

# AlphaStudio Record/Edit/View (REV) Station

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## Hardware Installation Guide

Order Number: EK-ASREV-IN. A01

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**August 1996**

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## Safety



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<b>Warning</b>	Contains information to prevent personal injury.
<b>Caution</b>	Contains information to prevent damage to equipment.

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<b>Attention</b>	Signale les informations destinées à prévenir la détérioration du matériel.

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# Preface

## Overview

This guide provides the information necessary to install the AlphaStudio Record /Edit/View (REV) station. Information concerning individual devices used in these systems is contained in other documents as referred to in this guide.

## Intended Audience

The instructions in this guide are for Digital Customer Services representatives and customer maintenance personnel who are familiar with computer hardware and operating systems. Personnel should be experienced and trained in installing computer and related equipment.

## Structure of This Document

This document is organized as follows:

**Chapter 1, Introduction** — Provides a general description and specifications for the AlphaStudio REV station.

**Chapter 2, Site Preparation** — Provides information concerning site preparation.

**Chapter 3, Unpacking** — Describes how to unpack and check the shipment.

**Chapter 4, AlphaStudio REV Station Installation** — Describes how to install the AlphaStudio REV station.

**Appendix A, Additional Information for Digital Cabinets** — Provides information for removing and replacing the cabinet side panels, removing and replacing the front filler panels, adjusting the stabilizer bars, using the interlock system, and removing and replacing the power distribution units.

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## Related Documents

For additional information on the AlphaStudio REV station components, refer to the documentation listed in the following table.

<i>H9A15 Cabinet Installation/Owner's Guide</i>	EK-H9A15-IN
<i>AlphaStudio Record/Edit/View (REV) Station Software User's Guide</i>	AA-QN04A-TE
<i>AlphaServer 2100A LP System Installation/Owner's/Service Guide</i>	EK-21ALP-IN
<i>StorageWorks Solutions BA356-SB 16-Bit Shelf User's Guide</i>	EK-BA356-UG
<i>DWZZB 16-Bit SCSI Bus Converter User's Guide</i>	EK-DWZZB-UG

## Notes, Cautions, and Warnings

Where notes, cautions, and warnings are used in this document, specific types of information are highlighted as follows:

**Note** — Calls attention to any item of information that may be of special importance to the reader.

**Caution** — Contains essential information to avoid damage to the equipment.

**Warning** — Contains essential information for the safety of the user.

# 1

---

## Introduction

### 1.1 Overview

This chapter provides a general description and specifications of the AlphaStudio Record/Edit/View (REV) station.

### 1.2 AlphaStudio REV Station

The AlphaStudio REV station (shown in Figure 1-1) is a high-performance platform that provides improved data availability and application uptime for the broadcast video and video production industry during recording and playback of video material. It contains an Alpha processor, an Ethernet adapter, video interface modules, and AlphaStudio software.

The AlphaStudio REV station can come preinstalled in a standard Digital 48.26-cm (19-in.) English RETMA cabinet or the individual components that make up the AlphaStudio REV station can be ordered separately for installation in a customer's standard 48.26-cm (19-in) cabinet.

The AlphaStudio REV station consists of one AlphaServer 2100A low-profile (LP) system and three rackmounted BA356 StorageWorks shelves.

## Introduction

### 1.2.1 AlphaServer 2100A LP System

The AlphaServer 2100A LP system is a high-performance server for multiuser environments. The system complies with the Electronic Industries Association (EIA) standard 310C and the International Electrotechnical Commission (IEC) 297 standards that enable installation into a cabinet with rails with the English RETMA (Radio Electronics Television Manufacturers Association) rail-hole pattern.

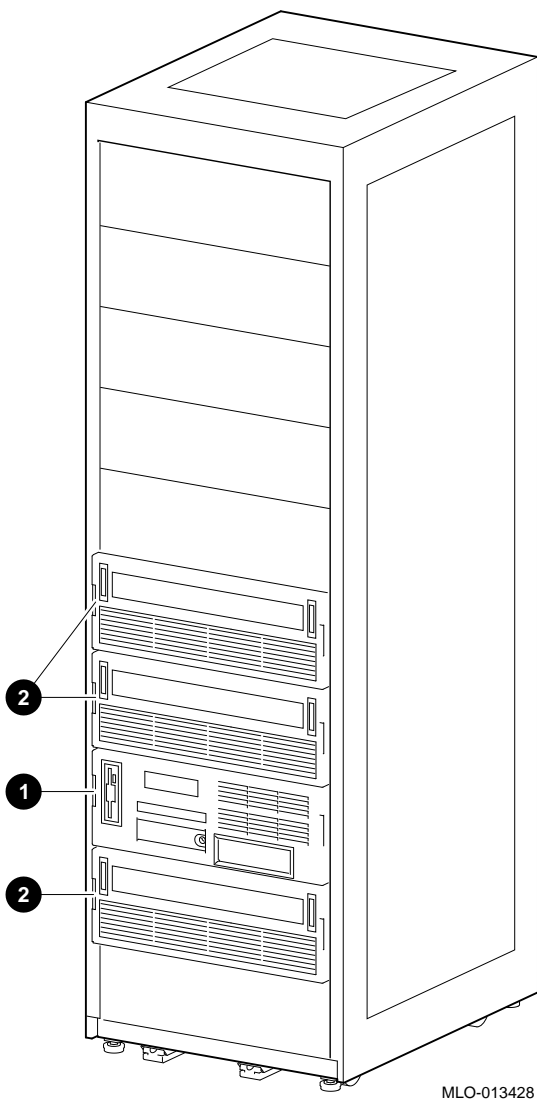
The AlphaServer 2100A LP system is part of the AlphaServer 2100 product line. This product line is a family of Alpha, symmetric multiprocessor, server systems that, for this prepackaged system, uses the Digital UNIX operating system.

In the AlphaStudio REV station, the AlphaServer 2100A LP system contains the following:

- One CPU (expandable to two CPUs per unit)
- Two 128-MB memory modules (expandable to a maximum memory capacity of 1.5 GB)
- One 1.44 MB RX23L floppy drive
- One 2.1 GB RZ28 hard disk drive
- One 600 MB 4 x speed RRD45-AC CD-ROM drive
- Three KZPSA-BB PCI FWD SCSI host bus adapters
- Two 2L-VCPD1-AA PCI Video/AES/EBU audio interface modules
- One standard I/O module with Ethernet connectors
- One PB2GA-JB VGA graphics adapter

## Introduction

Figure 1-1 AlphaStudio REV Station in an Optional H9A15 Cabinet



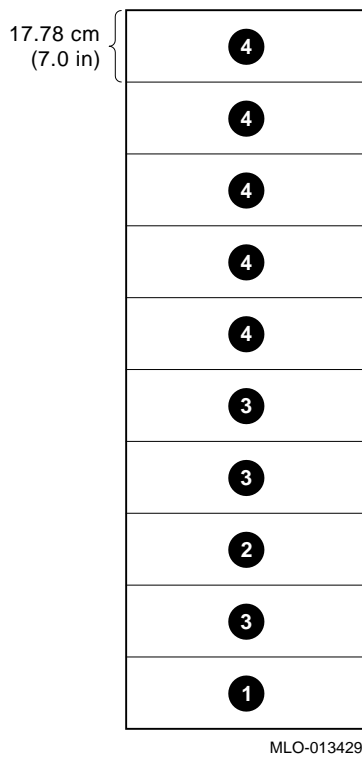
❶ AlphaServer 2100A LP system

❷ BA356 StorageWorks shelves

## Introduction

Figure 1-2 shows the recommended layout of the AlphaStudio REV station.

**Figure 1-2 Recommended Layout for the AlphaStudio REV Station**



- ❶ Filler panel (location of two H7600-AA or H7600-AB power distribution units)
- ❷ AlphaServer 2100A LP system

- ❸ BA356 StorageWorks shelves
- ❹ Filler panels (space for other options)

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### Note

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Each panel shown in Figure 1-2 is 17.78 cm (7.00 in.) in height or equal to four rack units.

