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Issue 1
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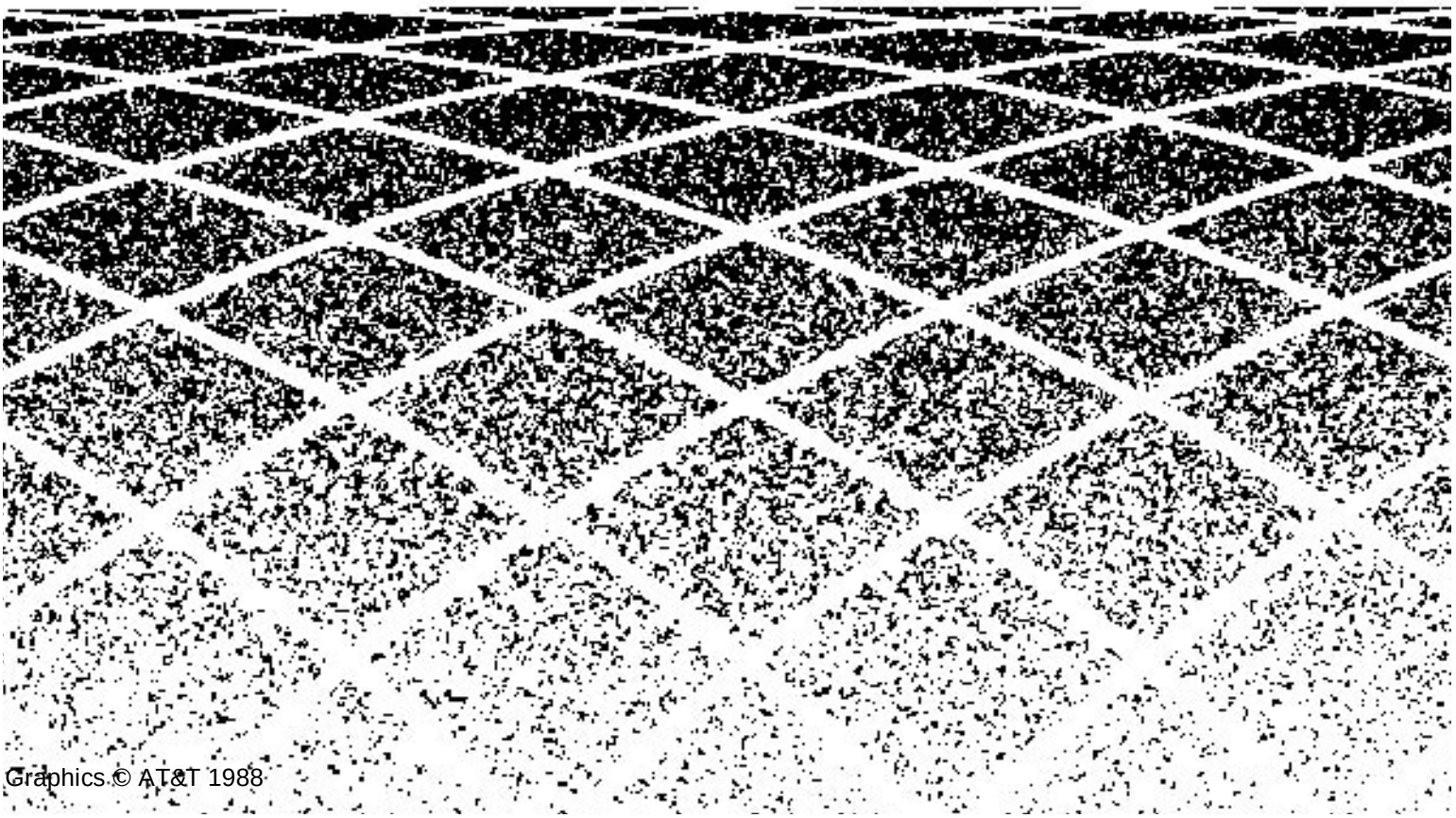
DEFINITY AUDIX

System Release 3.2

Installation and Upgrade



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About This Document

Overview

This document describes the installation, initial administration, and acceptance testing procedures for the hardware and software comprising the DEFINITY® AUDIX® Voice Messaging System release 3, version 2 (R3.2). Furthermore, this document describes the procedures used to update a system from a previous release to R3.2. The procedures are described in the form of specific tasks that should be completed in sequence.

Intended Audiences

This document contains information primarily for people installing the DEFINITY AUDIX System hardware, Software Specialists (SS), Software Associates (SA), and other persons (such as factory personnel and customers) responsible for performing initial administration and cut-to-service procedures. Secondarily, this document contains information for Field Support and the remote support center.

Prerequisite Skills and Knowledge

Although the information in this document assumes no prerequisite training, it will be substantially easier to assimilate by persons with DEFINITY AUDIX system installation or upgrade training. To install this product, an installer should have basic knowledge of the PBX, DEFINITY AUDIX, fault isolation, the customer's application, and toll fraud protection.

Organization of This Document

This document is organized as follows:

- Chapter 1, ''Prerequisites'', identifies site requirements, required tools, safety considerations, and supported configurations.
- Chapter 2, ''Hardware Installation'', describes all the tasks required for installing the DEFINITY AUDIX system hardware and the associated peripherals.
- Chapter 3, ''Initial System Administration'', describes all the tasks required to initially administer the DEFINITY AUDIX system.
- Chapter 4, ''Acceptance Checks'', describes the tasks required to verify the DEFINITY AUDIX system installation and operation.
- Chapter 5, ''Initial Subscriber Administration'', describes how to add the initial set of subscribers to the DEFINITY AUDIX system database.
- Chapter 6, ''Customer Acceptance'', describes the tasks that the Project Manager should conduct with the customer to demonstrate the DEFINITY AUDIX system.
- Chapter 7, ''Upgrades to R3.2'' describes considerations and procedures to upgrade the DEFINITY AUDIX system to R3.2.
- Appendix A, ''Announcement Set Considerations and Installation'', describes customized announcement and fragment sets, and adding new language sets.
- Appendix B, ''Option Settings'', contains a list of option settings for supported terminals and modems. However, this appendix does not provide procedures for setting the options. Refer to the appropriate manual supplied with the terminal and modem for these procedures.
- Appendix C, ''PEC Explosions'', contains a list of the Price Element Codes (PECs) for DEFINITY AUDIX system and peripheral hardware and software, including a description of the contents and Comcodes for each PEC.

A list of abbreviations, a glossary, and an index are also provided.

How to Use This Document

Those who install and upgrade hardware and software on DEFINITY AUDIX systems should reference the tasks within the entire document, including the appendices.

Field Support, Remote Support Center (TSC, ITAC, CDEs, and destributors), and factory personnel should read the entire document to gain a thorough overview of the DEFINITY AUDIX system installation procedures.

Conventions Used in This Document

The following typographic conventions are used in this document:

- Keyboard keys that you press are shown in rounded boxes. For example, an instruction to press the carriage return or equivalent key is shown in this document as:

  Press [RETURN].

- The word *enter* means to type a value or command and then press the [RETURN] key. For example, an instruction to type **y** and press [RETURN] is shown in this document as:

  Enter **y** to continue.

  NOTE:
  To send the information to the DEFINITY AUDIX system, the [RETURN] key (located on the right side of your keyboard) must be pressed after you type a command or a response to a prompt. On some keyboards, this key is labeled [ENTER] instead of [RETURN].If your keyboard has *both* a [RETURN] key and an [ENTER] key (as on the 513 and 615 keyboards), use [RETURN] key.

- Two or three keys that you press at the same time (that is, you hold down the first key while pressing the second key and, if appropriate, the third key as well) are shown in rounded boxes separated by hyphens. For example, an instruction to press and hold [CONTROL] while typing the letter **d** is shown in this document as:

  Press [CONTROL]-[D].

- Information that is displayed on your terminal screen — including screen displays, field names, prompts, and error messages — is shown in typewriter-style constant-width type. Information that you enter from your keyboard is shown in constant-width bold type. Here is an example:

  At the login : prompt, enter **`audix`**.

- Variables whose values are supplied by you or the system are shown in italic type. For example, an error message that is displayed on the screen with one of your specific filenames might be shown generically in this document as:

  The filesystem *filename* is out of space.

Trademarks and Service Marks

The following trademarks are mentioned throughout this document:

- AUDIX® is a registered trademark of AT&T.
- DEFINITY® is a registered trademark of AT&T.
- Intuity™ is a trademark of AT&T.

Related Resources

The following documents are related to DEFINITY AUDIX system installation and upgrades.

- For all DEFINITY AUDIX system planning information, including the worksheets needed for installation, see *Planning for DEFINITY AUDIX System*, 585-300-601.
- For information about earlier versions of the system, see *DEFINITY AUDIX System — Documentation Guide*, 585-300-011. This book lists currently available editions of books covering the earlier systems as well as version 3.2.
- For complete details on ongoing administration of a DEFINITY AUDIX system, see *DEFINITY AUDIX System — Administration*, 585-300-507.
- For switch administration procedures, see *Switch Administration for DEFINITY AUDIX System*, 585-300-509.
- For complete details on the DEFINITY AUDIX system, see *DEFINITY AUDIX System — System Description*, 585-300-205.
- For all maintenance procedures, see *DEFINITY AUDIX System — Maintenance*, 585-300-110.
- For installation and operation information on the G3-MA (SAT-PC), see *DEFINITY Communications System Generic 3 Management Applications Station Provisioning*, 555-229-202.
- For installation and operation information on Intuity Message Manager, see *Intuity Message Manager User Guide*, 585-310-725.

To order additional AT&T documents from within the USA, call the AT&T Customer Information Center, 1-800-432-6600, and request each item by the appropriate document number.

How to Get Help

If problems arise during installation of the DEFINITY AUDIX System that cannot be resolved locally, call the appropriate Remote Support Center. The number will be provided to you by the Project Manager overseeing this installation.

How to Make Comments About This Document

The reader comment card is located after the title page. While we have tried to make this document fit your needs, we are interested in your suggestions for improving it and urge you to fill one out.

If the reader comment card has been removed from this document, please send your comments to:

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Prerequisites

1

This chapter describes prerequisites for installing a DEFINITY AUDIX system. These include:

Task 1: Verify the selected site

Task 2: Gather required tools

Task 3: Review safety considerations

Task 4: Verify components and connectivity. Before beginning the installation, make sure you have completed these prerequisites.

NOTE:
If this Installation or Upgrade includes Digital Networking, ensure that the Installation Specification is available and filled out.

NOTE:
The installation of Intuity Message Manager requires that the following information be obtained from the LAN Administrator. This information is required for administration of the DEFINITY AUDIX Server:

Gateway Address
Subnet Mask
IP Address

Display Set and Control-Link Integration

The DEFINITY AUDIX system can be connected to the switch in one of two ways: display-set (DS) or control-link (CL) integration. CL integration requires an external connection from the switch to an RS-232C port on the multifunction board (MFB) of the DEFINITY AUDIX system. DS integration uses a channel (internal to the switch) that would otherwise be used to transfer display-set information.

The procedural differences due to these different characteristics are clearly defined in the tasks and diagrams that follow. However, you need to know which integration type — DS or CL — to set up for this installation. If you do not know whether this system is to be installed for DS or CL integration, contact the project manager or the remote support center before proceeding.

Task 1: Verify the Selected Site

NOTE:
Although defining and ensuring that the site meets the DEFINITY AUDIX system requirements is the responsibility of the Project Manager and the customer, and must be *completed before* you install the DEFINITY AUDIX system, the guidelines are listed here so that you are aware of these requirements.

Verify that the site selected for the switch and the DEFINITY AUDIX system provides the following:

- For a DEFINITY AUDIX system being installed in an existing switch, five (four for a G3vs) contiguous slots in a switch carrier to house the DEFINITY AUDIX system (see *Planning for the DEFINITY AUDIX System*, 585-300-904, for switch reconfiguration details)
- Easy access for cabling
- Good workspace for the system administrator and/or operators
- Temperature range of 50 to 100° F (10 to 38° C), with the ideal range being 50 to 80° F
- Humidity range of 20 to 80%, noncondensing. In addition, make sure the site is secure and provides protection from excessive sunlight, heat, cold, chemicals, static electricity, magnetic fields, vibration, and grime.

Task 2: Gather Required Tools

To install an DEFINITY AUDIX system, you must have the following tools:

- No. 1 or No. 2 Phillips screwdriver
- Narrow width, flat blade screwdriver
- 1/4-inch nut driver (recommended)
- Antistatic grounded wrist strap

Task 3: Review Safety Considerations

WARNING:

Electronic equipment can be damaged by electrostatic discharge. Do not touch any electronic component unless you are properly grounded.

DANGER:

Do not touch the switch backplane while installing the DEFINITY AUDIX system. The backplane contains dangerous voltages and current.

To prevent damage to the equipment and yourself, adhere to the following:

- Make sure you are familiar with the procedures necessary to prevent electrostatic damage to the equipment.
- Properly ground a wrist strap.
- Place the grounded wrist strap on your bare wrist. (The wrist strap must contact your bare skin directly—do *not* wear it over your clothes.)
- Do not remove the DEFINITY AUDIX System assembly from the polyethylene bag until:
  - — Your wrist strap is on your wrist and properly grounded
  - — You have made room in the switch carrier and you are ready to insert the DEFINITY AUDIX System assembly in the carrier.
- If you need to work on the DEFINITY AUDIX System assembly — that is, disassemble it — place the assembly on a grounded antistatic work mat.

Task 4: Verify the Components and Connectivity

Review the connectivity diagrams in Figure 1-1: DEFINITY AUDIX System Connectivity Diagram — CL Integration, Figure 1-2: DEFINITY AUDIX System Connectivity Diagram — DS Integration, and Figure 1-3: DEFINITY AUDIX LAN Connectivity, on the following pages to gain a general understanding of how the DEFINITY AUDIX system is to be connected.

In these drawings various optional connection methods are shown in coupling brackets. For example, the brackets in figure 1-1 include the several connection methods mentioned under: ''Task 8: Install the Control-Link Cable'' on page 2-22 and subsequently described in detail. Likewise, the terminal wiring appropriate to DS integration is explained at considerable length under: ''Task 7: Install the Terminals'' on page 2-12.

Refer to the diagrams in the tasks just described for connectivity details.

Then compare the Price Element Code (PEC) and comcode list contained in Appendix C with the actual parts you received to make sure that all the required parts have been ordered and shipped correctly. In addition to the orderable components listed in Appendix E, other terminals, modems, and printers are supported and may be used in the DEFINITY AUDIX system configuration.

If you did not receive (or do not have on hand) all the required parts, follow your normal claims procedure with the factory to acquire the missing parts. After you have reviewed the connectivity diagram and have verified the DEFINITY AUDIX system components, proceed to the tasks in Chapter 2, ''Hardware Installation''.

NOTE:
If DEFINITY AUDIX will be used as a server for Local Area Network (LAN) applications such as Intuity™ Message Manager, it is recommended that the customer-provided LAN connection is available prior to installation of the DEFINITY AUDIX.

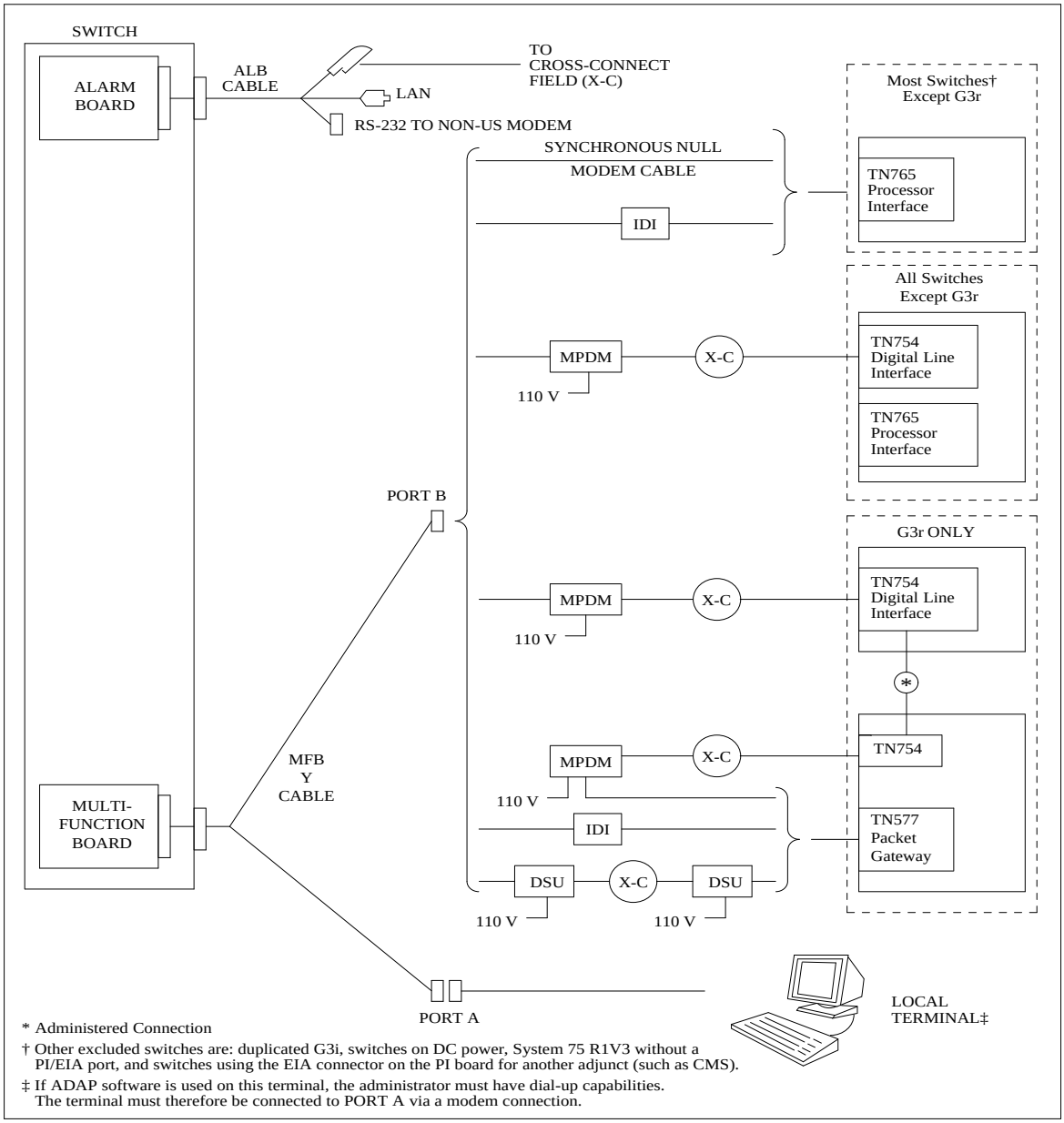


Figure 1-1. DEFINITY AUDIX System Connectivity Diagram — CL Integration

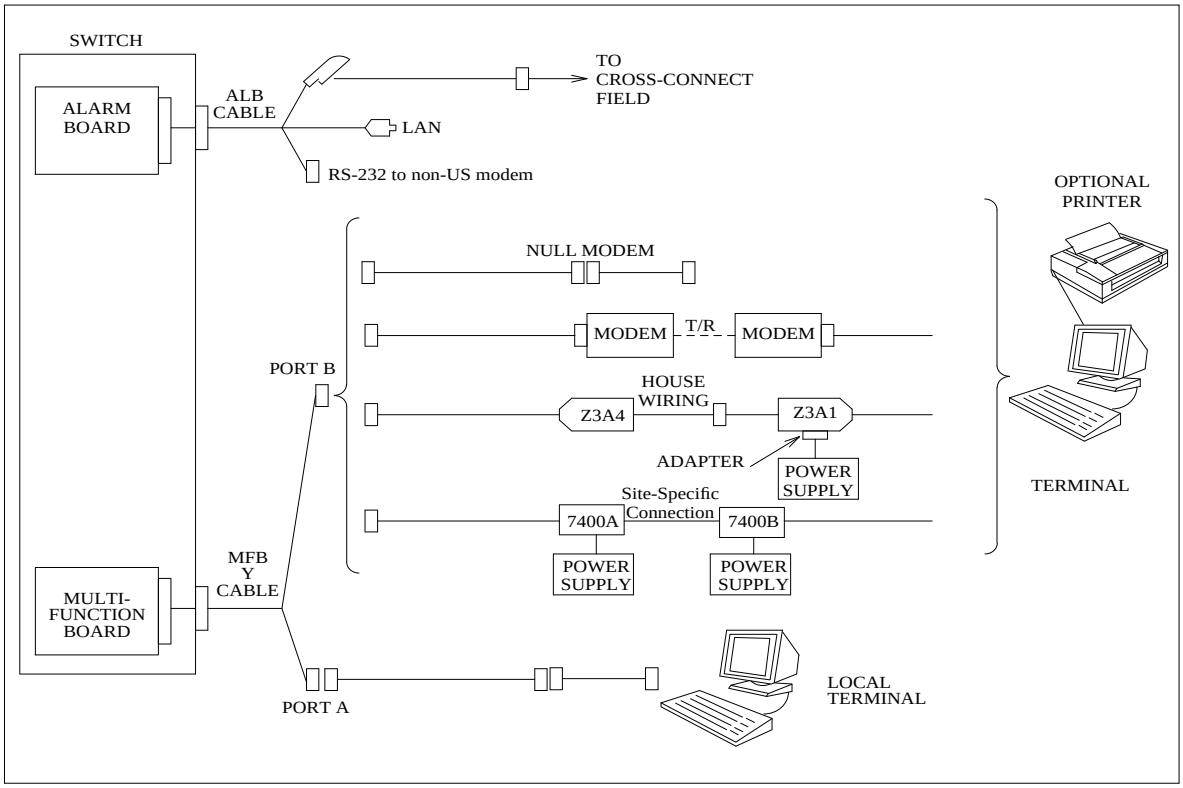


Figure 1-2. DEFINITY AUDIX System Connectivity Diagram — DS Integration

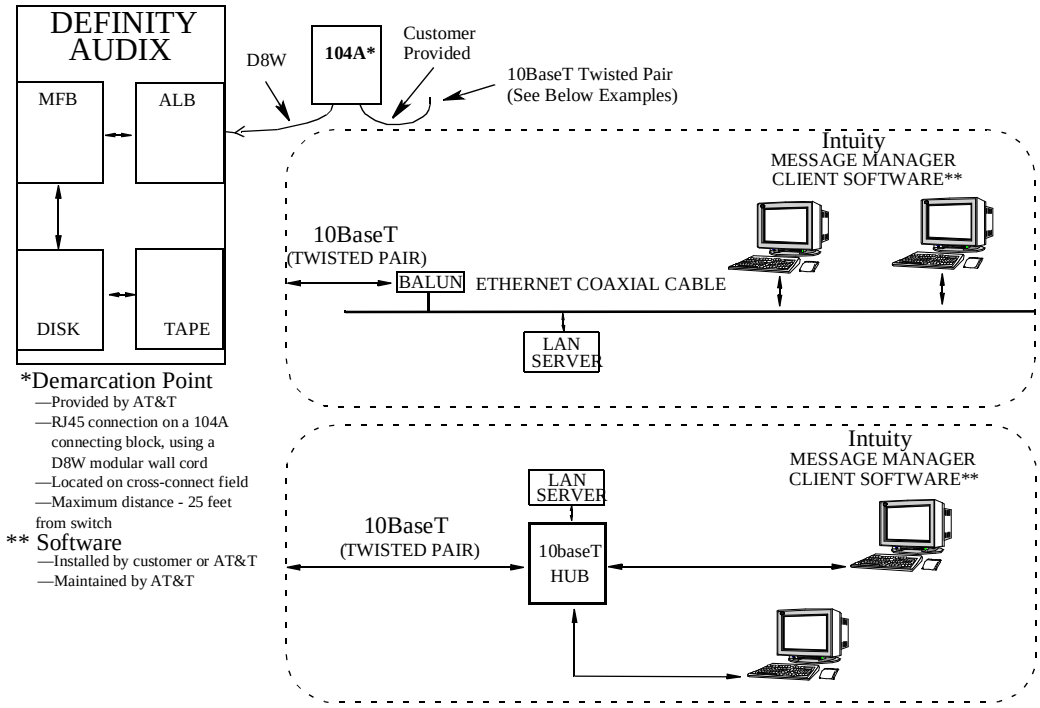


Figure 1-3. DEFINITY AUDIX LAN Connectivity

NOTE:
If DEFINITY AUDIX is to be used as a server for Local Area Network (LAN) applications such as Intuity Message Manager, it is required that a LAN connection be available to the system prior to hookup. This connection to the LAN is provided by AT&T on the wall field within 25 feet of the switch.

The preceding illustration shows two possible ways of connecting the DEFINITY AUDIX system to a local area network. Each possibility shows the RJ45 connector on the alarm board connected to a 10BaseT LAN system. Further details are provided under: ‘‘LAN Connection’’ on page 2-10 .

Hardware Installation

2

This chapter describes the tasks needed to install the DEFINITY AUDIX system hardware and peripheral hardware.

You can install the DEFINITY AUDIX system in any of the following switches.

- System 75 R1V3
- DEFINITY Communications System Generic 1 (G1)
- DEFINITY Communications System Generic 3 (G3i, G3s, G3vs,and G3r: all versions of all switches)

Hardware Installation Tasks

The DEFINITY AUDIX system installation tasks are virtually the same for all switch types. Therefore only one set of tasks is provided, with any differences for switch types indicated in the instructions. These installation tasks include:

Task 5: Install the DEFINITY AUDIX system hardware assembly

Task 6: Connect the alarm board and LAN cables (optional)

Task 7: Install the terminals

Task 8: Install the Control Link cable — CL mode only (optional)

Task 9: Install the optional printer

Task 10: Finalize and test the hardware

Worksheets Needed

Before beginning these tasks, make sure you have the following worksheets from *Planning for the DEFINITY AUDIX System*, 585-300-601.

- A-1, *Port Slot Assignments (Before Carrier Rearrangement)*
- A-2, *Port Slot Assignments (For Carrier Rearrangement)*
- A-3, *Port Slot Locations for the DEFINITY AUDIX System Assembly*
- A-4, *Control Link Cable-Connection Configuration*
- E-1, *Terminals*

The Project Manager should have provided you with these worksheets.

Task 5: Install the DEFINITY AUDIX System Assembly

This task is required for all installation scenarios.

WARNING:
To prevent damage to the DEFINITY AUDIX system assembly, make sure that you (or the factory for new switches) have connected the DEFINITY AUDIX system assembly adaptor cables to the port connectors on the back of the switch (as described in Step 3) before you insert the DEFINITY AUDIX system assembly in the switch carrier.

You can install the DEFINITY AUDIX system assembly in the switch when the switch is powered on or off. When the assembly is inserted in the slots of the switch carrier, it will automatically power up, run diagnostics, and boot. To avoid a disk crash, never remove the assembly without first completing the shutdown procedure to shut down the DEFINITY AUDIX system (and allowing the disk to completely spin down).

For the same reason, do not power cycle the switch (for example, during switch acceptance tests) once the DEFINITY AUDIX system assembly is inserted unless you have first shut down the DEFINITY AUDIX system. Refer to Chapter 1 in DEFINITY AUDIX System — Maintenance, 585-300-110, for a description of the shutdown procedure.

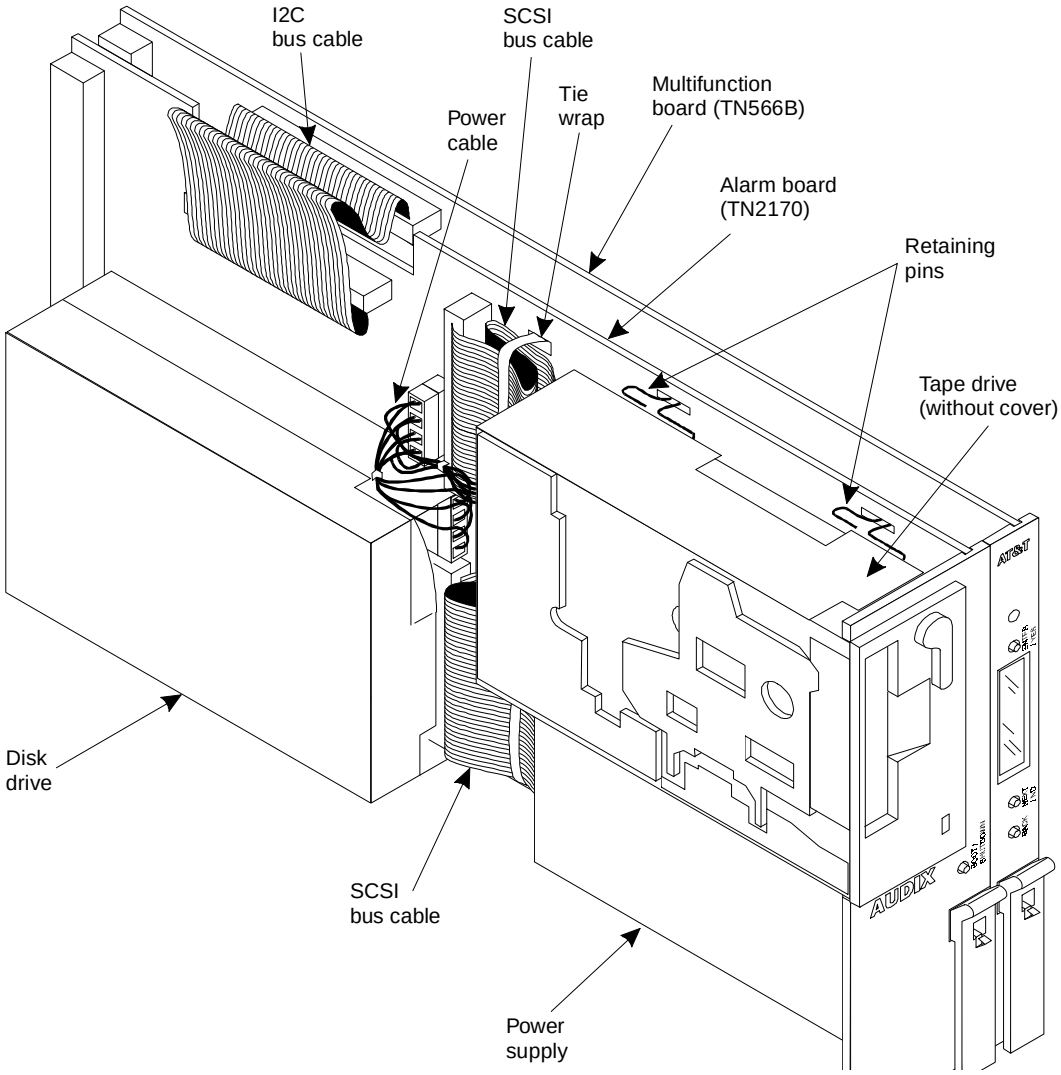


Figure 2-1. DEFINITY AUDIX System Assembly

Slot and Carrier Restrictions

If rearrangement of circuit packs in the PBX is required to accommodate the DEFINITY AUDIX system assembly, rearrange the packs as indicated on Worksheet A-2, *Port Slot Assignments*, before proceeding.

If you are installing the DEFINITY AUDIX system in a System 75 XE or in a single-carrier cabinet of a DEFINITY G1, G3i, G3r or G3s, slots 14 (or slots 13 in an EPN control cabinet) should not be used for the DEFINITY AUDIX system assembly.

See Appendix A, *PBX Carrier Configuration Worksheets*, of *Planning for the DEFINITY AUDIX System*, 585-300-601, for detailed information on the rearrangement of circuit packs and on slot restrictions.

DEFINITY AUDIX System Slots

The DEFINITY AUDIX system assembly requires five (four for G3vs) contiguous port slots in the switch carrier. In this description, the five slots are referred to as *the 1st through the 5th slot*, with the understanding that they can be any five contiguous port slots.

The slots are numbered from left to right on the front panel of the switch cabinet, and from right to left on the rear panel as shown in Figure 2-2, Connecting the Adaptor Cables Rear-Panel View. The five port slots are occupied by the DEFINITY AUDIX system assembly as follows:

- The 1st and 2nd slots are occupied by the DEFINITY AUDIX disk and tape drives and do not connect to the DEFINITY AUDIX assembly
- The 3rd slot connects to the DEFINITY AUDIX system ALB
- The 4th slot connects to the DEFINITY AUDIX system MFB
- The 5th slot remains vacant to provide added clearance for components on the MFB.

NOTE:
The *G3vs switch* has a single carrier with 10 slots.

For this switch, the DEFINITY AUDIX system assembly occupies only four slots — the fifth (clearance) slot is not needed. The assembly *must* be installed in slots 7-10 — the DEFINITY AUDIX system ALB occupies slot 9 and the MFB occupies slot 10.

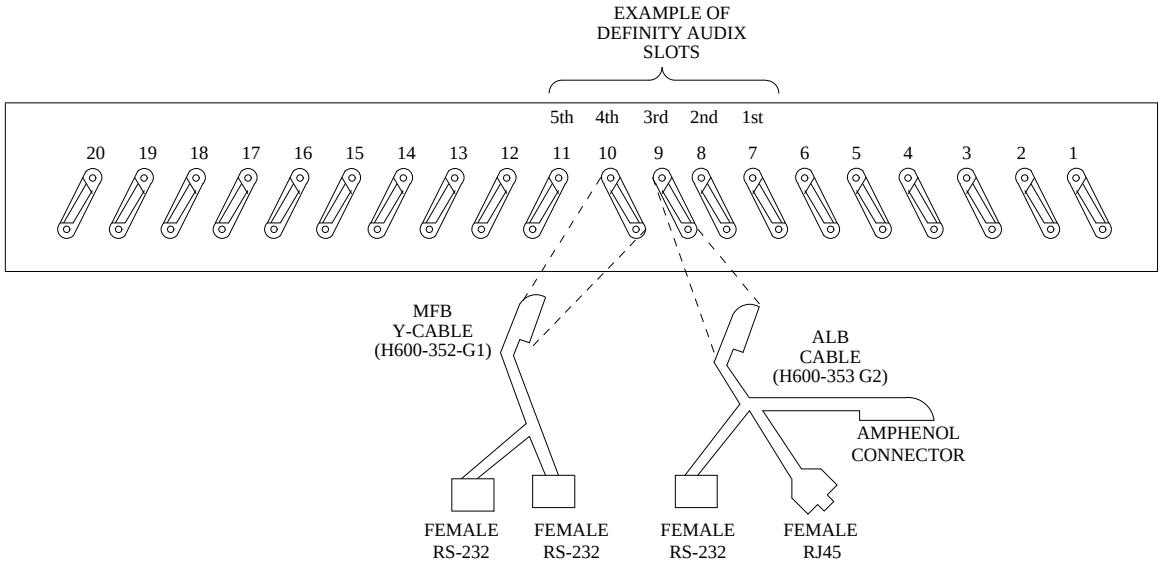


Figure 2-2. Connecting the Adaptor Cables Rear-Panel View

If the DEFINITY AUDIX system was shipped in a new switch, skip to Step 7 of this task.

Installation Steps

Using Worksheet A-3, *Port Slot Locations for the DEFINITY AUDIX System Assembly*, follow the steps below to install the DEFINITY AUDIX system assembly.

1. Remove the amphenol connectors from the third and fourth slots of the five (four for G3vs) contiguous slots reserved for the DEFINITY AUDIX system. For example, if you are to install the DEFINITY AUDIX system in slots 7 through 11 of carrier A in the switch, remove the amphenol connectors on the Group 300 cables from slots 9 and 10. (These are the two slots that provide connectivity to the DEFINITY AUDIX system circuit packs.)
2. Dress down the cable you removed from the 4th slot to the wall field. (Do not dress down the cable from the 3rd slot, you will use it in the next task to cable the alarm origination.)

3. Referring to Figure 2-1 and Steps 3a and 3b below, connect the DEFINITY AUDIX system assembly adaptor cables to the port connectors on the back of the switch.

   NOTE:
   You must connect these adaptor cables directly to the port connectors on the switch. If you install another cable between the switch and the cables, the DEFINITY AUDIX system will not operate correctly (either now or in the future).

   a. Attach the male D-type amphenol connector on the alarm board (ALB) cable (H600-353-G2, the one with two amphenol connectors, one RJ45 LAN connector, and one 25-pin RS-232 connector) to the ALB (TN2169 or TN2170), the third slot of the five DEFINITY AUDIX system slots.

   b. Attach the male D-type amphenol connector on the multifunction board (MFB) Y-cable (H600-353-G2, the one with one amphenol and two RS-232 connectors) to the MFB (TN566B or TN567), the fourth slot of the five DEFINITY AUDIX system slots.

   If you are installing the DEFINITY AUDIX system in a DC-powered switch, perform the following steps to install the opto-isolators. Otherwise, skip to Step 5.

4. Install the 116A opto-isolators.

   a. Attach the male end of a null modem (supplied with the DEFINITY AUDIX system PEC) to the RS-232C connector labeled PORT A on the MFB Y-cable. Attach the male connector of the 116A opto-isolator to the other end of the null modem.

   If the DEFINITY AUDIX system is to use DS integration *and* if two terminals are to be installed, install the second opto-isolator. Otherwise, proceed to Step 5.

   b. Attach the male end of another null modem to the RS-232C connector labeled *PORT B* on the MFB Y-cable. Attach the male connector of the second 116A opto-isolator to the other end of the null modem.

5. Insert the DEFINITY AUDIX system assembly (see Figure 2-1, DEFINITY AUDIX System Assembly) into the switch cabinet as follows:

   Holding the DEFINITY AUDIX system assembly by the outside edges of the faceplate, line up the alarm board (ALB) and the multifunction board (MFB) with the bottom guides of the third and fourth slots, respectively, of the five reserved port slots in the switch carrier.

   WARNING:
   The DEFINITY AUDIX system will automatically boot when seated in the slots. Damage to the disk could occur if the assembly is removed while booting. Therefore, you should try to avoid the need to adjust

or reinsert the assembly after the first attempt to insert it; make sure that the assembly is properly aligned in the slot, then insert it with a single firm push.

6. Insert the assembly and lock it in place by pushing up the securing latches on the two circuit packs. (It is normal for the two circuit packs to feel loosely connected to each other. This is to allow some give when you are seating them into the two slots of the backplane.) If the switch is powered on, the DEFINITY AUDIX system will boot automatically.

   If the switch is not powered on, wait until it is and then proceed to Step 7.

7. As the DEFINITY AUDIX system comes up, watch the LCD on the faceplate (see Figure 2-3, DEFINITY AUDIX System LCD Display). The LCD display identifies the states and alarms for the DEFINITY AUDIX system.

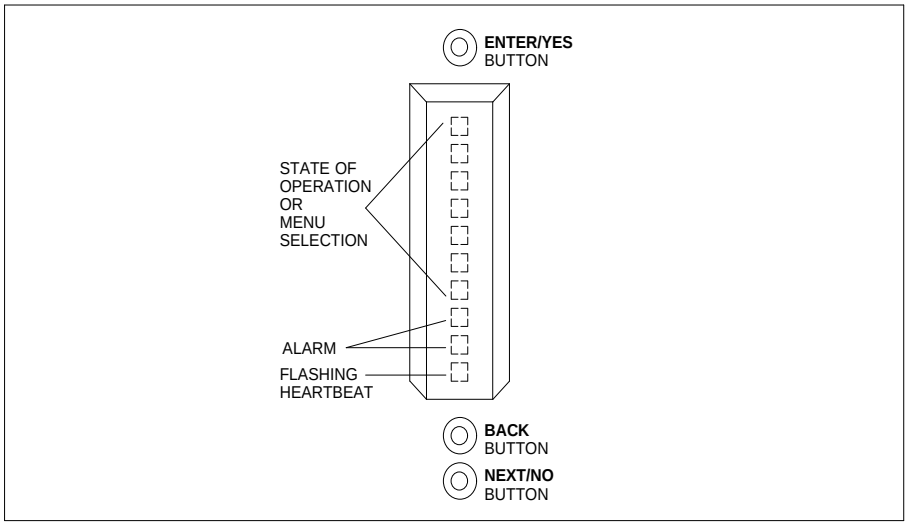


Figure 2-3. DEFINITY AUDIX System LCD Display

The following list describes the positions of the LCD.

