

# VAXft Systems

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## Model 810 Installation Information

Order Number: EK-VXFTA-IN. A01

**June 1993**

This manual is intended for use by Digital Customer Services and other personnel responsible for installing VAXft Model 810 systems.

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**June 1993**

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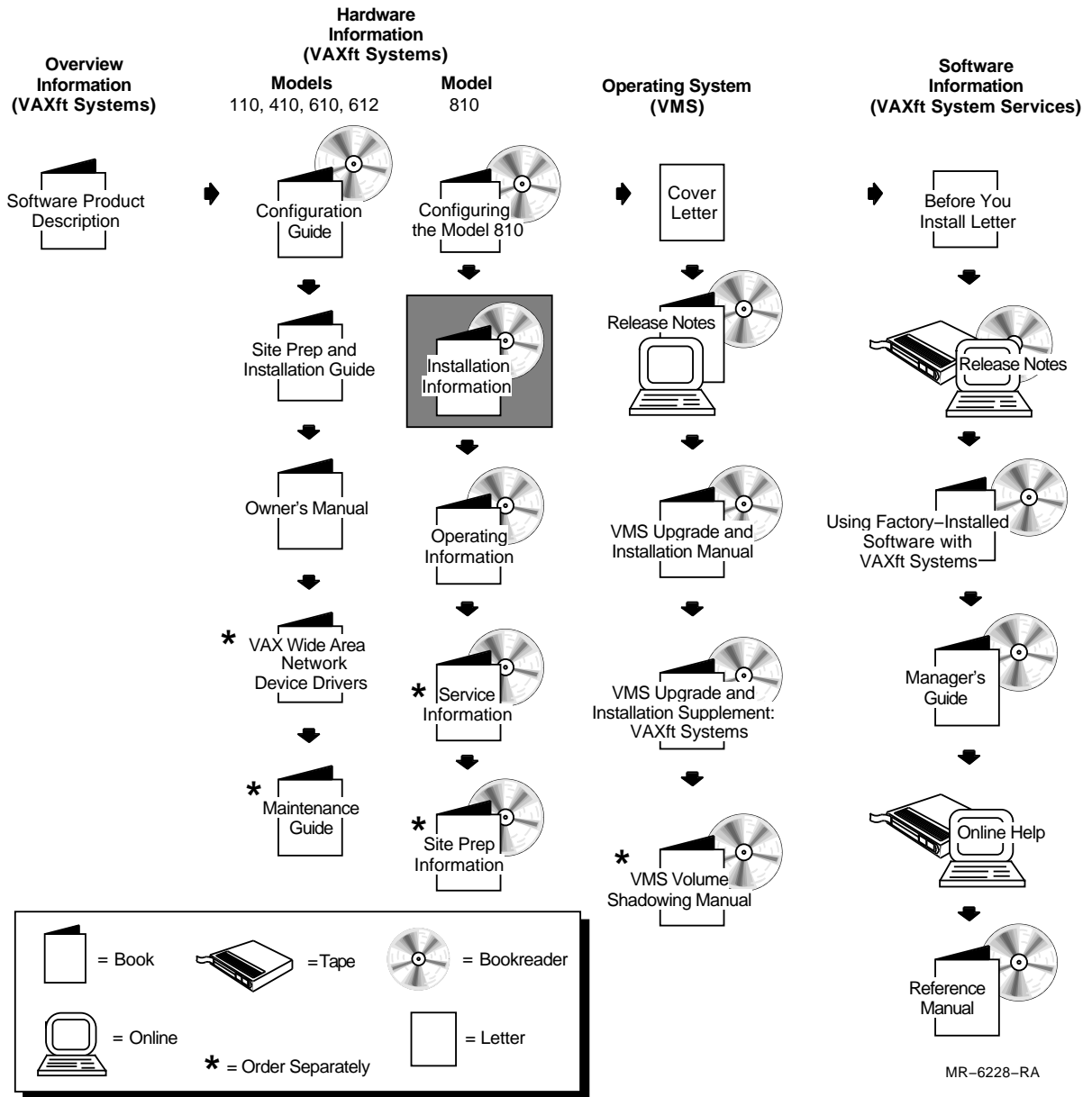
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# System Inspection and Unpacking

## 1.1 In This Chapter

This chapter includes:

- Unloading the system
- Inspecting the shipment
- Moving the system
- Unpacking the options
- Opening the shipping cartons
- Unpacking the cabinets
- Deskidding the cabinets

## 1.2 Unloading the System

Before unloading the system from the truck, define carrier and Digital Customer Services responsibilities. Determine who is responsible for the following activities:

- Moving the system from the truck onto the loading dock
- Moving the system from the loading dock into the building
- Moving the system to the deskidding area
- Unpacking and deskidding the system
- Moving the system to the installation area

## 1.3 Inspecting the Shipment

To inspect the shipment, perform the steps in Table 1–1.

**Table 1–1 Inspecting the Shipment**

Step	Action
1.	Refer to the product delivery document. Make sure you received the correct number of shipping cartons.
2.	If any cabinet or option is missing or damaged, report it on the labor activity reporting system (LARS). Include a note to clarify the extent of the problem. Notify the customer and responsible Digital Customer Services manager.

**Note**

If there is a problem, stop the installation until the customer notifies the carrier or insurance company and gives you permission to continue.

## 1.4 Moving the Shipment

To move the shipment, perform the steps in Table 1–2.

**Table 1–2 Moving the Shipment**

Step	Action
1.	Move all shipping cartons to the installation area.
2.	Make sure the installation area provides a firm surface for the system.
3.	Make sure the installation area allows full exhaust airflow from the rear of the cabinets.

**Note**

If there is a problem, stop the installation until the customer notifies the carrier or insurance company and gives you permission to continue.

## 1.5 Unpacking the Options

To unpack the console terminals and other system options (terminal stands, modems), perform the steps in Table 1–3.

**Table 1–3 Unpacking the Options**

Step	Action
1.	Check each option carton for damage (dents, holes, crushed corners, water marks).
2.	Open each option carton.
3.	Refer to the list on the side of each carton. Make sure you received the correct items.
4.	If any item is missing or damaged, report it on LARS. Include a note to clarify the extent of the problem. Notify the customer and responsible Digital Customer Services manager.

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**Note**

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If there is a problem, stop the installation until the customer notifies the carrier or insurance company and gives you permission to continue.

Save the shipping cartons and packing material in case you need to return an item.

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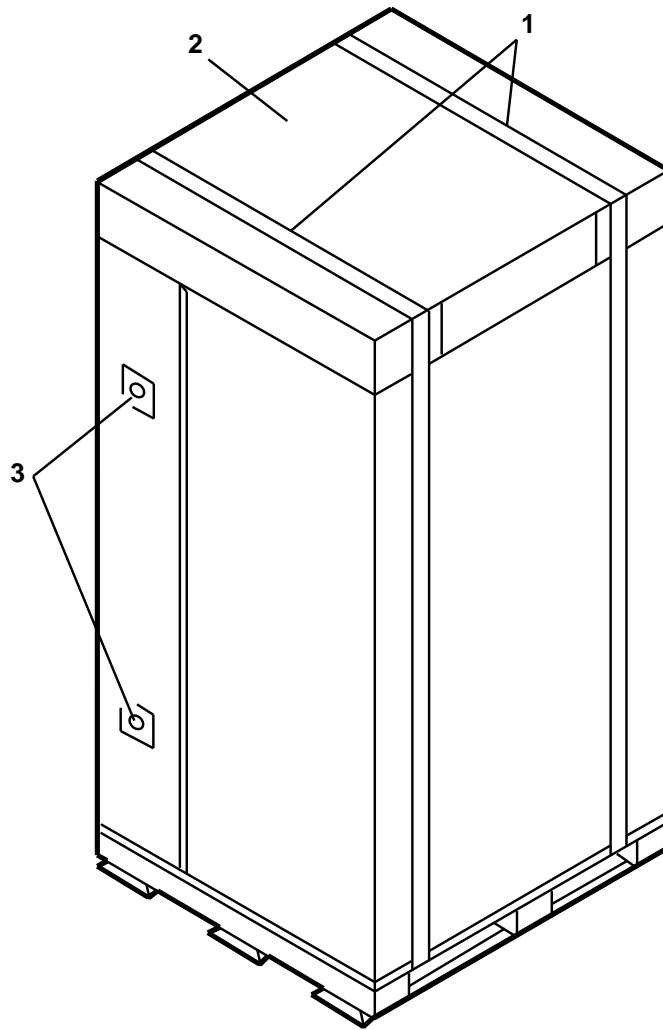
## 1.6 Opening the Shipping Cartons

To open the shipping cartons, perform the steps in Table 1–4. See also Figure 1–1 and Table 1–5.

**Table 1–4 Opening the Shipping Cartons**

Step	Action
1.	Check each shipping carton for damage (dents, holes, crushed corners, water marks).
2.	Open the Digital Services box. The box is marked with the international information symbol — a blue circle containing the letter <i>i</i> .
3.	Refer to the shipping/accessory list. Make sure you received the correct items.
4.	If any item is missing or damaged, notify the customer and responsible Digital Customer Services manager.
5.	Remove the shipping bands from the cartons.
6.	Remove the outer shipping cap.
7.	Using a 7/16-inch wrench, remove the machine screws and metal closures that secure the short carton flaps over the front and back sides of the carton. There are four metal closures, two on the front and two on the back of the carton.
8.	Remove the shipping carton.

