A decorative graphic consisting of multiple horizontal lines. There are four thick grey lines, two thin white lines, and two thick blue lines, repeating this pattern three times across the width of the page.

DPS 6 PLUS
MTU9921/9922 Tabletop
Tape (GCR/PE) Installation

Honeywell Bull

**DPS 6 PLUS
MTU9921/9922
TABLETOP TAPE (GCR/PE)
INSTALLATION**

SUBJECT

MTU9921 and MTU9922 Tabletop Tape (GCR/PE) Assembly and Installation Procedures

SPECIAL INSTRUCTIONS

This manual has been revised to the -200 level. It supersedes all previous issues.

The following notice is provided in accordance with the United States Federal Communications Commission's (FCC) regulations.

Warning: This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual, may cause interference to radio communications. The equipment manufactured after October 1, 1983 has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. The equipment manufactured prior to October 1, 1983 has not been tested for compliance. Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

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June 1987

Honeywell Bull

USER COMMENTS FORMS are included at the back of this manual. These forms are to be used to record any corrections, changes, or additions that will make this manual more useful.

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Section 1 INTRODUCTION

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Document Organization.....	1-2
Tape (GCR/PE) Subsystem.....	1-3
Locating the Tape Subsystem.....	1-4
Tools Needed for Assembly and Installation.....	1-6
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IMPORTANT NOTE

The Tabletop (GCR/PE) Tape Assembly/Installation Video Cassette should have been viewed before attempting this installation procedure.

DOCUMENT ORGANIZATION

Summary The information in this document is structured into three different levels: (1) the simplified procedures which are the recommended procedures, (2) the summary information for the more experienced person, and (3) the more detailed information for the inexperienced person.

Simplified Procedures The simplified procedures located in Section 2 of this document, provides a quick reference outline (i.e., recommended sequence) of the procedures in this document.

Detailed Procedures The detailed procedures located in Section 3 of this manual are used to reinforce the simplified procedures in Section 2. The summary information at the top and at the start of each text page provides an overview of that page. The information located directly below the summary information is the more detailed information. In both cases, all the information is supported by an exhibit (i.e., illustration, table, listing, etc.).

Section 1 This section describes the tape subsystem and provides a list of reference documents and a list of tools needed to assemble and install the tape subsystem.

Section 2 This section provides the Tape Subsystem (GCR/PE) Simplified Installation Procedures Checklist.

Section 3 This section provides the detailed procedures to initially assemble and install a tape subsystem and to assemble and install a tape subsystem to an existing system (system modification). Section 3 also provides device switch setting and jumper installation or removal information, including device checkout information.

TAPE (GCR/PE) SUBSYSTEM

Summary This document is intended for the Customer Service Representative (CSR) who is responsible for assembling, installing, and performing the initial checkout procedures for the Tabletop Tape Group Coded Recording/Phase Encoded (GCR/PE) Subsystem.

The Tabletop Tape (GCR/PE) Subsystem is composed of a Magnetic Tape Unit (MTU) drive and device cables. Hereafter, the tape drive itself will be referred to as the device (see Figure 1-1).

Device The device performs formatting and translation of data for reading and writing ECMA and ANSI-compatible, 9-track, 1/2-inch magnetic tape at 6250 bits per inch (bpi) in GCR format and 1600 bpi in PE format. The device runs at a low speed of 25 inches per second (ips) and at a high speed (streaming mode) of 75 ips. Device rewind time is approximately 2.5 minutes for a 2400-foot reel. Load time is approximately 15 seconds. Self-testing is designed into the device and off-line testing is provided by test and verification routines.

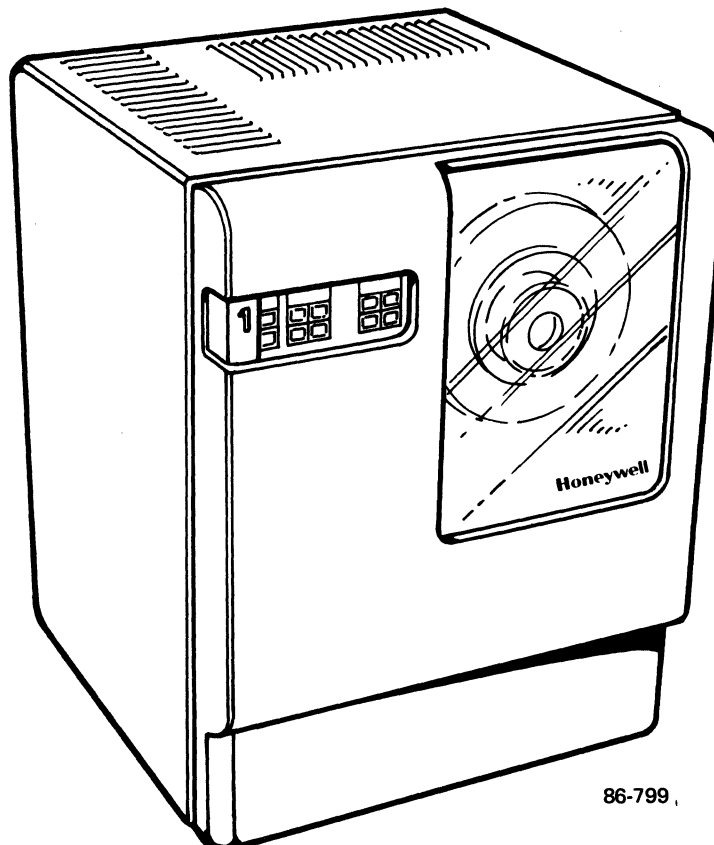


Figure 1-1. Tabletop Tape (GCR/PE) Device

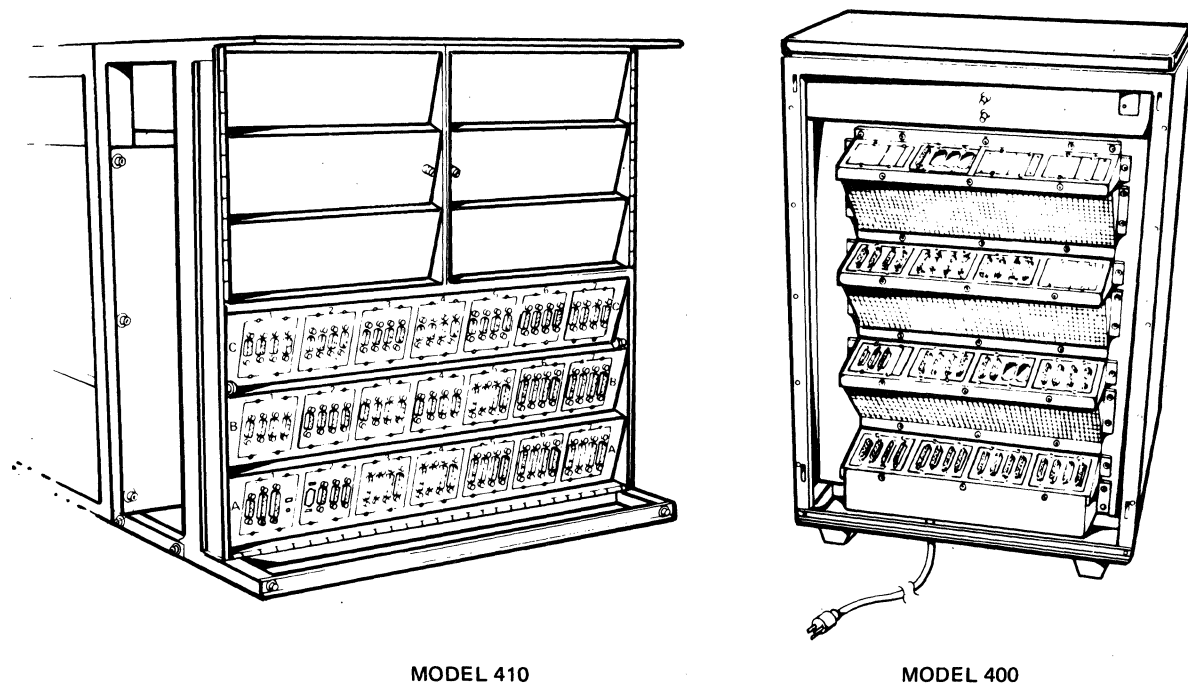
LOCATING THE TAPE SUBSYSTEM

Summary The tape subsystem is composed of a tabletop device(s) that is connected to a DPS 6 PLUS Model 400, 410, or 420, system.

The tabletop device is capable of being placed on top of three different style cabinets.

System The Model 400 system cabinet contains a rear bulkhead for the device cables and the Model 410 or Model 420 contains a side bulkhead for the device cables (see Figure 1-2). Also, as shown in Figure 1-3, a maximum of four devices can be daisy chained from the cabinet. The maximum device cable length from the cabinet to the last device in the daisy chain is 40 feet. The maximum device cable length between the cabinet and the device bulkhead is 15 feet and six inches.

The tape drive is a tabletop device that can be placed on top of three different types of cabinets. The three different cabinets are as follows: (1) a device pedestal cabinet, (2) a fixed disk cabinet, and (3) a corner extension cabinet.



87-267-1

Figure 1-2. Cabinet Bulkhead Device Connectors

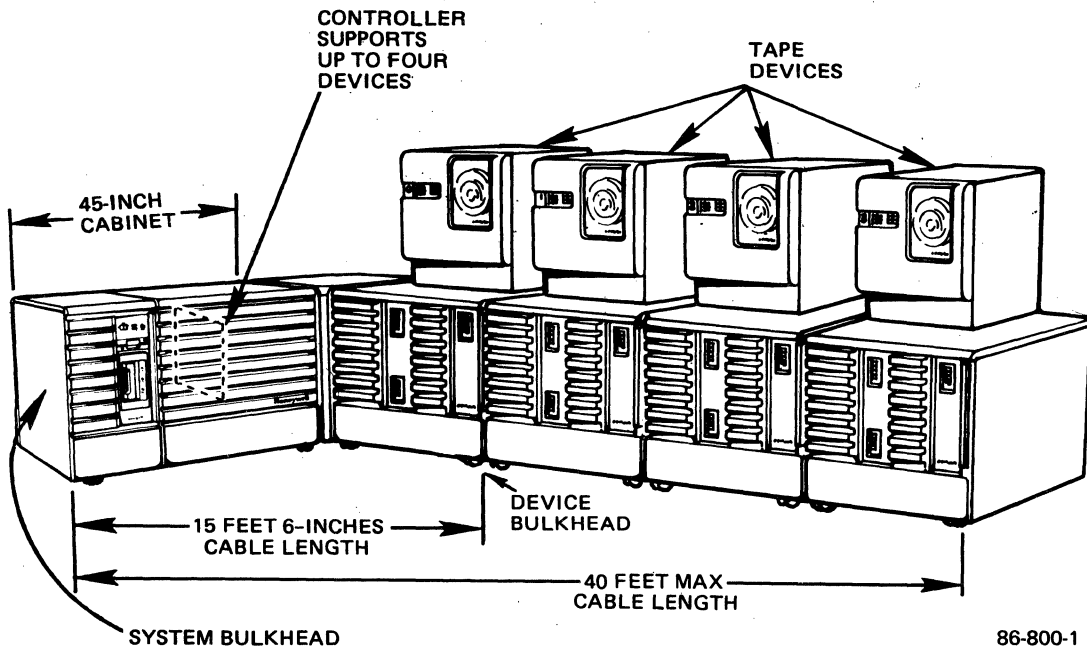


Figure 1-3. Typical Fully Configured Tabletop Tape (GCR/PE) System

TOOLS NEEDED FOR ASSEMBLY AND INSTALLATION

Summary Specific tools are required for ease of assembly and installation of the Tabletop Tape (GCR/PE) Subsystem.

Tools that are needed to assemble and install the Tabletop Tape (GCR/PE) Subsystem are listed as follows:

- Lifting tool kit (60159648-001) consisting of two handles (60159523-001) with four mounting screws (03010239-405), (to lift the device out of the shipping container and on to a cabinet)
- Crescent wrench (to tighten the device leveling feet)
- Two nut drivers:
 - #6 nut driver (to install the door stop and motor cover bracket)
 - #8 nut driver (to install the air plenum and power cable-clamp)
- TORX screw driver with a variety of bit sizes
- Slotted head screwdriver
- Long Phillips head screwdriver.

REFERENCE DOCUMENTS

Summary There are manuals that periodically need to be referenced to aid with the assembly, the installation, and the operation of the Tabletop Tape (GCR/PE) Subsystem.

Reference documents that pertain to the Tabletop Tape (GCR/PE) Subsystem are as follows:

Manual Title	Order Number
DPS 6 PLUS Model 410 & Model 420 System Installation	US02
DPS 6 PLUS System Description	US03
TACPAC II CSE Reference Manual	US10
DPS 6 PLUS Universal Peripheral Controller Option Installation	US23
DPS 6 PLUS Model 400 System Installation	US26
DPS 6 PLUS MTU9921/9922 GCR/PE Tabletop Magnetic Tape Unit Operation	HD52
1/2-Inch Low Cost GCR/PE Streamer Tape (T&RP)	K979
Tabletop (GCR/PE) Tape Assembly/Installation (Video Cassette)	



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Section 2 SIMPLIFIED INSTALLATION PROCEDURES CHECKLIST

This section contains the Tape Subsystem (GCR/PE) Simplified Installation Procedures Checklist. Using the checklist in a step-by-step sequence will ensure that the assembly, installation, and system modification of the device will be performed quickly and with maximum operational reliability. If more detailed information is needed, the checklist has references to the appropriate pages within Section 3 of the manual.

Also, included in this section are illustrations of the tape unit, showing component locations and parts list.

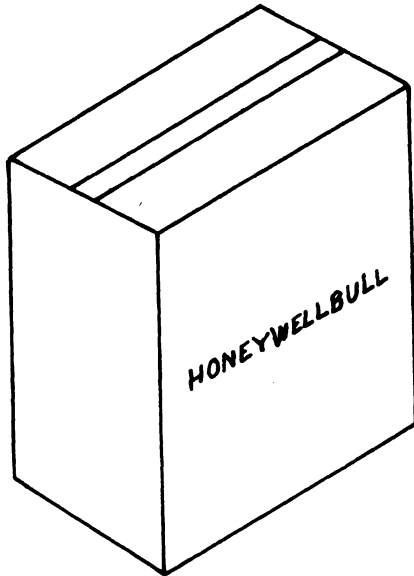
IMPORTANT NOTE

The Tabletop (GCR/PE) Tape Assembly/Installation Video Cassette should have been viewed before attempting this installation procedure.

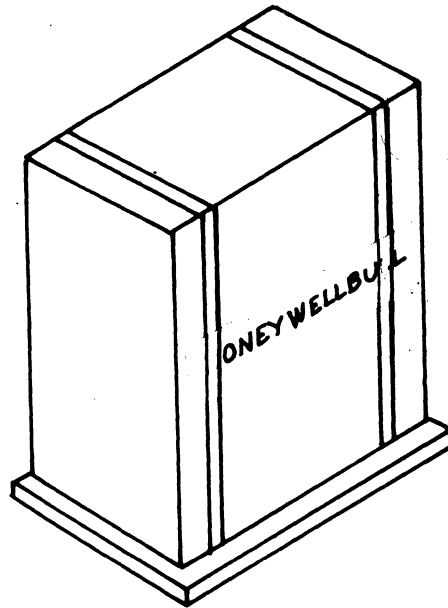
TABLETOP TAPE (GCR/PE) SUBSYSTEM SIMPLIFIED
INSTALLATION PROCEDURES CHECKLIST

- [] IF SYSTEM MODIFICATION, REMOVE THE PERIPHERAL MEDIA. POWER OFF THE PERIPHERALS AND THEN THE SYSTEM. FOR MODEL 410 AND 420, OPEN THE 30-INCH CABINET TOP COVER AND REMOVE THE 15-INCH TOP COVER AND LEFT SIDE PANEL. FOR MODEL 400, OPEN THE TOP COVER AND REMOVE THE REAR PANEL. Details on pages 3-4 and 3-5.

- [] MOVE THE SHIPPING CARTONS CLOSE TO THE INSTALLATION AREA.



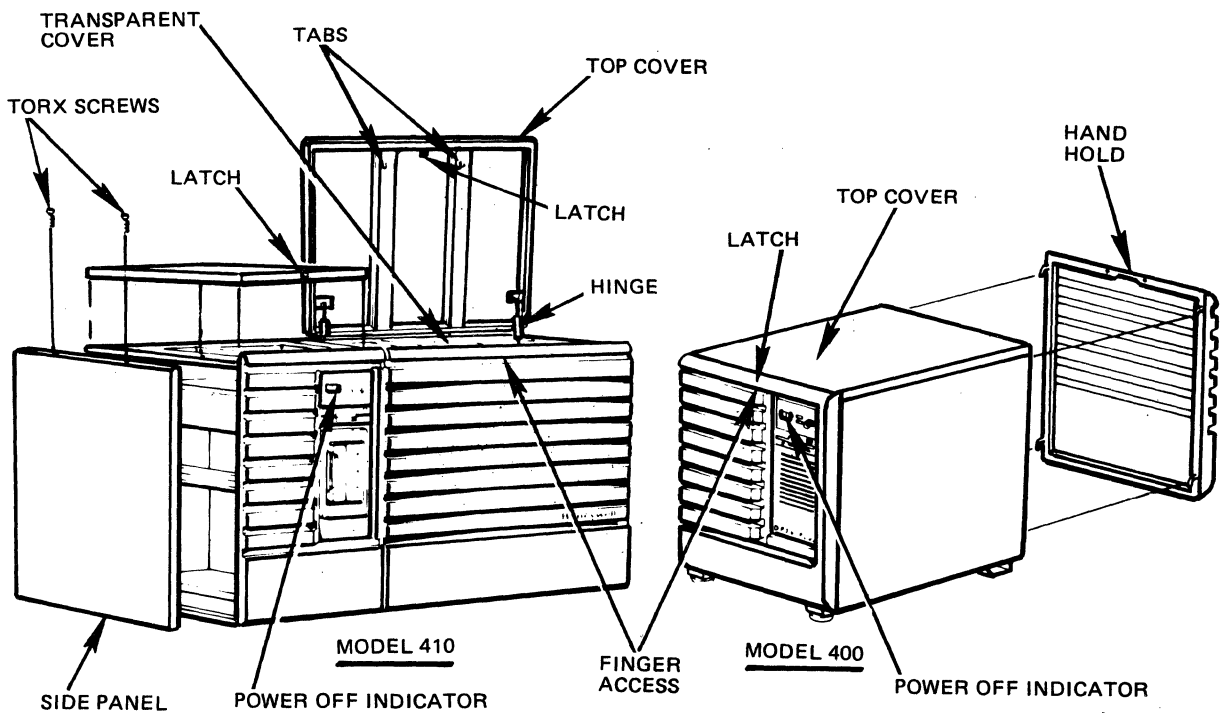
INSTALLATION KIT
CARTON



DEVICE
CARTON

86-801-1

Tabletop Tape (GCR/PE) Subsystem Shipping Cartons



87-268-1

Figure 2-1. Position Shipping Cartons, Open System Covers,
and Remove System Panels

Simplified Installation Procedures Checklist

NOTE: To install the controller board(s), adapter board(s), and adapter to bulkhead cables, GO TO *DPS 6 PLUS Universal Peripheral Controller Option Installation* (Order No. US23).