- Standing to the right of the faceplate and reading from bottom to top, the first position contains the DEFINITY AUDIX system heartbeat.
- The second and third positions display two letters indicating the following types of alarms: warnings (WN), minor (MN) and major (MJ). These positions are blank if there are no alarms.
- The remaining positions indicate the DEFINITY AUDIX system states or menu selections.

See *DEFINITY AUDIX System — Maintenance,* 585-300-110 for a complete description of the LCD display.

When the DEFINITY AUDIX system is coming up, the LCD should display the following states (in order):

BTEST	(Firmware board tests)
BOOT	(Booting the operating system)
OSINIT	(Operating system initialization)
OS	(Operating system)
AINIT	(DEFINITY AUDIX system initialization)
ADX	(DEFINITY AUDIX system state)

If the DEFINITY AUDIX system does not come up to the AUDIX state within 30 minutes (10 to 15 minutes is average), write down the state displayed on the LCD, then refer to the associated troubleshooting procedures in *DEFINITY AUDIX System — Maintenance*, 585-300-110.

NOTE:
If the red LED at the top of the faceplate is flashing after you have inserted the DEFINITY AUDIX system assembly, ignore it at this time. A flashing LED indicates a software error which, at this time, is probably a port board alarm that should resolve itself when you administer the ports.

8. Unless the fifth DEFINITY AUDIX system slot is already covered, cover it with a 1/2-inch blank faceplate adapter.
9. Proceed to Task 6: Connect the Alarm Board Cable.

Task 6: Connect the Alarm Board Cable

The Alarm Board cable has three connectors available for outside connections:

- Alarm Origination/Remote Maintenance Access
- Local Area Network (LAN) used for Intuity Message Manager (IMM)
- Reserved

Refer to Figure 2-4, Alarm Board Cable Connections, to connect the cables

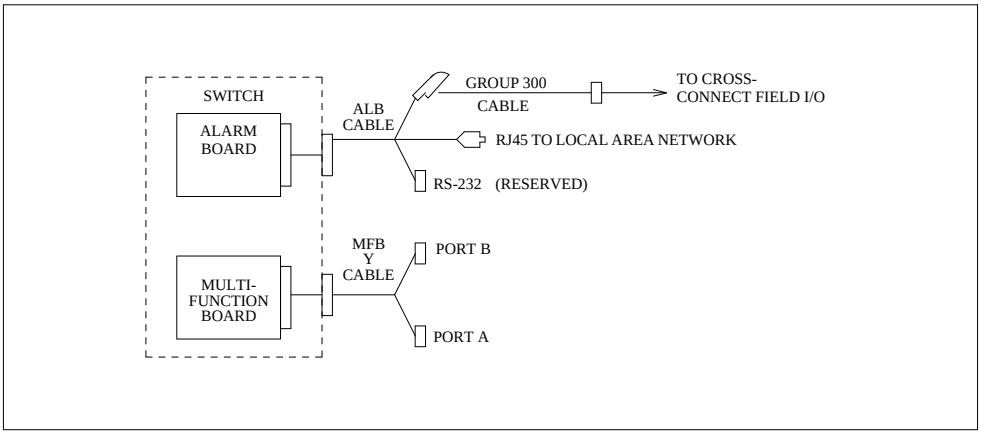


Figure 2-4. Alarm Board Cable Connections

Alarm Origination/Remote Access Connection

This task is required for all installation scenarios.

Alarm Origination/Remote Maintenance Access is normally set up through the internal AUDIX modem. It can also be set up through the switch in addition to, or instead of through the AUDIX modem. In either case, perform the connections described in the *DEFINITY AUDIX Connection* section below. If Alarm Origination/Remote Maintenance Access through the switch is indicated on Worksheet C-9, also make the connections described in the *SWITCH Connection* section.

DEFINITY AUDIX Connection

1. Connect the DEFINITY AUDIX system ALB cable to the cross-connect field.

   Attach the male amphenol connector on a Group 300 cable (on an existing switch, the one that you disconnected from the third DEFINITY AUDIX system slot in the previous task) to the female amphenol connector labeled *ALARM* on the ALB cable (the cable that is now connected to the third DEFINITY AUDIX system slot). The other end of the Group 300 cable should already be attached to the cross-connect field.

Perform the cross-connects for the alarm origination/remote maintenance access connection using the pin-outs listed below.

Pin	Definition
26	Tip (W/BL)
1	Ring (BL/W)

If the DEFINITY AUDIX system is going to originate alarms, skip the following *Switch Connection* section and continue with the LAN connection.

In Task 16, you will set the Alarm Origination Active? field in the System-Parameters Maintenance screen to **n** if alarm origination is to be activated only on the switch, or to **y** if alarm origination is to be activated on both the switch and DEFINITY AUDIX. (See Worksheet C-9, *Set up Alarm Origination* to determine which alarm origination setup is desired.)

LAN Connection

If DEFINITY AUDIX is equipped with the TN2170 ALB with LAN connectivity, Worksheet C-2 will indicate the need to provide a LAN connection.

The 104A connecting block is used as the demarcation point between the audix server and the customer-provided LAN. Mount the 104A to the wall field within 25 feet of the switch , and hard connect eight wires across its two wiring blocks as described below (see Figure 2-5, 104A Connecting Block).

1. Arrange the ends of these eight wires into the connecting blocks.
2. Snap four protector caps over the top which presses the wire into the connector.

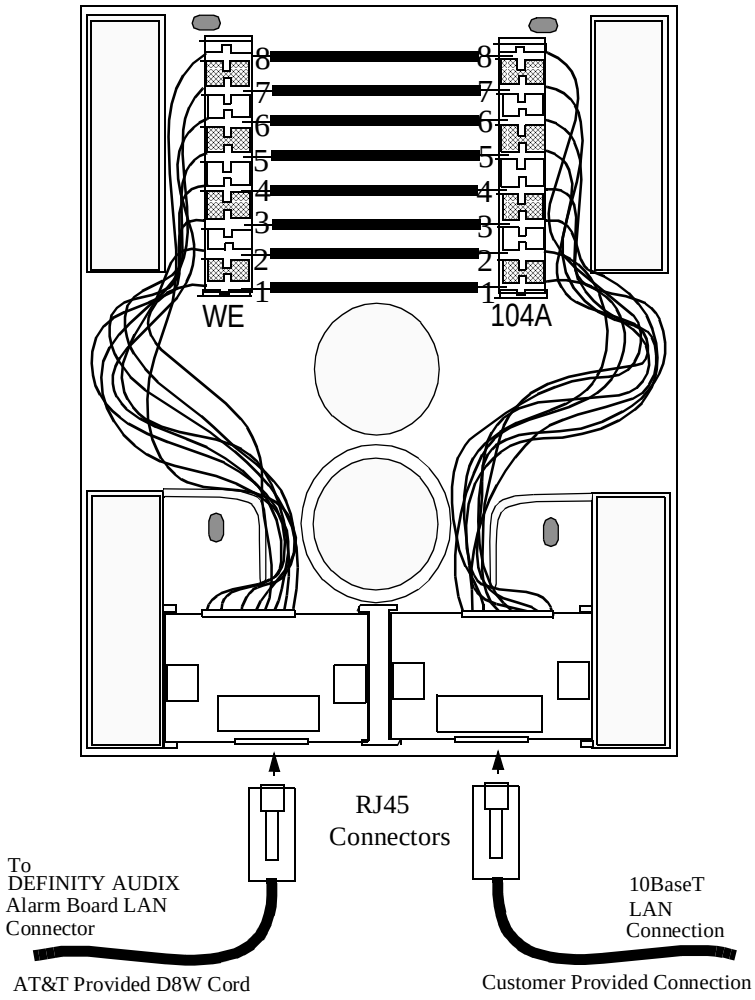


Figure 2-5. 104A Connecting Block

3. Connect the Alarm Board RJ45 connector to the 104A connecting block. Use a D8W modular wall cord (up to 25 feet long) for the purpose. Make this connection whether or not Intuity Message Manager is to be activated right away.

   If the customer intends to connect a LAN to the DEFINITY AUDIX system, there must be a customer-provided 10BaseT twisted pair cable with a male RJ-45 connector to the connecting block. The customer is responsible for this LAN connection. (The IMAP feature for Intuity Message Manager is activated later in the installation using the administration terminal.)

Reserved RS-232 Connection

Do not connect the RS-232 connector on the ALB cable In the U.S. The standard alarm origination circuit uses an on-board DEFINITY AUDIX system modem that is internally wired to the amphenol connector on the ALB cable. The RS-232 connector on the cable is used in installations outside of the U.S.

MFB Port Usage for DS and CL Integration

The Multifunction Board (MFB) Y-cable has two RS-232C connectors labeled Port A and Port B.

When using DS integration, both the Port A and Port B connectors can be used for either administration or maintenance and both can be connected to a system-access terminal either locally (directly) or remotely. The primary system-access terminal should be connected to Port A. The only difference between Port A and Port B is that some system diagnostic messages, created only when the system is booting, are sent to Port A but not to Port B. These additional messages are not useful during normal operation of the system.

When using CL integration, Port B is used for the connection to the switch and is not available for a system-access terminal. In this case, only one terminal is used and it is connected to Port A. This terminal is usually connected locally but can be connected remotely, if desired. Should ADAP software be used with this terminal, the terminal must be connected to Port A via a modem connection (See task 7B).

Perform one of the four Subtasks, 7A, 7B, 7C, or 7D — (depending on the connection type) to connect a system-access terminal to Port A, and, if desired and when using DS integration, to connect a second terminal to Port B. Use Worksheet E-1, *Terminals*, to determine which tasks to complete.

The descriptions of Tasks 7B, 7C, and 7D assume that you are connecting a remote terminal to Port B. You can also use these tasks for a remote connection to Port A by substituting *A for B* in the descriptions.

Proceed to Task 7: Install the Terminals.

Task 7: Install the Terminals

This task is required for all installation scenarios.

You will install one or two system-access terminals used to perform administration and maintenance operations. One system-access terminal connected to Port A is required. This terminal is usually connected via a direct cable connection to Port A but can be connected remotely if desired. If the DEFINITY AUDIX system is being installed to use DS integration, a second, optional terminal can be connected to Port B.

The terminals can be connected to Ports A and B in one of four ways:

- Via a direct connection
- Via modems
- Via asynchronous data units (ADU)
- Via 7400A data sets

The connectivity for all supported terminals is similar. Therefore, the subtasks for this task are the same for all supported terminals, with differences identified as required for different terminal types. See the *DEFINITY AUDIX System — System Description*, 585-300-205 for a list of the supported terminals and modems.

If you are connecting a PC using G3-MA software (formerly called SAT-PC) as a DEFINITY AUDIX system administration/maintenance terminal, see *DEFINITY Communications System Generic 3 Management Applications Station Provisioning*, 555-229-202 for installation instructions. Keep in mind that the DEFINITY AUDIX system is data terminal equipment (DTE), and the switch is data communications equipment (DCE). Therefore, you may need to install a null modem to complete the DTE/DCE pair when connecting the PC.

NOTE:
The descriptions of Tasks 7B, 7C, and 7D assume that a remote terminal is being connected to Port B. These tasks can also be used for a remote connection to Port A by substituting *A for B* in the descriptions

Task 7A: Install a Terminal via a Direct Connection

Refer to Figure 2-6, Installing a Terminal via Direct Connection, and Figure 2-7, Installing a Terminal via Direct Connection (DC Switch Only) while performing this task.

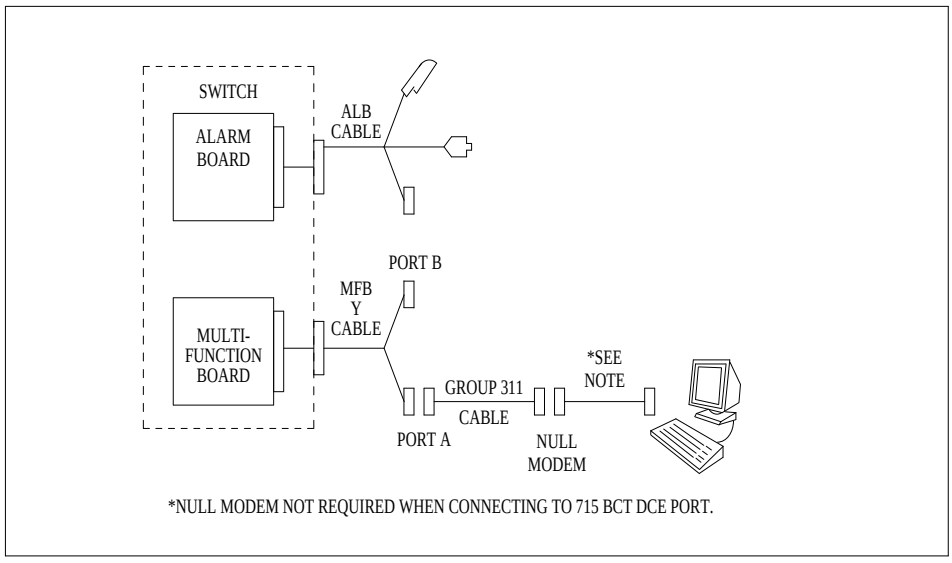


Figure 2-6. Installing a Terminal via Direct Connection

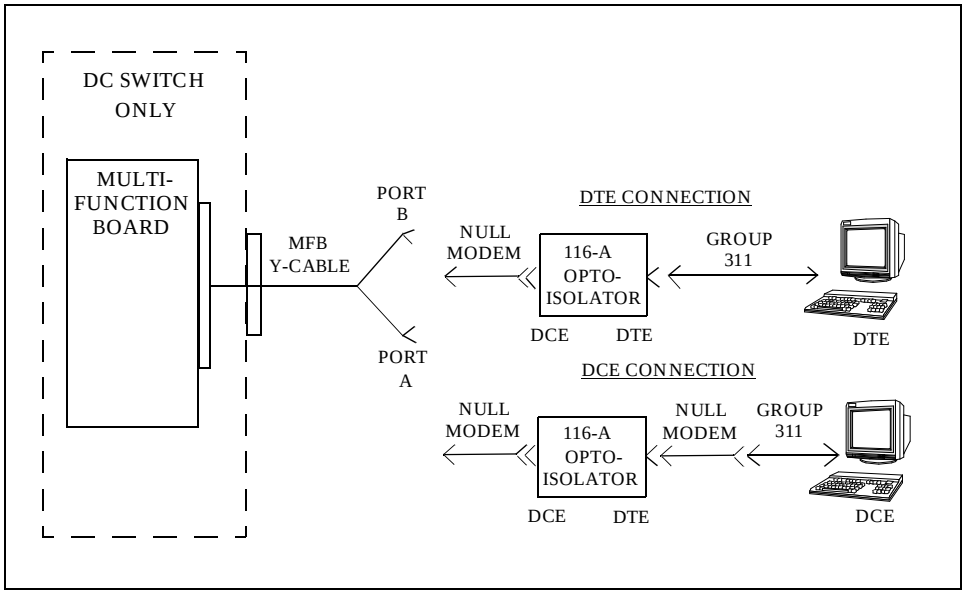


Figure 2-7. Installing a Terminal via Direct Connection (DC Switch Only)

1. If you are installing a new terminal, unpack it according to the instructions supplied with the terminal.
2. Place the terminal on a suitable table within 15 feet of the switch cabinet if you have a 20-foot Group 311 cable, or within 45 feet if you have a 50-foot Group 311 cable, and connect the keyboard.
3. Connect a Group 311 cable between the DEFINITY AUDIX system MFB and the terminal:
   a. Attach one end of a Group 311 cable (supplied with the DEFINITY AUDIX system PEC) to the RS-232 connector labeled PORT A on the MFB Y-cable (or PORT B if you are installing a second terminal).
   b. If you connected an opto-isolator to the PORT A and/or PORT B connectors on the Y-cable (in Task 4), attach the Group 311 cable to the opto-isolator (for a DTE connection). For a DCE connection, attach another null modem to the opto-isolator, and attach the Group 311 cable to the other end of the null modem.
   c. For a 715 BCT, attach the other end of the Group 311 cable to the DCE connector on the back of the terminal. Then skip to Step 4.

      For a 513 or equivalent BCT, attach the other end to the female connector on an H600-258 Group 1 null modem.
   d. Connect the male connector on the null modem to an RS-232 serial port connector on the back of the terminal.
4. Plug the terminal power cord into a wall outlet and power on the terminal.
5. Set the terminal options. See Appendix B, ''Option Settings'', for a complete list of option settings for supported terminals.

   NOTE:
   When installing a serial printer on all but a 610 or 615 BCT, set the options on the printer as described in the manual supplied with the printer, then set the corresponding options on the terminal to match. On the 610/615, set the terminal options first, then set the printer options.

   If the terminal is installed correctly (and the DEFINITY AUDIX system is in either *ADX*, *OAM*, *OS* or *AINIT* state), the screen displays the login prompt.

   If the terminal does not display the login prompt when the DEFINITY AUDIX system is in one of the above states, try pressing the RETURN key a few times. If the login prompt still does not appear, write down the state displayed on the LCD then see the troubleshooting procedures for terminal connections in *DEFINITY AUDIX System — Maintenance*, 585-300-110.
6. For CL integration, proceed to Task 8: Install the Control-Link Cable. For DS integration, proceed to Task 9: Install the Printer (Optional).

Task 7B: Install a Terminal via Modems

This task describes how to connect a terminal via a modem to Port B (DP integtration only) of the MFB. (This task can also be used for remote connection to Port A, whether DS or CL integration.)

To make sure the modems that you are installing are on the list of supported peripherals, refer to *DEFINITY AUDIX System — System Description,* 585-300-205.

Refer to Figure 2-8, Connecting a Terminal to the MFB via a Modem, when performing this task.

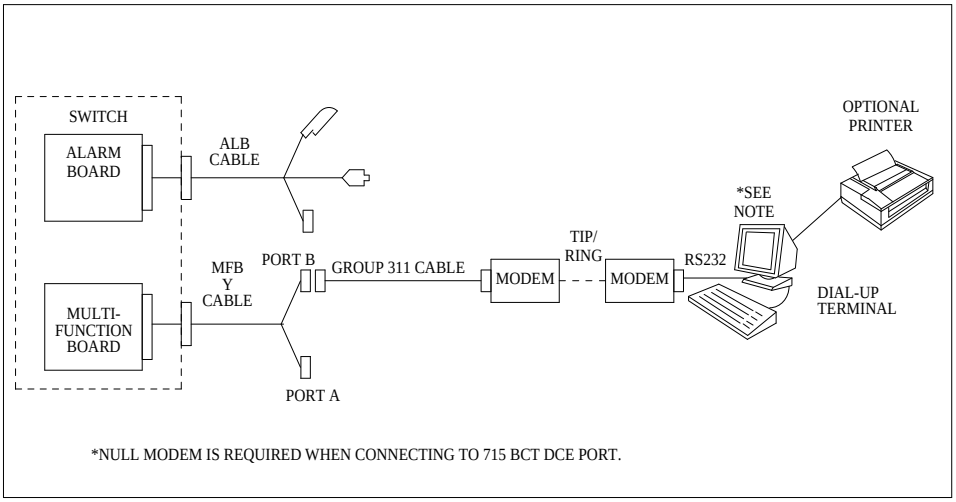


Figure 2-8. Connecting a Terminal to the MFB via a Modem

1. In the room where the switch and DEFINITY AUDIX system are located, place one modem between the DEFINITY AUDIX system and a telephone jack, close enough to each that the cables can easily reach. Also make sure the modem is within reach of a power outlet.
2. Connect the modem to Port B of the DEFINITY AUDIX system MFB.
    a. Attach one end of one of the Group 311 cables to the RS-232 connector labeled PORT B on the MFB Y-cable (the one connected to the fourth slot of the five DEFINITY AUDIX system slots). Attach the other end to the female 25-pin connector on the modem.
    b. Attach the connector on one end of a modular cord to the modem, and attach the other connector to a telephone outlet.

c. Plug the modem power cord into a wall outlet and power on the modem.

d. Set the modem options. Refer to Appendix B, ‘‘Option Settings’’, for a complete list of option settings for all supported modems.

3. Connect a modem to the terminal.

a. If you are installing a new terminal, unpack it according to the instructions supplied with the terminal.

b. Place the terminal on a suitable table and connect the keyboard.

c. Attach one end of an RS-232 cable to a serial RS-232 port on the terminal (the DTE port on a 715 BCT), and attach the other end to the modem (if it is not already connected).

NOTE:
If you connect the modem to the DCE port on a 715 BCT, you must also connect a null modem cable between the modem and the 715 BCT.

d. Attach the connector on one end of a modular cord to the modem, and attach the other end to a telephone outlet.

e. Plug the modem power cord into a wall outlet.

f. Plug the terminal power cord into a wall outlet.

g. Power on the terminal and modem.

h. Set the options on the terminal and modem. Refer to Appendix B, ‘‘Option Settings’’, for a complete list of option settings for all supported terminals and modems.

NOTE:
When installing a serial printer on all but a 610 or 615 BCT, set the options on the printer as described in the manual supplied with the printer, then set the corresponding options on the terminal to match. On the 610/615, set the terminal options first, then set the printer options.

i. At the terminal, enter **AT**.

If the modem is installed correctly, it responds with “OK” (written on the terminal screen).

j. Enter **ATDT** and the telephone number of the modem connected to the DEFINITY AUDIX system *ADMIN* port (listed on the *Terminals* worksheet).

If the terminal is installed correctly (and the DEFINITY AUDIX system is in either *ADX*, *OAM*, *OS* or *AINIT* state), the screen displays the login prompt.

If the terminal does not display the login prompt when the DEFINITY AUDIX system is in one of the above states, try pressing the RETURN key a few times. If the login prompt still does not appear, write down the state displayed on the LCD then see the troubleshooting procedures for terminal connections in *DEFINITY AUDIX System — Maintenance*, 585-300-110.

k. Log in to the DEFINITY AUDIX system (see Task 9 for login details).

   If you can log in successfully, the modem and terminal options are set correctly.

4. For CL integration, proceed to Task 8: Install the Control-Link Cable. For DS integration, proceed to Task 9: Install the Printer (Optional).

Task 7C: Install a Terminal via ADUs

This task describes how to connect a terminal via ADUs to Port B (DS integration only) of the MFB. (This task can also be used for remote connection to Port A, whether DS or CL integration.)

Refer to Figure 2-9, Connecting a Terminal to the MFB via ADUs, when performing this task.

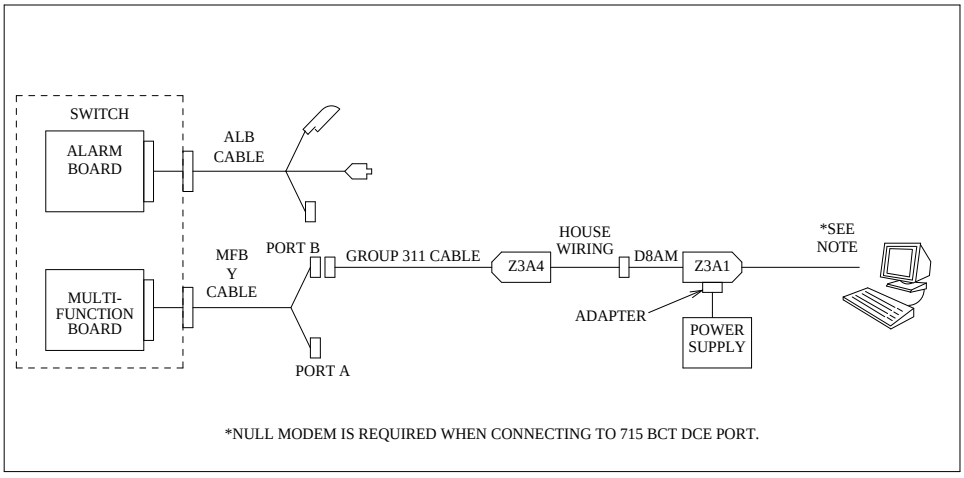


Figure 2-9. Connecting a Terminal to the MFB via ADUs

1. Connect the Z3A-4 ADU to the DEFINITY AUDIX system MFB.
    a. In the room where the switch and DEFINITY AUDIX system are located, attach one end of a Group 311 cable to the RS-232 connector labeled PORT B on the MFB Y-cable (the one connected to the fourth slot of the five DEFINITY AUDIX system slots). Attach the other end to the Z3A-4 (female) ADU.
    b. Plug the cable from the ADU into a telephone outlet.
2. In the terminal room, connect the Z3A-1 ADU to the terminal.
    a. If you are installing a new terminal, unpack it according to the instructions supplied with the terminal.
    b. Place the terminal on a suitable table and connect the keyboard.
    c. Attach the Z3A-1 ADU (male) to a serial RS-232 port on the terminal (the DTE port on a 715 BCT).

        NOTE:
        If you connect the ADU to the DCE port on a 715 BCT, you must also connect a null modem cable between the ADU and the 715 BCT.

    d. Plug one end of the D8AM crossover cord into the connector labeled *Wall Jack* on the ADU, and plug the other end of the D8AM cord into a telephone outlet.
    e. Connect the 2012D ADU Power Supply to the ADU. (The power supply can be connected to either ADU.)
        - Attach either the 400B2 or 248B adapter to the ADU.
        - Plug the power supply into the adapter.
        - Plug the power cord on the power supply into a wall outlet.
    f. Power on the terminal.
    g. Set the terminal options. Refer to Appendix B, ‘‘Option Settings’’, for a complete list of option settings for all supported terminals.

        NOTE:
        When installing a serial printer on all but a 610 or 615 BCT, set the options on the printer as described in the manual supplied with the printer, then set the corresponding options on the terminal to match. On the 610/615, set the terminal options first, then set the printer options.

        If the terminal is installed correctly (and the DEFINITY AUDIX system is in either *ADX*, *OAM*, *OS* or *AINIT* state), the screen displays the login prompt.

If the terminal does not display the login prompt when the DEFINITY AUDIX system is in one of the above states, try pressing the RETURN key a few times. If the login prompt still does not appear, write down the state displayed on the LCD then see the troubleshooting procedures for terminal connections in *DEFINITY AUDIX System — Maintenance*, 585-300-110.

3. For CL integration, proceed to Task 8: Install the Control-Link Cable. For DS integration, proceed to Task 9: Install the Printer (Optional).

Task 7D: Install a Terminal via 7400A Data Sets

This task describes how to connect a terminal via 7400A Data Sets to Port B (DS integration only) of the MFB. (This task can also be used for remote connection to DS or CL integration.)

Refer to Figure 2-10, Connecting a Terminal to the MFB via 7400 Data Sets, when performing this task.

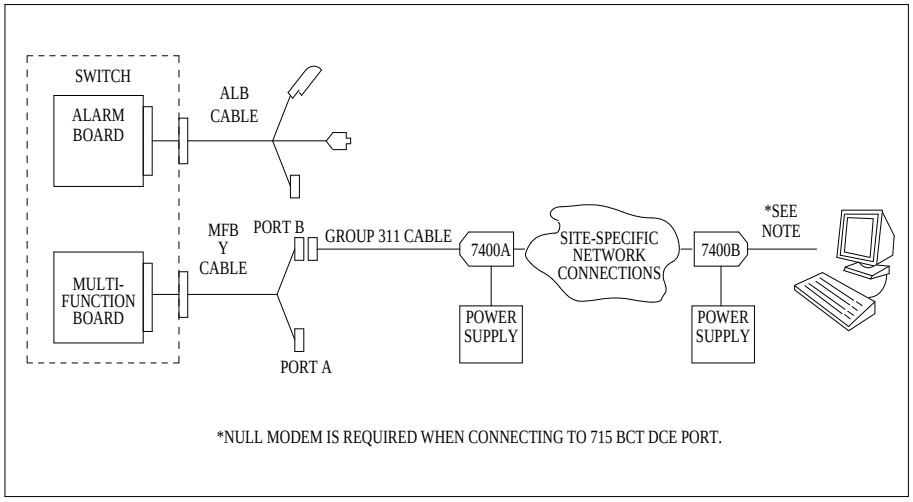


Figure 2-10. Connecting a Terminal to the MFB via 7400 Data Sets

NOTE:
You may use two 7400A data sets in this configuration. However, because the 7400B data set is easier to set up and use, it is the one described in this procedure on the terminal side. (The DEFINITY AUDIX system side of the configuration requires the 7400A.) If you are using two 7400A data sets, connect the second 7400A the same as the 7400B, but set the options as described under *Using the Front Panel* in *7400A Data Module User's Manual*, 555-020-706.

1. Make sure the EIA connector board (located under the top panel) is set to DCE (the factory default). If not, unplug the card and turn it around to the DCE setting (see the *7400A Data Module User's Manual*, 555-020-706, for details).
2. Connect the 7400A data set to the DEFINITY AUDIX system MFB.
    a. In the room where the switch and DEFINITY AUDIX system are located, attach one end of a Group 311 cable to the RS-232 connector labeled PORT B on the MFB Y-cable. Attach the other end to a 7400A data set.
    b. Plug one end of the modular cord (supplied with the data set) into the *LINE* connector on the 7400A data set and plug the other end into a telephone outlet.
    c. Connect the 4-pin connector on one of the 7400A power supplies to the *POWER* connector on the data set, and plug the power supply into a wall outlet.
    d. Set the options and interface baud rate on the 7400A data set. Refer to *Using the Front Panel* in the *7400A Data Module User's Manual*, 555-020-706 for details.
3. In the terminal room, connect the 7400B data set to the terminal.
    a. If you are installing a new terminal, unpack it according to the instructions supplied with the terminal.
    b. Place the terminal on a suitable table and connect the keyboard.
    c. Check the dip switches inside the front panel. If you are not connecting a telephone with this data set, set the first dip switch (1) to the ON position (it is shipped in the OFF position, as are all the others). If you are connecting a telephone, leave all dip switches OFF.
    d. Attach the 7400B data set to an RS-232 port on the terminal (the DTE port on a 715 BCT).

        NOTE:
        If you connect the data set to the DCE port on a 715 BCT, you must also connect a null modem cable between the data set and the 715 BCT.

    e. Plug one end of a D8W cable into the *LINE* connector on the 7400B data set and connect the other end into a telephone outlet.
    f. Connect the 7400B power supply to the data set, and plug the power supply into a wall outlet.
    g. Plug the terminal power cord into a wall outlet and power on the terminal.

h. Set the terminal options. Refer to Appendix B, ‘‘Option Settings’’, for a complete list of option settings for all supported terminals.

NOTE:
When installing a serial printer on all but a 610 or 615 BCT, set the options on the printer as described in the manual supplied with the printer, then set the corresponding options on the terminal to match. On the 610/615, set the terminal options first, then set the printer options.

i. At the terminal, enter **AT**.

If the 7400B data set is connected correctly, it responds with “OK” (on the terminal screen).

j. Enter **ATDT** and the phone number of the 7400A data set connected to the DEFINITY AUDIX system (refer to the *Terminals* worksheet for this number).

After a connect interval, if the terminal and 7400 data sets are installed correctly (and the DEFINITY AUDIX system is in either *ADX*, *OAM*, *OS* or *AINIT* state), the screen displays the login prompt.

If login prompt is not displayed when the DEFINITY AUDIX system is in one of the above states, try pressing the RETURN key a few times. If the login prompt still does not appear, write down the state displayed on the LCD then see the troubleshooting procedures for terminal connections in *DEFINITY AUDIX System — Maintenance*, 585-300-110.

4. For CL integration, proceed to Task 8: Install the Control-Link Cable. For DS integration, proceed to Task 9: Install the Printer (Optional).

Task 8: Install the Control-Link Cable

This task is required only if the DEFINITY AUDIX system is to be run in the CL integration mode.

The control-link cable can be connected to the switch in one of the following six ways:

- Directly to the processor interface (PI) board
- Via an IDI to the processor interface (PI) board (TN765)
- Via an MPDM to the digital-line interface board (TN754)
- Via an IDI to the packet gateway board (TN577) of a G3r only
- Via DSUs to the packet gateway board (TN577) of a G3r only
- Via MPDMs to the packet gateway board (TN577) of a G3r only

Use Worksheet A-4 to determine which of the six cable-connection configurations to install. Then follow the steps in one of the following four subsections.

In the steps in the following subsections, the equipment described is cross-referenced to the circled numbers in the figures.

Connect to the PI without an IDI

WARNING:
Electric shock and/or fire may result from a cabinet-to-cabinet connection of the H600-406 control-link cable. Direct connection of the H600-406 control-link cable is to be used within a single cabinet only.

Refer to Figure 2-11, Connecting the Control Link Cable to the PI without an IDI, when performing this task.

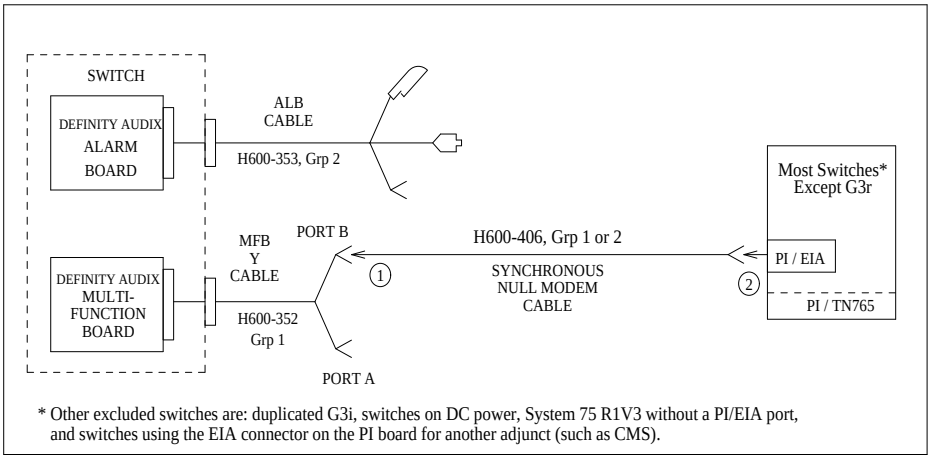


Figure 2-11. Connecting the Control Link Cable to the PI without an IDI

1. Attach the one end of the synchronous null modem cable to the RS-232C connector labeled PORT B on the MFB Y-cable (labeled 1). (The MFB Y-cable is connected to the fourth slot of the five DEFINITY AUDIX system slots.)
2. Attach the other end of the synchronous null modem cable to an EIA connector of the Processor Interface (PI) board on the switch (labeled 2).
3. Proceed to Task 9: Install the Printer (Optional).

Connect to the PI with an IDI

Refer to Figure 2-12, Connecting the Control Link Cable to the PI with an IDI, when performing this task.

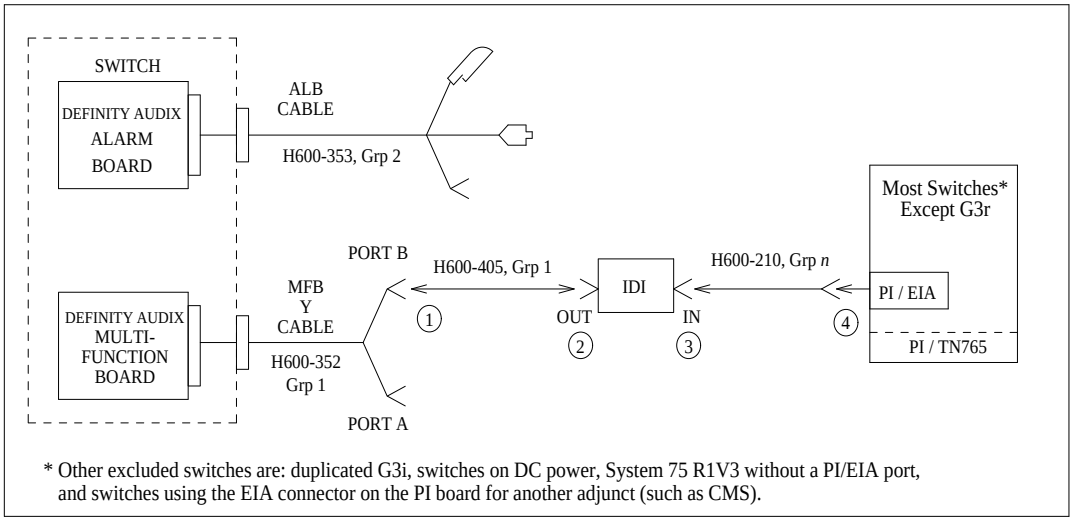


Figure 2-12. Connecting the Control Link Cable to the PI with an IDI

1. Attach one end of the H600-405 cable to the RS-232C connector labeled PORT B on the MFB Y-cable (labeled 1). (The MFB Y-cable is connected to the fourth slot of the five DEFINITY AUDIX system slots.)
2. Attach the other end of the H600-405 cable to the *out* RS-449 connector of the IDI (labeled 2).
3. Attach the RS-449 end of the H600-210 cable to the *in* RS-449 connector of the IDI (labeled 3).
4. Attach the RS-232C end of the H600-210 cable to an EIA connector on the Processor Interface (PI) (labeled 4).
5. Proceed to Task 9: Install the Printer (Optional).

Connect to the Digital Line Interface (TN754)

Refer to Figure 2-13, Connecting the Control Link Cable to a Digital-Line Interface, when performing this task.

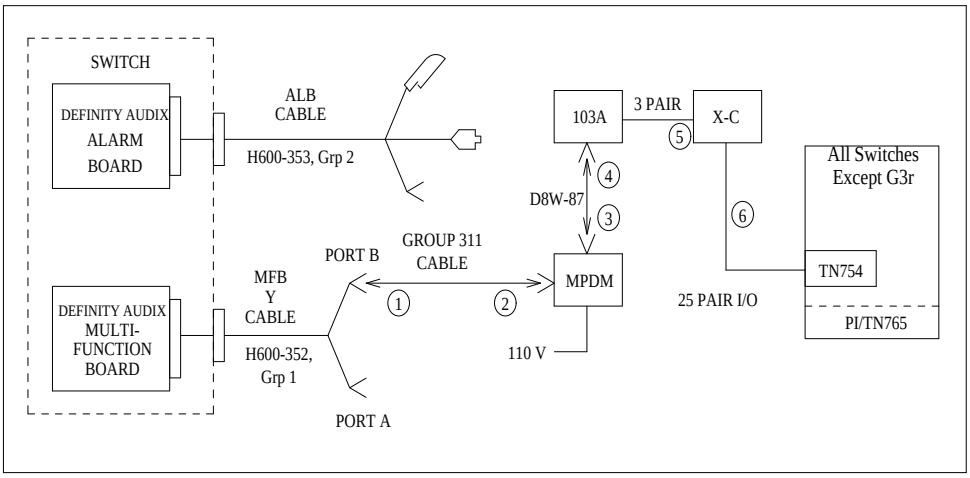


Figure 2-13. Connecting the Control Link Cable to a Digital-Line Interface

1. Attach one end of the (ED1E-434-11) Group 311 cable to the RS-232C connector labeled PORT B on the MFB Y-cable (labeled 1). (The MFB Y-cable is connected to the fourth slot of the five DEFINITY AUDIX system slots.)
2. Attach the other end of the Group 311 cable to the RS-232C connector of the MPDM (labeled 2).
3. Attach one end of the D8W-87 (4-pair) modular cord to the modular jack on the MPDM (labeled 3).
4. Attach the other end of the D8W-87 modular cord to the 103A adapter modular jack (labeled 4).
5. Attach a 3-pair cord from the 103A adapter to the cross-connect field (labeled 5).
6. Attach a 25-pair cable between the cross-connect field and the digital line interface board (TN754) on the switch (labeled 6).
7. Proceed to Task 9: Install the Printer (Optional).

