

# **DEC 3000 Model 300 Series AXP**



**Adding an Internal  
Fixed Disk Drive**

## **Introduction**

### **Possible Configurations**

Your DEC 3000 Model 300 series AXP system is configured with a fixed disk drive at the factory in one of the following ways:

- a. With one RZ25 (425-megabyte) drive
- b. With one RZ25L (535-megabyte) drive
- c. With one RZ26 (1050-megabyte) drive
- d. With one RZ26L (1.05-gigabyte) drive
- e. With two fixed disk drives (any combination of the above drives)
- f. With no disk

You can add an optional RZ28 (2.1-gigabyte) fixed disk drive at a later date.

### **Methods for Adding Storage**

There are two methods of adding storage to your system:

- a. You can add drives yourself
- b. You can contract with your Digital service representative to add the drives

If you choose to add a drive yourself, you should allow about 15 minutes from start to finish.

### **In This Card**

This card provides you with the necessary installation instructions for adding a fixed disk drive to your system. It also provides instructions for setting a SCSI ID address on the drive.

Refer to the *DEC 3000 Model 300 Series Hardware Reference Guide*, for additional information.

## 1. Preparing Your System

- a. Back up your system files.
- b. Shut down all software following the instructions in your software documentation.
- c. At the console prompt (>>>), enter this command:  
>>> show device
- d. The following is an example of the resulting screen display

```
BOOTDEV ADDR DEVTYPE NUMBYTES RM/FX WP DEVNAM REV
ESA0      08-00-2B-2F-F8-E6 . TENBT
DKA300  A/3/0 DISK   535MB      FX      RZ25L  0900
..HOSTID..A/7  INTR
>>>
```

- f. Record the SCSI ID address displayed in the ADDR column: \_\_\_\_\_ (In the example, A/3/0 indicates SCSI ID address 3.) You cannot set any other device to this address, nor can you use SCSI ID 7 which is reserved for the host controller.
- g. At the console prompt (>>>), enter this command:  
>>> set auto\_action halt
- h. Turn off (O) the monitor and all peripheral devices (printers, modems, expansion boxes).
- i. Turn off (O) the system unit.

## Preparing Your System (cont)

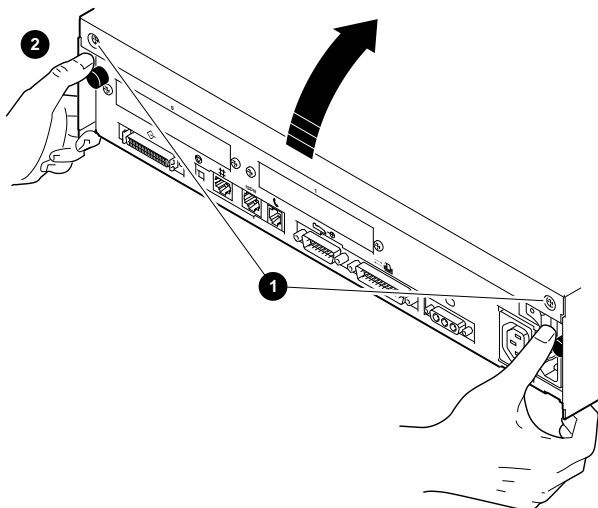
**WARNING:** After you turn off the system unit and before you unplug the power cord, wait about one minute before opening the system unit. This allows time for the power supply capacitors to safely discharge.

### **Before opening the system unit:**

- Disconnect the monitor and the system power cords from the back of the system unit.
- Disconnect the monitor video cable, mouse/keyboard cable, and any network cables.
- Remove the monitor from the top of the system unit so that you can remove the system unit cover. (Two people are required to move the monitor.)

## 2. Opening the System Unit

- a. Remove the two Phillips screws **1** on the right and left top corners of the system unit cover.
- b. Place the system unit so that the back of the unit extends over the edge of your table or desk.
- c. Place your thumbs **2** on top of the two black rubber caps on the back of the system unit, and at the same time, place your fingers under the cover's bottom edge. Firmly press down with your thumbs and, at the same time, pull up with your fingers to lift the cover.
- d. Pivot the cover on the tabs that run along the system unit's front edge.
- e. Pull the system unit cover up and away until it releases from the tabs.
- f. Place the cover aside.