**Figure 1-1 Opening a Cabinet Shipping Carton**



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**Table 1-5 Key to Figure 1-1, Opening a Cabinet Shipping Carton**

Item	Description
1	Shipping bands
2	Outer shipping cap
3	Machine screws and metal closures

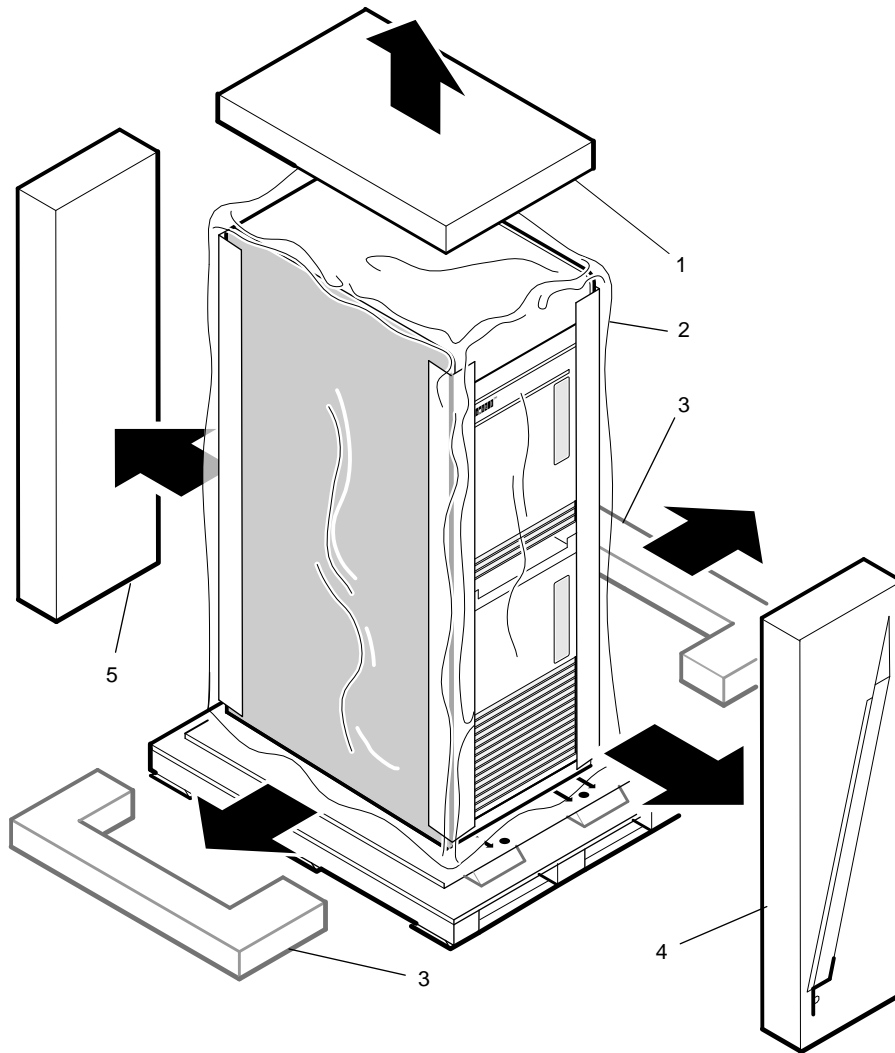
## 1.7 Unpacking the Cabinets

To unpack the cabinets, perform the steps in Table 1–6. See also Figure 1–2 and Table 1–7.

**Table 1–6 Unpacking the Cabinets**

<b>Step</b>	<b>Action</b>
1.	Remove the inner shipping cap.
2.	System cabinets are shipped in plastic bags. Cut the plastic bag at a corner post, and remove the plastic bag.
3.	Remove the four corner posts.
4.	Remove the two cabinet stabilizers.

**Figure 1–2 Unpacking a Cabinet**



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**Table 1–7 Key to Figure 1–2, Unpacking a Cabinet**

Item	Description
1	Inner shipping cap
2	Corner post
3	Cabinet stabilizer
4	This box contains the deskidding ramps.
5	This box contains the accessories.

## 1.8 Deskidding the Cabinets

To deskid the system cabinets, perform the steps in Table 1–8. See also Figure 1–3 and Table 1–9.

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### Warning

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At least two people are required to deskid a cabinet. Do not allow a cabinet to roll uncontrolled down the ramps.

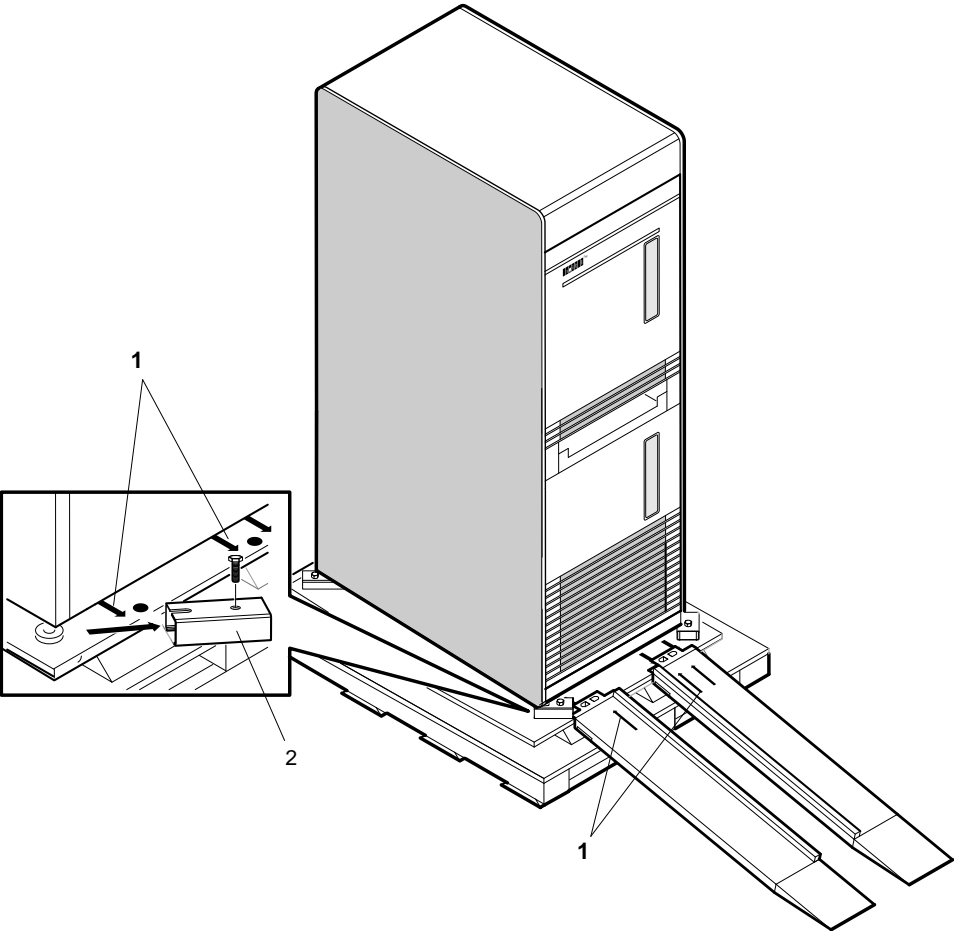
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**Table 1–8 Deskidding the Cabinets**

Step	Action
1.	Cut the tape that secures the boxes on the cabinet. One box contains the deskidding ramps. One box contains the accessories.
2.	Place the boxes outside of the work area.
3.	Remove the wheel stops on the skid with a Phillips screwdriver.
4.	Open the box that contains the deskidding ramp. Remove the contents of the box.
5.	Notice that the ramps and the skid are marked with arrows. Place the ramp marked with one arrow on the part of the skid that is marked with one arrow. Place the ramp marked with two arrows on the part of the skid that is marked with two arrows.  Matching the ramp and skid arrows ensures that the ramps are on the correct side, with the ramp guard rails on the inside.
6.	Install the ramp tabs in the skid holes, and press into place.
7.	Using a 9/16-inch wrench, remove the four shipping brackets from the cabinet leveling feet.
8.	Using a 9/16-inch wrench, fully retract the leveling feet.
9.	Carefully guide the cabinet down the ramp.



**Figure 1-3 Attaching the Deskidding Ramps**



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**Table 1-9 Key to Figure 1-3, Attaching the Deskidding Ramps**

Item	Description
1	Arrows
2	Shipping bracket



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## Cabinet Assembly and Cable Installation

### 2.1 In This Chapter

This chapter includes:

- Entry system interface cabling
- Entry system power cabling
- Expanded system cabinet preparation
- Expanded system cabinet assembly
- Expanded system interface cabling
- Expanded system power cabling

### 2.2 Entry System Interface Cabling

To install the entry system interface cables, perform the steps in Table 2–1.

**Table 2–1 Entry System Interface Cabling**

Step	Action
1.	Open the cross-link assembly kit (PN 70-30588-01). Remove the contents.
2.	Install cross-link module 1 into slot 1 of the Zone A miscellaneous module card cage.
3.	Install cross-link module 2 into slot 1 of the Zone B miscellaneous module card cage.

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**Note**

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The cables described in steps 4 to 7 have been installed at the factory. These steps are included in case any cable connectors were accidentally disconnected.

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- |    |  |
|----|--|
| 4. | Connect one end of a Disk Out cable (PN 17-03537-02) to the left connector of the Zone A Disk In/Disk Out module located in slot 4 of the miscellaneous module card cage. Connect the other end of the Disk Out cable to the connector of the Zone B DSSI interface module in slot 16 of the interface module card cage. |
| 5. | Connect one end of a Disk Out cable (PN 17-03537-02) to the left connector of the Zone B Disk In/Disk Out module located in slot 4 of the miscellaneous module card cage. Connect the other end of the Disk Out cable to the connector of the Zone A DSSI interface module in slot 16 of the interface module card cage. |

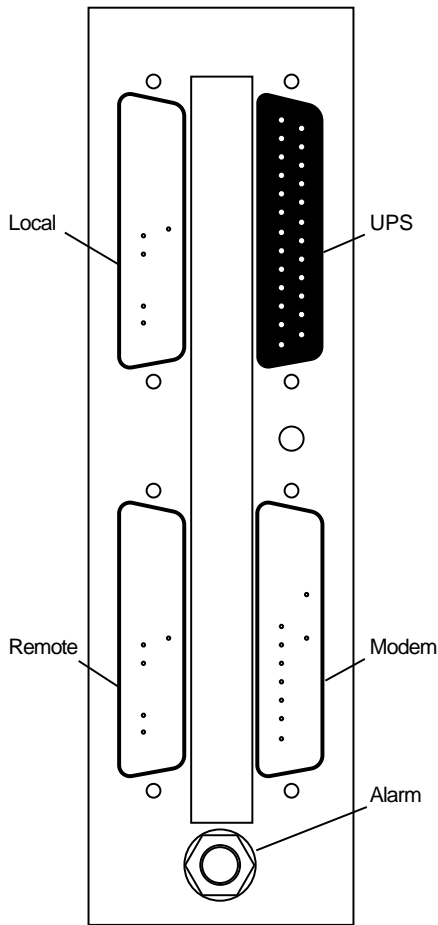
(continued on next page)

**Table 2–1 (Cont.) Entry System Interface Cabling**

<b>Step</b>	<b>Action</b>
6.	Connect one end of a Disk In cable (PN 17-03537-01) to the right connector of the Zone A Disk In/Disk Out module. Connect the other end of the Disk In cable to the connector of the Zone A DSSI interface module in slot 17 of the interface module card cage.
7.	Connect one end of a Disk In cable (PN 17-03537-01) to the right connector of the Zone B Disk In/Disk Out module. Connect the other end of the Disk In cable to the connector of the Zone B DSSI interface module in slot 17 of the interface module card cage.
8.	Connect a modem cable (PN BC17E-25) from the MODEM connector of the console module in slot 2 of the Zone A miscellaneous module card cage to the Zone A modem. (See Figure 2–1.)
9.	Connect a terminal cable (PN BC22F-25) from the LOCAL connector of the console module in slot 2 of the Zone A miscellaneous module card cage to the Zone A terminal. (See Figure 2–1.)
10.	If the system is equipped with a remote terminal, connect a terminal cable (PN BC22F-25) from the REMOTE connector of the console module in slot 2 of the Zone A miscellaneous module card cage to the Zone A remote terminal. (See Figure 2–1.)
11.	If the system is equipped with an uninterruptible power supply (UPS), connect the RS232 cable to the UPS connector of the console module in slot 2 of the Zone A miscellaneous module card cage. (See Figure 2–1.)
12.	Repeat steps 8 to 11 for the Zone B modem, terminal, and UPS cables.