Connect to the Packet Gateway Board (G3r only)

Refer to Figure 2-14, Connecting the CL Cable to a Packet Gateway Board (G3r Only), when performing this task.

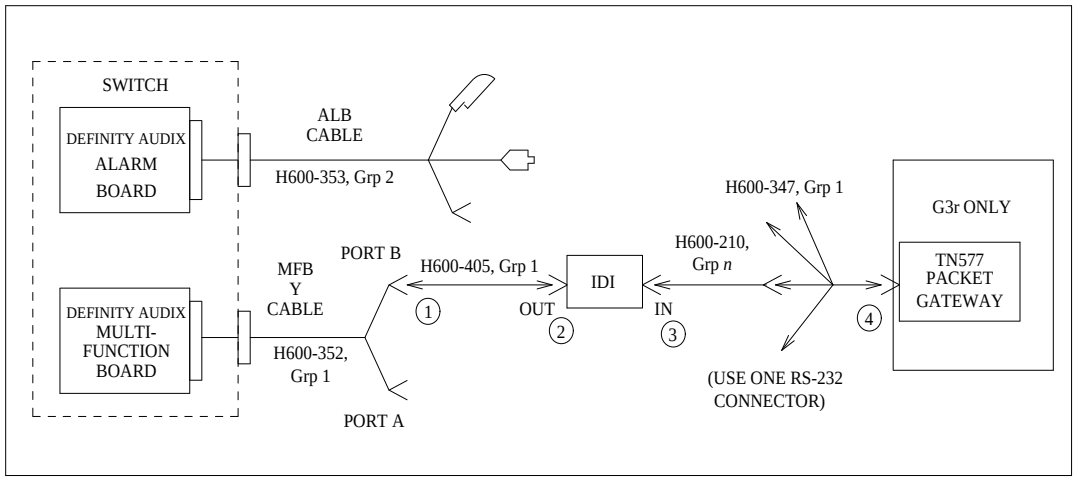


Figure 2-14. Connecting the CL Cable to a Packet Gateway Board (G3r Only)

1. Attach one end of the H600-405 cable to the RS-232C connector labeled PORT B on the MFB Y-cable (labeled 1). (The MFB Y-cable is connected to the fourth slot of the five DEFINITY AUDIX system slots.)
2. Attach the other end of the H600-405 cable to the *out* RS-449 connector of the IDI (labeled 2).
3. Attach the one of the four RS-232 connectors on the H600-347 cable to the *in* RS-449 connector of the IDI (labeled 3).
4. Attach the other end of the H600-347 cable to an RS-232C connector on the Packet Gateway board (TN577) on the G3r switch (labeled 4).
5. Proceed to Task 9: Install the Printer (Optional).

Connect to the TN577 via DSUs (G3r Only)

Refer to Figure 2-15, Connecting the Control Link Cable to a TN577 via DSUs, when performing this task.

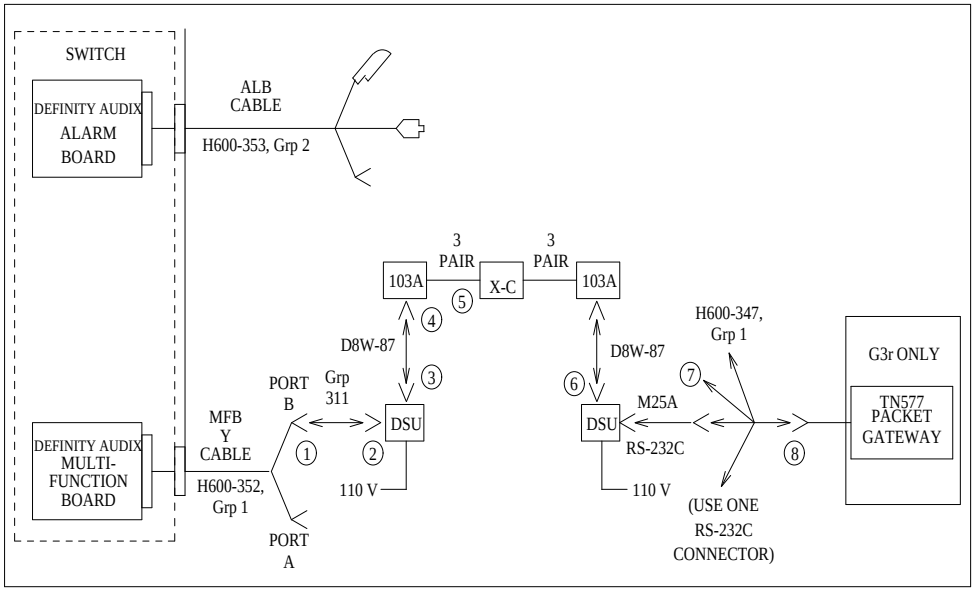


Figure 2-15. Connecting the Control Link Cable to a TN577 via DSUs

1. Attach one end of the Group 311 cable to the RS-232C connector labeled PORT B on the MFB Y-cable (labeled 1). (The MFB Y-cable is connected to the fourth slot of the five DEFINITY AUDIX system slots.)
2. Attach the other end of the Group 311 cable to the Group 110 cable of the DSU (labeled 2).
3. Attach one end of the D8W-87 (4-pair) modular cord to the modular jack on the DSU (labeled 3).
4. Attach the other end of the D8W-87 modular cord to the 103A adapter with a 3-pair cord (labeled 4).
5. Attach the 3-pair cord from the 103A adapter to the cross-connect field (labeled 5). (Remember to swap transmit and receive pairs at the cross-connect field. See the DSU reference manual for more information on DSU connectivity.)
6. Connect the second 103A adaptor, D8W-87 modular cord, and DSU as before.
7. Connect the M25A cable to the modular jack on the DSU (labeled 6).

8. Connect the other end of the M25A cable to one of the four RS-232 connectors on the H600-347 (labeled 7).
9. Attach the other end of the H600-347 cable to an RS-232C connector on the Packet Gateway board (TN577) on the G3r switch (labeled 8).
10. Proceed to Task 9: Install the Printer (Optional).

Connect to the TN577 via MPDMs (G3r Only)

Refer to Figure 2-16, Connecting the Control Link Cable to a TN577 via MPDMs, when performing this task.

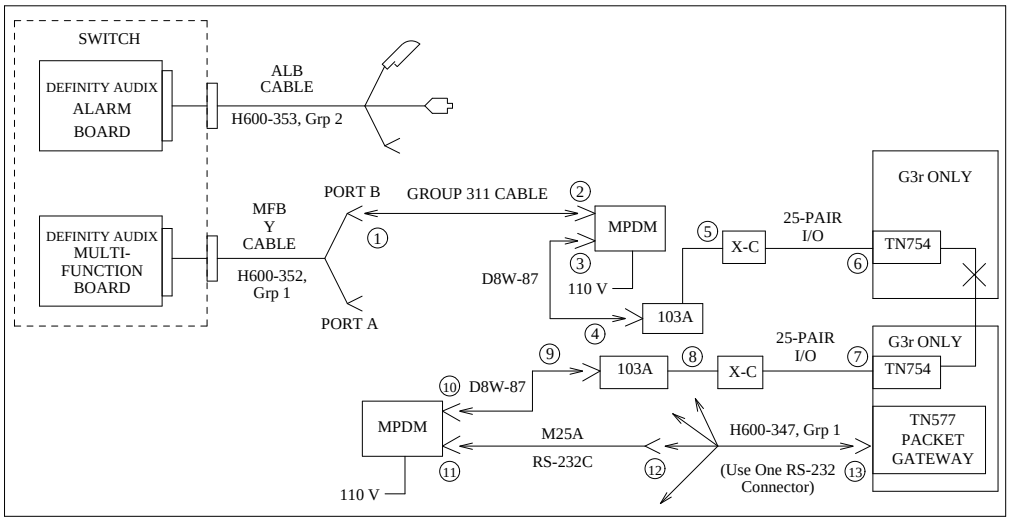


Figure 2-16. Connecting the Control Link Cable to a TN577 via MPDMs

1. Attach one end of the Group 311 cable to the RS-232C connector labeled PORT B on the MFB Y-cable (labeled 1). (The MFB Y-cable is connected to the fourth slot of the five DEFINITY AUDIX system slots.)
2. Attach the other end of the Group 311 cable to the RS-232C connector of the MPDM (labeled 2).
3. Attach one end of the D8W-87 (4-pair) modular cord to the modular jack on the MPDM (labeled 3).
4. Attach the other end of the D8W-87 modular cord to the 103A adapter with a 3-pair cord (labeled 4).
5. Attach a 3-pair cord from the 103A adapter to the cross-connect field (labeled 5).

6. Attach a 25-pair cable between the cross-connect field and the digital line interface board (TN754) on the switch (labeled 6).
7. Attach a 25-pair cable between the cross-connect field and a second digital line interface board (TN754) on the switch (labeled 7).
8. Attach a 3-pair cord from the cross-connect field to the 103A adapter (labeled 8).
9. Attach one end of the D8W-87 modular cord to the 103A adapter (labeled 9).
10. Attach the other end of the D8W-87 (4-pair) modular cord to the modular jack on the MPDM (labeled 10).
11. Attach one end of the Group 110 cable to the RS-232C connector of the MPDM (labeled 11).
12. Attach the other end of the Group 110 cable to one of the four RS-232 connectors on the H600-347 (labeled 12).
13. Attach the other end of the H600-347 cable to an RS-232C connector on the Packet Gateway board (TN577) on the G3r switch (labeled 13).
14. Proceed to Task 9: Install the Printer (Optional).

Task 9: Install the Printer (Optional)

This task is required only if the customer requested a printer on a DEFINITY AUDIX system terminal.

This task describes how to install an AT&T 470 or 570 series printer. For other printers follow the instructions supplied with the printer, making sure you set the options required for the DEFINITY AUDIX system as described in this task.

1. Set up the printer.
    a. Unpack and set up the printer according to the instructions supplied with the printer.
    b. Be sure that the printer has paper, the ribbon is properly installed, and the cover is closed.

2. Connect the printer to the terminal.

   a. Connect one end of the printer cable to either the serial or parallel port on the terminal (depending on which type terminal and printer you are installing). Secure the connector with the captive screws.

      NOTE:
      If you are connecting a serial printer to the DTE connector on a 715 BCT, you must connect a null modem between the printer and the terminal.

   b. Connect the other end to the matching port (serial or parallel) on the printer.

3. Set the options on the printer. Refer to Appendix B, ''Option Settings'', for a complete list of option settings for all supported printers.

   NOTE:
   When installing a serial printer on all but a 610 or 615 BCT, set the options on the printer as described in the manual supplied with the printer, then set the corresponding options on the terminal to match. On the 610/615, set the terminal options, then set the printer options.

4. Proceed to Task 10: Finalize and Test the Hardware.

Task 10: Finalize and Test the Hardware

This task is required for all installation scenarios.

1. Verify that the DEFINITY AUDIX system is in the *ADX* (AUDIX) state.

   Standing to the right of the DEFINITY AUDIX assembly, reading from bottom to top, the LCD should display ADX.

2. Log in to the DEFINITY AUDIX system at the terminal (both terminals if you have installed more than one) to verify that the terminals and modems (if applicable) are connected and set up correctly.

   a. At the login prompt, type **craft** and press RETURN. (If the login prompt is not displayed, press RETURN once or twice.)

      NOTE:
      To send the information to the DEFINITY AUDIX system, the RETURN key (located on the right side of your keyboard) must be pressed after you type a command or a response to a prompt. On some keyboards, this key is labeled ENTER instead RETURN your keyboard has *both* a RETURN key and an ENTER key (as on the 513 and 615 keyboards), use the RETURN key.

The system responds with the Password prompt.

b. Enter **crftpw**.

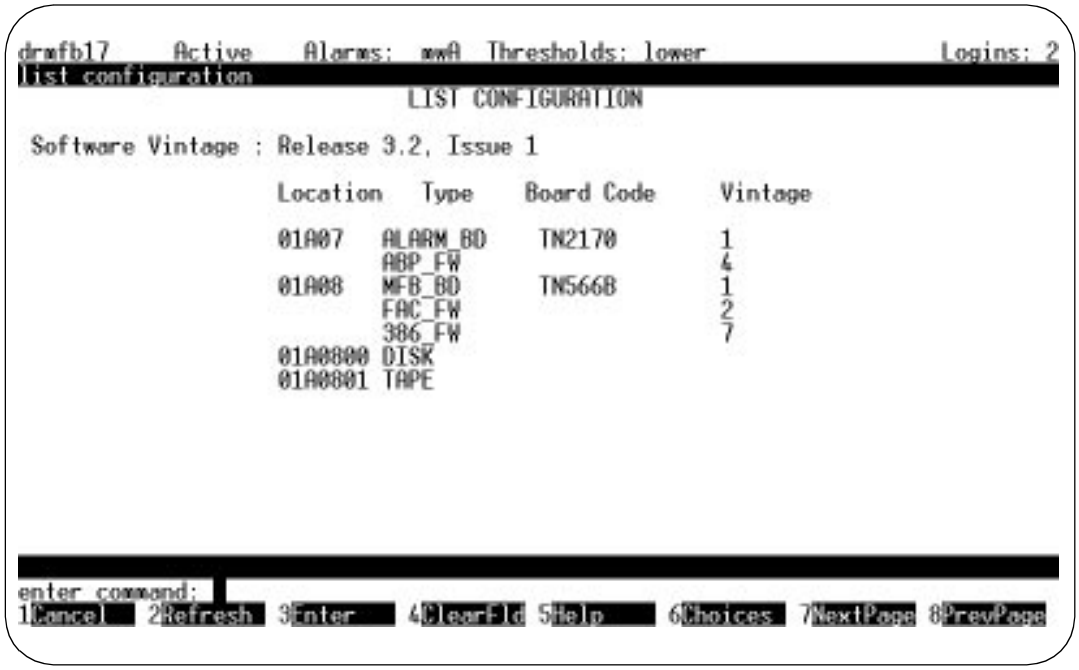
The system responds with the Enter terminal type prompt.

c. Enter one of the following:

- **513** for a 513 BCT or 715 BCT; enter **513** also for a 610/615 BCT or a PC with a 513 emulation package. (Since **513** is the default, you can just press RETURN to select it).
- **4410** for a 4410 or 5410 terminal; enter **4410** also for a 610/615 BCT or a PC with a 4410 emulation package.
- **4425** for a 4425 or 5425 terminal
- **5420** for a 5420 or 4415 terminal
- **g3-ma** for a G3-MA terminal

If the terminals and modems (if applicable) are connected properly and the options are set correctly, the system responds with the AUDIX command line.

3. Verify that the DEFINITY AUDIX system hardware and software components are installed properly. (If you have installed more than one terminal, you can use either one for the remainder of this task.) At the DEFINITY AUDIX system command line, enter **list configuration**. The system responds with the List Configuration screen. The following screen shows sample locations, board codes and vintages.

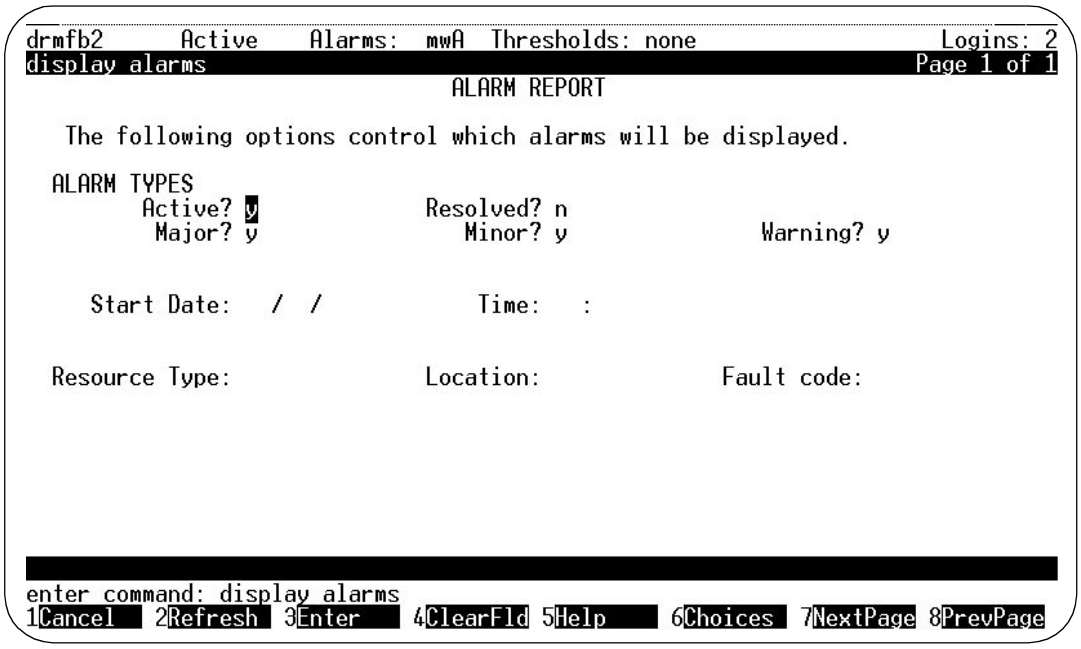


NOTE:
The location field will initially display “1a01” for component types ALARM_BD, MFB_BD, DISK, and TAPE since they have not yet been administered. Ignore this field.

4. Check the alarm status.

   a. With the cursor on the DEFINITY AUDIX system command line, enter **display alarms**.

      The system displays the Display Alarms screen.



   b. Check the ALARM TYPES fields for any active alarms (indicated by a “y” next to the alarm type). Press ENTER (F3) to display the alarms.

      You should see a voice ports major alarm and possibly port warnings because the ports are not administered yet. These are the only alarms that you should expect.

   c. Ignore the voice port alarms; however, resolve all other active alarms. See *DEFINITY AUDIX System — Maintenance*, 585-300-110, for the procedures for identifying and resolving the alarms.

5. Place the labels supplied with the DEFINITY AUDIX system hardware as follows:

   a. Place the label containing the DEFINITY AUDIX system shutdown warning next to the cabinet Power switch.

   b. Place the label with fan/filter cleaning information on the inside of the switch cabinet door.

6. Give the program tape and one of the blank cartridge tapes to the DEFINITY AUDIX system administrator, or put them in a safe place (away from electromagnetic parts). Keep the other blank tape, you will install it in the drive later (Task 14).
7. With the cursor on the command line, enter **logoff** to log off the terminal.
8. Proceed to the tasks in Chapter 3, ''Initial System Administration''.

Initial System Administration

3

This chapter describes the tasks required to initially administer the DEFINITY AUDIX System.

Initial System Administration Tasks

The initial system administration tasks for the DEFINITY AUDIX system are:

Task 11: Perform initial switch administration — This section is a place holder for the switch administration tasks, see *Switch Administration for the DEFINITY AUDIX System* book, 585-300-509 for the actual task descriptions

Task 12: Activate customer options

Task 13: Activate AUDIX server hardware Intuity Message Manager options

Task 14: Perform initial DEFINITY AUDIX system administration

Task 15: Activate parameters and basic features (optional)

Task 16: Add a blank cartridge tape

Task 17: Check the status of the switch names audit (Display Set integration only)

Worksheets Needed

Before beginning these tasks, make sure you have the following worksheets.

NOTE:
The project manager should have made arrangements for you to receive these worksheets from the *Planning for the DEFINITY AUDIX System* book, 585-300-601.

- C-1, *Activate Customer Options*
- Worksheet C-2: Activate AUDIX Server Hardware (LAN) Options
- C-3, *Assign DEFINITY AUDIX Machine ID*
- C-5, *Set System Parameter Limits*
- C-6, *Assign the Time Zone*
- C-7, *Activate Parameters and Basic Features*
- C-9, *Add Subscribers*
- C-10, *Set Up Alarm Origination*
- Digital Networking Worksheet

Control Link (CL) Only

The following five worksheets are needed only if the DEFINITY AUDIX System will be running in CL Integration:

- B-5, *Administer Voice Ports as Stations*
- B-6, *Assign the Hunt Group*
- B-7, *Assign the Data Link*
- B-8, *Assign the Call Coverage Path for Subscribers*
- C-4, *Assign Switch Link Translations*

Display Set (DS) Only

The following DS four worksheets are needed only if the DEFINITY AUDIX System will be running in DS Integration.

- B-1, *Administer Voice Ports as Stations*
- B-2, *Assign the Hunt Group*
- B-3, *Assign the Call Coverage Path for Voice Ports*
- B-4, *Assign the Call Coverage Path for Subscribers*
- Digital Networking Worksheet

Windowing on the 715 Terminal

If you are using the 715 BCT terminal, you should be aware of its windowing capabilities. You can use the 715 terminal to log on to both the switch and the DEFINITY AUDIX system to perform administration tasks and easily toggle back and forth between the two sessions.

The windowing functions are controlled by the four function keys, F1, F2, F3, and F8 as described in Table 3-1, Function Keys Used for Windowing on the 715 BCT.

Table 3-1. Function Keys Used for Windowing on the 715 BCT

Key	Operation
Ctrl+F3	Enables the windowing function keys and displays their labels
F1	Turns off the windowing function keys
F2	Toggles between the DEFINITY AUDIX system window and the switch window
F3	Toggles between split-screen and full-screen modes
Ctrl+F8	When in the DEFINITY AUDIX system window, this key enables the DEFINITY AUDIX function keys and displays their labels. Ctrl+F3 enables the windowing keys again and displays their labels.

Task 11: Perform Initial Switch Administration

This task is required for all installation scenarios.

Before beginning the initial administration tasks on the DEFINITY AUDIX system, you must perform administration tasks on the switch to prepare the switch for the DEFINITY AUDIX system.

Because this task may differ depending on the switch in which you are installing the DEFINITY AUDIX System, the details are described in *Switch Administration for the DEFINITY AUDIX System* book, 585-300-509.

Task 12: Activate Customer Options

This task is required for all installation scenarios to check if customer options have been activated and set to their limits. Use Worksheet C-1, *Activate Customer Options*, when completing this screen.

Activating customer options is normally done before the system is shipped. Complete the first section of this task, *Display Customer Options*, to see if the settings on the System-Parameters Customer-Options screen are as specified on Worksheet C-1.

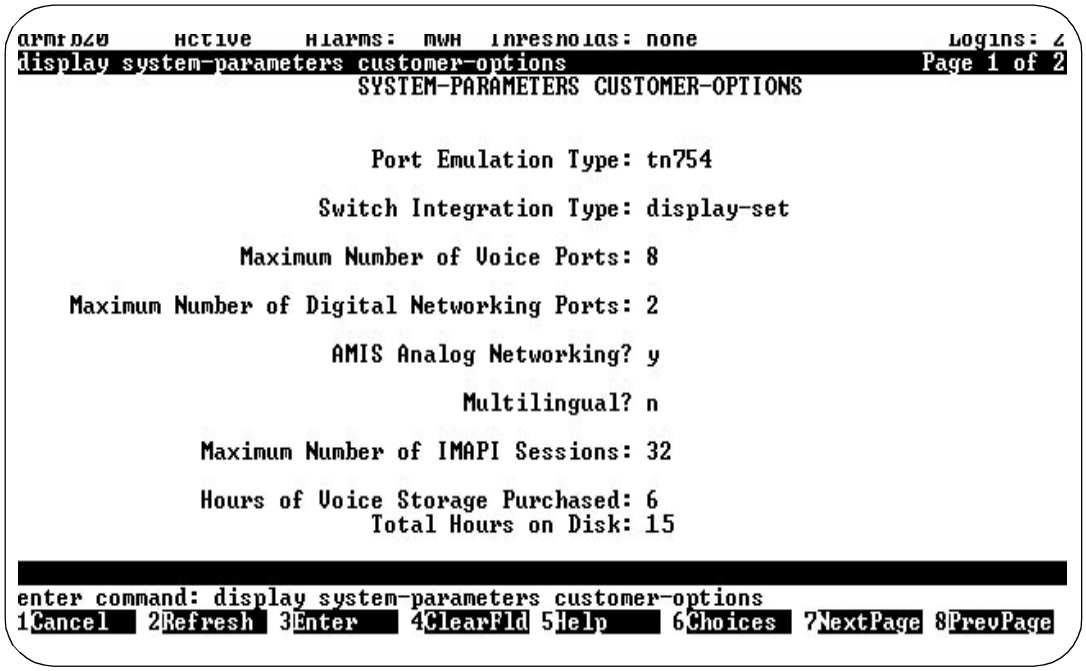
If the settings are correct, proceed to Task 12: Activate Customer Options.

If the settings are not correct, complete the next section of this task, Display Customer Options.

Display Customer Options

1. At the login prompt, enter **craft**. The system displays the Password prompt.
2. Enter **crftpw**. The system displays the Enter terminal type prompt.
3. Enter one of the following:
   - **513** for a 513 BCT or 715 BCT; enter **513** also for a 610/615 BCT or a PC with a 513 emulation package. (Since **513** is the default, you can just press RETURN to select it.)
   - **4410** for a 4410 or 5410 terminal; enter **4410** also for a 610/615 BCT or a PC with a 4410 emulation package.
   - **4425** for a 4425 or 5425 terminal
   - **5420** for a 5420 or 4415 terminal
   - **g3-ma** for a G3-MA
4. Type **display system-parameters customer options** and press RETURN.

The system displays the System-Parameters Customer-Options screen.



NOTE:
The DEFINITY AUDIX Status line will display an M (and possibly other alarms) in the alarms field reflecting the voice ports alarm that you saw on the Alarm Report screen in Task 10. These alarms should resolve themselves when you administer the voice ports (in Task 14D) and can be ignored at this time.

If the value of the following fields,

- Port Emulation Type
- Switch Integration Type
- Maximum Number of Voice Ports
- Maximum Number of Digital Networking Ports
- AMIS Analog Networking?
- Multilingual?
- Maximum Number of IMAPI Sessions
- Hours of Voice Storage Purchaced

on the System-Parameters Customer-Options screen are as specified on Worksheet C-1, press CANCEL (F1) to cancel and proceed to Task 13: Activate DEFINITY AUDIX Server Hardware Options.

If the value in any of these fields needs to be changed, proceed to the next section of this task to change the customer options.

Change Customer Options

NOTE:
You must use the *init* login to change the System-Parameters Customer-Options screen. If this password is not available to you, contact the Remote Support Center to have the customer options changed.

Complete the following steps only if the customer options need to be changed or activated.

1. Log off the DEFINITY AUDIX System.
2. At the terminal login prompt, enter **init**. The system displays the Password prompt.
3. Enter the password for the *init* login. The system displays the Enter terminal type prompt.
4. Enter one of the valid terminal types as listed in the previous section, *Display Customer Options*.

   The system automatically displays the System-Parameters Customer-Options screen as shown in the previous section. (In this case, the screen is in the *change* mode.)
5. Move the cursor to the Port Emulation Type field and enter one of the following:
   - **tn754** if there are 8 maximum number of voice ports and display-set emulation.
   - **tn2181** if there are 16 maximum number of voice ports and display-set emulation.
   - **tn746** if two is an analog-port emulation.
6. Move the cursor to the Switch Integration Type field. Enter either display-set for display-set integration or control-link for control-link integration (there is a data link).
7. Move the cursor to the Maximum Number of Voice Ports field and, using the information on the customer's order, type the number of ports that the customer has purchased (2, 4, 6, or 8 for TN754, or 2, 4, 6, 8, 10, 12, 14, or 16 for either TN2181 or TN746).
8. Move the cursor to the Maximum Number of Digital Networking Ports field and, using the information on the customer's order, type the number of ports that the customer has purchased (1 or 2; 0 is the default).
9. If the customer did not order AMIS Analog Networking, skip to Step 9. Otherwise, move the cursor to the AMIS Analog Networking? field and type **y**.

10. Move the cursor to the Multilingual? field. This indicates whether or not multilingual announcement sets can be administered on a per subscriber or class-of-service basis. The default value is **n**. Type **y** to enable the Multilingual feature.
11. Move the cursor to the Maximum Number of IMAPI Sessions: field and, using the information on the customer's order, type **32**, the allowable number of sessions.
12. Move the cursor to the Hours of Voice Storage Purchaced field and enter the hours of voice storage this customer has purchaced.
13. Move the cursor to the Total Hours on Disk field and enter the total hours available on the disk supplied with the hardware.
14. Press the ENTER (F3) function key to save your changes or press CANCEL (F1) to cancel. Press ENTER (F3) again to confirm.

    The system automatically logs off. If the Port Emulation Type was changed, a system restart is automatically initiated. Wait for `OLDTRACELOG=/var/spool/audix/oldtrace` to display on the screen, then press RETURN to clear the screen and display the login prompt.
15. Proceed to Task 13: Activate DEFINITY AUDIX Server Hardware Options.

Task 13: Activate DEFINITY AUDIX Server Hardware Options

This task is required only if a TN2170 was installed and Intuity Message Manager was purchased. Otherwise, proceed to Task 14: Perform Initial DEFINITY AUDIX Administration. The System Parameters Imapi-Options screen cannot be accessed if Intuity Message Manager was not purchased.

Check that the settings on the System Parameters Imapi-Options screen are as specified on Worksheet C-2. Also check that the `IMAPI Access` and `IMAPI Voice File` on the Subscriber and COS (class of service) screens are activated. Refer to Worksheet C-8: *Add Subscribers*.

NOTE:
Prior to activating and installing the LAN options that will allow Intuity Message Manager to work, inform the LAN system administrator to add the AUDIX host name to the network domain name server. This will allow name addressing to the AUDIX system. Also, a 104A Connecting Block must be connected to the LAN prior to setting up this feature (see Task 5: Install the DEFINITY AUDIX System Assembly).

Task 13A: Set System Parameters for Intuity Message Manager

1. With the cursor on the DEFINITY AUDIX command line, type **change system-parameters IMAPI-options** and press RETURN.

   The system displays the System-Parameters Imapi-Options screen.

```
ax85       Active    Alarms:    A  Thresholds: none                Logins: 1
change system-parameters imapi-options                          Page 1 of 1

                    SYSTEM-PARAMETERS IMAPI-OPTIONS

        Maximum Number of ENABLED IMAPI Sessions: 32

                     Enable Check New Messages:  n

                     Enable Deliver CA Message:  n

                    Enable Voice File Transfer:  n

                         IMAPI Session Timeout:  5

                                  LAN IP Address:

                                 LAN Subnet Mask:

                  Default LAN Gateway IP Address:

enter command:
1Cancel  2Refresh  3Enter  4ClearFld 5Help  6Choices  7NextPage 8PrevPage
```

2. Move the cursor to the `Maximum Number of ENABLED IMAPI Sessions` field. This should be **32**.
3. Move the cursor to the `Enable Check New Messages` field. Set to **y**. This allows clients to check for new messages without the overhead of logging in. If left at **n,** automatic new message notification from Intuity Message Manager is disabled.
4. Move the cursor to the `Enable Deliver CA Message` field. Leave at **n**. Entering **y** enables the public class-of-service function allowing messages to be delivered over the IMAPI interface. This feature is not used in Intuity Message Manager Release 1.0.
5. Move the cursor to the `Enable Voice File Transfer` field. Enter **y** to enable the use of the personal folder in Intuity Message Manager and also to enable voice file transfer for all subscribers who have `IMAPI Voice File Transfer enabled`.
6. Move the cursor to the `IMAPI Session Timeout` field. This is the amount of time that a session can be inactive before the user is logged out of the mailbox. Intervals can be set in five-minute increments from 5 to 60 minutes. Leave at 5. After being logged out, the user still has an active TCP/IP connection to the AUDIX server.

7. Move the cursor to the `LAN IP Address` field. This is the number assigned to the AUDIX server by the LAN administrator. The site-specific address is expressed as *nnn.nnn.nnn.nnn*, each *nnn* representing a decimal integer between 1 and 126, or 128 and 254.
8. Move the cursor to the `LAN Subnet Mask` field. Part of this number matches the network IP address, while the remaining part contains the host interface address. (Usually, *255.255.255.0* will work.)
9. Move the cursor to the `Default LAN Gateway IP Address` field. This is the LAN server address to which all unknown addresses will be sent for resolution. It too is supplied by the LAN administrator and has the same form as the LAN IP Address.
10. Press the ENTER (F3) function key to save the changes.
11. When the IP, Subnet mask, and Gateway IP address fields are set, a call must be made to the underlying TCP/IP software to assign these numbers to the interface. (Changes in these values will not take effect until after the AUDIX system has been rebooted. Rebooting is done during Task 14.)

Task 13B: Check Access for Intuity Message Manager

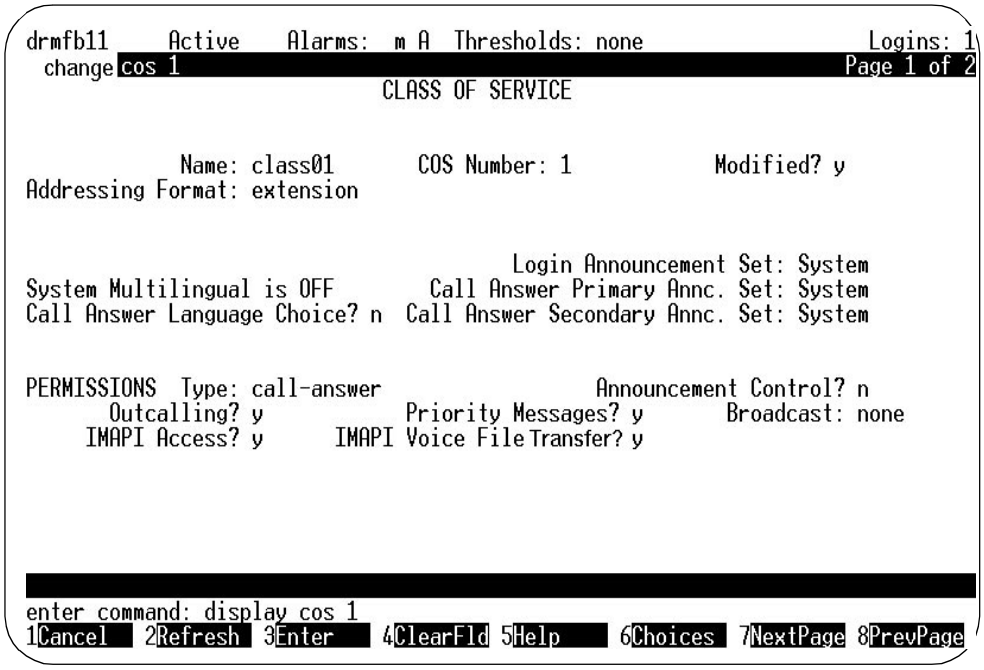
You need to give the Intuity Message Manager user permission to use it. You may:

— Change each subscriber's profile (this results in a custom class of service (COS) for affected subscribers).

— Change the cos for people who are to have Intuity Message Manager permission. In this case, perform the following steps:

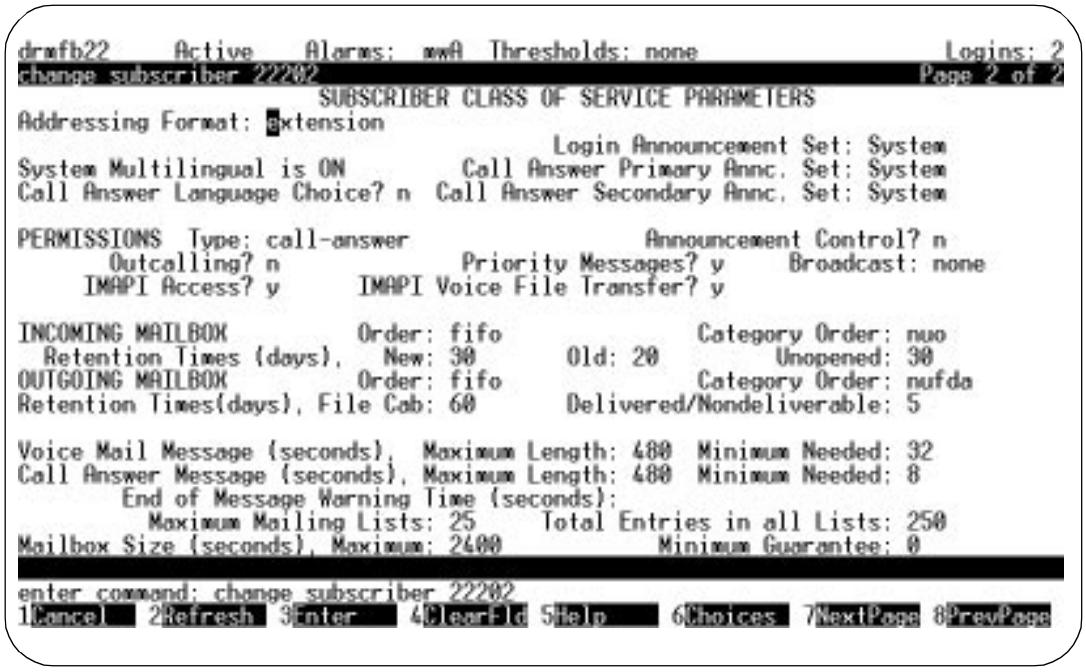
1. Decide which class of service is appropriate for inclusion of Message Manager. Then, with the cursor on the DEFINITY AUDIX command line, type **change cos** followed by the class of service you just chose. Then press RETURN.

The system displays the Class of Service screen.



2. Ensure that the `IMAPI access?` field for Intuity Message Manager and the `IMAPI Voice File Transfer?` field for a personal folder are set to **y**.
3. With the cursor on the DEFINITY AUDIX command line, type **change subscriber** followed by the extension of a subscriber who is to have Intuity Message Manager on their PC. Press RETURN. Press NEXTPAGE (F7) to display the second page.

The system displays the Change Subscriber screen.



4. Ensure that the `IMAPI access?` field for Intuity Message Manager and the `IMAPI Voice File Transfer?` field for a personal folder are set to **y**.
5. Proceed to the following task.

Task 14: Perform Initial DEFINITY AUDIX Administration

This task is required for all installation scenarios.

There are 13 parts to this task.

a. Set the DEFINITY AUDIX clock
b. Assign the DEFINITY AUDIX machine parameters
c. Run the Switch Translations audit
d. Administer the voice ports
e. Set Switch-Link Parameters (only applies to CL-integrated systems)
f. Synchronize the DEFINITY AUDIX system and switch clocks
g. Set system parameters limits (optional)
h. Run the Switch Translations audit again

i. Assign the time zone

j. Reboot the system

k. Run the switch-names audit (only applies to DS-integrated systems)

l. Check alarm status

m. Check hardware status

Task 14A: Set the DEFINITY AUDIX Clock

1. At the login prompt, enter **craft**.

   The system displays the Password prompt.

2. Enter **crftpw**.

   The system displays the Enter terminal type prompt.