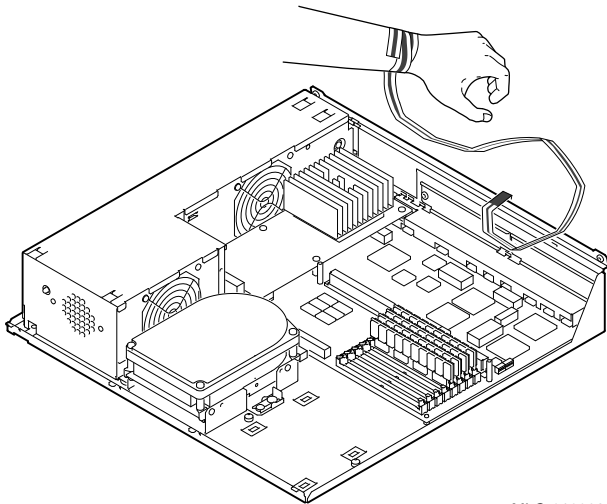


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### 3. Attaching an Antistatic Wrist Strap

**CAUTION:** To avoid static discharge, do not touch anything inside the system unit until you put on the antistatic wrist strap that was shipped with your system.

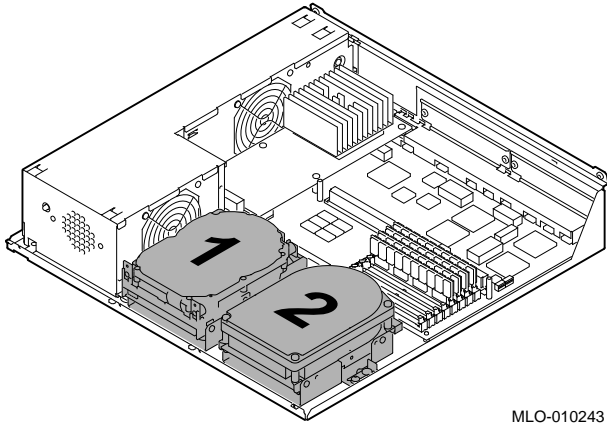
Follow the instructions on the envelope that contains the wrist strap. Store the strap after using it.



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## 4. Locating the Drive Positions

You can exchange the drives already installed in position 1 or 2 for a new drive. Up to two RZ25, RZ25L, RZ26, RZ26L or RZ28 fixed disk drives can be installed in your system.



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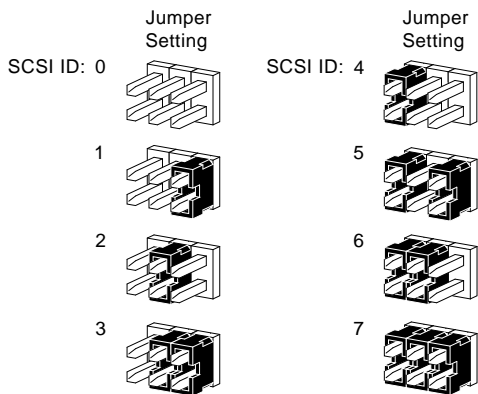
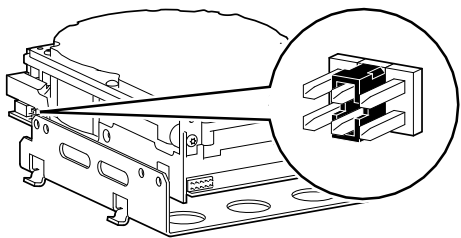
## 5. Setting a SCSI ID Address

Jumpers define the SCSI ID address for a SCSI drive. Your new drive may be shipped from the factory with jumpers in all positions; this helps prevent loss of the tiny jumpers during shipment. Save any jumpers you remove.

You need to change a SCSI ID address only if that setting is already taken by another device. For example, you cannot set the SCSI ID address of a new drive to the number recorded on panel 1, step f, because that address is already in use.

To set the SCSI ID address, choose an available ID number, refer to the following figures, and carefully remove or attach jumpers as needed. Use tweezers or another small tool to remove jumpers.