To install the optional TA85 tape drive cables, perform the steps in Table 2–2.

**Figure 2-1 Console Module Connectors**



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**Table 2-2 TA85 Tape Drive Cabling**

Step	Action
1.	Place the tape drive on a table close to the CPU cabinet.
2.	Connect a tape drive cable (PN BC25H-8H) to the DSSI interface module located in slot 15 of the Zone A interface module card cage. Connect the other end of the drive cable to the tape drive.
3.	Connect a tape drive cable (PN BC25H-8H) to the DSSI interface module located in slot 15 of the Zone B interface module card cage. Connect the other end of the drive cable to the tape drive.

## 2.3 Entry System Power Cabling

To install the entry system power cables, connect the cables specified in Table 2-3 to the Zone A and Zone B FEUs, console terminals, and (if part of the system) TA85 tape drive.

**Table 2–3 Power Cable Country Kits**

Region	Front End Unit (If TA85 Tape Drive)	Terminal
US/Japan/Canada	17-00083-48	17-00083-26
Australia/New Zealand	17-00198-11	17-00198-09
Central Europe	17-00199-16	17-00199-10
UK/Ireland	17-00209-13	17-00209-10
Switzerland	17-00210-10	17-00219-07
Denmark	17-00310-10	17-00301-08
Italy	17-00364-13	17-00364-10
India/South Africa	17-00456-13	—
Israel	17-00457-13	17-00457-10

## 2.4 Expanded System Cabinet Preparation

To prepare the CPU and expansion cabinets for assembly, perform the steps in Table 2–4. See also Figure 2–2 and Table 2–5.

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### Note

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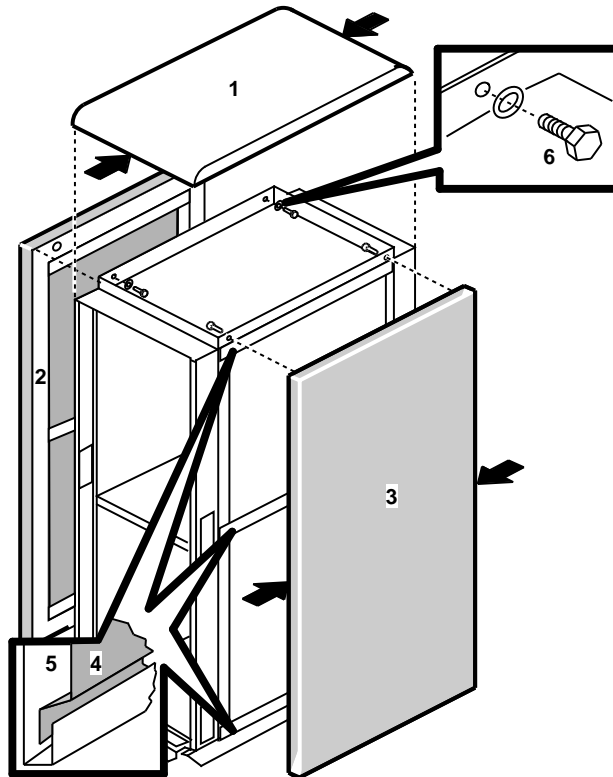
All the steps are performed from the front of the CPU and expansion cabinets.

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**Table 2–4 Preparing the Cabinets for Assembly**

Step	Action
1.	To remove the top panel from the expansion cabinet, hold the front and rear edges of the top panel and lift it off. (See arrows on Figure 2–2.)
2.	Place the top panel outside the work area.
3.	To remove the right side panel from the expansion cabinet, remove the two mounting screws located at the top front and top rear of the cabinet. (See Figure 2–2.)
4.	Hold the front and rear edges of the side panel and lift it up and away from the cabinet frame. (See arrows on Figure 2–2.)
5.	Place the side panel outside the work area.
6.	To remove the top panel from the CPU cabinet, refer to steps 1 and 2.
7.	To remove the left side panel from the CPU cabinet, refer to steps 3, 4 and 5.
8.	Position the CPU cabinet according to the installation floor plan.
9.	Using a 9/16-inch wrench, lower the CPU cabinet leveling feet until they touch the floor.
10.	Using a spirit level, level the CPU cabinet.

Figure 2-2 Cabinet Panels



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Table 2-5 Key to Figure 2-2, Cabinet Panels

Item	Description
1	Top panel
2	Left side panel
3	Right side panel
4	This enlargement shows how a side panel fits into the cabinet frame. Notice that the panel fits inside the channels in the cabinet frame.
5	Cabinet frame channel
6	Side panel mounting screws

## 2.5 Expanded System Cabinet Assembly

To assemble the cabinets, perform the steps in Table 2–6. See also Table 2–7 and Figure 2–3.

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### Note

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All the steps are performed from the front of the CPU and expansion cabinets.

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**Table 2–6 Assembling the Cabinets**

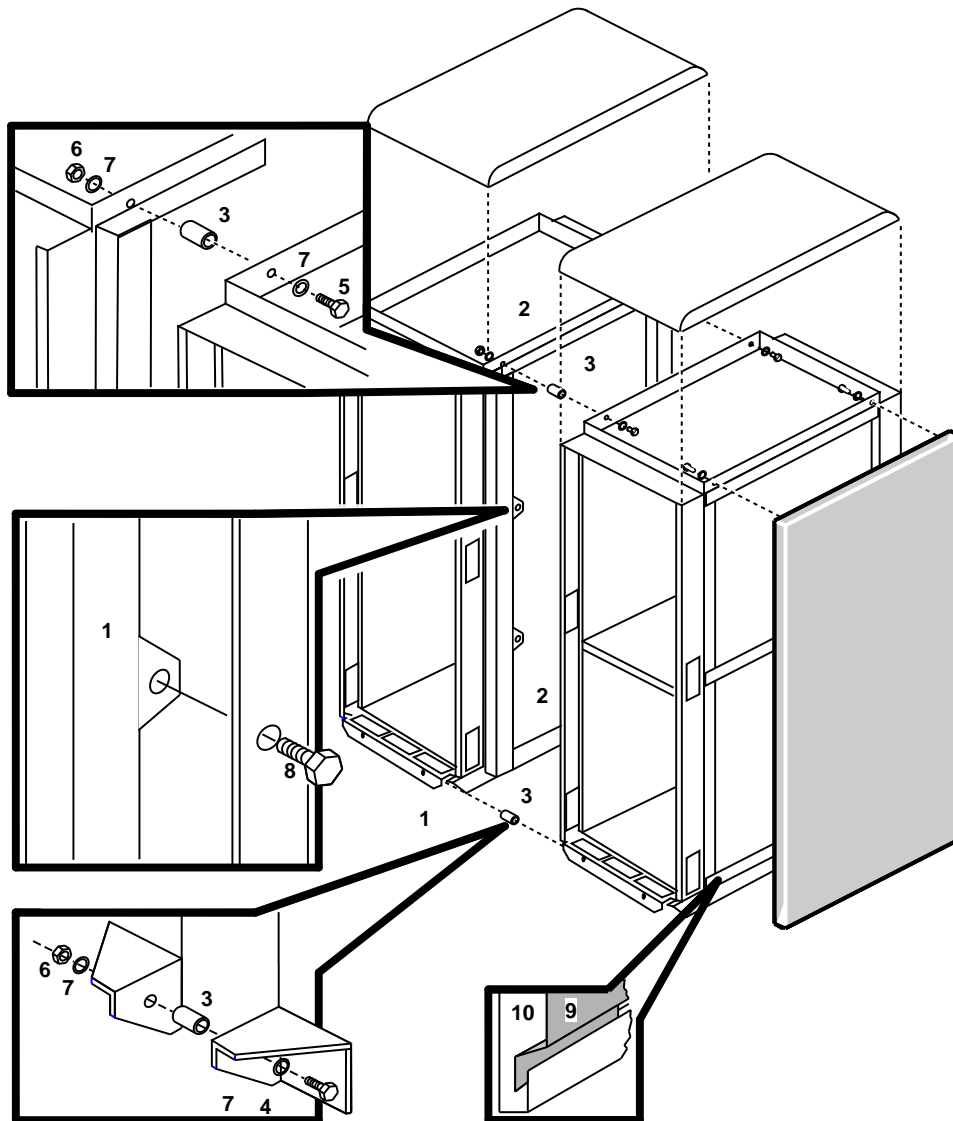
Step	Action
1.	Position the expansion cabinet to the left of the CPU cabinet.
2.	Using a 9/16-inch wrench, lower the expansion cabinet leveling feet until they touch the floor.
3.	Remove the joiner kit (PN H9C00-UD) from the accessories box. Table 2–7 lists the joiner kit parts.
4.	Install two spacers (from the joiner kit) on the right side of the expansion cabinet, one at the front and one at the rear. Secure each spacer as shown in Figure 2–3.
5.	Install the eight rubber strips over the inside of the CPU and expansion cabinet frame openings.
6.	Carefully move the expansion cabinet against the CPU cabinet.
7.	Using the parts listed in Table 2–7, attach the cabinets to each other at the front and rear as shown in Figure 2–3.
8.	Install a right side panel on the expansion cabinet. Hold the front and rear edges of the panel and lift it so that the panel is above the channel in the cabinet frame. (See Figure 2–2.) Lower the panel and push it into place.
9.	Install a top panel on the expansion cabinet. Hold the front and rear edges of the panel, place the panel on top of the cabinet, and push it into place.
10.	To install a left side panel on the CPU cabinet, refer to step 8.
11.	To install a top panel on the CPU cabinet, refer to step 9.