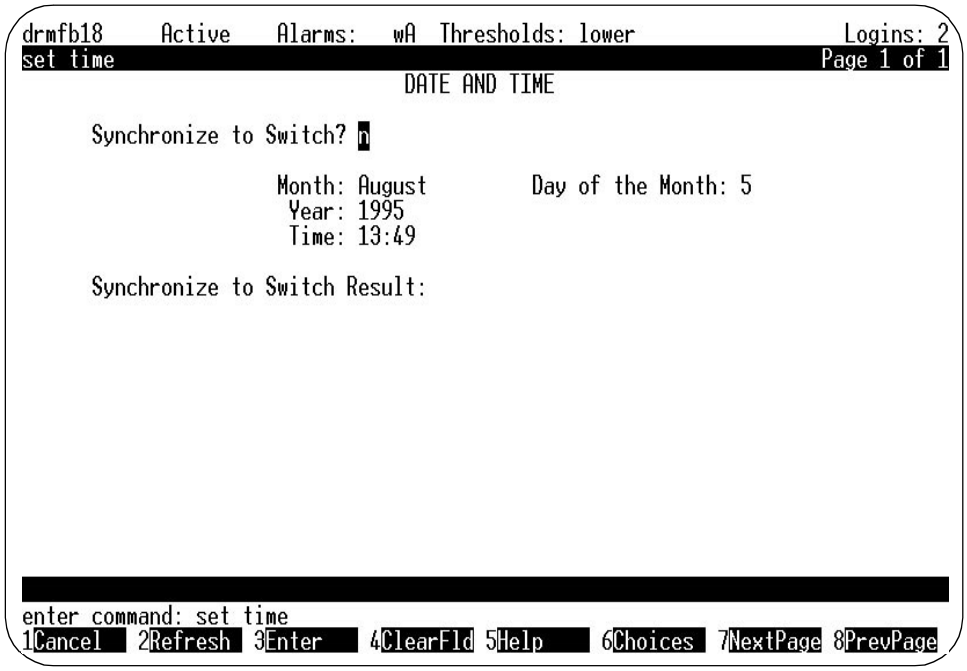
3. Enter one of the following:

   - **513** for a 513 BCT or 715 BCT; enter **513** also for a 610/615 BCT or a PC with a 513 emulation package. (Since **513** is the default, you can just press RETURN to select it).
   - **4410** for a 4410 or 5410 terminal; enter **4410** also for a 610/615 BCT or a PC with a 4410 emulation package.
   - **4425** for a 4425 or 5425 terminal
   - **5420** for a 5420 or 4415 terminal
   - **g3-ma** for a G3-MA

   The system displays the DEFINITY AUDIX command line.

4. Type **set time** and press RETURN.

The system displays the Date and Time screen.



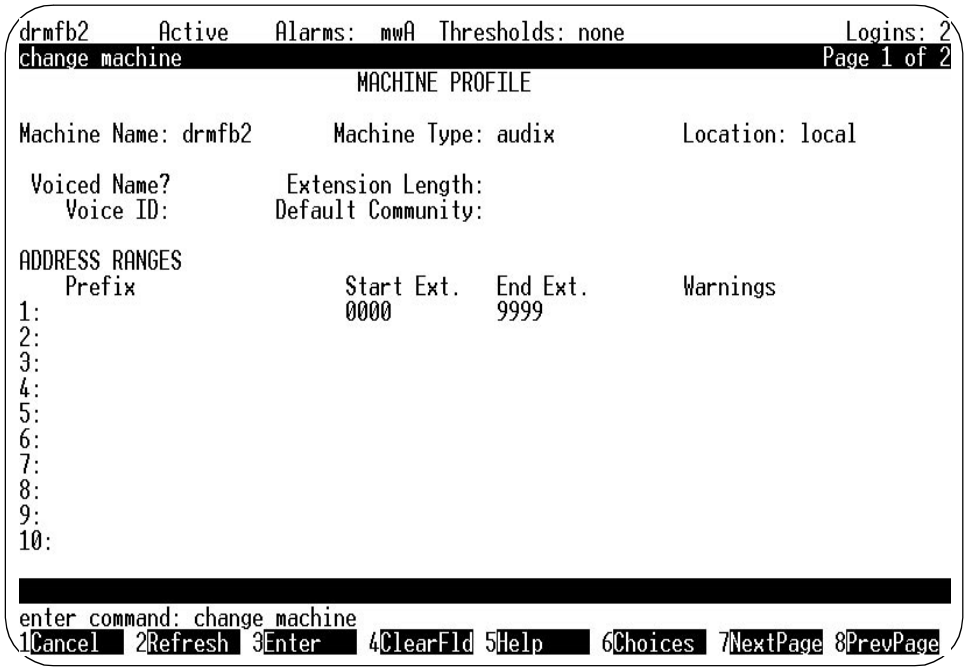
5. Move the cursor to the month field and type the name (not the number) of the current month.
6. Move the cursor to the Day of the Month field and type the two digits of the current day of the month (not the day of the week). For example, type **11** if the current date is April 11.
7. Move the cursor to the Year field and type the full four digits of the current year.
8. Move the cursor to the Time field and type the current time in an *hh:mm* format (*hh* specifies the hour and *mm* specifies the minutes).
9. Press the ENTER (F3) function key to save the changes.
10. Proceed to Task 14B: Assign the DEFINITY AUDIX Machine Parameters.

Task 14B: Assign the DEFINITY AUDIX Machine Parameters

Use information from Worksheet C-3: *Assign the DEFINITY AUDIX Machine ID*, when completing this task.

1. With the cursor on the DEFINITY AUDIX command line, enter **change machine**.

The system displays the Machine Profile screen.



2. Move the cursor to the Machine Name field and type the new name to be assigned to this DEFINITY AUDIX system. The machine name must be from 1 to 8 characters in length.
3. Verify that the Machine Type field displays `audix`. If not, move the cursor to that field and type **audix**.
4. Move the cursor to the Extension Length field and type the number of digits that the extensions on this DEFINITY AUDIX system will have.
5. Move the cursor to the ADDRESS RANGES fields, and fill in the starting and ending switch extensions that will have coverage on this DEFINITY AUDIX system.
6. For the remaining fields, change only the fields whose values on the worksheet are different from the default.
7. Press the ENTER (F3) function key to save the changes.
8. Proceed to Task 14C: Run the Switch Translations Audit.

Task 14C: Run the Switch Translations Audit

This task is required for all installation scenarios.

The switch translations audit examines and updates internal data used by the switch interface.

This audit takes about 1-2 seconds. Run the audit as described below.

1. With the cursor on the DEFINITY AUDIX command line, type **audit switch-translations** and press RETURN.

   The system displays the Audit Results screen.

2. Press the ENTER (F3) function key to begin the audit.
3. When the audit is complete (in a few seconds) proceed to Task 14D: Administer Voice Ports. If the audit does not complete successfully, see *DEFINITY AUDIX System — Maintenance* book, 585-300-110.

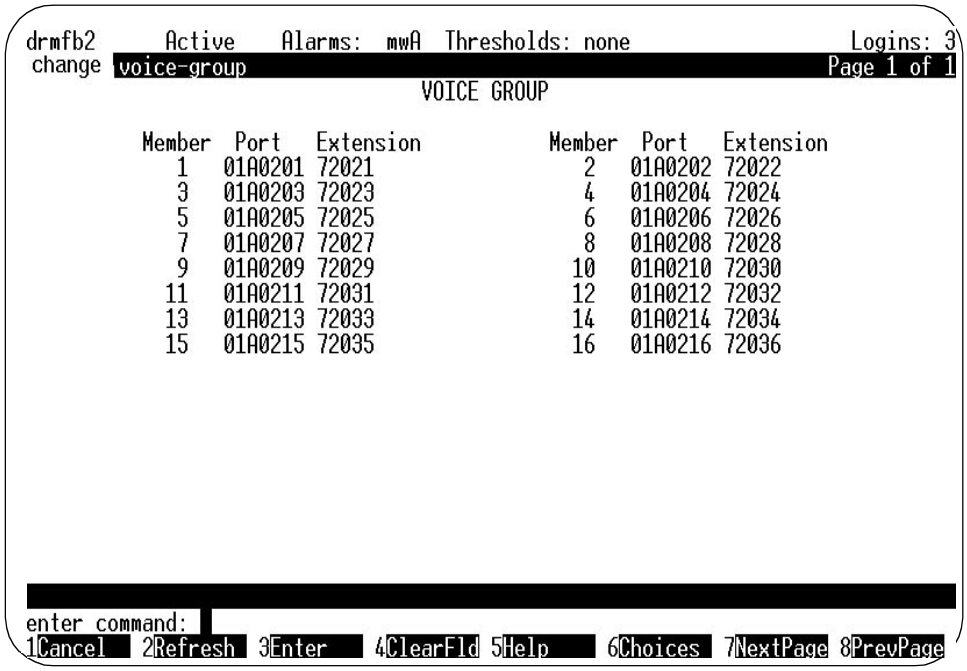
Task 14D: Administer Voice Ports

This task is required for all configurations.

The voice ports and extensions that you administer in this task must match the ports and extensions that you administered on the switch. See Worksheet B-1 (for DS integrations) or B-5 (for CL integrations) for the correct values. Both worksheets are named *Administer Voice Ports as Stations*.

1. With the cursor on the DEFINITY AUDIX command line, type **change voice-group** and press RETURN.

The system displays the Voice Group screen.



2. With the cursor at the Port field, type the location identifier of the first port. (A seven-character identifier is shown on the illustration.) For example, if the DEFINITY AUDIX system multifunction board (MFB) is in module 1, carrier A, slot 2, the first port location is 01A0201 (the last two digits in this example are the port number).
3. Move the cursor to the Extension field and type the extension number of the first port.
4. Repeat Steps 2 and 3 for as many ports as the customer has purchased. Following the example in Step 2, the second port location is 01A0202, and so forth.
5. Press the ENTER (F3) function key to save the changes.
6. Proceed to Task 14E: Set Switch-Link Parameters.

Task 14E: Set Switch-Link Parameters

Set Switch-Link Parameters for CL Integration

This part of the task is required only if the DEFINITY AUDIX system will be running in CL integration mode. Check Worksheet C-1: *Activate Customer Options*, to see if the switch integration type is to be control-link. If not, skip to "Set Switch-Link Parameters for DS Integration" on page 3-18.

If the system will be using CL integration, perform the following steps.

1. With the cursor on the DEFINITY AUDIX command line, type **change switch-link** and press RETURN.

   The system displays the Switch-Link DCIU-SCI screen.

```
drmfb2      Active    Alarms:  mwA  Thresholds: none                Logins: 4
 change switch-link                                                Page 1 of 1
                          SWITCH LINK DCIU-SCI

      AUDIX Port                                    AUDIX Port
Switch  Logical   Switch  Data          Switch  Logical   Switch  Data
Number  Channel   Port    Link          Number  Channel   Port    Link
   1        1      59      1              2
   3                                      4
   5                                      6
   7                                      8
   9                                     10
  11                                     12
  13                                     14
  15                                     16
  17                                     18
  19                                     20

     Host Switch: 1
           AUDIX: 1

enter command:
1Cancel  2Refresh  3Enter  4ClearFld  5Help  6Choices  7NextPage  8PrevPage
```

2. Enter values for the Host Switch and AUDIX fields from Worksheet C-3 *Assign the DEFINITY AUDIX Machine ID*. The number entered in the Host Switch field must match the *Local PBX ID* administered on the switch.

   NOTE:
   If the Logical Channel, Switch Port, or Data Link fields display values for any of the 20 switch numbers (rows) on this screen, these fields must be cleared (using the CLEARFIELD [F4] function key) before proceeding to the next step.

- Move the cursor to the Switch Number row corresponding to the host switch number that you entered in step 2, and enter values for the Logical Channel field, the Switch Port field, and the Data Link field from Worksheet B-7a: *Assign the Data Link (CL Integration for non-G3r Switches)* or B-7b: *Assign the Data Link (CL Integration for G3r Switches)*.

The Logical Channel, Switch Port, and AUDIX numbers must be the same as the corresponding numbers administered on the switch. These fields have different names on the switch screens. The field names on the switch screens corresponding to the DEFINITY AUDIX Switch Link screen field names are shown in the following table:

Table 3-2. Field-Name Correspondence — DEFINITY AUDIX System vs. Switch

DEFINITY AUDIX Switch-link DCIU-SCI Screen	Processor Channel Screen		Remote
	System 75, G1, G3i,s,vs	G3r	System 85/G2
AUDIX Port Logical Channel	Interface Channel, or Remote Processor Channel	Interface Channel, or Remote port	Remote port
Switch Port	Processor Channel	Local Port	Local Port
AUDIX	Machine ID	Machine ID	Machine ID

3. If the DEFINITY AUDIX System is operating in a DCS environment, repeat step 3 for each remote switch-node in the DCS network. Refer to Worksheets B-9 through B-15.

   NOTE:
   DCS-related switch administration must be done in conjunction with this task for each switch in the the DCS network.

4. Once you have entered values for these fields, press the ENTER (F3) function key to save the changes.
5. Proceed to "Task 14F: Synchronize DEFINITY AUDIX System and Switch Clocks" on page 3-20.

Set Switch-Link Parameters for DS Integration

This part of the task is required only if the DEFINITY AUDIX system will be running in DS integration mode. Check Worksheet C-1: *Activate Customer Options*, to see if the switch integration type is to be display-set. If so, enter **change switch-link** at the DEFINITY AUDIX command line.

If the switch to be installed does indeed use DS Integration, the screen that appears will be labeled *Switch Link Embedded*. This screen is used to establish two conditions: first, which AUDIX system is to be integrated into which switch, and second, how a call is to be treated when the call answer timeout period expires.

The screen that appears resembles the following illustration:

Perform the following steps:

1. Enter in the Host Switch field the switch number assigned to the switch into which the AUDIX system is installed.
2. Enter in the AUDIX field the machine number of the AUDIX system being installed.
3. Enter in the Call Answer Timeout field the number of seconds the system shall wait for touch-tone digits when it answers a call without receiving a "connect" message. (At the end of this period, the system treats the call as specified in the following steps.)
4. Enter in the Call Answer Timeout field one of three possible ways a call is to be handled when the timeout period (just established) expires:
   - Enter **none** if the call is simply to be disconnected.
   - Enter **mailbox** if the call is to be transferred to a mailbox.
   - Enter **transfer** if the call is to be transferred to an extension.
5. Finally, enter in the *extension* field the number of the mailbox or extension to which a call is to be transferred after it has timed out.

   You may leave this field blank if you entered *none* in the previous step.
6. Press the ENTER (F3) function key to save the changes and proceed to the next task.

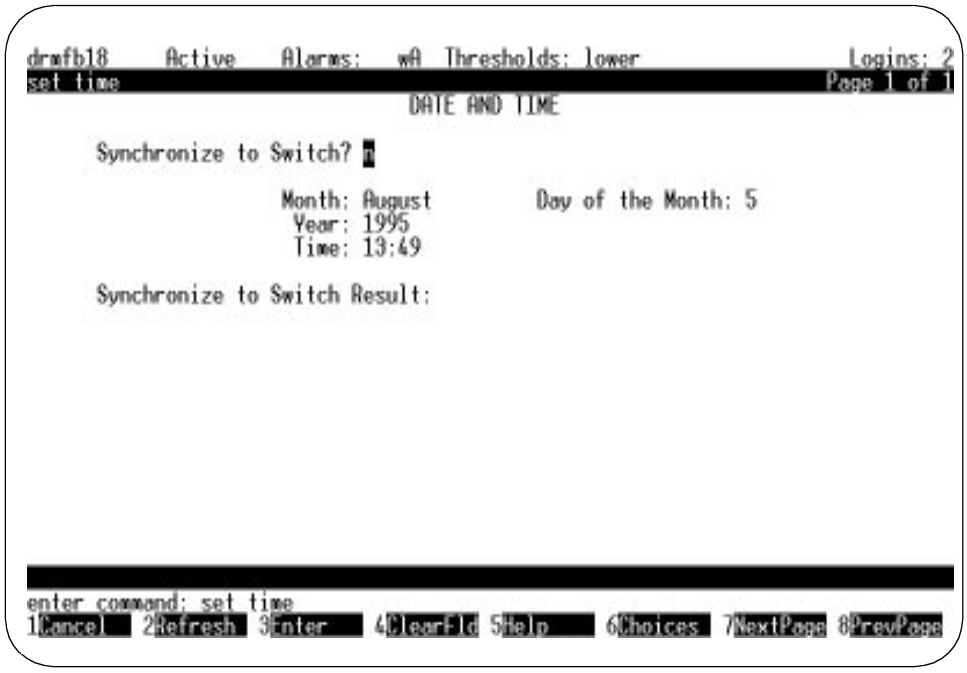
Task 14F: Synchronize DEFINITY AUDIX System and Switch Clocks

This task is required for all installation scenarios.

NOTE:
The switch clock may not be set at this time. If it is not, set the switch clock before performing this task. (See the appropriate switch document for the procedure to set the switch clock.)

1. With the cursor on the DEFINITY AUDIX command line, type **set time** and press RETURN**.**

   The system displays the Date And Time screen.



2. With the cursor at the Synchronize to Switch field, type **y**.
3. Press the ENTER (F3) function key to save the changes.
4. Proceed to Task 14G: Set System Parameters Limits.

Task 14G: Set System Parameters Limits

This task is required only if the customer wants to use subscriber limits that are different from the defaults. Check Worksheet C-4, *Set System Parameters Limits*, to see if you need to change the system parameters limits. If not, skip to Task 14H: Run the Switch Translations Audit a Second Time. If changes are indicated on the worksheet, perform the following steps.

1. With the cursor on the DEFINITY AUDIX command line, type **change system-parameters limits** and press RETURN**.**

   The system displays the System-Parameters Limits screen.

```
drmfb2      Active    Alarms:  mwA  Thresholds: none                  Logins: 3
 change system-parameters limits                                   Page 1 of 1
                          SYSTEM-PARAMETERS LIMITS

MESSAGE LIMITS
Message Lengths, Maximum  (seconds): 1200   Minimum  (tenths of seconds): 10
  Messages,  Total In All Mailboxes: 50000            Awaiting Delivery: 5000

ADMINISTRATION LIMITS
  Subscribers,  Local: 1000     Administered Remote: 1000
Lists,  Total Entries: 50000       Lists/Subscriber: 100   Recipients/List: 250

LOG LIMITS
    Admin Log Entries: 1000

enter command:
1Cancel  2Refresh  3Enter  4ClearFld 5Help  6Choices  7NextPage 8PrevPage
```

2. Move the cursor to each of the fields that is to be changed (according to Worksheet C-4 *Assign Switch LInk Translations*) and type the new system parameters limits.
3. Once you have changed all the fields, press the ENTER (F3) function key to save the changes.
4. Proceed to Task 14H: Run the Switch Translations Audit a Second Time.

Task 14H: Run the Switch Translations Audit a Second Time

This task is required for all installation scenarios.

You must run the Switch Translations audit a second time to update the DEFINITY AUDIX system processes again with the new information you have administered.

1. With the cursor on the DEFINITY AUDIX command line, type **audit switch-translations** and press RETURN.

   The system displays the Audit Results screen.

2. Press the ENTER (F3) function key to begin the audit.
3. When the audit is complete (in a few seconds) proceed to Subtask 14I. If the audit does not complete successfully, see *DEFINITY AUDIX System — Maintenance*, 585-300-110.

Task 14I: Assign the Time Zone

This task is required for all installation scenarios.

Use the information on Worksheet C-6, *Assign the Time Zone*, to perform this task.

1. With the cursor on the DEFINITY AUDIX command line, type **change switch-time-zone** and press RETURN.

   The system responds with the Switch Time Zone screen.

```
drmfb2      Active    Alarms:  mwA  Thresholds: none                Logins: 3
 change switch-time-zone                                          Page 1 of 1
                              SWITCH TIME ZONE

Switch      Time      Daylight          Switch      Time      Daylight
Number      Zone      Savings?          Number      Zone      Savings?

 1:          5          y                2:
 3:                                      4:
 5:                                      6:
 7:                                      8:
 9:                                     10:
11:                                     12:
13:                                     14:
15:                                     16:
17:                                     18:
19:                                     20:

                              Host Switch:   1

enter command:
1Cancel  2Refresh  3Enter  4ClearFld 5Help  6Choices  7NextPage 8PrevPage
```

   If the time zones of your associated switches have not been defined for your AUDIX system, only the columns of switch numbers will appear. Fill in the table for those switches that are part of your DEFINITY communications system network.

2. In the Time Zone column, enter a number that indicates how many time zones west of Greenwich (England) the indicated switch is located (here, the prime meridian introduces time zone zero, and time zone 5 is U.S. eastern time).

3. In the Daylight Savings column, enter *y* if the indicated switch is located in a region where daylight savings is observed (that is, where time is adjusted by an hour in April and October to take advantage of more sunlight). Otherwise, enter *n* in this column.

4. Press the ENTER (F3) function key to save the changes.

   NOTE:
   The system will not put these changes into effect until you have rebooted the system (the next task).

5. Proceed to Task 14J: Reboot the DEFINITY AUDIX System.

Task 14J: Reboot the DEFINITY AUDIX System

This task is required for all installation scenarios.

1. With the cursor on the DEFINITY AUDIX command line, type **reset system reboot** and press RETURN**.**

   The system displays the Reset System Reboot screen.

```
drmfb2      Active    Alarms:  mwA  Thresholds: none                Logins: 3
reset system reboot                                                Page 1 of 1
                          RESET SYSTEM REBOOT

WARNING - Pressing [Enter] now causes the system to be rebooted to the AUDIX
          state.  The reboot cannot be cancelled after [Enter] has been pressed.


          The reboot will be performed in a camp-on manner.

          Press [Cancel] to avoid doing the reboot.









enter command: reset system reboot
1Cancel  2Refresh  3Enter  4ClearFld  5Help  6Choices  7NextPage  8PrevPage
```

2. Press the ENTER (F3) function key to begin the reboot.

   During the DEFINITY AUDIX system reboot, the LCD displays the various system states and the terminal screen displays a series of messages about the reboot, including a login prompt. Do not log in yet.

3. Wait approximately 10 minutes for the DEFINITY AUDIX system to come up to the AUDIX state (the screen will display `OLDTRACELOG=/var/spool/audix/oldtrace`), then login as **craft** (see Task 14A for the login procedure).

   If the system has completed the reboot, the Status line on the screen displays audix; otherwise, the Status line displays Initializing to AUDIX. (You cannot continue until the Status line changes to audix.)

4. Once the reboot completes successfully, proceed to Subtask 14K: Run the Switch Names Audit. Otherwise, note the state indicated on the LCD, then see the corresponding troubleshooting procedures in *DEFINITY AUDIX*
   System — Maintenance, 595-300-110, before continuing.

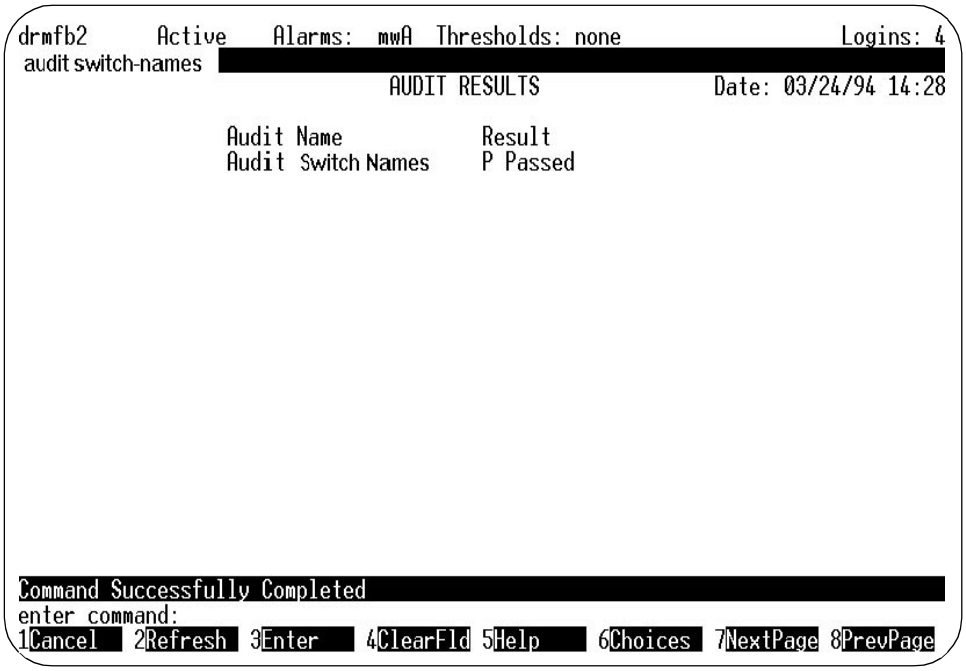
Subtask 14K: Run the Switch Names Audit

This task is required only if the system uses DS integration. Otherwise, skip to Task 14L: Check Alarm Status.

The Switch Names audit uploads the names-to-extensions database from the switch. The Switch Names audit could take from 5 minutes to an hour, depending on the size of the database.

1. With the cursor on the DEFINITY AUDIX command line, type **audit switch-names** and press RETURN**.**

   The system displays the Switch Names Audit screen.



2. Press the ENTER (F3) function key to begin the audit.
3. Press the ENTER (F3) function key again to have the audit run in the background.

   NOTE:
   Because of the possible long duration of this task, complete the remaining administration tasks (Task 14L: Check Alarm Status, Task 14M: Check Hardware Status, Task 16: Add Tape, and Task 17: Check the Status of the Switch Names Audit) and then check the status of this audit as described in Task 17: Check the Status of the Switch Names Audit.

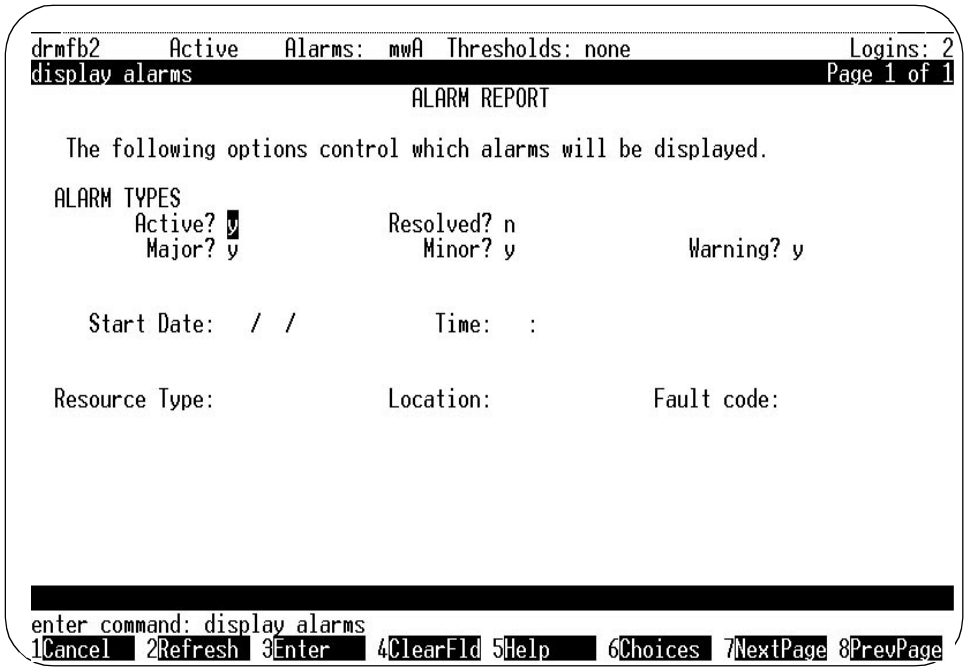
4. Proceed to Task 14L: Check Alarm Status.

Task 14L: Check Alarm Status

This task is required for all installation scenarios.

1. With the cursor on the DEFINITY AUDIX command line, type **display alarms** and press RETURN**.**

   The system displays the Alarm Report screen.



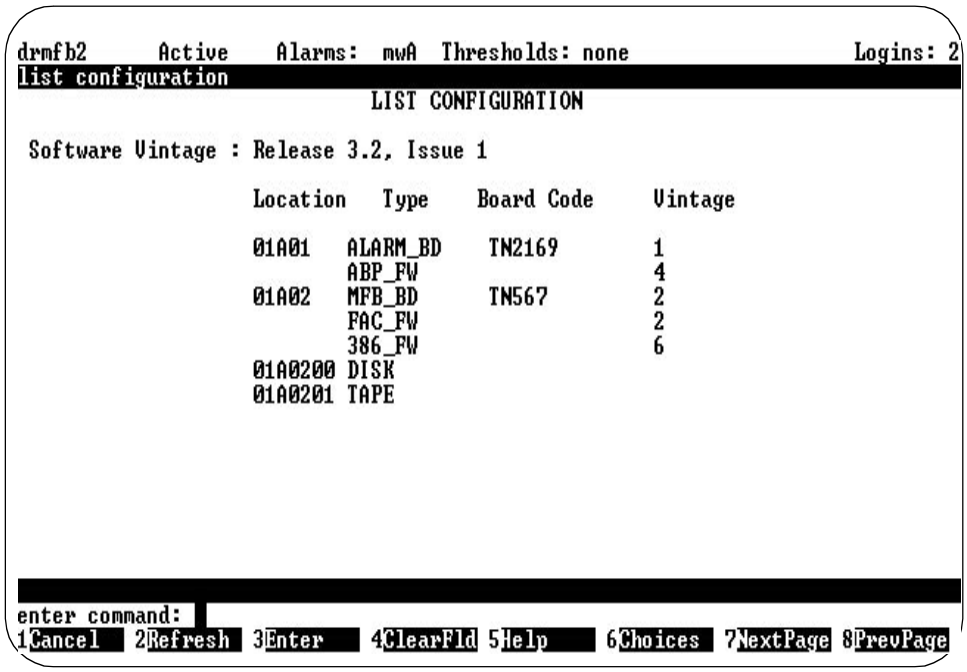
2. Check the ALARM TYPES fields for any active alarms — make sure that a "y" (the default) appears in each of the alarm type fields and press ENTER (F3) to display the active alarms.
3. If there are no active alarms (the screen will be blank), skip to Step 4. Otherwise, resolve all active alarms. See *DEFINITY AUDIX System—Maintenance* book, 585-300-110 for the procedures for identifying and resolving the alarms.
4. Proceed to Task 14M: Check Hardware Status.

Task 14M: Check Hardware Status

This task is required for all installation scenarios.

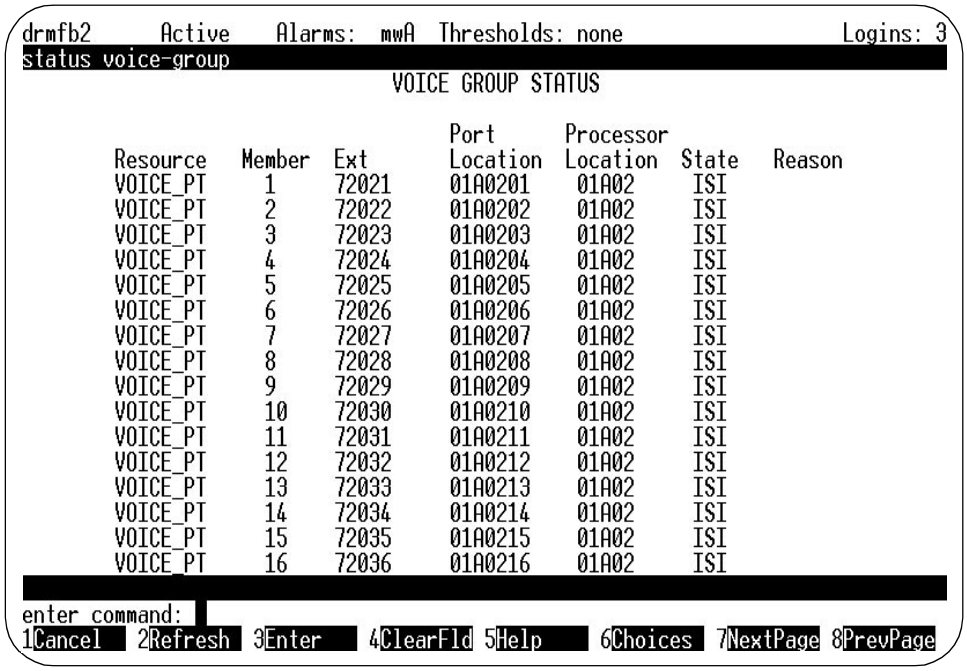
1. With the cursor on the DEFINITY AUDIX command line, type **list configuration** and press RETURN.

The system displays the List Configuration screen.



2. Make sure the screen displays the following components (indicating that the system correctly recognizes all the components).
   - ALARM_BD
   - ABP_FW
   - MFB_BD
   - FAC_FW
   - 386_FW
   - DISK
   - TAPE
3. If all the components are listed and shown in the proper location, skip to Step 4. Otherwise, see *DEFINITY AUDIX System — Maintenance*, 585-300-110, for troubleshooting procedures.
4. With the cursor on the DEFINITY AUDIX command line, type **status voice-group** and press RETURN.

The system displays the Voice Group Status screen.



5. Make sure all the ports that are supposed to be active are shown on the screen with the correct location and extension and that the State field shows ISI (In-Service Idle).
6. If any of the port information is incorrect, see *DEFINITY AUDIX System — Maintenance* book, 585-300-110 for complete troubleshooting procedures.

Step 7 is required only if the DEFINITY AUDIX system will use CL integration. If not, skip to step 8.

7. Type **status switch-link** and enter RETURN to check the status of the switch link set up in Task 14E: Set Switch-Link Parameters. The screen should show the state field as **ISB** and the DCIU Switches that are administered should show **I** in the DCIU Switches field. If the values on the screen differ from the values just given, see *DEFINITY AUDIX System — Maintenance* book, 585-300-110 for complete troubleshooting procedures.
8. Proceed to Task 15: Activate Parameters and Basic Features.

Task 15: Activate Parameters and Basic Features

This task is required if the customer has indicated specific features to be activated. Check Worksheet C-6, *Activate Parameters and Basic Features* to see if any features are to be activated. If no features are to be activated, skip to Task 16: Add Tape. Otherwise, perform the following steps.

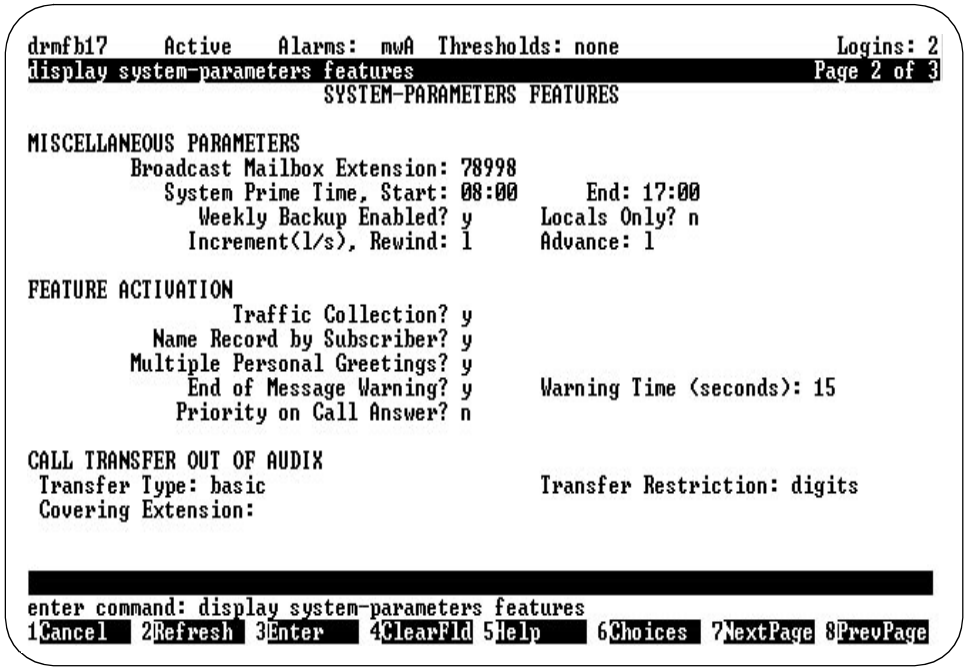
1. With the cursor on the DEFINITY AUDIX command line, type **change system-parameters features** and press (RETURN).

   The system displays the System-Parameters Features screen

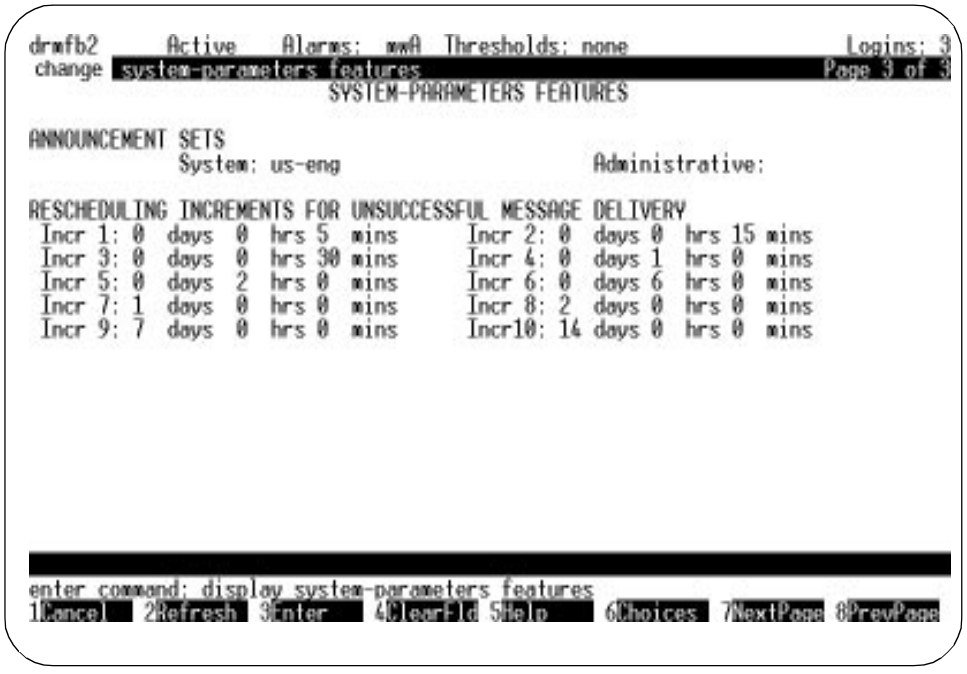
```
drmfb17     Active    Alarms:  mwA  Thresholds: none                    Logins: 2
display system-parameters features                                    Page 1 of 3
                        SYSTEM-PARAMETERS FEATURES

LOG-IN PARAMETERS
        Login Retries: 3              Consecutive Invalid Attempts: 18
 System Guest Password: 12345              Minimum Password Length: 0

PASSWORD AGING LIMITS (DAYS)   Subscriber   Administrator
                                Mailboxes       Login
           Expiration Interval:    282           0    (0 disables expiration)
     Minimum Age Before Changes:   0             1
            Expiration Warning:    0             7    (0 disables warnings)

INPUT TIME LIMITS (SECONDS)
       Normal: 60     Full Mailbox Timeout: 5     Wait (*W): 180
        Between Digits at Auto-attendent or Standalone Menu: 12  (3-12)

DISCONNECT OPTIONS
       Quick Silence Disconnect? n         Silence Limit? 30 (5-30 seconds)
          Tone Based Disconnect? n

enter command: display system-parameters features
1Cancel  2Refresh  3Enter  4ClearFld 5Help  6Choices  7NextPage 8PrevPage
```

2. Move the cursor to any of the fields to be changed on the first page and, using the information on Worksheet C-7, *Activate Parameters and Basic Features*, type the values specified.

3. Press the NEXTPAGE (F7) function key to display page two of this screen.



4. Move the cursor to any of the features to be activated on page 2 and enter the appropriate data as specified on the worksheet.
5. Press the NEXTPAGE (F7) function key to display page three of this screen.



6. Move the cursor to any of the fields and add announcement sets or change rescheduling increments as needed.
7. When you have completed all the changes, press the ENTER (F3) function key to save the changes.

   If no covering extension is administered, the system displays the following message:

   `Covering Extension not defined, press Enter to confirm.`
8. Press the ENTER (F3) function key again.
9. If any of the features that you just activated required special administration (as specified on the *Activate Parameters and Basic Features* worksheet) see the appropriate tasks in *DEFINITY AUDIX System — Administration*, 585-300-507 for details.
10. Proceed to Task 16: Add Tape.

Task 16: Add Tape

This task is required for all installation scenarios.