[] UNPACK THE SHIPPING CARTONS AND CHECK FOR SHIPPING DAMAGE.
Details on pages 3-6 and 3-7.

CAUTION

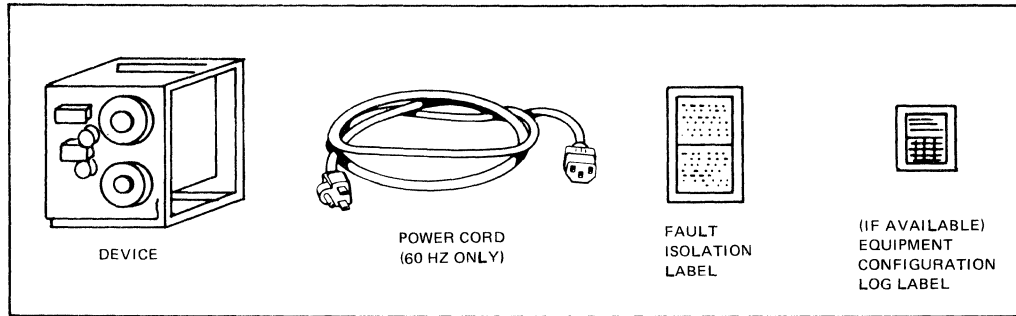
After unpacking the front door assembly (item 18), place it in a safe out of the way holding area, until it is to be used, for it can be damaged easily.

The following parts list for the tape unit contains the part number, quantity of each item, and an item number that is used throughout the procedure to identify each part.

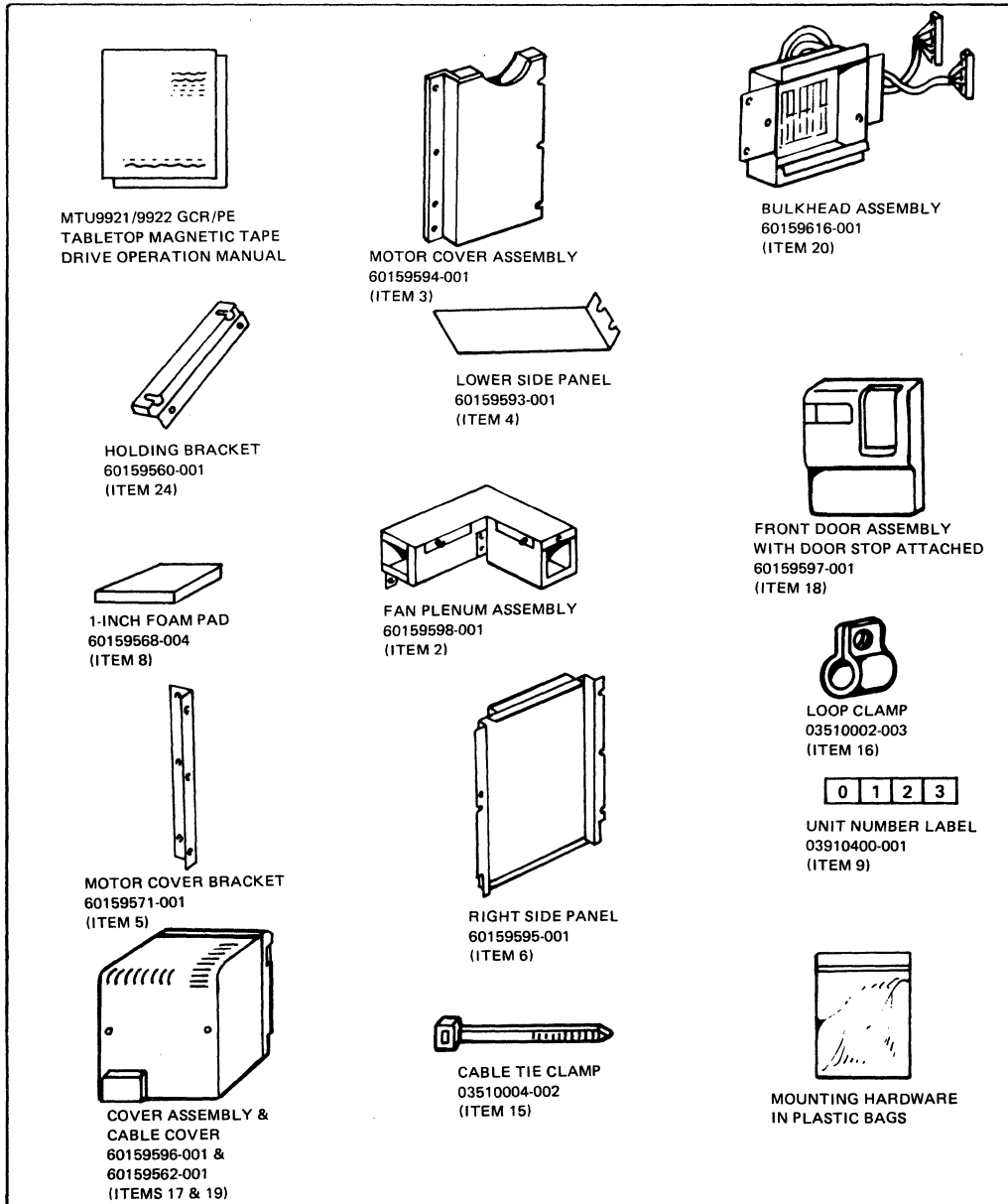
TAPE UNIT ASSEMBLY/INSTALLATION PARTS LIST

Item	Description	Part Number	Quantity
1	S/S STREAMER 1/2 IN TT	03850133-XXX	1
2	Plenum Fan Assembly	60159598-001	1
3	Motor Cover Assembly	60159594-001	1
4	Panel Assembly	60159593-001	1
5	Motor Cover Bracket	60159571-001	1
6	Panel Assembly	60159595-001	1
7	Door Stop	60159640-001	REF
8	1-Inch Foam Pad	60159568-004	1
9	Label GCR Number	03910400-XXX	1
10	Screw HWT 6-32 3/8	03010239-102	13
11	Screw SCR Sems PH6-32UNC	09900803-004	9
12	Screw SC-WA HXS 8-32 3/8	03010223-013	1
13	Nut LWA Hex 6	03030004-004	3
14	Nut LWA Hex 8	03030004-003	2
15	Cable Tie	03510004-002	1
16	Loop Clamp	03510002-003	1
17	Cover Assembly	60159596-XXX	1
18	Door Assembly	60159602-XXX	1
19	Cable Cover	60159562-001	1
20	Bulkhead Assembly	60159616-001	1
24	Holding Bracket	60159560-001	1
26	Screw HWT 8-32 3/8	03010239-202	2

Simplified Installation Procedures Checklist



DEVICE CARTON



INSTALLATION KIT CARTON

86-819-1

Figure 2-2. Installation Kit Contents

- [] REMOVE THE SHIPPING RETAINING BOARD (WITH FOAM PAD ATTACHED) LOCATED UNDER THE LOGIC CAGE ASSEMBLY. Details on pages 3-6 and 3-7.
- [] MOUNT THE HOLDING BRACKET (ITEM 24) ON A CABINET USING TWO 3/8 8-32 SCREWS (ITEM 26). Details on pages 3-8 and 3-9.
- [] ATTACH THE LIFTING HANDLES TO EACH SIDE OF THE DEVICE FRAME. Details on pages 3-10 and 3-11.

WARNING

To avoid bodily injury, due to the weight of the device, two or more persons are required to lift the device.

- [] LIFT THE DEVICE OFF THE SHIPPING PALLET AND SLIDE IT INTO THE HOLDING BRACKET (ITEM 24) ON TOP OF THE CABINET. Details on pages 3-10 and 3-11.
- [] CSE SHOULD VERIFY THAT THE DEVICE IS OPERATIONAL BY RUNNING OFF-LINE OPERATOR-TEST 01 FOR 5 MINUTES. Refer to: (1) the module entitled *Performing Device Checkout* on page 3-34 of this document, (2) *1/2-Inch Low Cost GCR Streamer T&RP* (Order No. K979), or (3) *MTU9921/9922 GCR/PE Tape Drive Operation* (Order No. HD52).

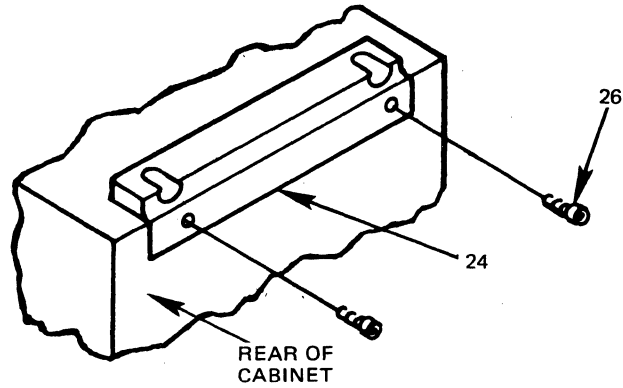
NOTE: For the CSE to operate the transport with no front cover, the interlock switch (located on the bottom left-hand side of the front of the tape deck) must be defeated.

- [] AFTER THE OFF-LINE OPERATOR-TEST 01 IS PERFORMED, TURN THE DEVICE POWER ON/OFF SWITCH OFF AND REMOVE THE POWER CORD.
- [] REMOVE THE LIFTING HANDLES FROM THE DEVICE FRAME.

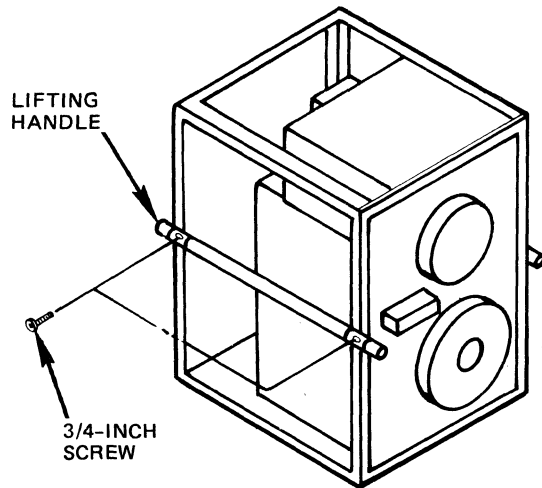
CAUTION

A minimum spacing of 1-inch must be maintained between the tabletop and the bottom of the device for cooling.

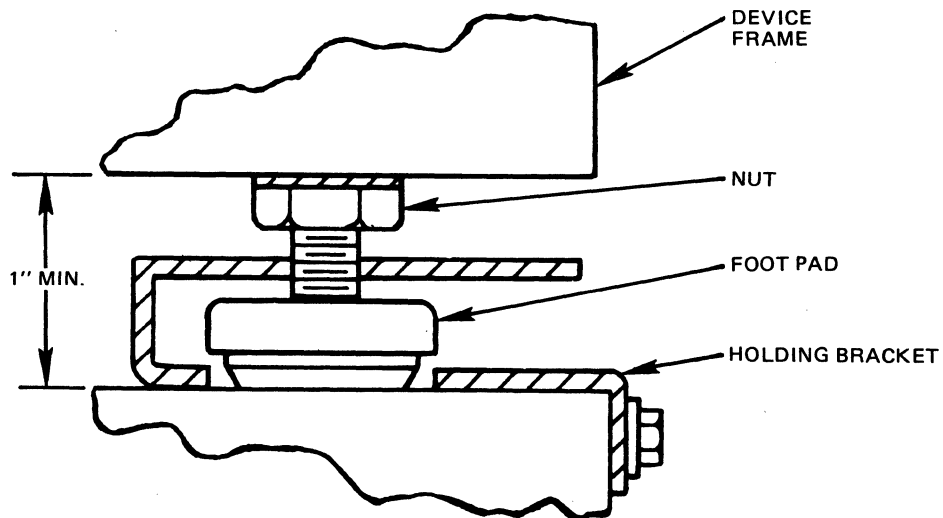
- [] STABILIZE THE DEVICE BY ADJUSTING ONE OR MORE OF THE FOOT PADS AND TIGHTEN THE PAD LOCK NUTS. Details on pages 3-10 and 3-11.



MOUNTING THE HOLDING BRACKET



MOUNTING THE LIFTING HANDLES



LOCKING THE DEVICE STABILIZING PADS

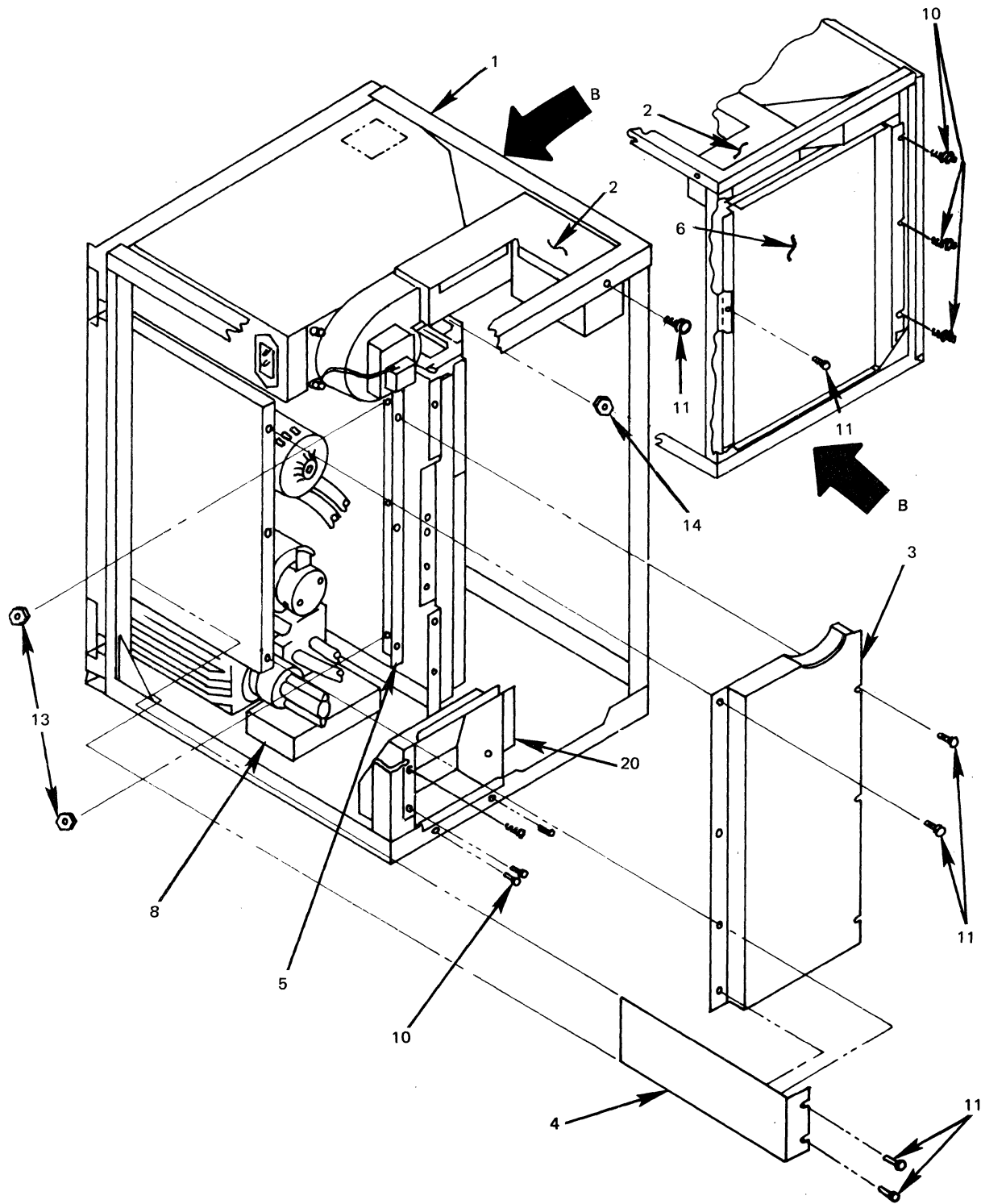
87-269-1

Figure 2-3. Device Preparation (Sheet 1 of 2)

Simplified Installation Procedures Checklist

- [] REMOVE AND DISCARD THE EXISTING MOTOR COVER AND WING NUTS. Details on pages 3-14 and 3-15.
- [] PEEL BACKING PAPER OFF OF THE 1-INCH FOAM PAD (ITEM 8) AND PLACE THE FOAM PAD DIRECTLY BELOW THE PRESSURE REGULATOR. Details on pages 3-14 and 3-15.

