DEC 3000 Model 600/600S AXP

Upgrade Information

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Kit Contents and Roadmap

Overview

Chapter Overview

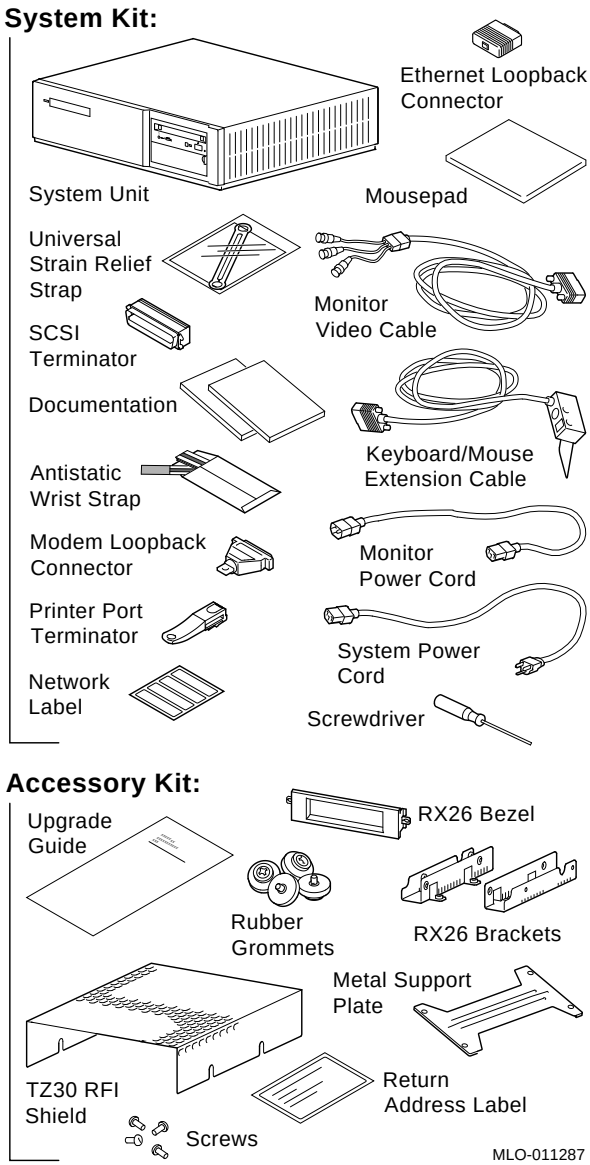
This chapter contains the following topics:

- Upgrade kit contents
- Using the Manual

Purpose of Manual

The purpose of this guide is to tell customers and Digital Services which options can be removed from the current system and used, either internally or externally, in the DEC 3000 Model 600/600S. Step-by-step instructions are provided for removing the options.

Figure 1–1 Upgrade Kit Contents



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.

What to Read Next

Using This Manual

Use the following table to determine which upgrade procedure to use.

If you have this workstation...	Go to...
VAXstation 4000-60/90	Chapter 4
DECstation 5000-120/125/133/150	Chapter 5
DECstation 5000-200/240/260	Chapter 6
Other systems	Chapter 10

If you have this server...	Go to...
MicroVAX 3100-30	Chapter 2
MicroVAX 3100-40/80/90, VAX 4000-100/100A	Chapter 3
DECsystem 5000-120/125/133/150	Chapter 5
DECsystem 5000-200/240/260	Chapter 6
DECsystem 3100	Chapter 7
DECsystem 5100	Chapter 8
DECsystem 5500	Chapter 9
Other systems	Chapter 10

2

Upgrading a MicroVAX 3100 Model 30

Topics Covered in This Chapter

- Options you can upgrade
- Upgrading your system
- Removing drives
- Completing the upgrade

Options You Can Upgrade

Internal/External Options

The options you can install in your DEC 3000 Model 600S are listed in the following tables:

Option	Description	Comment
	Internal or External Disks	
RZ23L	121 MB	
RZ24	209 MB	
RZ24L	245 MB	
RZ25	426 MB	
RZ25L	500 MB	
RZ26	1.05 GB	

Option	Description	Comment
	Internal or External Removable Drives	
RRD42	600 MB CD-ROM	
TZK10	525 MB QIC tape	
TZ30	95 MB tape	
TLZ06	4.0 GB DAT tape	

External Options

The options that are supported externally on the DEC 3000 Model 600S are listed in the following tables:

Option	Description	Comment
	External Disks	
RZ55	332 MB	
RZ56	665 MB	
RZ57	1.0 GB	Requires Firmware update 6000
RZ58	1.3 GB	
RZ74	3.6 GB	
RZ26L	1.0 GB	
	External Removable Drives	
TLZ04	1.2 GB DAT tape	
TZ85	2.6 GB cartridge tape	
RX26	2.8 MB floppy	
TZ86	6.0 GB tape	
TSZ07	SCSI magnetic tape	
	Expansion Boxes	
SZ12	Desktop	
BA350	Deskside	

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 determine the SCSI ID settings on your drives:

1. Shut down your software following the instructions in your software documentation.
2. Enter the `show config` command.

A screen similar to the following appears:

```
>>> show config

DEVNBR  DEVNAM     INFO
-------------------------------------
1       NVR        OK
3        DZ        OK
4     CACHE        OK
5       MEM        OK
                   16MB = SY=8MB, S0/1=8MB, S2/3=0MB, S4/5= 0MB
6       FPU        OK
7        IT        OK
8       SYS        OK
9        NI        OK
10     SCSI        OK
                   3-RZ24    6-INITR
```

This information shows an RZ24 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 0 on the On/Off switch on the back of the system unit.

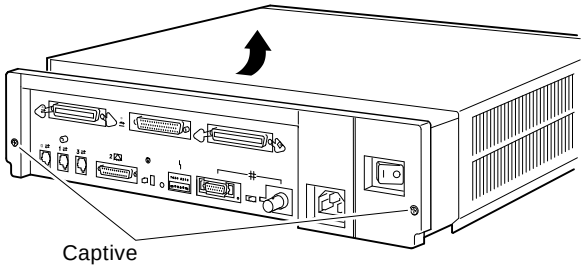
Caution: After you turn off the system, wait 15 seconds before unplugging the power cord.

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.

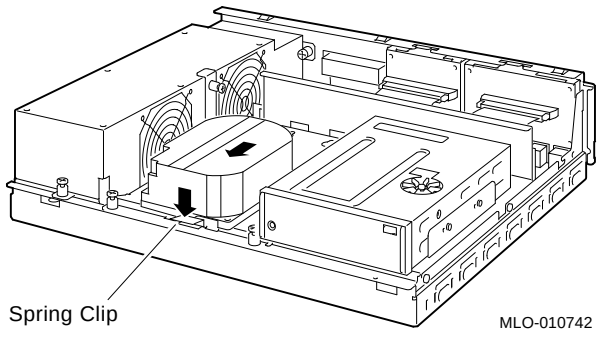
Step 4: Remove System Cover

1. Loosen the two captive screws on the back of the system unit. These screws can be loosened but not removed.
2. Slide the cover forward and lift it up from the system unit. Set the cover aside.



Step 5: Remove Fixed Disk Drives

1. Press and hold the spring clip that locks the disk drive in position.
2. Refer to the figure, and push the disk drive towards the spring clip until the rubber grommets on the bottom of the disk drive release from the cutouts in the drive mounting shelf.



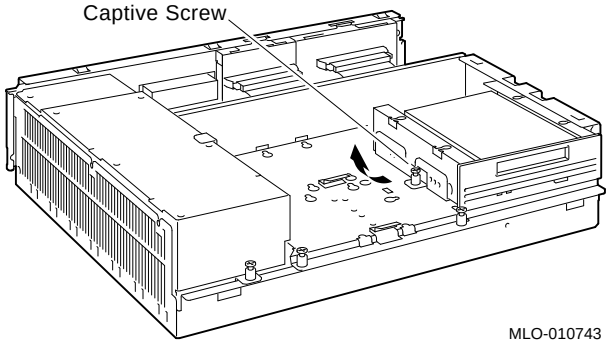
3. Lift the disk drive up from the drive mounting shelf and release the spring clip.

4. Disconnect the SCSI and power cables from the back of the drive.
5. Remove the drive mounting bracket by removing the screws that secure the mounting bracket to the drive.
6. Set the drive aside on an antistatic mat.

Step 6: Remove Removable-Media Drive

Follow these steps to remove a removable-media drive from the drive shelf:

1. Loosen the captive screw that secures the drive mounting bracket to the drive shelf.



2. Lift the left side of the drive until the tabs on the right side clear the cutouts in the drive shelf.
3. Disconnect the SCSI and power cables from the back of the drive.
4. Remove the drive mounting bracket by removing the screws that secure the mounting bracket to the drive.
5. Set the drive aside on an antistatic mat.

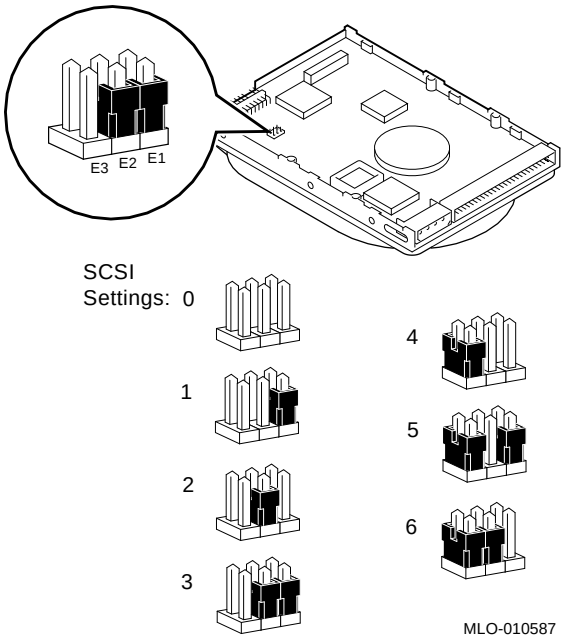
Step 7: Set the SCSI IDs on the Drives

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.

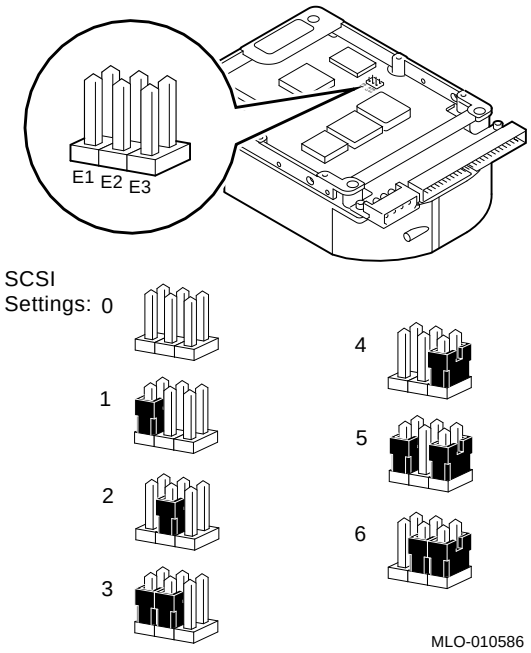
Settings not shown here are described in the *DEC 3000 Model 600/600S AXP Options Guide* or in the option documentation.

