AlphaServer 2000 Series

H7895-AA Power Supply Installation and Configuration

Order Number: EK—H7895—IN. A01

October 1994

This document describes how to install and configure a second H7895-AA power supply in AlphaServer 2000 series systems.

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S2708

Power Supply Installation and Configuration

Use this document to install and configure a second H7895-AA power supply in AlphaServer 2000 systems.

Power Supply Configurations

The power supplies for AlphaServer 2000 systems support three different modes of operation. Each mode or configuration is shown in Figure 1. In addition, uninterruptible power supply (UPS) options are available.

Power supply modes of operation:

1. **Single power supply.** Supports systems with:

    - One CPU

    - Two memory modules

    - One diskette drive

    - Two removable drives

    - Eight 3.5-inch StorageWorks hard disks

    - Ten I/O slots

2. **Dual power supply (Redundant Mode).** Provides redundant power (n + 1) for the system described above.

    In redundant mode, the failure of one power supply does not usually cause the system to shut down. Normal operation continues with no impact on the system.
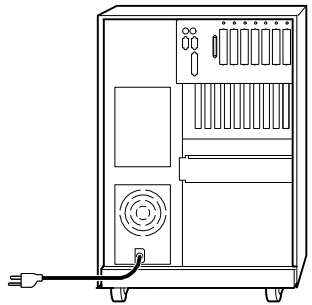

Note: The power supply mode jumper (J3) on the I/O backplane module and the power supply current sharing cable must be installed to activate redundant mode power.

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3. **Dual power supply (Full Power Mode).** Provides full power for systems with two CPUs.

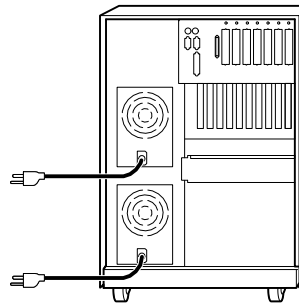   Systems with two CPUs need a second power supply.

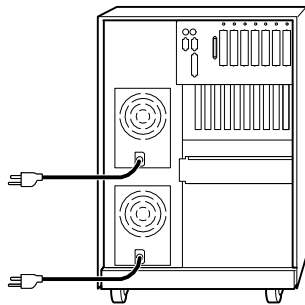## AlphaServer 2000 (BA720 Enclosure) Power Supply Configurations

Single

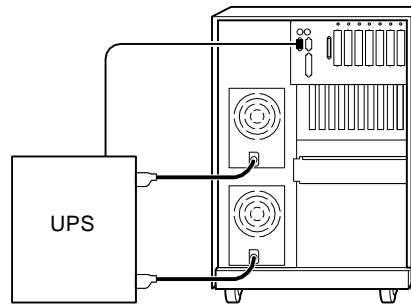Redundant

400 Watts DC or Less

400 Watts DC or Less
(J3 installed on I/O backplane)

Full

UPS

UPS

Up to 725 Watts DC

MA00085A

Single and Redundant Mode Power Configurations

The single and redundant mode power supply configurations are available to those systems drawing:

Note: The combined power of all outputs per power supply cannot exceed 400 watts.

- 36A or less of +3.3 V power
- 52 A or less of +5.0 V power
- 11 A or less of +12.0 V power
- 0.2 A or less of -12.0 V power
- 0.2 A or less of -5.0 V power
- The combination of 3.3 V power and 5.1 V power cannot exceed 335 watts.

Full Power Configurations

If your power requirements exceed the limits for single or redundant mode configurations—for example, if you add a second CPU to the system—you will need to do one of the following:

- Install a second power supply and configure it to full power mode.
- If a dual power supply is configured in redundant mode, reconfigure it into full power mode.

Installing Second Power Supply

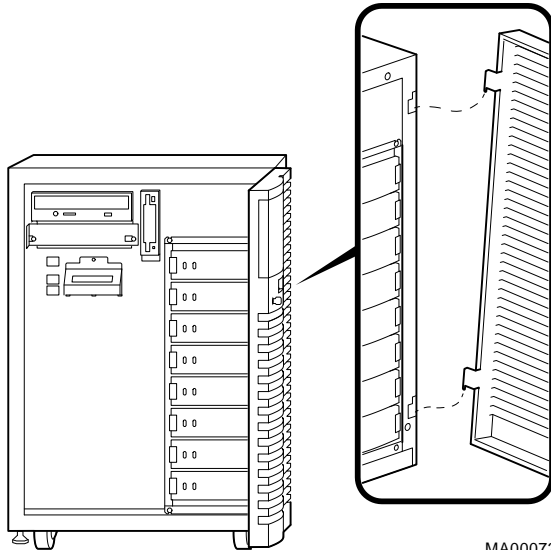Complete the following steps to install and configure the second power supply.

