DEC 3000 Model 300X/300LX AXP

Upgrade Information

Order Number: EK–D33XP–UP. A01

Digital Equipment Corporation
Maynard, Massachusetts

First Printing, March 1994

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S2462

This document was prepared using VAX DOCUMENT Version 2.1.

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1

Options You Can Upgrade

Purpose of Guide

The purpose of this guide is to tell customers and Digital Services which options can be removed from the current system and used, internally or externally, in their DEC 3000 Model 300X/300LX AXP system. Step-by-step instructions are provided for removing the options.

Options You Can Upgrade

The following options can be used with the DEC 3000 Model 300X/300LX AXP:

Option	Description	Comment
	Internal or External Disks	
RZ25	426 MB 3.5" SCSI	
RZ25L	500 MB 3.5" SCSI	
RZ26	1.05 GB 3.5" SCSI	
RZ26L	1.0 GB 3.5" SCSI	
RZ28	2.5 GB 3.5" SCSI	
	External Disks	
RX26	2.8 MB floppy	
RZ73	2.0 GB 5.25" SCSI	
RZ74	3.6 GB 5.25" SCSI	

Option	Description	Comment
	External Tape Drives/CD-ROM	
TLZ06	4 GB 4 MM DAT drive	
TZK10	52 MB QIC tape	
RRD42	600 MB CD-ROM	
TZ30	95 MB 5.25 tape	
TZ85	2.6 GB cartridge tape	
TZ857	1.0 GB loader	Requires DEC NSR OpenVMS only
TKZ08	2.2 GB tape drive	OSF/1 only
TKZ09	5.0 GB tape drive	
TSZ07	SCSI magtape	
TZ86	6.0 GB tape drive	
RWZ01	Read/write optical drive	OpenVMS only
TSZ05	1600 BPI tape drive	
TKZ60	3480 BPI tape drive	
	Monitors	
VRM17-HA/H4	17" monochrome	
VRT19-HA/H4	19" Trinitron	
VRT16-HA/H4	16" Trinitron	
VR319-DA	19" monochrome	
VRC16-HA/H4	16" color	
VR320-CA	20" color	Graphics option required.
VR320-DA	20" color	

Option	Description	Comment
External Input Devices/Other Options		
VSXXX-AB	Tablet	
VSX10-AA/A3	Button box and dial box	DEC Open3D required.
VSX20-AA/A3	Button box	DEC Open3D required.
VSX30-AA/A3	Dial box	DEC Open3D required.
LK421-AA	Keyboard	OSF/1 only.
TURBOchannel Graphics		
PMAGB-BA/BB	HX, 8-plane FB	
PMAGB-BC/BD	HX, 8-plane FB	
PMAGB-BE/BF	HX, accelerated 2D	
PMAGB-DA/DB	PXG+, 8-plane	DEC Open3D required.
PMAGB-EA/EB	PXG+, 24-plane	DEC Open3D required.
PMAGB-JA/JB	TX, 24-plane FB	OSF/1 only
Expansion Boxes		
SZ03	Single drive	
SZ12	Desktop	
SZ16	Desktop	
BA350	Deskside	
BA353	Desktop	
PMTcE	TURBOchannel extender box	Minimum revision required is D03.

Warning

Attach an antistatic wrist strap before you begin this upgrade. As you remove options from your system, place them on an antistatic mat.

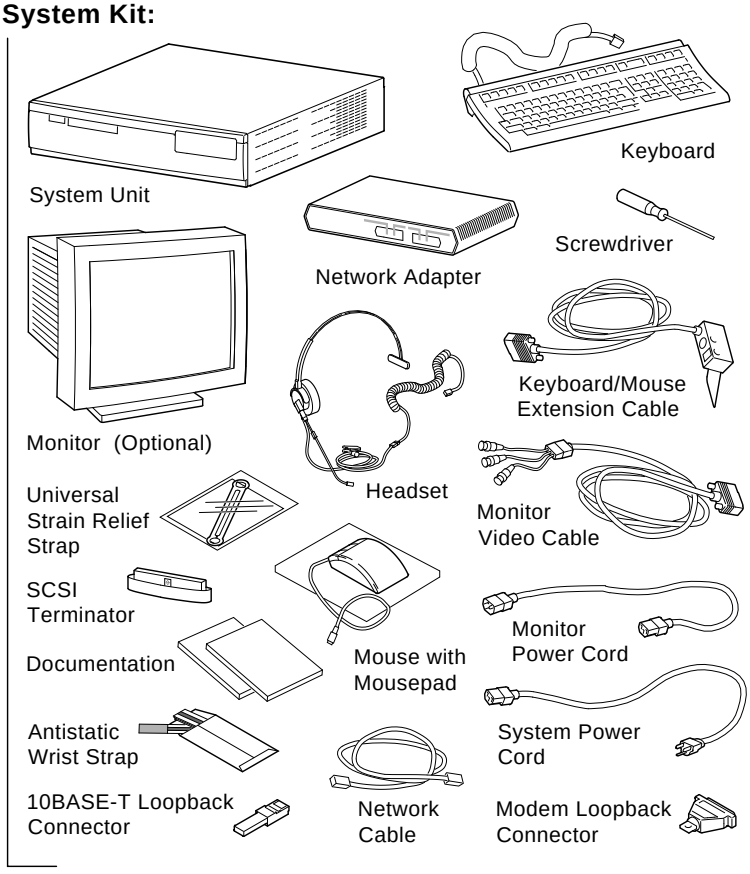
Static discharge can cause irreparable damage to options modules.

Mounting Bracket

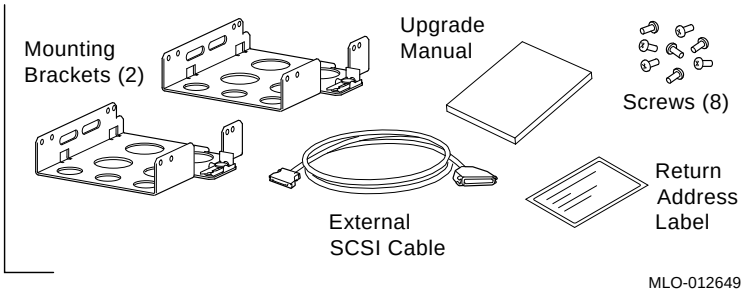
If you are upgrading a disk drive from your existing system to a DEC 3000 system, you must attach a mounting bracket provided in the accessory kit to the drive before installing it into your new system.

Figure 1–1 Upgrade Kit Contents

System Kit:



Accessory Kit:



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2

Upgrading a VAXstation 4000 Model 60/90

Topics Covered in This Chapter

- Upgrading your system
- Removing drives
- Completing the upgrade

Upgrade Procedure

Step 1: If Your System Has Factory-Installed Drives

If your DEC 3000 system has factory-installed drives, you may need to change the SCSI IDs on the drives you are upgrading.

To determine the SCSI ID settings on your drives:

1. Shut down your software following the instructions in your software documentation.
2. Put the VAXstation into console mode by pressing the halt button located behind the door on the front of the system unit.
3. Enter the `SHOW CONFIG` command.

A screen similar to the following appears:

```
>>> show config
KN4n-A Vn.n
08-00-2B-0A-7D-CB
32 MB

DEVNBR DEVNAM  INFO
-------------------------------------
1 NVR  OK
2 LCSPX  OK
.
.
10 SCSI  0-RZ24  3-RZ25
```

This sample display shows an RZ24 drive set to SCSI ID 0 and RZ25 drive set to SCSI ID 3.

Write down your system drives and SCSI ID settings here. You will need them for future use.

Step 2: Shut Down System

Turn off the system unit by pressing O on the On/Off switch on the front of the system unit.

Caution: After you turn off the system, wait 15 seconds before unplugging the power cord.

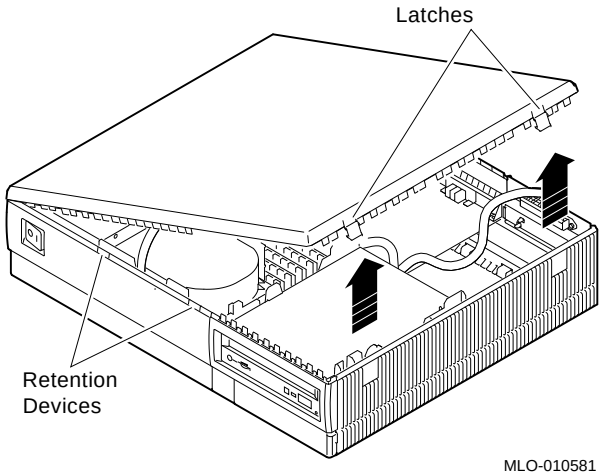
Step 3: Disconnect Cables

Disconnect all the cables from the back of the system unit.

Disconnect the power cord from the wall outlet and then from the system unit.

Step 4: Remove System Cover

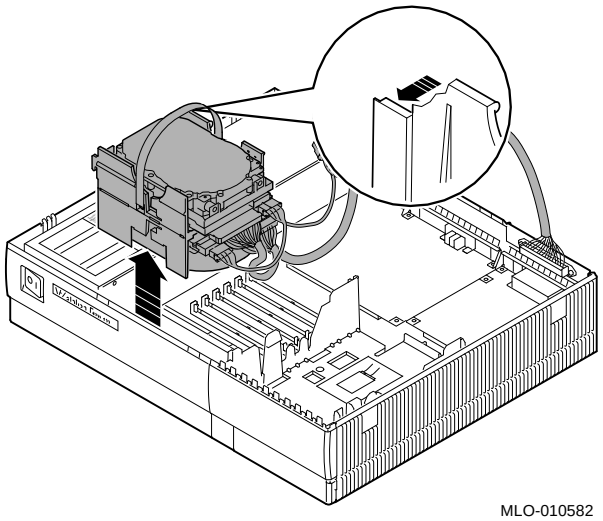
Release the latches on the right side. Then pull the cover up and away. You need to pull forcefully to release the retention devices.



Step 5: Remove H-Bracket

To remove the H-bracket from the VAXstation system unit:

1. Push in on the cantilever catch on the bracket (as shown) and lift the bracket straight up with the strap handle.



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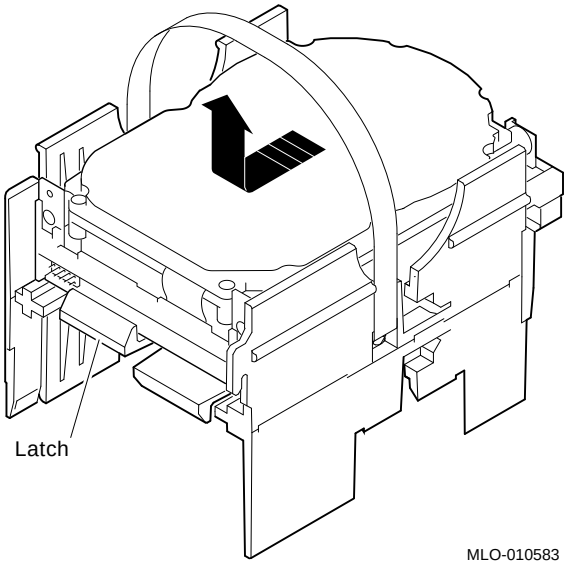
2. Disconnect the SCSI and power cables from the drives in the bracket.

Step 6: Remove Drives from the H-Bracket

To remove a drive from the H-bracket:

1. Press down on the latch on the front of the bracket.
2. Slide the drive forward until you can pull it up and out of the bracket.