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### 1.2.2 BA356 StorageWorks Shelf

Each of the three BA356 StorageWorks shelves in the AlphaStudio REV station contains the following:

- One power module (expandable to two power modules per shelf)
- One DWZZB-VW 16-bit SCSI signal converter
- Two 4.3 GB RZ29B-VW disk drives (expandable to four or six drives per shelf)

The three BA356 StorageWorks shelves in the AlphaStudio REV station can be a combination of front and rear mounted shelves.

### 1.2.3 Installed Software

Table 1–1 contains a list of the factory-installed software that comes with the AlphaStudio REV station.

**Table 1–1 Factory-Installed Software**

Product Name	Description
Digital UNIX	The operating system.
AlphaStudio REV Station	An application that manages and controls the location and movement of digital video data. This software runs in a Digital UNIX environment and is compatible with the Louth Automation control protocol.

## Introduction

### 1.3 Installation Procedures

If the AlphaStudio REV Station is preinstalled in a standard Digital cabinet:

- Refer to Chapter 2 for site preparation information
- Refer to Chapter 3 for unpacking the cabinet
- Refer to Chapter 4 for:
  - Checking the factory-connected SCSI cables
  - Connecting the customer's audio/video cables
  - Connecting the VGA monitor
  - Connecting power
  - Starting the AlphaStudio REV station

If the individual components that make up the AlphaStudio REV station are ordered separately for installation in a customer's standard 48.26-cm (19-in) cabinet, see Figure 1-2 for a typical layout of the AlphaStudio REV station components and:

- Refer to the individual component's installation documentation to install them in the customer's cabinet
- After installing the individual components in the customer's cabinet, refer to Chapter 4 for:
  - Connecting the SCSI cables
  - Connecting the customer's audio/video cables
  - Connecting the VGA monitor
  - Connecting power
  - Starting the AlphaStudio REV station

## Introduction

### 1.4 Specifications

The following sections contain the specifications for a preinstalled AlphaStudio REV station in Digital's H9A15 cabinet and for the individual components of the AlphaStudio REV station.

#### 1.4.1 AlphaStudio REV Station in an H9A15 Cabinet

This section describes the physical, electrical, and environmental specifications of the AlphaStudio REV station preinstalled in Digital's H9A15 cabinet.

<b>Physical</b>	<b>Metric Units</b>	<b>Imperial Units</b>	<b>Rack Units</b>
H9A15 cabinet height	199.9 cm	(78.7 in.)	(N/A)
H9A15 cabinet width	60.0 cm	(23.6 in.)	(N/A)
H9A15 cabinet depth (Standard depth with front trim kit)	84.89 cm	(33.42 in.)	(N/A)
Maximum AlphaStudio REV station height	71.12 cm	(28.00 in.)	(16)
Minimum AlphaStudio REV station height	53.34 cm	(21.00 in.)	(12)
Maximum H9A15 cabinet vertical rackmounting space	182.3 cm	(71.75 in.)	(41)
Maximum H9A15 cabinet vertical rackmounting space (with power distribution units installed)	173.4 cm	(68.25 in.)	(39)
Maximum H9A15 cabinet vertical rackmounting space (with power distribution units and AlphaStudio REV station installed)	120.02 cm	(47.25 in.)	(27)
Minimum H9A15 cabinet vertical rackmounting space (with power distribution units and AlphaStudio REV station installed)	102.24 cm	(40.25 in.)	(23)
Horizontal rack width	48.26-cm	(19-in.)	(N/A)
<b>Weight</b>			
- Standard depth cabinet with front trim kit, two power distribution units, and AlphaStudio REV station	285.77 kg	(630 lb)	(N/A)
- Standard depth cabinet with front trim kit, two power distribution units, and AlphaStudio REV station plus packing material	311.17 kg	(686 lb)	(N/A)
- Fully configured (filled) standard depth cabinet with front trim kit	Up to 578.34 kg	(1,275 lb)	(N/A)

## Introduction

<b>Physical</b>	<b>Metric Units</b>	<b>Imperial Units</b>	<b>Rack Units</b>
Service Clearance			
- Front	129.54 cm	(51.00 in.)	(N/A)
- Rear	61 cm	(24 in.)	(N/A)
<b>Electrical</b>			
AC input voltage for H7600-AA PDU	100 to 120 Vac, single-phase, 3-wire		
AC input voltage for H7600-AB/BB/CB PDU	220 to 240 Vac, single-phase, 3-wire		
AC load	24 A per H7600-AA PDU 16 A per H7600-AB/BB/CB PDU		
Input line frequency range	47 to 63 Hz		
Input power at full load	2.88 kVA per H7600-AA PDU 3.84 kVA per H7600-AB/BB/CB PDU		
Power cords (attached)	H7600-AA - Two (2), 120 Vac with L5-30P connectors H7600-AB - Two (2), 240 Vac with L6-20P connectors H7600-BB - Two (2), 240 Vac with IEC 309 connectors		
<b>Environmental - Operating Conditions</b>			
Temperature range	10°C to 35°C (50°F to 95°F)		
Temperature change rate	11°C/hr (20°F/hr) maximum		
Relative humidity	10% to 90% (noncondensing)		
Humidity change rate	20%/hr		
Air intake location	Front		
Air exhaust location	Top and rear		
Airflow	200 to 400 CFM		
Maximum heat dissipation	11,730 BTU/hr (3,450 W)		
Maximum altitude	2,000 m (6,562 ft)		
<b>Environmental - Nonoperating Conditions</b>			
Temperature range	-40°C to 66 °C (-40°F to 151°F)		
Relative humidity	10% to 95% (noncondensing)		
Maximum altitude	3,600 m (12,000 ft)		

### 1.4.2 AlphaServer 2100A LP System

This section describes the physical, electrical, and environmental specifications of the AlphaServer 2100A LP system.

#### Physical

Weight	34.02 kg (75.0 lb)
Height	17.78 cm (7.0 in.)
Width	48.26 cm (19.0 in.)
Depth	67.31 cm (26.5 in.)

#### Electrical

Nominal voltage	100-120 Vac/220-240 Vac with automatic voltage sensing
Operational voltage range	90-132 Vac/180-256 Vac
Input current (maximum)	8.2 A at 100-120 Vac 4.1 A at 220-240 Vac
Phasing	Single-phase
Nominal frequency	50/60 Hz
Frequency range	47-53 Hz/57-63 Hz
Input power	810 W input maximum, power factor .98 minimum
Output power	570 W output maximum, power factor .98 minimum
U.S.A. power cord plug	NEMA 5-15P (Mates with receptacle NEMA 5-15R) for 120 V applications or NEMA 6-15P (Mates with receptacle NEMA 6-15R) for 240 V applications.

## Introduction

### **Environmental - Operating Conditions**

Temperature range	10°C to 35°C (50°F to 95°F)
Temperature change rate	11°C/hr (20°F/hr) maximum
Wet bulb temperature (maximum)	28°C (82°F)
Dew point temperature (minimum)	2°C (36°F)
Relative humidity	10% to 90% (noncondensing)
Air intake location	Front and side
Air exhaust location	Rear
Airflow	100 CFM
Heat dissipation	1535-2763 BTU/hr (450-810 W)
Maximum altitude	3,048 m (10,000 ft)

### **Environmental - Nonoperating Conditions**

Temperature range	-40°C to 66°C (-40°F to 151°F)
Wet bulb temperature (maximum)	46°C (115°F)
Relative humidity	10% to 95% (noncondensing)
Maximum altitude	12,192 m (40,000 ft)

## Introduction

### 1.4.3 BA356 StorageWorks Shelf

This section describes the physical, electrical, and environmental specifications of the BA356 StorageWorks shelf.

#### Physical

Weight	Approx. 9.07 kg (20.0 lb) (empty)
Height	150.0 mm (5.9 in.)
Width	445.0 mm (17.5 in.)
Depth	350.0 mm (13.8 in.)