The following illustrate the SCSI ID settings for an RZ23L and an RZ24 drive.

RZ23L Drive:



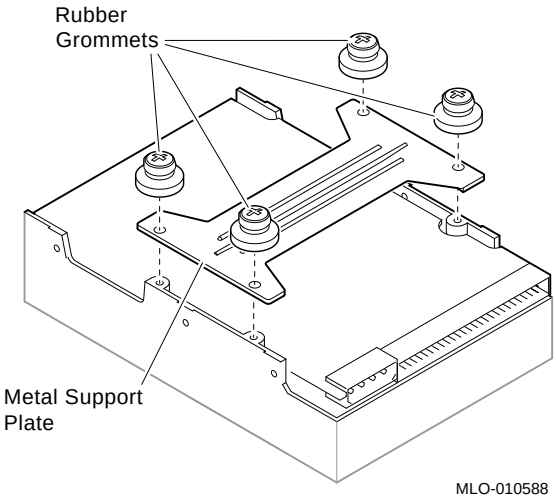
RZ24 Drive:



Step 8: Install New Mounting Bracket

To attach the new mounting bracket and rubber grommets to a fixed disk drive, follow these steps:

1. Place the metal support plate on the disk drive as shown below.
2. Screw the four rubber grommets (from your accessory kit) onto the plate and the drive until the plate is secure.



Step 9: Complete the Upgrade

1. Instructions for installing options that you have removed from your current system can be found in the *DEC 3000 Model 600/600S Options Guide.* Follow the instructions in the *DEC 3000 Model 600/600S Owner's Guide* to complete the upgrade.
2. Update the customer service contract to the DEC 3000 Model 600S AXP system.

Step 10: Return Your MicroVAX System to Digital

Return your MicroVAX system and any devices that are not upgradeable to Digital.

1. Pack the MicroVAX system and devices securely in packing material.
2. Attach the return address label that was in your upgrade kit.

3

Upgrading a MicroVAX 3100 Model 40/80/90, VAX 4000 Model 100/100A

Topics Covered in This Chapter

- Options you can upgrade
- Upgrading your system
- Removing drives
- Completing the upgrade

Options You Can Upgrade

Internal/External Options

The following options can be removed from your MicroVAX 3100 Model 40/80/90 or VAX 4000 Model 100/100A and used with the DEC 3000 AXP system.

Option	Description	Comment
	Internal or External Disks	
RZ23L	121 MB	MicroVAX 3100 only
RZ24	209 MB	MicroVAX 3100 only
RZ24L	245 MB	MicroVAX 3100 only
RZ25	426 MB	MicroVAX 3100 only

Option	Description	Comment
	Internal or External Disks	
RZ25L	500 MB	MicroVAX 3100 only
RZ26	1.05 GB	MicroVAX 3100 only
	Internal or External Removable Drives	
RRD42	600 MB CD-ROM	
TZK10	525 MB QIC tape	
TZ30	95 MB tape	
TLZ06	4.0 GB DAT tape	

External Options

The external options that you can move to the DEC 3000 Model 600S are listed in the following tables:

	External Disks	
RZ55	332 MB	MicroVAX 3100 only
RZ56	665 MB	MicroVAX 3100 only
RZ57	1.0 GB	MicroVAX 3100 only Requires Firmware update 6000
RZ58	1.3 GB	MicroVAX 3100 only
RZ74	3.6 GB	MicroVAX 3100 only
	External Removable Drives	
TLZ04	1.2 GB DAT tape	MicroVAX 3100 only
TZ85	2.6 GB cartridge tape	
RX26	2.8 MB floppy	
TZ86	6.0 GB tape	MicroVAX 3100 only
TSZ07	SCSI magnetic tape	
RWZ01	Read/write optical drive	VAX 4000 only
TSZ05	1600 BPI magnetic tape drive	VAX 4000 only

Expansion Boxes		
SZ12	Desktop	
BA350	Deskside	MicroVAX 3100 only

Upgrade Procedure

Step 1: If Your System Has Factory-Installed Drives

If your DEC 3000 Model 600S 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. Shut down your software following the instructions in your software documentation.
2. Enter SHOW CONFIG at the console prompt (>>>). A screen similar to the following appears:

```
>>> SHOW CONFIG

DEVNBR  DEVNAM     INFO
-------------------------------------
1       NVR        OK
3        DZ        OK
4     CACHE        OK
5       MEM        OK
                   16MB = SY=8MB, S0/1=8MB, SE/3=0MB, S4/5= 0MB
6       FPU        OK
7        IT        OK
8       SYS        OK
9        NI        OK
10     SCSI        OK
                   3-RZ24    6-INITR
```

This display shows an RZ24 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 0 on the On/Off switch on the rear of the system unit.

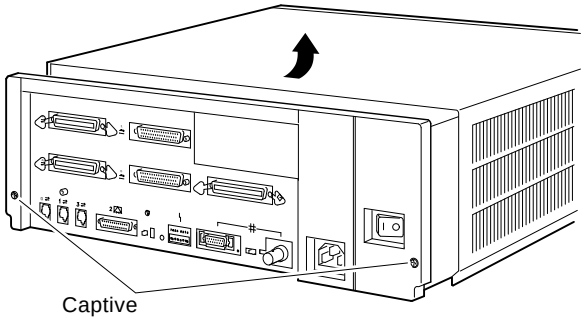
Caution: After you turn off the system, wait 15 seconds before unplugging the power cord.

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.

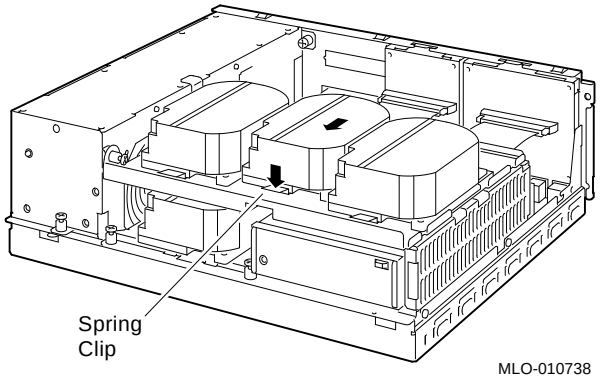
Step 4: Remove System Cover

1. Loosen the two captive screws on the back of the system unit. These screws can be loosened but not removed.
2. Slide the cover forward and lift it up from the system unit. Set the cover aside.



Step 5: Remove Fixed Disk Drives

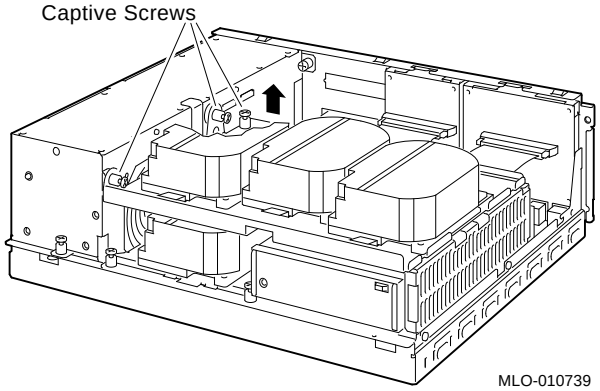
1. Press and hold the spring clip that locks the disk drive in position.
2. Refer to the figure. Push the disk drive towards the spring clip until the rubber grommets on the bottom of the disk drive release from the cutouts in the drive mounting shelf.



3. Lift the disk drive up from the drive mounting shelf and release the spring clip.
4. Disconnect the SCSI and power cables from the back of the drive.
5. Remove the drive mounting bracket by removing the screws that secure the mounting bracket to the drive.
6. Set the drive aside on an antistatic mat.

Step 6: Remove the Upper Drive Shelf

1. Disconnect the power cable from the power supply. Remove the power cable from the enclosure.
2. Refer to the figure. Loosen the three captive screws that hold the drive shelf in place.

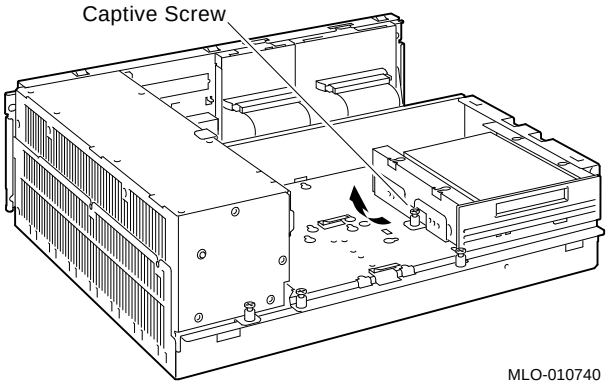


3. Lift the left side of the shelf and pull the shelf to the left until the tabs on the right clear the cutouts in the lower drive shelf.
4. Set the drive shelf aside.

Step 7: Remove Removable-Media Drive

Follow these steps to remove a removable-media drive from the lower drive shelf:

1. Loosen the captive screw that secures the drive mounting bracket to the drive shelf.



2. Lift the left side of the drive until the tabs on the right side clear the cutouts in the drive shelf.
3. Disconnect the SCSI and power cables from the back of the drive.
4. Remove the drive mounting bracket by removing the screws that secure the drive to the mounting bracket.
5. Set the drive aside on an antistatic mat.

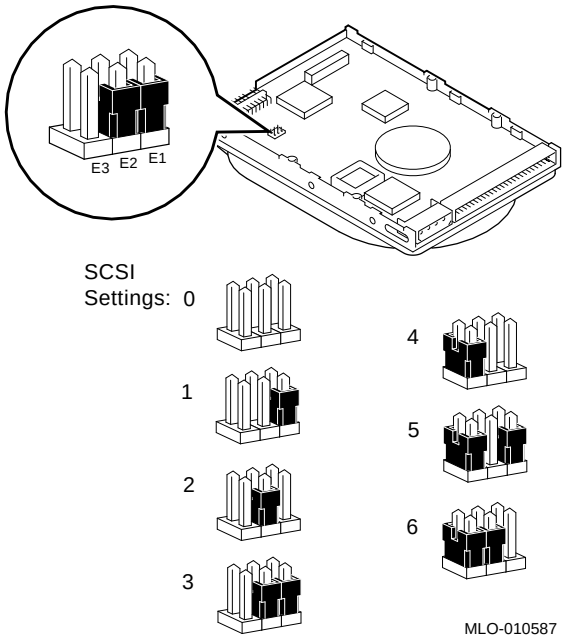
Step 8: Set the SCSI IDs on the Drives

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.