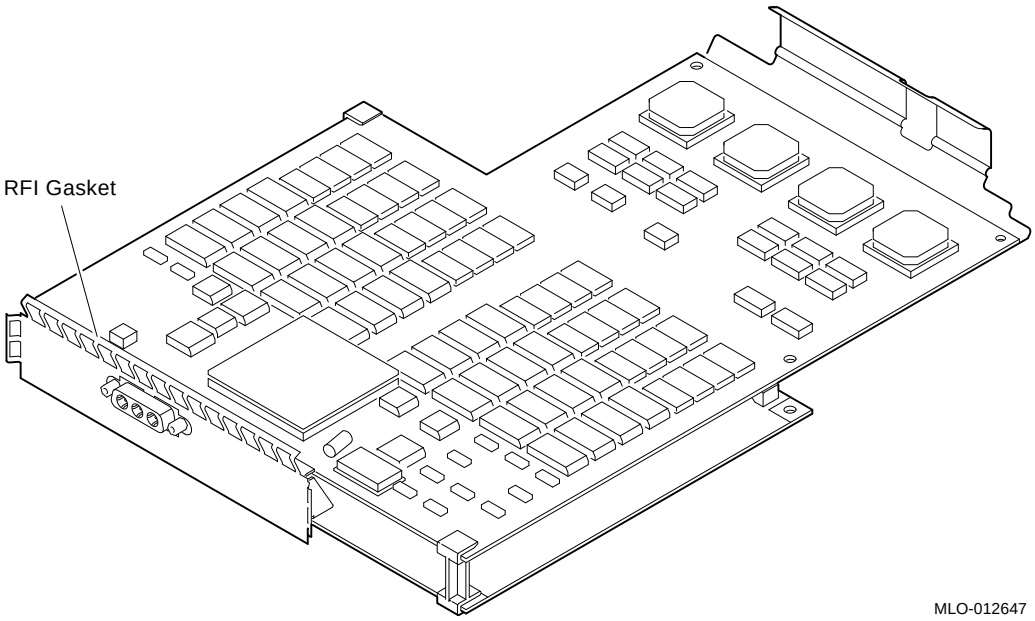


3. Set the drive aside on an antistatic mat.

Step 7: Remove SPXgt Graphics Module

If your system has an SPXgt graphics module, you must remove it before you can remove the removable-media device from the system unit. If you do not have an SPXgt graphics module, go to Step 8.

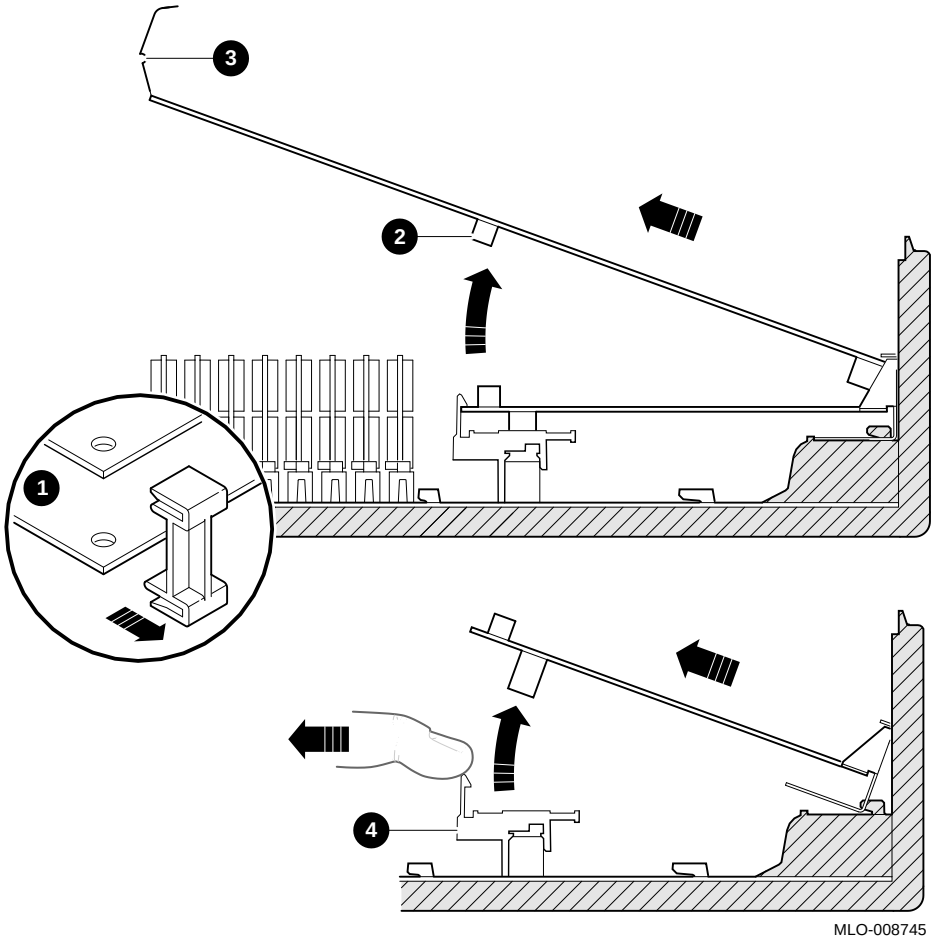
Figure 2–1 SPXgt 24-Plane Graphics Module



To remove the graphics module:

1. Remove the plastic E-clip ❶ that holds the graphics module to the frame buffer. (See Figure 2–2).
2. Lift the frame buffer from the center connector ❷, then free it from the ridge ❸ on the disk drive H-bracket. Gently work the frame buffer free by pulling up from the center of the module.
3. Pull the frame buffer out of the RFI gasket (shown in Figure 2–1). The gasket will remain in place, held by the video connector bracket on the graphics module.

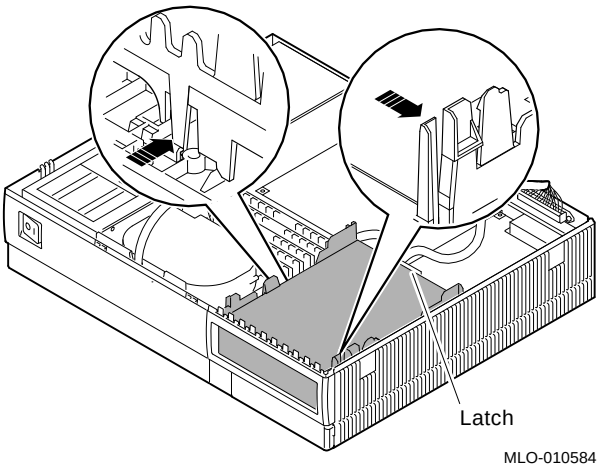
Figure 2–2 Removing the SPXgt 24-Plane Graphics Module



Step 8: Remove Removable-media Bracket

To remove the removable-media bracket:

1. Disconnect the SCSI and power cables from the removable-media drive.
2. Push down the latch on the rear of the drive bracket and push the drive back until the front bezel clears the bezel opening in the system unit.

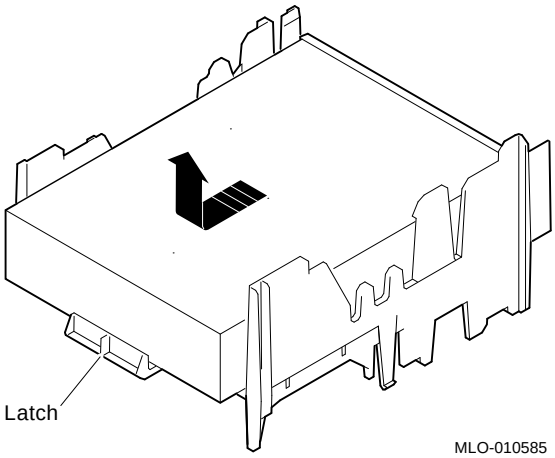


3. Release the two cantilever catches (shown) on the removable-media bracket and lift the bracket out of the system unit.

Step 9: Remove Drive from Bracket

To remove the drive from the bracket:

1. Hold down the locking latch and push the drive back to loosen it.
2. Spread apart the cantilever latches on the bracket and lift the drive out.



3. Set the drive aside on an antistatic mat.

Step 10: Set the SCSI IDs on the Drives

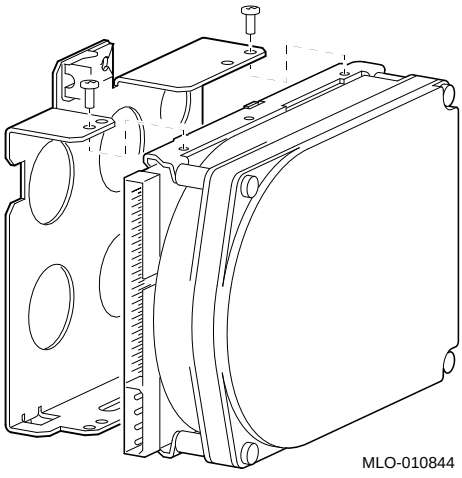
If your DEC 3000 AXP system has a factory-installed disk drive, it is set to SCSI ID 3. Check the SCSI ID settings you noted earlier. If one of the drives you are upgrading is also set to SCSI ID 3, change that setting.

Settings for drives can be found in the *DEC 3000 Model 300 Series AXP Hardware Reference Guide.*

Step 11: Attach the New Mounting Brackets

You must attach the mounting brackets included in your upgrade kit onto the disk drives you removed from your VAXstation. To attach the brackets:

1. Stand the bracket on its side with the sliding latch facing up.
2. Place the disk drive in the bracket with the connectors facing you, as shown below.



3. Attach the two screws on each side of the drive bracket.

Note

When the bracket is attached correctly, there is space between the bottom of the drive and the bracket.

Step 12: Complete the Upgrade

1. Instructions for installing options that you have removed from your VAXstation can be found in the *DEC 3000 Model 300 Series AXP Hardware Reference Guide.*
2. Follow the instructions in the *DEC 3000 Model 300 Series AXP: Setting Up Your System* to complete the upgrade.
3. Update the customer service contract to the DEC 3000 Model 300X/300LX AXP system.

Step 13: Return Your VAXstation to Digital

To return your VAXstation and any options that are not upgradeable to Digital:

1. Pack the VAXstation and options securely in packing material.
2. Attach the return-address label that was in your upgrade kit and ship the package to Digital.

3

Upgrading a DECstation 5000 Model 20/25/33/50

Topics Covered in This Chapter

- Upgrading your system
- Removing drives
- Removing modules
- Completing the upgrade

Upgrade Procedure

Step 1: If Your System Has Factory-Installed Drives

If your DEC 3000 AXP system has factory-installed drives, you may need to change the SCSI IDs on the drives you are upgrading.

To display the SCSI ID settings of the drives in your DECstation:

1. Enter the command to shut down the software and put the system in console mode: `shutdown -h now`

2. Enter `cnfg 3` at the console prompt (>>>). A screen similar to the following appears:

```
>>> cnfg 3
3:      KN02   DEC   Vn.n    TCF0              (12 MB)
-------------------------------------------------
        DEV    PID       VID    REV     SCSI ID
-------------------------------------------------
        rz2    RZ24  (C) DEC    0700   DIR
        rz5    RX26  (C) DEC    0700   SEQ
```

This sample display shows an RZ24 drive set to SCSI ID 2 and an RX26 drive set to SCSI ID 5.

Write down the names of your system drives and SCSI ID settings here. You will need them for future use.

Step 2: Shut Down System

Turn off the system unit by pressing O on the On/Off switch on the back of the system unit.

Caution: After you turn off the system, wait 15 seconds before you unplug the power cord.

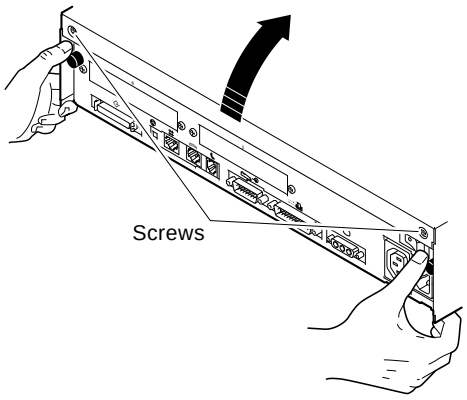
Step 3: Disconnect Cables

Disconnect all the cables from the back of the system unit.