You should have received two blank tapes as part of the DEFINITY AUDIX system order. In Task 10: Finalize and Test the Hardware, you were to give one of these tapes to the system administrator or put it in a safe place. You should still have the second blank tape (to be used for nightly backups) which you will install in this task.

1. Take the blank tape out of the box.
2. The tape must be writable. To make the tape writable, move the *write protect* marker forward (in the direction of the arrow on the tape label).
3. Open the tape drive so it will accept the tape cartridge.
4. Referring to Figure 3-1, hold the cartridge with the tape side down and the arrow pointing toward the drive (away from you), then insert the cartridge into the drive.

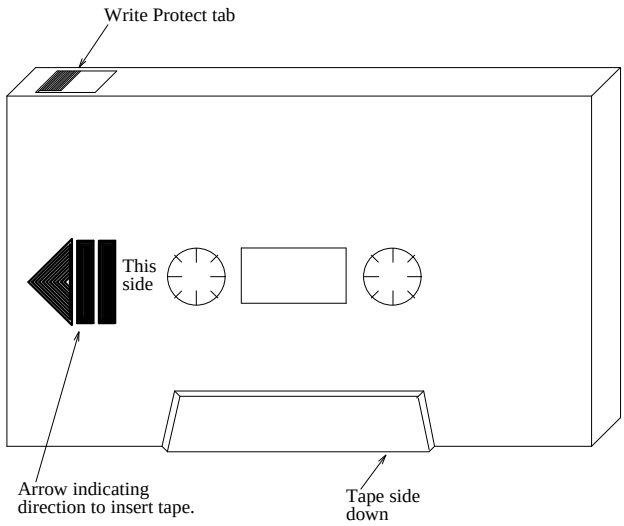
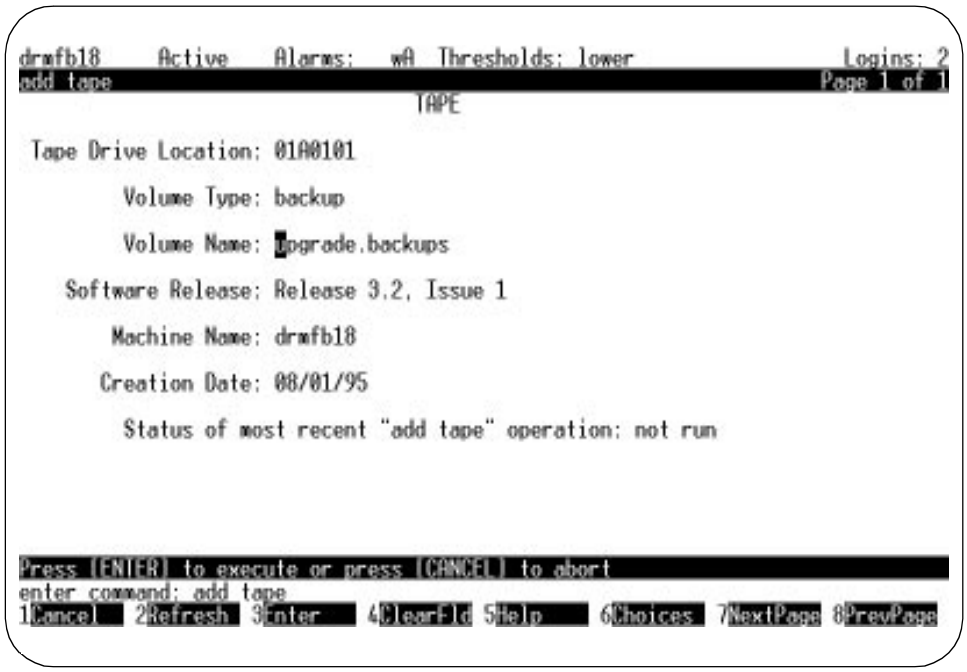


Figure 3-1. Tape Cartridge

5. Close the tape drive with the tape cartridge installed.
6. At the terminal, type **add tape** and press RETURN.

The system displays the Tape screen.



7. With the cursor on the Volume Name field, type **backup**.
8. Press the ENTER (F3) function key.

   The Message line displays the following message.

   ```
   This operation erases all existing tape data. Press
   "ENTER" to confirm.
   ```

9. Press the ENTER (F3) function key to begin the add tape function.

   It takes approximately 3 minutes to retention the tape if the cartridge is blank. If you are adding a tape that already has data on it, this could take up to 30 minutes.

10. If the system is running in DS, proceed to Task 17: Check the Status of the Switch Names Audit. Otherwise, skip to Chapter 4, "Acceptance Checks".

    You will verify the status of the add tape function in a later step.

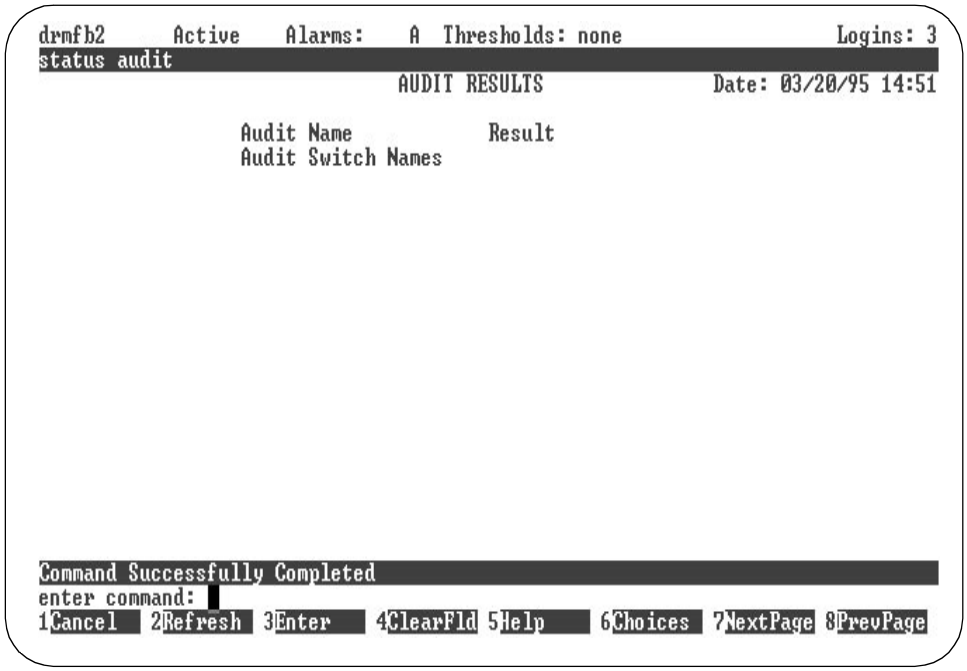
Task 17: Check the Status of the Switch Names Audit

This task is required if the system is using DS integration. Otherwise, skip to Chapter 4, ''Acceptance Checks''.

The purpose of this task is to check the status of the switch names audit operation initiated in Subtask 14K: Run the Switch Names Audit.

1. With the cursor on the DEFINITY AUDIX command line, enter **status audit** and press RETURN.

   The system responds with the Audit Results screen showing the result of the most recently run audit.

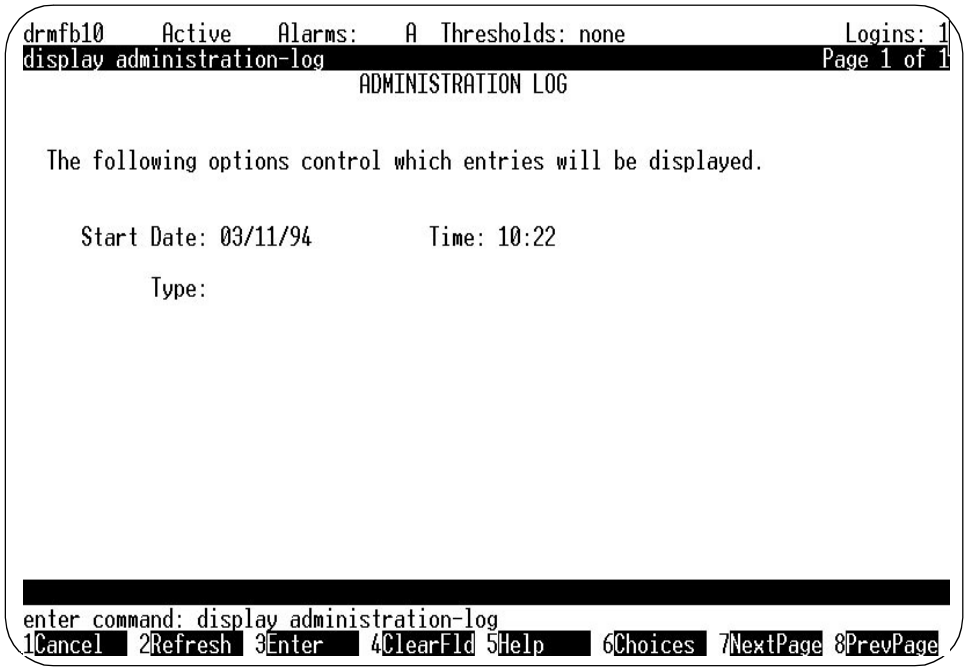


2. Check the Result field for the Switch Names audit. If it displays Passed, proceed to Step 3. If it displays Running, wait a few minutes and repeat Step 1. Repeat Steps 1 and 2 until the audit screen displays Passed, then proceed with Step 3.

   If the audit does not complete successfully, see *DEFINITY AUDIX System — Maintenance*, 585-300-110.

3. Once the audit passes, type **display administration-log** at the DEFINITY AUDIX command line and RETURN .

The system responds with the Administration Log screen.



Leave the Start Date, Time, and Type fields on page 1 blank to display all log entries. Press ENTER (F3) to display the administration-log entries on page 2 of the screen.

4. Check the log for entries that indicate the Switch Names audit found one or more non-unique subscriber names.

   If the Switch Names audit finds a non-unique subscriber name the DEFINITY AUDIX system will answer in *stand-alone* mode for that subscriber (requiring the caller to reenter the subscriber's extension). In addition, each time the Switch Names audit runs (at least nightly), it will write an entry in the Administration log for each non-unique subscriber name, which can quickly fill up the log file.

   If the Switch Names audit finds 50 or more non-unique subscriber names, the entire switch names database is discarded and the DEFINITY AUDIX system will answer in stand-alone mode for *all* subscribers. This condition is indicated by an entry in the Administration log.

   For a description of the restrictions on subscriber names, see the section *Restrictions On Switch Translations* in Chapter 3 of *Switch Administration for the DEFINITY AUDIX System*, 585-300-509.

5. Inform the switch system administrator of any entries in the administration log and ask the administrator to change all non-unique subscriber names in the switch names database to unique names.

   NOTE:
   To find non-unique names using G3-MA screen, connect to the switch and use the data-management option from the main menu. Create a template by using the *add data-template <name>*. Retrieve the data and sort it using the name as the key. Use the print out to locate duplicate names.

6. After the system administrator has changed the non-unique subscriber names in the switch names database, repeat the switch names audit (Subtask 14K: Run the Switch Names Audit) and steps 1-5 of Task 17: Check the Status of the Switch Names Audit.

   When you run the **display administration-log** screen, the default values for Start Date and Time on page 1 are the date and time the screen was last run. Leave these defaults to display only the new log entries.

   If more non-unique subscriber names are found, again ask the switch system administrator to change all non-unique subscriber names in the switch names database. Repeat Subtask 14K: Run the Switch Names Audit and Task 17: Check the Status of the Switch Names Audit until no non-unique names are found.

7. Once the Switch Names audit has run without creating entries for non-unique subscriber names in the administration log, proceed to the tasks in Chapter 4, ‘‘Acceptance Checks’’.

Acceptance Checks

4

This chapter describes tests to ensure that the DEFINITY AUDIX System is functioning properly after installation. Joint Acceptance Testing is used to ensure that IMAPI is operational. These tests should be run with a customer LAN system administrator.

Joint Acceptance Testing is required to be executed by both the customer and the AT&T installer when the entire solution includes AT&T and customer-provided equipment. Acceptance Testing is performed at the end of an installation to demonstrate to the customer that the solution is operational for customer use. The purpose of Joint Acceptance Testing is to have knowledgeable people available to test and resolve issues before final completion of the service order.

Acceptance Check Tasks

The acceptance-check tasks include:

Task 18: Alarm origination administration and test (optional)

Task 19: Perform dial tone test

Task 20: Run TEST SWITCH-LINK LONG (Control Link only)

Task 21: Add two test subscribers

Task 22: Test the Call Answer and Voice Mail features

Task 23: Run TEST TAPE LONG

Task 24: Test Local Area Network (optional)

Task 25: Clear administration error log and alarm log, if necessary

Worksheets Needed

Before beginning these tasks, make sure you have the *Administering Voice Ports as Stations* Worksheet — B-1 for Display Set or B-5 for Control Link — from *Planning for the DEFINITY AUDIX System*, 585-300-601. The project manager should have provided you with this worksheet.

Task 18: Alarm Origination Administration/test and Status Tape

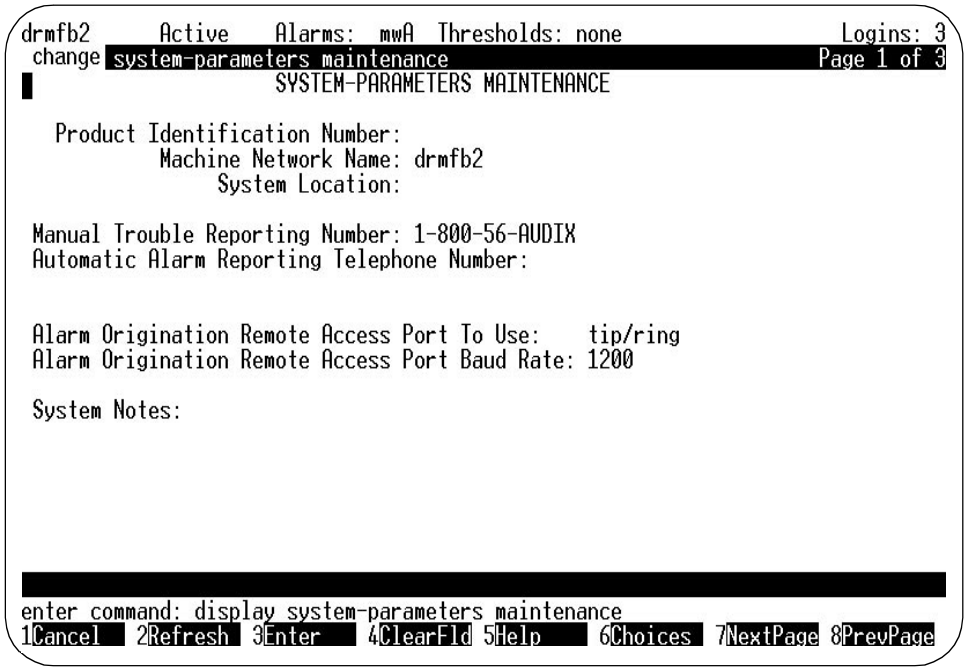
Worksheet C-10, *Set Up Alarm Origination*, indicates whether alarm origination is to be activated through *AUDIX only*, through the *switch only*, or through *both*. If alarm origination is to be set up through the switch only, rather than through AUDIX only or through both, skip to step 9 of this task.

You will perform this task jointly with people at the INADS center.

The steps listed below present a typical execution of this task but you may vary the steps for this site depending on the approach you agree upon with the INADS people.

1. Call INADS and request administration and test of alarm origination for this DEFINITY AUDIX system.
2. If you have not already done so, log in to the DEFINITY AUDIX system terminal as **craft**. (Refer to Task 14A: Set the DEFINITY AUDIX Clock for the login procedure.)
3. Type **change system-parameters maintenance** and press RETURN.

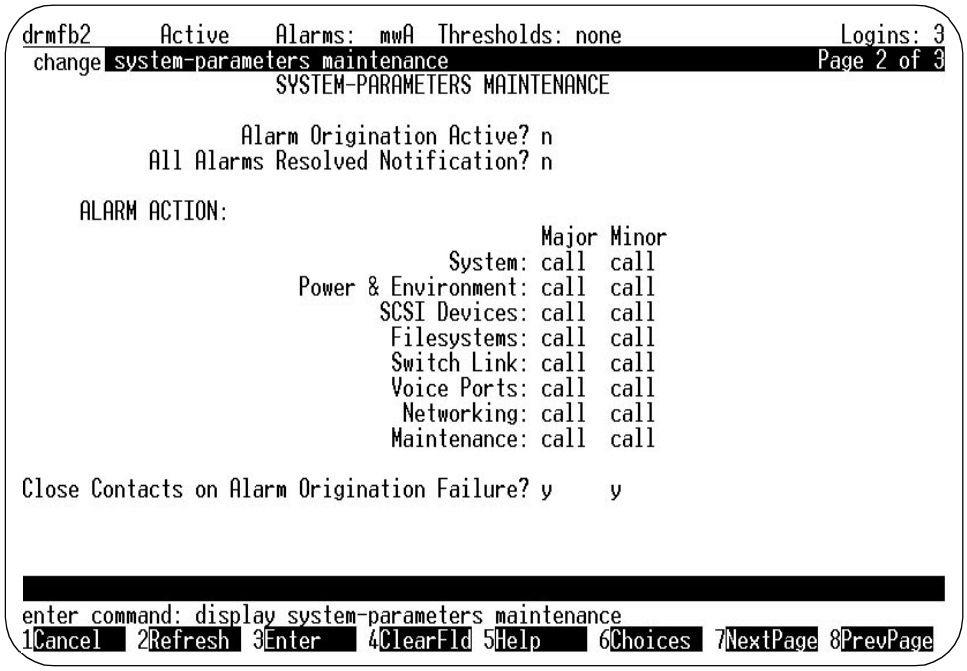
The system displays the System-Parameters Maintenance screen



With information given to you by the Project Manager and with the help of the INADS people, fill in all fields on the screen.

4. Verify that the following fields are filled in:
   - Product Identification Number
   - AT&T Services Identifier
   - System Location
   - Automatic Alarm Reporting Telephone Number
   - Alarm Origination Remote Access Port to Use
   - Baud Rate

5. Press NEXTPAGE (F7) to display the second page of System-Parameters Maintenance screen.



If Worksheet C-10 *Set Up Alarm Origination*, indicates that alarm origination is to be activated through the **switch only**, enter **n** in the Alarm Origination Active? field. If either **audix only**, or **audix & switch**, is indicated on Worksheet C-10, enter **y** in the Alarm Origination Active? field.

6. Ask the INADS personnel to login and display the System-Parameters Maintenance screen. The following steps should be completed by INADS personnel

   a. INADS checks that the login is successful.

   b. INADS checks that the Product Identification Number on the System-Parameters Maintenance screen is correct.

   c. INADS enters the **test alarm-origination** command, terminates login, and hangs up.

   d. INADS checks the appropriate trouble ticket. The trouble ticket should show **INADS, n, MINOR** in the description field to indicate that a minor off-board alarm was reported to INADS. There may be additional text in the description field if other resolved alarms were reported.

   e. INADS makes a second call and login to the DEFINITY AUDIX system and checks the error log to verify that there are no problems.

   f. INADS terminates login and hangs up.

7. If all the fields are properly filled in, press the CANCEL (F1) function key to exit the screen.

   This completes the alarm origination and test.

8. Verify the status of the add-tape function performed in the previous task by typing **status tape** followed by RETURN.

   The system displays the Status Tape screen..

```
drmfb31     Active    Alarms:   wA  Thresholds: none                Logins: 2
status tape                                                        Page 1 of 1
                          STATUS TAPE

Tape Drive Location: 01B1701
             Status: In service, idle

DRIVE:
           Equipped? y
             Vendor: TEAC
              Model: MT-2ST/N50
           Revision: RV F

CARTRIDGE:
           Equipped? y
       Administered? y
      Write Enabled? y
   Capacity(Mbytes): 160MB




Status Command Complete
enter command:
1Cancel  2Refresh  3Enter  4ClearFld 5Help  6Choices  7NextPage 8PrevPage
```

9. The Status field should display *In service, idle*. If not, see *DEFINITY AUDIX System — Maintenance*, 585-300-110.

Task 19: Perform Dial Tone Test for DS Integrated Systems

If the system is using DS integration, continue, If the system is using CL integration, skip this task.

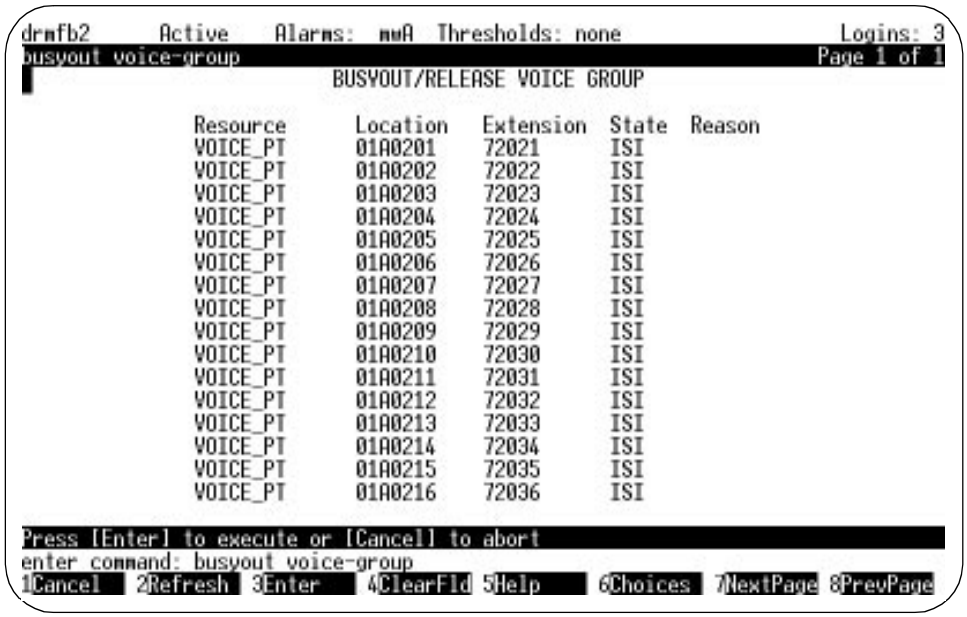
Use the information on Worksheet B-1, *Administering the Voice Ports as Stations.*

1. If you have not already done so, log in to the switch administration terminal.
2. In switch administration, with the cursor on the command line, enter **display feature-access-codes**.

   The system displays the Feature Access Codes screen.
3. Look for the Priority Calling Access Code field.

   This is a multi-page screen, therefore you may need to look at more than one page to find this field.
4. When you find the field, write down the priority calling access code value.
5. Exit the Feature Access Codes screen.
6. Log off of the switch administration terminal.
7. Return to the DEFINITY AUDIX system terminal.
8. From the command line, type **busyout voice-group** and press RETURN.

   The system responds with the Busyout/Release Voice Group screen.



9. Press the ENTER (F3) function key to busy out the voice groups and exit the screen.
10. From any telephone, dial the priority calling access code that you wrote down in Step 4.
11. When you hear the second dial tone, enter the extension of the first DEFINITY AUDIX voice port listed on Worksheet B-1, *Administering Voice Ports as Stations.*

    If the DEFINITY AUDIX system answers, proceed to Step 12. Otherwise, refer to the troubleshooting procedures in *DEFINITY AUDIX System —Maintenance*, 585-300-110.
12. Repeat Steps 10 and 11 for the remaining extensions on the worksheet.
13. When all DEFINITY AUDIX voice ports have answered, return to the DEFINITY AUDIX system terminal. Type **release voice-group** and press RETURN.

    The system responds with the Release Voice-Group screen.
14. Press the ENTER (F3) function key to release the voice group and exit the screen.
15. Proceed to the next task.

Task 20: Run Test Switch-Link Long

This task is required only if the DEFINITY AUDIX system is using CL integration.

1. Type **busyout voice-group** at the command line and press RETURN
2. Press ENTER (F3) to execute the command.
3. With the cursor on the DEFINITY AUDIX command line, type **test switch link long** and press RETURN.

The system responds with the Switch-Link Test Results screen.

4. Press the ENTER (F3) function key to begin the test.

   The test takes from 2 to 5 minutes to complete.

5. When the test completes successfully, proceed to "Task 24: Test Local Area Network" on page 4-15. If the test does not complete, refer to *DEFINITY AUDIX System —Maintenance*, 585-300-110.

6. If running in a DCS network, the test results for each switch node will appear on the Switch-Link Test Results screen. Verify that each node test is completed successfully.

7. Type **release voice-group** and press RETURN.

8. Press ENTER (F3) to execute the command.

9. Proceed to Task 21: Add Two Test Subscribers.

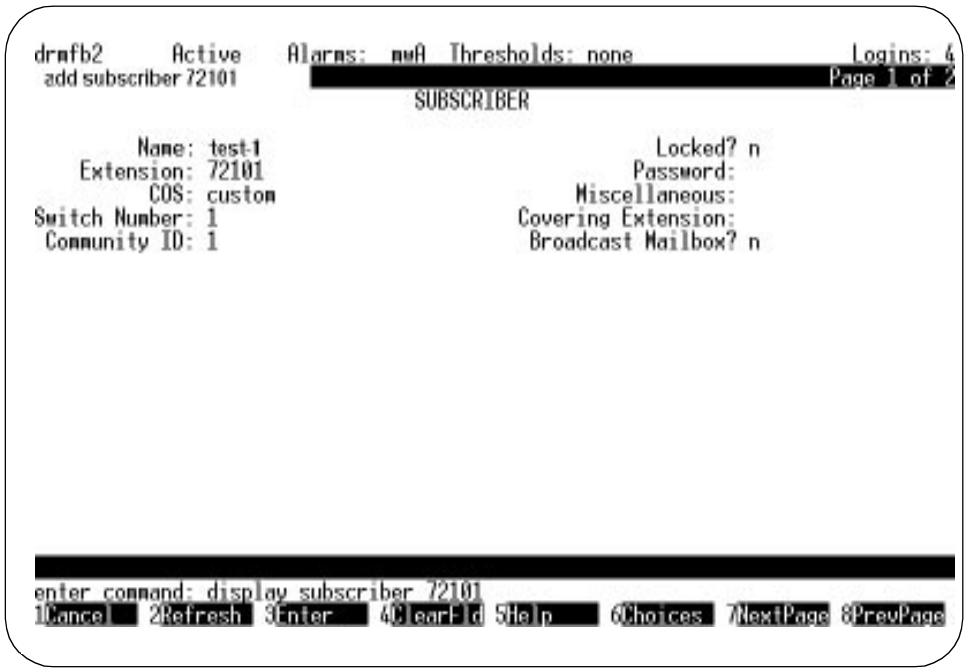
Task 21: Add Two Test Subscribers

This task is required for all installation scenarios.

1. If you have not already done so, log into the DEFINITY AUDIX local terminal as **craft**. (See Task 14A: Set the DEFINITY AUDIX Clock for the login procedure.)

2. Type **add subscriber** and press RETURN.

The system responds with the Subscriber screen.



NOTE:
The two test subscriber extensions used in this task must be administered on the switch. The second test extension must have the coverage path for the AUDIX set. You can administer subscribers on the switch using the Add Station screen.

3. With the cursor at the Name field, type the name of the first test subscriber (for example, **test-1** or **subscriber-1**).
4. Move the cursor to the Extension field and type the extension of the first test subscriber that you are using for the test. (These are the only fields that you need to fill in. The system will use defaults for the remaining fields.)
5. Press the ENTER (F3) function key to add the test subscriber.
6. Repeat Steps 2 through 5 for the second test subscriber.

7. If running in a DCS environment, repeat Steps 2 through 5 for one test subscriber on each switch in the DCS network.

   NOTE:
   Make sure that each DCS remote subscriber is assigned the correct switch number. The switch number for DCS remote subscribers is *not* the same as the host switch number. The Switch Number field on the Subscriber screen must match the switch number for the subscriber's switch on the Switch Link DCIU-SCI screen (see Task 14E).

8. Proceed to Task 22: Test the Call Answer and Voice Mail Features.

Task 22: Test the Call Answer and Voice Mail Features

This task is required for all installation scenarios.

1. Create a test Call Answer message.
   a. From one of the test phones, call the extension of the second test phone.
   b. Let the phone ring until the DEFINITY AUDIX system answers.
   c. After the system greeting and the tone, leave a test message (for example, "This is a test Call Answer message."
   d. Hang up.
2. Retrieve the Call Answer message.
   a. Walk over to the phone that you just called and check the message waiting indicator — either a lamp on the phone or a stutter dial tone. (The MWI signal may take up to 1 minute to appear.) If it is on, proceed to the next step. Otherwise, refer to the troubleshooting procedures in *DEFINITY AUDIX System—Maintenance*, 585-300-110.
   b. From this phone (the one with the MWI on), call the DEFINITY AUDIX extension.
   c. After the DEFINITY AUDIX system answers and prompts you for your extension, press # (the pound sign).
   d. When the DEFINITY AUDIX system prompts you for your password, press # (the pound sign). There is no password assigned to this extension.
   e. If the Name Record by Subscriber feature is on, the DEFINITY AUDIX system will prompt you to record a name. Record a test name such as "test name."

f. Press 2 then press 0 to listen to the message you recorded from the first test extension.

g. After listening to the message, press * D to delete the message.

3. Create a test Voice Mail message.

a. From the DEFINITY AUDIX session you are currently in, press 1.

b. After the tone, speak a test message (for example "This is a test Voice Mail message.")

c. When you have finished speaking the message, press # to approve the message.

d. When prompted for a destination extension, enter the extension of the first test phone and press # to end the addressing.

e. Press # again to deliver now.

f. Hang up.

4. Retrieve the test Voice Mail message.

a. Walk back over to the first test phone and check the MWI. It may take a minute or two for the MWI to turn on. When it is on, proceed to the next step. Otherwise, refer to the troubleshooting procedures in *DEFINITY AUDIX System — Maintenance*, 585-300-110.

b. Call the DEFINITY AUDIX extension to retrieve the message.

c. Press # when prompted for your extension and when prompted for your password. (There is no password assigned to this extension.)

d. Press 2 then press 0 to listen to the message you recorded from the second test extension.

e. After listening to the message, press * D to delete the message.

f. Hang up and, at the DEFINITY AUDIX administration terminal type **status test** and press RETURN to check the results of the test tape operation run previously.

DCS Subscribers

If running in a DCS environment, complete the following steps to test the Call Answer, Voice Mail, and Leave Word Calling features for each remote test subscriber added in Task 21.

1. Create a test Call Answer message.

a. From one of the test phones, call the extension of the remote subscriber.

b. Let the phone ring until the DEFINITY AUDIX system answers.

c. After the system greeting and the tone, leave a test message (for example, “This is a test Call Answer message.”)

d. Hang up.

2. Retrieve the Call Answer message.

a. If you are in contact with someone at the remote site, ask them to check the MWI — either a lamp on the phone or a stutter dial tone — on the remote subscriber’s phone. (The MWI signal may take up to 1 minute to appear.) If it is on, proceed to the next step. Otherwise, refer to the troubleshooting procedures in *DEFINITY AUDIX System — Maintenance*, 585-300-110.

b. Call the remote DEFINITY AUDIX extension. (If the remote switch is a System 85 or G2, this will be the same number as for the local DEFINITY AUDIX System; for all other remote switch types, the DEFINITY AUDIX extension for the remote switch will be different from the extension for the local DEFINITY AUDIX system.)

c. When the DEFINITY AUDIX system answers and prompts you for your extension, enter the remote subscriber’s extension and press #.

d. When prompted for your password, press # again.

e. If the Name Record by Subscriber feature is on, the DEFINITY AUDIX system will prompt you to record a name. Record a test name such as “test name.”

f. Press 2 then press 0 to listen to the message you recorded from the first test extension.

g. After listening to the message, press * D to delete the message.

3. Create a test Voice Mail message.

a. Call the local (host) DEFINITY AUDIX extension. Press # when prompted for your extension and when prompted for your password.

b. Press 1 to create a voice mail message. After the tone, speak a test message (for example “This is a test Voice Mail message.”).

c. When you have finished speaking the message, press # to approve the message.

d. When prompted for a destination extension, enter the extension of the remote test subscriber and press # to end the addressing.

e. Press # again to deliver now.

f. Hang up.

4. Retrieve the test Voice Mail message.
    a. If you are in contact with someone at the remote site, ask them to check the MWI — either a lamp on the phone or a stutter dial tone — on the remote test subscriber's phone. (The MWI signal may take up to one minute to appear.) If it is on, proceed to the next step. Otherwise, refer to the troubleshooting procedures in *DEFINITY AUDIX System—Maintenance*, 585-300-110.
    b. Call the remote DEFINITY AUDIX extension to retrieve the message. (If the remote switch is a System 85 or G2, this will be the same number as for the local DEFINITY AUDIX System; for all other remote switch types, the DEFINITY AUDIX extension for the remote switch will be different from the extension for the local DEFINITY AUDIX system.)
    c. After the DEFINITY AUDIX system answers and prompts you for your extension, enter the remote test subscriber's extension and press #.
    d. When prompted for your password, press the # again.
    e. Press 2 then press 0 to listen to the message you recorded.
    f. After listening to the message, press * D to delete the message.
    g. Hang up.
5. Send a Leave Word Calling (LWC) message to and from the remote test subscriber. If possible, have someone check the MWI at the remote site.
6. Repeat Steps 1 through 5 for each DCS remote test subscriber.
7. Proceed to Task 23: Run Test Tape Long.

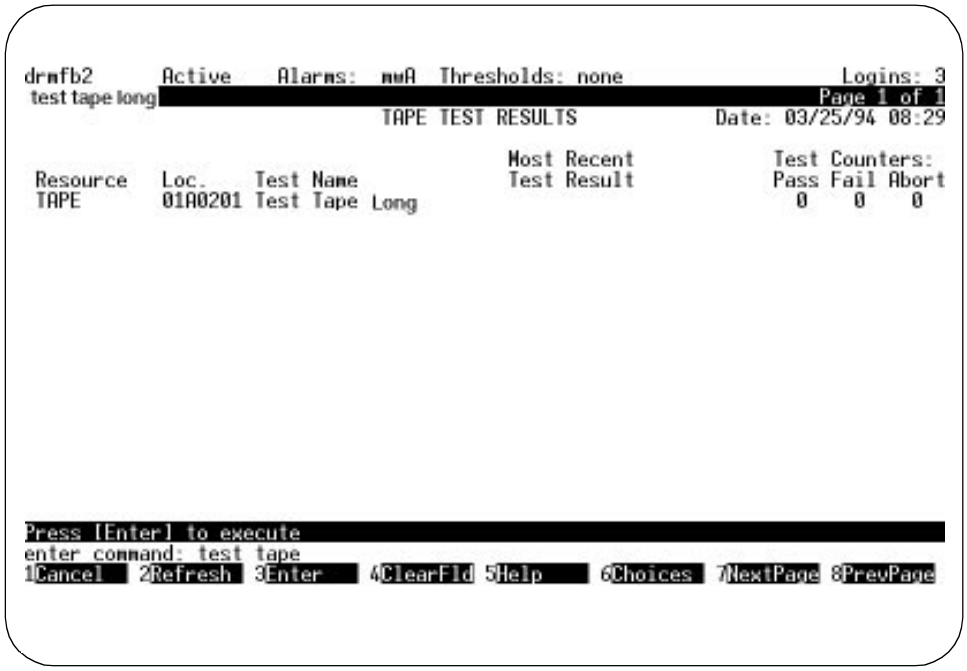
Task 23: Run Test Tape Long

This task is required for all installation scenarios.

At this point, the backup tape cartridge added in Task 16: Add Tape, should still be in the tape drive.

1. Check the status of the tape drive and cartridge. With the cursor on the DEFINITY AUDIX command line, enter **status tape** and press RETURN. The system displays the Status Tape screen. The Status field should display `In service idle`. If the Status field displays any other value, see the Status Tape screen description in *DEFINITY AUDIX System — R3.2 Screens Reference*, 585-300-212 for an explanation of the values of the Status field or see *DEFINITY AUDIX System — Maintenance*, 585-300-110, for information on tape problems.
2. With the cursor on the DEFINITY AUDIX command line, enter **test tape long** and press RETURN.

The system responds with the Tape Test Results screen.



3. Press the ENTER (F3) function key to begin the test. The test takes from 3 to 5 minutes to complete. If it does not complete successfully, refer to *DEFINITY AUDIX System — Maintenance*, 585-300-110. If it does pass, proceed to Task 24: Test Local Area Network, if:

   - AUDIX server hardware options have been purchased (Task 13: Activate DEFINITY AUDIX Server Hardware Options)
   - The DEFINITY AUDIX system has been upgraded with a TN2170 Alarm Board and a three-way splitter cable (See Upgrade Instructions, Chapter 7, ‘‘Upgrades to R3.2’’, and Task 6: Connect the Alarm Board Cable, respectively.)
   - IMAPI system parameters have been activated (Task 13: Activate DEFINITY AUDIX Server Hardware Options).

   Otherwise, go to Task 25: Clear Administration, Error, and Alarm Logs.

Task 24: Test Local Area Network

If possible, Task 24: Test Local Area Network and Task 25: Clear Administration, Error, and Alarm Logs are done jointly with the customer's LAN system administrator.

Prior to activating and installing the LAN options that will allow Intuity Message Manager to work, the LAN administrator must do one of the following:

— Add the AUDIX host name to the network domain name server.

— Create a host file on each PC, typically under the **\net\tcp\hosts** directory.

— Neither of the above if you are using the numeric IP address.

AUDIX Server Acceptance Tests are limited to performing internal diagnostics of the server to the AT&T-provided demarcation point. If a customer representative is available, Joint Acceptance Testing will include a test of the customer's server, another AUDIX Server or a PC with or without Intuity Message Manager.

NOTE:
If the LAN administrator is not present for joint acceptance testing, the installation and testing is considered complete at this time.

When this is done, proceed with the following steps.

1. With the cursor on the DEFINITY AUDIX command line, type **test lan** and press RETURN. The system responds with the following screen.

```
ax85       Active    Alarms:    A  Thresholds: none                Logins: 1
test lan                                                          Page 1 of 1
                              TEST LAN RESULTS            Date: 05/24/94 14:00

                                                Most Recent          Test Counters:
Resource   Loc.    Test Name                    Test Result          Pass Fail Abort
LANINTF    03C08   Get hardware ID                                    0    0    0
LANINTF    03C08   External loop around                               0    0    0
AIS        03C08   Test Process                                       0    0    0

Press [Enter] to execute
enter command: test lan
1Cancel  2Refresh  3Enter  4ClearFld  5Help  6Choices  7NextPage  8PrevPage
```

2. Press the ENTER (F3) function key to begin the test. The test takes up to 2½ minutes to run.
3. If any of the individual tests fail or abort, refer to *DEFINITY AUDIX System — Maintenance*, 585-300-110. If there are problems with the network itself, the LAN system administrator will have to resolve these problems before proceeding with this test.
4. To test if a connection can be made to a Intuity Message Manager user or other LAN node, at the DEFINITY AUDIX administration command line type **test lan dest** followed by the IP numerical address (in the form *nnn.nnn.nnn.nnn*) on the screen then press RETURN. Press the ENTER (F3) function key. If the connection is made, a UNIX ping will be returned. The test takes approximately 15 seconds. If the test fails, refer to *DEFINITY AUDIX System — Maintenance*, 585-300-110.
5. After the tests pass, proceed to Task 25.

Task 25: Clear Administration, Error, and Alarm Logs

This task must be completed from the Remote Support Center (RMC). Call the RMC and let them know you have completed all the installation and acceptance tests for this DEFINITY AUDIX system. Ask them to clear the administration, error, and alarm logs.

This is the end of your (the installation technician) installation responsibilities for this DEFINITY AUDIX system. The tasks in Chapter 5, ''Initial Subscriber Administration'' and Chapter 6, ''Customer Acceptance'' are to be completed by the customer system administrator, the implementor and the AT&T project manager.