The **RZ25** jumper settings are as follows:

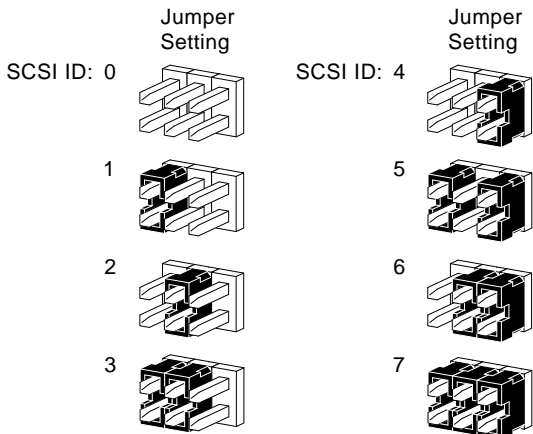
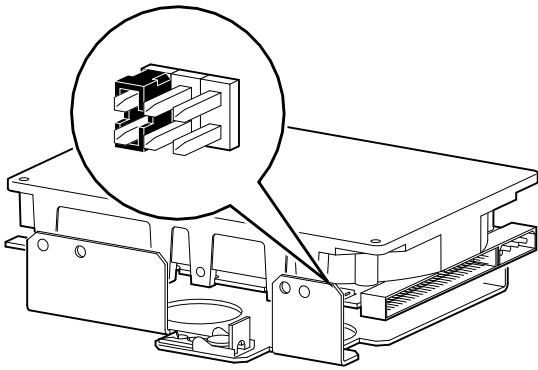


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## 5. Setting a SCSI ID Address (cont)

You may need to remove the bracket attached to an RZ25L disk drive. See your *DEC 3000 Model 300 AXP Series Hardware Reference Guide*, part number EK-PELCN-OG, for instructions. The **RZ25L** jumper settings are as follows:

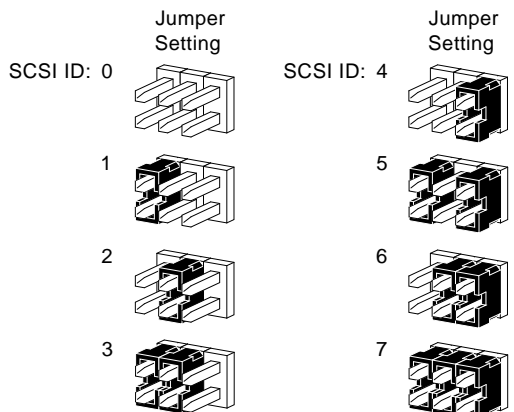
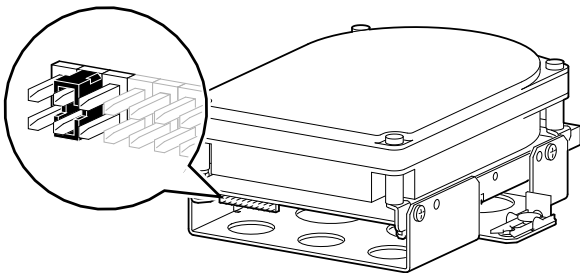


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**Note:** Jumpers may contain 6 or 8 pins depending on the manufacturer's design.

## 5. Setting a SCSI ID Address (cont)

The **RZ26** jumper settings are as follows:

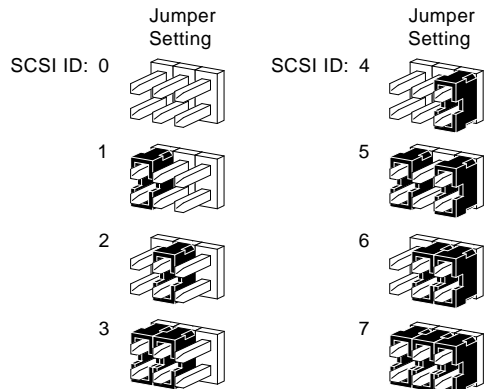
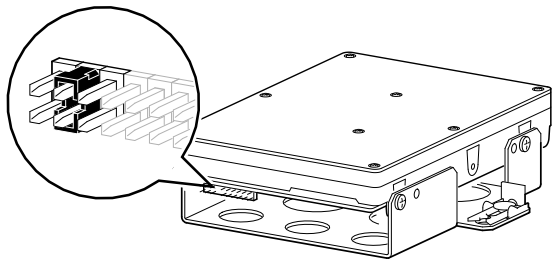


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**Note:** Jumpers may contain 6 or 8 pins depending on the manufacturer's design.