Disconnect the power cord from the wall outlet and then from the system unit.

Step 4: Remove Cover

1. Remove the two Phillips screws on the right and left top corners of the system unit cover.
2. Place the system unit so that the back of the unit extends over the edge of a table or desk.
3. Place your thumbs on top of the two black rubber caps on the back of the system unit, and place your fingers under the cover's bottom edge. Press with your thumbs, and, at the same time, pull up with your fingers to lift the cover.



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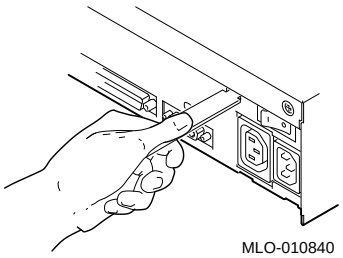
Hint: If you have difficulty opening the enclosure, you can use a tool to pry up the cover as shown here.



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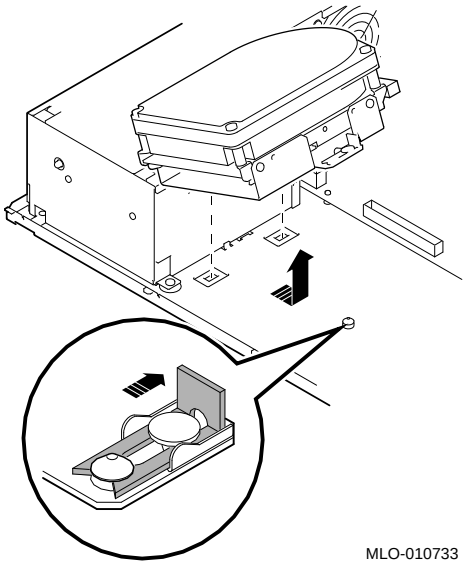
4. Pivot the cover on the tabs that run along the system unit's front edge.
5. Push the system unit cover forward and away until it releases from the tabs.
6. Place the cover aside.

Step 5: Remove Fixed Disk Drives

1. Disconnect the drive SCSI and power cables from the system module.
2. Press down on the disk drive and unlock the sliding latch from the locking post.
3. Lift the drive off the locking post and out of the chassis cutouts.



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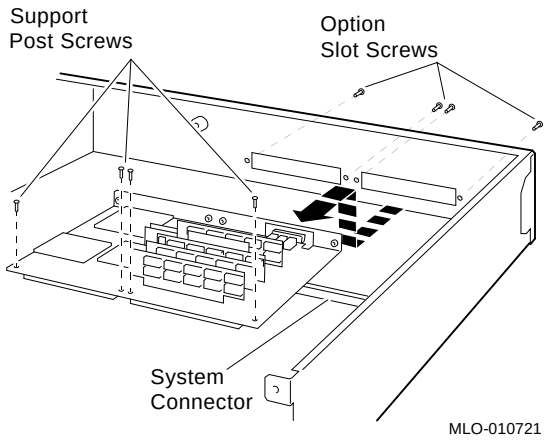
4. Disconnect the power and SCSI cables from the drive.
5. Remove the drive mounting brackets by removing the four screws that secure the mounting bracket to the drive.
6. Set the drives aside on an antistatic mat.
7. Put all the disconnected cables back into the system unit.

Step 6: Remove Option Modules

The TURBOchannel option modules in your DECstation can be single or double width. To remove a TURBOchannel module:

1. Remove the option slot screws and the support post screws.
2. Release the module from the system connector and lift the module out of the option slot opening.



Step 7: Set the SCSI IDs on the Drives

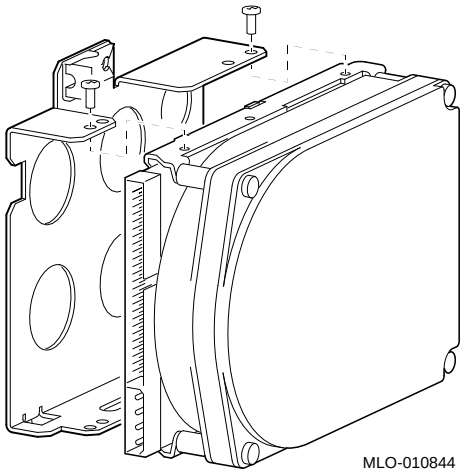
If your DEC 3000 AXP system has a factory-installed disk drive, it is set to SCSI ID 3. Check the SCSI ID settings you noted earlier. If one of the drives you are upgrading is also set to SCSI ID 3, change that setting.

Settings for drives can be found in the *DEC 3000 Model 300 Series AXP Hardware Reference Guide.*

Step 8: Attach New Mounting Bracket

You must attach the mounting brackets included in your upgrade kit onto the disk drives you removed from your DECstation. To attach the brackets:

1. Stand the bracket on its side with the sliding latch facing up.
2. Place the disk drive in the bracket with the connectors facing you, as shown below.



3. Attach the two screws on each side of the drive bracket.

Note

When the bracket is attached correctly, there is space between the bottom of the drive and the bracket.

Step 9: Complete the Upgrade

1. Instructions for installing options that you have removed from your DECstation can be found in the *DEC 3000 Model 300 Series AXP Hardware Reference Guide.*
2. Follow the instructions in the *DEC 3000 Model 300 Series AXP: Setting Up Your System* to complete the upgrade.
3. Update the customer service contract to the DEC 3000 Model 300X/300LX AXP system.

Step 10: Return Your DECstation to Digital

To return your DECstation and any options that are not upgradeable to Digital:

1. Pack the DECstation and options securely in packing material.
2. Attach the return-address label that was in your upgrade kit, and ship the package to Digital.

4

Upgrading a DECstation 5000 Model 120/125/133/150

Topics Covered in This Chapter

- Upgrading your system
- Removing drives
- Removing modules
- Completing the upgrade

Upgrade Procedure

Step 1: If Your System Has Factory-Installed Drives

If your DEC 3000 AXP system has factory-installed drives, you may need to change the SCSI IDs on the drives you are upgrading.

To display the SCSI ID settings of the drives in your system:

1. Enter the command to shut down the software and put the system in console mode: `shutdown -h now`

2. Enter `cnfg 3` at the console prompt (>>>). A screen similar to the following appears:

```
>>> cnfg 3

3: KNO2   DEC   Vn.n    TCF0  (8 MB)
                            (enet:  08-00-2b-30-14-df)
                                                (SCSI = 7)

-----------------------------------------------------
        DEV    PID       VID    REV     SCSI ID
-----------------------------------------------------
 rz2    RZ24  (C) DEC DEC 0700   DIR
 rz5    Rrd42 (C) DEC DEC 0700   CD-ROM
```

This sample display shows an RZ24 drive set to SCSI ID 2 and an RRD42 drive set to SCSI ID 5.

Write down the names of your system drives and SCSI ID settings here. You will need them for future use.

Step 2: Shut Down System

Turn off the system unit by pressing O on the On/Off switch on the back of the system unit.

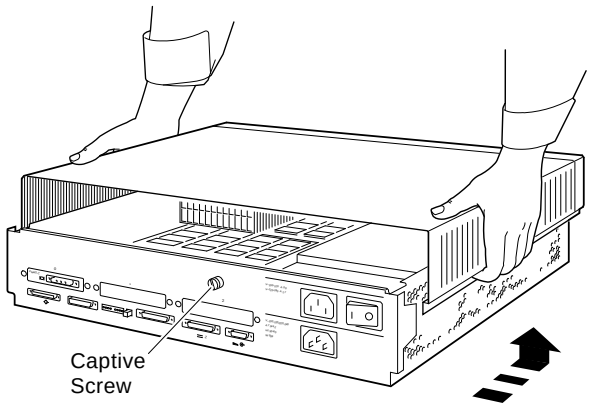
Caution: After you turn off the system, wait 15 seconds before you unplug the power cord.

Step 3: Disconnect Cables

Disconnect all the cables from the back of the system unit. Disconnect the power cord from the wall outlet and then from the system unit.

Step 4: Remove System Cover

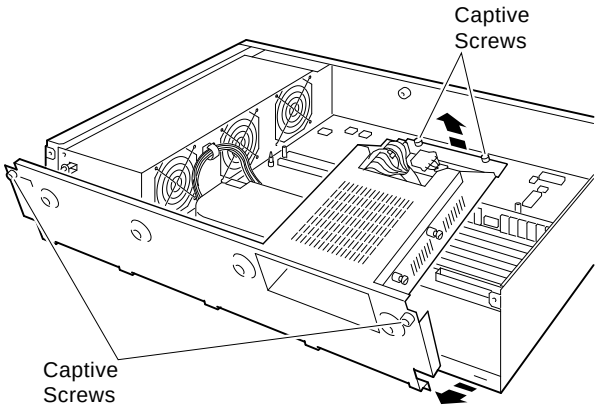
1. Loosen the captive screw on the back of the system unit. This captive screw can be loosened but not removed.
2. Grasp each side of the cover with your hands, and pull the cover straight toward the front about 5.5 cm (2 inches). Pull the cover up and set it aside.



MLO-010006

Step 5: Remove Front Drive Panel

1. Loosen the two captive screws that hold the front drive panel in place.
2. Loosen the two captive screws on the back of the drive bracket.
3. If there is a drive inside the bracket, disconnect the SCSI and power cables from the drive.



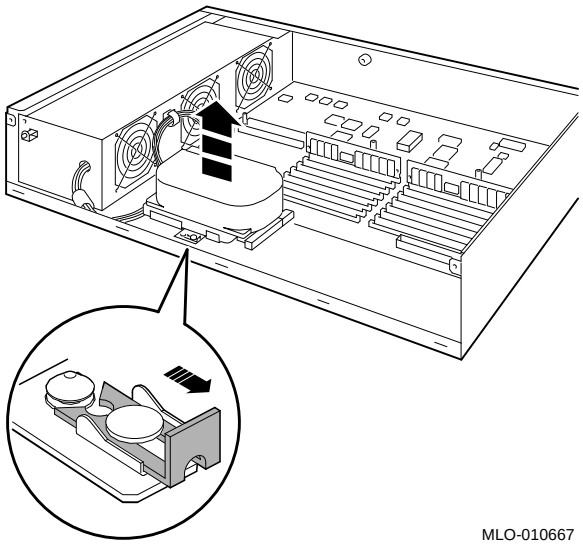
4. Pull up carefully from the back of the drive bracket. As you raise the end of the bracket, you can pull the disconnected ends of the cables through the cutout in the bracket.
5. Release the cables from the cable clamps on the inside of the front panel.
6. Set the front panel aside. Handle it carefully if it contains a drive.

Step 6: Remove Removable Media Drives

1. Loosen the captive screws on either side of the drive bracket.
2. Slide the drive out of the bracket and through the opening in the front panel.
3. Set the drive aside on an antistatic mat.

Step 7: Remove Fixed Disk Drives

1. Press down on the disk drive and unlock the sliding latch.
2. Lift the drive off the mounting post and out of the chassis cutouts.



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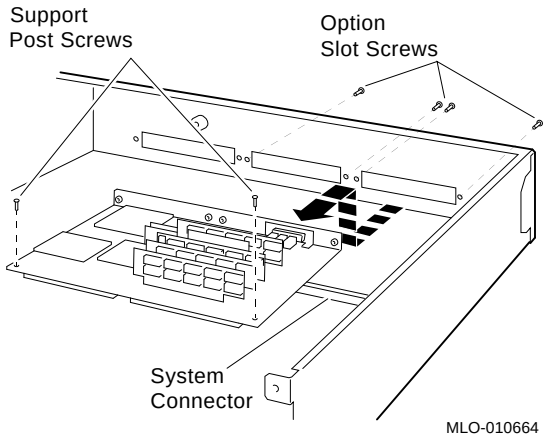
3. Disconnect the power and SCSI cables from the drive. Pull on the SCSI cable connector flap to remove the connector.
4. Remove the drive mounting brackets by removing the four screws that secure the mounting bracket to the drive.
5. Set the drive aside on an antistatic mat.
6. Put all the disconnected ends of the cables back into the system unit.