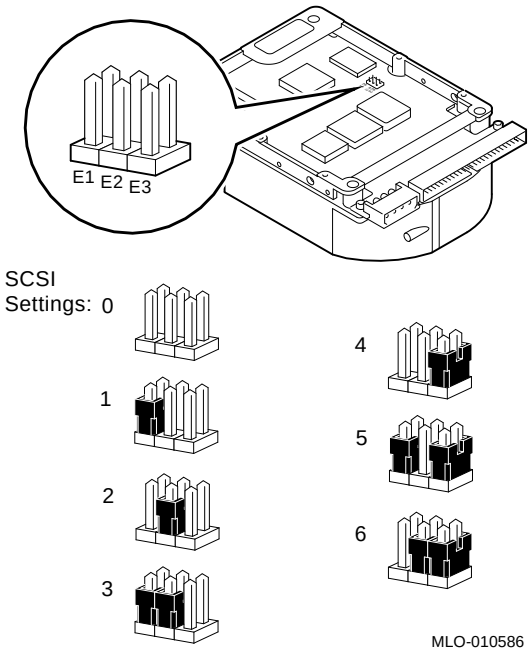
You can find SCSI settings for drives not shown here in the *DEC 3000 Model 600/600S Options Guide* or the option documentation.

The following illustrate the SCSI ID settings for an RZ23L and an RZ24 drive.

RZ23L Drive:



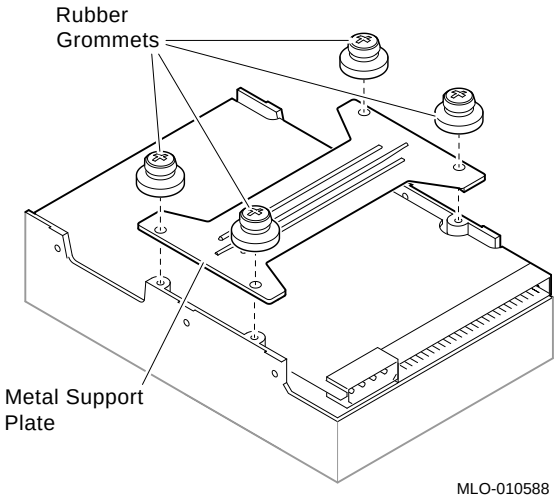
RZ24 Drive:



Step 9: Install New Mounting Bracket

To attach the new mounting bracket and rubber grommets to a fixed disk drive, follow these steps:

1. Place the metal support plate on the disk drive as shown below.
2. Screw the four rubber grommets (from your accessory kit) onto the plate and the drive until the plate is secure.



Step 10: Complete the Upgrade

1. Instructions for installing options that you have removed from your current system can be found in the *DEC 3000 Model 600/600S Options Guide.* Follow the instructions in the *DEC 3000 Model 600/600S Owner's Guide* to complete the upgrade.
2. Update the customer service contract to the DEC 3000 Model 600S AXP system.

Step 11: Return Your MicroVAX to Digital

Return your MicroVAX system and any devices that are not upgradeable to Digital.

1. Pack the MicroVAX system and devices securely in packing material.
2. Attach the return-address label that was in your upgrade kit.

4

Upgrading a VAXstation 4000 Model 60/90

Topics Covered in This Chapter

- Options you can upgrade
- Upgrading your system
- Removing drives
- Completing the upgrade

Options You Can Upgrade

Internal/External Options

Options that are supported internally or externally on the DEC 3000 Model 600 are listed in the following tables:

Fixed Disk Drives	Comment
RZ23L RZ24L	
RZ24	
RZ25	
RZ26	
RZ26B	OpenVMS support only

Removable-Media Drives	Comment
RRD42	Including tabletop device
TLZ06	Including tabletop device
TZK10	
RX26	
TZ30	

TURBOchannel Options	Comment
DEFTA–FA	

External Options

Options that are supported externally on the DEC 3000 Model 600 are listed in the following tables:

Expansion Boxes	Comment
BA350 BA353	
SZ03	
SZ12	
SZ16	

Disk/Tape Drives	Comment
TZ85 RZ55/RZ56	
RZ58	
TSZ07	
TLZ04	
RWZ01	OpenVMS support only

Monitors	Comment
VR319–C% VR319–D%	Appropriate 66 Hz graphics option required
VR320–C%	Appropriate 66 Hz graphics option required
VR320–D%	
VRC16–H%	
VRM17–H%	
VRT16–H%	
VRT19–H%	

Input Devices	Comment
VSXXX–AB VSXXX–FA	
VSXXX–AA	
VSXXX–JA	
VSXXX–GA	
LK401/201	
VSX10–AA/A3	DEC Open3D required for software support
VSX20–AA/A3	DEC Open3D required for software support
VSX30–AA/A3	DEC Open3D required for software support

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 information shows an RZ24 drive set to SCSI ID 0 and an 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 0 on the On/Off switch on the front of the system unit.

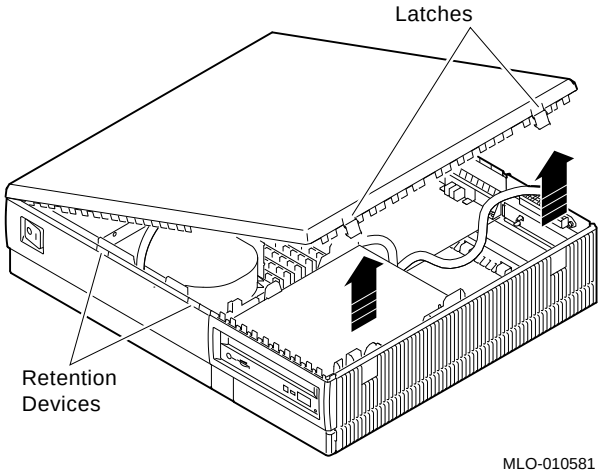
Caution: After you turn off the system, wait 15 seconds before unplugging the power cord.

Step 3: Disconnect Cables

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

Step 4: Remove System Cover

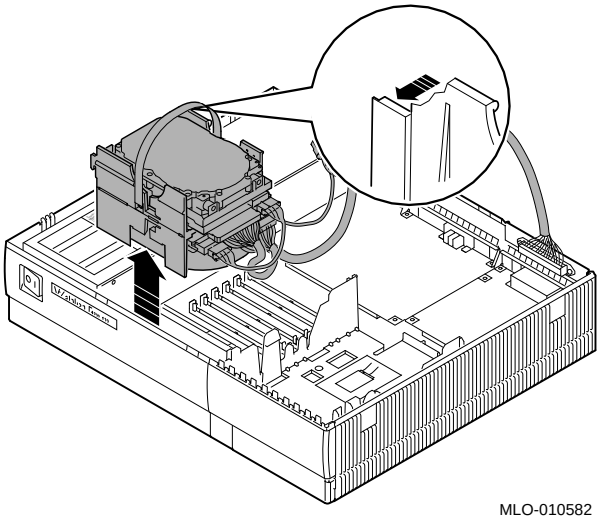
Release the latches on the right side. Then pull the cover up and away. You need to pull forcefully to release the retention devices.



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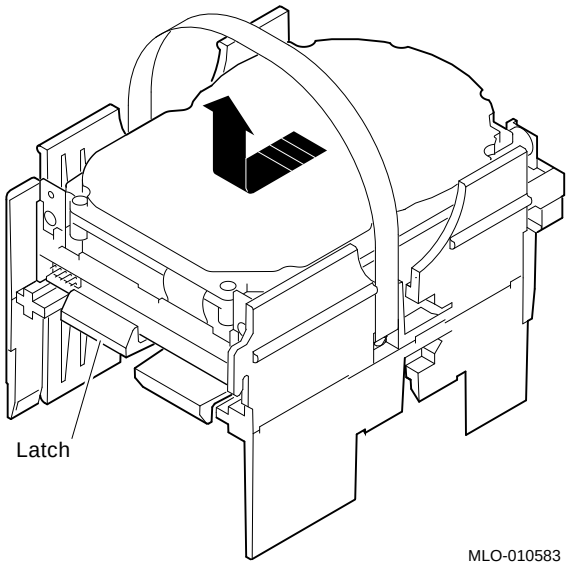
2. Disconnect the SCSI and power cables from the drives in the bracket.

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.

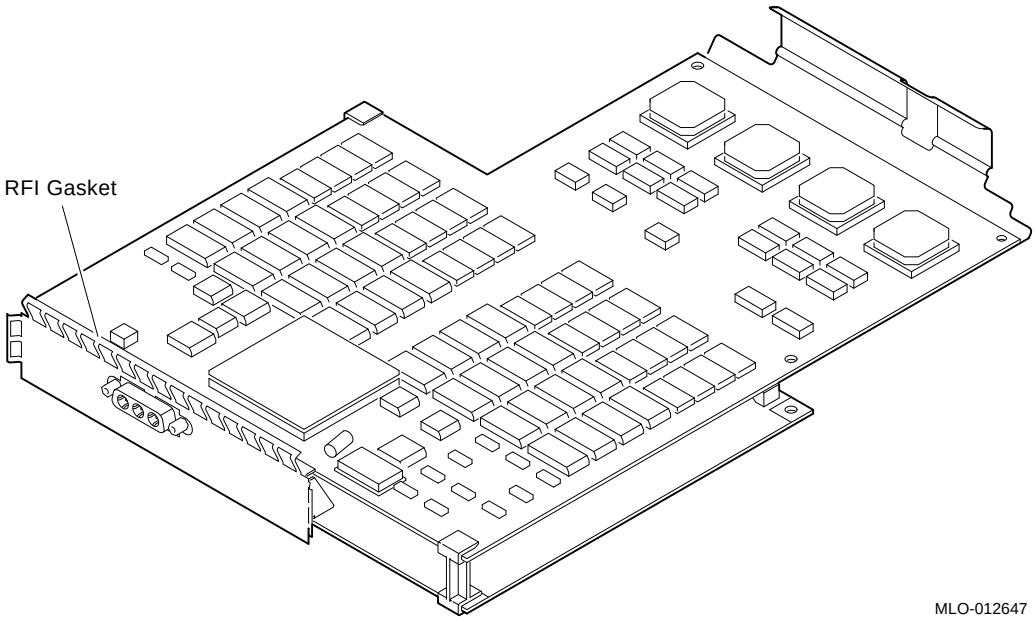


3. Set the drive aside on an antistatic mat.

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.