#### Power Module Electrical

Nominal voltage	101-120 Vac/220-240 Vac with automatic voltage sensing
Operational voltage range	90-132 Vac/175-264 Vac
Phasing	Single-phase
Nominal frequency	50/60 Hz
Frequency range	47-53 Hz/57-63 Hz
Output voltages	+12 Vdc and +5 Vdc
Output power	150 W

#### Environmental - Operating Conditions

Temperature range	18°C to 24°C (65°F to 75°F)
Temperature change rate	3°C/hr (5.4°F/hr) maximum
Temperature range (maximum)	10°C to 40°C (50°F to 104°F)
Wet bulb temperature (maximum)	28°C (82°F)
Dew point temperature (minimum)	2°C (36°F)
Relative humidity	40% to 60% (noncondensing)
Relative humidity (maximum)	10% to 90% (noncondensing)
Maximum altitude	2,400 m (8,000 ft)

#### Environmental - Nonoperating Conditions

Temperature range	-40°C to 66°C (-40°F to 151°F)
Relative humidity	8% to 95% (noncondensing)
Maximum altitude	3,600 m (12,000 ft)

## Introduction

### 1.4.4 2L-VCPD1-AA PCI Video/AES/EBU Audio Interface Module

This section describes the input and output specifications of the 2L-VCPD1-AA PCI Video/AES/EBU audio interface module.

<b>Serial Digital Video Input</b>		<b>Linear Timecode Output</b>	
Standard	SMPTE 259M-C; 270 Mb/s 525/625 component (CCIR-601)	Standard	SMPTE 12M
Impedance	75 ohms	Output Impedance	66 ohms, balanced
Return Loss	>18 dB to clock frequency	Output Level	4 Vp-p, nominal
Input Equalization	Automatic up to 21 dB	Connector	DB-15
Signal Level	800 mV $\pm$ 10%	<b>Genlock Input</b>	
Connector	BNC per IEC 169-8	Type	Composite analog, 525/625 line
<b>Serial Digital Video Output</b>		Impedance	75 ohms
Standard	SMPTE 259M-C; 270 Mb/s 525/625 component	Return Loss	>40 dB up to 5 MHz
Impedance	75 ohms	Level	1 Vp-p color black or 4 Vp-p sync
Return Loss	>18 dB to clock frequency	Phasing	Infinite
Signal Level	800 mV $\pm$ 10%	Connector	BNC per IEC 169-8
Connector	BNC per IEC 169-8	<b>Compression Engine</b>	
<b>AES/EBU Digital Audio Input and Output</b>		Type	Two pass JPEG
Standard	AES-3 1992 (ANSI S4.40- 1992)	Standard	JPEG Baseline
Sample Frequency	48 kHz, 44.1 kHz	Mode	4:2:2, 8-bit
Connector	DB-15	Maximum Ratio	20:1
<b>Linear Timecode Input</b>		Minimum Ratio	6:1
Standard	SMPTE 12M	Compression Window	720 pixels x 240 active lines/field
Input Impedance	>20k ohms, balanced		
Connector	DB-15		



## Introduction

### DB-15 Connector Pinout

Pin	Signal	Pin	Signal
1	AES 2 in +	9	AES 2 out +
2	AES 1 out +	10	Timecode out +
3	Ground	11	AES 1 in -
4	Timecode in -	12	Ground
5	Timecode in +	13	AES 2 out -
6	AES 1 in +	14	Ground
7	AES 2 in -	15	Timecode out -
8	AES 1 out -		

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#### Note

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Shielded cables are recommended for use with the DB-15 connector.

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# 2

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## Site Preparation

### 2.1 Overview

Site preparation and planning are necessary before installing an AlphaStudio REV station that is preinstalled in a Digital cabinet. Before installing the AlphaStudio REV station cabinet, ensure that the installation site conforms to the physical, electrical, and environmental specifications provided in Chapter 1.

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#### Warning

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When installing the AlphaStudio REV station in a computer room with raised floors, **DO NOT** use vented tiles under any of the cabinet casters. The tiles crease and may eventually collapse. This could cause personal injury or equipment damage.

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Locate the AlphaStudio REV station in an area that provides sufficient clearance for ventilation and servicing. Ensure that no obstructions (walls, cabinets, boxes, and so forth) are allowed to interfere with the free flow of exhaust air from the cabinet.

Consider all specifications and conditions listed in Chapter 1 during preinstallation planning.

## Site Preparation

The tools required to install the AlphaStudio REV station cabinet are:

- Utility knife
- Phillips screwdriver
- 9/16-inch box wrench or adjustable wrench

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### Warning

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**High Leakage Current** — An insulated earthing conductor that is identical in size, insulation material, and thickness to the earthed and unearthing branch-circuit supply conductors (except that it is green with or without one or more yellow stripes) is to be installed as part of the branch circuit that supplies the unit or system. The earthing conductor described is to be connected to earth at the service equipment or, if supplied by a separately derived system, at the supply transformer or motor-generator set.

The attachment-plug receptacles in the vicinity of the system are all to be of an earthing type, and the earthing conductors serving these receptacles are to be connected to earth at the service equipment.

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### Warning

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Use sufficient personnel when unloading the cabinet from the pallet or moving the cabinet to a new location. The cabinet can weigh up to 578.34 kg (1,275 lb) fully configured.

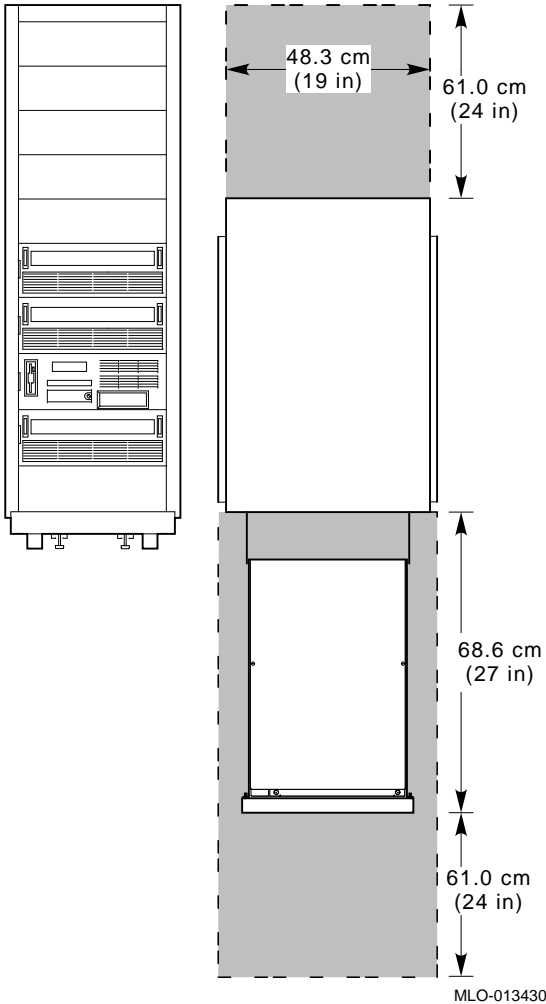
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For site preparation details concerning the devices installed in the cabinet, refer to the documentation for those devices.

**Site Preparation**

Figure 2-1 is a top view showing the clearance required around the AlphaStudio REV station.

**Figure 2-1 AlphaStudio REV Station Clearance Requirements**





# 3

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## Unpacking the Shipment

### 3.1 Overview

This chapter describes how to unpack a preinstalled AlphaStudio REV station that is shipped in one cabinet on a wooden pallet. Unpacking involves:

- Removing the packaging material
- Checking the shipment
- Removing the cabinet from the pallet

## Unpacking the Shipment

### 3.2 Removing the Packaging Material

To remove the packaging material, refer to Figure 3-1 and proceed as follows:

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**Note**

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Save all packaging materials in case any item needs to be returned.

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1. Position the pallet with the cabinet in an area that provides sufficient workspace for unpacking. Ensure that there is sufficient clearance in front of the pallet (marked with a large F) to roll the cabinet down the ramps.
2. Cut and remove the plastic bands ❶ that secure the corner posts ❷ and the carton ❸ to the cabinet. The carton contains the two ramps.
3. Remove the corner posts ❷ and the carton ❸ from the pallet ❹.

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**Caution**

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In the next step, take care not to damage the cabinet finish when removing the plastic bag.