Step 8: Remove Option Modules

The TURBOchannel option modules in your DECstation can occupy one, two, or three slots. To remove a TURBOchannel module:

1. Remove the option slot screws and the support post screws.
2. Release the module from the system connector and lift the module out of the option slot opening.



Step 9: Set the SCSI IDs on the Drives

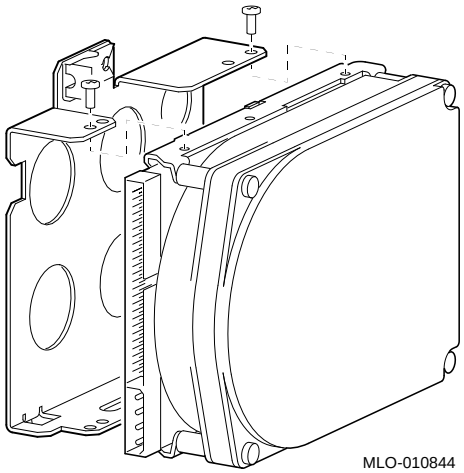
If your DEC 3000 AXP system has a factory-installed disk drive, it is set to SCSI ID 3. Check the SCSI ID settings you noted earlier. If one of the drives you are upgrading is also set to SCSI ID 3, change that setting.

Settings for drives can be found in the *DEC 3000 Model 300 Series AXP Hardware Reference Guide.*

Step 10: Attach New Mounting Bracket

You must attach the mounting brackets included in your upgrade kit onto the disk drives you remove from your DECstation. To attach the brackets:

1. Stand the bracket on its side with the sliding latch facing up.
2. Place the disk drive in the bracket with the connectors facing you, as shown below.



3. Attach the two screws on each side of the drive bracket.

Note

When the bracket is attached correctly, there is space between the bottom of the drive and the bracket.

Step 11: Complete the Upgrade

1. Instructions for installing options that you have removed from your DECstation can be found in the *DEC 3000 Model 300 Series AXP Hardware Reference Guide.*
2. Follow the instructions in the *DEC 3000 Model 300 Series AXP: Setting Up Your System* to complete the upgrade.
3. Update the customer service contract to the DEC 3000 Model 300X/300LX AXP system.

Step 12: Return Your DECstation to Digital

To return your DECstation and any options that are not upgradeable to Digital:

1. Pack the DECstation and options securely in packing material.
2. Attach the return-address label that was in your upgrade kit, and ship the package to Digital.

5

Upgrading a DECsystem 5000 Model 200/240/260

Topics Covered in this Chapter

- Upgrading your system
- Removing modules
- Completing the upgrade

Upgrade Procedure

Step 1: If Your System Has Factory-Installed Drives

If your DEC 3000 AXP system has factory-installed drives, you may need to change the SCSI IDs on the drives you are upgrading.

To display the SCSI ID settings of the drives in your expansion box:

1. Enter the command to shut down the software and put the system in console mode: `shutdown -h now`

2. Enter `cnfg 3` at the console prompt (>>>). A screen similar to the following appears:

```
>>> cnfg 3
3:      KNO2   DEC   Vn.n    TCF0              (12 MB)
-------------------------------------------------
        DEV    PID       VID    REV     SCSI ID
-------------------------------------------------
        rz2    RZ24  (C) DEC    0700   DIR
        rz5    RX26  (C) DEC    0700   SEQ
```

This sample display shows an RZ24 drive set to SCSI ID 2 and an RX26 drive set to SCSI ID 5.

Write down the names of your system drives and SCSI ID settings here. You will need them for future use.

Step 2: Shut Down System

Turn off the system unit by pressing O on the On/Off switch on the back of the system unit.

Caution: After you turn off the system, wait 15 seconds before you unplug the power cord.

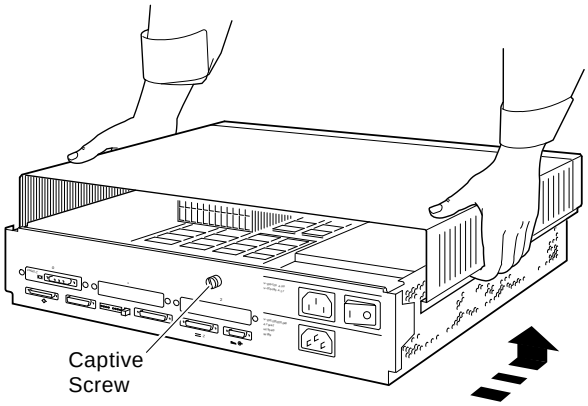
Step 3: Disconnect Cables

Disconnect all the cables from the back of the system unit.

Disconnect the power cord from the wall outlet and then from the system unit.

Step 4: Remove System Cover

1. Loosen the captive screw on the back of the system unit. This screw can be loosened but not removed.
2. Grasp each side of the cover with your hands, and pull the cover straight toward the front about 5.5 cm (2 inches). Pull the cover up and set it aside.



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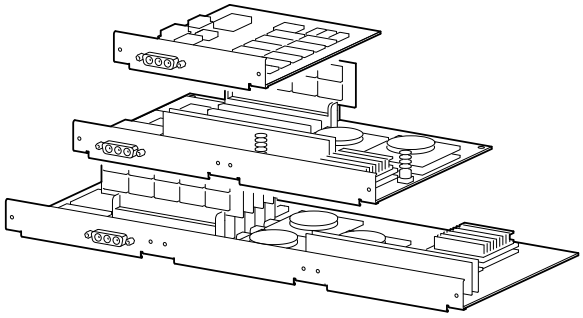
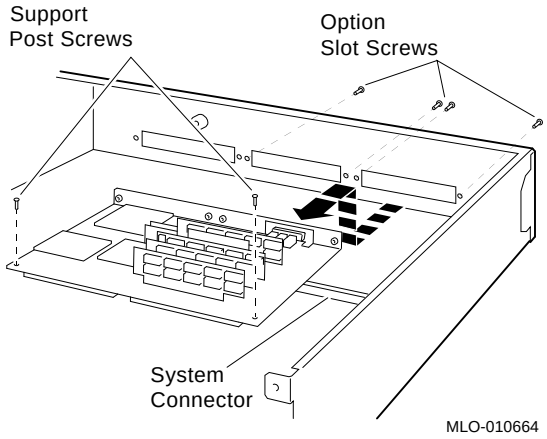
Step 5: Remove Option Modules

The system unit holds up to three graphics or TURBOchannel modules. Modules can occupy one, two, or three slots.



MLO-010663

1. Use a Phillips screwdriver to remove the option slot screws, then the support post screws.
2. Release the module from the system connector and lift the module out of the option slot opening.



Step 6: Set the SCSI IDs on the Drives

If your DEC 3000 AXP system has a factory-installed disk drive, it is set to SCSI ID 3. Check the SCSI ID settings you noted earlier. If one of the drives you are upgrading is also set to SCSI ID 3, change that setting.

Settings for drives can be found in the expansion box documentation.

Step 7: Complete the Upgrade

1. Instructions for installing options that you have removed from your DECsystem can be found in the *DEC 3000 Model 300 Series AXP Hardware Reference Guide.*
2. Follow the instructions in the *DEC 3000 Model 300 Series AXP: Setting Up Your System* to complete the upgrade.
3. Update the customer service contract to the DEC 3000 Model 300X/300LX AXP system.

Step 8: Return Your DECsystem to Digital

To return your DECsystem and any options that are not upgradeable to Digital:

1. Pack the DECsystem and options securely in packing material.
2. Attach the return-address label that was in your upgrade kit, and ship the package to Digital.

6

Upgrading a VAXstation VLC

Topics Covered in This Chapter

- Upgrading your system
- Removing drives
- Completing the upgrade

Upgrade Procedure

Step 1: If Your System Has Factory-Installed Drives

If your DEC 3000 system has factory-installed drives, you may need to change the SCSI IDs on the drives you are upgrading.

To determine the SCSI ID settings on your drives, follow these steps:

1. Shut down your system software following the instructions in your software documentation.
2. To show the drives and their SCSI ID settings, enter:
   >> `SHOW CONFIG`

A screen similar to the following appears:

```
>>> SHOW CONFIG
KA48-A V1.3-343-V4.0
08-00-2B-1D-28-6C
8MB
DEVNBR  DEVNAM   INFO
------  ------   --------------------------------
  1      NVR      OK
  2      LCG      OK
                   LR - 8 PLN FB - 5.2
  3      DZ       OK
  4      CACHE    OK
  5      MEM      OK
                   8MB = S0/1=0MB, S2/3=0MB, S4/5=0MB
  6      FPU      OK
  7      IT       OK
  8      SYS      OK
  9      NI       OK
 10      SCSI     OK
                  5-RX26   6-INITR
 11      AUD      OK
>>>
```

SCSI ID Numbers

MLO-010730

This sample display shows an RX26 drive set to SCSI ID 5.

Write down your system drives and SCSI ID settings here. You will need them for future use.

Step 2: Shut Down System

Turn off the system unit by pressing O on the On/Off switch on the side of the system unit.

Caution: After you turn off the system, wait 15 seconds before unplugging the power cord.

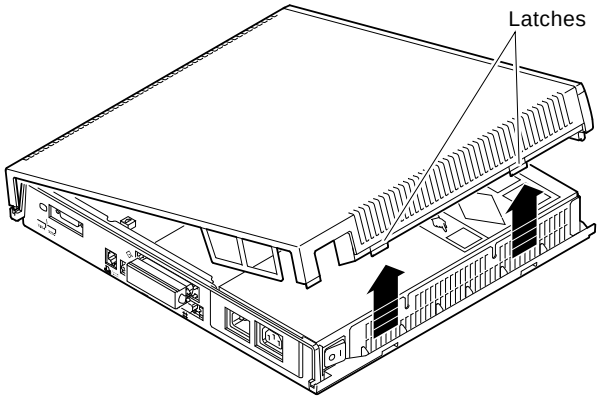
Step 3: Disconnect Cables

Disconnect all the cables from the back of the system unit.

Disconnect the power cord from the wall outlet and then from the system unit.

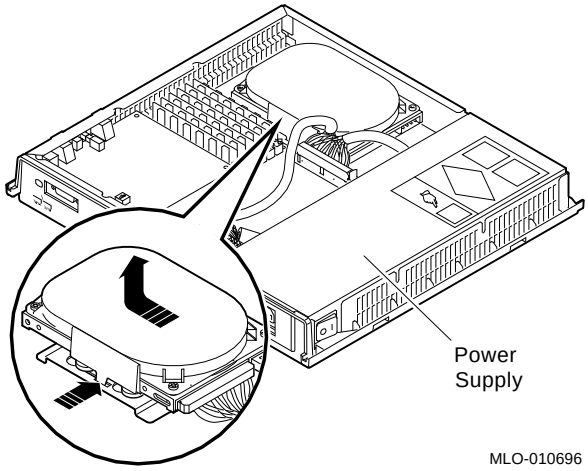
Step 4: Remove System Cover

1. Press firmly on the latches located on the side of the system unit.
2. Push the latches in and up until the cover releases.
3. Pull the cover up and off.



Step 5: Remove Disk Drive

1. Locate the small metal clip attached to the disk mounting bracket.
2. Push in on the metal clip to unlock the bracket, then slide the drive away from the power supply to remove it from the system unit.
3. Disconnect the SCSI and power cables from the drive.
4. Remove the drive mounting bracket and clip by removing the four screws that secure the mounting bracket to the drive.