NOTE: The 1-inch foam pad (item 8) should be installed from the rear of the device.
- [] MOUNT THE NEW MOTOR COVER BRACKET (ITEM 5) OVER THE MOUNTING SCREW STUDS AND SECURE USING THREE #6 HEX NUTS (ITEM 13). Details on pages 3-14 and 3-15.
- [] INSTALL THREE PHILLIPS HEAD SCREWS (ITEM 11) INTO THE MOTOR COVER BRACKET (ITEM 5) ONLY PART WAY, THEN SLIDE THE NEW MOTOR COVER ASSEMBLY (ITEM 3) BEHIND THE DEVICE MOTORS UNDER THE THREE PROTRUDING SCREWS. NEXT INSTALL TWO MORE SCREWS (ITEM 11) INTO THE UPPER LEFT-HAND SIDE OF THE PANEL AND TIGHTEN ALL FIVE SCREWS. (DO NOT INSTALL THE BOTTOM TWO SCREWS ON LEFT SIDE OF COVER). Details on pages 3-14 and 3-15.
- [] INSTALL THE LOWER LEFT SIDE PANEL (ITEM 4) AND SECURE USING TWO PHILLIPS HEAD SCREWS (ITEM 11). Details on pages 3-14 and 3-15.
- [] (IF AVAILABLE), APPLY THE EQUIPMENT CONFIGURATION LABEL (SUPPLIED IN THE CARTON WITH THE DEVICE) TO THE LEFT SIDE PANEL. Details on pages 3-14 and 3-15.
- [] INSTALL THE FAN PLENUM ASSEMBLY (ITEM 2) AND SECURE WITH ONE PHILLIPS HEAD SCREW (ITEM 11) AND ONE #8 HEX NUT (ITEM 14). Details on pages 3-16 and 3-17.
- [] INSERT THREE 3/8 6-32 SCREWS (ITEM 10) PART WAY INTO THE RIGHT SIDE OF THE DEVICE CHASSIS. ON THE RIGHT SIDE OF THE DEVICE FRAME, SLIDE THE SIDE PANEL (ITEM 6) FROM THE REAR OF THE DEVICE ONTO THE THREE PROTRUDING SCREWS (ITEM 10). THE LOWER RIGHT CORNER OF THE SIDE PANEL (ITEM 6) SLIDES BEHIND THE TRIANGULAR SHAPED FRAME MEMBER. SECURE THE REAR OF THE PANEL WITH ONE PHILLIPS HEAD SCREW (ITEM 11) AND TIGHTEN THE FRONT THREE SCREWS (ITEM 10). Details on pages 3-16 and 3-17.



87-270-1

Figure 2-3. Device Preparation (Sheet 2 of 2)

NOTE: The next five check procedures are unnecessary, if installing a single tape device with an address of 0 to a new controller (i.e., no other tape devices are attached to the controller).

- [] REMOVE THE TIE WRAPS FROM THE INTERFACE BOARD SUPPORTS AND LOOSEN THE THUMBSCREWS. Details on pages 3-18 and 3-19.

CAUTION

Electrostatic discharges can damage Integrated Circuits (ICs). To prevent the electrostatic discharges from damaging the ICs on the logic boards, never handle the boards by their etch connectors, or electronic components (chips) nor touch the etch or chips. Attach a wrist strap to a ground point and then proceed with the removal or installation of the boards.

- [] ACCESS THE INTERFACE BOARD. Details on pages 3-18 and 3-19.

- [] SET THE SWITCHES S1 THROUGH S4 AT LOCATION G32. Details on pages 3-18 and 3-19.

- [] IF THIS IS NOT THE LAST DEVICE IN THE DAISY CHAIN, REMOVE THE TWO TERMINATORS. Details on pages 3-18 and 3-19.

NOTE: The terminator in location H-17 has a diode between pins 11 and 16.

- [] IF THIS IS THE LAST DEVICE IN THE DAISY-CHAIN, ENSURE THAT TWO TERMINATORS ARE INSTALLED ON THE INTERFACE BOARD. Details on pages 3-18 and 3-19.

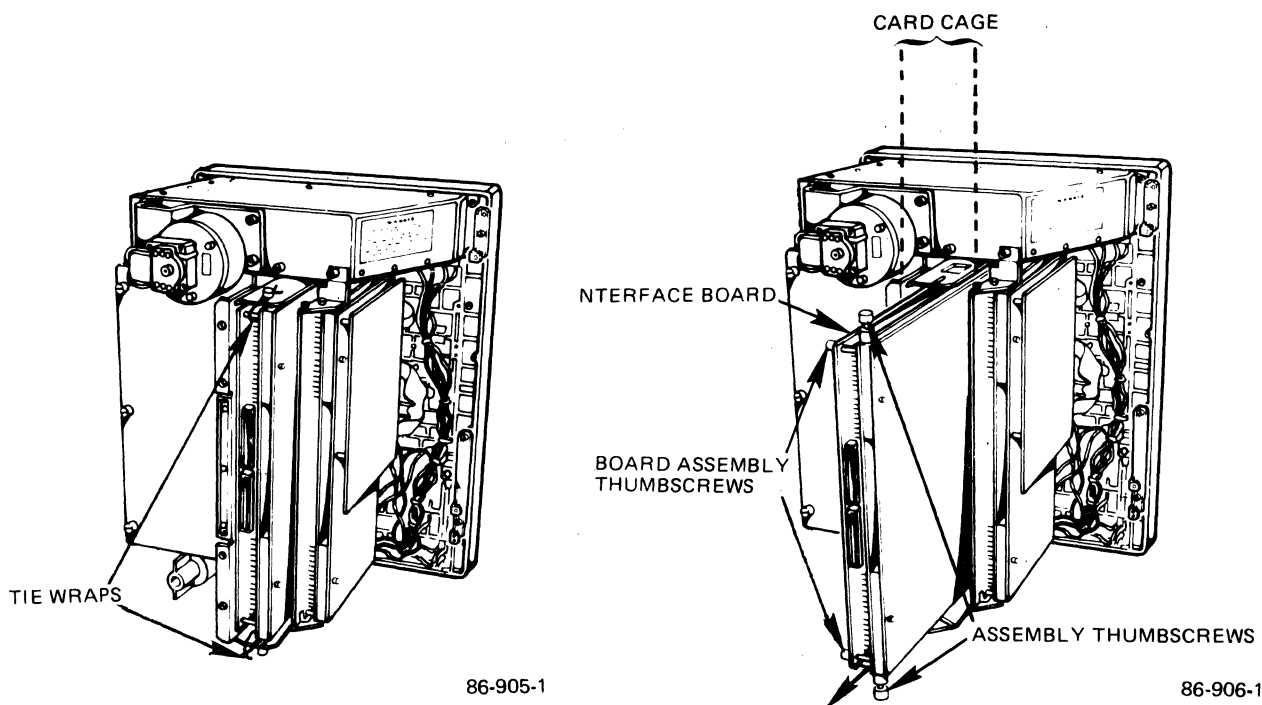
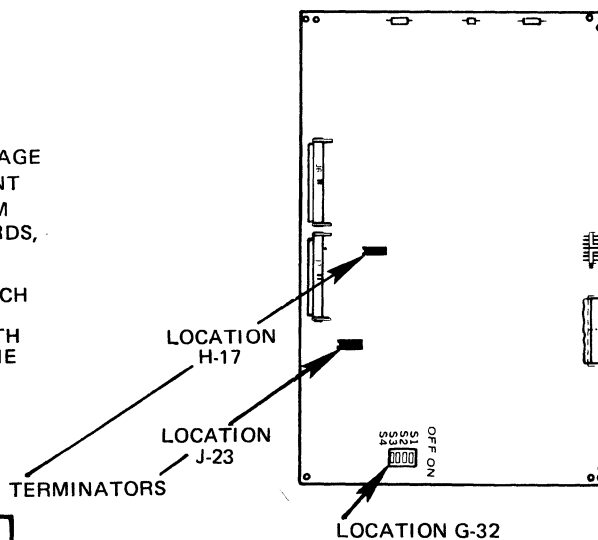


Figure 2-4. Card Cage Assembly

CAUTION

ELECTROSTATIC DISCHARGES CAN DAMAGE INTEGRATED CIRCUITS (ICs). TO PREVENT THE ELECTROSTATIC DISCHARGES FROM DAMAGING THE ICs ON THE LOGIC BOARDS, NEVER HANDLE THE BOARDS BY THEIR ETCH CONNECTORS, ELECTRONIC COMPONENTS (CHIPS) OR TOUCH THE ETCH OR CHIPS. ATTACH A WRIST STRAP TO A GROUND POINT AND THEN PROCEED WITH THE REMOVAL OR INSTALLATION OF THE BOARDS.



SWITCH		DEVICE ADDRESS
S1	S2	
OFF	OFF	0
ON	OFF	1
OFF	ON	2
ON	ON	3

NOTE

S1 AND S2 ARE FACTORY SET FOR ADDRESS 0.

SWITCH S4:

ON = LAST DRIVE IN THE DAISY CHAIN
OFF = NOT THE LAST DRIVE IN THE DAISY CHAIN

NOTE

SWITCH S3 IS FACTORY SET TO OFF.

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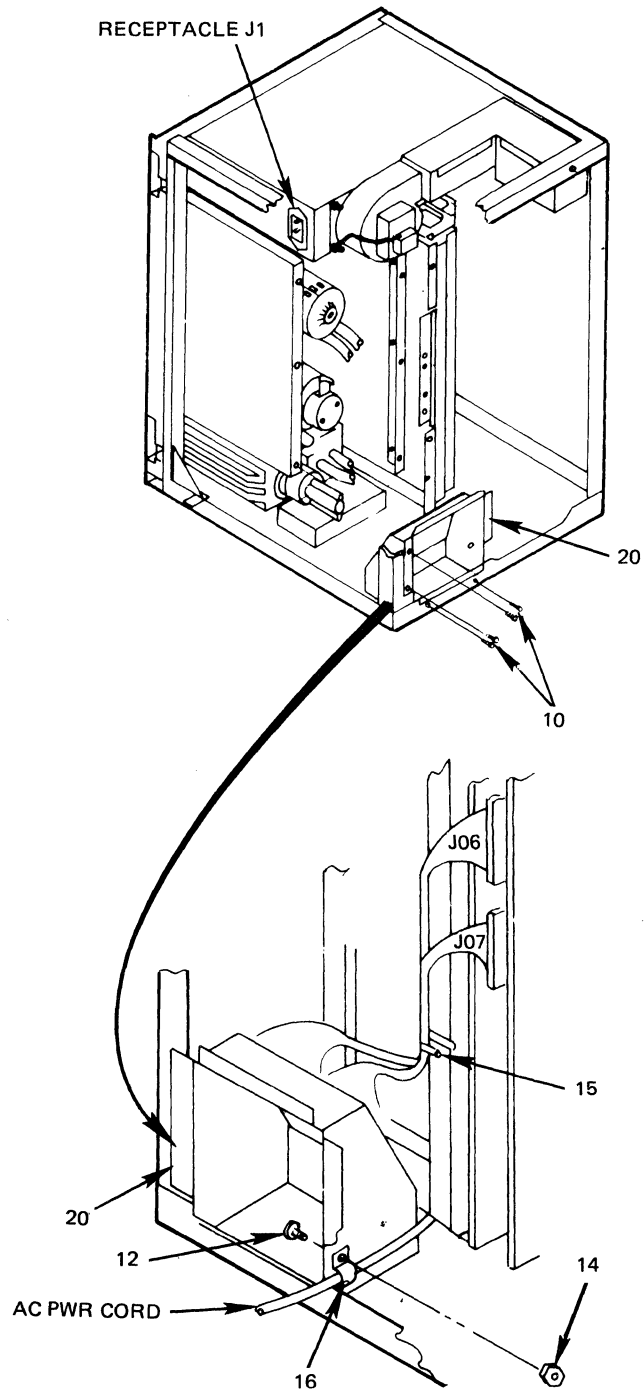
Figure 2-5. Interface Board Switch Locations and Settings

- [] MOUNT THE CABLE BULKHEAD ASSEMBLY (ITEM 20) USING FOUR 3/8 6-32 SCREWS (ITEM 10). Details on pages 3-20 and 3-21.
- [] INSTALL THE AC POWER CORD (60 HZ ONLY, SUPPLIED IN THE DEVICE CARTON) INTO RECEPTACLE J1 OF THE POWER SUPPLY. ROUTE THE AC POWER CORD DOWN THE RIGHT-HAND SIDE OF THE BULKHEAD ASSEMBLY. PLACE THE LOOP CLAMP (ITEM 16) OVER THE AC POWER CORD AND SECURE IT TO THE BULKHEAD. DO NOT PLUG THE AC POWER CORD INTO AN AC OUTLET AT THIS TIME. Details on pages 3-20 and 3-21.
- [] ROUTE THE TWO BULKHEAD CABLES UP TO THE DEVICE INTERFACE BOARD, OPEN THE CABLE HOLDERS TO A 45 DEGREE ANGLE (TO PREVENT BREAKING OFF), AND CONNECT THE TWO CONNECTOR PLUGS J06 AND J07 TO THE DEVICE INTERFACE BOARD CONNECTORS P06 AND P07. Details on pages 3-20 and 3-21.

CAUTION

When plugging the bulkhead cables into the device interface board, ensure that the wires as they exit the connectors, directly face the board.

- [] SECURE THE TWO BULKHEAD CABLES TO THE CHASSIS BY USING A CABLE TIE CLAMP (ITEM 15). Details on pages 3-20 and 3-21.



87-271-1

Figure 2-6. Install Cable Bulkhead and Internal Bulkhead Cables

Simplified Installation Procedures Checklist

- [] **INSTALL THE FRONT DOOR ASSEMBLY (ITEM 18) BY FIRST STARTING THREE 3/8 6-32 SCREWS (ITEM 10) INTO THE TOP THREE SCREWS HOLES OF THE CASTING AND THEN PLACE THE FRONT DOOR HINGE (MAKING SURE THAT IT IS POSITIONED TOWARD THE INSIDE OF THE TAPE DECK) OVER THE THREE SCREWS AND SLIDE IT DOWN INTO THE SCREW SLOTS. NEXT INSERT A SINGLE SCREW (ITEM 10) INTO THE BOTTOM HOLE OF THE DOOR HINGE AND TIGHTEN ALL FOUR SCREWS. Details on pages 3-22 and 3-23.**

- [] **ATTACH THE END OF THE DOOR STOP (ATTACHED TO THE FRONT DOOR ASSEMBLY) TO THE FRONT FACE PLATE WITH TWO 3/8 6-32 SCREWS (ITEM 10). Details on pages 3-22 and 3-23.**

- [] **CHECK THE FRONT DOOR CATCH AND INTERLOCK BRACKET FOR PROPER ALIGNMENT. Details on pages 3-22 and 3-23.**

NOTE: If the Interlock Bracket does not mate properly with its sensor, a decimal 10 will be displayed in the device display window, when a tape load is initiated.

- [] **APPLY THE FAULT ISOLATION LABEL (SUPPLIED IN THE CARTON WITH THE DEVICE) TO THE INSIDE OF THE FRONT DOOR. Details on pages 3-22 and 3-23.**

- [] **APPLY THE APPROPRIATE DEVICE UNIT NUMBER (ITEM 9) TO THE FRONT OF THE FRONT DOOR. Details on pages 3-22 and 3-23.**

- [] **PLACE THE COVER ASSEMBLY (ITEM 17) BEHIND THE DEVICE FRAME AND SLIDE IT OVER THE FRAME TOWARDS THE FRONT TAPE DECK, ENSURING THAT THE FRONT SIDE RETAINER CLIPS ENGAGE THE FRONT FRAME SIDES, AND THAT ALL THE FRONT EDGES OF THE COVER FIT OVER THE FRAME EDGES. SECURE THE COVER ASSEMBLY (ITEM 17) TO THE DEVICE FRAME BY FIRST STARTING ONE CAPTIVE SCREW AND ONLY TURNING IT PARTIALLY INTO THE FRAME, THEN START THE OTHER CAPTIVE SCREW, TURNING IT AND THE FIRST CAPTIVE SCREW UNTIL THE COVER IS SECURE. Details on pages 3-24 and 3-25.**