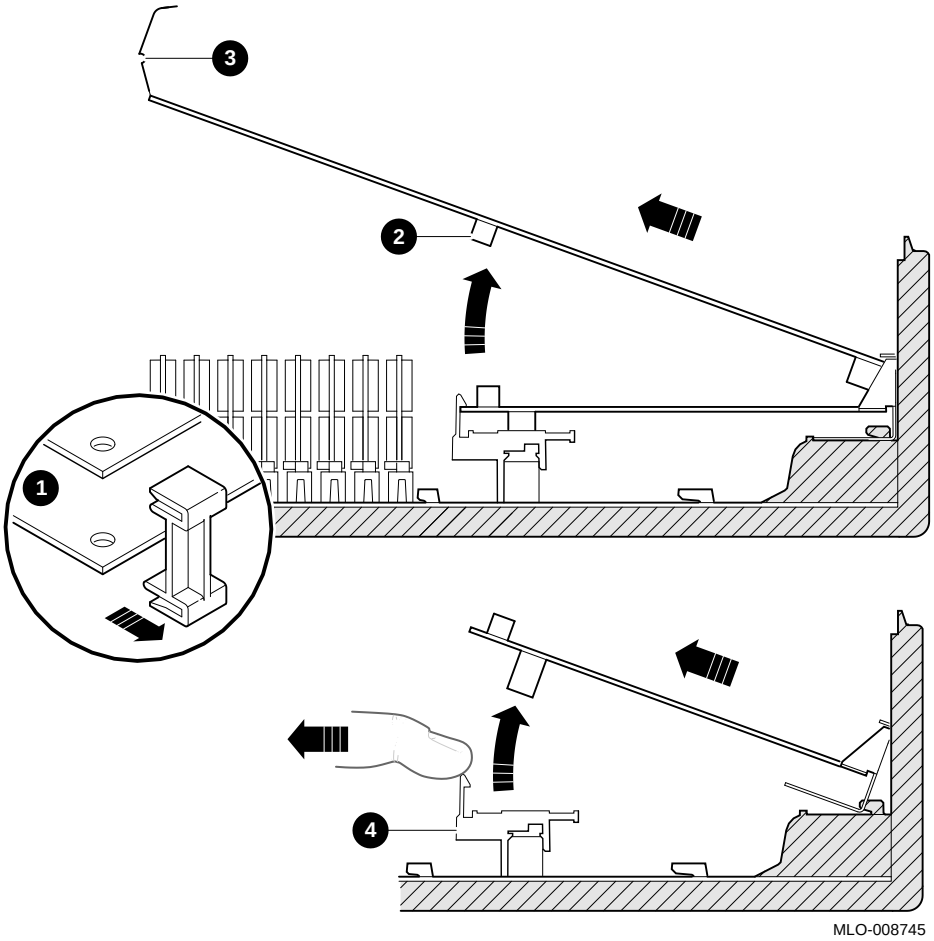
Figure 4–1 SPXgt 24-Plane Graphics Module



To remove the graphics module:

1. Remove the plastic E-clip ❶ that holds the graphics module to the frame buffer. (See Figure 4–2.)
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 4–1). The gasket will remain in place, held by the video connector bracket on the graphics module.

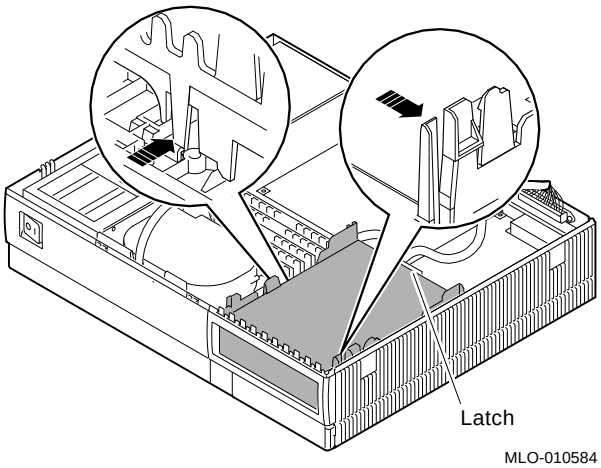
Figure 4–2 Removing the SPXgt 24-Plane Graphics Module



Step 8: Remove Removable-Media Bracket

To remove the 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.

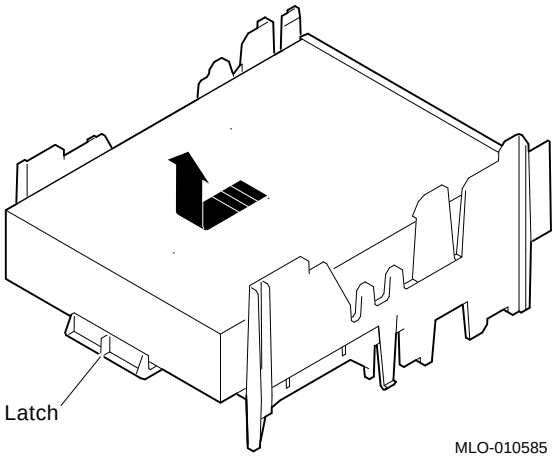


3. Release the two cantilever catches (shown) on the removable-media bracket and lift the bracket out of the system unit.

Step 9: Remove Drive from Bracket

Follow these steps:

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 SCSI IDs on Drives

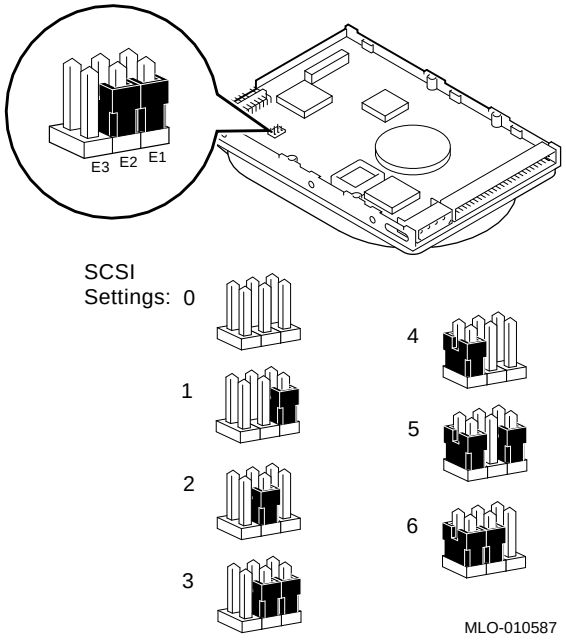
If your DEC 3000 system has a factory-installed disk drive, it is set to SCSI ID 3.

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

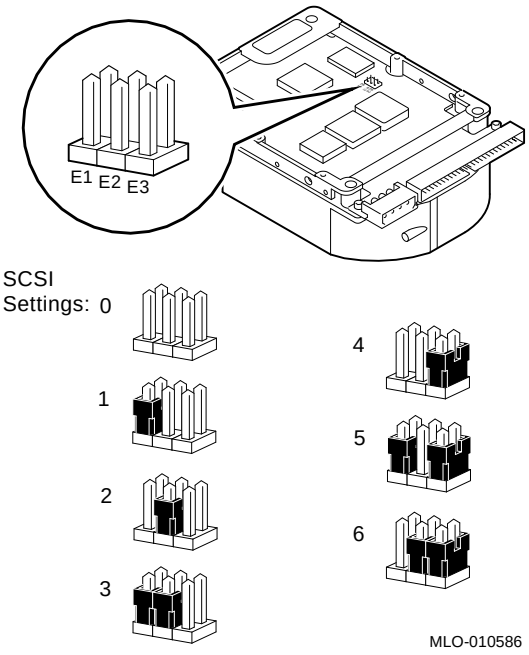
Settings not shown here are described in the *DEC 3000 Model 600/600S AXP Options Guide* or in the options documentation.

The following illustrate the SCSI ID settings for an RZ23L, an RZ24, and an RZ26B drive.

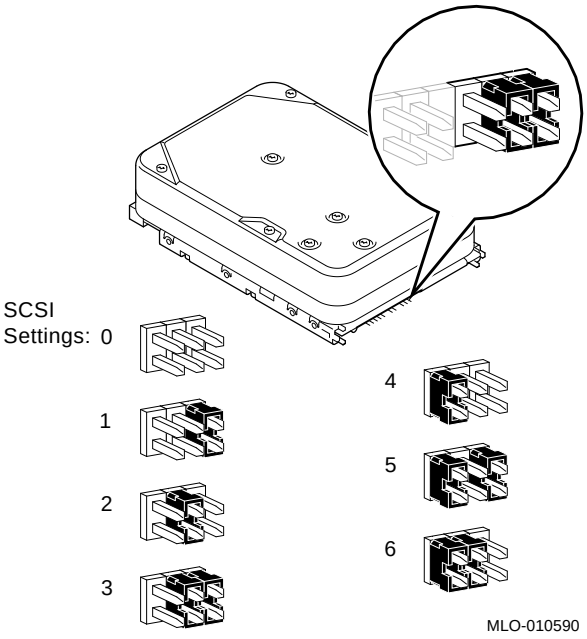
RZ23L Drive:



RZ24 Drive:



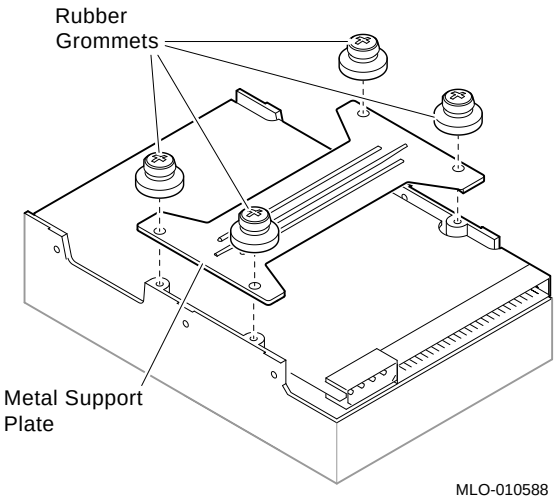
RZ26B Drive:



Step 11: Install New Mounting Brackets

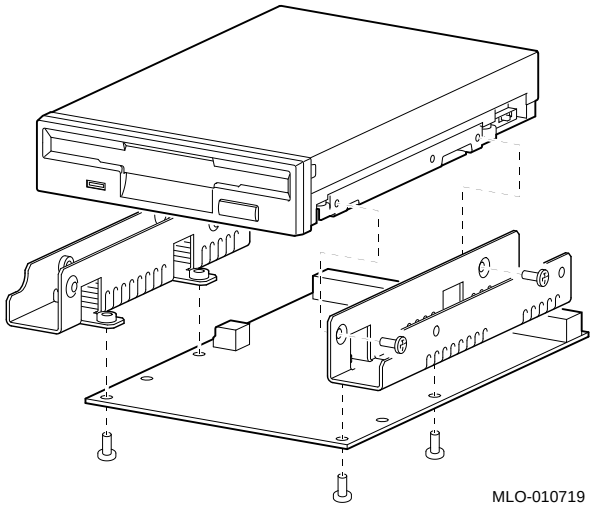
To attach the new mounting bracket and rubber grommets to a fixed disk drive, follow these steps:

1. Place the metal support plate on the disk drive as shown below.
2. Screw the four rubber grommets (from your accessory kit) onto the plate and the drive until the plate is secure.



Note: Other Accessory Kit Brackets

Install the RX26 bracket extensions as shown.



Step 12: Complete the Upgrade

1. Instructions for installing options that you have removed from your current system can be found in the *DEC 3000 Model 600/600S Options Guide.* Follow the instructions in the *DEC 3000 Model 600/600S Owner's Guide* to complete the upgrade.
2. Update the customer service contract to the DEC 3000 Model 600 AXP system.

Step 13: Return Your VAXstation to Digital

Return your VAXstation and any devices that are not upgradeable to Digital.

1. Pack the VAXstation and devices securely in packing material.
2. Attach the return-address label that was in your upgrade kit.