Step 6: Set the SCSI IDs on the Drives

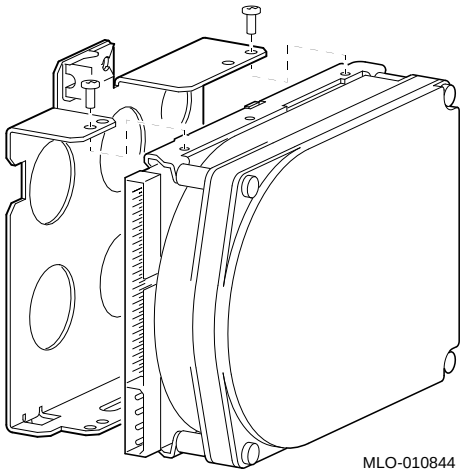
If your DEC 3000 AXP system has a factory-installed disk drive, it is set to SCSI ID 3. Check the SCSI ID settings you noted earlier. If one of the drives you are upgrading is also set to SCSI ID 3, change that setting.

Settings for drives can be found in the *DEC 3000 Model 300 Series AXP Hardware Reference Guide.*

Step 7: Attach New Mounting Bracket

You must attach the mounting bracket included in your upgrade kit onto the disk drive you removed from your VAXstation. To attach the bracket:

1. Stand the bracket on its side with the sliding latch facing up.
2. Place the disk drive in the bracket with the connectors facing you, as shown below.



3. Attach the two screws on each side of the drive bracket.

Note

When the bracket is attached correctly, there is space between the bottom of the drive and the bracket.

Step 8: Complete the Upgrade

1. Instructions for installing options that you have removed from your VAXstation VLC can be found in the *DEC 3000 Model 300 Series AXP Hardware Reference Guide.*
2. Follow the instructions in the *DEC 3000 Model 300 Series AXP: Setting Up Your System* to complete the upgrade.
3. Update the customer service contract to the DEC 3000 Model 300X/300LX AXP system.

Step 9: Return Your VAXstation to Digital

To return your VAXstation and any options that are not upgradeable to Digital:

1. Pack the VAXstation and options securely in packing material.
2. Attach the return-address label that was in your upgrade kit, and ship the package to Digital.

7

Upgrading a DECstation 2100/3100

Topics Covered in This Chapter

- Upgrading your system
- Completing the upgrade

External Options Only

You can only upgrade the expansion boxes connected to your DECstation 2100/3100 to the DEC 3000 Model 300X/300LX AXP system.

Upgrade Procedure

Step 1: If Your System Has Factory-Installed Drives

If your DEC 3000 AXP system has factory-installed drives, you may need to change the SCSI IDs on the expansion boxes you are upgrading.

To display the SCSI ID settings of the drives in your expansion box:

1. Enter the following command to shut down the software and put the system in console mode: `shutdown -h now`

2. Enter `test -c` at the console prompt (>>>). A screen similar to the following appears:

```
>>> test -c
.
.
Unit(2)  Device type   0 DISK
           RME                     0x0
           Version                 1
           Response data format    1  CCS
           Additional length       31
           Vendor                  DEC
           Product identification  RZ24   (C)   DEC
           Firmware revision level 0700
Unit(1)
Unit(0)  Device type   0  DISK
           RME                     0x0
           Version                 1
           Response data format    1  CCS
           Additional length       31
           Vendor                  DEC
           Product identification  RZ24   (C)   DEC
           Firmware revision level 0700

>>
```

This sample display shows one RZ24 set to SCSI ID 0 and a second RZ24 set to SCSI ID 2.

Write down the names of your system drives and SCSI ID settings here. You will need them for future use.

Step 2: Shut Down System

Turn off the system unit. Disconnect the power cord from the wall outlet and then from the system unit.

Caution: After you turn off the system, wait 15 seconds before you unplug the power cord.

Step 3: Disconnect Cables

Disconnect all the cables from the back of the system unit.

Step 4: Set SCSI IDs on Drives

If your DEC 3000 AXP system has a factory-installed disk drive, it is set to SCSI ID 3.

Check the SCSI ID settings you noted earlier. If one of the drives you are upgrading is set to SCSI ID 3, then change that setting. SCSI settings can be found in the expansion box documentation.

Step 5: Complete the Upgrade

To complete the upgrade:

1. Follow the instructions in the *DEC 3000 Model 300 Series AXP: Setting Up Your System* to complete the upgrade.
2. Update your customer service contract to the DEC 3000 Model 300X/300LX AXP system.

Step 6: Return Your DECstation to Digital

To return your DECstation and any devices that are not upgradeable to Digital:

1. Pack the DECstation and options securely in packing material.
2. Attach the return-address label that was in your upgrade kit and ship the package to Digital.

8

Upgrading a VAXstation 3100 Models 30/38/76

Topics Covered in This Chapter

- Upgrading your system
- Removing drives
- Completing the upgrade

Upgrade Procedure

Step 1: If Your System Has Factory-Installed Drives

If your DEC 3000 system has factory-installed drives, you may need to change the SCSI IDs on the drives you are upgrading.

To determine the SCSI ID settings on your drives:

1. Shut down your software following the instructions in your software documentation.
2. Put the VAXstation into console mode by pressing the halt button on the back of the system unit.
3. Enter the `SHOW DEVICE` command.

A screen similar to the following appears:

```
>>> SHOW DEVICE
VMS/VMB     ADDR     DEVTYP   NUMBYTES  RM/FX  WP  DEVNAM
-----------------------------------------------------
ESAO     08-00-2B-07-E3-83
DKA300      A/3/0/00 DISK     104 MB    FX         RZ23
..Host ID.. A/6      INITR
DKB200      B/2/0/00 DISK     104 MB    FX         RZ23
DKB300      B/3/0/00 DISK     104 MB    FX         RZ23
DKB400      B/4/0/00 RODISK   205 MB    RM     WP  RRD40
```

This sample display shows a RZ23 drive set to SCSI ID 2, another RZ23 drive set to SCSI ID 3, and an RRD40 drive set to SCSI ID 4.

Write down your system drives and SCSI ID settings here. You will need them for future use.

Step 2: Shut Down System

Turn off the system unit by pressing O on the On/Off switch on the back of the system unit.

Caution: After you turn off the system, wait 15 seconds before unplugging the power cord.

Step 3: Disconnect Cables

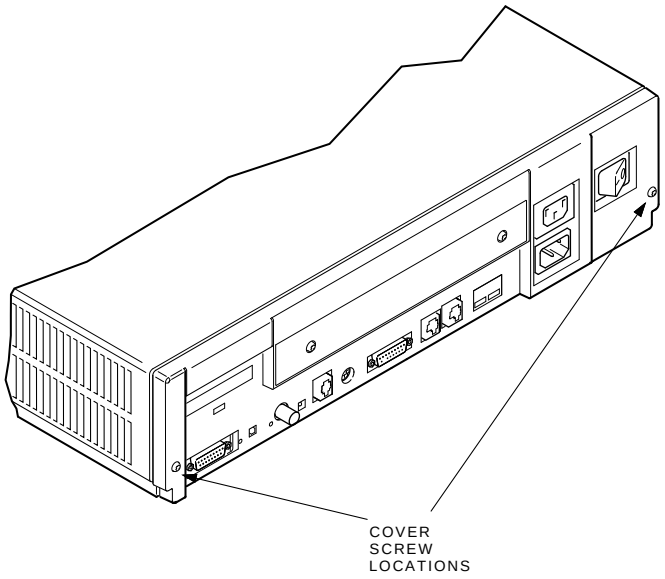
Disconnect all the cables from the back of the system unit.

Disconnect the power cord from the wall outlet and then from the system unit.

Step 4: Remove System Cover

Unscrew the two cover screws (Figure 8–1). Slide the cover forward and up off the system box.

Figure 8–1 Rear View of System Box

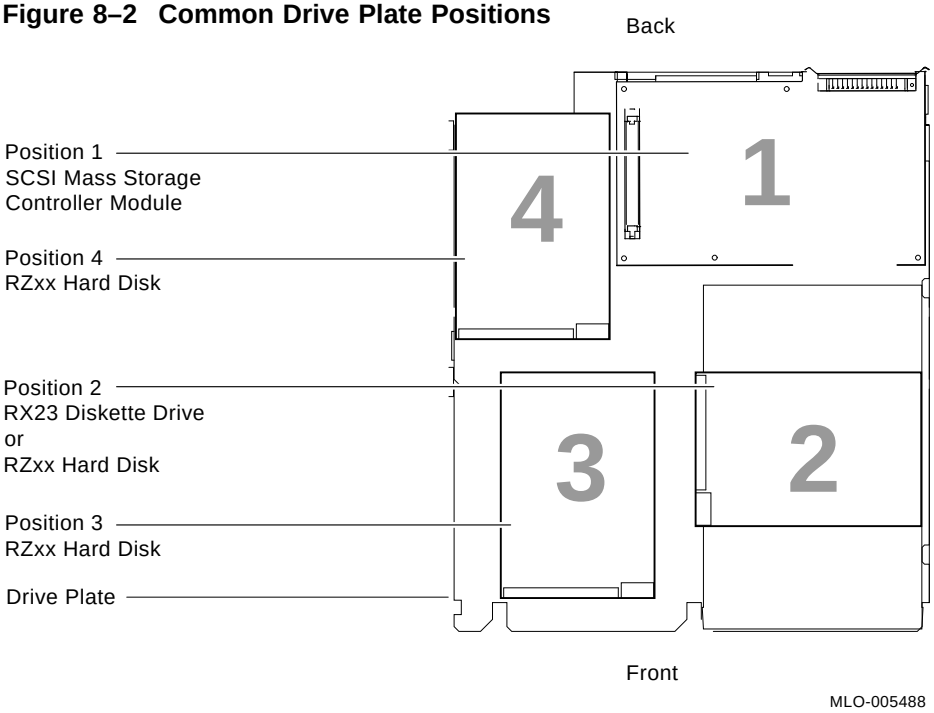


Step 5: Remove Fixed Disk Drive

There are various configurations for the VAXstation 3100 Models 30/38/76, including two different drive plates with two different kinds of SCSI mass storage controllers.