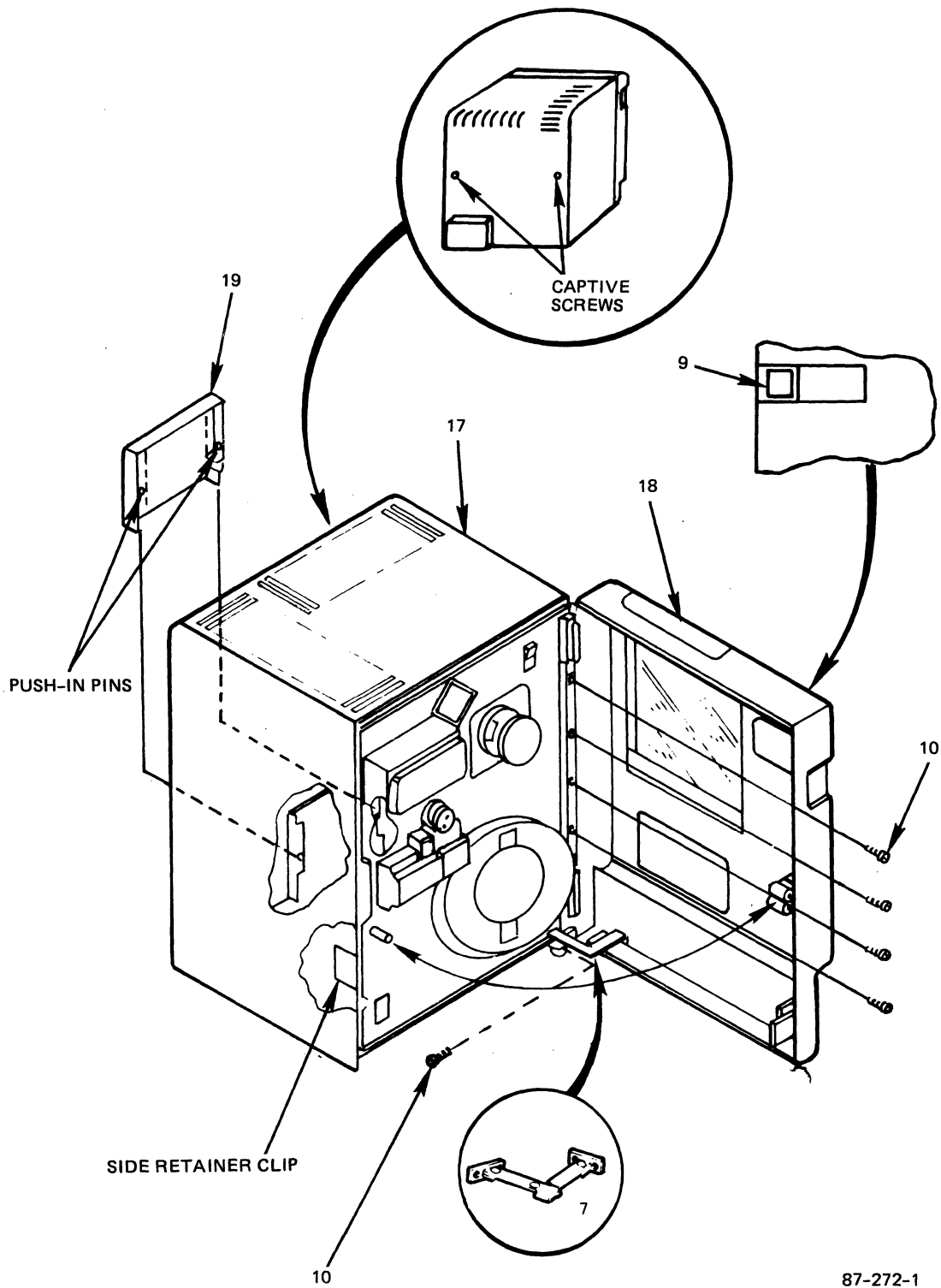
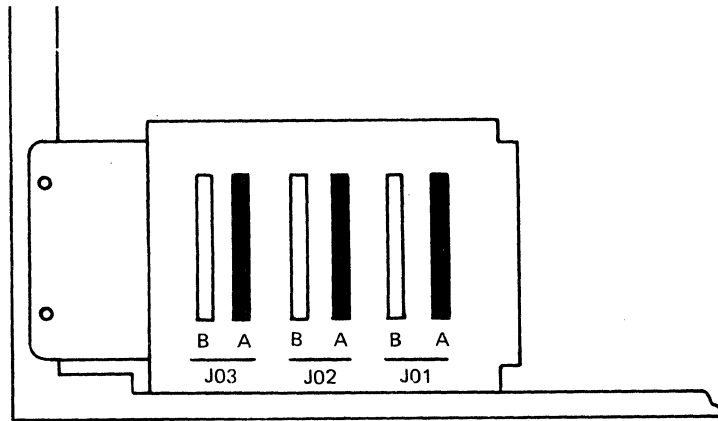


Figure 2-7. Install Front Door and Cover Assemblies

Simplified Installation Procedures Checklist

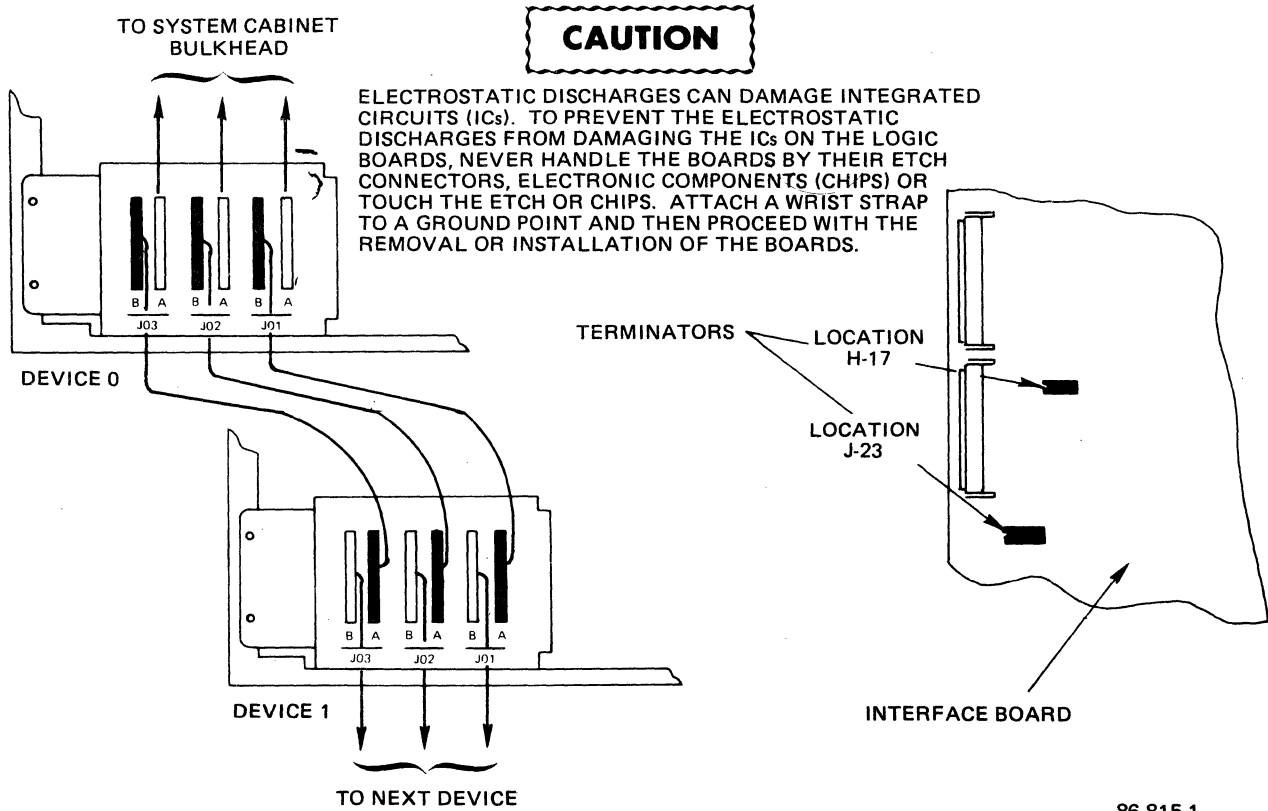
- [] **INSTALL THE SYSTEM CABLES (04910133-707) INTO THE CABLE BULKHEAD CONNECTORS.** Details on pages 3-26 and 3-27 or 3-28 and 3-29.
- [] **INSTALL THE DEVICE CABLE COVER (ITEM 19).** Details on pages 3-24 and 3-25.
- [] **CABLE DEVICE 0 TO THE SYSTEM CABINET.** Details on pages 3-26 and 3-27 or 3-28 and 3-29.
- [] **FOR A NEW DAISY CHAIN, INSTALL THE DAISY CHAIN CABLES (04910133-701).** Details on pages 3-30 and 3-31.
- [] **FOR AN EXISTING DAISY-CHAIN (SYSTEM MODIFICATION), REMOVE THE TWO TERMINATORS FROM THE FORMER LAST DEVICE AND INSTALL THE ADDITIONAL DAISY CHAIN CABLES (04910133-701).** Details on pages 3-30 and 3-31.



86-814-1

NOTE

SHADED AREAS INDICATE CONNECTORS FOR CABLES TO SYSTEM CABINET FOR DEVICE 0.



86-815-1

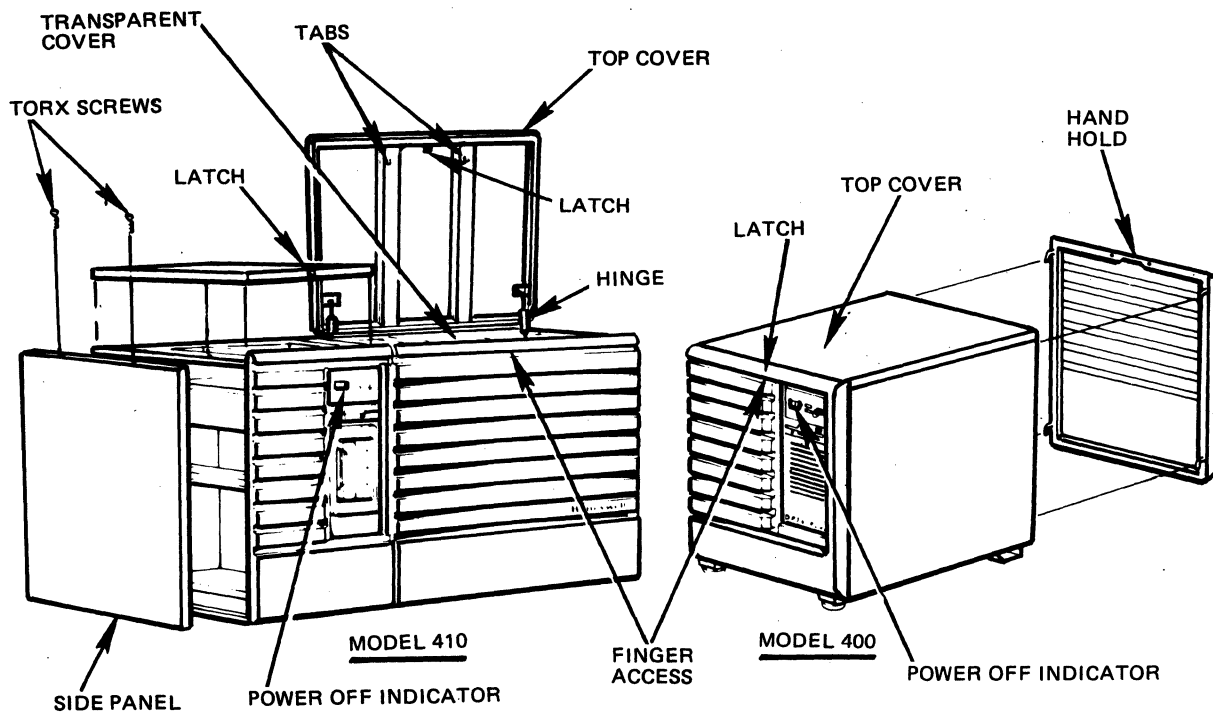
Figure 2-8. Device Cabling

- [] FOR MODELS 410 AND 420 SYSTEMS, REINSTALL THE LEFT SIDE PANEL, THE 15-INCH TOP COVER, AND CLOSE THE 30-INCH TOP COVER ON THE 45-INCH CABINET. FOR MODEL 400 SYSTEMS, REINSTALL REAR PANEL AND CLOSE THE TOP COVER. Details on pages 3-36 and 3-37.

WARNING

Ensure that the power switch on all devices and the PDU are in the OFF position.

- [] ROUTE THE AC POWER CORD TO THE NEAREST AC OUTLET. Details on pages 3-32 and 3-33.
- [] PERFORM DEVICE CHECKOUT. Details on pages 3-34 and 3-35.
- [] GO TO *TACPAC II CSE REFERENCE MANUAL* (ORDER NO. US10) TO PERFORM DEVICE T&Vs.
- [] TO OPERATE THE DEVICE, REFER TO *MTU9921/9922 GCR/PE TAPE DRIVE OPERATION* (ORDER NO. HD52).



87-268-1

Figure 2-9. Reinstall Covers and Close Covers

Section 3 DEVICE INSTALLATION

In this section:	See page
Installing the Device with an Initial System or as a Modification...	3-2
Powering Down and Accessing Bulkhead for System Modification.....	3-4
Unpacking.....	3-6
Attaching the Device Holding Bracket to a Cabinet.....	3-8
Placing and Stabilizing the Device.....	3-10
Preparing the Device.....	3-12
Mounting the Motor Cover and Lower Side Panel.....	3-14
Installing the Fan Plenum Assembly and Right Side Panel.....	3-16
Setting the Device Address Switches and Terminator Repositioning..	3-18
Installing the Bulkhead, AC Power Cord, and Bulkhead Cables.....	3-20
Installing the Front Door.....	3-22
Mounting the Cover Assembly and Cable Cover.....	3-24
Installing Device Cables for an Initial System.....	3-26
Installing Device Cables for a System Modification.....	3-28
Installing Additional Device Cables and Removing Terminators.....	3-30
Plugging in Device AC Power.....	3-32
Performing Device Checkout.....	3-34
Reinstalling the System Cabinet Covers and Panels.....	3-36

INSTALLING THE DEVICE WITH AN INITIAL SYSTEM OR AS A MODIFICATION

Summary The Tabletop Tape (GCR/PE) Subsystem can be assembled and installed either as part of an initial system installation or as a modification to an existing system.

Tape Subsystem The Tabletop Tape (GCR/PE) Subsystem is composed of a Magnetic Tape Unit (MTU) drive and device cables. The subsystem is shipped in two separate cartons, as shown in Figure 3-1.

Initial Installation If this is an initial system installation, the installer should first perform the procedures in *DPS 6 PLUS Model 410 & Model 420 System Installation* (Order No. US02) or *DPS 6 PLUS Model 400 System Installation* (Order No. US26).

System Modification System modification is the assembling and installing of one or more devices to an existing system that is not already equipped with a device. The installation package for a system modification includes a controller board, adapter board(s), adapter-to-bulkhead cables, and the device(s). Under system modification the DPS 6 PLUS System must be powered down, the cabinet panels removed, a controller with adapter board(s) inserted into the card rack, and, three cables installed from the adapter board to the side bulkhead of the Model 410 or Model 420 cabinet or rear bulkhead of the Model 400 cabinet. To install the controller board(s), adapter board(s), and adapter to bulkhead cables, the installer should refer to the procedures in *DPS 6 PLUS Universal Peripheral Controller Option Installation* (Order No. US23).

Another type of system modification is the assembling and installing of one or more devices to an existing system that is already equipped with device(s), and possibly the addition of another controller and adapter board. If an additional controller and adapter board need to be installed, the installer should refer to the procedures in *DPS 6 PLUS Universal Peripheral Controller Option Installation* (Order No. US23).

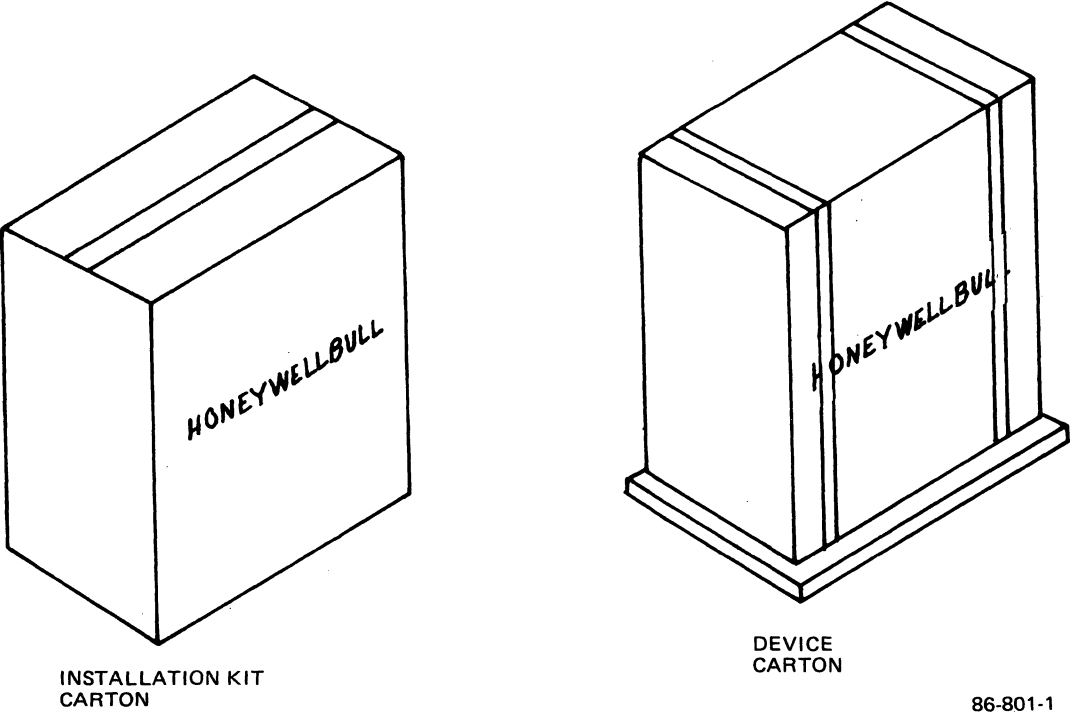


Figure 3-1. Tabletop Tape (GCR/PE) Subsystem Shipping Cartons

POWERING DOWN AND ACCESSING BULKHEAD FOR SYSTEM MODIFICATION

WARNING

The system must be completely powered down prior to performing any system modification procedures.