**Table 2–7 Key to Figure 2–3, Assembling the Cabinets**

Item	Part Number	Description	Count
1	74-44803-01	Spacer	2
2	90-08214-06	Foam	2
3	90-11312-01	Tube	4
4	90-40125-02	1.5-inch screw	2
5	90-40125-03	2.75-inch screw	2
6	90-40148-01	Nut	4
7	90-06676-00	Washer	8
8	90-40219-01	Screw	4
9	74-41553-01	Rubber strip	8
10	—	Cabinet frame channel	—



Figure 2-3 Assembling the Cabinets



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## 2.6 Expanded System Interface Cabling

This section provides rules and two examples of interface cabling configurations. Use the examples to install cables for any DSSI and Ethernet cabling configurations.

### 2.6.1 DSSI and Ethernet Configurations

The in DSSI device cabling configuration rules are:

- DSSI cables must be connected such that if either zone encounters a failure the other zone continues to have access to the failed zone devices.
- No more than six device nodes may be connected to one DSSI cable.
- Each individual disk or tape drive represents one DSSI node.

Table 2–8 specifies the number of DSSI nodes for each supported device.

**Table 2–8 Supported Device Nodes**

Device Type	DSSI Nodes
RF35 disk drive	1
SF35 storage array	6
RF73 disk drive	1
SF73 storage array	4
TF85C tape drive	1

The Ethernet interface module installation rule is:

- Ethernet interface module installation in either zone starts at slot 10 and progresses in order to slot 17.

Figure 2–4 is DSSI cabling Example 1. Note that the SF35 storage array is located in Zone B of the expansion cabinet.

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**Note**

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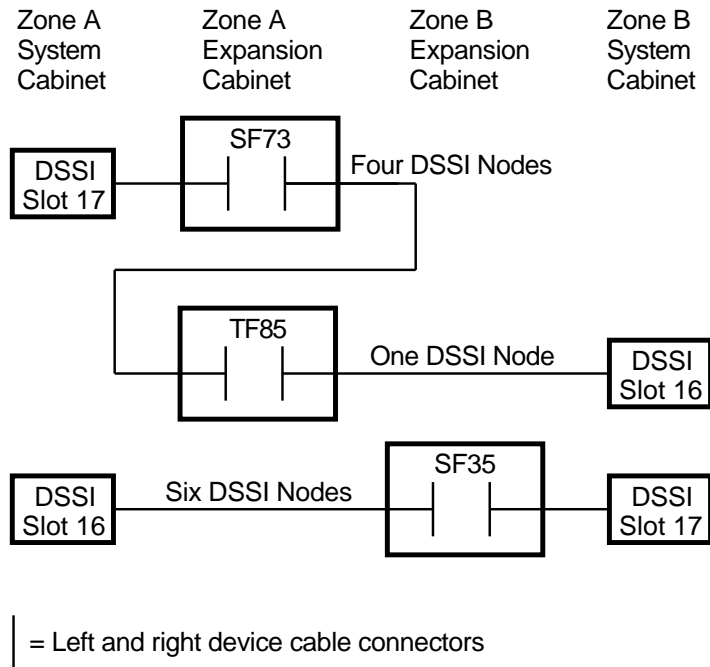
Although they are not shown in Figure 2–4, Ethernet interface modules are installed in slot 10 of Zone A and Zone B.

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The first DSSI cable is cabled through an SF73 storage array to a TF85 tape drive for a total of five DSSI nodes. The second DSSI cable is cabled through a single SF35 storage array for a total of six DSSI nodes.

The DSSI host ID numbers are hardwired by the centerplane. Table 2–9 describes the DSSI module placement and cabling for Example 1.

**Figure 2–4 DSSI Cabling Example 1**

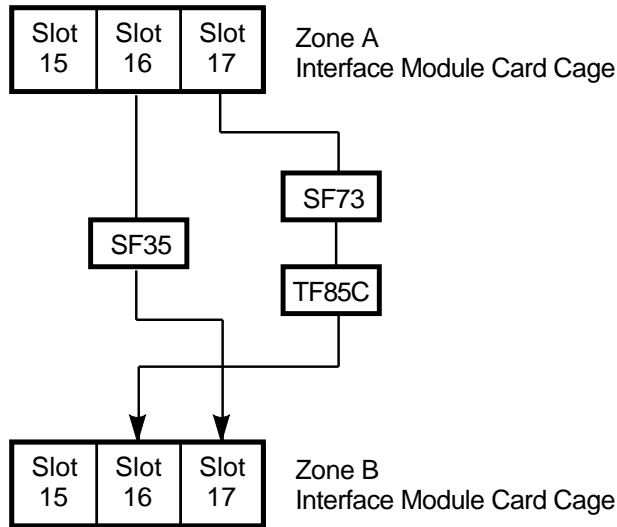


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**Table 2–9 Summary of Example 1 DSSI Cabling Rules**

Rule	Description
1.	DSSI interface modules are installed in Zone A starting at card cage slot 17. Additional Zone A modules are installed in slot 16 and progress in order to slot 10. The first Zone A DSSI interface module is installed into card cage slot 17.
2.	The first Zone B DSSI interface module is installed into card cage slot 16 to pair with the DSSI module in slot 17 of Zone A.
3.	A DSSI cable is installed from the interface module in slot 17 of Zone A to the SF73 storage array. Another DSSI cable is installed from the SF73 storage array to the TF85 tape drive.
4.	A DSSI cable is installed from the TF85 tape drive to the interface module in slot 16 of Zone B. (See Figure 2–5.)
5.	The second Zone A DSSI interface module is installed in slot 16, and the Zone B counterpart module is installed in slot 17.
6.	A DSSI cable is installed from the interface module in slot 16 of Zone A to the SF35 storage array. Another DSSI cable is installed from the SF35 storage array to the module in slot 17 of Zone B. (See Figure 2–5.)
7.	Additional DSSI modules and cables would follow the cross-cabling pattern of steps 1 to 6.
8.	Card cage slots 20 to 27 are reserved for future expansion.

**Figure 2–5 Card Cage Cabling for Example 1**



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Figure 2–6 shows the interface module card cage slot numbers, DSSI host ID numbers, and DSSI and Ethernet slots.

To install the system interface cables, perform the steps in Table 2–10. See Figure 2–4 and Figure 2–7 for the Example 1 device and cable locations.

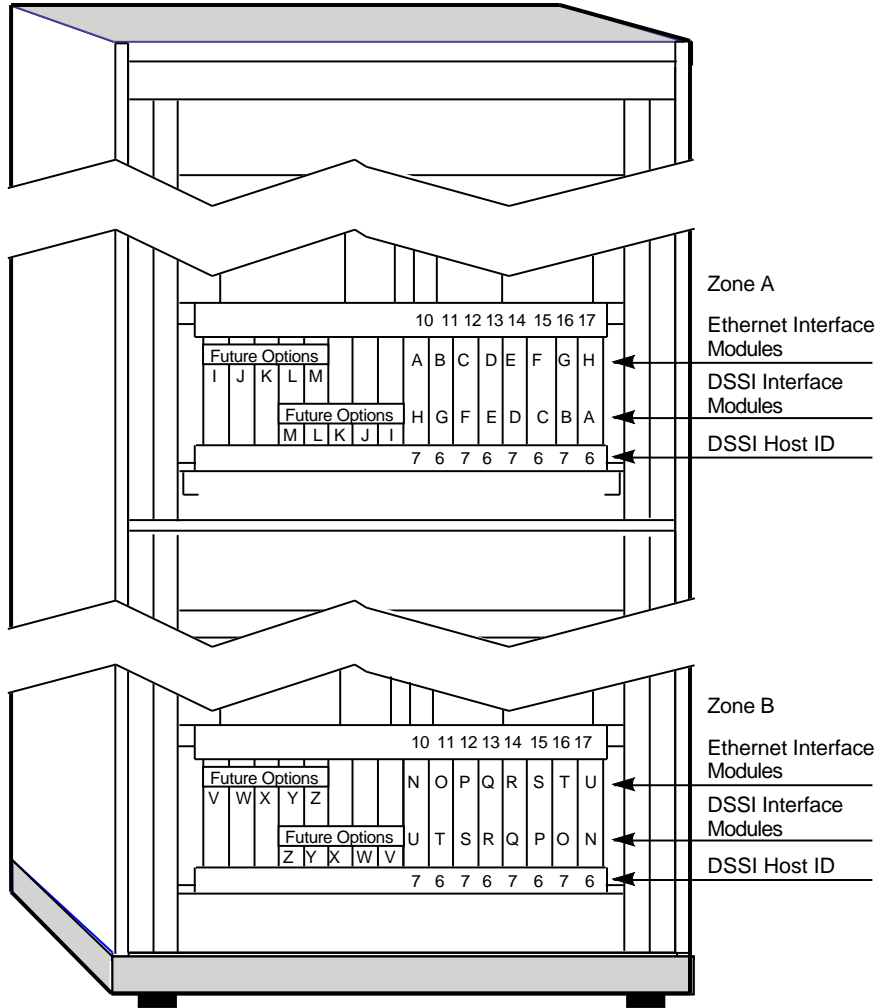
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**Note**

All the steps are in performed from the rear of the CPU and expansion cabinets.

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**Figure 2-6 Zone A and B Interface Module Card Cages**



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**Table 2–10 Detail of Example 1 System Interface Cabling**

Step	Action
1.	Open the cross-link assembly kit (PN 70-30588-01). Remove the contents.
2.	Install cross-link module 1 into slot 1 of the Zone A miscellaneous module card cage.
3.	Install cross-link module 2 into slot 1 of the Zone B miscellaneous module card cage.
4.	Connect one end of a DSSI cable (PN 17-03537-02) to the DSSI interface module in slot 17 of the Zone A interface module card cage. Route the DSSI cable through the cabinet cable openings into the expansion cabinet. Connect the other end of the DSSI cable to the left connector of the Zone A SF73 storage array.
5.	Connect a DSSI cable (PN 17-03537-01) to the right connector of the Zone A SF73 storage array. Connect the other end of the DSSI cable to the left connector of the TF85 tape drive.
6.	Connect a DSSI cable (PN 17-03537-03) to the right connector of the TF85 tape drive. Route the cable through the cabinet cable openings into the CPU cabinet. Connect the other end of the DSSI cable to the DSSI interface module in slot 16 of the Zone B interface module card cage.
7.	Connect one end of a DSSI cable (PN 17-03537-03) to the DSSI interface module in slot 16 of the Zone A interface module card cage. Route the DSSI cable through the cabinet cable openings into the expansion cabinet. Connect the other end of the DSSI cable to the right connector of the Zone B SF35 storage array.
8.	Connect a DSSI cable (PN 17-03537-02) to the left connector of the Zone B SF35 storage array. Route the DSSI cable through the cabinet cable openings into the CPU cabinet. Connect the other end of the DSSI cable to the DSSI interface module in slot 15 of the Zone B interface module card cage.
9.	Install BNC terminators on any other Zone A and B interface modules.
10.	Install BNC T connectors on the Zone A and Zone B Ethernet interface modules located in slot 10 of the interface module card cages.
11.	Connect a communications cable between the Zone A and Zone B NI module T connectors.
12.	Connect the Ethernet communications cables to the Zone A and Zone B Ethernet interface module T connectors.
13.	Connect a terminal cable (PN BC22F-25) from the LOCAL connector of the console module in slot 2 of the Zone A miscellaneous card cage to the Zone A terminal. (See Figure 2–8.)
14.	If the system is equipped with a remote terminal, connect a terminal cable (PN BC22F-25) from the REMOTE connector of the console module in slot 2 of the Zone A miscellaneous card cage to the Zone A remote terminal. (See Figure 2–8.)
15.	Connect a modem cable (PN BC17E-25) from the MODEM connector of the console module in slot 2 of the Zone A miscellaneous module card cage to the Zone A modem. (See Figure 2–8.)
16.	If the system is equipped with an uninterruptible power supply (UPS), connect the RS232 cable to the UPS connector of the console module in slot 2 of the Zone A miscellaneous module card cage. (See Figure 2–8.)
17.	Repeat steps 14 to 16 for the Zone B terminal, modem, and UPS cables.