Initial Subscriber Administration

5

This chapter describes the tasks to administer the initial subscribers.

Initial Subscriber Administration Tasks

This chapter contains the following task:

Task 26: Add the initial subscribers

Task 27: Run the switch names audit (Display Set only)

Task 28: Complete initial administration

Task 26 should be completed by the DEFINITY AUDIX system administrator or, if the task is included as part of the signed contract, by the AT&T Software Specialist (SS).

Task 27 should be completed by the DEFINITY AUDIX system administrator (or SS) and the remote support center.

Task 28 is a reminder to the person — either the system administrator or the SS administering the initial subscribers — to perform the initial administration tasks described in *DEFINITY AUDIX System — Administration*, 585-300-507.

Worksheets Needed

Before beginning these tasks, make sure you have worksheet C-8, *Add Subscribers*, from *Planning for the DEFINITY AUDIX System*, 585-300-601. The Project Manager or Software Specialist should have provided this worksheet.

Task 26: Add the Initial Subscribers

This task is required for all installation scenarios.

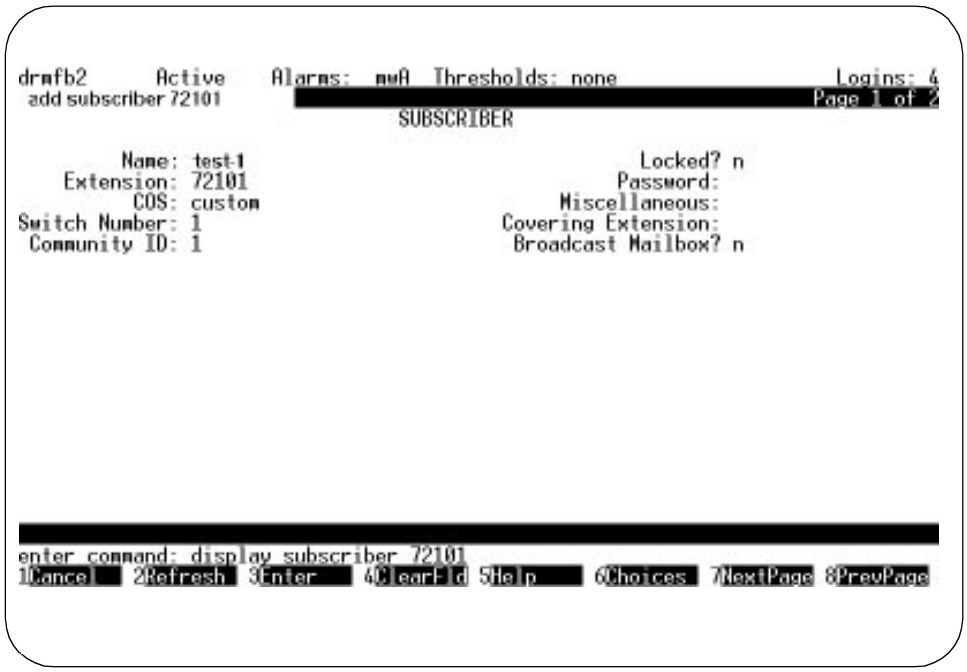
This task describes the basic procedure for adding subscribers via the Subscriber screen. The basic procedure includes entering only subscriber names and extensions (using default values for all other parameters). Check Worksheet C-8, *Add Subscribers* to see if any subscribers will have special administration (other than their name and extension). If so, refer to Chapter 3, *Ongoing Administration*, in *DEFINITY AUDIX System — Administration*, 585-300-507, for adding and administering the subscribers. Otherwise, continue with the following procedure.

NOTE:
You may also add subscribers via the AUDIX Administration and Data Acquisition Package (ADAP) **addsub** command. This is described in *AUDIX Administration and Data Acquisition Package,* 585-300-502. However, before adding subscribers via ADAP, make sure the DEFINITY AUDIX system administrator has installed and administered the ADAP system.

The procedure for adding subscribers via the DEFINITY AUDIX Subscriber screen is as follows.

1. With the cursor on the DEFINITY AUDIX command line, enter **add subscriber**.

The system responds with the Subscriber screen.



2. With the cursor at the Name field, type the name of the first subscriber listed on Worksheet C-8.
3. Move the cursor to the Extension field and type the extension of the first subscriber.
4. Press the ENTER (F3) function key to add the subscriber.
5. Repeat steps 1 through 4 for each subscriber listed on the *Adding Subscribers* worksheet.
6. If running in a DCS environment, repeat steps 1 through 4 for each initial remote subscriber.

   NOTE:
   Make sure that each DCS remote subscriber is assigned the correct switch number. The switch number for DCS remote subscribers is *not* the same as the host switch number. The Switch Number field on the Subscriber screen must match the switch number for the subscriber's switch on the SWitch Link Dciu-Sci screen (see Task 14E: Set Switch-Link Parameters). If digital networking is being implemented, then turn to: *Definity AUDIX system-Digital Networking*, 585-300-534. This book describes how to add remote subscribers for digital networking.

7. Proceed to Task 27: Switch Names Audit (for DS integration Only).

Task 27: Switch Names Audit (for DS integration Only)

This task is required only if the DEFINITY AUDIX system will be running in DS integration.

1. Execute the **audit switch-names** command as described in Subtask 14K *(Run the Switch Names Audit)*, in Chapter 3, "Initial System Administration"
2. Execute the **status audit** and the **display administration-log** commands as described in Task 17: Check the Status of the Switch Names Audit in Chapter 3, "Initial System Administration".
3. Resolve any administration-log entries.

Task 28: Complete Initial Administration

This task is required for all installation scenarios.

The DEFINITY AUDIX system administrator should complete the following steps.

- Read Chapter 2 and Chapter 3 of *DEFINITY AUDIX System — Administration*, 585-300-507.
- Complete the initial administration tasks given in that book that apply to the system being installed, for example:
  - — Recording automated attendant menus
  - — Recording customized announcements
  - — Changing system passwords
  - — Installing and administering the AUDIX Administration and Data Acquisition Package (ADAP)
- Inform your subscribers what to expect with their DEFINITY AUDIX system service.
- Copy and distribute any letters and user documents that your subscribers need.

This is the end of all installation and initial administration tasks. The tasks in Chapter 6, ''Customer Acceptance'' must be completed by the Project Manager.

Customer Acceptance

6

Project Management Tasks:

This chapter lists the tasks that the Project Manager must perform with the customer to hand the DEFINITY AUDIX system over to the customer. Most of these tasks are part of the Streamlined Implementation process. Therefore, they are not described in this document but are listed here as a final check to make sure they are completed. These tasks include:

Task 29: Cutting the system into service

Changing the call coverage path for subscribers to the DEFINITY AUDIX system hunt group may depend on the switch in which the DEFINITY AUDIX system is installed. Therefore, the details are described in *Switch Administration for the DEFINITY AUDIX System*, 585-300-509.

Task 30: Perform a Walk Through

Perform a walk through with the customer that includes the following:

- Show the customer the System-Parameters Customer-Options screen to verify that the purchased ports and features are activated (log in to the administration terminal as **cust** to display this screen).
- Verify that the second blank cartridge tape is present (the first is installed in the tape drive for system backups).

- Verify that all DEFINITY AUDIX system documentation is present, and then instruct the customer regarding how to use the documentation set (which documents are used when).
- Provide the customer with a list of phone numbers and post-cut escalation points.

Task 31: Demonstrate Updated Customer Database

Show the customer the Test Alarm-Origination Short screen to verify that the customer database is updated.

Task 32: Project Review.

Conduct a project review according to current procedures.

Upgrades to R3.2

7

This chapter describes how to upgrade from previous releases of the DEFINITY AUDIX system to R3.2.

Upgrade Overview

The DEFINITY AUDIX 3.2 system differs from earlier releases of the system in ways that significantly affect the tasks you must perform in an upgrade.

Hardware

Hardware changes that affect upgrades follow::

Disk Drive	The DEFINITY AUDIX 3.2 system offers an optional 1.05- GB disk drive that allows up to 100 hours of voice storage. Earlier releases of DEFINITY AUDIX had disk drives that allowed a maximum of 6 or 40 hours of voice storage.
Tape Drive	The DEFINITY AUDIX 3.2 system offers a 600-MB tape drive to accomodate the additional voice storage available on the 1.05-GB disk drive. Earlier releases of DEFINITY AUDIX had 160-MB tape drives.
Multifunction Board	The DEFINITY AUDIX 3.2 system runs on a TN566B or TN567 multifunction board (MFB). Earlier releases of DEFINITY AUDIX ran on TN566 and TN566B MFBs.

Analog and Digital Port Emulations

To work with the switch, the DEFINITY AUDIX 3.2 system can emulate these port boards:

- TN746 analog port emulation, which allows up to 16 voice ports.
- TN754 digital port emulation, which allows up to 8 voice ports.
- TN2181 digital port emulation, which allows up to 16 voice ports. (Not available with System 75, G1, and G3V1 switches.)

Earlier releases of the DEFINITY AUDIX system emulated only the TN746 analog port board and the TN754 digital port board.

Digital port emulation is required to support digital networking.

Control Link and Display Set Integrations

The methods of switch integration and voice port emulation are not as tightly linked as they were with earlier versions the DEFINITY AUDIX system.

Control Link Integration

As with earlier releases of the DEFINITY AUDIX system, the DEFINITY AUDIX 3.2 system lets you administer a DCIU control link. The control link is required for a DEFINITY AUDIX analog port emulation.

However, unlike earlier releases of the system, the DEFINITY AUDIX 3.2 system offers control link integration with digital port emulation. And though a control link is not required for a digital port emulation, you may need to administer a control link with digital port emulation to support DCS, enhanced call transfer, and leave word calling in AUDIX.

Display Set Integration

Digital emulation without a control link is called Display Set (DS) integration. DS integrations use the channels of the digital voice ports to exchange information such as call header data and control data. In earlier releases of the DEFINITY AUDIX system, this integration was referred to as “DP mode.”

NOTE:
“Display set” refers to the fact that DEFINITY AUDIX digital ports on the switch are administered as if the display phone sets are connected.

Upgrade Worksheet

The information in the following worksheet determines what upgrade tasks are necessary. If you do not already have this information, use the worksheet to compile it..

Features/Capacities	Old System	New System
1. DEFINITY AUDIX Release (1.0, 2.0, 3.0, 3.1)	_____	3.2
2. Switch Type (Sys. 75, G1, G3V1 prior to Iss. 16.2, G3V1 Iss. 16.2 or greater, G3V2, G3V3, G3V4)	_____	_____
3. # of voice ports (2 to 16)	_____	_____
4. DCS? (yes/no)	_____	_____
5. Enhanced Transfer (yes/no)	_____	_____
6. Leave Word Calling in AUDIX (yes/no)	_____	_____
7. Call screening (yes/no) Not available if items 4, 5, or 6 are selected.	_____	_____
8. Languages (U.S. Eng., Eng. 123, U.S. TDD, British Eng., French Canadian, Latin Spanish)	_____	_____
9. Hours of voice storage (6 to 100) New systems are configured with a minimum of 10.	_____	_____
10. Disk size, in megabytes (6, 15, 40, 100) New systems are configured with a minimum of 15.	_____	_____
11. Digital networking (yes/no)	_____	_____
12. # of digital networking ports (0, 1, or 2)	_____	_____
13. AMIS networking (yes/no)	_____	_____
14. Message Manager (yes/no)	_____	_____

Features/Capacities	Old System	New System
15. Message Manager IP address Subnet mask Gateway Address	 _____ _____ _____	 _____ _____ _____
16. Alarm Board (2169/2170)	_____	_____
17. Type of Multifunction Board (TN566/TN566B/TN567) New system requires TN566B or TN567. TN 567 required if Line 3 is greater than 10 and digital networking is required.	_____	_____
18. Emulation Type (Analog/Digital) Digital emulation required for networking or call screening. Digital emulation required if Line 7 or 11 is yes.	_____	_____
19. Integration Type (Control Link/Display Set) Control link required if Lines 4, 5, or 6 are yes. Display set, formerly known as DP mode, required on old system if Line 18 is Digital. Control link required on old system is Line 18 is Analog.	_____	_____

Upgrade Checklist

The following checklist lists, in recommended order, the upgrade tasks you may need to perform. Use the information in the Upgrade Worksheet to determine which tasks are necessary.

Task	Comments	Where Task is Described
1. Upgrade the Disk Drive, if Necessary	Necessary if the new system needs greater than 40 hours of speech or the old system has a 6-hr. disk. The inclusion of digital networking may also add significant storage needs.	Chapter 4, *DEFINITY AUDIX System - Maintenance*, 585-300-110.
2. Upgrade the Tape Drive, if Necessary	Necessary if the new system will have a 1.05- GB disk (since more than 40 hours of data may need to be backed up).	This chapter in section, *Tape Drive Installation*.
3. Run Software Upgrade, Steps 1 to 6.	You continue with step 7 of the software upgrade after any necessary hardware installations are complete.	This chapter in section, Software Upgrade.
4. Replace Multifunction Board, If Necessary	Necessary if: ■ Old MFB is a TN566 (without a B) Or, if necessary, the following three items are true: ■ Digital networking is purchased and more than 10 voice ports are required ■ Switch is G3V2/V3/V4	This chapter in section, Circuit Card Replacement.
5. Replace Alarm Board, if Necessary	Necessary if both of the following items are true: ■ Old alarm board is 2169 ■ Message Manager will be installed	This chapter in section, Circuit Card Replacement.

Task	Comments	Where Task is Described
6. Add control link cable, if necessary.	Necessary if old system is DP integration and new system is CL integration.	Chapter 2, Task 8: Install the Control-Link Cable.
7. Continue with step 7 of software upgrade and complete software upgrade.		This chapter in section, Software Upgrade.
8. Change switch integration, if necessary. The following may be required changes:		
■ Increase voice ports, keeping digital port emulation the same	Necessary if G3 switch and customer wants to increase ports, starting from 8 or less ports and ending with more than 8 ports. Incorporates the TN2181 digital port emulation.	Appendix A in *Switch Administration for the DEFINITY AUDIX System* (585-300-509)
■ Change voice ports from CL analog to CL digital **NOTE:** Only G3V4 and updated G3V2 and G3V3 support enhanced Call transfer if using digital port emulation and Control Link integration. The transfer is invoked via a message from the AUDIX system to the switch on the control link.	Necessary, if customer has analog ports and wants to add digital networking. May incorporate the TN2181 digital port emulation. However, for System 75, G1, or G3V1 switch where the customer starts with more than 8 analog ports, this requires dropping down to 8 or fewer digital ports).	Appendix A in *Switch Administration for the DEFINITY AUDIX System* (585-300-509)

Task	Comments	Where Task is Described
■ Change voice ports from DS digital to CL digital **NOTE:** Only G3V4 and updated G3V2 and G3V3 support enhanced Call transfer if using digital port emulation and Control Link integration. The transfer is invoked via a message from the AUDIX system to the switch on the control link.	Necessary if the customer wants digital networking, but also wants the features supported by CL integration (such as DCS, enhanced call transfer, and leave word calling).	Appendix A in *Switch Administration for the DEFINITY AUDIX System* (585-300-509)
■ Increase voice ports while changing from digital to analog emulation	Necessary if System 75 or G1 switch and customer simply wants more ports and does not want digital networking.	Appendix A in *Switch Administration for the DEFINITY AUDIX System* (585-300-509)
9. Administer networking ports, if necessary	Necessary if the customer wants digital networking.	Chapter 9 in *DEFINITY AUDIX Digital Networking* (585-300-534)
10. Change machine networking type from AMIS to digital, if necessary.	Necessary if the customer wants to use digital networking and discontinue AMIS networking.	This chapter in section *Changing from AMIS to Digital Networking*
11. Install, administer, and test Message Manager, if necessary	Necessary if the customer wants Message Manager support, but does not already have it.	This chapter in section *Installing, Administering, and Testing Intuity Message Manager*
12. Install additional language sets	Necessary if the customer already has multiple language sets.	Appendix A: *Announcement Set Installation*
13. Check *.cust* directory for customized fragments and announcements (remote services group only)	Necessary if the customer has reusable custom recorded fragments.	This chapter in section *Customized Announcement and Fragment Considreations*

Changing from AMIS to Digital Networking

In addition to normal administration to set up digital networking, change the machine type for each remote machine that changees from AMIS networking to digital networking.

To change machine type, follow these steps:

1. Enter the command **change machine *macnine-name.***

   The Machine Profile screen appears for the machine you named.

2. In the Machine Type field, change the type from ***amisap*** or ***amisac*** to one of the following:

   - **audix** (DEFINITY AUDIX and Intuity AUDIX systems)
   - **r1aud** (AUDIX R1 systems)

3. Make any additional changes necessary for the remote machine.
4. Notify the customer of the need for remote machines to be updated to recognize the machine you are working on as a digital machine.

For more information on digital networking, see *DEFINITY AUDIX Digital Networking Administration* (585-300-534).

CAUTION:
Do not delete administration of a remote AMIS machine and then add it back in as a digital machine. Doing so will invalidate the existing voice IDs that those machines have within the network.

Hardware Upgrades

To upgrade any DEFINITY AUDIX to R3.2, the following items are necessary at the upgrade site:

- R3.2 generic software tape
- Tape or tapes with purchased language sets
- Two blank tapes, necessary to save customer data during the upgrade. These tapes will not be left at the upgrade site.
- TN566B MFB Circuit Card (upgrading R1.0 or R2.0 with support of 10 voice ports or less)
- TN567 MFB Circuit Card (upgrading an R1.0 or R2.0 system and additional voice ports are added; or upgrading an R3.0 or R3.1 system and 10 voice ports are needed)
- TN2170 Alarm Board if adding Intuity Message Manager
- Cabling for Intuity Message Manager upgrade
- 465 MB disk drive (for 40 hour of voice storage) *optional*
- 600 MB tape drive with a 1.05-GB disk drive (for 100 hours of voice storage) *optional*. These must be installed as a set.
- Control Link Cable (if changing to Control Link Emulation)

NOTE:
Remember that *all* hardware and "R-type" tapes removed during this upgrade *must* be returned to AT&T.

WARNING:
When upgrading to R3.2, the TN567 MFB should be installed during the software upgrade. However, the system cannot return to a pre-R3.2 software state without removing the TN567 MFB and replacing it with whatever was in the system before the upgrade started. The TN567 MFB will be ruined if not removed.

Circuit Card Replacement

WARNING:
Static electricity can be destructive to system parts. Use an antistatic wrist strap whenever removing or installing a DEFINITY AUDIX system. Also use an antistatic mat when servicing the MFB and alarm circuit cards.

Use this procedure if either, or both, the TN566B MFB and the TN2169 Alarm Board must be replaced.

Step 1: Shut down the system in a camp-on manner using the Reset System Shutdown screen. The system will respond with information similar to the following:

```
System name: audix
login:

INIT: New run level: 0

The system is coming down. Please wait.
System services are now being stopped.
System data saved during shutdown.
The system is down.
Transferring to Firmware.
.....
SHUTDOWN Pending, Code = F022
Software Maintenance Shutdown
SHUTDOWN Completed
```

Refer toFigure 7-1, Top View of DEFINITY AUDIX System; and to Figure 7-2, Side View of DEFINITY AUDIX System; complete the steps below.

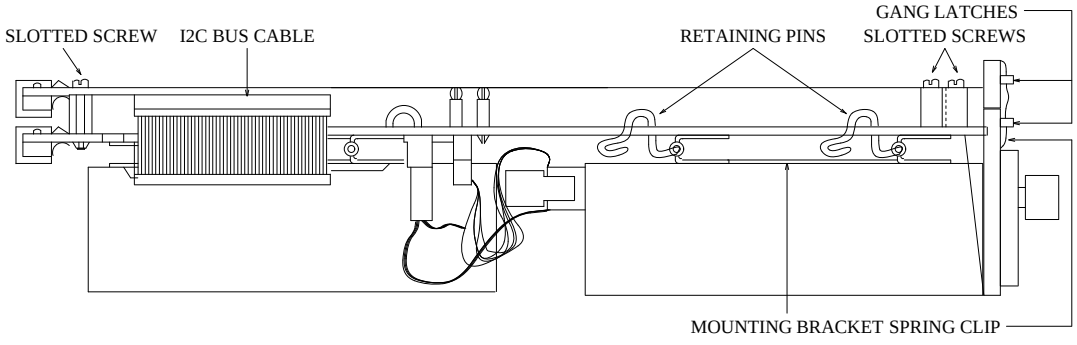


Figure 7-1. Top View of DEFINITY AUDIX System

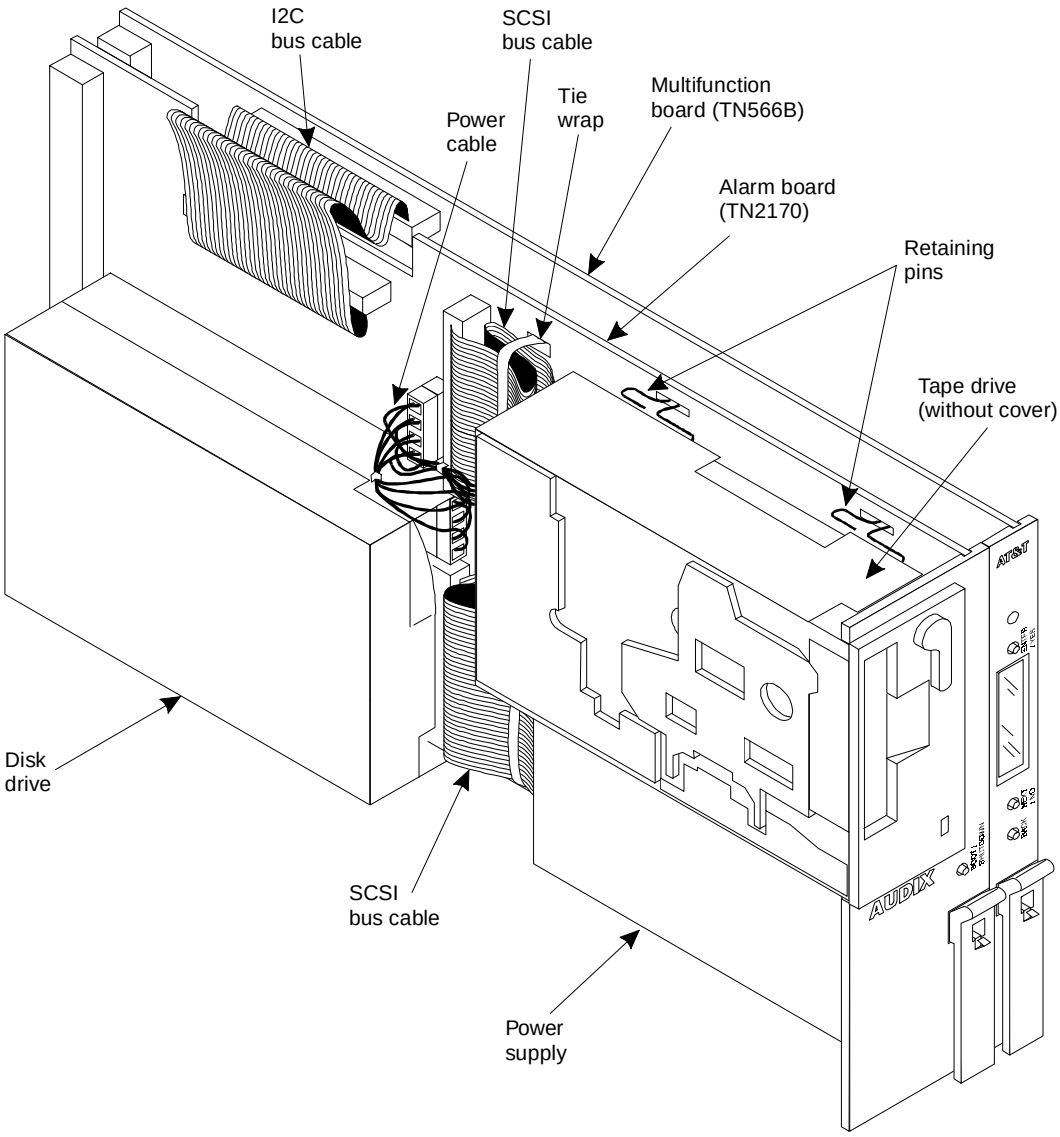


Figure 7-2. Side View of DEFINITY AUDIX System

To remove the TN566 MFB and the TN2169 alarm board, perform these steps:

1. Unsnap the two *gang latches* at the bottom front of the MFB and alarm board, and swing downward. Squeeze the boards together and slip off the *spring clip*.

   CAUTION:
   Carefully slide the DEFINITY AUDIX system from the switch carrier. Handle with care. The system weighs 6.2 pounds, use both hands when removing the system.

2. Disconnect the interboard bus cable from the top edge of both boards using the pull tab.
3. Remove the three socket-head slotted screws that hold the MFB to the alarm board.
4. Separate the two boards.
5. Cut and remove the tie wrap that holds the power cable and the tape drive SCSI bus cable against the alarm board.
6. Cut and remove the tie wrap that holds the power cable and the disk drive SCSI bus cable against the alarm board.
7. Unlock the two retaining pins from the slots along the edge of the alarm board that hold the tape drive in place. Pull out the pins to release the drive from the drive mounting bracket.
8. Disconnect the tape drive SCSI bus cable from the tape drive.
9. Disconnect the tape drive SCSI bus cable from the alarm board.
10. Disconnect the tape drive power cable from the tape drive.
11. Unlock the two retaining pins from the slots along the edge of the alarm board that hold the disk drive in place. Pull out the pins to release the drive from the drive mounting bracket.
12. Disconnect the disk drive SCSI bus cable from the disk drive.
13. Disconnect the disk drive SCSI bus cable from the alarm card.
14. Disconnect the disk drive power cable from the disk drive.
15. Disconnect the power cable from the alarm board.

Depending on the upgrade needed, replace the TN566 MFB with either the TN566B MFB or the TN567 MFB. If necessary, replace the TN2169 Alarm Board with the TN2170 Ethernet Alarm Board at this time.

To assemble the MFB and alarm board, perform these steps:

1. Place the two boards together and attach them using the three socket-head slotted screws.
2. Reconnect the interboard bus cable (H600-345) to the top edge of both boards.

   NOTE:
   The interboard bus cable connector with the pull tab connects to the MFB board.

3. Connect the tape drive SCSI bus cable (H600-344) to the tape drive.
4. Connect the tape drive SCSI bus cable to the alarm board.
5. Connect the power cable (H600-343) front drive connector to the tape drive.
6. Position the tape drive on the alarm board, and slide the two retaining pins into the drive mounting bracket. Lock the pins into the slots along the edge of the alarm board.
7. Connect the disk drive SCSI bus cable (H600-344) to the disk drive.
8. Connect the disk drive SCSI bus cable to the alarm board.
9. Connect the power cable rear drive connector to the disk drive.
10. Position the disk drive on the alarm board, and slide the two retaining pins into the drive mounting bracket. Lock the pins into the slots along the edge of the alarm board.
11. Connect the power cable to the alarm board.
12. Install a tie wrap to hold the power cable and the tape drive SCSI bus cable against the alarm board.
13. Install a tie wrap to hold the disk drive SCSI bus cable against the alarm board.

    NOTE:
    The play between the MFB and the alarm board enables the system to be easily positioned in the switch carrier.

14. Insert the DEFINITY AUDIX system into the switch carrier.
15. Squeeze the two boards together and snap the two gang latches on the front of the two boards together.

The DEFINITY AUDIX system will reboot and run self-diagnostics

Proceed to step 7 in the section, *Software Upgrade*, to complete the upgrade.

Refer to Appendix A, and *DEFINITY AUDIX System — Maintenance* (585-300-110) for these procedures.

Control Link Upgrade

Refer to Chapter 2, Task 8: Install the Control-Link Cable, for installation procedures.

Software Upgrade

To upgrade an R1.0, R2.0, R3.0 or R3.1 DEFINITY AUDIX system to release R3.2, perform the following steps. If problems occur, contact the Technical Service Organization (TSO).

The approximate time to complete each step is shown in brackets [ ]. Times may vary widely, depending on the size of the system and the voice storage volume. It should take from one to four hours to complete all the steps.

WARNING:
Contents of the error log, event log, and resolved alarm log will be deleted by the upgrade. Existing customized announcement sets will be preserved. However, if a current backup tape of the customized announcement sets is not available, it is highly recommended that one be made prior to the upgrade. Should anything go wrong during the upgrade, the backup can be reinstalled and those announcement sets used.

NOTE:
Have the customer inform subscribers that the DEFINITY AUDIX system will be shut down for 3 to 6 hours during this upgrade procedure.

1. [The time required for this step depends on the amount of data in the system.]
   Back up the system
2. [1 min]
   Make sure that the administration terminal is connected to Port A. Log in to the DEFINITY AUDIX system on the administration terminal as **craft**.
3. [30 seconds]
   Enter **change machine**. Ensure that the `machine name` on the screen contains upto 8characters; otherwise, the upgrade will not run.
4. [20 seconds]
   Enter **disable to**. Disable alarms in the **Disable Alarm Origination** screen. If this is not done, the RSC will see alarms while the upgrade is in progress.

   NOTE:
   The responses received from the system during the software upgrade may differ from those shown in this document. All system responses are shown in `8-point type`.

5. [5 min]
   Shut down the system in a camp-on manner using the RESET SYSTEM SHUTDOWN screen. The system responds with information similar to the following:

```
System name: audix
login:

INIT: New run level: 0

The system is coming down. Please wait.
System services are now being stopped.
System data saved during shutdown.
The system is down.
Transferring to Firmware.
.....
SHUTDOWN Pending, Code = F022
Software Maintenance Shutdown
SHUTDOWN Completed
```

6. [3 min]
   While waiting for the shutdown to complete, remove the backup tape and clean the tape heads with the cleaning kit supplied with the original system. Perform the steps described below.

   a. Remove the working tape and insert the cleaning tape cartridge into the drive, all the way into the streamer. *Do not* lock it into place by turning the front lever clockwise.

   b. Dip the pad of the cleaning stick into the cleaning solution and insert into the guide hole at the bottom of the tape. Ensure that the blue side of the pad touches the head (it will face the LED of the streamer).

   c. Gently pressing the pad against the head, run the stick back and forth through the guide hole 10 times.

   d. Turn the stick so the white side of the pad touches the head. Run the stick back and forth 5 to 10 times.

   e. Using the dry white pad of another cleaning stick, perform the same operation 5 to 10 times.

   Remove the cleaning tape and allow the head to dry for a minute.

   NOTE:
   If any hardware upgrades are needed, do them now. Refer to *Appendix A, "Announcement Set Considerations and Installation"* for disk and tape drive upgrades. Refer to *Circuit Card Replacement* for these procedures.

   NOTE:
   Steps 8 and 9 must be completed within 60 seconds after invoking command mode in step 7. Otherwise, the system will boot automatically and you will have to shut down and start over with the upgrade.

7. [1 min.]
   Invoke command mode by pressing CONTROL-C C. The system responds with information on the screen similar to what follows:

```
MFB 386FW Version: AU00S3EC
Local Console: Output ON, Input ON
Remote Maintenance Console: INACTIVE
command menu:?
```

8. Press SHIFT ? ENTER to list available commands. A menu similar to that below is displayed.

```
command menu: ?

1 = Display Init History
2 = Display Status
3 = Read/Write Functions
4 = Additional Tests
5 = Auto Boot
6 = Preempt Auto Boot
7 = Manual Boot
8 = Board Commands
q = Quit and Auto Boot
command menu:
```

9. Enter **6** to *Preempt Auto Boot*.

```
Auto Boot Preempted
```

10. Insert the new release generic tape.

11. [1 min]
    From the command menu, enter **7** to select the Manual Boot option. The system will respond with information on the screen similar to what follows:

```
command menu: 7
Auto Boot Preempted
Enter Tape Device (0-6) (Default = 1):
```

12. Enter **2** for Boot from Tape.

13. Enter **1** for device number for the tape.

NOTE:
2 to 3 minutes may elapse before the following message appears.

```
MFB Board Diagnostics PASSED
Transferring To Software

         Copyright (c) 1992 AT&T
         All Rights Reserved

0: Exit
1: Initialize Disk
2: Modify Partition Map
3: Copy Generic Partitions
4: Additional Commands
Enter option:
```

Confirm that the board diagnostics passed.

WARNING:
*In the next step **do not press 1** (the Initialize Disk option), which would destroy all existing customer data.*

14. [10 min]
    When the menu appears, enter **3** to select Copy Generic Partitions To Disk. The system responds with information on the screen similar to what follows:

```
Enter option: 3
Enter SCSI ID of Disk (default 0):
```

15. Enter **0** (zero, the default) for the SCSI ID. Wait for copying to complete (several rows of dots and messages will appear as copying progresses).

    After the generic partitions are copied, the system automatically reboots. The system scrolls with information similar to what follows:

```
Enter SCSI ID of Disk (default 0): 0
Copy generic data from tape to disk
.........
```

    The following line appears for upgrades if the hard disk drive is larger than 6 hours:

```
Changing <var.s5> partition size from (e.g.) 35152 to (and always
ends at) 17576
Copy Generic Partitions PASSED

Automatic reboot

Loader or Utility Abort
Board Diagnostics PASSED
Transferring To Software

Booting the Operating System... OS loaded. Transferring control...

MFB 386 FW Version:AU00S0EF

Local Console: Output on, Input off

Remote Maintenance Console: Inactive

MFB Board Diagnostics: Passed

Transferring to Software

Booting the OS

total real memory = 15728640
total available memory = 14032896

AT&T UNIX System V/386 Release 4.0 Version 2.1
```

```
Copyright (c) 1984, 1986, 1987, 1988, 1989, 1990, 1991 AT&T
Copyright (c) 1987, 1988 Microsoft Corp.
All Rights Reserved

DEFINITY(R) AUDIX(R) System
Copyright (c) 1991,1992,1993 AT&T
All Rights Reserved.

The system is coming up. Please wait.
WARNING: Firmware verification/reprogramming in progress.
Do not interrupt until completed.
Firmware verification/reprogramming completed successfully.
MFB state set to 35
Welcome to DEFINITY(R) AUDIX(R) System Release 3.2, Issue 1
Installation and Recovery – Copyright (c) 1992,1993 AT&T

In the following steps, you may be prompted for selections from
menus to supply further information. Type either the menu number or
name, and a carriage return.

Do you wish to

1) shutdown
2) install
3) upgrade
4) recover

?
```

WARNING:
*In the next step **do not press 2** (the install option); this will destroy all existing customer data.*

16. [2 min]
When the menu appears, enter **3** to select the upgrade option. When the prompt for a backup tape is displayed, insert the first of the two ***blank*** backup tapes that came with the upgrade instructions.

```
? 3
Recovering system information.
Please insert the first backup tape. Press <return> when ready:
Checking announcement files for modification in the background.\
```

If, after pressing RETURN, nothing happens, the tape may be in the retensioning process. Wait 5 to10 seconds and press RETURN again to correct the problem.

WARNING:
Do not insert the automated backup tapes or the generic tape at this point. The utility will overwrite all existing data on those tapes if you do.

17. When the yellow tape LED on the tape drive goes out, press RETURN. The screen shows the progress of the backups as they are done. If asked to insert the second ***blank*** backup tape, insert it, and press RETURN.

```
Write the volume label
*** START Fri Jan 06 08:50:07 EST 1995 ***
*** END Fri Jan 06 08:50:33 EST 1995 ***
Save nightly
*** START OF BACKUP Fri Jan 06 08:50:39 EST 1995 ***
.........................................
*** END OF BACKUP Fri Jan 06 08:54:20 EST 1995 ***
Save weekly
*** START OF BACKUP Fri Jan 06 08:54:25 EST 1995 ***
.................................
*** END OF BACKUP Fri Jan 06 08:58:25 EST 1995 ***
Checking for customized announcements..................completed.
Checking announcement file times in “standard”.
No customizations found for “standard”.
Checking announcement file times in “terse”.
No customizations found for “terse”.
```

If upgrading from a R1.0 or R2.0 release, the US English announcement set names appear as `Standard` or `Terse`. Table 2, Appendix B, lists names for all versions of each available language set.

```
*** START OF BACKUP Fri Jan 06 09:17:21 EST 1995 ***
*** END OF BACKUP Fri Jul 06 09:26:22 EST 1995 ***
Save voice
*** START OF BACKUP Fri Jan 06 09:17:21 EST 1995 ***
.............................................
.............................................
Please insert the next tape
.............................................
.............. .............
*** END OF BACKUP Fri Jan 06 09:26:22 EST 1995 ***

Backups have completed successfully.
Upgrading customer data.
Previous customer data release: Release 2.0, Issue 1.

Checking standard disk partitions....completed when done.
```

[This check will take up to 30 minutes.]

If the upgrade is from a R1.0, R2.0, or R3.0 release:

```
restore weekly from tape
.....................
restore voice from tape
.....................
```

are done here. If the upgrade is from a R3.1 release, restores are not done.

For R3:

```
Upgrading mailbox database to R3.2 ...completed.
Upgrading message headers to R3.2 ...completed.
Upgrading subscriber profile database to R3.2 ... completed.
restore weekly from tape
restore voice from tape
```

For others:

```
Upgrading subscriber profile database to R3.2 ... completed.
Upgrading message header database to R3.2.. completed.
Upgrading voice count database to R3.2 ... completed.
Upgrading mailbox database to R3.2 ...completed
Upgrading mailing list database to R3.2 ...completed
Upgrading traffic load day database to R3.2 ...completed
Upgrading traffic load hour database to R3.2 ...completed
Upgrading subscriber profile database to R3.2 ...completed
Upgrading traffic database to R3.2 ...completed
restore weekly from tape

restore voice from tape

Checking disk hours
Checking transfer type

No customized announcements found
Standard announcements will now be replaced.
The announcements tape must be inserted
```

18. Insert announcements tape. Press RETURN when ready. When the yellow tape LED on the tape drive goes out, press RETURN.

```
Reading announcements ........................... completed.
Upgrade from the program tape is complete.
Proceeding with initialization.
```

If the upgrade is performed in a time zone different from that set on the upgrade tape, the following actions must take place. Otherwise, skip to the script where noted.

```
Reboot to pick up correct time zone.
Change to state 2 has been completed.
DEFINITY(R) AUDIX (R) System
     - initializing from boot Fri Jan 06 12:53:14 EST 1995
No Install errors found
System name: audix
login: DEFINITY(R) AUDIX (R) System
     - initializing to AUDIX state Jan 06 16:45:00 EST 1995
Phase 1 file check PASSED
Phase 2 file check PASSED
Phase 3 file check PASSED
Phase 4 file check PASSED
Phase 5 file check PASSED
DOTRACE=yesD
TRACELOG=/var/spool/audix/tracelog
TRACECMD=s 60 -o /var/spool/audix/tracelog.a -
o/var/spool/audix/tracelog.b
TRACEOUTPUT=/dev/null
Save output to Trace process
OLDTRACELOG=/var/spool/audix/oldtrace
```

19. [1 min]
After the `OLDTRACELOG=/var/spool/audix/oldtrace` message appears on the screen, press RETURN to clear the screen and get the login prompt.

20. Log in to the DEFINITY AUDIX system as **craft**. Wait for Active to appear on the status line before continuing.

21. [less than 1 min]
    Run TEST TAPE CLEAN to reset the tape cleaning interval counter.

22. [1 min]
    Check the Alarm Status at the top of the screen. If there are alarms, enter `DISPLAY ALARMS at the command line` and take the appropriate action to remove the alarms. Consult *DEFINITY AUDIX System — Maintenance,* 585-300-110 for information on removing alarms.

23. [10 min]
    Call the DEFINITY AUDIX system and log in as a subscriber. Verify that the DEFINITY AUDIX system is in service and working properly; create, send, and retrieve a message.