## 5. Setting a SCSI ID Address (cont)

The **RZ26L** jumper settings are as follows:

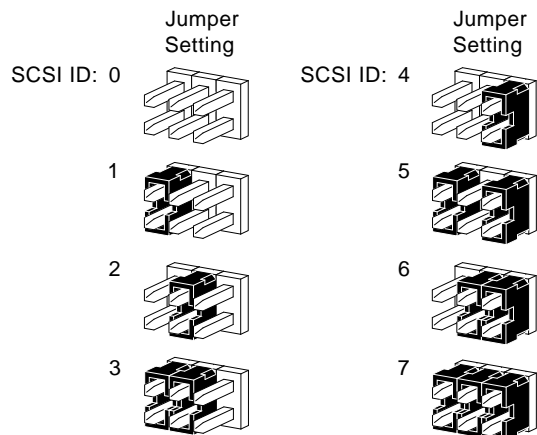
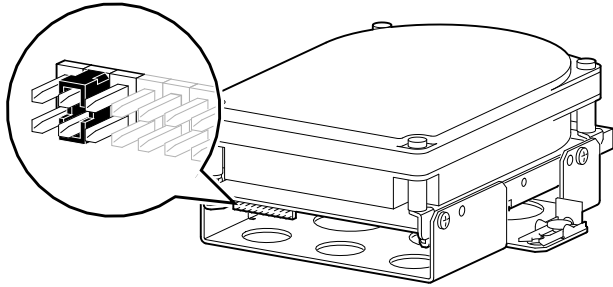


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**Note:** Jumpers may contain 6 or 8 pins depending on the manufacturer's design.

## 5. Setting a SCSI ID Address (cont)

The **RZ28** jumper settings are as follows:



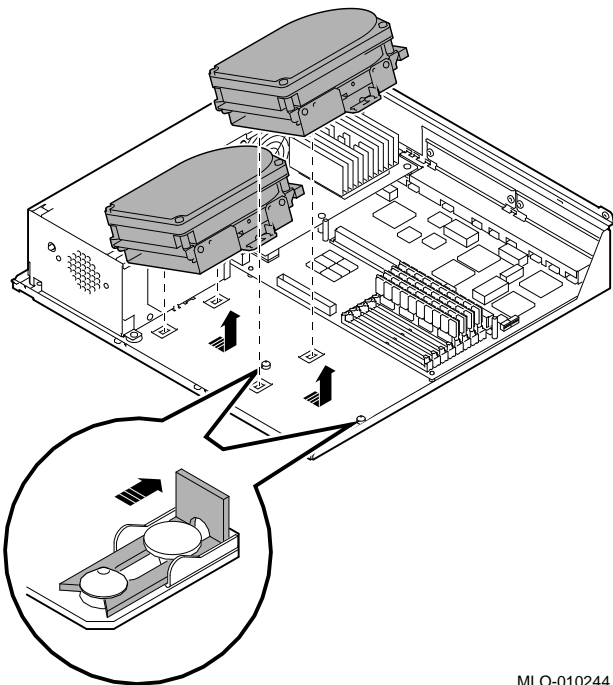
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## 6. Removing a Drive

If you wish to exchange an existing drive for a new fixed disk drive with greater storage capacity, remove the old drive as follows:

- a. Unlock the disk drive.
- b. Disconnect the internal power and SCSI interface cables from the back of the drive.
- c. Tilt the drive to the left and lift it out of the system.
- d. Remove the mounting bracket from the drive only if it is needed for the new drive.