If your system has a drive plate lever (as shown in Figure 8–3), follow the steps below. Otherwise, go to the section, *If No Drive Plate Lever.*

Figure 8–2 Common Drive Plate Positions

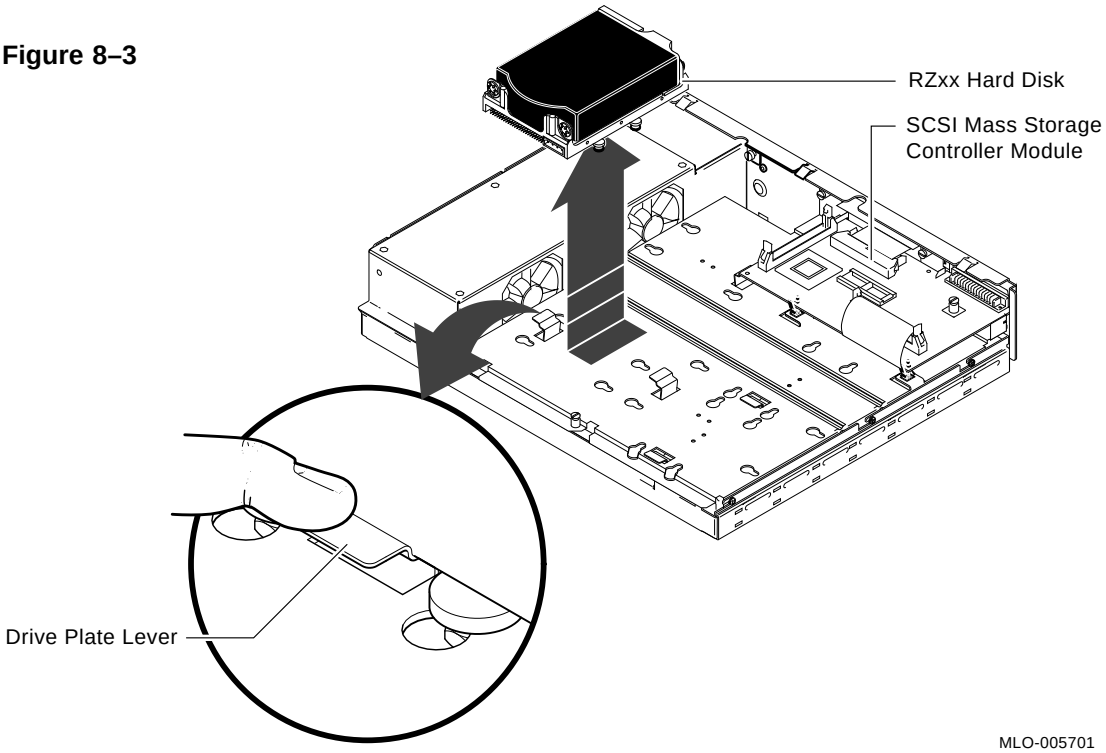


Remove Drives from Positions 2 and 3

To remove disk drives from positions 2 and 3:

1. Push down the drive plate lever and slide the disk over the lever until the disk comes up out of the keyhole slide mounts as shown below.

Figure 8–3



2. Disconnect the SCSI cable and internal power cable from the disk.
3. Remove the drive mounting bracket by removing the four screws that secure the drive to the mounting bracket.
4. Set the disk aside on an antistatic mat.

Remove Drive from Position 4

To remove a drive disk from position 4 on the Model 30 and 76, follow the instructions in the previous section, *Remove Drives from Positions 2 and 3*.

To remove a disk drive from position 4 on the Model 38, you must first remove the SCSI mass storage controller module (Figure 8–4) from the drive plate.

To remove the SCSI mass storage controller module:

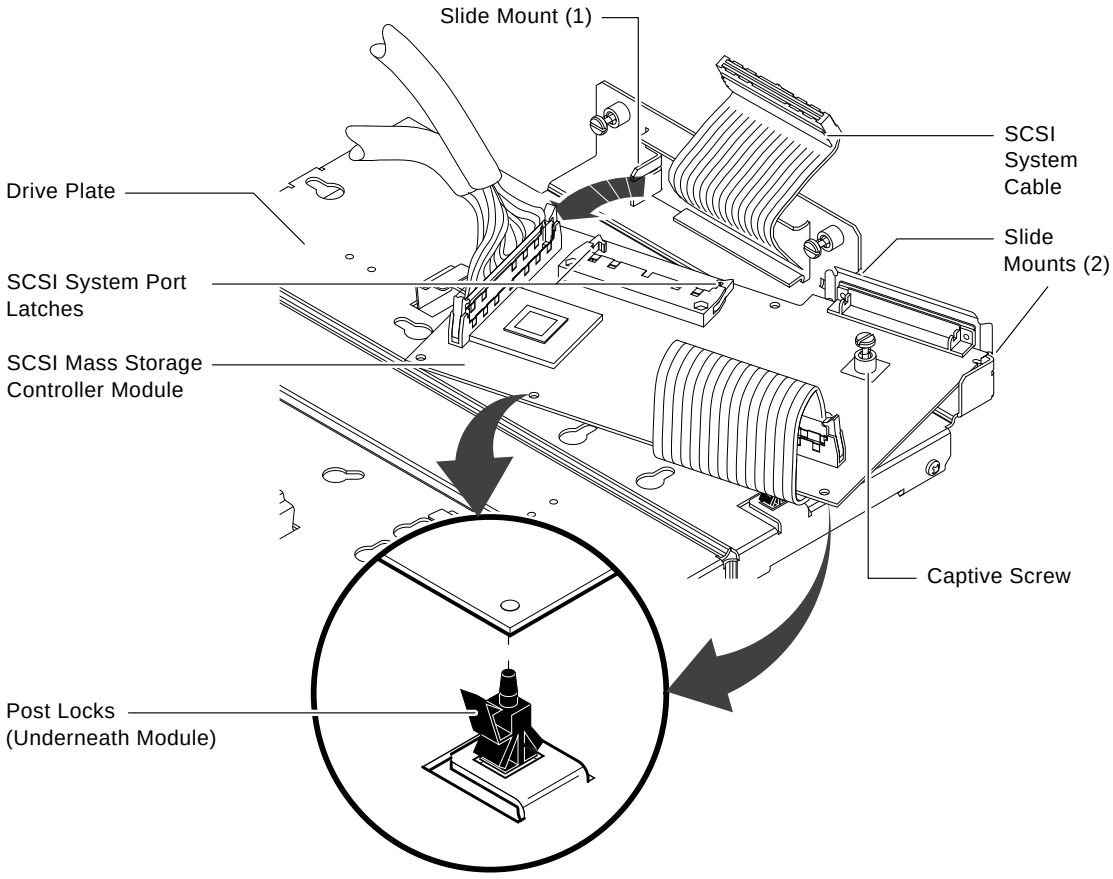
1. Unscrew the captive screw on the module.
2. Locate the post locks under the front edge of the module. Pull the post-lock latches outward and lift the front of the module up until it is free.
3. Locate the SCSI system port on the module.
4. Disconnect the SCSI system cable from the module by opening the latches on the SCSI system port outward and removing the cable.
5. Remove the module from the drive plate by rotating it to the right and sliding it forward, away from the back of the drive plate. Set the module aside on an antistatic mat.
6. Remove the disk drive from position 4, as described earlier in Step 5.

If No Drive Plate Lever

If your system does not have a drive plate lever, follow these steps:

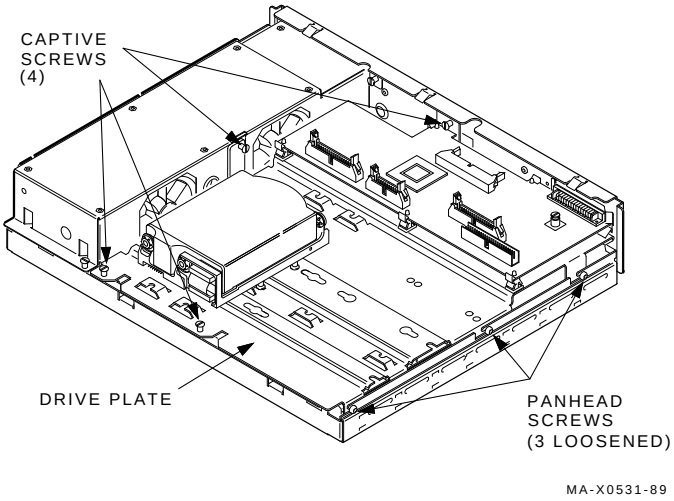
1. Disconnect the internal power cable from the internal power supply.
2. Disconnect the SCSI cable and internal power cable from all disk drives.
3. Disconnect the SCSI system cable from the SCSI system port. (See Figure 8–4).

Figure 8–4



4. Loosen all captive screws. There are four or five captive screws, depending on which kind of drive plate is inside the system. (See Figure 8–5).
5. Loosen the three slide mount screws on the side of the drive plate.
6. Slide the drive plate toward the front of the system unit and lift it up.

Figure 8–5



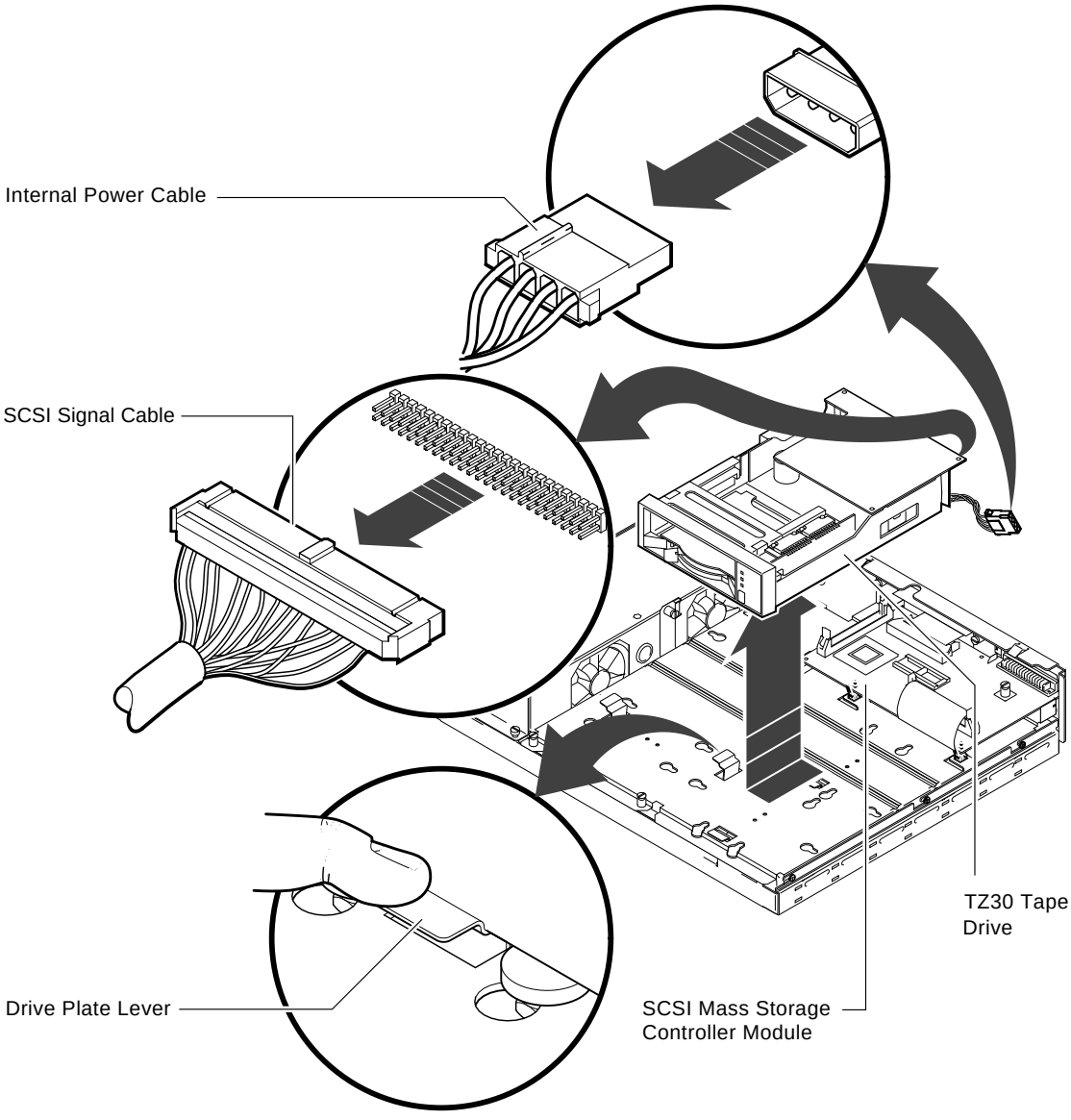
7. Turn the drive mounting panel over and remove the four screws from the hard disk drive. Support the drive with one hand when removing the last screw.
8. Set the drive aside on an antistatic mat.

Step 6: Remove the TZ30 Tape Drive

If your system has a drive plate lever (as shown in Figure 8–6), follow the steps below. Otherwise, go to the next section, *If No Drive Plate Lever.*

1. Disconnect the internal power and the SCSI cables from the back of the tape drive.
2. Simultaneously press down on the drive plate lever under the TZ30 and slide the drive toward the lever until you can lift the drive from the plate.
3. Remove the mounting screws from the tape drive.
4. Set the tape drive aside on an antistatic mat.