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4. Remove the plastic bag ❺ covering the cabinet.
5. Check the cabinet and the associated equipment for any external damage. Report any damage to Digital Customer Service or a Digital sales office, and to the responsible freight carrier.

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**Note**

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Keep all packing material and receipts in case a damage claim is filed.

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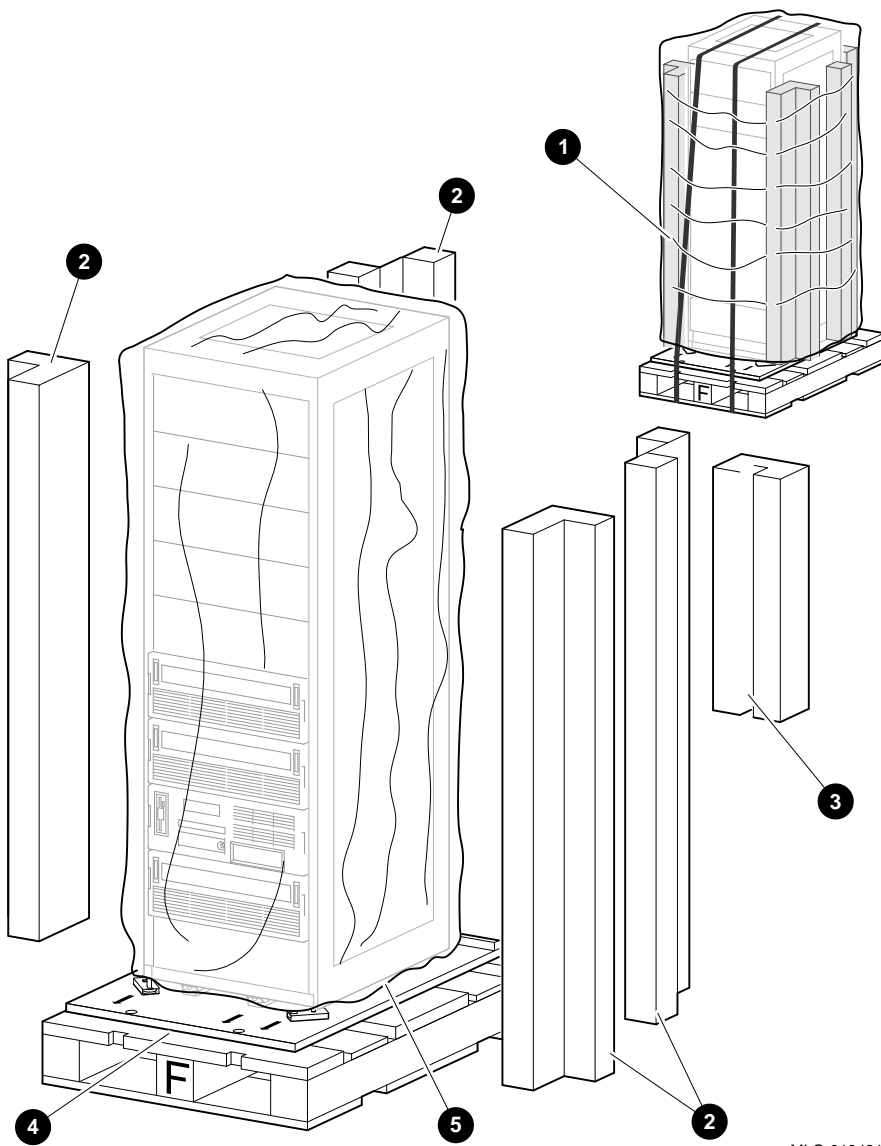
### 3.3 Checking the Shipment

In addition to the cabinet and its contents, the shipment may include several boxes depending on the particular system ordered. Check the packing list to ensure that all items listed have been received. If any item is missing, immediately contact your Digital sales office and the responsible freight carrier.



## Unpacking the Shipment

Figure 3-1 Unpacking the Cabinet



MLO-013431

## Unpacking the Shipment

### 3.4 Removing the Cabinet from the Pallet

To remove the cabinet from the pallet, refer to Figure 3–2 and proceed as follows:

1. Remove the four shipping bolts ⑥ and brackets ⑦ that secure the four cabinet leveler feet ⑧ to the pallet ④.

---

**Note**

---

The ramps attach to the front of the pallet. Therefore, the cabinet will have to be rolled frontwards down the ramps.

---

2. Remove the ramps ⑨ from the shipping carton and set the ramps in the holes ⑩ provided at the front of the pallet ④. Ensure that the arrows ⑪ on the ramps match the pallet arrows ⑫ as shown in Figure 3–2.

---

**Caution**

---

In the next step, the leveler feet must be fully retracted to prevent contact with the ramp or the floor when the cabinet is unloaded from the pallet.

---

3. Adjust the four cabinet leveler feet ⑧ and the leveler feet on the stabilizer bars ⑬ to the maximum upward position.

---

**Warning**

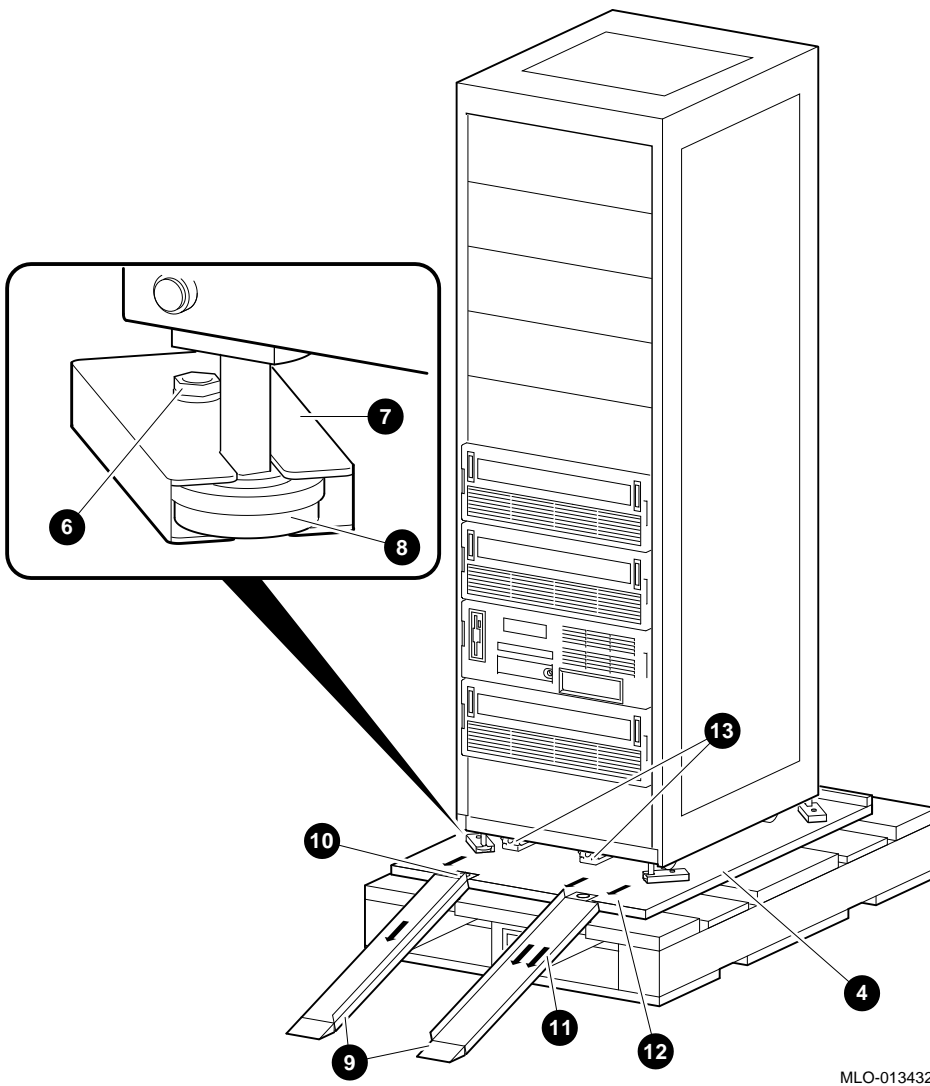
---

To prevent personal injury and damage to the cabinet:

- Do not move the cabinet unless there are enough people available to hold and stabilize the cabinet.
  - Do not attempt to roll the cabinet off the shipping pallet with the stabilizer bars extended.
  - Make sure that all the equipment mounted in the cabinet is locked down to prevent the equipment from sliding out when moving the cabinet.
-

## Unpacking the Shipment

Figure 3-2 Installing the Ramps



## Unpacking the Shipment

---

### Warning

---

In the following step, use sufficient personnel to move the cabinet off the pallet. The cabinet can weigh up to 578.34 kg (1,275 lb) fully configured. Equipment installed in the cabinet can make the cabinet top heavy or cause it to accelerate rapidly down the ramps if not restrained. Be prepared to guide and control the motion of the cabinet.