**Figure 2-7 Device and Cable Locations**

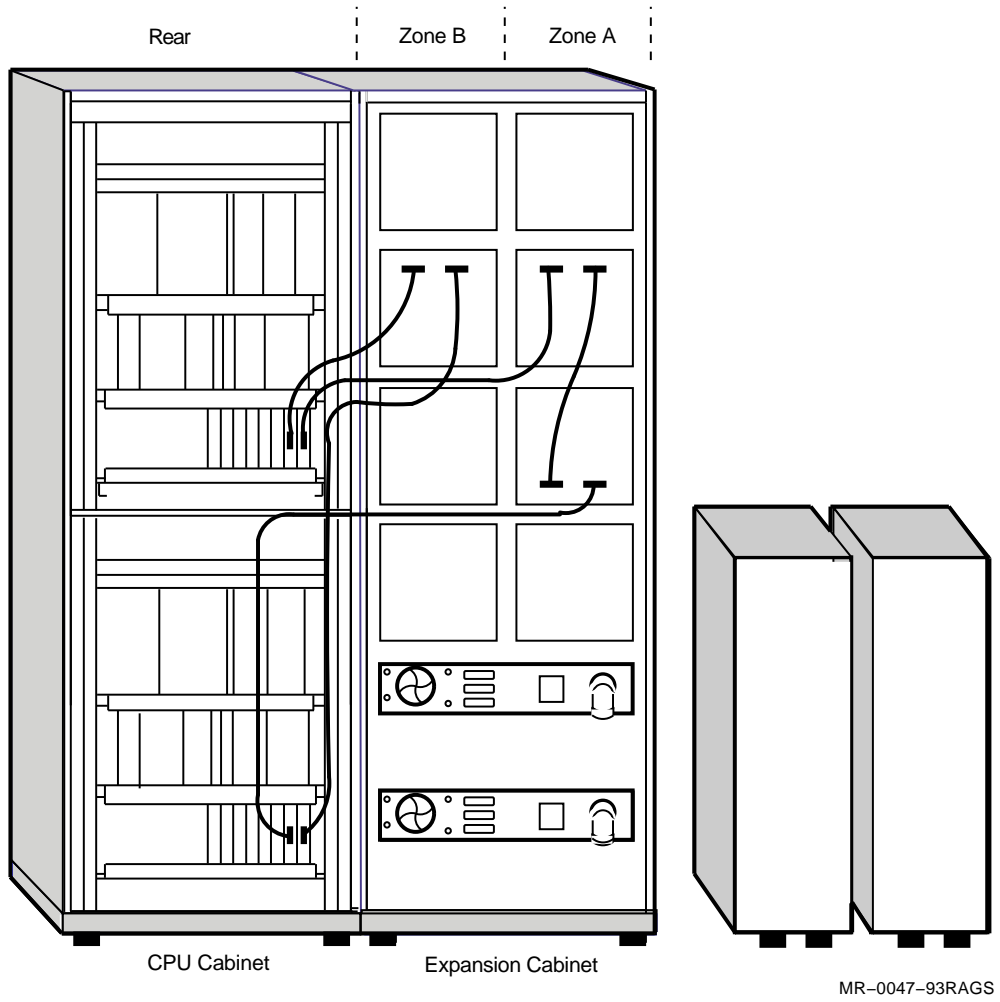
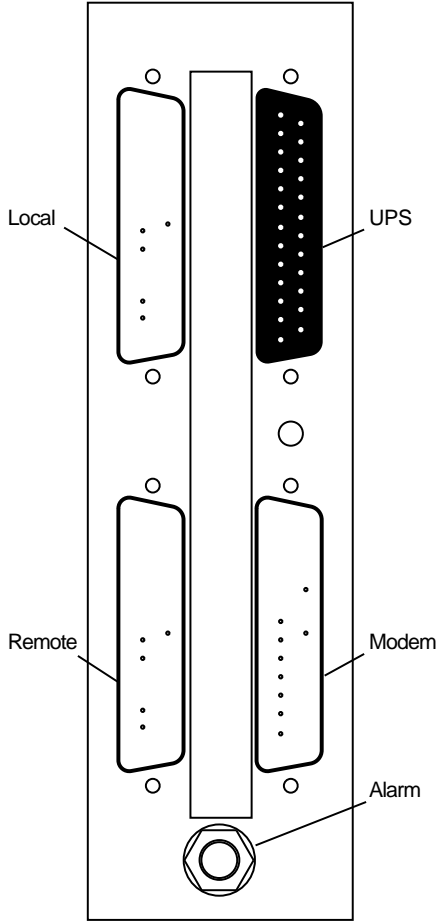


Figure 2-8 Console Module Connectors

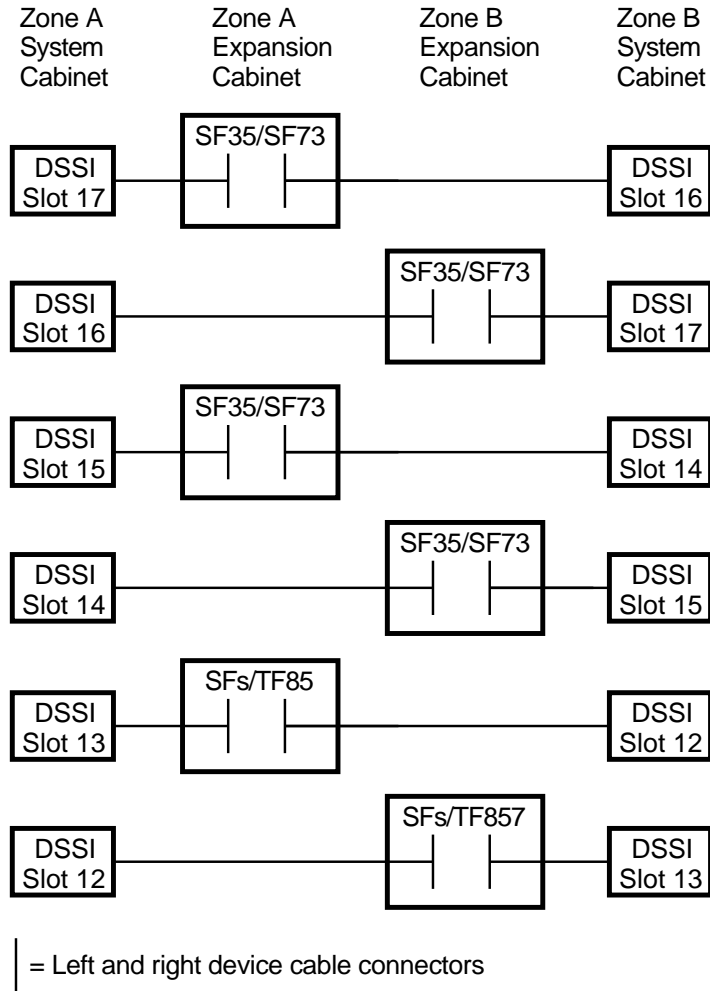


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Figure 2-9 is DSSI cabling Example 2.

**Figure 2-9 DSSI Cabling Example 2**



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## 2.7 Expanded System Power Cabling

To install the system power cabling, perform the steps in Table 2–11. See also Figure A–5, Table A–5, Figure A–6, and Table A–6.

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**Note**

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If the system is equipped with uninterruptible power supplies, connect the power cords as specified in the manufacturer’s documentation.

---

**Table 2–11 Example 1 System Power Cabling**

Step	Action
1.	Connect the power cables specified in Table 2–12 to the Zone A and Zone B FEUs and console terminals. Connect the other end of the power cables to the ac utility outlets specified in the site installation plan.
2.	If the system is equipped with uninterruptible power supplies, connect the FEU and console terminal power cables to the UPS outlets specified in the site installation plan.
3.	Connect a disk power cable (PN 17-00442-39) to the Zone A SF73 storage array. Connect the other end of the disk power cable to the Phase B ac outlet of the Zone A power distribution box.
4.	Connect a tape drive power cable (PN 17-00442-39) to the Zone A TF85 tape drive. Connect the other end of the tape drive power cable to the Phase C ac outlet of the Zone A power distribution box.
5.	Connect a disk power cable (PN 17-00442-39) to the Zone B SF35 storage array. Connect the other end of the disk power cable to the Phase B ac outlet of the Zone B power distribution box.

**Table 2–12 Power Cable Country Kits**

Region	Front End Unit (If TA85 Tape Drive)	Terminal
US/Japan/Canada	17-00083-48	17-00083-26
Australia/New Zealand	17-00198-11	17-00198-09
Central Europe	17-00199-16	17-00199-10
UK/Ireland	17-00209-13	17-00209-10
Switzerland	17-00210-10	17-00219-07
Denmark	17-00310-10	17-00301-08
Italy	17-00364-13	17-00364-10
India/South Africa	17-00456-13	—
Israel	17-00457-13	17-00457-10

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## Completing the System Installation

### 3.1 In This Chapter

This chapter includes:

- Power preparation procedure
- Turning on system power
- Turning off zone and system power
- Setting the terminal baud rate
- Final system tests

### 3.2 Power Preparation Procedure

To prepare to turn on system power perform the steps in Table 3–1.