Figure 8–6

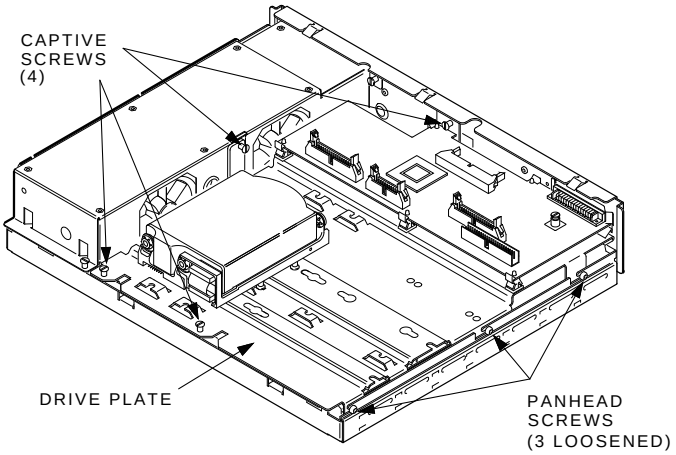

Internal Power Cable
SCSI Signal Cable
TZ30 Tape Drive
Drive Plate Lever
SCSI Mass Storage Controller Module
MLO-002910

If No Drive Plate Lever

If your system does not have a drive plate lever, follow these steps:

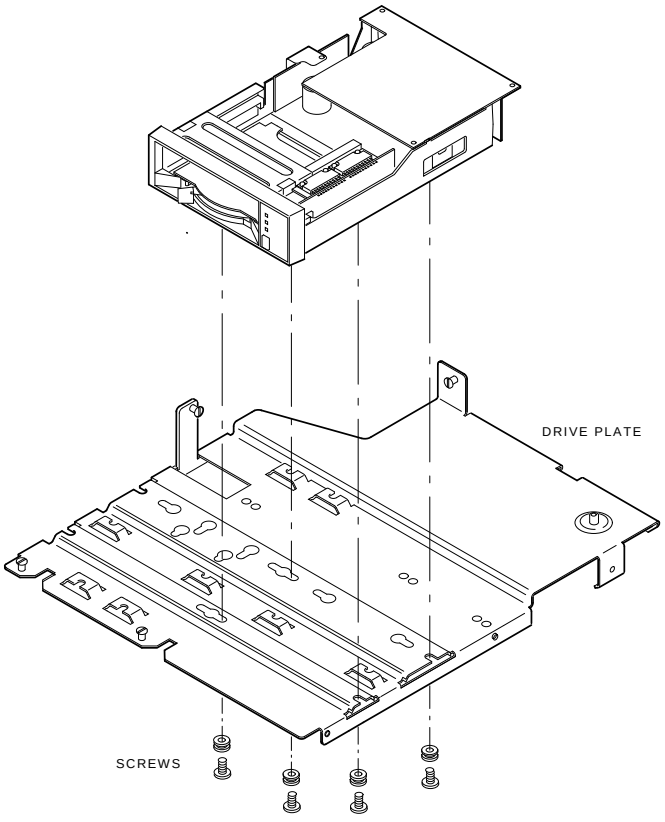
1. Disconnect the internal power cable from the internal power supply.
2. Disconnect the SCSI and internal power cables from all the RZxx disks and from the back of the tape drive.
3. Disconnect the SCSI system cable from the SCSI system port. (See Figure 8–4).
4. Loosen all captive screws. There are four or five captive screws, depending on which kind of drive plate is inside the system. (See Figure 8–7).
5. Loosen the three slide mount screws on the side of the drive plate.
6. Slide the drive plate toward the front of the system unit and lift it up.

Figure 8–7



7. Turn the drive mounting panel over and remove the four screws from the TZ30 tape drive. Support the drive with one hand when removing the last screw. (See Figure 8–8).
8. Set the drive aside on an antistatic mat.

Figure 8–8



Step 7: Set SCSI IDs on Drives

If your DEC 3000 system has a factory-installed disk drive, it is set to SCSI ID 3.

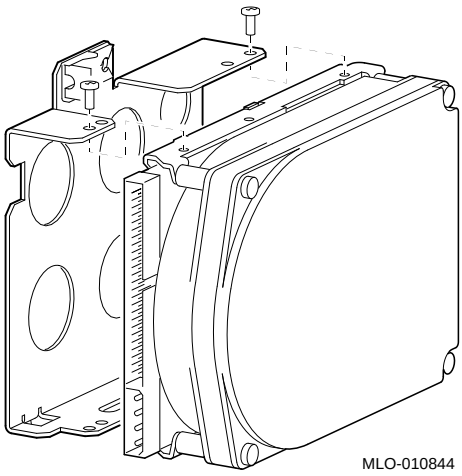
Check the SCSI ID settings you noted earlier. If one of the drives you are upgrading is set to SCSI ID 3, change that setting.

SCSI ID settings are described in the *DEC 3000 Model 300 Series AXP Hardware Reference Guide.*

Step 8: Attach New Mounting Bracket

You must attach the mounting brackets included in your upgrade kit onto the disk drives you remove from your VAXstation. To attach the brackets:

1. Stand the bracket on its side with the sliding latch facing up.
2. Place the disk drive in the bracket with the connectors facing you, as shown below.



MLO-010844

3. Attach the two screws on each side of the drive bracket.

Note

When the bracket is attached correctly, there is space between the bottom of the drive and the bracket.

Step 9: Complete the Upgrade

1. Instructions for installing options that you have removed from your curent system can be found in the *DEC 3000 Model 300 Series AXP Hardware Reference Guide.*
2. Follow the instructions in the *DEC 3000 Model 300 Series AXP: Setting Up Your System* to complete the upgrade.
3. Update the customer service contract to the DEC 3000 Model 300X/300LX AXP system.

Step 10: Return Your VAXstation to Digital

To return your VAXstation and any options that are not upgradeable to Digital:

1. Pack the VAXstation and options securely in packing material.
2. Attach the return-address label that was in your upgrade kit and ship the package to Digital.

9

Upgrading a VAXstation 3100 Models 40/48

Topics Covered in This Chapter

- Upgrading your system
- Removing drives
- Completing the upgrade

Upgrade Procedure

Step 1: If Your System Has Factory-Installed Drives

If your DEC 3000 system has factory-installed drives, you may need to change the SCSI IDs on the drives you are upgrading.

To determine the SCSI ID settings on your drives:

1. Shut down your software following the instructions in your software documentation.
2. Put the VAXstation into console mode by pressing the halt button on the back of the system unit.
3. Enter the `SHOW DEVICE` command.

A screen similar to the following appears:

```
>>> SHOW DEVICE
VMS/VMB     ADDR     DEVTYP   NUMBYTES  RM/FX  WP  DEVNAM
-----------------------------------------------------
ESAO     08-00-2B-07-E3-83
DKA300      A/3/0/00 DISK     104 MB    FX         RZ23
..Host ID.. A/6      INITR
DKB200      B/2/0/00 DISK     104 MB    FX         RZ23
DKB300      B/3/0/00 DISK     104 MB    FX         RZ23
DKB400      B/4/0/00 RODISK   205 MB    RM     WP  RRD40
```

This sample display shows a RZ23 drive set to SCSI ID 2, another RZ23 drive set to SCSI ID 3, and an RRD40 drive set to SCSI ID 4.

Write down your system drives and SCSI ID settings here. You will need them for future use.

Step 2: Shut Down System

Turn off the system unit by pressing O on the On/Off switch on the back of the system unit.

Caution: After you turn off the system, wait 15 seconds before unplugging the power cord.

Step 3: Disconnect Cables

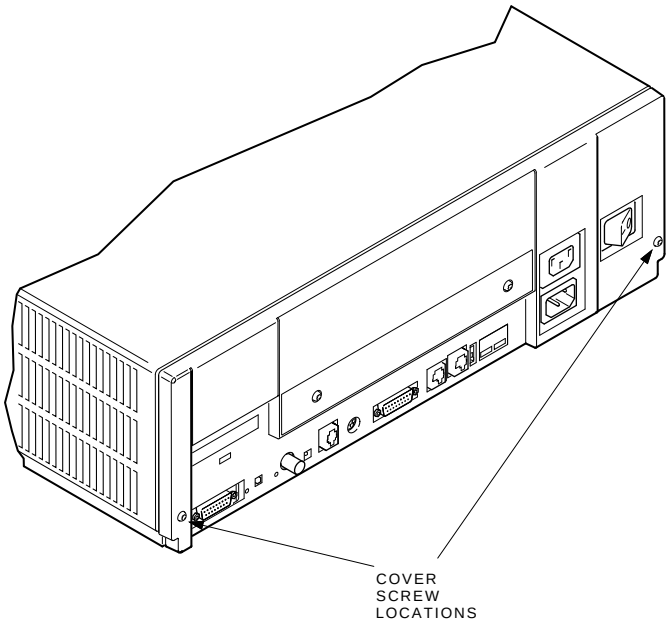
Disconnect all the cables from the back of the system unit.

Disconnect the power cord from the wall outlet and then from the system unit.

Step 4: Remove System Cover

Unscrew the two cover screws (Figure 9–1). Slide the cover forward and up off the system box.

Figure 9–1



Step 5: Remove Fixed Disk Drive

If your system has a drive plate lever (as shown in Figure 9–2), follow the steps below. Otherwise, go to the section, *If No Drive Plate Lever*.

To remove a fixed disk drive:

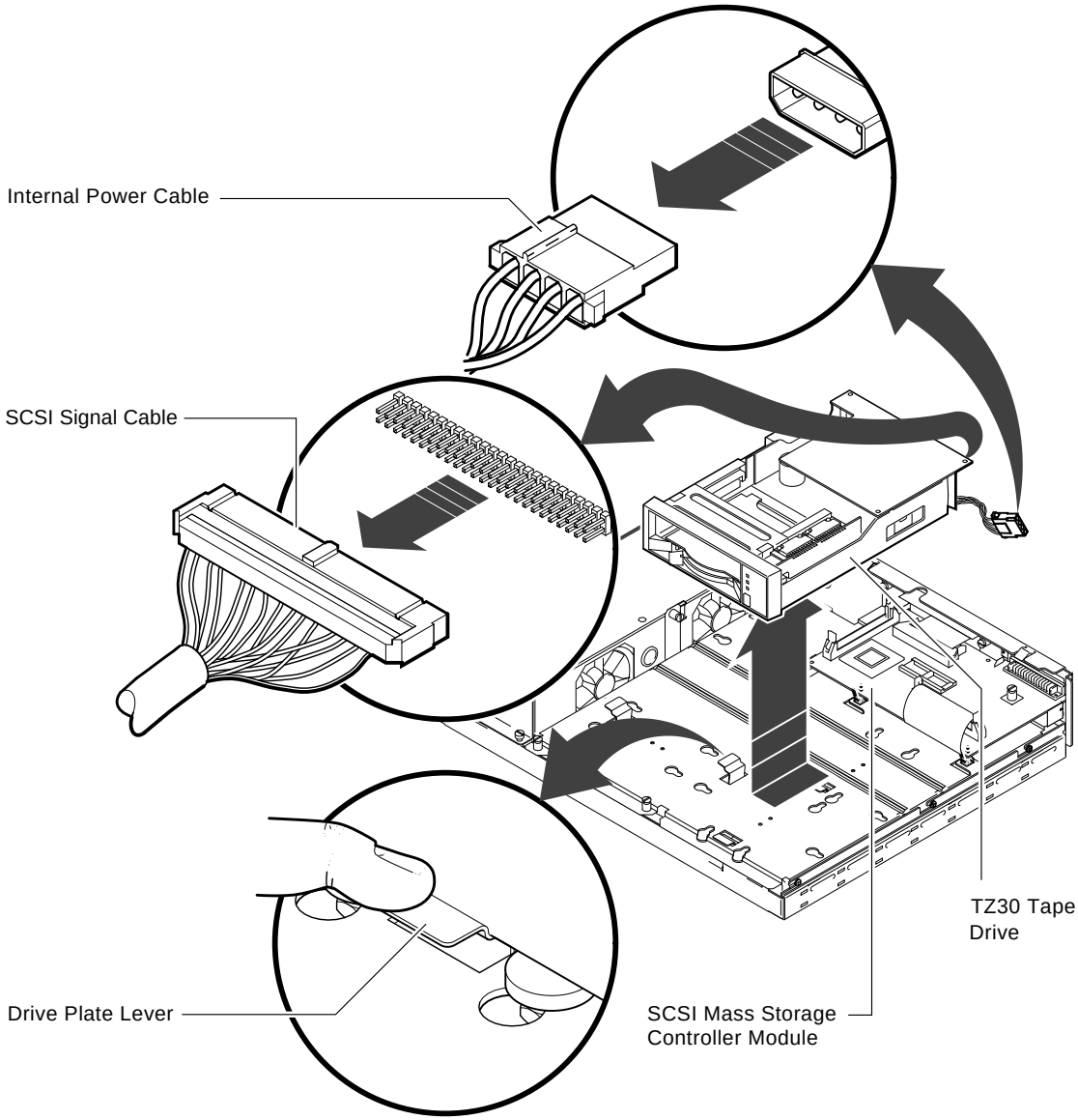
1. Push down the drive plate lever and slide the disk over the lever until the disk comes up out of the chassis cutouts.
2. Disconnect the SCSI and internal power cables from the disk.
3. Remove the drive mounting bracket by removing the four screws that secure the drive to the mounting bracket.
4. Set the disk aside on an antistatic mat.