---

4. Refer to Figure 3-3 and roll the cabinet down the ramps using sufficient personnel for safety.

---

### Caution

---

The front casters of the cabinet swivel, but the rear casters are fixed.

---

---

### Warning

---

Do not leave the cabinet unattended without lowering the leveler feet. The cabinet may roll because the casters do not lock. Also, tipping the cabinet more than 15 degrees may cause an unstable situation.

---

5. Position the cabinet in its final location.

---

### Warning

---

The floor must be smooth and level, and capable of supporting up to 578.34 kg (1,275 lb) for the cabinet.

---

6. Adjust the leveler feet downward so that the cabinet is level and the load is completely removed from the casters.

---

### Caution

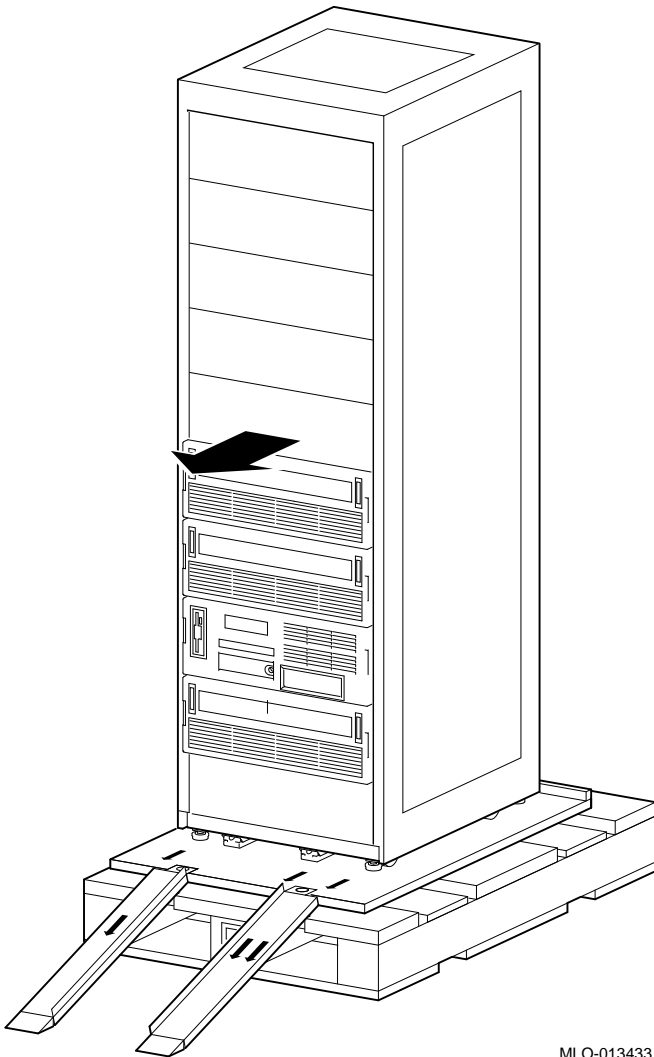
---

Ensure that the leveler feet extend enough to carry the load of the cabinet so that the casters spin freely. If not, damage to the casters will result over an extended period of time.

---

## Unpacking the Shipment

Figure 3-3 Deskidding the Cabinet



MLO-013433



# 4

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## Installing the AlphaStudio REV Station

### 4.1 Overview

Installing the AlphaStudio REV station consists of the following:

- Checking the factory-connected SCSI cables if the station comes preinstalled in a Digital cabinet  
**or**  
Connecting the SCSI cables if the individual components are installed in a customer's cabinet
- Connecting the customer's audio/video cables
- Connecting the VGA monitor
- Connecting power
- Starting the system

## Installing the AlphaStudio REV Station

### 4.2 Checking/Connecting the SCSI Cables

The AlphaStudio REV station SCSI cables are factory connected on stations that are preinstalled in a Digital cabinet and should be checked before starting the system. If the individual components are installed in a customer's cabinet, these SCSI cables have to be connected after component installation.

The *SCSI cables* are used to connect the three KZPSA-BB PCI FWD SCSI host bus adapters in the AlphaServer 2100A LP system to the three BA356 StorageWorks shelves. Refer to Figure 4-1, Figure 4-2, Figure 4-3, and the following description to check for the proper SCSI cable connections in a station that is preinstalled or to connect the SCSI cables in a customer's cabinet.

The AlphaServer 2100A LP system has a BN21K-xx SCSI cable connected to each of the three KZPSA-BB PCI FWD SCSI host bus adapters at the rear of the chassis. The other end of these three cables are connected to the DWZZB-VW 16-bit SCSI signal converter mounted in each of the three BA356 StorageWorks shelves.

---

#### Note

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*Do not* connect these SCSI cables to the personality modules in the BA356 StorageWorks shelves.

---

### 4.3 Connecting the Customer's Audio/Video Cables

After installing the AlphaStudio REV station, the customer's audio/video equipment has to be connected to the two 2L-VCPD1-AA Video/AES/EBU audio interface modules at the rear of the AlphaServer 2100A LP system chassis. Refer to Figure 4-1 and the following description to connect the customer's audio/video cables. The customer's audio/video cables are routed through the cable egress area at the bottom rear of the cabinet.

Connect the video output cables from the customer's equipment to the video input connectors on the 2L-VCPD1-AA modules.

Connect the video input cables from the customer's equipment to the video output connectors on the 2L-VCPD1-AA modules.

Connect an analog Reference Video signal to the Genlock input connector on the 2L-VCPD1-AA modules.

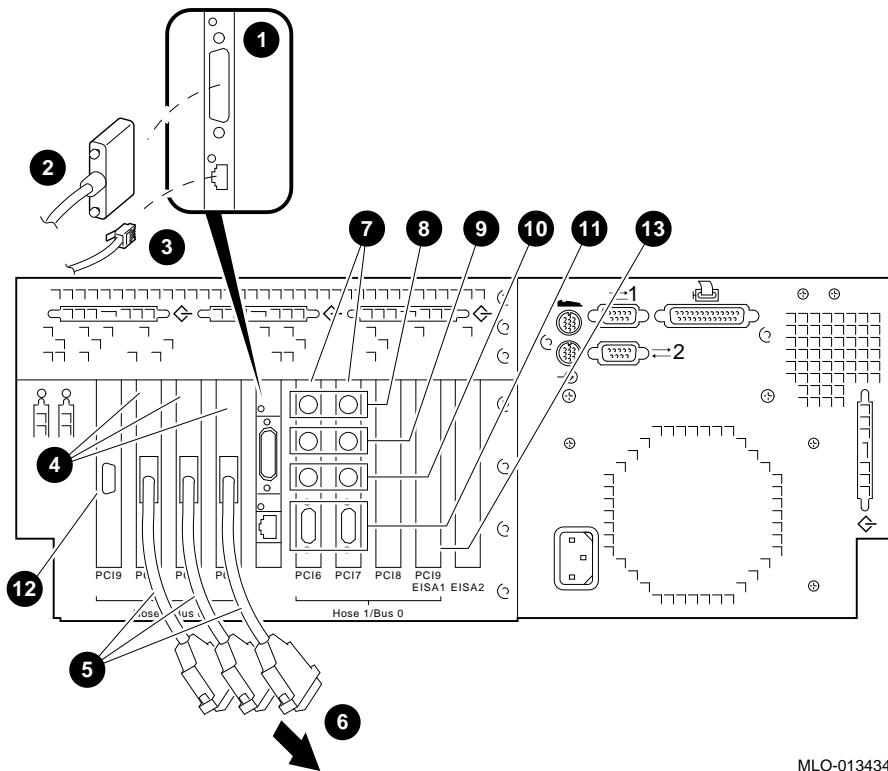
Connect the AES/EBU audio and timecode I/O cables from the customer's equipment to the AES/EBU audio and timecode I/O connectors on the 2L-VCPD1-AA modules. Refer to Section 1.4.4 for the DB-15 connector pinout.