24. [1 min]
    Remove the language set tape. Insert a customer backup tape to be used for the automated saves.

25. [10 min]
    Run ADD TAPE to equip the tape. Enter a new volume name in the Volume Name field. (The new volume name must be different from the name already in this field, if any.)

26. Press [RETURN] to invoke the add-tape operation. Ignore any warnings about releases not matching. Check the status of the ADD TAPE operation using the STATUS TAPE screen. When the ADD TAPE operation is complete, the STATUS TAPE screen will show `In service, idle`. Check the status of the LEDs and State Exceptions.

27. For any upgrade (except when the release is already at R3.2) to work correctly, the **Transfer Dialplan** information must be administered before the first nightly backup. If this is not done, after the backup is run, the DEFINITY AUDIX will not allow call transfer to work. Refer to the *DEFINITY AUDIX System R3.2 Screens Reference,* 585-300-211 for information on administering this screen.

28. Run DISPLAY TAPE to verify that the backup tape Software Release is now `Release 3.2`.

29. If the administration alarm, A, appears on the status line, clear the alarm by running DISPLAY ADMINISTRATION-LOG and pressing [ENTER] (F3).

    The administration alarm should now be gone from the status line. If the command prompt fails to appear, press [CANCEL].

30. [5 min]
    Run SAVE NIGHTLY.

    When the administration alarm, A, appears on the status line, run DISPLAY ADMINISTRATION-LOG. If the SAVE NIGHTLY operation was successfully completed, `save manual_nightly passed` will be displayed.

31. [5 min]
    Run SAVE WEEKLY. When the administration alarm, A, appears on the status line, run DISPLAY ADMINISTRATION-LOG. If the SAVE WEEKLY operation was successfully completed, `save manual_weekly passed` will be displayed.
32. Enable alarms by entering ENABLE ALARM-ORIGINATION.
33. If you do not have to install Intuity Message Manager, enter **logoff** to log off the system. If Intuity Message Manager is going to be installed, continue with the *After the Upgrade* section of this document.

This completes the procedure for the R3.2 software upgrade.

After the Upgrade

If Intuity Message Manager is part of the R3.2 upgrade, the language sets must be added. Continue through the following sections.

Installing, Administering, and Testing Intuity Message Manager

Perform the following steps to install, administer, and test Intuity Message Manager. The LAN administrator should be present.

NOTE:
A 10BaseT twisted pair LAN cable with a male RJ-45 connector must be present at the wall field before Intuity Message Manager can be in tested. This is the customer's responsibility. AT&T will install the Intuity Message Manager to the demarcation point, but cannot test until this twisted pair is installed.

The connector can be no farther than 25 feet from the back of the switch where DEFINITY AUDIX resides. Confirm with the LAN administrator prior to the software upgrade that a connection is available.

1. Remove the top of the104A connecting block.

   Inside, eight wires must be hard-connected across the two mounting blocks , as shown in Figure 7-3, *104A Mounting Block*. Four protector caps snap over the top of the mounting blocks

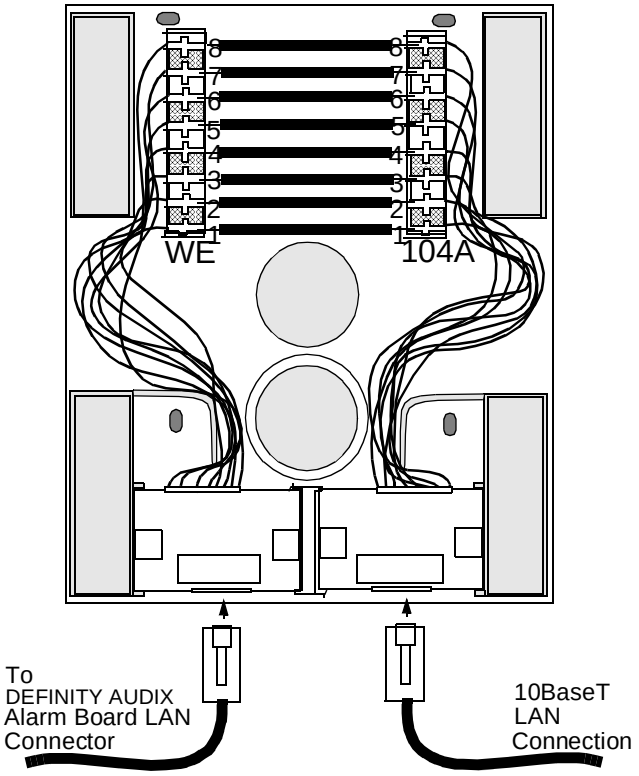


Figure 7-3. 104A Mounting Block

2. Mount the 104A connecting block on the wall field.
3. Connect the RJ45 10BaseT LAN connector into one of the connections at the bottom of the 104A connecting block.
4. Connect one end of the D8W modular wall cord supplied with the upgrade kit into the other connection at the bottom of the 104A connecting block.
5. Connect the other end of the D8W modular wall cord into the Alarm Board RJ45 connector.

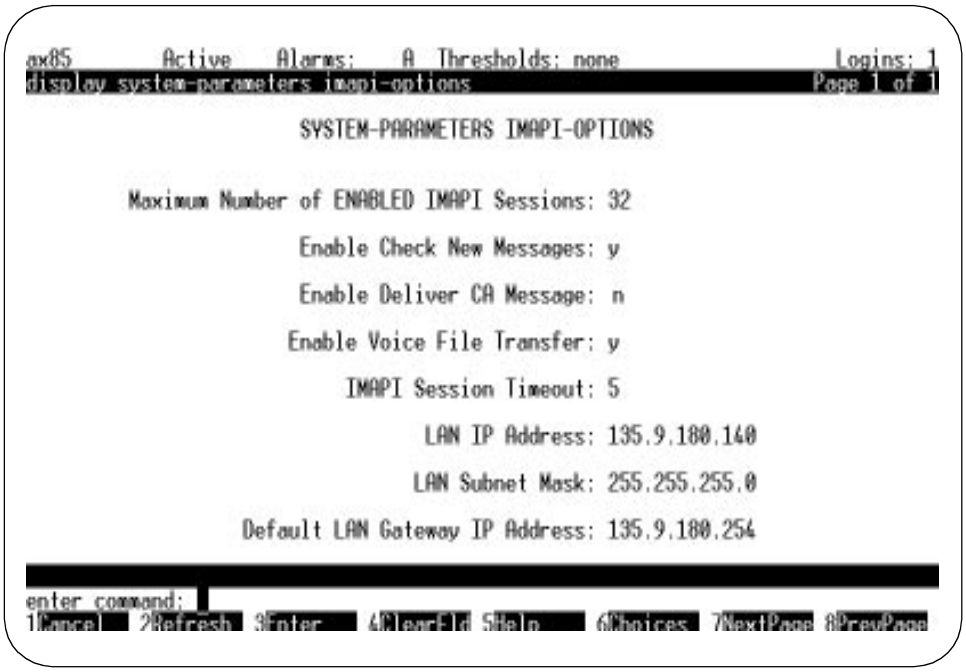
NOTE:
Joint Acceptance Testing is required by both the customer and the AT&T installer. Acceptance Testing is performed at the end of the installation. This demonstrates that installation was successful. AUDIX Server Testing is also performed at this time.

6. Prior to activating and installing the LAN options that will allow Intuity Message Manager to work, the LAN administrator must do *one* of the following:
   - — Add the AUDIX host name to the network domain name server
   - — Create a host file on each PC, typically under the **\net\tcp\hosts** directory
   - — Do neither of the above if using a numeric IP address
7. With the cursor on the DEFINITY AUDIX command line, enter **display system-parameters customer options**. The system displays the System-Parameters Customer-Options screen.

```
dRMrB20     Active    Alarms:  MWH  Thresholds: none                  Logins: 2
display system-parameters customer-options                          Page 1 of 2
                        SYSTEM-PARAMETERS CUSTOMER-OPTIONS

                             Port Emulation Type: tn754

                           Switch Integration Type: display-set

                     Maximum Number of Voice Ports: 8

          Maximum Number of Digital Networking Ports: 2

                           AMIS Analog Networking? y

                                      Multilingual? n

                   Maximum Number of IMAPI Sessions: 32

                   Hours of Voice Storage Purchased: 6
                                Total Hours on Disk: 6

enter command: display system-parameters customer-options
1Cancel  2Refresh  3Enter  4ClearFld 5Help  6Choices  7NextPage 8PrevPage
```

8. If the Maximum Number of IMAPI Sessions: field does not say **32**, contact the TSO. They will have to enter **32** using the *init* login.
9. When the Maximum Number of IMAPI Sessions: is **32**, enter **change system-parameters IMAPI-options**.

The system displays the System-Parameters IMAPI-Options screen.



The Maximum Number of ENABLED IMAPI Sessions field should be set to **32**.

10. Set the Enable Check New Messages field to **y**.

    This allows clients to check for new messages without the overhead of logging in. If left at **n,** automatic new message notification from Intuity Message Manager is disabled.

11. Set the Enable Deliver CA Message field to **n**.

    Entering **y** enables the public class-of-service function allowing messages to be delivered over the LAN interface. This feature is not used in Intuity Message Manager Release 1.0.

12. Set the Enable Voice File Transfer field to **y**.

    This enables the use of the personal folder in Intuity Message Manager and also voice file transfer for all subscribers who have `IMAPI Voice File Transfer enabled`.

13. Set the IMAPI Session Timeout field. to **5**.

    This is the amount of time that a session can be inactive before the user is logged out of the mailbox. Intervals may be set in five-minute increments from 5 to 60 minutes. Leave at **5**. After being logged out, the user still has an active TCP/IP connection to the AUDIX server.

14. Move the cursor to the LAN IP Address field, and enter the number assigned to the AUDIX server by the LAN administrator.

    The site-specific address is expressed as *nnn.nnn.nnn.nnn*, each *nnn* representing a decimal integer between 1 and 126, or 128 and 254.

15. Move the cursor to the LAN Subnet Mask field, and enter the Subnet Mask for your network. The LAN administrator has this data.

16. Move the cursor to the Default LAN Gateway IP Address field, and enter the LAN IP Address supplied by the LAN administrator.

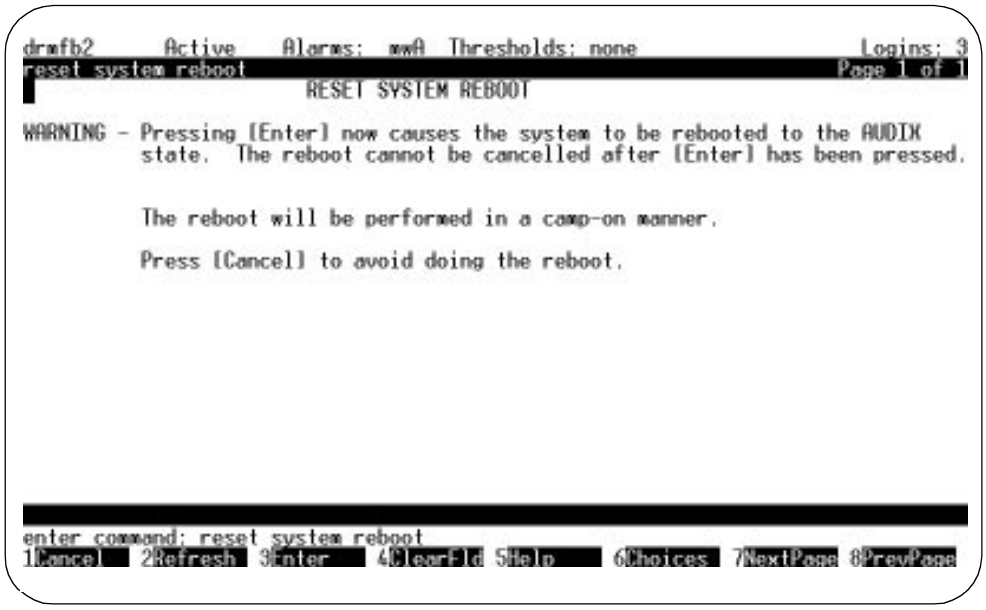
    This is the LAN server address to which all unknown addresses will be sent for resolution.

17. Press the ENTER (F3) function key to save the changes. (Changes in the IP address, subnet mask, and gateway IP address fields only take effect after the AUDIX system has been rebooted. Rebooting is done later.)

18. Ensure that the IMAPI Access field for Intuity Message Manager and the IMAPI Voice File Transfer field for a personal folder are set to **y**.

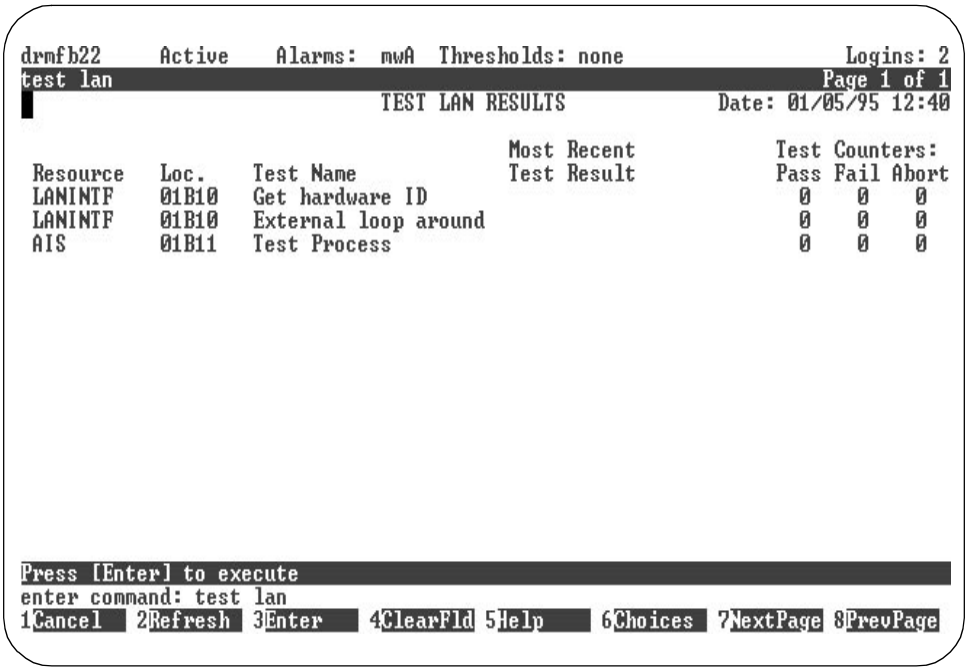
19. With the cursor on the DEFINITY AUDIX command line, enter **reset system reboot.**

    The system displays the Reset System Reboot screen



20. Press the ENTER (F3) function key to begin the reboot. Wait approximately 10 minutes for the DEFINITY AUDIX system to come up to the AUDIX state the screen will display `OLDTRACELOG=/var/spool/audix/oldtrace`

21. Log in as **craft.**
22. With the cursor on the command line, enter **test lan.** The following screen will appear.



23. Press the ENTER (F3) function key to begin the test. The test takes up to 2½ minutes to run.

    If any of the individual tests fail or abort, refer to *DEFINITY AUDIX System — Maintenance* book, 585-300-110. If there are problems with the network itself, the LAN system manager will have to resolve these problems before proceeding with this test.

24. To test if a connection can be made to an Intuity Message Manager user or other LAN node, enter **test lan dest** and the IP numerical address (in the form *nnn.nnn.nnn.nnn*) on the screen. Press the ENTER (F3) function key.

    If the connection is made, a UNIX success message is returned. The test takes approximately 15 seconds. If the test fails, refer to *DEFINITY AUDIX System — Maintenance* book, 585-300-110. If any connection or login fails, discuss the LAN connection with the LAN administrator. This person is responsible for all aspects of the LAN and will ensure that it is problem-free. Follow the troubleshooting guidelines in the *Intuity Message Manager User's Guide*, 585-310-725.

25. This is an Optional step.

    If Intuity Message Manager has been enabled, have several customers use the Intuity Message Manager system. They should be able to log into their mailbox, play a new message, and reply to sender. (For more detail, see the *Intuity Message Manager User Guide,* 585-310-725.)

Announcement Set Considerations and Installation

A

This appendix describes customized announcement and fragment considerations, and the installation of additional language sets.

Customized Announcement and Fragment Considerations

DEFINITY AUDIX R3.2 standard and abbreviated announcements are installed during an upgrade. There have been no changes to announcements between releases 3.1 and 3.2. Any announcements or fragments, however, added or changed by the customer in a release prior to 3.1 will be saved in a new announcement set. This set retains the same directory name with an additional ***.cust** suffix. All other announcements and fragments on the system are removed by the upgrade procedure.

NOTE:
The name of the directory where the customized announcements will be stored is limited to 14 characters. Should the current name be more than 9 characters, the **.cust** appendix will be cut short.

If a customer has customized an announcement set, they must either rerecord the customized fragments or follow the guidelines which follow. They should have a list of all the fragments and announcements they have added, changed, or deleted.

Customer Modified Announcements

Normally, announcements are not added or deleted but are often modified by the customer. If additions or deletions were made, Tier 3 engineers should be contacted. For modified announcements, the customer should consider the viability of using them in the upgrade. The following question must be considered:

Did the standard announcement change from R1.0/R2.0/R3.0 to R3.2?

This question can be answered by examining the contents of the modified announcement and all fragments called by that announcement. If the customer decides the modified announcement will work in a meaningful way, it can then be copied to the announcement set being used.

Customer Modified and Added Fragments

Does it make sense to use a customized fragment with the later announcement sets? It is possible the official fragment has changed and the customer's version may not make sense each time and place the official fragment is used. If it can no longer be used effectively, the customer should delete it from the ***.cust** directory.

If the customer desires to reuse the fragment, they must assign it to an unused number in the 4000-4999 range reserved for customer use. It can then be copied to the desired announcement set.

Announcement Set Identifiers

The following table lists the names assigned to representative announcement sets available to DEFINITY AUDIX users. Note that names of the verbose (standard) sets can be no longer than eight characters in length.

The names in the first column appear on the actual cassette tape labels and are used on the DEFINITY AUDIX screens for *add announcements*, *list announcements*, and so forth. See the procedure below for installing additional language sets.

The numbers in the second column are the touch-tone equivalents for the R3.2 announcement set names. These codes are used only by the system administrator. Note that the hyphens in the numbers are ignored.

The recorded words in the third column are the language's self-identifying announcement used by the Multilingual feature. These are stored in *Announcement #1143*.

The recorded words in the fourth column are announcement set identifiers used when system administrators edit announcement sets. For all announcement sets, these names are played in *Announcement #855*.

NOTE:
The following table offers a representative list of announcements. The list of available announcements constantly changes. Contact your AT&T representative for an up-to-date list.

Announcement Set Names	Touch-Tone ID	Multilingual Self-ID Announcement	Administration Self-ID Announcement
us-eng (standard)	87364	"English"	"Standard US English" ("Standard American")
us-eng-t (terse)	873648	"English"	"Terse US English" ("Terse American")
us-123 (123stand)	87123	"English"	"123 Standard US English" ("123 Standard American")
british (british)	2748474	"English"	"British-English" ("British-English")
lat-span (lat-span)	5287726	"Español"	"Español" ("Latin-Spanish")
french-c (french-c)	3736242	"Francais"	"Canadien Francais" ("Canadien Francais")
us-tdd	87833	"TDD ENGLISH"	Standard U.S. TDD
dutch	38824	"Nederlands"	"Nederlands"
german	437626	Deutsch	Deutsch
portug	767884	Português	Português

Installing Additional Language Sets

Perform the following procedure to add new language sets to a DEFINITY AUDIX system. Each language set is provided on its own tape.

1. Inform subscribers through a broadcast message that the DEFINITY AUDIX system will be taken off the line for possibly a half hour.
2. Log in to the DEFINITY AUDIX System on the administration terminal as **craft**.
3. Bring the system to the Operations, Administration, and Maintenance (OA&M) state by typing **reset system oa&m** and pressing RETURN. Use the *camp-on* option to allow any callers to complete their messages.
4. Remove the backup tape and insert the new language tape.

5. Type **add tape** and press RETURN. The add operation takes approximately 15 seconds and is done in the background. When the operation is complete, the Status Tape screen will show `In service, idle`.
6. Restore the new language set onto the disk by typing **restore backups** and pressing RETURN. To confirm this operation, press RETURN again.
7. Type **remove tape** and press RETURN. Remove the new language tape and insert the original backup tape.
8. If more than one language set is being added to the system, repeat steps 4 through 7 with each new language tape.
9. Bring the system back to the AUDIX state by typing **reset system restart** and pressing RETURN.

Option Settings

B

This appendix contains a list of option settings for supported terminals and modems. However, this appendix does not provide procedures for setting the options. Refer to the appropriate manual supplied with the terminal and modem for these procedures.

Terminal Option Settings

This section lists the option settings for the following administration/maintenance terminals:

- PC using G3MA software
- 715 BCT
- 513 BCT
- 610 BCT with 513 emulation
- 615 BCT with 513 emulation
- 4410/5410
- 4415/5420
- 4425/5425

PC/G3MA User Option Settings

Table B-1. PC with G3MA User Option Settings

Option	Setting
Color	**default** (original screen colors) **customized** (redefined colors) **lcd** (for laptop/notebook screens) **monochrome** (without color)
Mouse speed	**slow**, **medium**, **fast**
Beep tone	**yes**, **no**
Flashing line?	**yes**, **no**
Operating system	**DOS, UNIX**

715 BCT Option Settings

Table B-2. 715 BCT User Preference Option Settings

Option	Setting
Lines	24
Columns	80
Reverse video	no
Screen saver	30 minutes
Scrolling	jump
Scroll speed	
Labels	on
Key click	off
Warning bell	on
Font size	large
Parallel port	enabled

Assumes a direct connect or a 9600 baud modem.

Table B-3. 715 BCT Communication Option Settings

Option	Main Setting (Switch)	Aux Setting (Audix)
Port mapping	**port 1**	**port 2**
Port service	**host**	**host**
Speed	**4800**	**9600**[1]
Stop bits	**1**	**1**
Data bits	**7**	**7**
Send parity	**space**	**space**
Check parity	**no**	**no**
Local Echo		**off**
Encoding		**off**
Generate flow	**XON/XOFF**	**XON/XOFF**
Receive flow	**XON/XOFF**	**XON/XOFF**[2]
XOFF at	**240**	**240**
Transmit limit		**no**
Answerback on connect		**no**
Clear communication port	**main**	**aux**

1. Assumes a direct connect or a 9600 baud modem.
2. This option may be set to *none*.

Only the options shown in bold type are critical to terminal operation.

Table B-4. 715 BCT General Option Settings

Option	Window 1 (Switch)	Window 2 (Audix)
Emulation	**BCS**	**BCS**
Terminal ID	**BCS**[1]	**BCS**
Newline on LF	**no**	**no**
Transmit controls	**7 bits**	**7 bits**
Backspace mode	**normal**	**normal**
User features	**unlocked**	**unlocked**
Conceal answerback	**no**	**no**

1. This option may be set to *track*

Only the settings shown in bold type are critical to terminal operation.

Table B-5. 715 BCT Display Option Settings

Option	Window 1 (Switch)	Window2 (Audix)
Monitor mode	**off**	**off**
Cursor type	**block**	**block**
Cursor blink	**on**	**on**
Display cursor	**yes**	**yes**
Status line position	**bottom**	**bottom**
Status line type	**host**	**host**
Character mode	**multnatl**	**multnatl**
International font	**ISO Latn**	**ISO Latn**
Autowrap	**on**	**on**

Only the settings shown in bold type are critical to terminal operation.

Table B-6. 715 BCT Keyboard Option Settings

Option	Window 1 (Switch)	Window 2 (Audix)
Caps/Shift lock key	**caps lck**	**caps lck**
RET	**CR**	**CR**
Enter key	**ent**[1]	
Autorepeat	**yes**	**yes**
Margin bell	**yes**	**yes**
Compose key	**enabled**	**enabled**
Break key	**enabled**	**enabled**
Keyboard language	**US**	**US**
Numeric pad	**numeric**	**numeric**
Cursor keys	**normal**	**normal**
Swap delete	**yes**	**yes**
Control key swapping	**none**	**none**
Legends		
User defined keys		
Backspace key	**BS**	**BS**

1. This option may be set to ESC S B

Only the settings shown in bold type are critical to terminal operation.

When installing a serial printer, set the options on the printer as described in the manual supplied with the printer then set the corresponding terminal options to match.

When installing a 473/474 parallel printer, set the printer options below.

Table B-7. 715 BCT Printer Option Settings

Option	Window 1 (Switch)	Window 2 (Audix)
Select print region	**page**	**page**
Print mode	**normal**	**normal**
Print terminator	**none**	**none**
Printer type/driver	**BCS**	**BCS**
Printer alarm	**no**	**no**
Printer to host	**no**	**no**

513 BCT Option Settings

Table B-8. 513 BCT Terminal Option Settings

Option	Setting
Speed	**9600**
Duplex	**full**
Send parity	**space**
Check parity	**no**
Memory access	scroll
Clock	**async**
Return key	**CR**
Newline on LF	no
Autowrap	on
Cursor	steady
Key click	off
Margin bell	off
Transmission	**char**
Columns	80
Send from	cursor
Send edit seq	**yes**
Send graphics	**no**
Enter key	**Esc-S-B**
Block terminator	
Answerback	

Only the settings shown in bold type are critical to terminal operation.

For the 513 BCT Auxiliary Printer, set the options on the printer as described in the manual supplied with the printer, then set the corresponding options on the terminal to match.

610 BCT with a 513 Emulation Package Option Settings

Table B-9. 610 BCT with 513 Emulation Package Option Settings

Option	Setting
I/O card	idle
Speed	**9600**
Send parity	**space**
Check parity	no
Local echo	off
Monitor mode	off
Autowrap	**on**
Newline on LF	**no**
Return key	CR
Enter key	**Esc-S-B**
Cartridge	**used**
Columns	80
Scrolling	jump
Reverse video	no
Volume	4
Key click	off
Cursor type	block
Cursor blink	no
Labels	on

Only the settings shown in bold are critical to terminal operation.

615 BCT with a 513 Emulation Package Option Settings

Table B-10. 615 BCT with 513 Emulation Package Option Settings

Option	Setting
I/O card	idle
Speed	**9600**
Send parity	**space**
Check parity	no
Local echo	off
Encoding off	
Generates flow	on
Receive flow	off
Pass flow	yes
Monitor mode	off
Autowrap	**on**
Newline on LF	**no**
Return key	CR
Enter key	**Esc-S-B**
Cartridge	**used**
Columns	80
Scrolling	no
Reverse video	no
Volume	4
Key click	off
Scrolling	jump
Scroll speed	med
Cursor type	blck
Cursor blink	no
Labels	on

Only the settings shown in bold are critical to terminal operation.

4410 and 5410 Terminal Option Settings

Table B-11. 4410/5410 Option Settings

Option	Setting
Speed	**9600**
Parity	**space**
Duplex	**full**
Screen	80
Return key	**CR**
Rec'vd LF	index
Labels	on
Monitor mode	off
Key click	off
Autowrap	on
Cursor	block
Built-in modem	**no**

Only the settings shown in bold type are critical to terminal operation.

4425 and 5425 Terminal Option Settings

Table B-12. 4425/5425 Terminal Option Settings

Option	Setting
Speed	**9600**
Duplex	**full**
Send parity	**space**
Check parity	**no**
132 Columns	off
Memory access	scroll
Clock	**async**
Wait for DSR	no
Return key	**CR**
Newline on LF	no
Autowrap	on
Cursor	steady
Key click	off
Margin bell	off
Dialer	no
Answer on connect	no
Transmission	**char**
Line send	keyed
Block send	unprot
Send from	cursor
Edit keys	**send**
Send attributes	**no**
Autoanswer	no
VT 52	no
Enter key	**Esc-S-B**
Field separator	
Block terminator	
Answerback	

Only the settings shown in bold type are critical to terminal operation.

For auxiliary printer option settings on the 4425/5425, set the options on the printer as described in the manual supplied with the printer, then set the corresponding options on the terminal to match.

4415 and 5420 Terminals

Table B-13. 4415/5420 Terminal Option Settings

Option	Setting
Speed	**9600**
Duplex	**full**
Send parity	**space**
Check parity	**no**
132 columns	**off**
Memory access	**scroll**
Clock	**async**
Return key	**CR**
Newline on LF	**no**
Autowrap	**on**
Cursor	**steady**
Keyclick	**off**
Margin bell	**off**
Keyboard model	**5420**
Transmission	**char**
Line send	**keyed**
Block send	**unprot**
Send front	**cursor**
Send edit seq	**yes**
Send graphics	**no**

For auxiliary printer options, set the options on the printer as described in the manual supplied with the printer, then set the corresponding options on the terminal to match.

Modem Option Settings

AT&T 2400 Modem Option Settings

The AT&T 2400 Modem is shipped from the factory with default option settings. Some of the default settings may not be appropriate when this modem is used with the DEFINITY AUDIX System. You should set the options at your terminal as described below.

You should set the options listed in the table in the following section, *Software Settings*. To do this, the modem must be in the *command* mode, which is determined by the position of a jumper switch located inside the front endcap of the modem. The jumper switch has two settings: command (*smart*) mode, and noncommand (*dumb*) mode. The jumper switch set to command mode when the modem is shipped from the factory, but it must be set to noncommand mode for use with the DEFINITY AUDIX System.

If the jumper switch is already set to the noncommand mode, you must move it to the command mode before setting the options at the terminal. The Jumper Setting section below describes how to access and change the jumper plug setting.

Software Settings

To set the options, the modem must be connected to a terminal (for example, the 715 BCT) with the terminal speed set at 2400 bps.

All the factory default option settings, except transmission speed, should be appropriate for the DEFINITY AUDIX System. With the jumper switch set to command mode (factory default), enter the following option commands at the terminal.

Option Command	Meaning
at&z0	Set factory defaults from user profile 0
ats37=6	Connect at either 1200 or 2400 bps (automatically selected)
at&w1	Save settings in user profile 1
at&y1	Invoke settings in user profile 1 on power up

Jumper Setting

A jumper switch is located inside the front endcap of the modem. The jumper must be set to the command mode when setting the options listed in the previous section. After setting the options, the jumper must be set to the noncommand mode for normal operation with the DEFINITY AUDIX System.

To access the jumper switch, the front endcap of the modem must be removed. First turn off the modem and disconnect it from the power source, the telephone line, and the computer.

⚠ CAUTION:

Before removing the modem's endcap, always unplug the telephone line and turn off power to the modem. If a telephone is plugged into the PHONE jack on the modem's rear panel, remove it. Do not operate the modem without the endcaps or housing in place. Doing so may expose electrically live parts and create a safety hazard.

To remove the front endcap, first insert a screwdriver under the front-endcap tab located on the side of the modem. Twist the screwdriver slightly to loosen the tab and then remove the endcap.

Figure B-1, Modem Front View, shows the jumper pins and the jumper plug in a front view of the modem with the endcap removed.

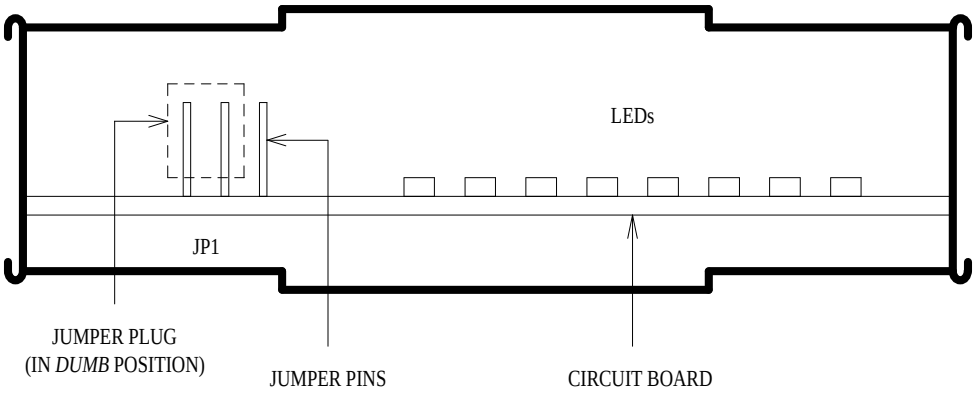


Figure B-1. Modem Front View

There are three jumper pins (labeled *JP1*) on the left side of the circuit board. When the jumper plug connects the *left* and middle pins (as shown in the figure), the modem is in the noncommand (*dumb*) mode. When the jumper plug connects the *right* and middle pins, the modem is in the command mode (the factory setting). To change the jumper setting, lift the plug up until it clears the pins (the plug may have to be tilted outward to clear the top of the housing); then slide the plug down on the middle pin and the other end pin. Replace the endcap, reconnect the telephone wire and computer cable, and plug in the power cord.

For more details on setting options for the AT&T 2400 modem, see the booklet that is packaged with the modem.

Paradyne DataPort Express Modem Option Settings

Connect the modem to a terminal (for example, the 715 BCT) with the terminal speed set at 9600 bps. The maximum modulation data rate must be set to 9600 bps when this modem is connected to DEFINITY AUDIX. Enter **AT** to get the OK prompt, then enter the following string:

AT%B9600S2=128&W0

This command sets maximum rate to 9600, writes this setting to modem profile 0, and locks out the escape character.

Paradyne COMSPHERE 3820 Modem Option Settings

Change the following options from their defaults. Only the options that require changing are listed — leave the defaults for all others.

- Change Async DTE Rate to 9600 (default = 19200)
- Change DTR Action To Stndrd_RS232 (default = ignore)

Paradyne COMSPHERE 3830 Modem Option Settings

Connect the modem to a terminal (for example, the 715 BCT) with the terminal speed set at 2400 bps. Enter **AT** to get the OK prompt; then enter the following string to set the modem to noncommand (dumb) mode:

AT&D2Q1&W0

No other option settings are necessary.

DM424 Modem Option Settings

Change the following options from their defaults. Only the options that require changing are listed — leave the defaults for all others.

- On the DEFINITY AUDIX system PORT A* modem, set the modem to the Answer Only Mode of Operation (refer to the manual supplied with the DM424 modem for details)
- Also, set switch 2 to the ON position (modem does not recognize AT commands; dumb mode)
- After setting switch 2, turn the modem off then back on.

DM224 Modem Option Settings

To set the options, the modem must be connected to a terminal (for example, the 715 BCT) with the terminal speed set at 2400 bps.

Change the following options from their defaults. Only the options that require changing are listed — leave the defaults for all others.

- Set AT&C1 — DCD follows real carrier (it is not asserted all the time)
- Set AT&D2 — Modem hangs up and returns to command state after DTR changes from active to inactive (autoanswer is disabled as long as DTR is not active)
- Set S0=1 — Answer after one ring (the default, 0, specifies don't answer)
- Set ATV1 — Results from the modem are ASCII strings Save these changes to both profiles via at&w0 and at&w1.

212AR Modem Option Settings

Set the switches on the 212AR modem as follows:

Option Switch	Rocker Number 1-N (O=Open, C=Closed	
S1	COC	
S2	CCOOOCCOO	
S3	CCCCOOCO	Option Straps
S4	OO	

Also, make sure you press the HS button on the front of the 212AR modem.

NOTE:
This modem can be used only at 1200 baud. Make sure you set the terminal option accordingly.

2212D Modem Option Settings

Set the switches on the 2212D modem as follows:

Option Switch	Rocker Number 1-N (O=Open, C=Closed)
S1	OOOCCCCC
S2	OOOO

Also, make sure you press the HS button on the front of the 2212D modem.

NOTE:
This modem can be used only at 1200 baud. Make sure you set the terminal option accordingly.

MPDM Data Module Option Settings

This data module can be connected to PORT A for CL integration, or to either PORT A or PORT B for DS integration. The option settings depend on the whether the DEFINITY AUDIX system is running DS or CL integration.

DS Integration

Set the following MPDM options to the **ON** switch position if running DS integration:

- 1200 (baud rate)
- 9600 (baud rate)
- FDX
- ASYN
- EXT
- DISC
- AANS
- EV (Parity)
- Set all other options to **OFF**

CL Integration

Set the following MPDM options to the **ON** switch position if running CL integration:

- 9600 (baud rate)
- SYN
- INT
- AANS
- Set all other options to **OFF**

7400A Data Module Settings

In the *set interface* option menu, set the ANS ONLY? option to **YES**. Then select the following options:

Option	Setting
BAUD RATE	1200 and 9600
ANS	AUTO
BRK DISK	LONG
CI	OFF
CH	OFF
CTS	ON
DCD	NORMAL
DSR	ON
DTR	50 Msec
DTR	FOLLOW
LL	OFF
REMLOOP	GRANT
RI	ON
RL	OFF
SIGLS DISC	OFF
TM	OFF
DONE	YES

See *7400A Data Module User's Manual*, 555-020-706 for instructions on how set options on the 7400A data module.

7400B Data Module Settings

Set the two dip switches located under the top panel of the 7400B data module as follows:

- SW1-1:
  - — Set to ON if a telephone is *not* attached to the 7400B
  - — Set to OFF if a telephone *is* attached to the 7400B
- SW1-5: 0set to ON

See *7400B Plus Data Module User's Guide*, 555-020-710 for instructions on how set options on the 7400B data module.

PEC Explosions

C

This appendix contains a list of Price Element Codes (PEC) for primary and optional components comprising the DEFINITY AUDIX System.

Complete System

Table C-1. Identifiers for Complete System

Description	PECs and Attributes
DEFINITY AUDIX Package (See individual items in Table A-2)	PECs 7021-D05 New paired with 40 hour disk, 5 hour RTU and 2 port RTU 7021-A05 Aftermarket paired with 40 hour disk, 5 hour RTU and 2 port RTU 7021-U05 PBX Upgrade paired with 40 hour disk, 5 hour RTU and 2 port RTU 7021-S05 paired with 40 hour disk, 5 hour RTU and 2 port RTU for try-it, buy-it sales with G3s 7021-T05 paired with 40 hour disk, 5 hour RTU and 2 port for try-it, buy-it sales with G3s 7021-D99 Front market 1.05 Gigabyte Disk, 600 Megabyte Tape Drive, 5 hour RTU, 2 port RTU 7021-A99 Aftermarket 1.05 Gigabyte Disk, 600 Megabyte Tape Drive, 5 hour RTU, 2 port RTU 7021-U99 PBX Upgrade 1.05 Gigabyte Disk, 600 Megabyte Tape Drive, 5 hour RTU, 2 port RTU 70730 reserves 5 slots in the G3 PBX for try-it, buy-it sales
G3s Advantage Bundles	PECs: 6308-J8A Analog 1 cabinet 40 hour disk, 5 hour RTU and 2 port RTU for Advantage 6308-J8B Analog 2 cabinet 40 hour disk, 5 hour RTU and 2 port RTU for Advantage 6308-J8C Analog 3 cabinet 40 hour disk, 5 hour RTU and 2 port RTU for Advantage 6308-K8A Digital 1 cabinet 40 hour disk, 5 hour RTU and 2 port RTU for Advantage 6308- K8B Digital 2 cabinet 40 hour disk, 5 hour RTU and 2 port RTU for Advantage 6308-K8C Digital 3 cabinet 40 hour disk, 5 hour RTU and 2 port RTU for Advantage

Continued on next page

Table C-1. Identifiers for Complete System — *Continued*

Description	PECs and Attributes
G3s Premier Bundles	PECs: 6308-L8A Digital 1 cabinet 40 hour disk, 5 hour RTU and 2 port RTU for Premier 6308-L8B Digital 2 cabinet 40 hour disk, 5 hour RTU and 2 port RTU for Premier 6308-L8C Digital 3 cabinet 40 hour disk, 5 hour RTU and 2 port RTU for Premier 6308-L8AU Digital 1 cabinet PBX Upgrade 40 hour disk, 5 hour RTU and 2 port RTU for Premier 6308-L8BU Digital 2 cabinet PBX Upgrade 40 hour disk, 5 hour RTU and 2 port RTU for Premier 6308-L8CU Digital 3 cabinet PBX Upgrade 40 hour disk, 5 hour RTU and 2 port RTU for Premier **NOTE:** Use 5 hour RTU increments for the 15 hour packages. Attributes (for either G3s Advantage or Premier Bundles): ALB01 — TN2169 without Optical Isolator (for AC-powered switch) ALB02 — TN2170 without Optical Isolator (for AC-powered switch) ALB03 — TN2169 with Optical Isolator (for DC-powered switch) ALB04 — TN2170 with Optical Isolator (for DC-powered switch)
Packages to Support Larger Disk and Tape Drive	PECS 7021-D99 New 1.05 Gigabyte Disk, 600 Megabyte Tape Drive, 5 hour RTU, 2 port RTU 7021-A99 Aftermarket 1.05 Gigabyte Disk, 600 Megabyte Tape Drive, 5 hour RTU, 2 port RTU 7021-U99 PBX Upgrade 1.05 Gigabyte Disk, or 100 hours, 600 Megabyte Tape Drive, 5 hour RTU, 2 port RTU

Primary Equipment

Only the multifunction board, alarm board, disk and tape drives listed in the following table are stocked regionally; cables and miscellaneous parts must be ordered directly from the factory.