If No Drive Plate Lever

If your system does not have a drive plate lever, follow these steps:

1. Remove the upper drive mounting panel as described in Step 7.
2. Turn the drive mounting panel over and remove the four screws from the hard disk drive. Support the drive with one hand when removing the last screw.
3. Set the drive aside on an antistatic mat.

Figure 9–2


Internal Power Cable
SCSI Signal Cable
TZ30 Tape Drive
Drive Plate Lever
SCSI Mass Storage Controller Module
MLO-002910

Step 6: Remove the TZ30 Tape Drive

If your system has a drive plate lever (as shown in Figure 9–2), follow the steps below. Otherwise, go to the next section, *If No Drive Plate Lever.*

1. Remove the upper drive mounting panel as described in Step 7.
2. Disconnect the power and SCSI cables from the back of the tape drive.
3. Simultaneously press down on the drive plate lever under the TZ30 and slide the drive toward the lever until you can lift the drive from the drive plate.
4. Remove the mounting screws from the tape drive.
5. Set the drive aside on an antistatic mat.

If No Drive Plate Lever

If your system does not have a drive plate lever, follow these steps:

1. Remove the upper drive mounting panel as described in Step 7.
2. Remove the lower drive mounting panel as described in Step 8.
3. Turn the drive mounting panel over and remove the four screws from the TZ30 tape drive. Support the drive with one hand when removing the last screw.
4. Set the drive aside on an antistatic mat.

Step 7: Remove Upper Drive Mounting Panel

Disconnect the power and SCSI cables from the drives on the top panel (Figure 9–3). Also disconnect the SCSI cable from the RRD40 adapter module, (if installed).

1. Remove the RRD40 adapter module from the four standoffs and let it hang over the back of the system box (Figure 9–4).
2. Loosen the five captive screws.
3. Lift the top panel from the lower panel and set it aside.

Figure 9–3

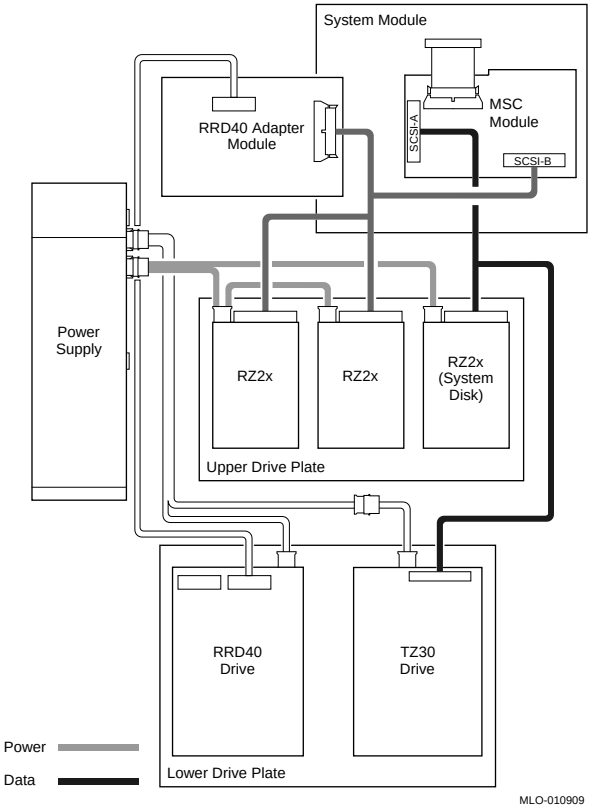
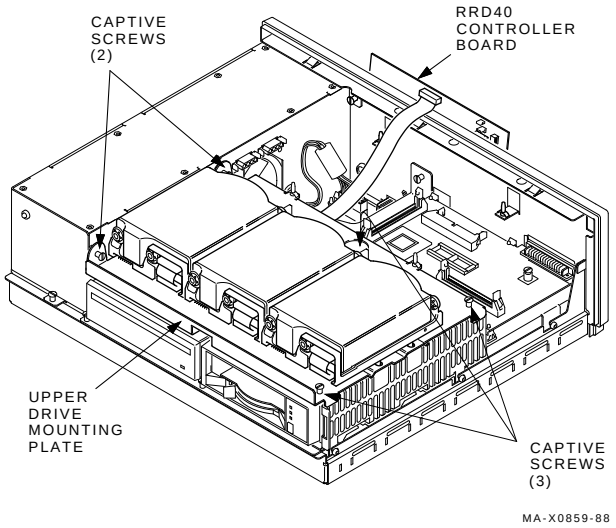

System Module
RRD40 Adapter Module
MSC Module
SCSI-A
SCSI-B
Power Supply
RZ2x
RZ2x
RZ2x (System Disk)
Upper Drive Plate
RRD40 Drive
TZ30 Drive
Lower Drive Plate
Power
Data
MLO-010909

Figure 9–4

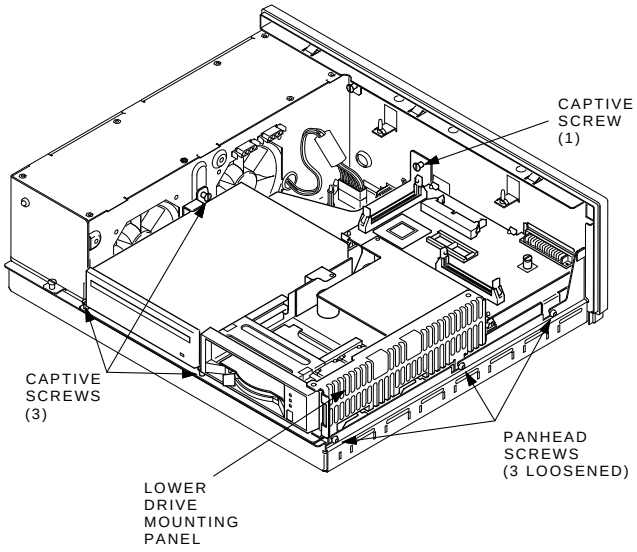


Step 8: Remove Lower Drive Mounting Panel

1. Disconnect the data cable from the rear of the RRD40 compact disc drive (if installed) and set the RRD40 adapter module aside.
2. Disconnect the power and data cables from the drives on the lower drive mounting panel and disconnect the MSC cable (Figure 9–3).

3. Loosen the seven screws (Figure 9–5).

Figure 9–5



4. Slide the panel forward (with the drives), then lift the panel from the system box and set it aside.

Step 9: Set SCSI IDs on Drives

If your DEC 3000 system has a factory-installed disk drive, it is set to SCSI ID 3.

Check the SCSI ID settings you noted earlier. If one of the drives you are upgrading is set to SCSI ID 3, change that setting.

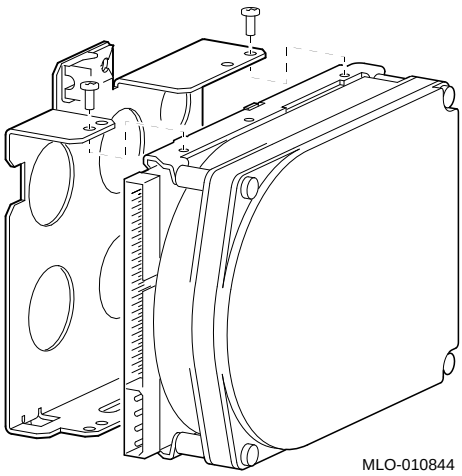
SCSI settings are described in the *DEC 3000 Model 300 Series AXP Hardware Reference Guide.*

Step 10: Attach New Mounting Bracket

You must attach the mounting brackets included in your upgrade kit onto the disk drives you remove from your VAXstation. To attach the brackets:

1. Stand the bracket on its side with the sliding latch facing up.

2. Place the disk drive in the bracket with the connectors facing you, as shown below.



3. Attach the two screws on each side of the drive bracket.

Note

When the bracket is attached correctly, there is space between the bottom of the drive and the bracket.

Step 11: Complete the Upgrade

1. Instructions for installing options that you have removed from your current system can be found in the *DEC 3000 Model 300 Series AXP Hardware Reference Guide.*
2. Follow the instructions in the *DEC 3000 Model 300 Series AXP: Setting Up Your System* to complete the upgrade.
3. Update the customer service contract to the DEC 3000 Model 300X/300LX AXP system.

Step 12: Return Your VAXstation to Digital

To return your VAXstation and any options that are not upgradeable to Digital:

1. Pack the VAXstation and options securely in packing material.
2. Attach the return-address label that was in your upgrade kit and ship the package to Digital.

10

Upgrading Other Systems

No Options Can Be Upgraded

There are no options that you can remove from systems, such as a VAXstation I, VAXstation II, VAXstation 2000, VAXstation 3200, or VAXstation 3500, and install in your DEC 3000 system.

Upgrade Procedure

To upgrade your current system, follow the two steps listed below.

Step 1: Return Your System to Digital

Return your system and any options to Digital.

1. Pack the system and options securely in packing material.
2. Attach the return-address label that was in your upgrade kit and ship the package to Digital.

Step 2: Update Service Contract

After installing your new system, update the customer service contract to the DEC 3000 Model 300X/300LX AXP system.

How to Order Additional Documentation

Technical Support

If you need help deciding which documentation best meets your needs, call 800-DIGITAL (800-344-4825) and press 2 for technical assistance.

Electronic Orders

If you wish to place an order through your account at the Electronic Store, dial 800-234-1998, using a modem set to 2400- or 9600-baud. You must be using a VT terminal or terminal emulator set at 8 bits, no parity. If you need assistance using the Electronic Store, call 800-DIGITAL (800-344-4825) and ask for an Electronic Store specialist.

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[1]Call to request an Internal Software Order Form (EN–01740–07).

Reader's Comments

DEC 3000 Model 300X/300LX AXP Upgrade Information

EK–D33XP–UP. A01

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Thank you for your assistance.

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