Step 1: Perform power shutdown.
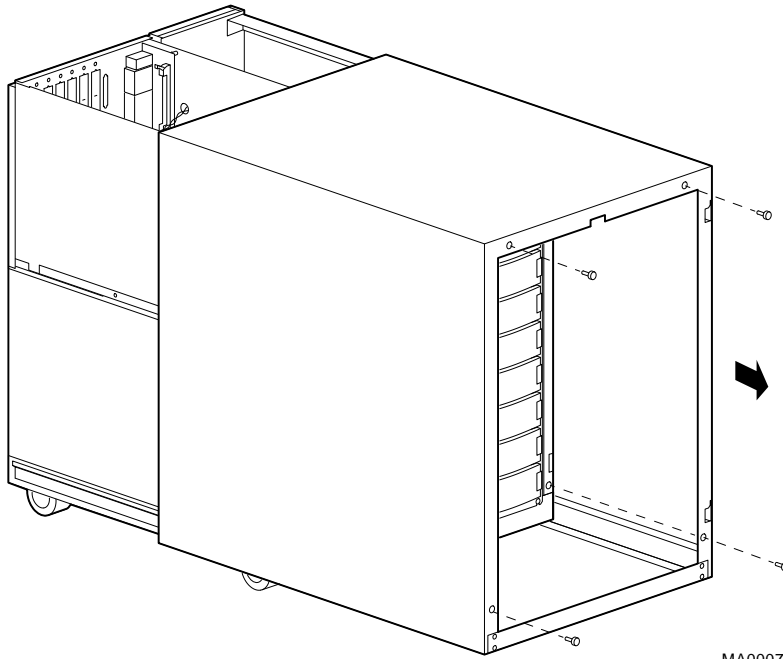
Caution: Before removing the system cover:
1. Perform orderly shutdown of the operating system.
2. Set the DC power switch on the operator control panel to off.
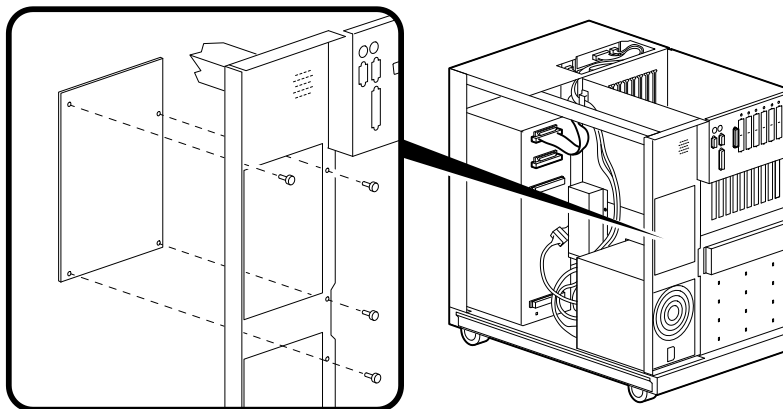3. Unplug AC power cords.

Step 2: Remove the front door.