5

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

Topics Covered in This Chapter

- Options you can upgrade
- Upgrading your system
- Removing drives
- Removing modules
- Completing the upgrade

Options You Can Upgrade

Internal/External Options

Options that are supported internally or externally on the DEC 3000 Model 600/600S are listed in the following tables:

Fixed Disk Drives	Comment
RZ23L RZ24L	
RZ24	
RZ25	
RZ26	

Removable-Media Drives	Comment
RRD42	Including tabletop devices
TLZ06	Including tabletop devices
TZ30	
TZK10	

Graphics Modules	Comment
AV10U–AA/DA	
PMAGB–BA/BB	
PMAGB–BC/BD	
PMAGB–BE/BF	
PMAGB–JA/JB	OSF/1 AXP support only
PMAGB–DA/DB	DEC Open3D required for software support
PMAGB–DC/DD	DEC Open3D required for software support
PMAGB–EA/EB	DEC Open3D required for software support
PMAGB–EC/ED	DEC Open3D required for software support
PMAGB–FA/FB	DEC Open3D required for software support

External Options

Options that are supported externally on the DEC 3000 Model 600/600S are listed in the following tables:

Expansion Boxes	Comment
SZ16 SZ03	
SZ12	
PMTcE	Minimum revision required is D03
BA350	
BA353	

Disk/Tape Drives	Comment
RZ55 RZ56	
RZ58	
RX23	OSF/1 AXP support only
TKZ08	
TKZ09	
TLZ04	
TZ85	
TSZ07	
TZ857	Requires DEC NSR for support in OSF/1 AXP

Options for workstations

Monitors and input devices that you can use with the DEC 3000 Model 600 are listed in the following tables:

Monitors	Comment
VR319–C% VR319–D%	Appropriate 66 Hz graphics option required
VR320–C%	Appropriate 66 Hz graphics option required
VR320–D%	
VRC16–H%	
VRM17–H%	
VRT16–H%	
VRT19–H%	

Input Devices	Comment
VSXXX–AB VSXXX–FA	
VSXXX–AA	
VSXXX–JA	
VSXXX–GA	
LK201/LK401	
VSX10–AA/A3	DEC Open3D required for software support
VSX20–AA/A3	DEC Open3D required for software support
VSX30–AA/A3	DEC Open3D required for software support

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

1. Enter the following 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 display shows an RZ24 drive set to SCSI ID 2 and an RRD42 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 0 on the On/Off switch on the back of the system unit.

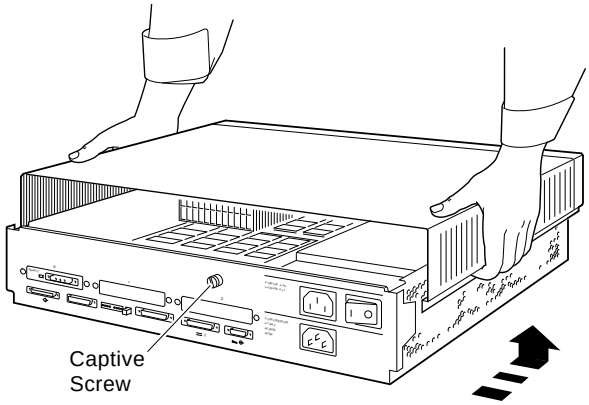
Caution: After you turn off the system, wait 15 seconds before unplugging the power cord.

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

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.



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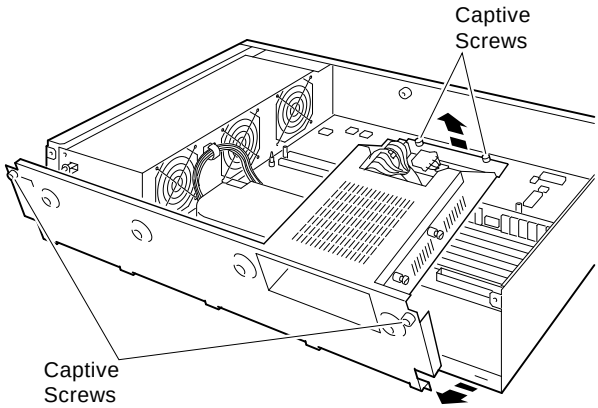
Step 5: Remove Front Drive Panel

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.



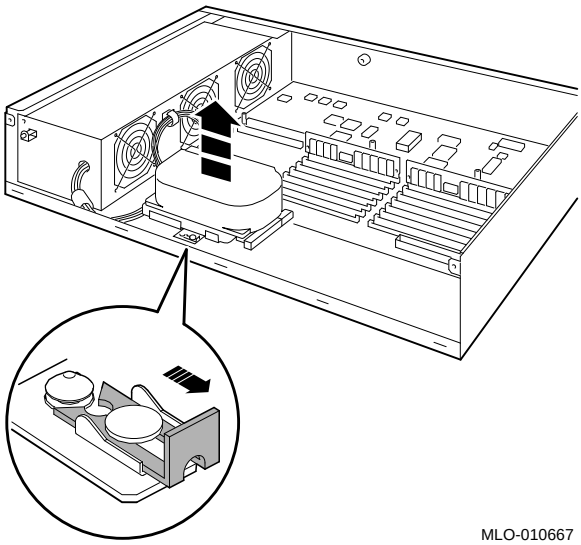
4. Pull up carefully from the back of the drive bracket. As you raise the end of the bracket, you can pull the disconnected ends of the cables through the cutout in the bracket.
5. Release the cables from the cable clamps on the inside of the front panel.
6. Set the front panel aside. Handle it carefully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

Step 6: Remove Removable Media Drives

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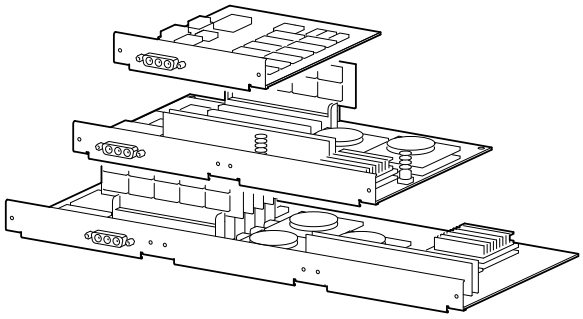
3. Unplug the power cable and SCSI cable from the drive. Pull on the SCSI cable connector flap to remove the connector.
4. Remove the drive mounting bracket by removing the four screws that secure the drive to the mounting bracket.
5. Set the drive aside on an antistatic mat.
6. Put all the disconnected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

Step 8: Remove Modules

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



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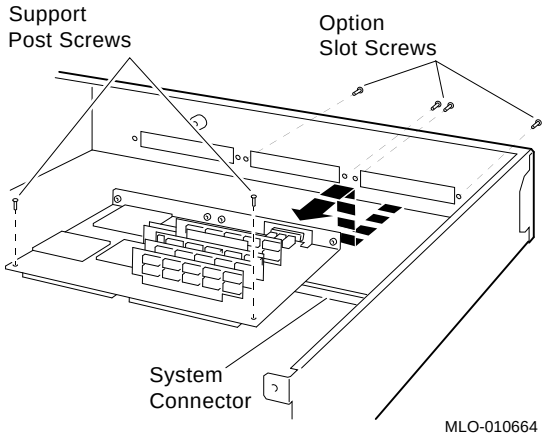
1. Remove the option slot screws and the support post screws.
2. Release the module from the system connector and lift the module out of the option slot opening.



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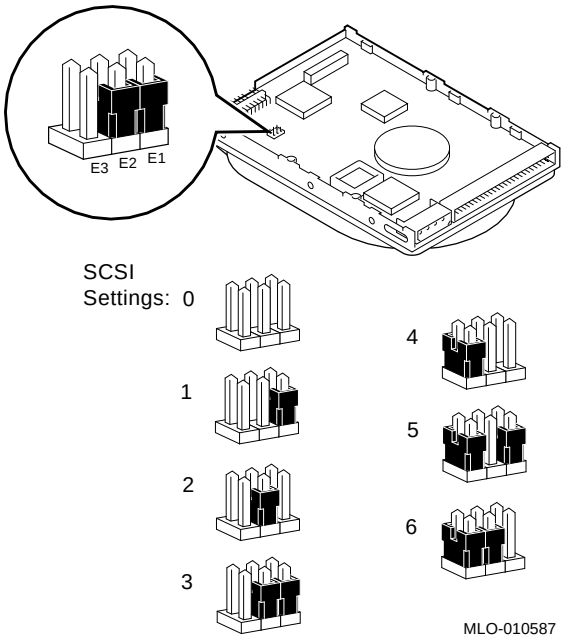
Step 9: Set the SCSI IDs on the Drives

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 also set to SCSI ID 3, change that setting.

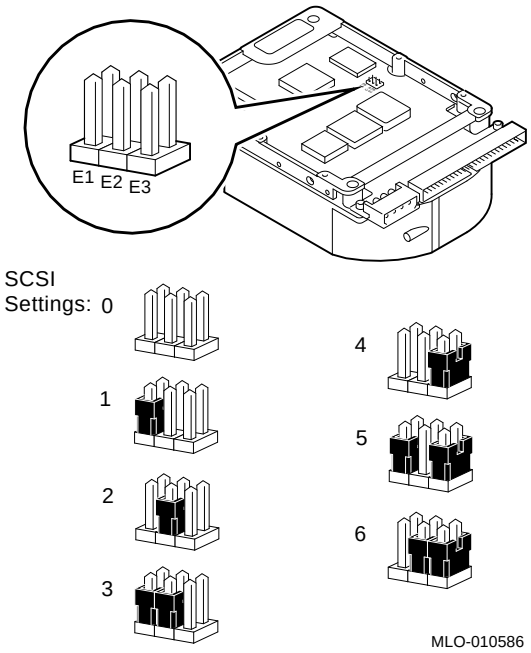
Settings for drives not shown here can be found in the *DEC 3000 Model 600/600S AXP Options Guide* or in the option documentation.

The following illustrate the SCSI ID settings for an RZ23L and an RZ24 drive.

RZ23L Drive:



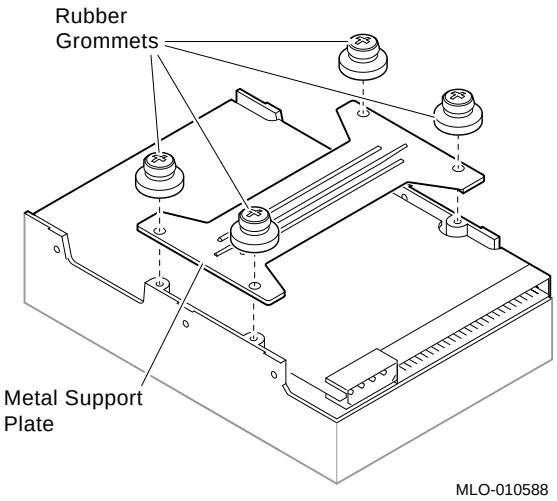
RZ24 Drive:



Step 10: Install New Mounting Bracket

To attach the new mounting bracket and rubber grommets to a fixed disk drive, follow these steps:

1. Place the metal support plate on the disk drive as shown below.
2. Screw the four rubber grommets (from your accessory kit) onto the plate and the drive until the plate is secure.