Summary

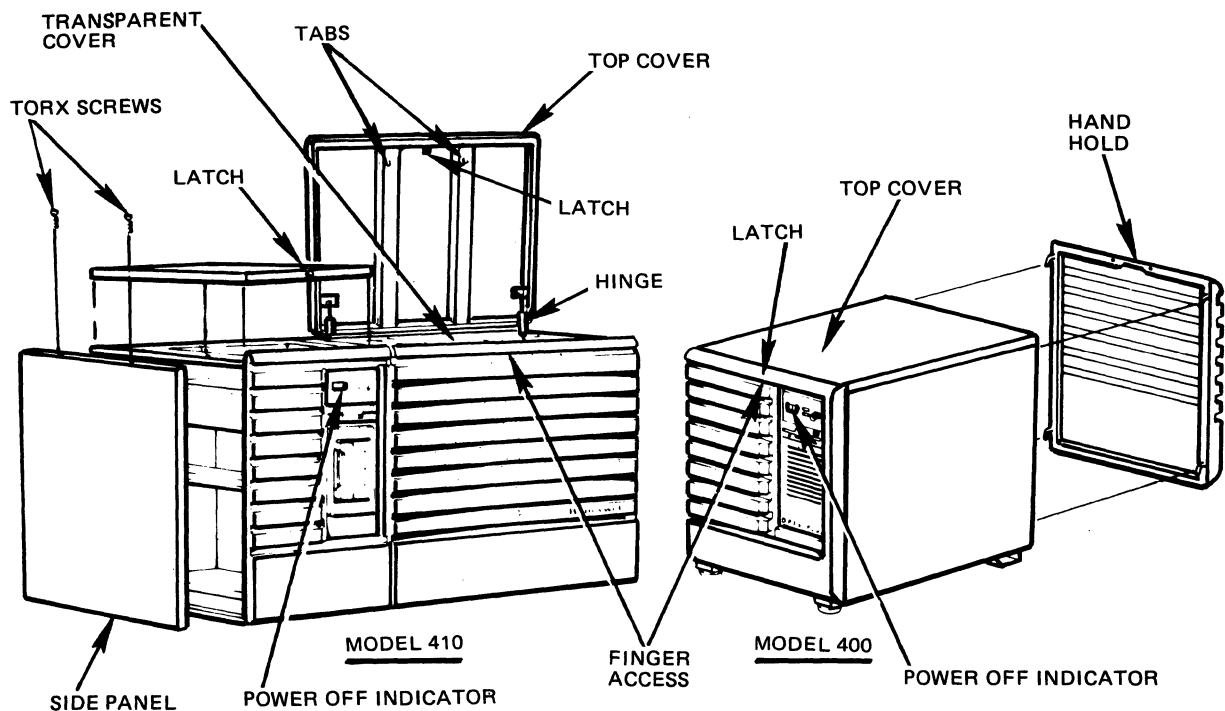
The installer must power off the peripherals and then the system. If this a Model 410 or Model 420 system modification, open the 30-inch top cover on the 45-inch cabinet, and remove the 15-inch top cover (which does NOT lift up) and the left side panel. If this is a Model 400 system modification, open the top cover and remove the rear panel.

NOTE: Refer to Figure 3-2 for the following steps.

- Step 1 Remove the media (if present) from the 5-1/4 inch diskette drive and (if present) from the 1/4-inch cartridge tape drive.
- Step 2 Power off all peripherals attached to the system (refer to the appropriate peripheral manuals).
- Step 3 Press the Power Control Panel (PCP) power switch/indicator to the OFF position.

NOTE: To access the Model 410 and Model 420 system bulkhead, perform steps 4 through 9. To access the Model 400 system bulkhead, perform steps 10 through 13.
- Step 4 For a Model 410 or Model 420 system, at the front of the 45-inch cabinet, locate the latch of the 30-inch top cover. Below the latch is a hole in the skin that serves as a finger access.
- Step 5 Insert a finger in the finger access, and push up on the top cover latch. The top cover will pop up.
- Step 6 Lift up the top cover.
- Step 7 At the front of the cabinet towards the left side, locate the latch of the 15-inch top cover. Push the latch down.
- Step 8 Lift the cover up slightly, move the cover left to right slightly, and slide the cover forward and away from the cabinet.

- Step 9 At the left side of the cabinet, remove the two TORX screws that hold the side panel in place. Lift up and remove the side panel, and set aside.
- Step 10 For a Model 400 system, at the front of the cabinet, locate the latch of the top cover. Below the latch is a hole in the front skin that serves as a finger access.
- Step 11 Insert a finger in the finger access, and push up on the top cover latch. The top cover will pop up.
- Step 12 Lift up the top cover.
- Step 13 At the rear of the cabinet, lift up and remove the rear panel. Set aside.
- Step 14 Go to *DPS 6 PLUS Universal Peripheral Controller Option Installation* (Order No. US23) which provides the procedures to install the controller board(s), adapter boards(s), and adapter to bulkhead cables.



87-268-1

Figure 3-2. Cabinet Accessibility

UNPACKING

Summary The procedures to unpack a Tabletop Tape (GCR/PE) Subsystem for an initial installation or system modification are the same.

- Step 1** Ensure that all the shipping cartons on the shipping manifest were received.
- Step 2** Move the shipping cartons close to the area where the device is to be installed.
- Step 3** Open the carton containing the installation kit and ensure that all the kit parts are received.

CAUTION

Set the front door assembly in a safe place to avoid damage until it is used.

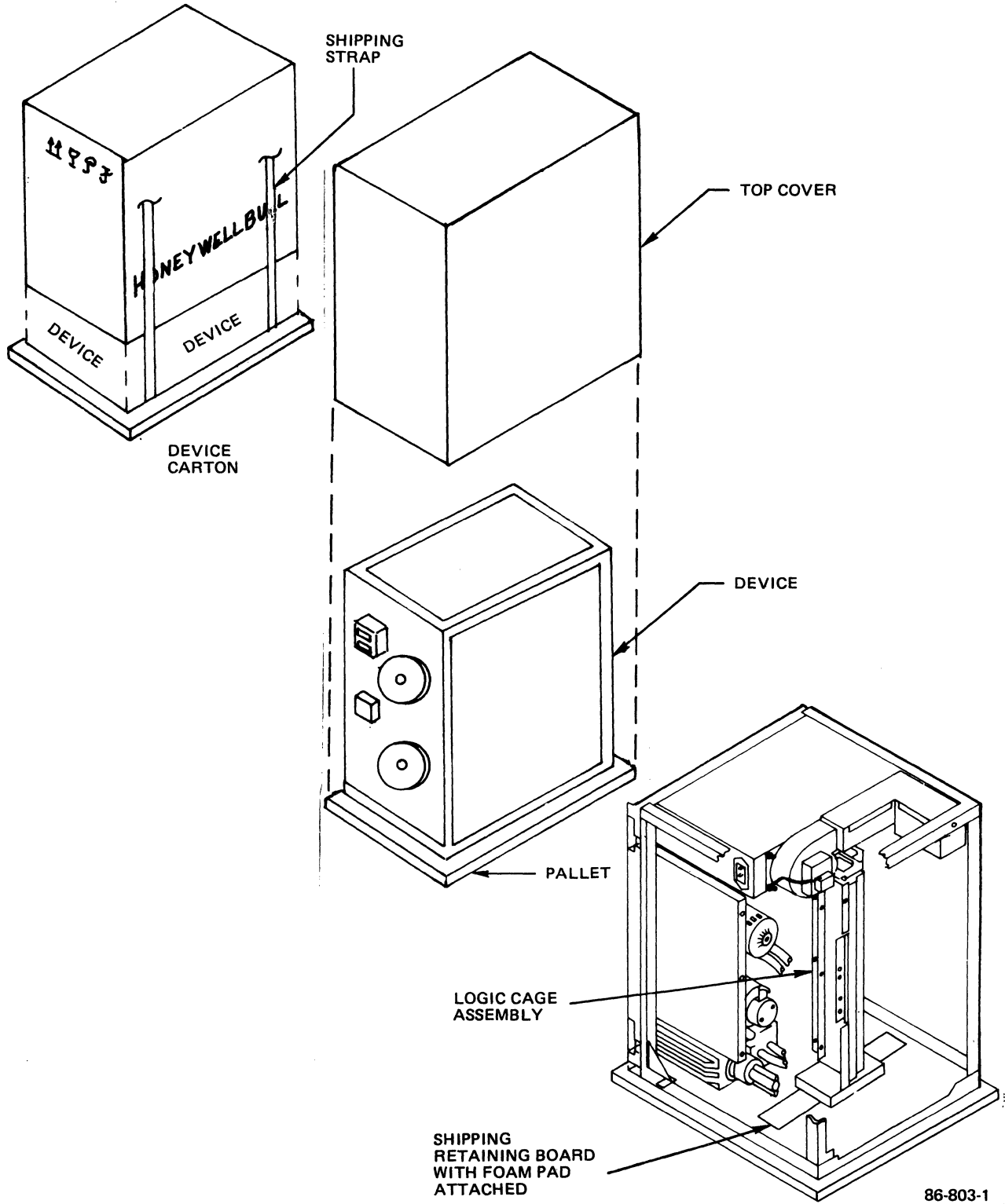
NOTE: The installer should compare the parts received with the parts listed on the shipping manifest and report any damaged, missing, or incorrect parts to the District Manager and to the Installation Control Center.

Step 4 Remove the shipping straps from the device shipping carton, as shown in Figure 3-3.

Step 5 Remove the carton cover by lifting it straight up and over the device, as shown in Figure 3-3.

NOTE: Ensure that the carton contains the device power cord (60 Hz only), fault isolation label, and equipment configuration log label (if available), located under the device in the carton.

Step 6 Remove the shipping retaining board (with foam pad attached) and discard it. It is located directly under the logic cage assembly, as shown in Figure 3-3.



86-803-1

Figure 3-3. Unpacking the Device

ATTACHING THE DEVICE HOLDING BRACKET TO A CABINET

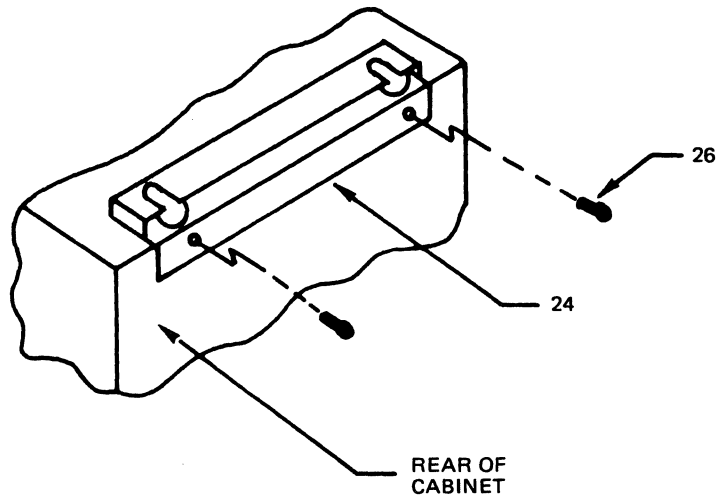
Summary

The purpose of the holding bracket is to secure a device to the top of a cabinet. Also, it prevents any inadvertent tilting of the device.

The holding bracket mounts on a fixed disk cabinet or corner extension cabinet that have pre-drilled mounting holes.

NOTE: The device pedestal is shipped with a holding bracket already mounted on its top cover.

To attach the holding bracket to the top of a cabinet, place a holding bracket (item 24) on the top rear of the cabinet, align the mounting holes and secure by inserting and tightening with two screws (item 26), as shown in Figure 3-4.



PARTS LIST			
ITEM	DESCRIPTION	PART NUMBER	QUANTITY
24	HOLDING BRACKET	60159560-001	1
26	3/8 HWT 8-32 SCREW	03010239-202	2

86-804-1

Figure 3-4. Mounting the Holding Bracket

PLACING AND STABILIZING THE DEVICE

Summary The device may be placed on a device pedestal, fixed disk cabinet (MSU9901), or corner extension cabinet. The device may NOT be placed on the MSU9941 or MSU9931 disk cabinets. Before performing step 1 of this procedure, ensure that the supporting pedestal (adjust foot pads) or cabinet is level.

Step 1 Mount a lifting handle (60159523-001) with its mounting screws (03010239-405) (both are provided by the installer), on each side of the device frame, as shown in Figure 3-5.

WARNING

To avoid bodily injury, two or more persons are required to lift the device.

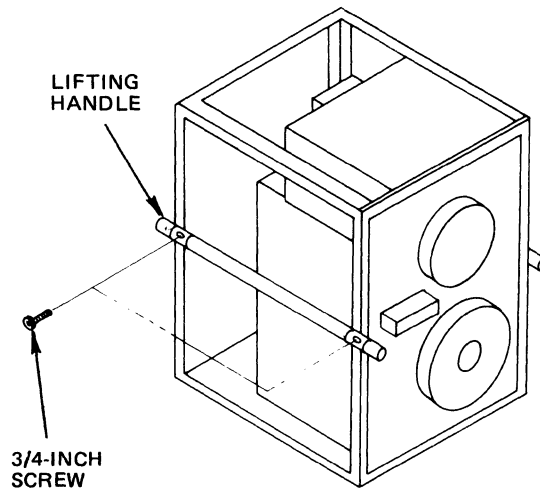
Step 2 Using the lifting handles and adhering to the WARNING above, lift the device off the shipping pallet and set it on top of the cabinet, sliding its two rear feet into the cutout slots of the holding bracket. Ensure that you slide the device all the way forward, until the two rear feet drop into the two shallow holes provided in the holding bracket.

Step 3 Remove the two lifting handles from the device frame.

CAUTION

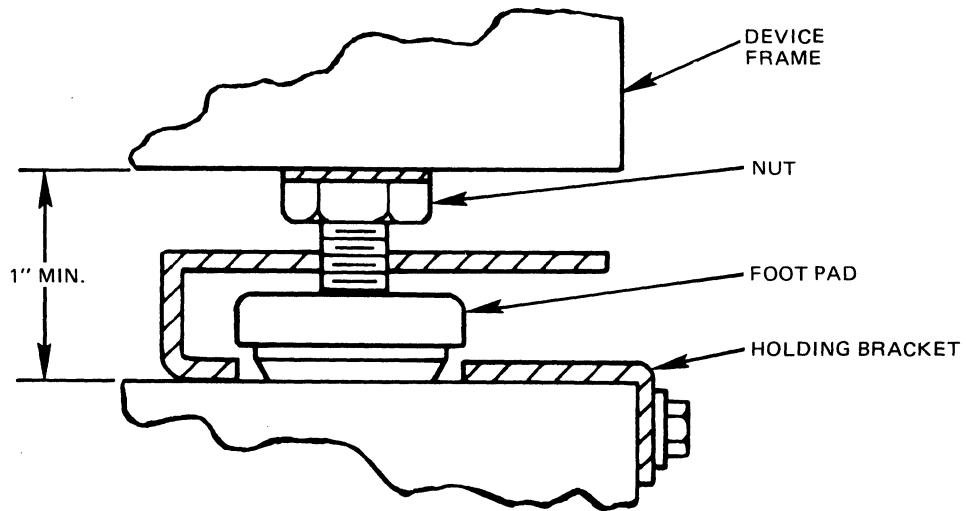
A minimum spacing of 1-inch must be maintained between the tabletop and the bottom of the device for cooling.

Step 4 (If necessary), stabilize the device to prevent rocking by adjusting its foot pads and tighten the pad lock nuts, as shown in Figure 3-6.



86-805-1

Figure 3-5. Mounting the Lifting Handles



86-806-1

Figure 3-6. Locking the Device Stabilizing Pads

PREPARING THE DEVICE

Summary To prepare a device for connection to a system, the device must be assembled, installed, and its device address switches set.

Part of the preparation of the device includes adding a (acoustic) quiet compression kit to the device (i.e., special side panels, fan plenum assembly, motor cover assembly, etc.).

Device Preparation The covers, fan plenum assembly, cable bulkhead, and ac power cord must be installed to prepare the device for connection to a system. Also, the device address switches should be set and cable terminators moved (if applicable) before the cable bulkhead is installed.

CAUTION

Electrostatic discharges can damage Integrated Circuits (ICs). To prevent the electrostatic discharges from damaging the ICs on the logic boards, never handle the boards by their etch connectors, electronic components (chips) or touch the etch or chips. Attach a wrist strap to a ground point and then proceed with the removal or installation of the boards.

Pre-Testing the Device Included in the preparation of the device, but before assembly and installation, the device should be verified by the Customer Service Engineer (CSE) that it is operational by temporarily plugging in its power cord and then performing its off-line Operator-Test 01 for 5 minutes. Refer to the module entitled Performing Device Checkout or to the list of related documents to perform Operator-Test 01.

NOTE: For the CSE to operate the transport with no front cover, the interlock switch (on the bottom left side of the front of the tape deck) must be defeated.

After the Operator-Test 01 has been run for 5 minutes, turn the device Power ON/OFF switch OFF and remove the power cord.

NOTE: After the device preparation is complete, a final check of the device should be performed (refer to the module entitled Performing Device Checkout).

Reference documents that pertain to Operator-Test 01 are as follows:

Title	Order Number
DPS 6 PLUS MTU9921/9922 GCR/PE Tabletop Magnetic Tape Unit Operation	HD52
1/2-Inch Low Cost GCR Streamer (T&RP)	K979

Mounting the Motor Cover and Lower Side Panel

Summary The device motor cover is removed and a new motor cover assembly and left side panel are installed.

Step 1 At the rear of the device, locate the existing motor cover (see Figure 3-7). Remove the three wing nuts, loosen the three captive screws, and remove the motor cover and discard it.

NOTE: Refer to Figure 3-8 for steps 2 through 5.

Step 2 Locate the 1-inch foam pad (item 8) supplied with the installation kit. Peel the paper backing off the pad and place the pad directly below the pressure regulator onto the base of the device.

NOTE: The 1-inch foam pad should be installed from the rear of the device.

Step 3 Mount the motor cover bracket (item 5) over the three mounting studs located on the side of the card cage. Install three #6 hex nuts (item 13) on the studs and tighten.

Step 4 Mount the new motor cover assembly (item 3) by installing three screws (item 11) into the motor cover bracket part way. Slide the new motor cover assembly behind the device motors onto the three screws. Next, install two more screws into the upper left-hand side of the panel and tighten all five screws. **DO NOT** install screws into the bottom two mounting holes on the left-hand side of the cover; they will be installed in the next step.

Step 5 Install the side panel (item 4) on the lower left side (as seen from the rear) of the device motors. Slide the front corner of the panel behind the triangular frame member with the bend of metal covering the bottom two mounting holes of the motor cover assembly. Secure the panel to the motor cover assembly with two screws (item 11).