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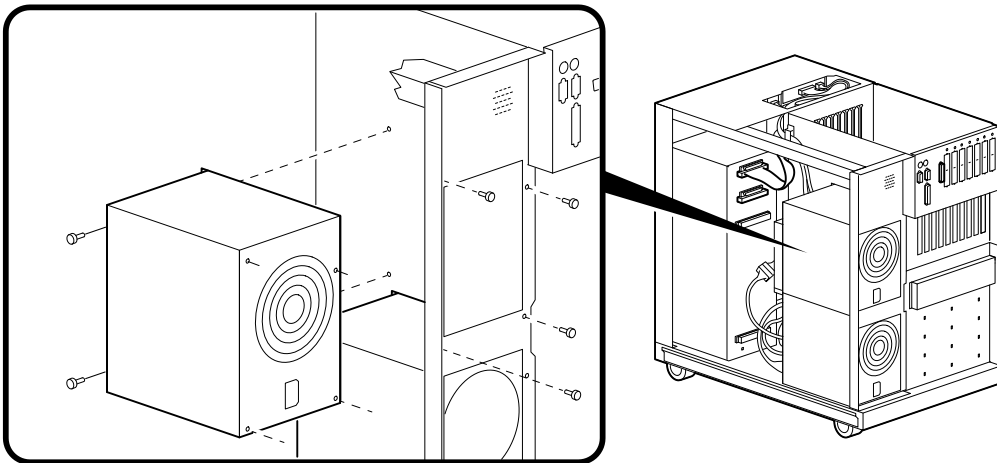**Step 3: Remove the system cover.**

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Step 4: Remove the blank plate.

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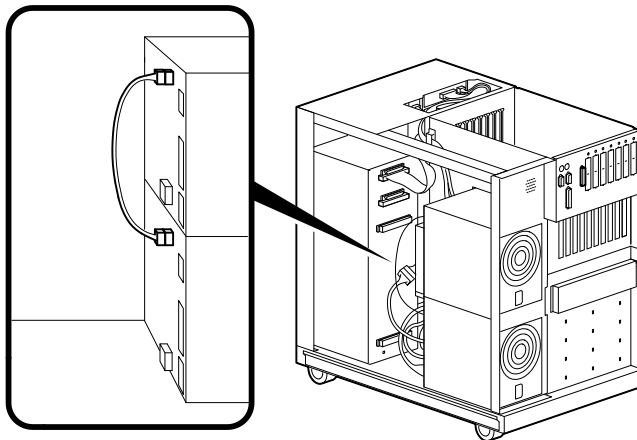**Step 5: Install the second power supply.**

Install the second power supply using the 6 screws shipped with the power supply.

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Step 6: Install the current sharing cable.

The current sharing cable (3-pin) that is shipped with the power supply links the two power supplies as shown below.

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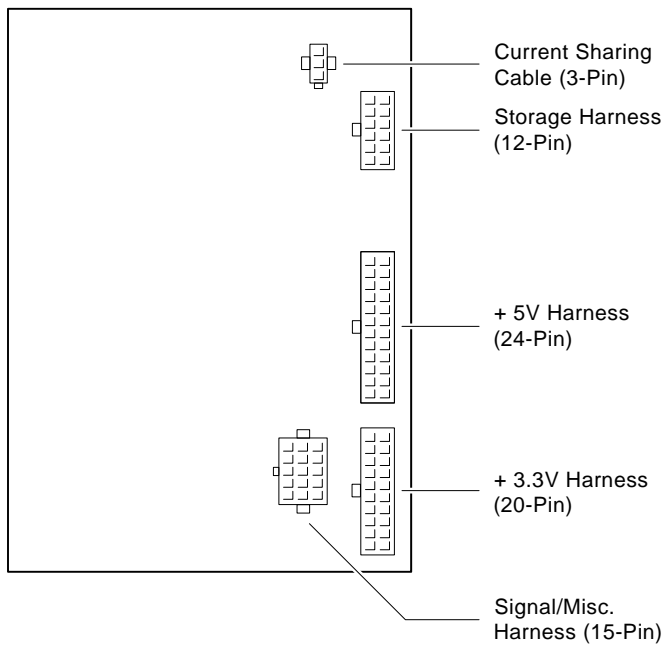
Step 7: Connect the power supply harnesses to second supply.

Connect these power supply cables to the second power supply:

- Signal/Miscellaneous harness (15-pin)

- Storage Harness (12-pin)

- +5V Harness (24-pin)

- +3.3V Harness (20-pin)

Current Sharing
Cable (3-Pin)

Storage Harness
(12-Pin)

+ 5V Harness
(24-Pin)

+ 3.3V Harness
(20-Pin)

Signal/Misc.
Harness (15-Pin)

MA00110

Step 8: Configure the power supply mode jumper (J3).