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 600/600S Options Guide.* Follow the instructions in the *DEC 3000 Model 600/600S Owner's Guide* to complete the upgrade.
2. Update the customer service contract to the DEC 3000 Model 600/600S AXP system.

Step 12: Return Your DECstation to Digital

Return your DECstation and any devices that are not upgradeable to Digital.

1. Pack the DECstation and devices securely in packing material.
2. Attach the return-address label that was in your upgrade kit.

6

Upgrading a DECstation/DECsystem 5000 Model 200/240/260

Topics Covered in This Chapter

- Options you can upgrade
- Upgrading your system
- Removing modules
- Completing the upgrade

Options You Can Upgrade

Internal/External Options

Options that are supported internally or externally on the DEC 3000 Model 600/600S are listed in the following tables:

Fixed Disk Drives	Comment
RZ23L RZ24L	
RZ24	
RZ25	
RZ26	

Removable-Media Drives	Comment
RRD42	Including tabletop devices
TLZ06	Including tabletop devices
TZ30	
TZK10	

Graphics Modules	Comment
AV10U–AA/DA	
PMAGB–BA/BB	
PMAGB–BC/BD	
PMAGB–BE/BF	
PMAGB–JA/JB	OSF/1 AXP support only
PMAGB–DA/DB	DEC Open3D required for software support
PMAGB–DC/DD	DEC Open3D required for software support
PMAGB–EA/EB	DEC Open3D required for software support
PMAGB–EC/ED	DEC Open3D required for software support
PMAGB–FA/FB	DEC Open3D required for software support

External Options

Options that are supported externally on the DEC 3000 Model 600/600S are listed in the following tables:

Expansion Boxes	Comment
SZ16 SZ03	
SZ12	
PMTcE	Minimum revision required is D03
BA350	
BA353	

Disk/Tape Drives	Comment
RZ55 RZ56	
RZ58	
RX23	OSF/1 AXP support only
TKZ08	OSF/1 AXP support only
TKZ09	
TLZ04	
TZ85	
TZ857	Requires DEC NSR for OSF/1 AXP support
TSZ07	

Options for Workstations

Monitors and input devices that are supported on the DEC 3000 Model 600 are listed in the following tables:

Monitors	Comment
VR319–C% VR319–D%	Appropriate 66 Hz graphics option required
VR320–C%	Appropriate 66 Hz graphics option required
VR320–D%	
VRC16–H%	
VRM17–H%	
VRT16–H%	
VRT19–H%	

Input Devices	Comment
VSXXX–AB VSXXX–FA	
VSXXX–AA	
VSXXX–JA	
VSXXX–GA	
LK201/LK401	
VSX10–AA/A3	DEC Open3D required for software support
VSX20–AA/A3	DEC Open3D required for software support
VSX30–AA/A3	DEC Open3D required for software support

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)
                             (enet:  08-00-2b-30-14-df)
                                              (SCSI = 7)

-----------------------------------------------------
        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 0 on the On/Off switch on the back of the system unit.

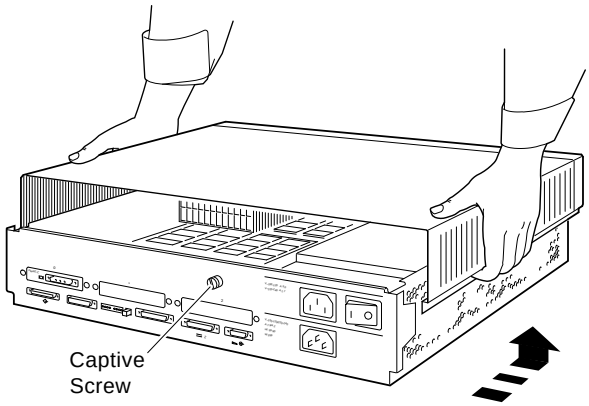
Caution: After you turn off the system, wait 15 seconds before unplugging the power cord.

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

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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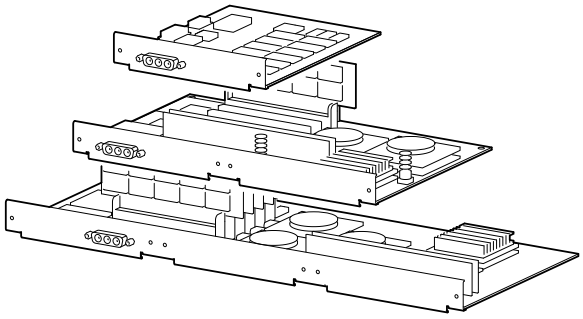
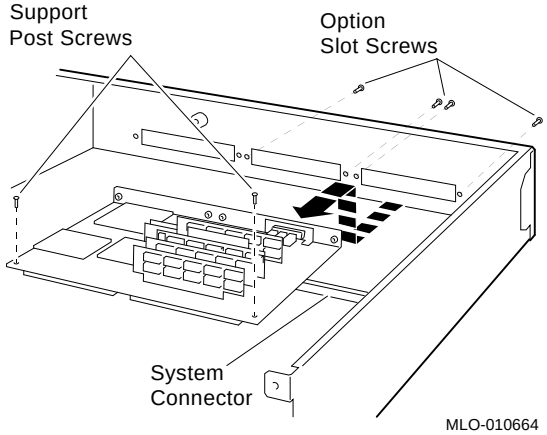
Step 5: Remove Option Modules

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. Lift the front of the module to disconnect the slot connectors, then lift the module out of the option slot opening.



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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 current system can be found in the *DEC 3000 Model 600/600S Options Guide*. Follow the instructions in the *DEC 3000 Model 600/600S Owner's Guide* to complete the upgrade.
2. Update the customer service contract to the DEC 3000 Model 600/600S AXP system.

Step 8: Return Your DECstation to Digital

Return your DECstation and any devices that are not upgradeable to Digital.

1. Pack the DECstation and devices securely in packing material.
2. Attach the return-address label that was in your upgrade kit.

7

Upgrading a DECsystem 3100

Topics Covered in This Chapter

- Options you can upgrade
- Upgrading your system
- Removing drives
- Completing the upgrade

Options You Can Upgrade

Internal/External Options

Options that are supported internally or externally on the DEC 3000 Model 600S are listed in the following tables:

Drives	Comment
RZ24	
TZ30	

External Options

Options that are supported externally on the DEC 3000 Model 600S are listed in the following tables:

Expansion Box	Comment
SZ12/RZ5X	

Drives	Comment
RX23	OSF/1 AXP support only
RZ55	
RZ56	
TKZ08	OSF/1 AXP support only

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 display the SCSI ID settings of the drives in your DECsystem:

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

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 the 0 on the On/Off switch.

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

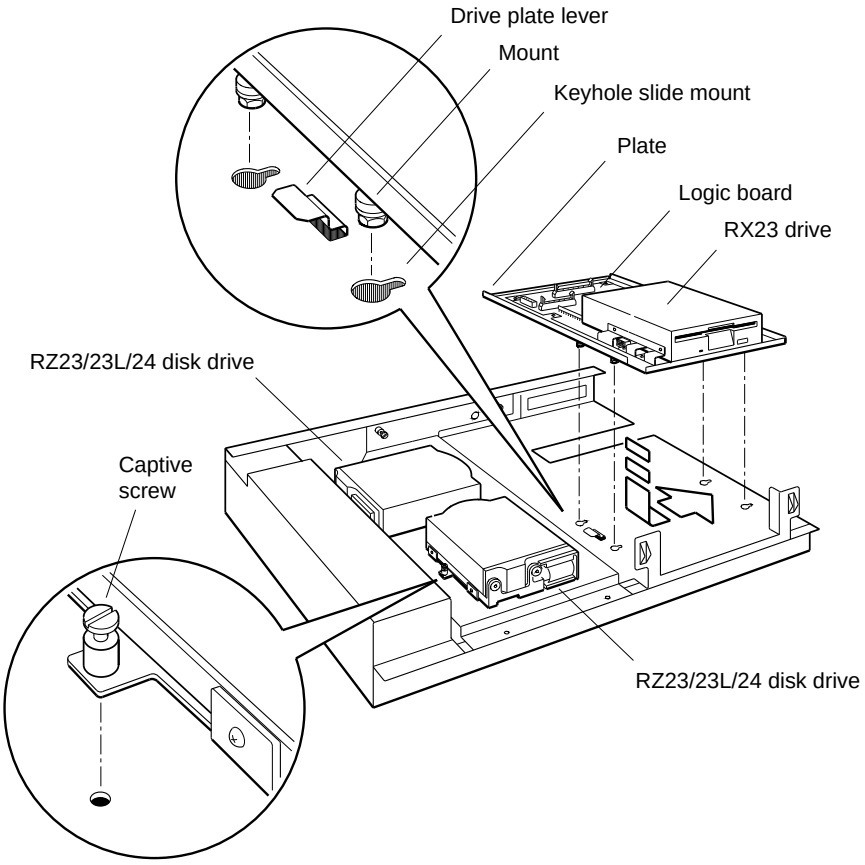
1. Loosen, but do not remove, the two screws at the back of the unit.
2. Facing the front of the system unit, grip both sides of the cover and slide it toward you to disengage it from the guides.
3. Lift the cover away from the unit and set it aside.

Step 5: Remove RZ24

To remove the disk drive from the mounting panel:

1. Disconnect the SCSI cable from the drive by gently pulling the connector straight out.
2. Disconnect the drive power cable from the drive.
3. Remove the drive and bracket from the drive mounting panel by using a 5/16-inch socket wrench to unscrew the nuts from the four studs or loosen the captive screw, shown in Figure 7–1.
4. Lift the drive and bracket off the studs. If there is a captive screw, lift the drive bracket from the cutouts in the mounting panel.
5. Remove the drive mounting bracket by removing the four screws that secure the drive to the mounting bracket.
6. Set the drive aside on an antistatic mat.

Figure 7–1 Remove Diskette Drive from Mounting Plate



Step 6: Remove RX23

To remove the drive:

1. Press down and hold the drive plate lever.
2. Slide the drive toward and over the drive plate lever and into the large openings of the keyhole slide mounts.
3. Lift the drive up and away from the mounting panel.

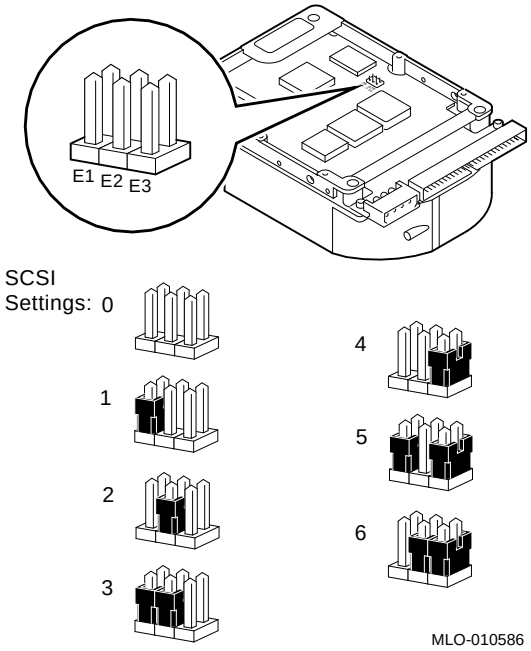
4. Disconnect the SCSI cable from the drive logic module by pushing the connector latches in opposite directions. Then gently pull the connector straight up.
5. Disconnect the drive power cables from the drive and the logic module.
6. Remove the four screws that secure the drive to the drive plate.
7. Set the drive aside on an antistatic mat.

