tek4105*
	4107 or 4109	*tek4107*
Teleray	3700	*t3700*
	3800	t3800
Televideo	912	*912b* or *tvi912*
Texas Instruments	700	ti700
	800	ti800
Visual	V50	*vi50*
	V200	*vi200*
Zenith	Zenith	*z29*

Appendix C: AT&T 570/571 and 473/474 Printer Setup

C

The manufacturer-discontinued AT&T 570/571 and AT&T 473/474 printers may still be in use at some customer sites. The following instructions are provided for setting up and initializing these printers.

AT&T 570/571 Printer

Do not connect the printer cable to the Master Controller until completing this procedure.

1. Unpack the printer and insert the ribbon according to the instructions that were boxed with the printer.
2. Connect the power cable from the back of the printer to an AC outlet.
3. Turn on the printer power switch.
4. Follow the procedures detailed in section 3.2 of the *AT&T 570/571 Printer User's Guide.*
5. Administer the printer according to section 7.2.1 of the *AT&T 570/571 Printer User's Guide.*
6. Turn off the printer power switch.

Testing the 570/571 Printer

CAUTION:
Do not run this test until after the ribbon cassette and paper are installed.

1. Connect the AC power cord.
2. Turn on the power while pressing the Form Feed switch on the operation panel.

   The self-test pattern prints.

Initializing the 570/571 Printer

The connection is always made to the parallel port of the computer. To initialize the printer and UNIX system operation, perform the following steps:

1. Press the Print-Quality and On-Line buttons and hold them down. Turn the power on and then release the buttons.

   This activates the printer's default options so that you can configure the printer to work with IS III.

2. Use the Scroll-Down portion of the Line-Feed key to get to the line marked 17.
3. Press the On-Line key, release it, press the Scroll key, and change to the option CR+LF.
4. Press the Print-Quality button and release it.
5. Use the Scroll-Down portion of the Line-Feed key to get to line 28.
6. The option needed for this line is Type 1. Press the On-Line key and the Scroll-Down portion of the Line-Feed key to change the option to Type 1.
7. Press the Print-Quality key and then the Line-Feed key to scroll down to line 61. Press the On-Line key and the Scroll-Down key to change the option to Reserved.
8. Once these options have been set, press the Print-Quality key twice.

AT&T 473/474 Printer

Do not connect the printer cable to the Master Controller until completing this procedure.

1. Connect the power cable from the back of the printer to an AC outlet.
2. Turn on the printer power switch.
3. Follow the procedures detailed in the instructions that came with the printer on setting the printer up.
4. Turn off the printer power switch.

Testing the 473/474 Printer

CAUTION:
Do not run this test until after the ribbon cassette and paper are installed.

Test the printer using the self-test procedure.

1. Connect the AC power cord and switch the power on. Be sure the print head is returned to the “home” position at the far left of the platen. Shut the power off.
2. Press and hold down the Form Feed switch located on the far right of the front pane.
3. Switch the power on.
4. Release the Form Feed switch.
5. The “Self-Test Printout” should print.
6. Shut the printer off to stop the self-test. If you do not receive the printout, retry the procedure.

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