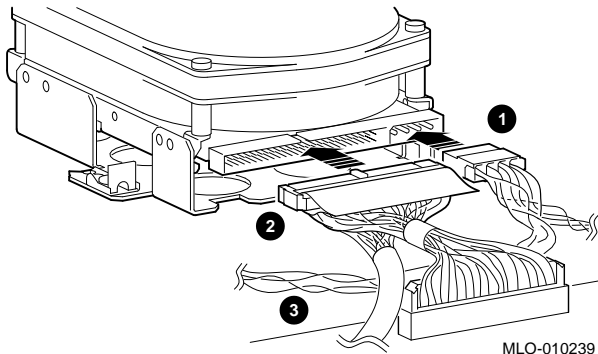
If you are removing an RX26 removable-media drive and wish to install an RZxx fixed disk drive in its place, refer to your *DEC 3000 Model 300 Series AXP Hardware Reference Guide* for instructions.



## 7. Cabling a Drive for Position 1

To cable the new drive for installation in position 1, follow these steps *in succession*:

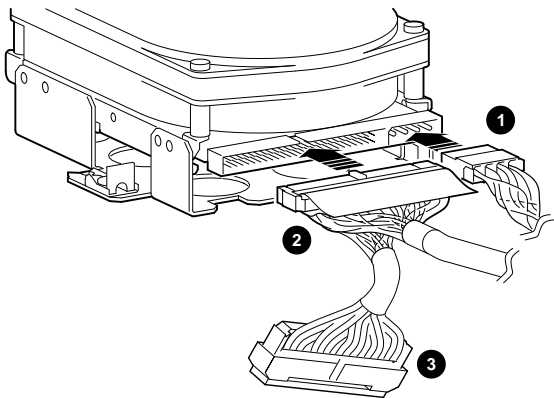
- a. Connect the large power connector **1** on the power cable to the power port on the back of the RZxx drive.
- b. Connect the SCSI cable **2** (key facing up) to the back of the fixed disk drive. The power cable **3** must be under the SCSI cable.
- c. Lay the SCSI terminator (located at the end of the SCSI cable) and the remaining length of power cable in the empty position 2.



## 8. Cabling a Drive for Position 2

To cable the new drive for installation in position 2, follow these steps *in succession*:

- a. Connect the large power connector **1** to the power port on the back of the RZxx drive.
- b. Connect the SCSI cable **2** (key facing up) to the back of the fixed disk drive.
- c. Tuck the SCSI terminator **3** (located at the end of the SCSI cable) in the mounting bracket under the RZxx drive.

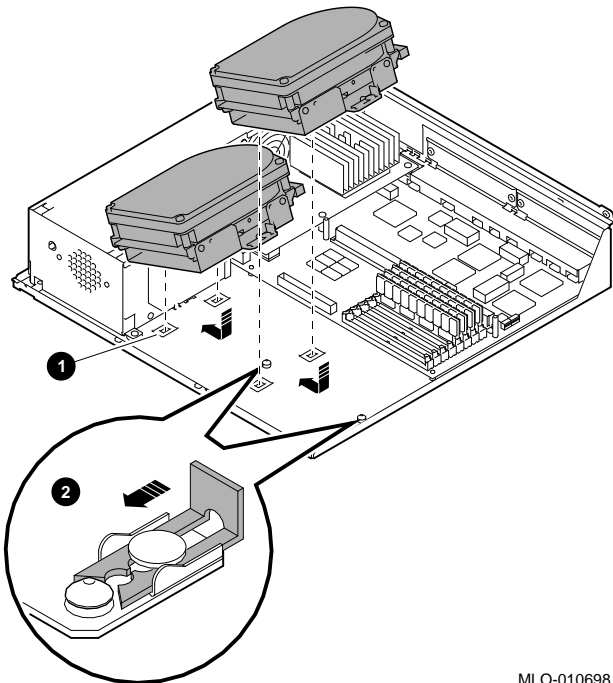


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## 9. Installing a Drive

Follow these steps to install an RZ<sub>xx</sub> drive:

- a. Insert the mounting bracket tabs into the slots **1** on the base of the system unit.
- b. Press down on the drive.
- c. Lock the drive in place **2**.