Step 6 (If available), apply the Equipment Configuration Label (supplied in the device carton) to the left side panel.

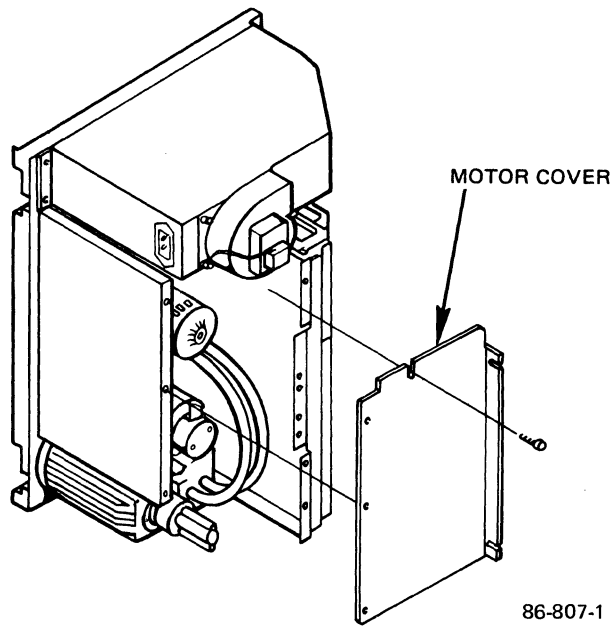


Figure 3-7. Removing the Existing Motor Cover

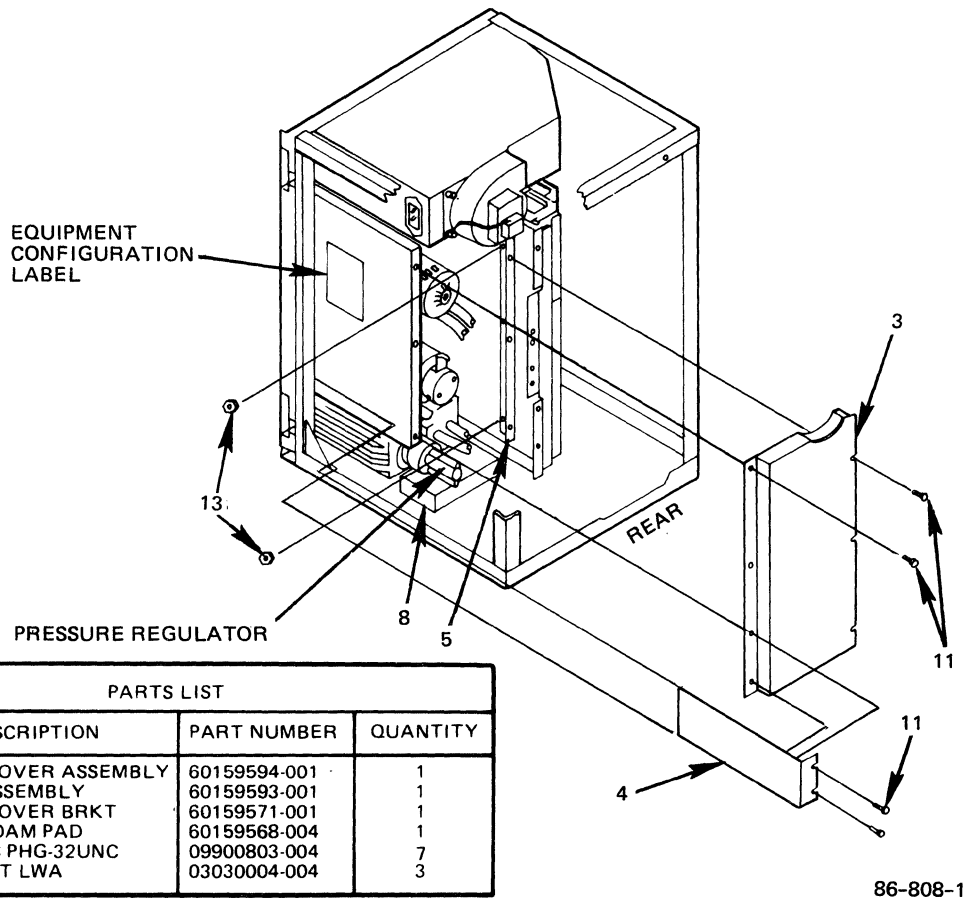


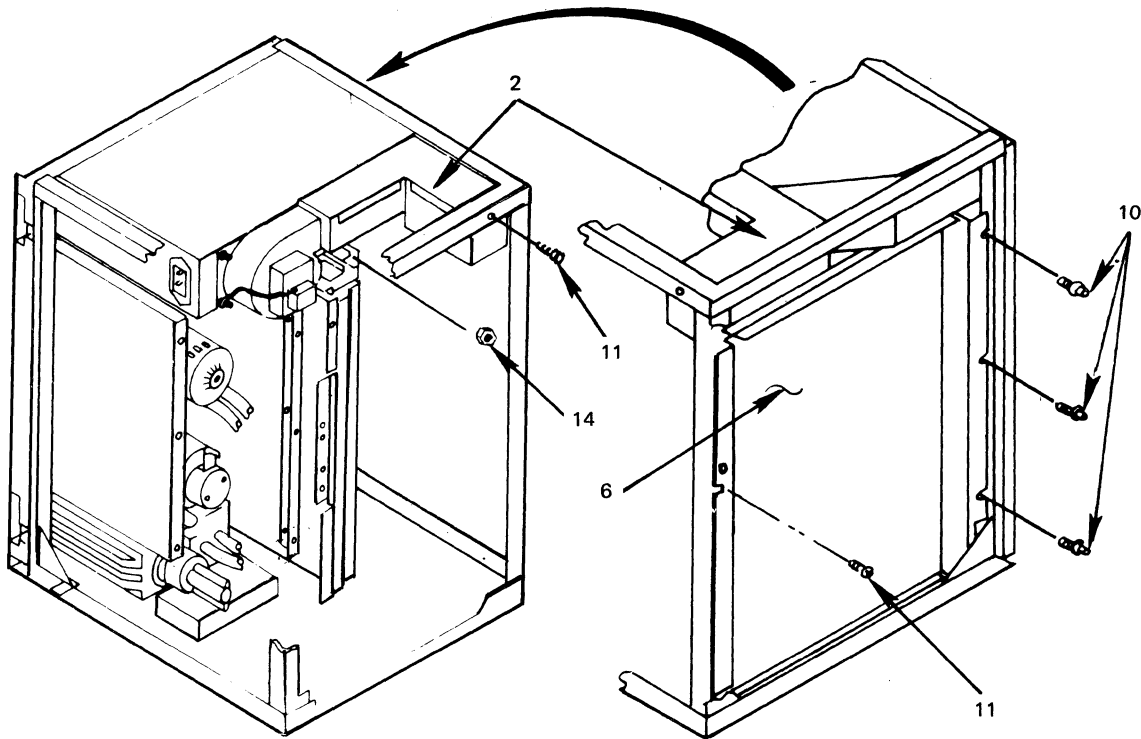
Figure 3-8. Installing the 1-Inch Foam Pad, New Motor Cover, and Lower Side Panel

Installing the Fan Plenum Assembly and Right Side Panel

Summary A fan plenum assembly is installed on the outlet of the cooling fan and a side panel on the right side of the device (refer to Figure 3-9).

- Step 1** Slide (from the rear of the device) the fan plenum assembly (item 2) up under the top bar of the frame and rotate it onto the outlet end of the fan assembly, placing the mounting tab hole over the existing stud (DO NOT remove the existing nut).
- Step 2** Secure the open end of the plenum assembly to the top bar of the frame with a screw (item 11) and tighten.
- Step 3** Secure the fan end of the plenum assembly by placing a #8 hex nut (item 14) on the stud and tighten.
- Step 4** Insert three screws (item 10) part way into the right side of the device chassis. On the right side of the device frame, slide the side panel (item 6) from the rear of the device into the partially inserted three screws (item 10). Secure the rear of the panel with one screw (item 11), and then tighten the front three screws (item 10).

NOTE: The lower right corner of the side panel (item 6) slides behind the triangular shaped frame member.



PARTS LIST			
ITEM	DESCRIPTION	PART NUMBER	QUANTITY
2	FAN PLENUM ASSEMBLY	60159598-001	1
6	PANEL ASSEMBLY	60159595-001	1
10	3/8 HWT 6-32 SCREW	03010239-102	3
11	SCR SEMS PH6 UNC	09900803-004	2
14	HEX 8 NUT LWA	03030004-003	1

86-809-1

Figure 3-9. Mounting the Fan Plenum Assembly and Right Side Panel

Setting the Device Address Switches and Terminator Repositioning

Summary To set the device address switches, refer to Figures 3-10 and 3-11, observe all electrostatic precautions, and perform the steps below.

If installing a single tape device with an address of 0 to a new controller (i.e., no other tape devices are attached to the controller), then the procedures in this module are unnecessary.

- Step 1** At the rear of the device, remove the tie-wraps from the upper and lower interface board supports.
- Step 2** Loosen the top and bottom assembly thumbscrews; DO NOT remove the screws.
- Step 3** Carefully slide the card cage towards you; DO NOT remove the card cage.
- Step 4** Loosen the top and bottom board assembly thumbscrews that attach the boards and carefully move the interface board slightly to the left.
- Step 5** If this IS NOT the last device installed to the controller (in a daisy chain system), remove the two terminators on the interface board at locations H-17 and J-23.
- NOTE:** In step 6, the terminator in location H-17 has a diode connected between pin 11 and pin 16.
- Step 6** If this is the last device installed to the controller, ensure that the terminators are installed on the interface board at locations H-17 (one with the diode between pins 11 and 16) and J-23.
- Step 7** Set the device address switches to the correct address. Ensure that switch S3 is OFF and that switch S4 is at the CORRECT setting.
- Step 8** Reposition the interface board, and tighten the top and bottom thumbscrews.
- Step 9** Slide the card cage evenly into the device and tighten the top and bottom assembly thumbscrews.

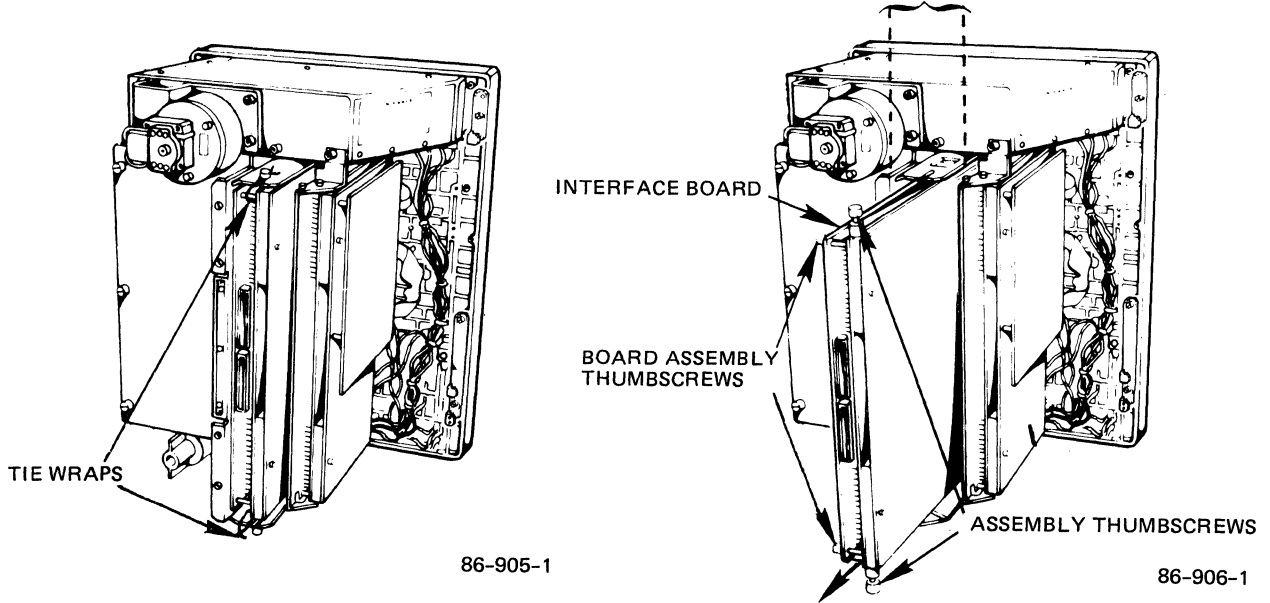
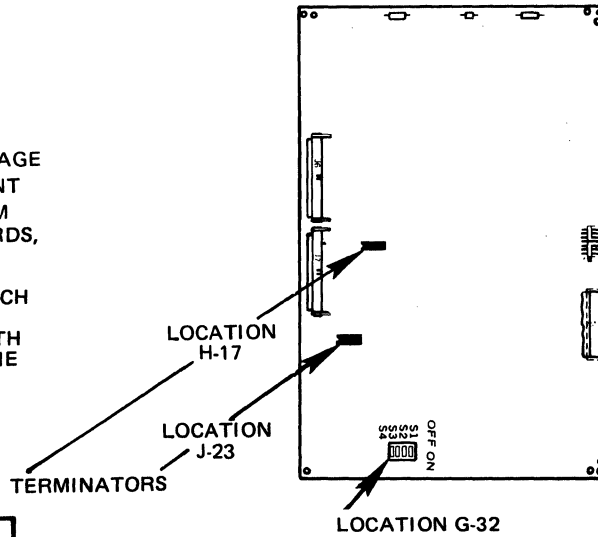


Figure 3-10. Card Cage Assembly

CAUTION

ELECTROSTATIC DISCHARGES CAN DAMAGE INTEGRATED CIRCUITS (ICs). TO PREVENT THE ELECTROSTATIC DISCHARGES FROM DAMAGING THE ICs ON THE LOGIC BOARDS, NEVER HANDLE THE BOARDS BY THEIR ETCH CONNECTORS, ELECTRONIC COMPONENTS (CHIPS) OR TOUCH THE ETCH OR CHIPS. ATTACH A WRIST STRAP TO A GROUND POINT AND THEN PROCEED WITH THE REMOVAL OR INSTALLATION OF THE BOARDS.



SWITCH		DEVICE ADDRESS
S1	S2	
OFF	OFF	0
ON	OFF	1
OFF	ON	2
ON	ON	3

NOTE

S1 AND S2 ARE FACTORY SET FOR ADDRESS 0.

SWITCH S4:

ON = LAST DRIVE IN THE DAISY CHAIN
 OFF = NOT THE LAST DRIVE IN THE DAISY CHAIN

NOTE

SWITCH S3 IS FACTORY SET TO OFF.

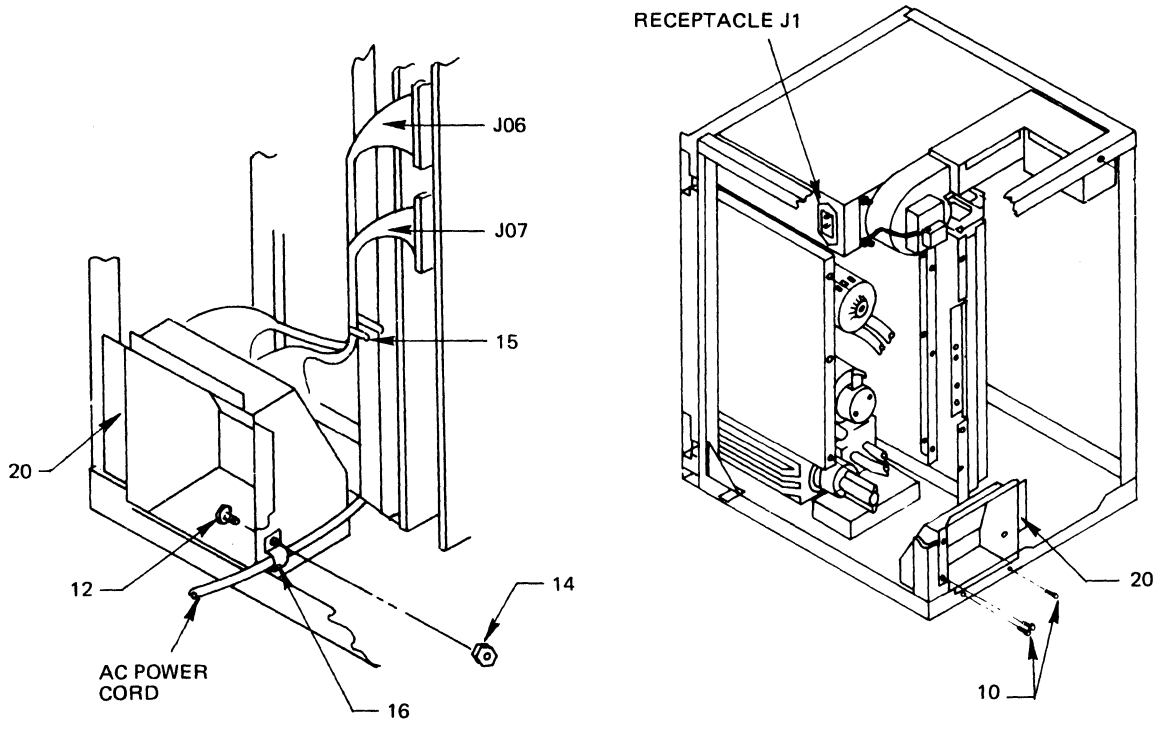
85-287-1

Figure 3-11. Interface Board Switch Locations and Settings

Installing the Bulkhead, AC Power Cord, and Bulkhead Cables

Summary A cable bulkhead assembly is mounted on the rear of the device, and a power cord and internal bulkhead cables are installed in the device (refer to Figure 3-12).