Configure the power supply mode jumper (J3) on the I/O backplane. The jumper must be installed for redundant power supply configurations and removed for single or full mode power configurations.
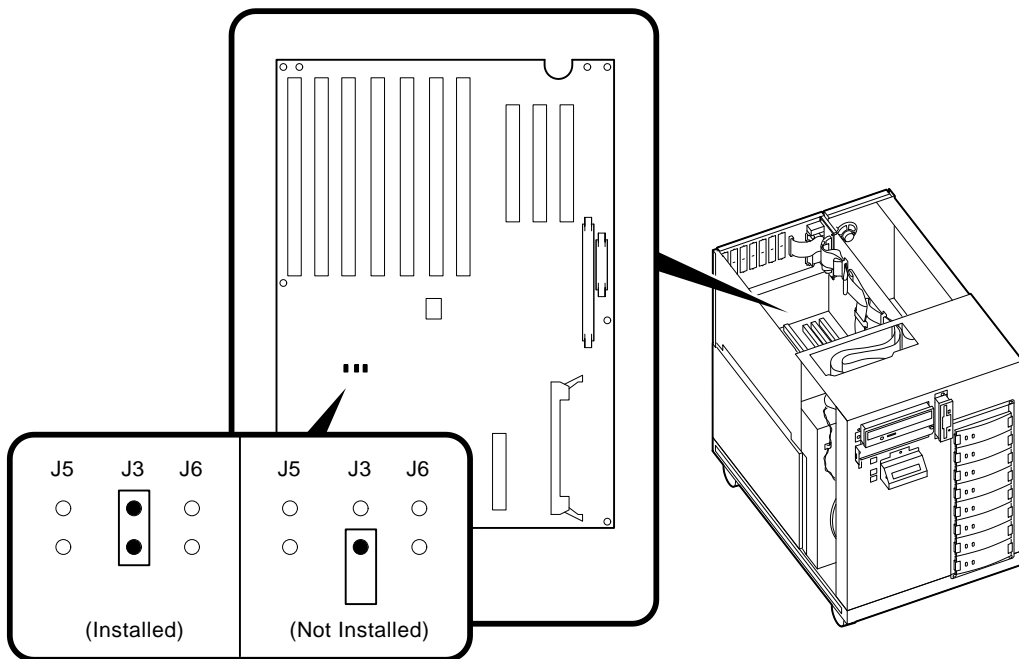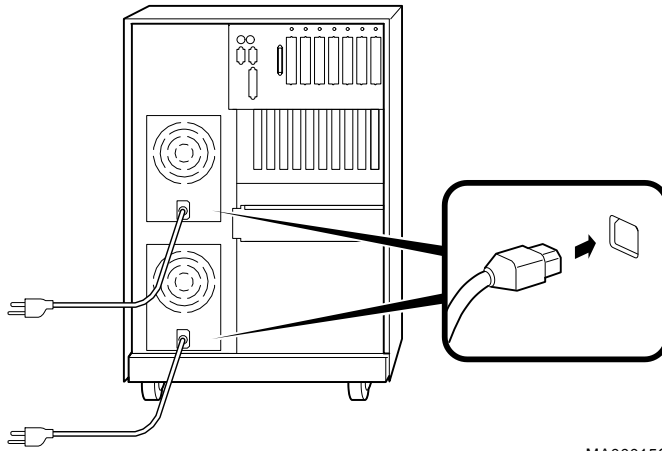

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Note: The power supply mode jumper (J3) must be installed for the power supply to operate in redundant mode.   Single and full mode power supply configurations must operate with the jumper removed.

Step 9: Replace the system cover and front door.

Step 10: Install the second power cord.

MA00015C

Step 11: Power up the system.

Power Supply Specifications

Environmental Specifications

Parameter	Range
Operating temperature	10°C – 35° C
Operating humidity	10% – 90% noncondensing maximum wet bulb of 32° C

Rating for Each Power Cord

Configuration	100 V – 120 V	220 V – 240 V
Single	8.0 A	4.0 A
Full	7.0 A	3.5 A
Redundant	4.6 A	2.2 A

NOTE: Both power cords can be plugged into the same duplex receptacle.

Ordering Information

Power Supply

Power Supply	Order Number
H7895–AA	H7895-AA

Related Documentation

For more information, refer to the following documents:

AlphaServer 2000 Owner's Guide, EK-400MP-OP

AlphaServer 2000/2100/2100 RM/2100 CAB Series Service Guide, EK-KN450-SV