Table C-2. Identifiers for Primary Hardware

Description	PEC	Comcode, ED/H/J Drawing	Qty	Notes
TN566B MFB	70494	107 083 651 ED1E54670 G-14	1	Included in basic package listed in Table A1, or can be ordered separately.
TN567 MFB	70571 70571A	103 281 754 ED1E54670 G-15		
TN567 board	70571			Front market
1.02 Gigabyte disk, 600 Megabyte Tape Drive	70572	407 306 851 407 306 984 Cable H600 344 Group 1		Front market Paired with a cable
40 hour disk	70573	Cable H600 344 Group 1		Front market Paired with a cable
TN567 board	70571A			Aftermarket
1.02 Gigabyte Disk, 600 Megabyte Tape Drive	70572A			Aftermarket
40 hour disk	70573A			Aftermarket
M7U Cable	70574			For connection of the 7400A data module and the Paradyne modem
H600-258 Cable	70575			For connection of the ADU and the Paradyne modem
Blank tapes for the 600 Megabyte tape drive	70224			

Continued on next page

Table C-2. Identifiers for Primary Hardware — *Continued*

Description	PEC	Comcode, ED/H/J Drawing	Qty	Notes
	70572			New 1.05 GigabyteDisk, 600 Megabyte Tape Drive
	70572A	ED1E54670 G-9	1	Aftermarket 1.05 Gigabyte Disk, 600 Megabyte Tape Drvie
40-Hour Disk Drive	70573	407 260 256 ED1E54670G-8		New 40 hour disk
	70573A	407 260 256 ED1E54670G-8		Aftermarket 40 hour disk
TN2169 ALB		106 433 063 ED1E54670 G11	1	Choice of alarm board included in basic package listed in Table A1, or can be ordered separately.
TN2170 ALB	70493	106 433 071 ED1E54670 G(TBD)	1	
	70573	406740613 ED 1E54670 G-8	1	
				5 hours for 10-29 hours
				5 hours for 30-49 hours
				5 hours for 49+ hours
160 meg Tape Drive		406 680 884 ED1E54670 G-1	1	Included in basic package listed in Table A1, or can be ordered separately.
Tape Drive Shield		846 906 089	1	

Continued on next page

Table C-2. Identifiers for Primary Hardware — *Continued*

Description	PEC	Comcode, ED/H/J Drawing	Qty	Notes
H 600-258 Cable	70575	601 448 640		12 Inch
SCSI Bus Cable		H 600-344, G1	2	
Interboard Bus Cable		H 600-345, G1	1	
Power Cable		H 600-343, G1	1	
Drive Mounting		846 777 407	2	
Retaining Pins (2 per drive)		846 777 324	4	
MFB Two-Way Splitter Cable		H 600-352, G1	1	
ALB (TN2169) Two-Way Splitter Cable		403 864 150 H 600-353, G1	1	Cable matched to proper ALB. Included in basic package listed in Table A1, or can be ordered separately.
ALB (TN2170) Three-Way Splitter Cable	2720-06X	403 836 620	1	
104A Connecting Block		103 016 648	1	Included in basic package listed in Table A1, or can be ordered separately.
D8W Modular Wall Cord	2725-07S	103 786 828	1	
T2-380 Tape Cleaning Kit		406 680 868		
M-F Null Modem Cables		H600-258 G-1	2	
Assembly Kit, Includes:		846 873 693	1	Items included in basic package listed in Table A1, or can be ordered separately.
— Plastic standoffs		901 005 058	3	

Continued on next page

Table C-2. Identifiers for Primary Hardware — *Continued*

Description	PEC	Comcode, ED/H/J Drawing	Qty	Notes
—Screws, machine slotted hex—SEMS .138-32x5/16		406 546 176	3	
—Screws, machine slotted hex—SEMS .138-32x3/16		406 580 837	4	
—Screws, pan head slotted—3C6 MSPZ (metric)		406 602 045	4	
—Cable ties		401 077 862	2	
—Retainer, spring tandem		846 751 766	1	
Blank Backup Tape	70422 (New) 70422A (Existing)	406 680 843 J58889VA1 L-1	2	Included in basic package listed in Table A1, or can be ordered separately
Blank Tapes	70224			
600 MB Tape drive		407 306 984 407 306 851		Tape drive 1.05 disk drive
Upgrade to 1.05 Gigabyte disk	70572A	ED1E54670-G-B		
Upgrade to 400 MB disk	70428A	ED1E54670 G-5		
AMIS Analog Networking	1253-DAA	107 094 617	1	

Continued on next page

Table C-2. Identifiers for Primary Hardware — *Continued*

Description	PEC	Comcode, ED/H/J Drawing	Qty	Notes
Opto-isolator attribute ISO 01		106 005 242	2	M-F RS-232 116A (DC-powered switch only)
Control Link direct-connect cable[1]	70441	H600-406 G1	1	Factory installed, 1.75 ft
		H600-406 G2	1	Upgrade, 7 ft
M-M RS-232 Group 311 cables:		601 087 075	2	5 ft (Attribute: LNG05)
		601 087 083	2	10 ft (Attribute: LNG50)
		601 087 091	2	20 ft (Attribute: LNG25D)
		601 087 109	2	30 ft (Attribute: LNG27)
		601 087 117	2	40 ft (Attribute: LNG28)
		601 001 365	2	50 ft (Attribute: LNG11)

1. Alternative control-link connections requiring different cables are possible. See Chapter 2, Task 8: Install the Control-Link Cable in the *DEFINITY AUDIX System Installation* manual for alternative specifications.

Table C-3. Identifiers for Primary Software

Description	PEC	Comcode, ED/H/J Drawing	Qty	Notes
RTU Additional Hours of Storage	1253-S10			5 hours for 10-29 hours
	1253-S30			5 hours for 30-49 hours
	1253-S50			5 hours for 49+ hours
	1253-S10A			5 hours for 10-29 hours aftermarket
	1253-S30A			5 hours for 30-49 hours aftermarket

Continued on next page

Table C-3. Identifiers for Primary Software — *Continued*

Description	PEC	Comcode, ED/H/J Drawing	Qty	Notes
	1253-S50A			5 hours for 49+ hours aftermarket
	1253-VPC			RTU credit for 5 hours
	1253 -VSU			RTU indicator for 5 hour blocks used in a DEFINITY AUDIX upgrade
	1253 VHC			PEC migration. Hours of storage for RTU credit for 5 hours
RTU Networking	1253-NET			Front market Right to Use for Digital Networking
	1253-NLW			Front market DEFINITY AUDIX RTU Low Speed Digital Networking Port
	1253-NHI			Front market DEFINITY AUDIX RTU High Speed Digital Networking Port
RTU DEFINITY AUDIX System R3.2 Software	1253-ADA		1	For existing DEFINITY or System 75 R!V3 switches (without accompanying upgrade to a DEFINITY G3 switch).
RTU DEFINITY AUDIX System R3.2 Software	1253-DDA		1	Front market or with a PBX upgrade pec paired with 70570
RTU Upgrade to R3.2 from R1.0, R2.0 or R3.0, R3.1.	1253-ZDA		1	Paired with 70570 (from any prior release)
RTU DEFINITY AUDIX System R3.2 Software	1253-ZDAP			DEFINITY AUDIX upgrade pec paired with 70570P (for promotions)

Continued on next page

Table C-3. Identifiers for Primary Software — *Continued*

Description	PEC	Comcode, ED/H/J Drawing	Qty	Notes
Software for new R3.2 systems. Includes program tape, installation, and documentation. (If an upgrade only, pair with 1253-ZDA only. Note that language attributes are different.)	70570		1	Paired with either 1253-DDA for a new system, or with 1253-ADA fo aftermarket system, or 1253 ZDA, which is the upgrade for R3.2. Includes one primary language, picked from the following by attribute: LAN01—British English LAN02—French LAN03—Canadian French LAN04—German LAN07—Dutch LAN09—Portuguese LAN10—Latin Spanish LAN15—Japanese LAN16—Standard American English (Default) LAN 18—American English 1-2-3 LAN19—Polish
R3.2 New program cartridge	70570			Paired with 1253-DDA, 1253-ADA, 1253-ZDA
Migrations form AUDIX, AUDIX Voice Power, ISIII, Merlin Mail	1253-MVP			Migration of AVP to DEFINITY AUDIX
	1253-DMM			Migration of Merlin Mail to DEFINITY AUDIX
	1253-MI3			Migration of ISII to DEFINITY AUDIX

Continued on next page

Table C-3. Identifiers for Primary Software — *Continued*

Description	PEC	Comcode, ED/H/J Drawing	Qty	Notes
	1253-MA5			Migration of AUDIX R1V5 to DEFINITY AUDIX
	1253-MA6			Migration of AUDIX R1V6 to DEFINITY AUDIX
	1253-MA7			Migration of AUDIX R1V7 to DEFINITY AUDIX
	1253-MA8			Migration of AUDIX R1V8 to DEFINITY AUDIX
	1253-AMC			Migration of AMIS RTU currently implemented on AUDIX, to be implemented on DA
	1253-NHC			Migration of networking high speed port RTU
	1253-NLC			Migration of networking low speed port RTU
	1253-VPC			Migration of voice port RTU
	1253-VHC			Migration of hours of storage RTU-Block of 5 hours
Additional Voice Ports	1253-DVP			New RTU for 2 ports
	1253-DVPA			Aftermarket RTU for 2 ports
	1253-NETA			Aftermarket Right to Use for Digital Networking
	1253-NLWA			Aftermarket Definity AUDIX RTU Low Speed Digital Networking Port
	1253-NHIA			Aftermarket Definity AUDIX RTU High Speed Digital Networking Port

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Table C-3. Identifiers for Primary Software — *Continued*

Description	PEC	Comcode, ED/H/J Drawing	Qty	Notes
Right To Use (RTU) for two additional voice ports on a *NEW* switch	1253-DVP	011 111 111	2	Two ports are included with basic package. Extra ports ordered separately.
RTU for Two Additional Voice Ports on an *EXISTING* Switch	1253-DVPA	011 111 111	2	
RTU for Multilingual option	1253-MLF		1	Allows up to nine languages. Language RTUs and tape cartridges must be ordered separately.
RTU American English 123	1253-DNU	107 145 013	1	New systems.
	1253-DNUA		1	After market addition.
	1253-NUU		1	Upgrades already having this language.
American English 123 cartridge tape	70486		1	Paired with one of the above RTUs (replaces 70416)
RTU Standard American English	1253-DAE		1	New systems.
	1253-DAEA		1	After -market additions.
	1253-AEU		1	Upgrades already having this language.
Standard American English cartridge tape	70485		1	Paired with one of the above RTUs.
RTU British English	1253-DBE	107 015 869	1	New systems.
	1253-DBEA		1	After-market additions.
	1253-BEU		1	Upgrades already having this language.

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Table C-3. Identifiers for Primary Software — *Continued*

Description	PEC	Comcode, ED/H/J Drawing	Qty	Notes
British English cartridge tape	70489		1	Paired with one of the above RTUs. (replaces 70414)
RTU Canadian French	1253-DCF	107 015 877	1	New systems.
	1253-DCFA		1	After-market additions.
	1253-CFU		1	Upgrades already having this language.
Canadian French cartridge tape	70489		1	Paired with one of the above RTUs.
RTU Latin Spanish	1253-DLS	107 015 885	1	New systems.
	1253-DLSA		1	After-market additions.
	1253-LSU		1	Upgrades already having this language.
Latin Spanish cartridge tape	70488		1	Paired with 1253-DLS for new systems, or with 1253-LSU for upgrades already having this language.
RTU German	1253-DGE		1	New systems.
	1253-DGEA		1	After-market additions.
	1253-GEU		1	Upgrades already having this language.
German cartridge tape	70491		1	Paired with 1253-DGE for new systems or with 1253-GEU for upgrades already having this language. Not applicable for R3.1, R3.0, R2.0, or R1.0.
RTU Dutch	1253-DDU		1	New systems.
	1253-DDUA		1	Aftemarket additions.
	1253-DUU		1	Upgrades already having this language

Continued on next page

Table C-3. Identifiers for Primary Software — *Continued*

Description	PEC	Comcode, ED/H/J Drawing	Qty	Notes
Dutch cartridge tape	70492		1	Paired with 1253-DDU for new systems or with 1253-UDU for upgrades already having this language. Not applicable for R3.1, R3.0, R2.0, or R1.0.
RTU Portuguese	1253-DPO		1	New systems.
	1253-DPOA		1	After-market additions.
	1253-POU		1	Upgrades already having this language.
Portuguese cartridge tape	70484		1	Paired with 1253-DDU for new systems or with 1253-UDU for upgrades already having this language. Not applicable for R3.1, R3.0, R2.0, or R1.0.
Japanese	1253-DJA			New Systems
	1253-DJAA			Aftermarket additions
	1253-JAU			Upgrades already having this language
Japanese cartridge tape	70496			
Polish	1253-DPH			New Systems
	1253-DPHU			Aftermarket additions
	1253-PHU			Upgrades already having this language
Polish cartridge tape	70495			
RTU	1253-S10		1	5 hours for 10-29 hours

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Table C-3. Identifiers for Primary Software — *Continued*

Description	PEC	Comcode, ED/H/J Drawing	Qty	Notes
RTU TDD	1253-DTD	107 145 013	1	New systems.
	1253-DTDA		1	After-market additions.
	1253-TDU		1	Upgrades already having this language.
TDD cartridge tape	70490		1	Paired with 1253-DTD for new systems, or with 1253-TDU for upgrades already having this language. Not applicable for R2.0 or R1.0.

Peripheral Equipment

All peripherals are optional to the order. However, the customer must provide at least one terminal for DEFINITY AUDIX System administration/maintenance. See the *Installing the Terminal(s)* worksheet for terminal information.

Table C-4. Identifiers for Peripheral Equipment

Description	PEC	Comcode, H/ED Drawing	Qty	Notes
715 BCT	6950-ET6	ED3P00170	opt	Amber
	6950-ET7		opt	White
G3-MA	1268-200		opt	New switch, new DEFINITY AUDIX system
	1268-1AX		opt	Existing switch, new DEFINITY AUDIX system
AT&T 2400 modem (Courier)		407 044 965	1	Optional for remote admin.
3820 Comsphere 9600 modem	2270-SA2	106 597 776	1	Optional for remote admin or digital networking
3830 Comsphere 9600 modem (301)		106 904 303	1	Optional for remote admin.
DM224 2400 modem	2224-CEO		1	Optional for remote admin.
212AR 1200 modem (1A-2A)		103 624 003	1	Optional for remote admin.
2212D 1200 modem			1	Optional for remote admin.
Data Module	7400			
7400A data module	2171-ADM	105 558 050	1	Optional for remote admin. (paired with 7400B) or digital networking.
7400B data module	2172-101		2	Optional for remote admin. (paired with 7400A)
Power supply for 7400s	21625		2	Required with 7400 data sets

Continued on next page

Table C-4. Identifiers for Peripheral Equipment — *Continued*

Description	PEC	Comcode, H/ED Drawing	Qty	Notes
Model 2830 Telecommunications Device for the Deaf (TDD)	3780-004	406 613 265	1	Must have buffer if Automatic Attendant menus are used.
Z3A-1 male ADU	2169-001		1	Optional for remote admin. (paired with Z3A-4)
Z3A-2 ADU	2169-002			Optional for digital networking
Z3A-4 female ADU	2169-004		1	Optional for remote admin. (paired with Z3A-1)
Power supply for ADUs	21691	102599354 102802113 102937620 104‘52558	1	Transformer D6 AP 7 ft. ocrd Dial up data link adapter 400 B2 adapter Pec code alone includes one per ADU pair (includes one 400B2 and 248B adapter in ivory color)
D8AM crossover cord		104 154 430	1	Req. for ADU connection
Parallel printer and cable	6951-417 6950-EB1			Optional printer Printer cable
Isolating Data Interface (IDI)	65399		1	May be required for a CL connection to a processor interface or packet gateway board
Z700-D Modular Processor Data Module (MPDM)	2161-PDM	103 954 541	1-2	Required for a CL connection to the digital-line interface board or packet gateway board

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Table C-4. Identifiers for Peripheral Equipment — *Continued*

Description	PEC	Comcode, H/ED Drawing	Qty	Notes
Data Service Unit (DSU) (many models)			2	May be required for a CL connection to the packet gateway board
M-F RS232C – RS449 Cable		H600-210	1	Required for IDI connection
M-M RS232C – RS449 Cable		H600-405	1	Required for IDI connection
M-M RS232C Cable		H600-347	1	Required for CL connection to packet gateway
M-F RS232 M25A Cables:		846 823 649	1	5 ft Required for some
		846 823 656	1	9 ft DSU or MPDM
		846 823 664	1	25 ft CL connections
		846 823 680	1	50 ft
N-7U Cable	70574	104 246 616		

Table C-5. Training

Intuity/DEFINITY AUDIX Networking Class	1466-015
DEFINITY AUDIX System Administration Class	1253 DAX

Table C-6. Customer Documentation

70741 DEFINITY AUDIX R3.2	Customer Documentation Set

Intuity Message Manager (IMM)

Table C-7. Identifiers for Message Manager

Description	PEC	Comcode	Notes
RTU MM interface activation via the *init* screen	1253-IVM		Includes capacities of 32 sessions and up to 500 clients.
MM Upgrade Kit	70493		Includes TN2170, 3-way splitter cable to make the LAN connection, and the upgrade software for MM.
MM Desktop Applications	7028-001		1 to 5 sets (5 to 25 users)
(Disks and Documentation)	7028-002		6 to 10 sets (26 to 50 users)
(One package has 5 complete sets)	7028-003		11 to 15 sets (51 to 75 users)
	7028-004		16 to 20 sets (76 to 100 users)
	7028-005		21+ sets (101+ users)
MM Site License	7028-101		1 to 25 users
(Includes license, 5 sets of application disks and 5 sets of documentation)	7028-102		26 to 50 users
	7028-103		51 to 75 users
	7028-104		76 to 100 users
	7028-105		101 to 200 users
	7028-106		201 to 300 users
	7028-107		301 to 400 users
	7028-108		401 to 500 users
Additional Documentation	7028-201		One package of 5 documents
for Intuity Message Manager	7028-202		Camera-ready master of MM document for local reproduction

Abbreviations

A

ABP
Alarm Board Processor

AC
Alternating Current

ACD
Automatic Call Distribution

ACM
Assistant Contract Manager

ADAP
Administration and Data Acquisition Package

ADC
Analog-to-Digital Converter

ADM
Administration Manager

ADU
Asynchronous Data Unit (ZA)

ADX
AUDIX State

AE
Account Executive

AFIO
Asynchronous File Input/Output

AIM
AUDIX Initialization Manager

AKSRV
AUDIX Kernel Server

ALB
Alarm Board (TN2169 or TN2170)

AMIS
Audio Messaging Interchange Specification

ANET
AUDIX Network

AOM
Alarm Origination Manager

API
Application Program Interface

ASC
Audio Session Control

ATTOMS
AT&T Order Management System

AUCC
AUDIX Upgrade Control Center

AUDIX
Audio Information Exchange

AWG
American Wire Gauge

B

BPS
Bits per second

BMPM
Board Mounted Power Module

BTU
British Thermal Unit

C

CALC
Call Answer Language Choice

CL
Control Link Integration

CLT
Control Link Trace Manager

CO
Central Office

COE
Centers of Excellence

COS
Class of Service

CPU
Central Processing Unit

D

DAC
Dial Access Code

DC
Direct Current

DCIU
Data Communications Interface Unit

DCP
Digital Communications Protocol

DCS
Distributed Communications System

DD
Disconnect Detect

DDD
Direct Distance Dialing

DID
Direct Inward Dialing

DIO
DSP Input/Output Controller

DIOD
Direct Inward/Outward Dialing

DLG
Dual Language Greetings

DM
Database Manager

DMA
Direct Memory Access

DOSS
Delivery Operations Support System

DP
Digital Port

DPE
Digital Port Emulation

DPC
DSP Parallel Interface Controller

DRAM
Dynamic Random Access Memory

DS
Display Set Integration

DS1
Digital Service 1

DSI
Digital Service Interface

DSIC
Dedicated Switch Installation Crew

DSP
Digital Signal Processor

DTE
Data Terminal Equipment

DTMF
Dual Tone Multifrequency

DUSCC
Dual Synchronous Channel Chip

E

EDT
Equipped Device Table

EIA
Electronic Industries Association

EMI
Electro-magnetic Interference

EPROM
Electrically Programmable Read Only Memory

ER
Error Manager

ES
Enhanced Services

ESS
Electronic Switching System

F

FAC
Faceplate and Alarm Controller

FC
Forms Control

FIFO
First-In First-Out

FP
Feature Processor

FPROM
Flash Erasable Programmable Read Only Memory

FSA
File System Administrator

FSO
Field Service Organization

FW
Flashware

G

GBCS
Global Business Communications Systems

GBCSDC
Global Business Communications Systems Design Center

I

ICITT
International Consultive Committee for Telephony and Telegraphy

I^2C
Inter-Integrated Circuit

IDI
Isolating Data Interface

IL
Installation Location

INADS
Initialization and Administration System

I/O
Input/Output

ISB
In Service Busy

ISI
In Service Idle

ISP
In Service Pending

ISDN
Integrated Services Digital Network

ITAC
International Technical Assistance Center

K

Kbps
Kilobits per second

Kbyte
Kilobyte (1024 bytes)

kHz
kilohertz

L

LAN
Local Area Network

LAT
Local Administration Terminal

LCD
Liquid Crystal Display

LEC
Local Exchange Carrier

LED
Light Emitting Diode

LWC
Leave Word Calling

M

Mbyte
Megabyte (approx. one million bytes)

MCM
Maintenance Control Manager

MD
Management Devices

MFAT
Multifunction Analog Telephone

MFB
Multifunction Board

MHz
Megahertz

MM
Message Manager

MOJ
Material on Job

MP
Maintenance Procedure

MPDM
Modular Processor Data Module

MPM
Maintenance Procedure Manager

ms
Millisecond

MSB
Mass Storage Bracket

MSC
Message Service Center

MTBF
Mean Time Between Failures

MWI
Message Waiting Indication

N

NACS
New AUDIX Call Simulator

NDC
National Design Center

NMI
Nonmaskable Interrupt

NVRAM
Nonvolatile Random Access Memory

O

OA&M
Operations, Administration, and Maintenance

OOS-D
Out of Service Due to insufficient translations

OOS-F
Out of Service Fault

OOS-R
Out of Service Resource

OOS-T
Out of Service Testing

OS
Operating System

P

PBX
Private Branch Exchange

PC
Power Converter or Personal Computer

PDM
Processor Data Module

PEC
Price Element Code

PM
Project Manager

PPE
Packet Processing Element

PROC
Procedure

PROM
Programmable Read Only Memory

Q

QSD
Quick Silence Disconnect

R

RAM
Random Access Memory

RISC
Reduced Instruction Set Computer

RMT
Remote Maintenance Terminal

ROM
Read Only Memory

RNX
Route Number Index

RTU
Right to Use

S

SAKI
Sanity and Control Interface

SA
Software Associate

SAS
Subscriber-Specific Announcement Sets

SAT
System Administration Terminal

SCI
Switch Communications Interface

SCSI
Small Computer Systems Interface

SD
Switch Dispatcher, System Data

SDI
SCSI Driver Interface

SIM
System Implementation Manager

SS
Software Specialist, System Status

STRC
Sales Technical Response Center

STU
Standalone Tape Utilities

T

TBD
Tone Based Disconnect

TCP/IP
Transmission Control Protocol/Internet Protocol

TD
Target Driver

TDD
Telecommunications Device for the Deaf

TDM
Time Division Multiplex

TEG
Trunk Equipment Group

TSC
Technical Service Center

TSO
Technical Services Organization

U

UEQ
Unequipped

UL
Underwriters Laboratories

UPS
Uninterruptible Power Supply

USART
Universal Synchronous/Asynchronous Receiver-Transmitter

V

VB
Voice Buffer

VD
Voice Data

VM
Voice Messages

VSC
Voice Session Control

W

WGS
Work Group System

Glossary

NUMERIC

10BaseT
A network baseband medium using twisted pair wire, operating at 10 Mbits per second.

A

Activity Menu
The list of main options voiced to subscribers when they access the DEFINITY AUDIX System.

Administration
The process of setting up a system (such as a switch or a voice mail system) so that it will function as desired. Options and defaults are normally set up (translated) by the system administrator or remote services personnel.

Alarm Board (ALB)
The hardware platform (TN2169 or TN2170) which works with the Multifunction board to provide monitoring for system power and environmental status, -48 VDC to +12 VDC power conversion for the system's disk and tape drives, and remote terminal access. The TN2170 also provides SCSI-to-Ethernet connectivity to support IMAPI.

Alarms
Hardware, software, or environmental problems that may affect system operation. These faults are classified as *major*, *minor*, or *warning*. They are recorded into an alarm log which can be accessed either locally or remotely on a terminal connected to the system.

Analog Port Emulation
One of the two port emulation modes that DEFINITY AUDIX may employ. The other mode is digital port board emulation. When emulating an analog port board (the TN746), only control link (CL) integration is possible.

Angel
A processor activity that exchanges TDM bus control messages and performs functions associated with call setup and port maintenance.

Announcement Fragment
A numbered piece of spoken voice mail information that makes up a system message or prompt.

Asynchronous Transmission
A form of serial communications where each transmitted character is bracketed with a start bit and one or two stop bits.

Asynchronous Data Unit (ADU)
A small device that can extend data transmission far beyond recommended Electronic Industries Association (EIA) limits over building wiring. System terminals may use a Z3A1 or Z3A4 ADU. (Used in some digital networking configurations.)

Audio Messaging Interchange Specification (AMIS)
An analog networking feature that allows subscribers of different voice mail systems to send voice mail messages to one another.

Audit
A software program that resolves filesystem incompatibilities and updates restored filesystems to a workable level of service. Audits are done automatically on a periodic basis, or can be performed on demand.

Audio Information Exchange (AUDIX)
A complete voice-mail messaging system accessed and operated by touch-tone telephones and integrated with a switch.

AUDIX Administration and Data Acquisition Package (ADAP)
A software package which allows the DEFINITY AUDIX administrator to transfer system subscriber, maintenance, or traffic data over the administration port to a personal computer (PC) or Work Group System (WGS).

Automated Attendant
A DEFINITY AUDIX feature that allows a customer to set up a main number with a menu of options that routes callers to an appropriate department at the touch of a button.

B

Backup
A duplicate copy of a filesystem saved on a removable tape. The backup filesystem may be copied back (restored) if the active version is damaged (corrupted) or lost.

Balun
On the DEFINITY AUDIX LAN connection, the adapter needed to connect the twisted-pair breakout cable to the coaxial building wire distribution system.

Baud Rate
Transmission signaling speed.

Boot (or Reboot)
The operation to start a computer system by loading programs from disk to main memory (part of system initialization).

Boot Filesystem
The filesystem from which the system loads its initial programs.

Broadcast Messaging
A feature that enables the system administrator and other designated users to send a voice mail message to all subscribers automatically.

Buffer
Memory used to compensate for time differences in transmission by temporarily storing data.

Busyout Service
When a technician or administrator blocks service to keep customers from using faulty equipment until it can be repaired or tested. For instance, when ports (or a link) are busied out, subscribers who try to access their mailboxes hear a *fast busy* reorder tone. People who would normally reach DEFINITY AUDIX through Call Answering are not forwarded; they hear ringing and no answer at the number they called.

C

Call Answer
A feature that allows the system to answer a call and record a message when the subscriber is unavailable. Callers may be redirected to the system through the call coverage or Call Forwarding switch features. Subscribers may record a personal greeting for these callers.

Call Answer Language Choice
Call answer multilingual option where a user can alternate between a primary language set and a secondary language. The two languages are administered on a per subscriber basis. If this feature is enabled, the subscriber may not use the standard DEFINITY AUDIX Multiple Personal Greetings feature.

Camp-On
A system shutdown option that waits for ports to become idle before blocking service to them. This allows subscribers to finish calls in progress.

Central Office (CO)
A main telephone office where private customer lines are terminated and connected to the public network through common carriers.

Central Processing Unit (CPU)
The Multifunction board's main processor that controls system data transfer, input/output (I/O), and logical instructions.

Class of Service (COS)
The standard set of features given to subscribers when they are first administered (set up with a voice mailbox).

Command Mode
A system state where flashware is in control and software is shut down. In this state, a technician has access to menu options to see flashware status and initialization history, run through flashware diagnostics, and to start or continue system initialization.

Configuration
The particular composition and hardware selected for a system, including internal options and peripheral equipment.

Control Link (CL)
The integration, or interface, between the DEFINITY AUDIX System and the switch that enables the transmission of control messages from the DEFINITY AUDIX System to the switch over a DCIU data link. The control messages are transmitted over a separate cable connection and carry information such as calling-party identification and message-waiting indicator status and control.

Control-Link Mode
The type of switch-link integration for which the DEFINITY AUDIX System, R2.0 or later, is connected to the switch via analog-line card emulation and a digital connection.

D

Digital Communications Protocol (DCP)
An AT&T proprietary protocol

DCP Mode 1
An AT&T proprietary Digital Communications Protocol (DCP) connection using a data rate of 56 Kbps for AUDIX Digital Networking. DCP Mode 1 uses a DS1 facility on the switch or a dedicated facility on the switch or a dedicated facility on a T1 carrier.

DCP Mode 2
DCP Mode 2 is an asynchronous, low-speed (9600 or 19,200 bps) connection for AUDIX Digital Networking. DCP Mode 2 uses a modem/data module or modem/Asynchronous Data Unit (ADU) arrangement and connects over analog or voice-grade data lines.

DCP Mode 3
A DCP connection using a data rate of 64 Kbps for AUDIX Digital Networking. DCP Mode 3 uses a DS1 or ISDN facility on the switch or a dedicated facility on a T1 carrier.

Default
A value that is automatically supplied if no other value is specified.

Digital-Port (DP) Mode
The type of switch-link integration for which the DEFINITY AUDIX System, up through release 3.1, is connected to the switch via digital port board emulation. The type of port board that the DEFINITY AUDIX emulates within the switch (TN754.)

Digital-Port (DP) Board Emulation
In R3.1 and earlier releases, this term referred to both the port emulation and to the integration method. In R3.2 and later, it refers to the port emulation only; the integration method can be either control link (CL) or display set (DS).

Digital Signal Processor (DSP)
Programmed RAM chips on the Multifunction board that provide signaling, power-level control, speech coding, and data processing.

Display Set (DS) Integration
A new term that replaces the term digital port integration for R3.2 and later. It refers to the use of the display and other messages sent from the switch to the port board for providing voice mail integration with the switch. Integration with the switch is achieved via display set messages. The messages carry information such as calling party identification and message waiting indicator status and control.

Disconnect Signaling Detection
Signaling from the CO to the PBX which indicates that the far end caller has hung up.

Dual Language Greetings
When the Call Answer Language Choice is in effect, the subscriber can record personalized greetings for each of the languages listed as the primary and secondary announcement sets. The subscriber instructs the caller to enter *1 to switch to the alternate language.

E

Errors
Problems detected by the system during automatic self-tests and recorded in an error log. Errors can produce an alarm (fault) if they exceed a threshold.

Events
Occurrences such as inline errors, maintenance procedure failures, alarms, errors, or transitions into or out of the *AUDIX* or *OA&M* states which are recorded in an events log.

F

Faceplate and Alarm Controller (FAC)
The circuitry on the Multifunction board which monitors activity of the DEFINITY AUDIX System.

Field
An area on a form, menu, or report where information can be typed or displayed.

Filesystems
A collection of related files (programs or data) stored on disk which are required to initialize a DEFINITY AUDIX System and provide full service.

Flashware
Code that is stored in electrically reprogrammable memory on the DEFINITY AUDIX System. This programming is retained over power outages but can be reprogrammed automatically on board during initialization.

Forms
Terminal screens of information that allow data to be displayed or changed.

G

Generic Tape
A copy of the standard software and standalone tape utilities that is shipped with a new system.

Graceful Shutdown
Taking the DEFINITY AUDIX System offline (to the maintenance shutdown state) using RESET SYSTEM SHUTDOWN in a camp-on manner.

Guest Password
A feature that allows people who are not subscribers to leave messages on the system by dialing a subscriber's extension and entering a system-wide guest password.

H

Header
Information that the system creates to identify a message. A message header includes the originator or recipient, type of message, creation time, and delivery time.

Hunt Group
A group of ports on a switch usually administered to search for available ports in a circular pattern.

I

Initialization
The process of bringing a system to a predetermined operational state. The start-up procedure tests hardware and flashware; loads the boot filesystem programs; locates, mounts, and opens other required filesystems; and starts normal service.

Initialization and Administration System (INADS)
A maintenance system used by remote technicians to track alarms.

Interboard Bus
The inter-integrated circuit (I^2C) bus that provides connectivity between the Alarm board and the Multifunction board.

Intuity Message Manager
A PC application that is used for the retrieval and display of message headers, addressing to lists, managing personal greetings, and for creating, forwarding, and replying to voice mail messages.

L

Leave Word Calling
A switch feature that allows the calling party to leave a standard (nonvoice) message for the called party using a feature button or dial access code.

Light Emitting Diode (LED)
A red-light indicator on the system faceplate panel that shows the status of operations and possible fault conditions. An unlit LED indicates a healthy system. When flashing, the LED indicates a software problem. When it is steadily lit, a hardware problem exists.

Liquid Crystal Display (LCD)
The 10-character alphanumeric display on the DEFINITY AUDIX faceplate panel that automatically shows status of the system including alarms.

Local Area Network (LAN)
A short distance data communications network used to link computers and peripheral devices under some form of standard control

Local Maintenance Terminal (LMT)
A display terminal located near the DEFINITY AUDIX System and the switch. It is temporarily attached to the Multifunction board via a Y-cable during an on-site service visit.

Login
A unique code used to gain approved access to a subscriber's voice mailbox or to a display terminal.

M

Mailbox
A portion of disk memory given to each subscriber for creating and storing outgoing and incoming messages.

Message-Waiting Lamp
An LED on a telephone that alerts subscribers to new messages.

Modem
A modulator/demodulator used for transmitting analog signals across phone lines.

Multifunction Board (MFB)
The hardware platform (TN566B, 386 version and TN567, 486 version) which holds the central processing unit, controllers, memory devices, and signal processors that make a DEFINITY AUDIX System operational.

Multilingual System
A DEFINITY AUDIX System containing primary and secondary language announcement sets. A large (40 hour) system can hold up to nine different language sets. The Telecommunications Device for the Deaf (TDD)-based announcement set is treated as a multilingual option.

N

Native Mode
The ability of the switch to recognize the DEFINITY AUDIX Multifunction board (MFB) as a TN566B (AUDIX) circuit pack. With native mode support, the switch reserves five slots for the DEFINITY AUDIX assembly, and the switch is able to correctly identify the DEFINITY AUDIX board in alarms sent to the services organization.

Nonnative Mode
Without native mode, the MFB slot is provisioned as a TN754, TN2181 or TN746B, the five slots occupied by the DEFINITY AUDIX assembly are not reserved, and MFB alarms are reported as alarms for a TN754, TN2181, or TN746B.

Nonvolatile Random Access Memory (NVRAM)
A battery-backed RAM on the Multifunction board that retains data through loss of power.

Null Modem Cable
A cable which transposes transmit and receive leads on an RS-232 connection.

O

Operating System (OS)
The set of programs that runs the hardware and interprets software commands.

Operations, Administration, and Maintenance (OA&M)
A state of system operation where core processes of the Multifunction board are accessed, including system initialization, resource configuration, forms interface, entry into the maintenance subsystem, and filesystem access. Also entered when customer data must be restored.

Outcalling
A feature that allows the system to dial subscribers' numbers or go to pagers to inform them they have new messages.

P

Port
A connection or link between two devices, allowing information to travel through it to a desired location. For example, a switch port connects to a DEFINITY AUDIX port to allow a subscriber on a voice terminal to leave a message.

Protocol
A set of specific rules, procedures, or conventions relating to forms and timing of data transmission between two devices.

R

Reboot
A system *reboot* is done to clear major system problems (such as corrupt program memory). It also runs automatically whenever the system is powered up.

Remote Field Update
A set of software changes on a given release that is transmitted from a central location to customer equipment. Changes are generally restricted to serious *bug* fixes and are limited in volume.

Reply Loop Escape
Allows the subscriber the option to return to responding to a message after trying to reply to a non-subscriber message.

Restart
During maintenance, a system *restart* brings the system software back into full service, usually after an administrative shutdown. This is often done to try to clear software problems.

RISC
Reduced Instruction Set Computer. Refers to computers based on an unusually high speed processing technology that uses a far simpler set of operating commands.

S

Sanity and Control Interface (SAKI)
An integrated circuit that receives and transmits TDM bus control messages and monitors the sanity of the angel processor.

Shutdown States
States of system operation where either a technician can shut down the system for maintenance, or where a critical error condition brings down the system. In either case, filesystems are closed and the system can be powered down and removed from the carrier.

Small Computer Systems Interface (SCSI)
An interface standard defining the physical, logical, and electrical connections to computer system peripherals such as tape and disk drives.

Standalone Tape Utility
A software utility with options that include disk drive initialization, copying files from a generic tape onto the customer's disk, and map partition modification.

Subscriber Specific Announcement Set
When the Multilingual feature is enabled, each subscriber form has three fields specifying the announcement set with which the subscriber will interact with the system once they log in, and the two announcement sets with which callers to the subscriber's mailbox can interact with the system.

T

Transmission Control Protocol/Internet Protocol
A set of protocol standards which allows a process on one machine to send data to a process on another machine. Communication may be full or half duplex. TCP/IP includes support for multiple operating systems and machine architectures.

Technical Service Organization
Includes technical support organizations such as the Technical Service Center (TSC), National Service Assistance Center (NSAC), International Technical Assistance Center (ITAC), Center of Excellence (COE), Design Center (DC), Sales Technical Response Center (STRC), and National Technical Marketing (NTM).

Telecommunications Device for the Deaf (TDD)
A feature providing Call Answering and Personal Greeting capabilities to the hearing-impaired. The announcement set responds to Baudot tones which are input from a special keypad.

Time Division Multiplex (TDM) Bus
The interface between the DEFINITY AUDIX System and the switch that carries digitally-encoded voice waveforms and circuit-switched data.

U

Update
A limited incremental change on an existing release involving software only.

Upgrade
The replacement of one release with a new release. This may involve software, flashware, hardware, and/or data.

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