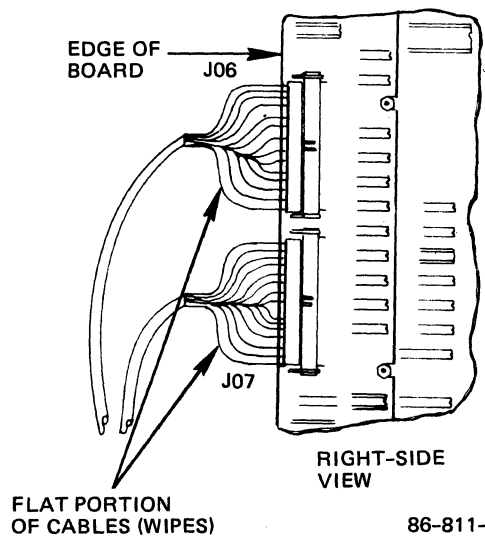
- Step 1** Mount the cable bulkhead assembly (item 20) on the rear of the device frame using four screws (item 10).
- Step 2** Install the ac power cord (60 Hz only, supplied in the carton with the device) by plugging it into receptacle J1, located on the left side (as viewed from the rear) of the power supply. Route the ac cord down the side of the device to the right side of the bulkhead assembly (as viewed from the rear).
- Step 3** Place the loop clamp (item 16) over the ac power cord and secure it to the bulkhead with one screw (item 12) and one nut (item 14). Ensure that the nut is on the outside of the bulkhead.
- Step 4** Route the two bulkhead cables up to the device interface board, open the cable holders to a 45 degree angle (to prevent breaking off), and connect the two connector plugs J06 and J07 to the device interface board connectors P06 and P07.
- Step 5** Secure the two bulkhead cables to the chassis by using a cable tie clamp (item 15).



PARTS LIST			
ITEM	DESCRIPTION	PART NUMBER	QUANTITY
10	3/8 HWT 6-32 SCREW	03010239-102	4
12	3/8 SC-WA HXS 8-32	03010223-013	1
14	HEX 8 NUT LWA	03030004-003	1
15	CABLE TIE CLAMP	03510004-002	1
16	LOOP CLAMP 5/16 ID	03510002-003	1
20	BULKHEAD ASSEMBLY	60159616-001	1

86-810-1

Figure 3-12. Installing the Cable Bulkhead Assembly, AC Power Cord, and Internal Bulkhead Cables



86-811-2

Figure 3-13. Plugging in the Bulkhead Cables

Installing the Front Door

Summary A front door is installed on the device (refer to Figure 3-14).

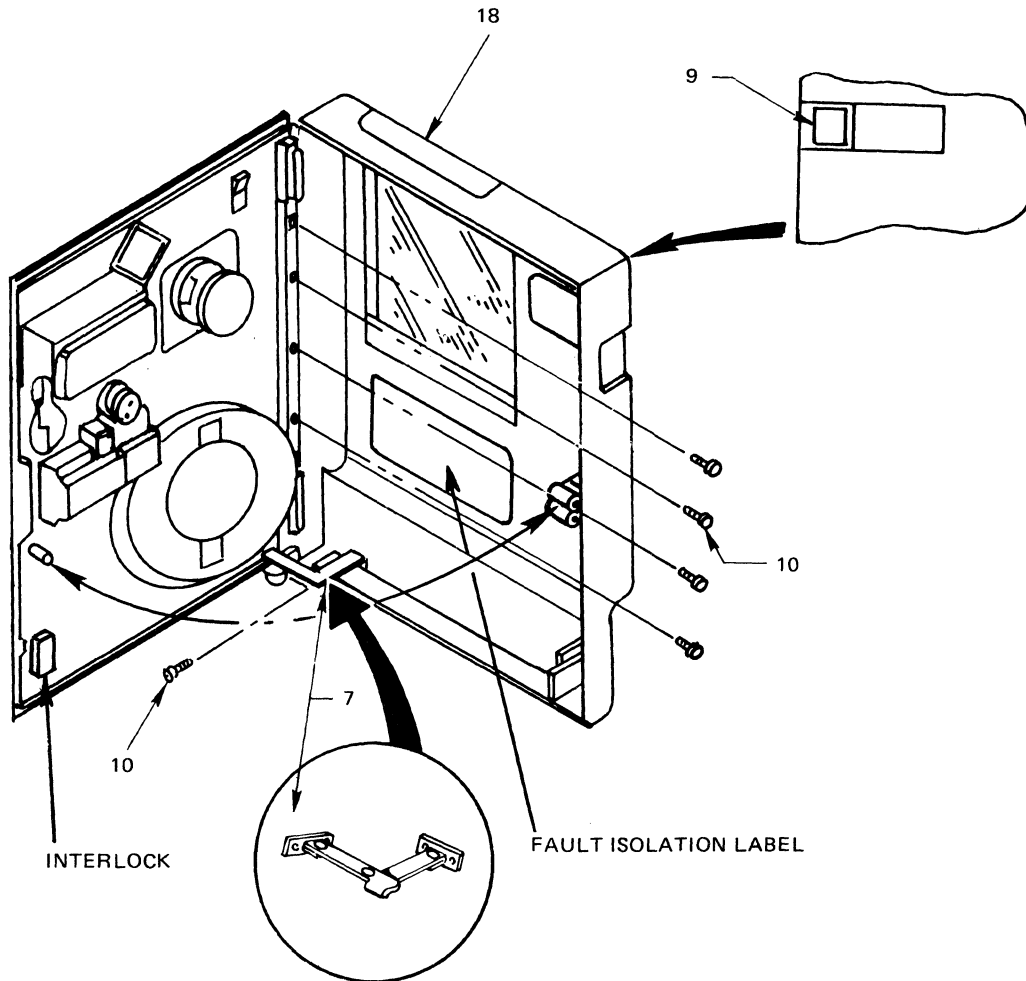
- Step 1 Insert three screws (item 10) into the top three screw holes that hold the device front door assembly to the casting. Turn the screws only part way into the casting.
- Step 2 Install the front door assembly (item 22) by making sure the hinge is positioned toward the inside of the tape deck and then placing its hinge over the three screws (just inserted in the previous step) and sliding it down onto the screw holding slots.
- Step 3 Insert a screw (item 10) into the bottom hole of the front door hinge and tighten all four screws.
- Step 4 (If applicable for metal door only), install the front door stop (item 7) by mounting it over the door hinge mounting studs and secure it with two hex nuts (item 13).
- Step 5 Attach the door stop (item 7) to the front face plate of the device with two screws (item 10)

NOTE: Adjustment of the device front door catch and interlock bracket, may be required.

CAUTION

DO NOT attempt to close the front door without first unlocking the door stop bracket.

- Step 6 Align the front door catch so that the door closes properly and the catch mates with its stop. Also, check the door interlock bracket, so that it fits into its door sensor slot properly.
- NOTE: If the front door interlock bracket does not mate properly with its sensor, a decimal 10 will be displayed in the device display window, when attempting to do a tape load.
- Step 7 Apply the fault isolation labels (supplied in the carton with the device) to the inside of the device front door.
- Step 8 Apply the appropriate device number (item 9) to the front door (unused device numbers may be discarded).



PARTS LIST			
ITEM	DESCRIPTION	PART NUMBER	QUANTITY
7	DOOR STOP	60159640-001	REF
9	GCR NUMBER LABEL	03910400-XXX	1
10	3/8 HWT 6-32 SCREW	03010239-102	6
18	DOOR ASSEMBLY	60159602-XXX	1

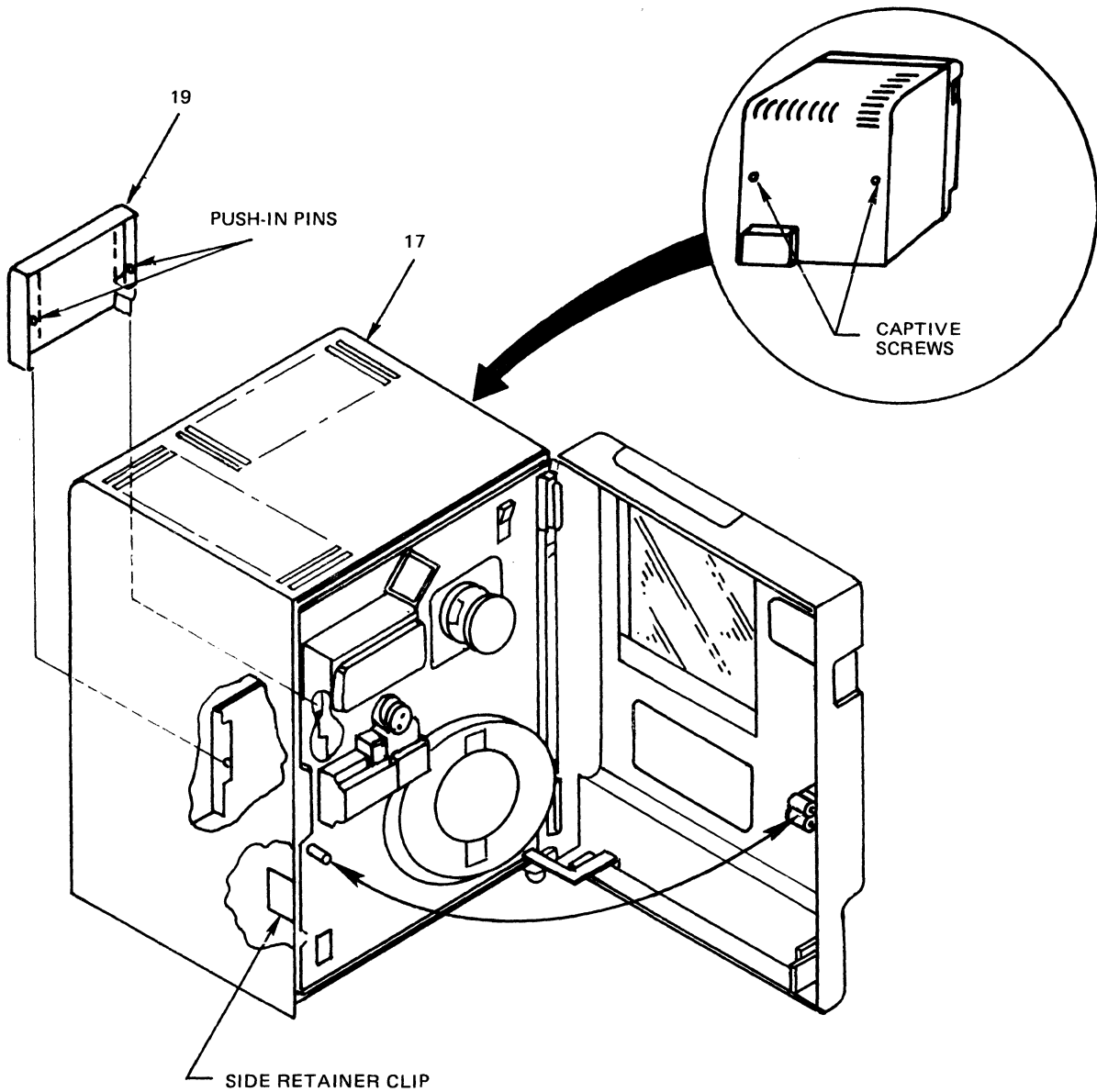
86-812-1

Figure 3-14. Installing the Front Door Assembly

Mounting the Cover Assembly and Cable Cover

Summary A cover assembly and cable cover is mounted on the device (refer to Figure 3-15).

- Step 1** Place the cover assembly (item 17) behind the device frame and slide it over the frame towards the front tape deck, ensuring that the front side retainer clips engage the front frame sides. Also, ensure that all the front edges of the cover fit properly over the frame edges. Secure the cover to the frame by first starting and turning clockwise one captive screw (located on the rear of the cover) only partially into the frame. Then start the other captive screw and turn it and the first captive screw into the frame until both are secure.
- Step 2** Install the system cables into the device bulkhead connectors (refer to the module entitled Installing Device Cables for an Initial System).
- Step 3** Install the device cable cover (item 19) into the bottom rear of the cover assembly by aligning the cable cover's two push-in pins, with the two fasteners in the cover assembly, and pushing it into the cover assembly.



PARTS LIST			
ITEM	DESCRIPTION	PART NUMBER	QUANTITY
17	COVER ASSEMBLY	60159596-XXX	1
19	CABLE COVER	60159562-XXX	1

86-813-1

Figure 3-15. Mounting a Device Cover Assembly and Cable Cover

INSTALLING DEVICE CABLES FOR AN INITIAL SYSTEM

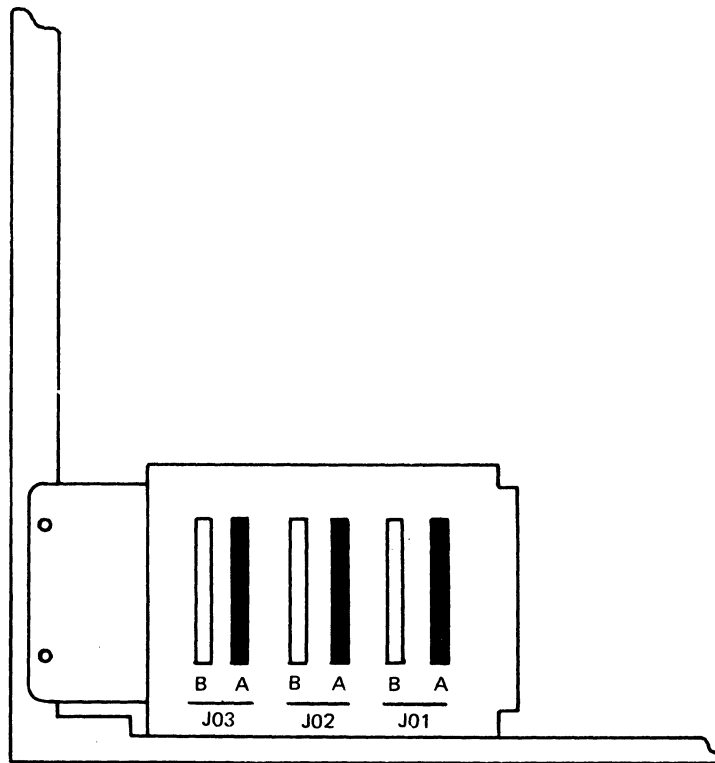
Summary

The device cabling for an initial system installation consists of installing three system cables from a system cabinet to a device and, if applicable, three shorter cables for each additional device in a daisy chain system. To cable the system cabinet to device 0 (i.e., first device in a daisy chain system), refer to Figure 3-16.

Locate the three system cables (04910133-707) that were previously connected to the device bulkhead connectors. These three system cables are connected to the device bulkhead, as follows:

1. Remove the device cable cover by pulling it straight out.
2. Connect one cable to connector J01A, a second cable to connector J02A, and a third cable to connector J03A on the device bulkhead.
3. To connect the other end of the three cables to the side bulkhead of the 45-inch cabinet, go to Section 4 of *DPS 6 PLUS Model 410 & Model 420 System Installation* (Order No. US02).
4. To connect the other end of the three cables to the rear bulkhead of the 20-inch cabinet, go to Section 3 of *DPS 6 PLUS Model 400 System Installation* (Order No. US26).

NOTE: To install additional devices in a daisy chain system, refer to the module entitled *Installing Additional Device Cables*.



86-814-1

NOTE

SHADED AREAS INDICATE
CONNECTORS FOR CABLES
TO SYSTEM CABINET FOR
DEVICE 0.

Figure 3-16. Device Bulkhead

INSTALLING DEVICE CABLES FOR A SYSTEM MODIFICATION

Summary System modification can consist of adding additional device(s) to a system or installing a device(s) to a system that is not equipped with a device.

To install device cables for additional devices, to an existing daisy chain system, refer to the module entitled Installing Additional Device Cables.

To install device cables to a system that is not already equipped with a device, perform the following steps:

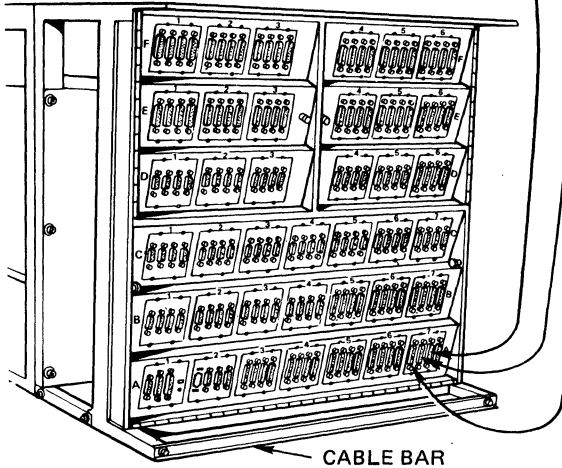
- Step 1** To cable the system cabinet to device 0 (i.e., first device in a daisy chain system) (refer to Figure 3-17), locate the three system cables (04910133-707) that were previously connected to the device bulkhead connectors.
- Step 2** On the Computer Configuration Sheet (CCS), locate UPC001 in the column under CONTROL BOARD.
- Step 3** To the right of UPC001, locate UTA001. Under UTA001 are the bulkhead connectors.
- Step 4** Route the cable from the J01A connector on the device to the side bulkhead and under the cable bar on a Model 410 or Model 420 system or to the rear bulkhead on a Model 400 system.
- Step 5** Attach the cable to bulkhead location A7-1 or A4-1 (refer to the CCS). Ensure that the cable is secured to the connector.
- Step 6** Route the cable from the J02A connector on the device to the side bulkhead and under the cable bar on a Model 410 or Model 420 system or to the rear bulkhead on a Model 400 system. Attach the cable to bulkhead location A7-2 or A4-2 (refer to the CCS). Ensure that the cable is secured to the connector.
- Step 7** Route the cable from the J03A connector on the device to the side bulkhead and under the cable bar on a Model 410 or Model 420 system or to the rear bulkhead on a Model 400 system. Attach the cable to bulkhead location A7-3 or A4-3 (refer to the CCS). Ensure that the cable is secured to the connector.