## Installing the AlphaStudio REV Station

Figure 4-1 shows the AlphaServer 2100A LP system connections.

Figure 4-1 AlphaServer 2100A LP Connections



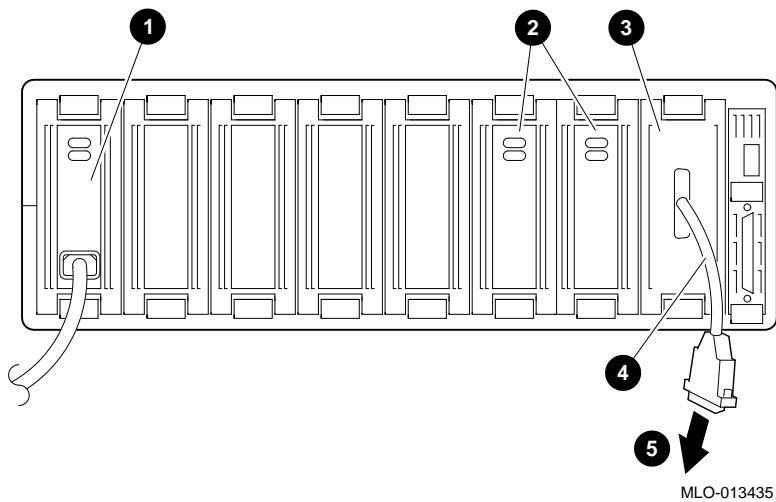
MLO-013434

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>❶ Standard I/O module</li> <li>❷ AUI Ethernet connector</li> <li>❸ 10BASE-T Ethernet connector</li> <li>❹ KZPSA-BB PCI FWD SCSI host bus adapters</li> <li>❺ BN21K-xx SCSI cables</li> <li>❻ To DWZZB-VW on BA356 StorageWorks shelves</li> <li>❼ 2L-VCPD1-AA Video/AES/EBU audio interface modules (PCI6 = line 0, PCI7 = line 1)</li> </ul> | <ul style="list-style-type: none"> <li>❽ Video input connectors</li> <li>❾ Video output connectors</li> <li>❿ Genlock input connectors</li> <li>⓫ AES/EBU audio and timecode I/O connectors</li> <li>⓬ VGA graphics adapter</li> <li>⓭ Slot for optional FDDI or ATM interface module</li> </ul> |
|--|--|

## Installing the AlphaStudio REV Station

Figure 4-2 shows an AlphaStudio REV station BA356 StorageWorks shelf and the DWZZB-VW SCSI connection.

Figure 4-2 AlphaStudio REV Station DWZZB-VW SCSI Connection

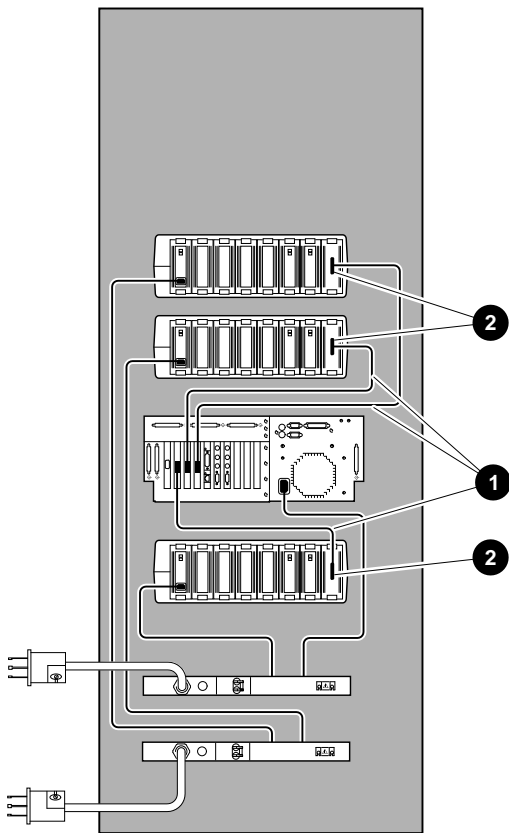


- |                       |                        |                           |                       |  |
|-----------------------|------------------------|---------------------------|-----------------------|--|
| ❶ Power supply module | ❷ RZ29B-VW disk drives | ❸ DWZZB-VW SCSI converter | ❹ BN21K-xx SCSI cable | ❺ To KZPSA-BB adapter in AlphaServer 2100A LP system |
|-----------------------|------------------------|---------------------------|-----------------------|--|

## Installing the AlphaStudio REV Station

Figure 4-3 shows a cabling diagram of the AlphaStudio REV station.

**Figure 4-3 AlphaStudio REV Station Cabling Diagram (Rear View)**



MLO-013436

❶ BN21K-xx SCSI cables

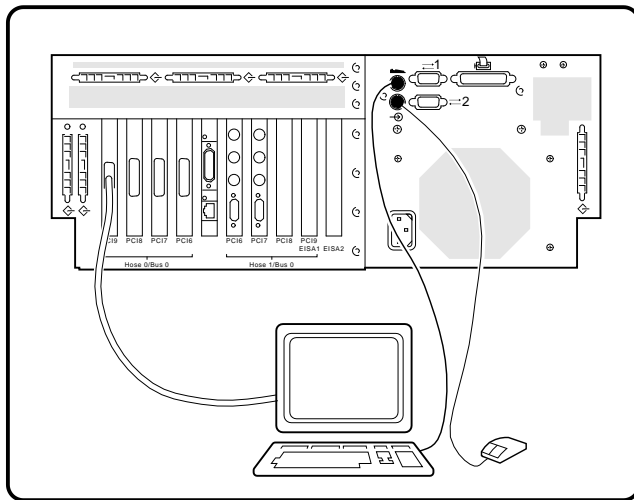
❷ DWZZB-VW SCSI converters

## Installing the AlphaStudio REV Station

### 4.4 Connecting the VGA Monitor

To connect the VGA graphics adapter and VGA monitor, refer to Figure 4-4 and connect the VGA monitor, the keyboard, and the mouse to the AlphaServer 2100A LP system. If necessary, use the keyboard/mouse/video extension cable kit to extend the cables outside the cabinet.

Figure 4-4 VGA Monitor Connections



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### 4.5 Connecting Power

The AlphaStudio REV station preinstalled in a Digital cabinet contains two power cords from the H7600 PDUs that must be connected to external receptacles. The AlphaServer 2100A LP system power cord and the BA36R-AF storage shelf power cords are connected to the H7600 PDUs inside the cabinet.

For 120 Vac (80 to 135 Vac) operation, H7600-AA power distribution units are installed. The power cord connector (NEMA L5-30P) mates with a NEMA L5-30R wall receptacle.

For 240 Vac (180 to 264 Vac) operation, H7600-AB power distribution units are installed. The power cord connector (NEMA L6-20P) mates with a NEMA L6-20R wall receptacle.

## Installing the AlphaStudio REV Station

### 4.6 Starting the AlphaStudio REV Station

To start the AlphaStudio REV station, proceed as follows:

---

**Note**

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Before starting the system, ensure that the main power circuit breakers on both power distribution units are in the OFF position, then plug the two power distribution unit cords into the proper wall receptacles.

---

1. Place the main power circuit breakers on both power distribution units to the ON position.
2. Use the key to open the operator control panel door on the AlphaServer 2100A LP system, and press the DC On/Off switch.
3. After system self-test has completed, the system will automatically boot into multiuser mode.

After a few minutes, the operating system login banner is displayed on the monitor.