**Table 3–1 Power Preparation Procedure**

Step	Action
1.	If the system is equipped with uninterruptible power supplies, make sure all circuit breakers and battery switches are off.
2.	Make sure all ac utility circuit breakers are off.
3.	Make sure both power distribution box circuit breakers are off.
4.	Make sure the Zone A and Zone B FEU circuit breakers are off.

### 3.3 Turning On System Power

To turn on system power, perform the steps in Table 3–2. See also Table 3–3 and Figure 3–1.

---

**Note**

If an error occurs, stop the installation, troubleshoot, and repair as required.

---

**Table 3–2 Turning On System Power**

Step	Action
1.	Turn on all ac utility circuit breakers.
2.	If the system is equipped with uninterruptible power supplies, turn on the supplies as specified in the manufacturer’s documentation.
3.	Make sure that both power distribution box AC Present indicators are on.
4.	Set the Zone A power distribution box Local/Remote switch to Local.
5.	Turn on the Zone A power distribution box circuit breaker.
6.	Turn on the Zone A FEU circuit breaker (See Figure 3–1). The FEU OK and PSC OK indicators turn on, the PSC Fault ID Display reads 0, and the DC5 OK and DC3 OK indicators turn on. (Errors are shown on the PSC Fault ID Display.)
7.	Press the Logic Power On switch on the Zone A control panel. The Logic Power On indicator turns on, the Zone A cabinet cooling fan turns on, and the power-on self-test runs. While the power-on self-test is running, the Zone A control panel Fault indicator is on. When the power-on self-test is successful, the Fault indicator turns off and the System OK indicator turns on. By default, the Console Local indicator turns on and the local console port is enabled. The Console Secure indicator turns on and the console <b>Break</b> key is disabled.
8.	Turn on the Zone A console terminal.
9.	Repeat steps 1 through 8 for Zone B.

**Table 3–3 Key to Figure 3–1, Power Module Controls and Indicators**

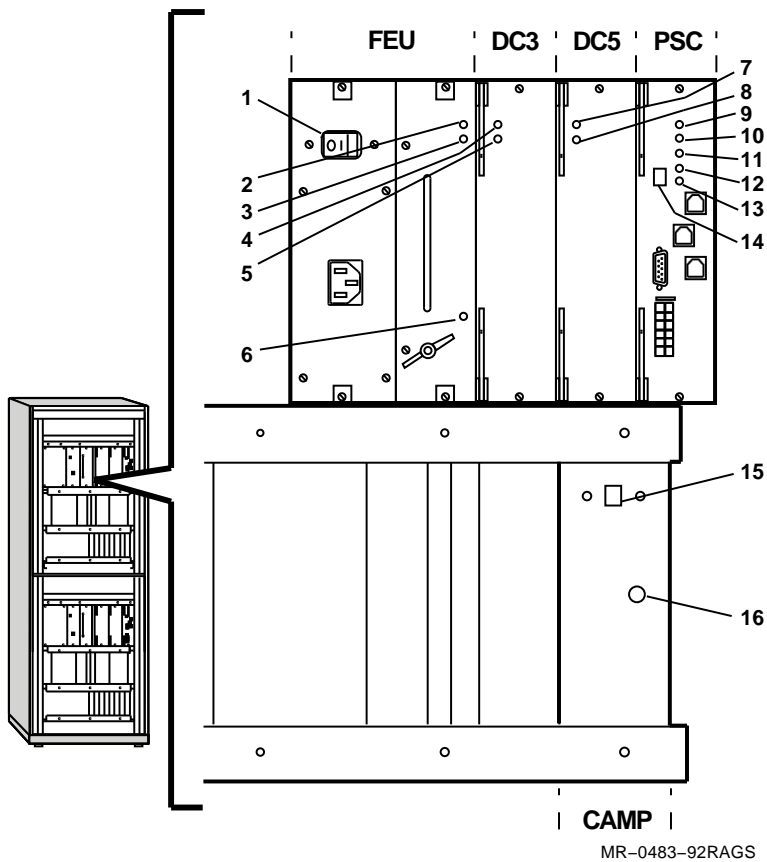
Item	Control/Indicator	Function
1	AC Circuit Breaker	
2	FEU Failure	When on, indicates the dc output voltages for the FEU are below the specified minimum.
3	FEU OK	When on, indicates the dc output voltages for the FEU are above the specified minimum.
4	DC3 Failure	When on, indicates that one of the +3 Vdc output voltages is not within the specified tolerances.
5	DC3 OK	When on, indicates that the +3 Vdc output voltages are within the specified tolerances.
6	AC Present	When on, indicates ac power is present at the ac input connector, regardless of the position of the circuit breaker.
7	DC5 Failure	When on, indicates that one of the +5 Vdc output voltages is not within the specified tolerances.
8	DC5 OK	When on, indicates that the +5 Vdc output voltages are within the specified tolerances.
9	PSC Failure	When on, indicates a PSC fault.
10	PSC OK	When blinking, indicates the PSC is performing power-on self-tests. When on, indicates the PSC is functioning.

(continued on next page)

**Table 3–3 (Cont.) Key to Figure 3–1, Power Module Controls and Indicators**

Item	Control/Indicator	Function
11	Over Temperature Shutdown	When on, indicates that the PSC shut down the system because of an internal overtemperature condition.
12	Fan Failure	When on, indicates a fan failure. Use the hexadecimal number in the Fault ID Display to isolate the fan.
13	Disk Power Failure	When on, indicates a disk power failure. Use the hexadecimal number in the Fault ID Display to isolate the storage compartment that houses the disk.
14	Fault ID Display	Displays power subsystem fault codes.
15	PSC Reset Button	When out, indicates a PSC fault condition. Press in to reset.
16	CAMP Fan Fault	When on, indicates that a fan fault caused all disk drives and tape drives to shut down.

**Figure 3–1 Power Module Controls and Indicators**



## 3.4 Turning Off Zone and System Power

To turn off zone power, perform the steps in Table 3–4.

**Table 3–4 Turning Off Zone Power**

Step	Action
1.	At a zone control panel (A or B), simultaneously press both Logic Power Off switches to remove logic power from the zone.  The Logic Power Off switches have no effect on the expansion cabinet power or the fan unless the drives (disk and tape) are turned off. If the drives are turned off, the fan will run for about 30 seconds after you press the switches.
2.	Turn off the FEU circuit breaker.

To turn off the power in the expansion cabinet, turn off the drives (disk and tape). To turn off system power, perform the steps in Table 3–5.

**Table 3–5 Turning Off System Power**

Step	Action
1.	Simultaneously press both Logic Power Off switches on the Zone A control panel. Repeat this step for Zone B.  The Logic Power Off switches have no effect on the expansion cabinet power or the fan unless the drives (disk and tape) are turned off. If the drives are turned off, the fan will run for about 30 seconds after you press the switches.
2.	Turn off the Zone A and Zone B FEU circuit breakers.
3.	Turn off all disk and tape drives in the expansion cabinet.
4.	Set the Zone A and Zone B power distribution box Local/Remote switches to Off.
5.	Turn off the Zone A and Zone B power distribution box circuit breakers.
6.	Make sure that both power distribution box AC Present indicators are off.
7.	Turn off the console terminal.
8.	If the system is equipped with uninterruptible power supplies, turn off the supplies as specified in the manufacturer's documentation.
9.	Turn off all ac utility circuit breakers.

## 3.5 Setting the Terminal Baud Rate

The default baud rate is 9600 for the local and remote terminal ports. Refer to your terminal documentation for information on the baud rates.

*VAXft Systems Model 810 Operating Information* describes how to set the baud rate using SET BAUD. The baud rates are: 300, 600, 1200, 2400, 4800, 9600, and 19200.

## 3.6 Final System Tests

The ROM-based diagnostics (RBDs) contain all the diagnostic software required by the system. To run the final system tests, perform the steps in Table 3–6.

---

**Caution**

---

Do not run interactive RBDs at this time.

---

**Table 3–6 Running Final System Tests**

Step	Action
1.	Install and boot the VMS operating system. See the <i>VMS Upgrade and Installation Supplement: VAXft Systems</i> .
2.	Run the User Environment Test Package (UETP). UETP can perform write/read tests on RF-series disks. The <i>VAX/VMS UETP User Guide</i> describes how to use UETP. Remember: <ul style="list-style-type: none"><li>• Run UETP only when the system installation is complete. At any other time, you risk data corruption on shadowed disks.</li><li>• Never run UETP without first contacting the responsible customer representative or application manager.</li></ul>
3.	When you are sure that the system is operating correctly, call the responsible customer representative to install and test the software applications.





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## Cabinet and Component Descriptions

### A.1 In This Appendix

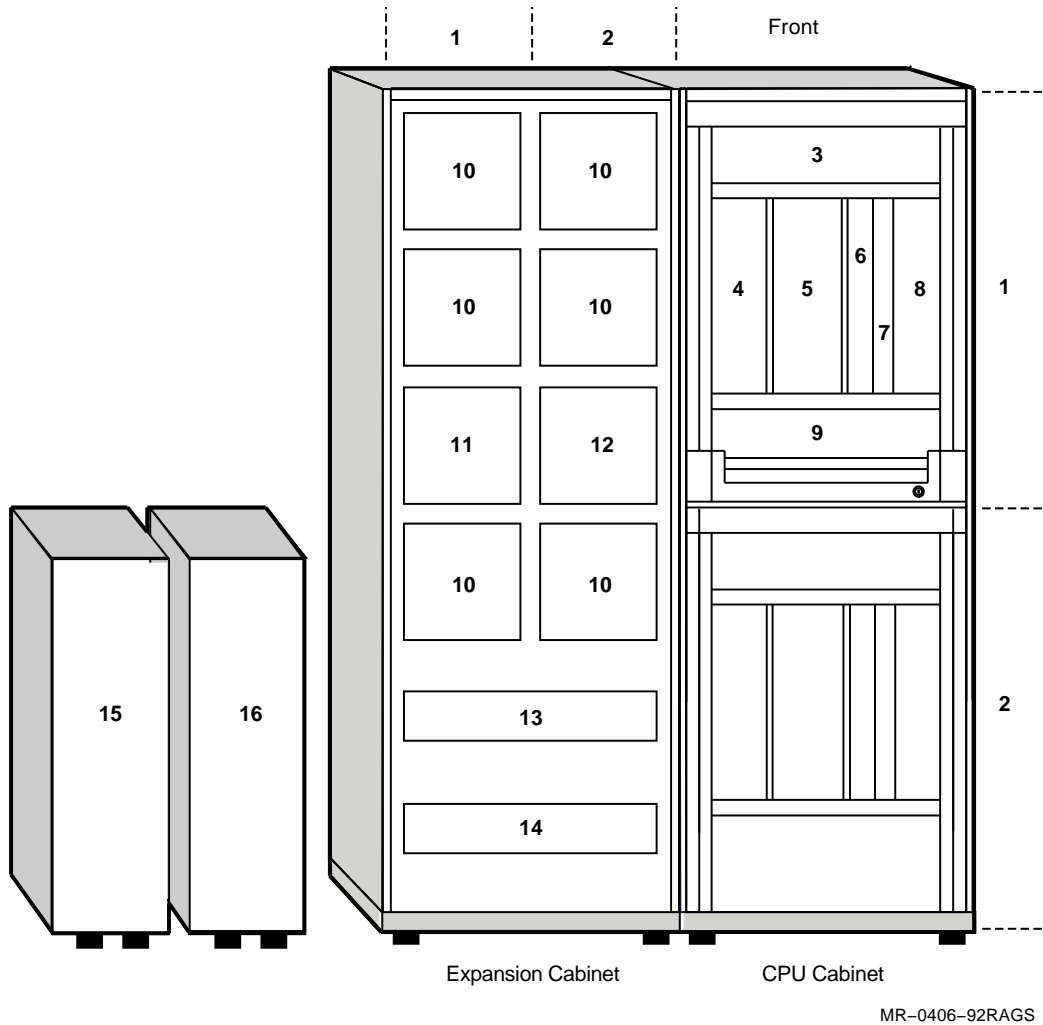
This appendix includes descriptions of the:

- CPU and expansion cabinets
- Zone control panel
- Power modules
- Domestic power distribution box
- International power distribution box

### A.2 CPU and Expansion Cabinets

Figure A-1 shows the front layout of an expanded system. Table A-1 describes the components shown in Figure A-1. Figure A-2 shows the rear layout of an expanded system. Table A-2 describes the components shown in Figure A-2.

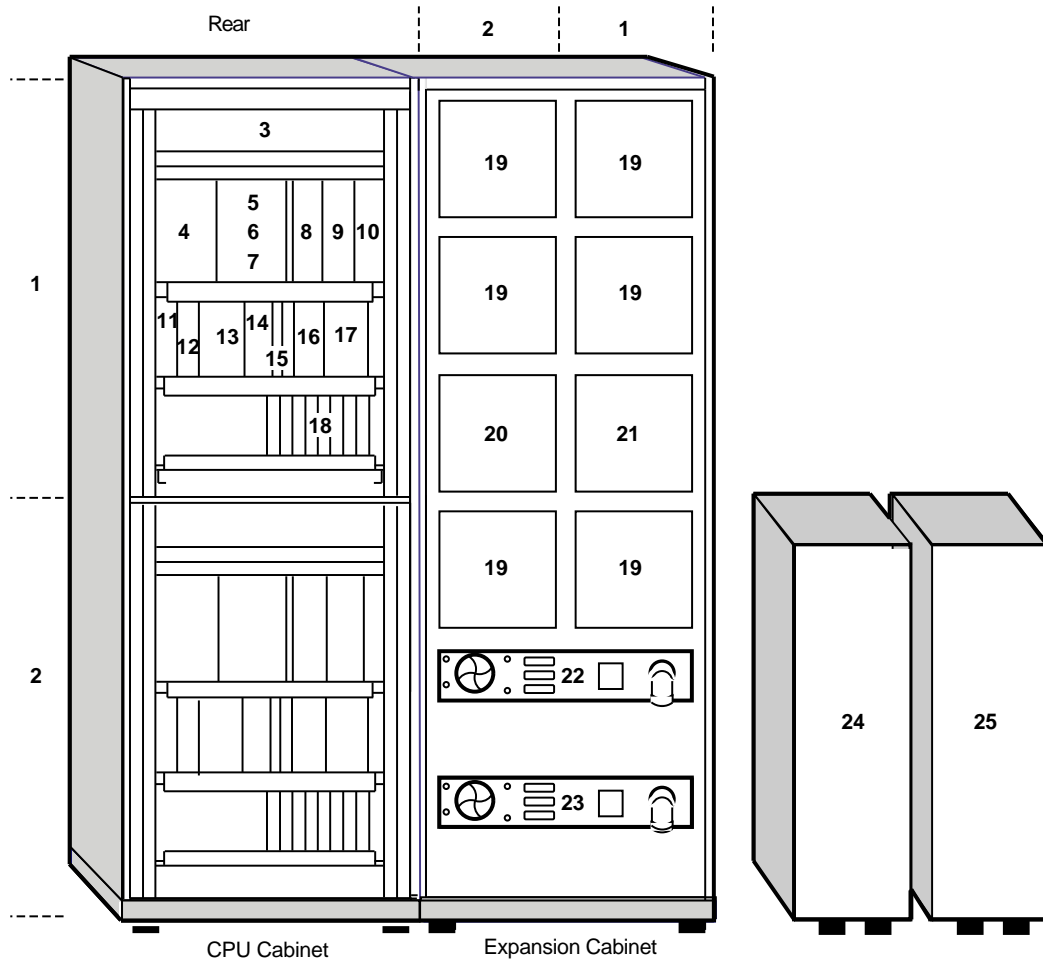
Figure A-1 Cabinet Layout, Front View



**Table A-1 Key to Figure A-1, Cabinet Layout, Front View**

<b>Item</b>	<b>Component</b>	<b>Description</b>
1	Zone A	Complete computer with enough elements to run an operating system.
2	Zone B	Complete computer with enough elements to run an operating system.
3	Fan assembly	Cooling device.
4	Disk drawer	Optional SF35 disk drive(s).
	<b>System Module Card Cage</b>	
5	Slot 0 - CPU module	Logic chips and memory.
6	Slot 1 - ATM module	I/O logic supporting up to eight interface adapter cards.
7	Slot 2 - Not used	For future expansion.
8	Zone control panel	Zone controls and indicators.
9	Blank panel	Not used.
10	Disk device	Location for disk device.
11	Disk/tape device	Location for disk or tape device.
12	Disk/tape/tape loader	Location for disk, tape, or tape loader device.
13	Power distribution box A	AC power source for Zone A.
14	Power distribution box B	AC power source for Zone B.
15	UPS A	Optional uninterruptible power supply for Zone A.
16	UPS B	Optional uninterruptible power supply for Zone B.

**Figure A-2 Cabinet Layout, Rear View**



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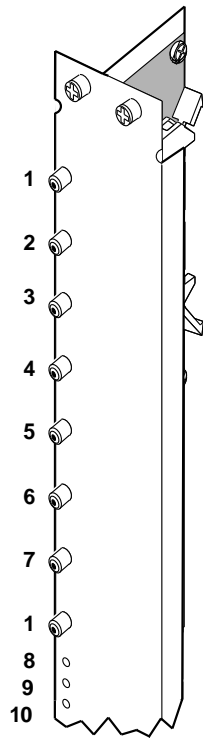
**Table A-2 Key to Figure A-2, Cabinet Layout, Rear View**

<b>Item</b>	<b>Component</b>	<b>Description</b>
1	Zone A	Complete computer with enough elements to run an operating system.
2	Zone B	Complete computer with enough elements to run an operating system.
3	Fan assembly	Cooling device.
4	Blank panel	Not used.
5	Front End Unit (FEU)	AC input circuit breaker.
6	FEU	Converts ac power to 48 Vdc.
7	FEU	AC input connector.
8	Regulator	Provides +3.3 Vdc at 30 A, +12 Vdc at 12.5 A, and bias.
9	Regulator	Provides +5 Vdc at 90 A.
10	Power system controller	Provides interface signals to the ATM module.
<b>Miscellaneous Module Card Cage</b>		
11	Blank panel	Not used.
12	Slot 0 - Not used	For future expansion.
13	Slot 1 - Cross-link assembly	Connects Zone A and Zone B.
14	Slot 2 - Console module	Module with console port.
15	Slot 3 - Not used	Factory test module.
16	Slot 4 - Disk In/Disk Out module	Permits zone interconnections to access all configured disks.
17	Slot 5 - CAMP module	Provides custom power control circuits.
<b>Interface Module Card Cage</b>		
18	Slots 10 to 17	DSSI and NI interface modules.
	Slots 20 to 27	For future expansion.
19	Disk device	Location for disk device.
20	Disk/tape/tape loader	Location for disk, tape, or tape loader device.
21	Disk/tape device	Location for disk or tape device.
22	Power distribution box A	AC power source for Zone A.
23	Power distribution box B	AC power source for Zone B.
24	UPS A	Optional uninterruptible power supply for Zone A.
25	UPS B	Optional uninterruptible power supply for Zone B.

### A.3 Zone Control Panel

Figure A-3 shows the layout of the zone control panel. Table A-3 describes the functions of the zone control panel controls and indicators.

Figure A-3 Zone Control Panel



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**Table A-3 Key to Figure A-3, Zone Control Panel**

Item	Control/Indicator	Function
1	Logic Power - OFF	Two switches with amber indicators. Pressing the two switches removes 48 V power and disables the zone. Pressing one switch has no effect on the operation of the zone. (CPU cabinet disk power is not affected when logic power is removed by pressing these switches.)
2	Logic Power - ON	One switch with a green indicator. Pressing this switch applies 48 V power to the zone. (CPU cabinet disk power is not affected when logic power is applied by pressing this switch.)
3	Local Console	One switch with a green indicator. Pressing this switch connects the system to the console local port for communication.
4	Remote Console	One switch with a green indicator. Pressing this switch connects the system to the remote port for communication.
5	Secure	One switch with a green indicator. Pressing this switch disables the console <b>Break</b> key function. (You cannot use the console <b>Break</b> key to halt the zone or system.)
6	Zone Halt Enable	One switch with a green indicator. Pressing this switch enables the console <b>Break</b> key function. (You can use the console <b>Break</b> key to halt the zone.)
7	System Halt Enable	One switch with a green indicator. Pressing this switch enables the console <b>Break</b> key function. (You can use the console <b>Break</b> key to halt both zones.)

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**Note**

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System Halt Enable is NOT supported in Simplex mode.