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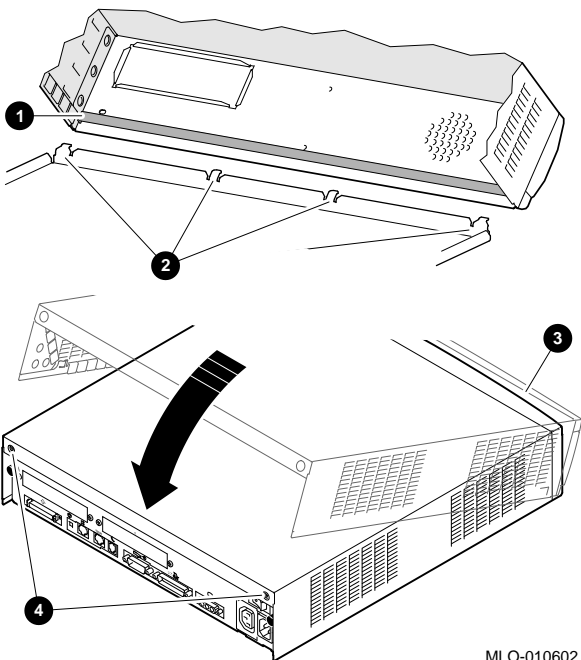


## 10. Replacing the System Unit Cover

Check that the drive is locked in place and connected to the SCSI cable. If a drive is not properly connected, your system will be unable to detect it.

To replace the cover, follow these steps:

- a. Position the cover so that the lip on the front inside edge **1** fits over the four tabs **2** along the front edge of the system unit.
- b. Maintain a slight pressure on the front of the cover **3** as you lower it. Make sure the sides of the cover fit over the outside of the bottom enclosure.
- c. Press down firmly on the edges of the cover.
- d. Replace the two screws that hold the system unit cover in place **4**.



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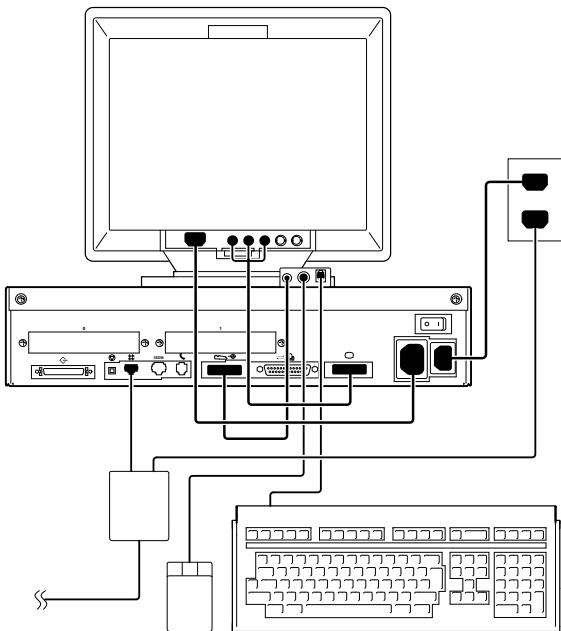
## 11. Reconnecting Your System

Return your monitor to its former position. Connect the following components:

- a. Monitor and system power cords.
- b. Monitor video and mouse/keyboard cables.
- c. Network cable and optional adapter.
- d. System power cord to a grounded outlet.

Turn on ( | ) any of the following components:

- a. Peripheral device, such as a printer, modem, or expansion box.
- b. System unit and monitor.



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## 12. Restarting Your System

To verify that the installation of the new fixed disk drive(s) was successful, enter this command:

```
>>> show device
```

Status information identifying the boot device, SCSI ID address, device type, capacity of the drive in megabytes, whether the device media is removable (RM) or fixed (FX), write-protect status (WP), the device name, and the microcode revision number of the installed device is displayed. For example,

```
BOOTDEV ADDR DEVTYPE NUMBYTES RM/FX WP DEVNAM REV
ESA0      08-00-2B-2F-F8-E6, TENBT
DKA300   A/3/0 DISK      535MB  FX      RZ25L  0900
DKA200   A/2/0 DISK      535MB  FX      RZ25L  0900
...HOSTID.. A/7  INTR
>>>
```

At the console prompt (>>>), enter this command:

```
>>> set auto_action boot
```

If your system has OpenVMS AXP or DEC OSF/1 AXP operating system software already installed, enter B at the console prompt (>>>) and press the Return key. Your system automatically starts. If no operating system software is installed, refer to your software documentation.

For a listing of all console commands (with examples), refer to the *DEC 3000 Model 300 Series AXP Reference Guide*, part number EK-PELCN-OG.