4. Refer to the *AlphaStudio Record/Edit/View (REV) Station Software User's Guide* to complete the startup procedures for the AlphaStudio REV station.

---

**Note**

---

After verifying proper system operation and configuring the network, the customer can refer to Figure 4-1 to connect the system to the in-house Ethernet LAN. The AlphaServer 2100A LP system has a standard I/O module with an AUI and a 10BASE-T Ethernet connector on the rear of the chassis. Use the proper AUI or 10BASE-T Ethernet cable to connect the AlphaServer 2100A LP system to the network.

---



# A

---

## Additional Information for Digital Cabinets

### A.1 Overview

During the installation of the AlphaStudio REV station that is pre-installed in a Digital cabinet, one or more of the following procedures may be needed:

- Removing and Replacing the Side Panels (Section A.2)
- Removing and Replacing the Front Filler Panels (Section A.3)
- Adjusting the Stabilizer Bars (Section A.4)
- Using the Interlock System (Section A.5)
- Removing and Replacing the Power Distribution Unit (Section A.6)

## Additional Information for Digital Cabinets

### A.2 Removing and Replacing the Side Panels

The side panels on Digital's H9A15 cabinets are removable.

---

**Note**

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If the side panels are removed, replace them before powering up any equipment.

---

To remove the side panels, refer to Figure A-1 and proceed as follows:

#### Removal

1. Remove the six M5 Phillips-head machine screws ❶ securing the side panel to the cabinet frame.
2. Grasp both sides of the side panel and lift the side panel away from the cabinet frame.
3. Place the side panel aside and out of the way.

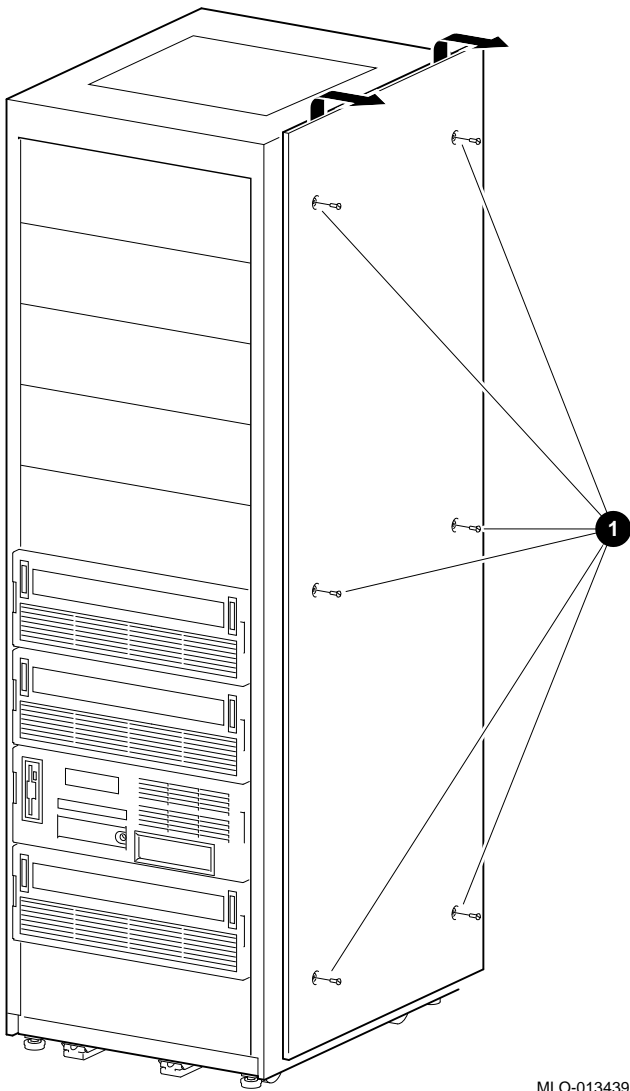
#### Replacement

To replace the side panel, reverse the removal procedure, steps 1 through 3.



## Additional Information for Digital Cabinets

Figure A-1 Removing and Replacing the Side Panels



## Additional Information for Digital Cabinets

### A.3 Removing and Replacing the Front Filler Panels

To remove a front filler panel, refer to Figure A-2 and proceed as follows:

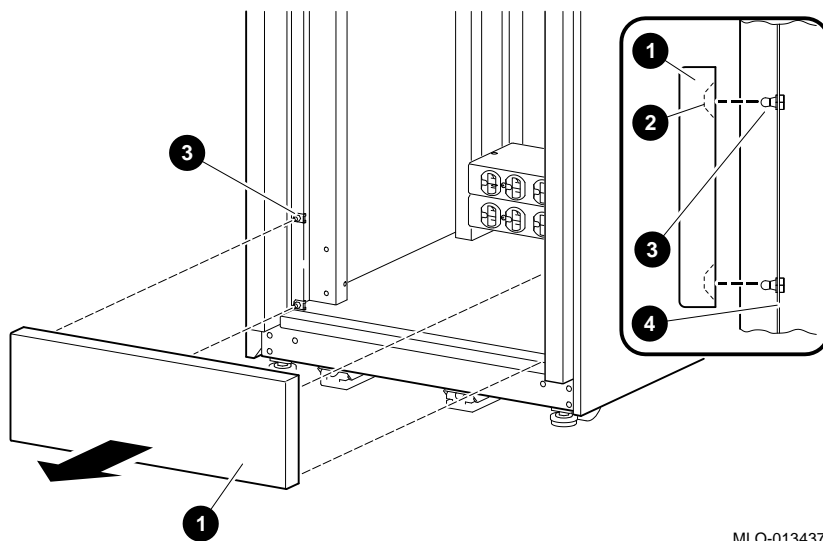
#### Removal

Grasp the front filler panel **1** on both sides and then pull straight back away from the cabinet.

#### Replacement

To replace a front filler panel **1**, align the sockets **2** on the front filler panel (refer to the exploded view) with the appropriate ball studs **3** on the rails **4** and push the panel into place.

Figure A-2 Removing and Replacing the Front Filler Panels



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## Additional Information for Digital Cabinets

### A.4 Adjusting the Stabilizer Bars

The stabilizer bars ❶ pull straight out from the bottom front of the cabinet ❷ as shown in Figure A-3. When the stabilizer bars are fully extended, adjust the feet ❸ at the end of the stabilizer bars until they touch the floor.

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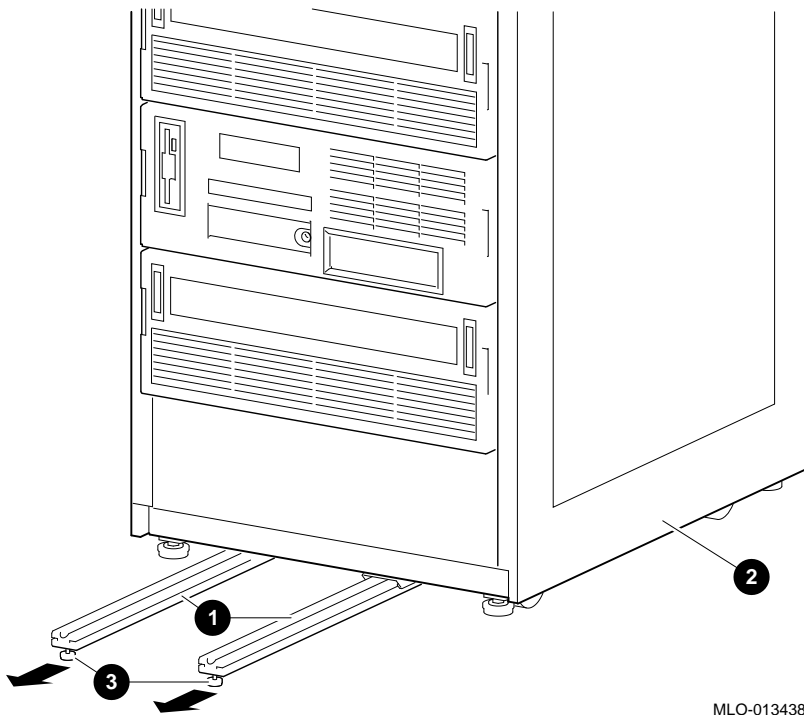
#### Warning

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The stabilizer bars must be fully extended before any system is extended out of the cabinet on its slides.