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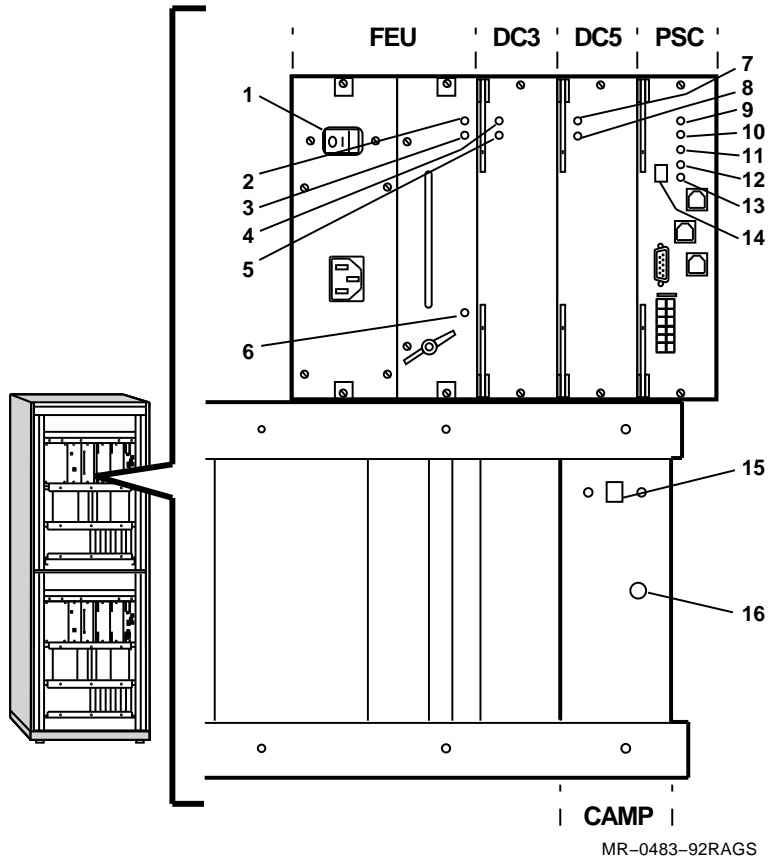
8	System OK	Green indicator. On when the system power is on and the system is operational.
9	System Fault	Amber indicator. On when the system is not operational.
10	OS Running	Green indicator. On when the system is operational and running a customer or diagnostic application.

---

## A.4 Power Modules

Figure A-4 shows the location of the power module controls and indicators. Table A-4 describes their functions.

Figure A-4 Power Module Controls and Indicators





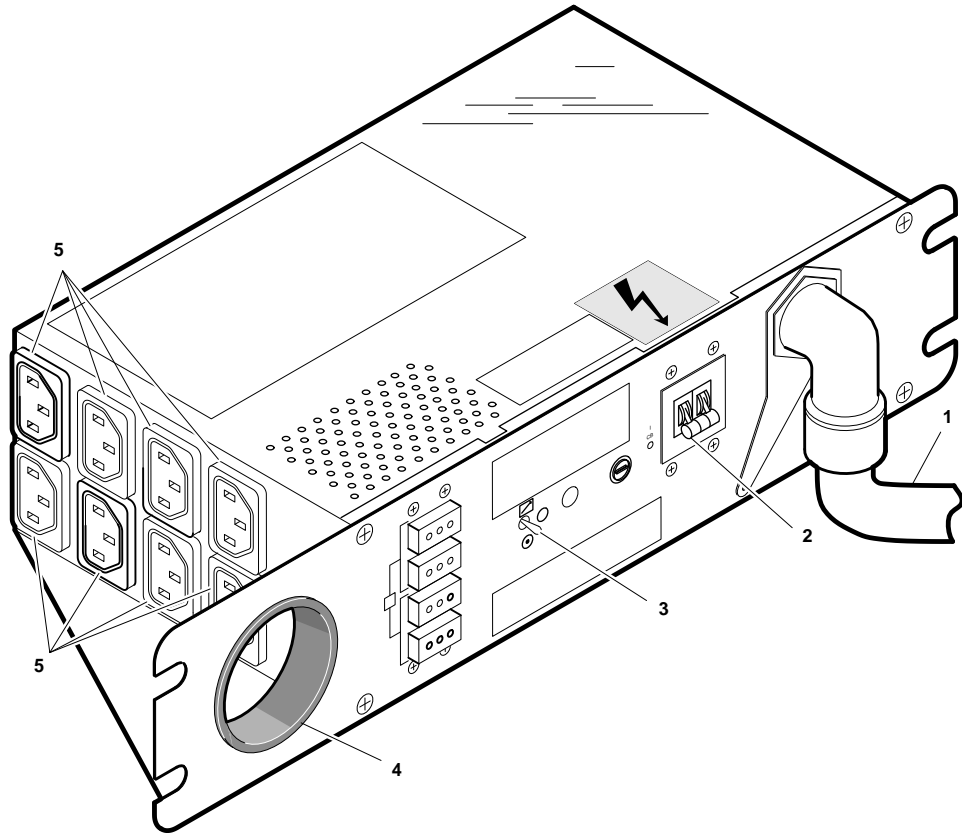
**Table A–4 Key to Figure A–4, Power Module Controls and Indicators**

Item	Control/Indicator	Function
1	AC Circuit Breaker	
2	FEU Failure	When on, indicates the dc output voltages for the FEU are below the specified minimum.
3	FEU OK	When on, indicates the dc output voltages for the FEU are above the specified minimum.
4	DC3 Failure	When on, indicates that one of the +3 Vdc output voltages is not within the specified tolerances.
5	DC3 OK	When on, indicates that the +3 Vdc output voltages are within the specified tolerances.
6	AC Present	When on, indicates ac power is present at the ac input connector, regardless of the position of the circuit breaker.
7	DC5 Failure	When on, indicates that one of the +5 Vdc output voltages is not within the specified tolerances.
8	DC5 OK	When on, indicates that the +5 Vdc output voltages are within the specified tolerances.
9	PSC Failure	When on, indicates a PSC fault.
10	PSC OK	When blinking, indicates the PSC is performing power-on self-tests. When on, indicates the PSC is functioning.
11	Over Temperature Shutdown	When on, indicates that the PSC shut down the system because of an internal overtemperature condition.
12	Fan Failure	When on, indicates a fan failure. Use the hexadecimal number in the Fault ID Display to isolate the fan.
13	Disk Power Failure	When on, indicates a disk power failure. Use the hexadecimal number in the Fault ID Display to isolate the storage compartment that houses the disk.
14	Fault ID Display	Displays power subsystem fault codes.
15	PSC Reset Button	When out, indicates a PSC fault condition. Press in to reset.
16	CAMP Fan Fault	When on, indicates that a fan fault caused all disk drives and tape drives to shut down.

## A.5 Domestic and International Power Distribution Boxes

The domestic power distribution box (PN 30-24374-01) is shown in Figure A–5. Table A–5 describes the components shown in the figure. The international power distribution box (PN 30-35415-01) is shown in Figure A–6. Table A–6 describes the components shown in the figure.

**Figure A-5 Domestic Power Distribution Box**

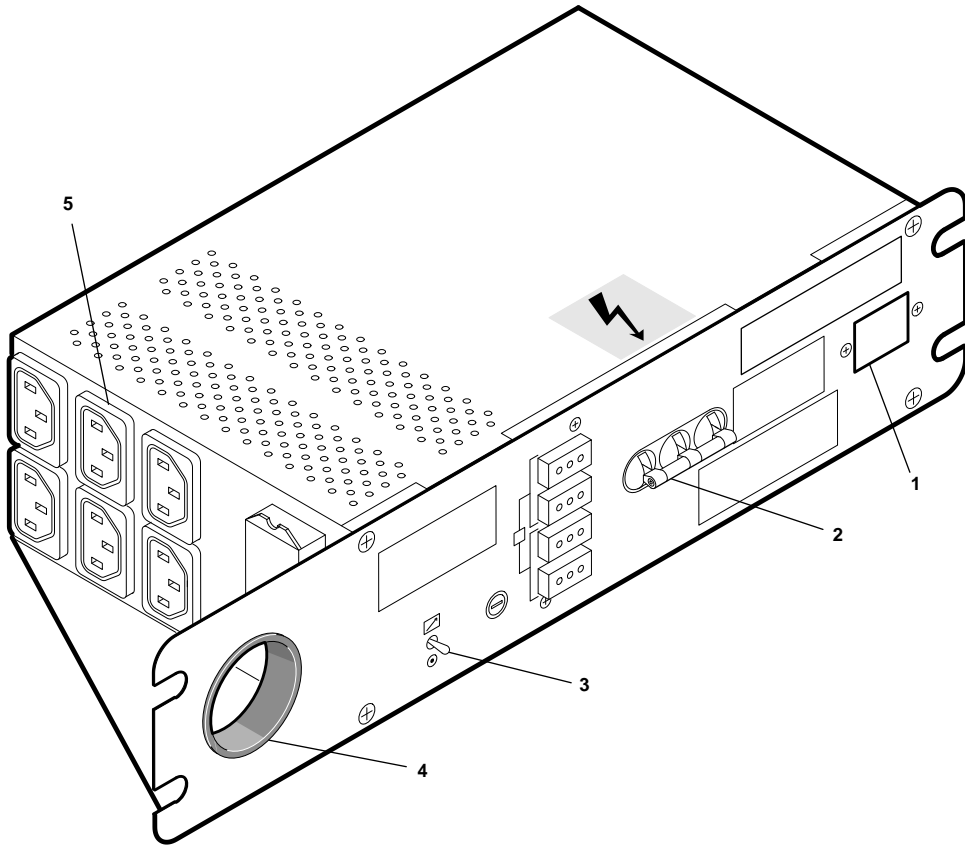


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**Table A-5 Key to Figure A-5, Domestic Power Distribution Box**

Item	Component	Description
1	Three-phase power cord	Connects the power distribution box to ac power. The power cord may be repositioned by moving the locking arm.
2	Circuit breaker	When set to on, ac power is applied to the distribution box.
3	Local/Remote switch	The switch has icons representing Remote, Off, and Local. When set to: <ul style="list-style-type: none"> <li>Local, the internal bus controls the operation of ac power.</li> <li>Off, the distribution box is turned off.</li> <li>Remote, the distribution box is turned on (if the power cord is connected to ac power and the circuit breaker is set to on).</li> </ul>
4	For power cords	Used to dress the power cords.
5	Eight ac outlets	Reserved for the FEU and expansion cabinet.

**Figure A-6 International Power Distribution Box**



MR-0499-92DG

**Table A-6 Key to Figure A-6, International Power Distribution Box**

Item	Component	Description
1	Single-phase power cord	Connects the power distribution box to ac power.
2	Circuit breaker	When set to on, ac power is applied to the distribution box.
3	Local/Remote switch	The switch has icons representing Remote, Off, and Local. When set to: <ul style="list-style-type: none"> <li>Local, the internal bus controls the operation of ac power.</li> <li>Off, the distribution box is turned off.</li> <li>Remote, the distribution box is turned on (if the power cord is connected to ac power and the circuit breaker is set to on.)</li> </ul>
4	For power cords	Used to dress the power cords.
5	Six ac outlets	Reserved for the expansion cabinet.