Step 7: Set SCSI IDs on Drives

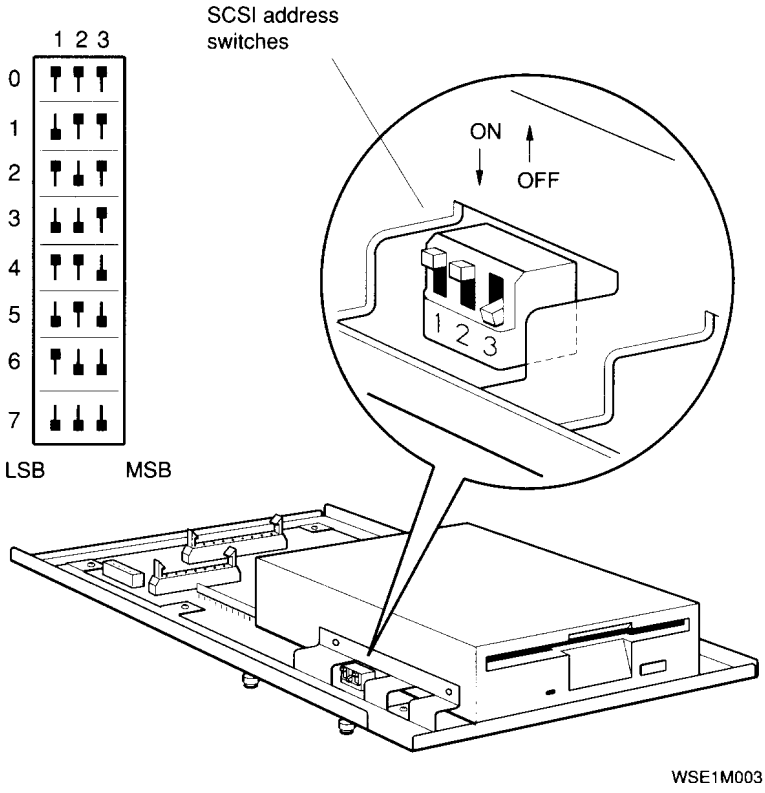
If your DEC 3000 system has a factory-installed disk drive, it is set to SCSI ID 3.

Check the SCSI ID settings you noted earlier. If one of the drives you are upgrading is set to SCSI ID 3, then change that setting. SCSI settings not found here can be found in the *DEC 3000 Model 600/600S Options Guide* or in the option documentation.

The following illustrates the SCSI ID settings for an RZ24 drive.



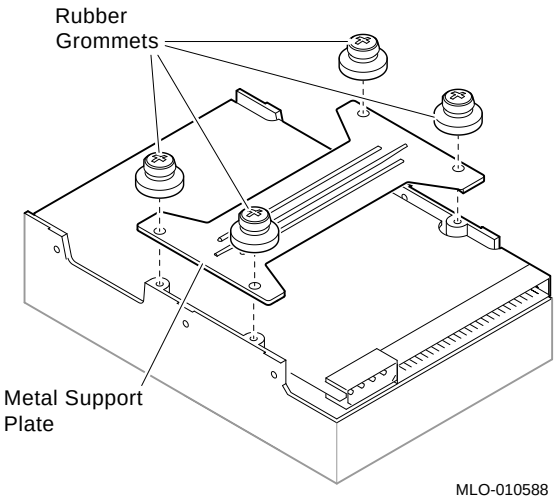
The following illustrates the SCSI ID settings for an RX23 drive.



Step 8: Install New Mounting Bracket

To attach the new mounting bracket and rubber grommets to a fixed disk drive, follow these steps:

1. Place the metal support plate on the disk drive as shown below.
2. Screw the four rubber grommets (from your accessory kit) onto the plate and the drive until the plate is secure.



Step 9: Complete the Upgrade

Instructions for installing options that you have removed from your current system can be found in the *DEC 3000 Model 600/600S Options Guide.* Follow the instructions in the *DEC 3000 Model 600/600S Owner's Guide* to complete the upgrade.

Step 10: Return Your DECsystem to Digital

Return your DECsystem and any devices that are not upgradeable to Digital.

1. Pack the DECsystem and devices securely in packing material.
2. Attach the return-address label that was in your upgrade kit.

Step 11: Update Service Contract

Update the customer service contract to the DEC 3000 Model 600S AXP system.

8

Upgrading a DECsystem 5100

Topics Covered in This Chapter

- Options you can upgrade
- Upgrading your system
- Removing drives
- Completing the upgrade

Options You Can Upgrade

Internal/External Options

Options that are supported internally or externally on the DEC 3000 Model 600S are listed in the following tables:

Drives	Comment
RZ23L RZ24	
RZ25	
TZ30	
RRD42	
TZK10	

External Options

Options that are supported externally on the DEC 3000 Model 600S are listed in the following tables:

Expansion Box	Comment
SZ12	

Drives	Comment
TLZ04	
TKZ08	OSF/1 AXP support only
RX23	OSF/1 AXP support only
TSZ07	

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 display the SCSI ID settings of the drives in your DECsystem:

1. Enter the following command to shut down the software and put the system in console mode: `shutdown -h now`
2. Enter `conf -s` at the console prompt (>>>). A screen similar to the following appears:

```
>>> conf -s
.
.
scsi peripherals
  unit  type          product        removable/fixed    capacity
    0   disk          RZ56  (C) DEC  fixed              634 MBs
    3   disk          RZ24           fixed              209 MBs
    5   tape          TZ30           removable
    7   host adapter
```

This display shows an RZ56 set to SCSI ID 0, an RZ24 set to SCSI ID 3, and a TZ30 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

Set the On/Off switch on the back of the system unit to the off (0) position.

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

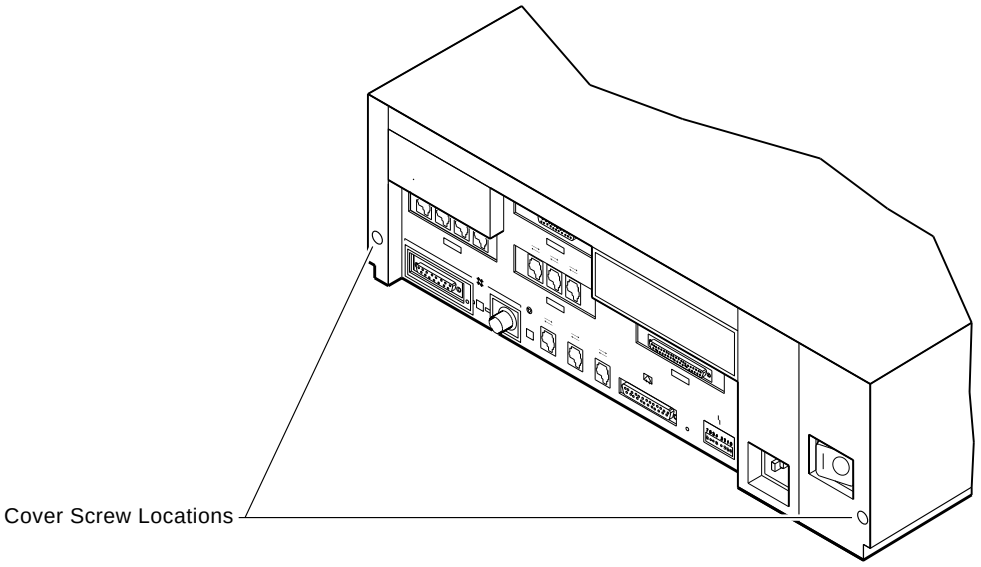
Step 3: Disconnect the Cables

Disconnect all the cables connected to the system unit.