SYSTEM NO XXXXXX-XX LOCATOR CARD 45" CABINET SHEET 2 OF 3 REV A

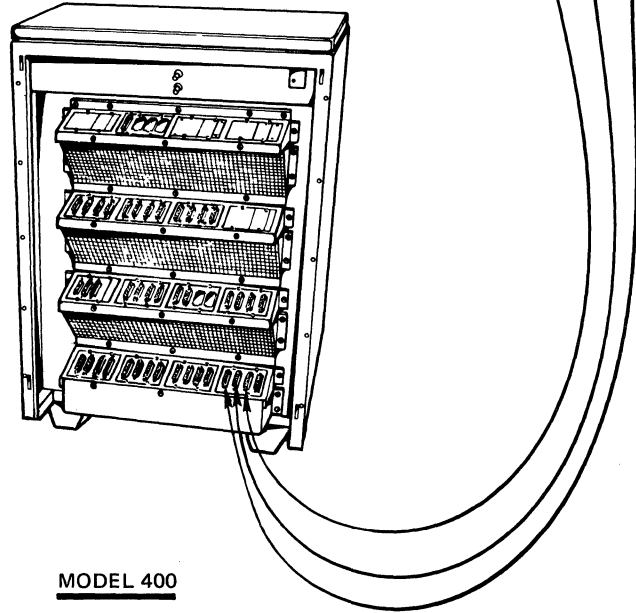
BULKHEADS			
SLOT	CONTROL BOARD	ADDR	
		4	3 2 1
TERM	TML001		
16	DSK002 OR UPC001		G C T 0 0 1 OR U T A 0 0 1 [A7-3C A7-2B A7-1A]
14		16	1780 1700 1680 1600

SYSTEM NO XXXXXX LOCATOR CARD SHEET 2 OF 2 REV X

LEFT SIDE						
SLOT	CONTROL BOARD	ADDR	4	3	2	1
TERM	TML001					
08	MIC001	04	WREN DEV 1 0480	DSKTAZ C PNL DSKT-0 0580	STRM01 A4-4 0500	WREN DEV 0 0400
07	UPC001	16			U T A 0 0 1 [A4-3 A4-2 A4-1]	1780 1700 1680 1600



MODEL 420



MODEL 400

87-273

Figure 3-17. Device Bulkhead Cabling

INSTALLING ADDITIONAL DEVICE CABLES AND REMOVING TERMINATORS

Summary The cabling for additional devices in a daisy chain system, consist of installing three daisy chain cables from a previously cabled device to an add-on device (next device in the daisy chain).

Step 1 Ensure that device 0 to the system cabinet cabling was performed.

Step 2 Install three daisy chain cables (04910133-701) from the bulkhead of the previous device cabled to the bulkhead of the next device in the daisy chain (refer to Figure 3-18), as follows:

- a. Connect one cable to connector J01B, a second cable to connector J02B, and a third cable to connector J03B on the bulkhead of the previous device in the daisy chain.
- b. Connect the other end of the three cables to the bulkhead of the next device in the daisy chain, by connecting the cables from the previous device connectors J01B, J02B, and J03B to the next device connectors J01A, J02A, and J03A, respectively.
- c. Repeat step 2 for each device being installed.

NOTE: The last device in the daisy chain system must have two terminators on the device interface board. To ensure that the two terminators are installed, refer to the module entitled Setting the Device Address Switches and Terminator Repositioning.

NOTE: If installing a device to an existing daisy chain system, the terminators in the former last device must be removed from its interface board (refer to Figure 3-18).

Step 3 Remove the cover assembly (refer to the module entitled Mounting the Cover Assembly and Cable Cover).

Step 4 Unscrew the cable bulkhead and move it out of the path of the interface board.

Step 5 Loosen the top and bottom assembly thumbscrews of the interface board; DO NOT remove the screws.

Step 6 Carefully slide the card cage towards you; DO NOT remove the card cage.

- Step 7 Loosen the top and bottom interface board assembly thumbscrews that attach the boards and carefully move the interface board slightly to the left.
- Step 8 Remove the two terminators on the interface board at locations H-17 and J-23.
- Step 9 Reposition the interface board, and tighten the top and bottom thumbscrews.
- Step 10 Slide the card cage evenly into the device and tighten the top and bottom assembly thumbscrews.
- Step 11 Reinstall the cable bulkhead.
- Step 12 Remount the device cover assembly.

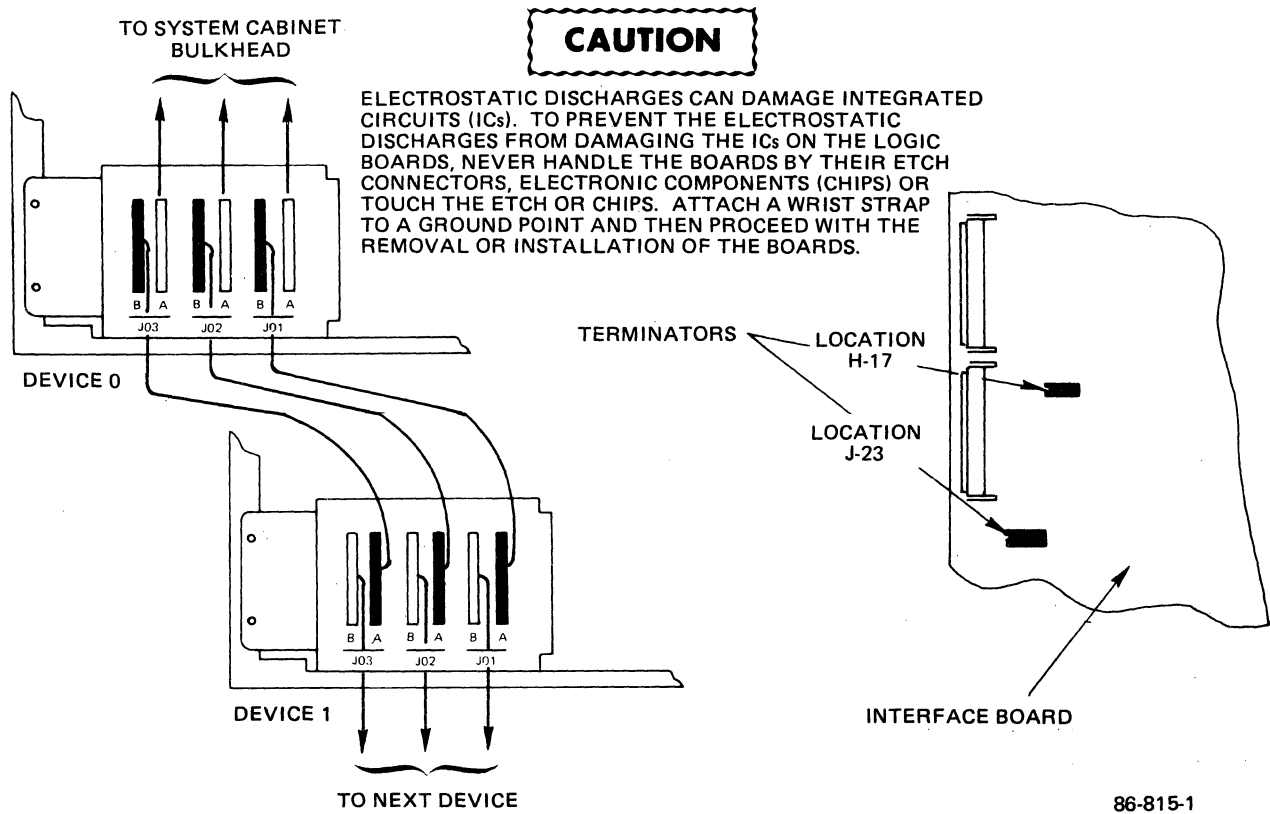


Figure 3-18. Cabling for Additional Devices in a Daisy Chain System and Terminator Removal

PLUGGING IN DEVICE AC POWER

Summary Check the equipment Identification (ID) plate to ensure proper input power. Device power cords are attached to a power unit in each device and plugged into a standard ac wall receptacle (refer to Figure 3-19).

Step 1 Check the equipment ID plate, located on the left-hand side panel (as viewed from the rear of the device), to ensure that the input power coincides with the requirements listed on the plate.

CAUTION

To avoid damage to the equipment, ensure that the device POWER ON/OFF switch is in the OFF position.

Step 2 Place the device POWER ON/OFF switch into the OFF position.

Step 3 Plug the power cord into an ac wall receptacle.

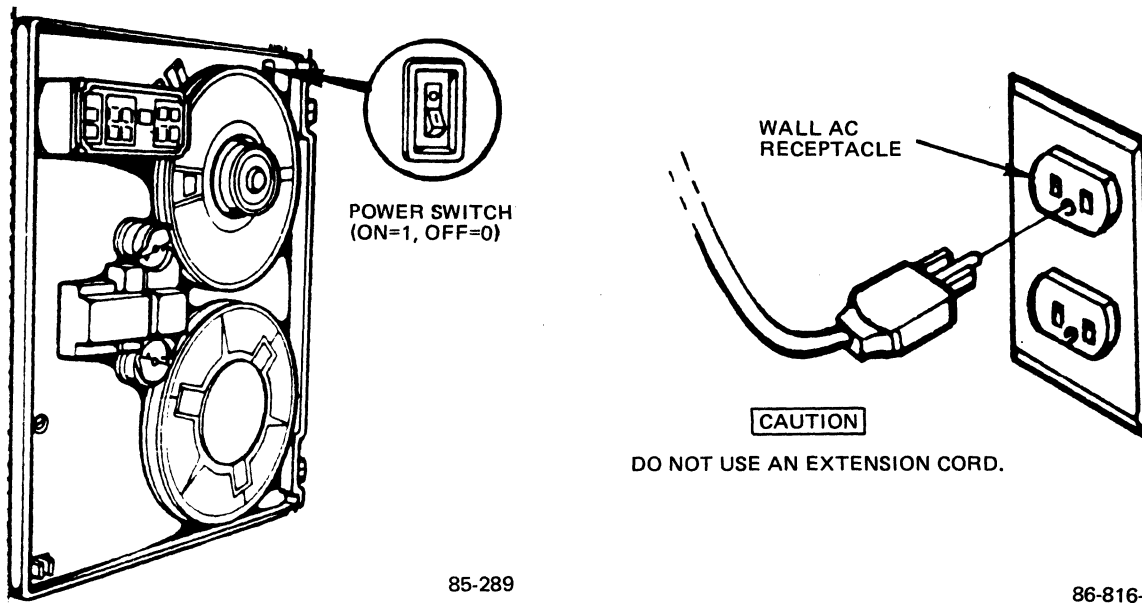


Figure 3-19. Plugging in Device AC Power

PERFORMING DEVICE CHECKOUT

Summary The device checkout procedure consists of running the operator diagnostics device self-test 01. The self-test checks dc power and functionality of the control panel and major logic modules of the device.

The operator diagnostics consist of one selectable test-01. Faults encountered during the test will stop the test and display a numerical code on the display panel. For a definition of the fault codes, refer to the Fault Isolation Label located on the inside of the front door.

- Step 1** Open the front door on the device(s), install a tape supply reel and thread through tape path onto the take-up reel, but DO NOT load the tape.
- Step 2** Refer to Figure 3-19, and press the power switch to the ON position (ON=1, OFF=0). Refer to Figure 3-20, the DIAGNOSTICS indicator lights and 00 is indicated on the display panel for 10 seconds.
- Step 3** Close the front door.
- Step 4** Press the TEST switch on the diagnostics portion of the operator panel.
- a. DIAGNOSTICS indicator lights.
 - b. 01 is indicated on the display panel.
- Step 5** Press the EXECUTE switch.
- a. Test starts with the display panel incrementing from 00, 11, 22 thru 99 and ends with 01. Verify that all segments of the numerical display are functioning.
 - b. Concurrent with a. above, verify that all indicators except LOGIC OFF, BOT, ON LINE, RESET, and HIGH DENSITY are lit.
 - c. Test continues with the tape loading (rewinds if not at BOT) and performing various motion and read/write exercises for approximately 10 minutes (2400 feet of tape).

- Step 6 A successful test is indicated by the test running to completion and performing a rewind/unload operation with 00 shown on the display panel and the RESET indicator lit.
- Step 7 After completing the device checkout, run the Test and Verification (T&V) programs as described in *TACPAC II CSE Reference Manual* (Order No. US10).

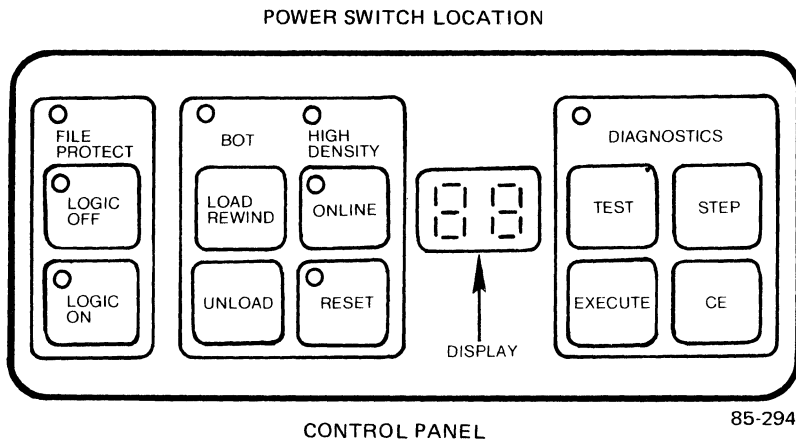


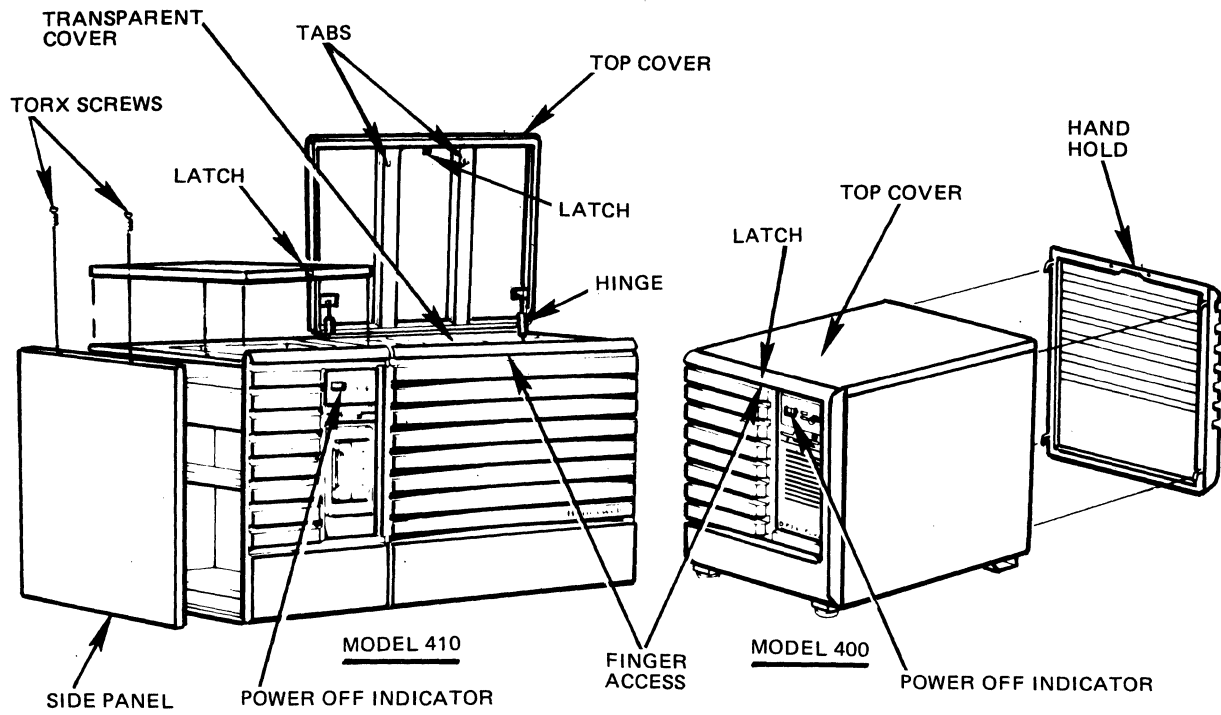
Figure 3-20. Control Panel

REINSTALLING THE SYSTEM CABINET COVERS AND PANELS

Summary Reinstall the left side panel and the 15-inch top cover on the Model 410 or Model 420 cabinet or reinstall the rear panel on the Model 400 cabinet.

NOTE: Perform steps 1 through 4 for Model 410 and Model 420 systems and steps 5 through 7 for Model 400 system (refer to Figure 3-21).

- Step 1** Reinstall the left side panel and secure it with the two TORX screws that were removed previously.
- Step 2** Slide the 15-inch top cover back into place with the front of the cover lifted slightly. Ensure that the two rear hooks on the cover, catch the metal frame at the rear of the cabinet.
- Step 3** Push down on the front of the cover until the cover latch is secured in the up position.
- Step 4** Close the 30-inch top cover after running the Test and Verification programs. Secure the cover by pushing down on it until the cover latch is secured in the down position.
- Step 5** At the front of the cabinet, insert the tabs of the rear panel into the four slots on the top and bottom of the cabinet frame.
- Step 6** Push the skin into position against the cabinet by firmly pressing against the sides of the panel and pushing down.
- Step 7** Close the top cover after running the Test and Verification programs. Secure the cover by pushing down on it until the cover latch is in the down position.



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Figure 3-21. Reinstalling the System Cabinet Covers and Panels



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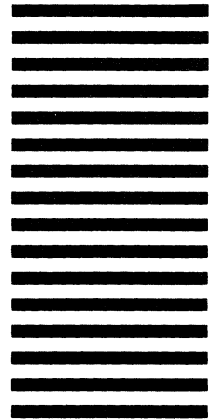
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