---

Figure A-3 Pulling Out and Adjusting the Stabilizer Bars



## Additional Information for Digital Cabinets

### A.5 Using the Interlock System

The interlock system (refer to Figure A-4) helps prevent cabinet instability by allowing only one system at any one time to be pulled out of the cabinet.

The interlock system consists of a vertical bar ❶ on which are mounted actuator latches ❷ for each product installed in the cabinet. These actuator latches engage the interlock actuator bracket ❸ on the rear of rackmount systems. When a rackmount system is pulled out of the cabinet, the actuator latches ❷ rotate to prevent any other rackmounted system that has an interlock actuator bracket from being pulled out of the cabinet. The expanded view (A) shows the position of the actuator latches when all systems are pushed into the cabinet. The expanded view (B) shows the position of all actuator latches after one system has been pulled out.

If additional products are installed into the cabinet, actuator latches for those products should be installed. To install actuator latches, proceed as follows:

1. Remove the screws securing the bottom mounting bracket to the cabinet ❹.
2. Slide the mounting bracket off the bottom of the vertical bar ❶.
3. Slide the stabilizer bracket ❺ for the new product onto the bottom of the vertical bar.
4. Slide the actuator latch ❷ for the new product onto the bottom of the vertical bar.
5. Replace the bottom mounting bracket ❹ and install the screws removed in step 1 but *do not* tighten them.
6. Position the stabilizer bracket so that the bottom hole in the stabilizer bracket ❻ aligns with the RETMA rail hole adjacent to the top of the installed product. This may require the loosening and sliding of other latches and stabilizer brackets to accommodate the new configuration.
7. Place the nut plate behind the RETMA rail and install and tighten the two 10-32 truss-head screws provided to secure the stabilizer bracket.
8. Position the new actuator latch ❷ to properly engage the interlock actuator bracket ❸, and tighten the two 6-32 set screws to secure the latch.
9. Now tighten the screws to secure the bottom mounting bracket ❹.

## Additional Information for Digital Cabinets

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### Note

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The interlock system is compatible with the AlphaServer 2100A LP system. Other systems may not be compatible because the interlock actuator bracket may not engage properly. In these cases, do not install the interlock actuator bracket on those systems.

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### Warning

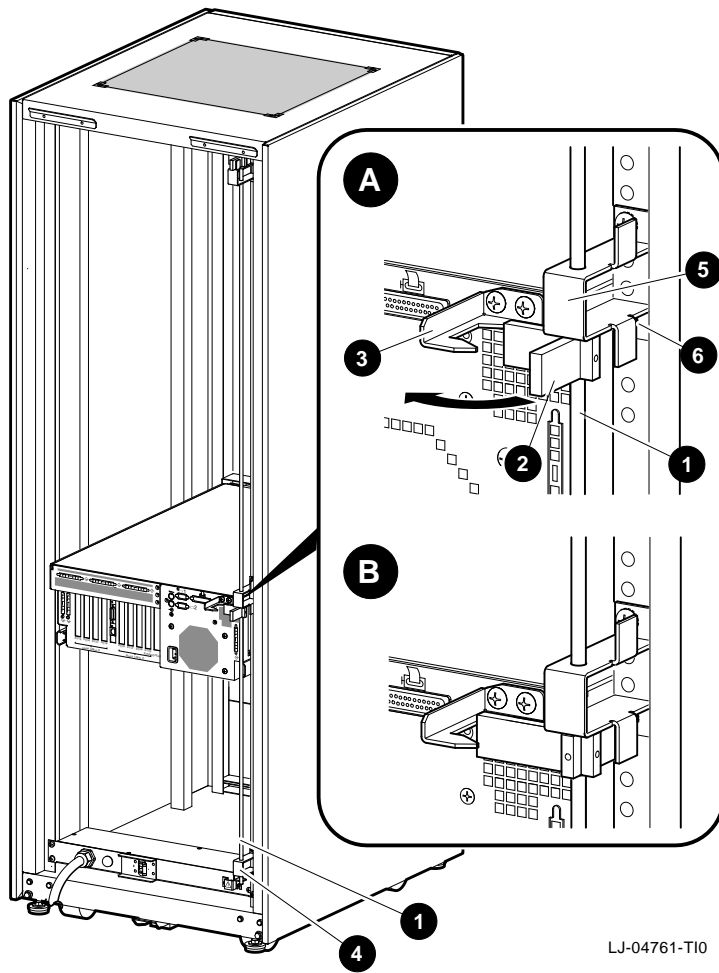
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If a system is installed without an interlock actuator bracket or the vertical bar in the cabinet does not engage properly with the system interlock actuator bracket, it is the customer's responsibility to provide a stable cabinet.

---

## Additional Information for Digital Cabinets

Figure A-4 The Interlock System



LJ-04761-T10

## Additional Information for Digital Cabinets

### A.6 Removing and Replacing the Power Distribution Unit

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#### Warning

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There can be two or more PDUs per cabinet. Ensure that all systems installed in the cabinet are turned off as described in the system documentation before performing the following procedure.

---

To remove a power distribution unit, refer to Figure A-5 and proceed as follows:

#### Removal

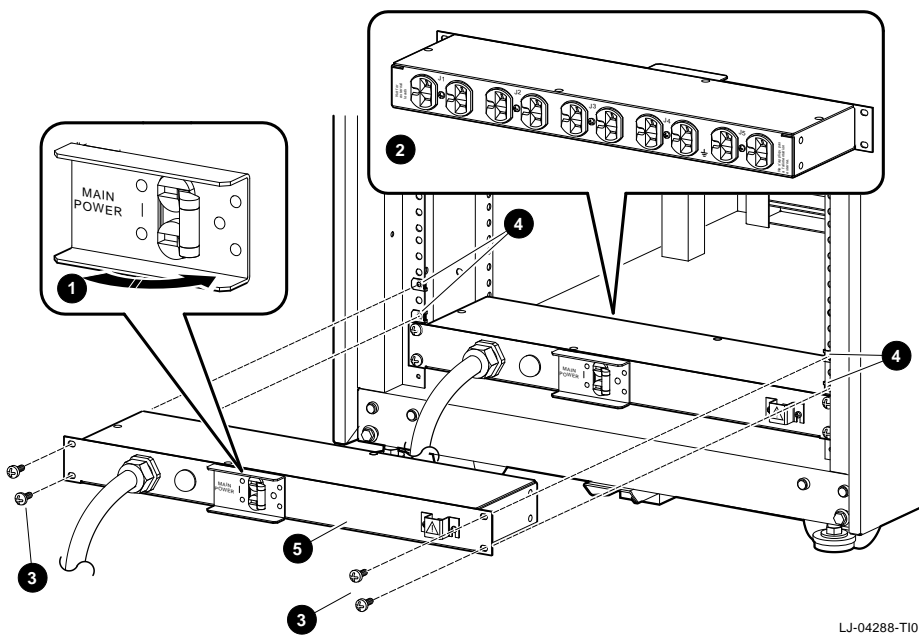
1. If the cabinet contains a powered-up system, turn off the system as described in the system documentation.
2. Open the rear door.
3. Set the Main Power switch **1** on all power distribution units to the off (O) position.
4. Disconnect the power distribution units from the ac power source.
5. Remove the bottom front filler panel (refer to Section A.3). This provides access to the ac outlets on the power distribution units.
6. Note and record the power cord connections to the outlets **2** at the rear of the failed power distribution unit. Then unplug the power cords from that power distribution unit.
7. At the rear of the cabinet, remove the four (4) 10-32 truss-head screws **3** that secure the power distribution unit **5** to the rear rails (via the four (4) 10-32 clip nuts **4**).
8. Pull out the power distribution unit **5** and remove it from the cabinet.

#### Replacement

To replace a power distribution unit, reverse the removal procedure, steps 2 through 8, then follow the power-on procedure in the system documentation.

## Additional Information for Digital Cabinets

Figure A-5 Removing a Power Distribution Unit



LJ-04288-T10