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

Step 4: Remove System Cover

1. Loosen the two cover screws on the back of the system unit.
2. Slide the cover forward, and up, off the system unit.

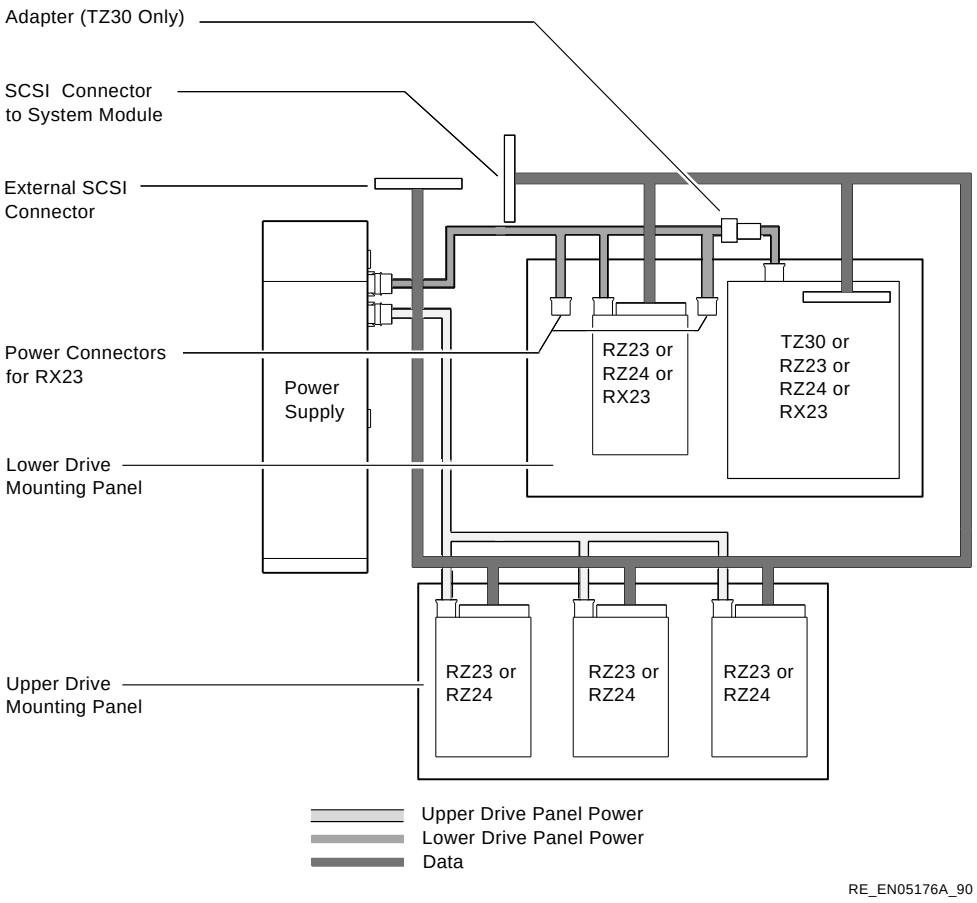


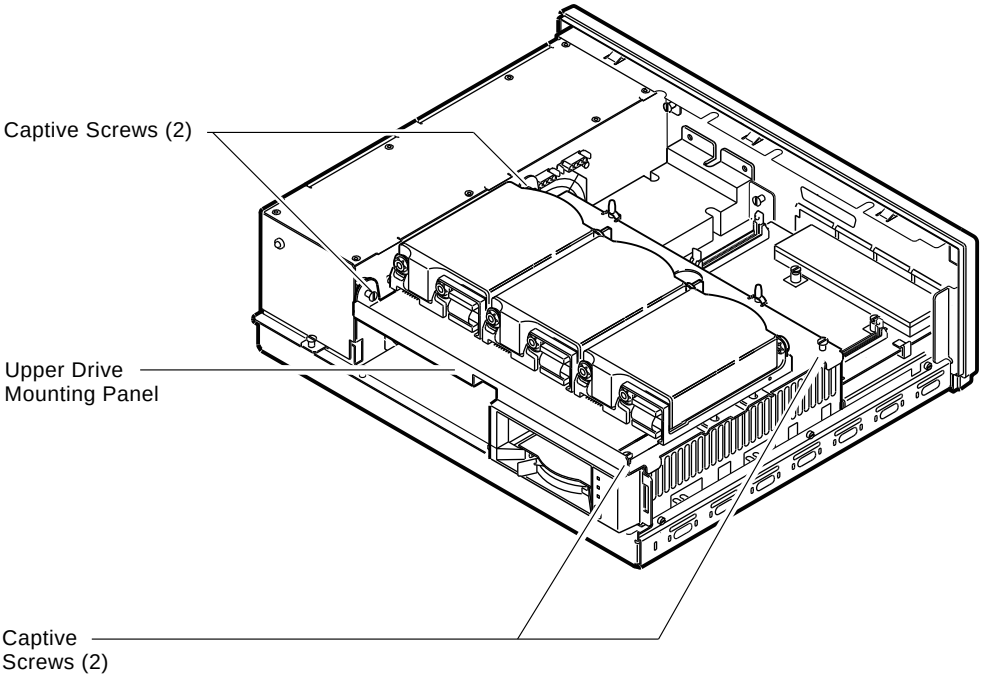
Step 5: Remove Upper Drive Mounting Panel

Depending on your system configuration, the upper drive mounting panel can contain one, two, or three hard disk drives. These drives can be either RZ23 or RZ24 disk drives.

To remove the upper drive mounting panel:

1. Disconnect the power cable and the SCSI cable from the drives on the upper mounting panel.
2. Loosen the four captive screws located on the upper drive mounting panel.


Adapter (TZ30 Only)
SCSI Connector to System Module
External SCSI Connector
Power Connectors for RX23
Lower Drive Mounting Panel
Upper Drive Mounting Panel
Power Supply
RZ23 or RZ24 or RX23
TZ30 or RZ23 or RZ24 or RX23
RZ23 or RZ24
RZ23 or RZ24
RZ23 or RZ24
Upper Drive Panel Power
Lower Drive Panel Power
Data
RE_EN05176A_90



3. Lift the upper drive mounting panel from the lower drive mounting panel and gently set it aside.

Step 6: Remove EMI Shield, If Present

Your system may have an EMI shield located between the upper and lower drive shelves. The shield has several "fingers" touching the upper shelf.

Warning

Do not pull the EMI shield directly up out of the system. This may cause injury.

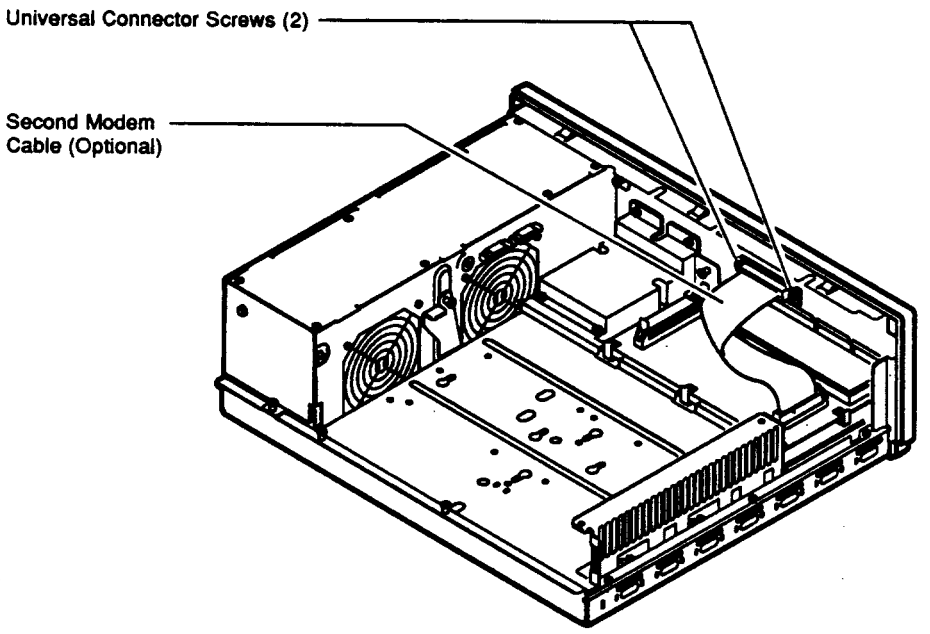
To remove the shield from the lower shelf:

1. From the front of the enclosure, grasp the shield with both hands near the middle and gently pull it forward (towards the devices on the lower shelf, if present).

   Lift the shield toward the front of the enclosure, simultaneously pulling forward to release the two tabs under the shelf.

2. Remove the SCSI and power cables from the slots in the EMI shield.

   Set the shield aside.



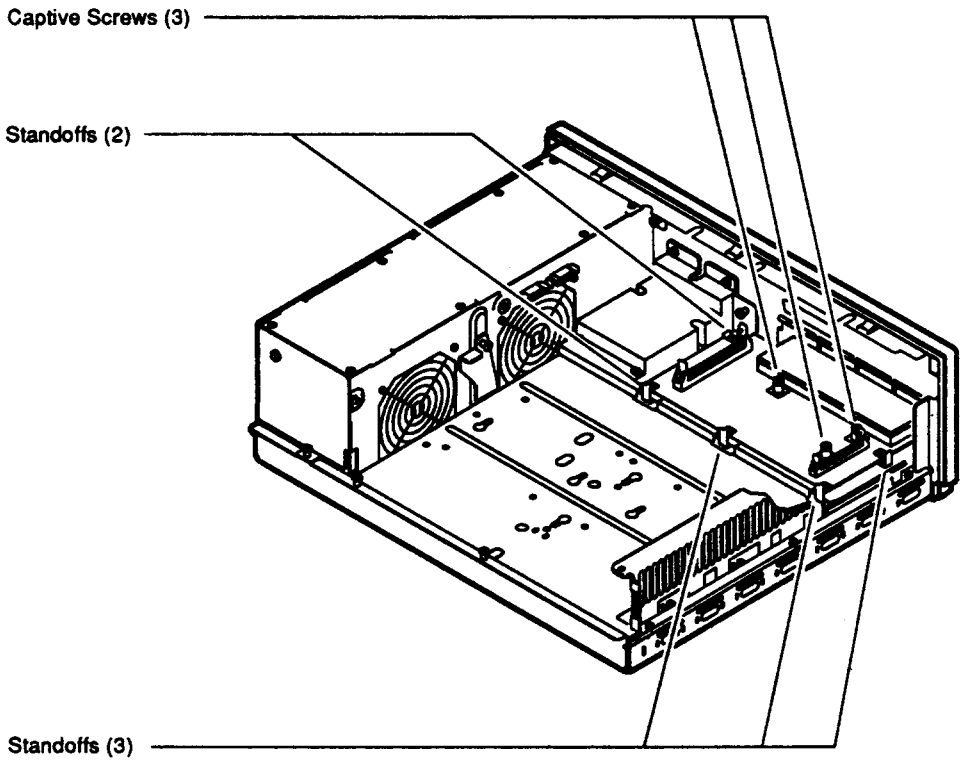
Step 7: Remove Communications Option, If Present

Your system may have a communications option installed on the lower drive shelf.

To remove this option:

1. Disconnect the cable from the second modem port connector on the option.
2. Remove the two universal connector screws, and then remove the second modem cable from the system unit.

3. Disconnect the signal cable from the system module.
4. Unscrew the three captive screws on the communications module.
5. Release the communications module from the five standoffs and remove it from the system unit.

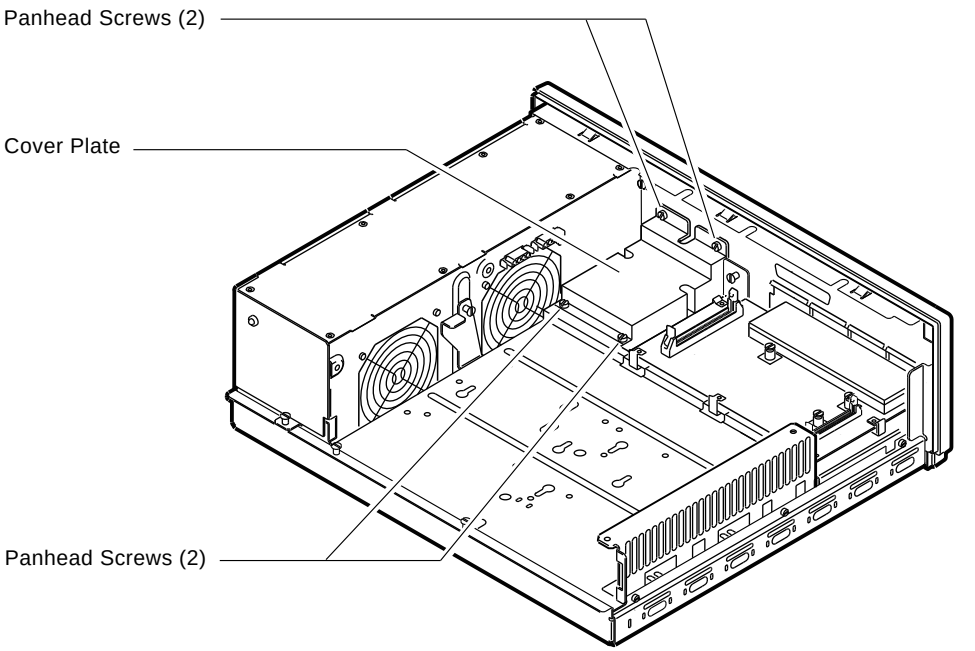


Step 8: Remove Lower Drive Mounting Panel

The lower drive mounting panel can contain RZ23 disk drives, RX23 disk drives, a TZ30 tape drive, an RRD42 CD-ROM, or a TZK10 tape drive. To remove the lower drive mounting panel:

1. Disconnect the SCSI cable and the power cable connected to the drives.

2. Remove the two screws securing the cover plate to the lower drive mounting panel. Remove the two screws securing the cover plate to the back panel of the system unit. Remove the cover plate.



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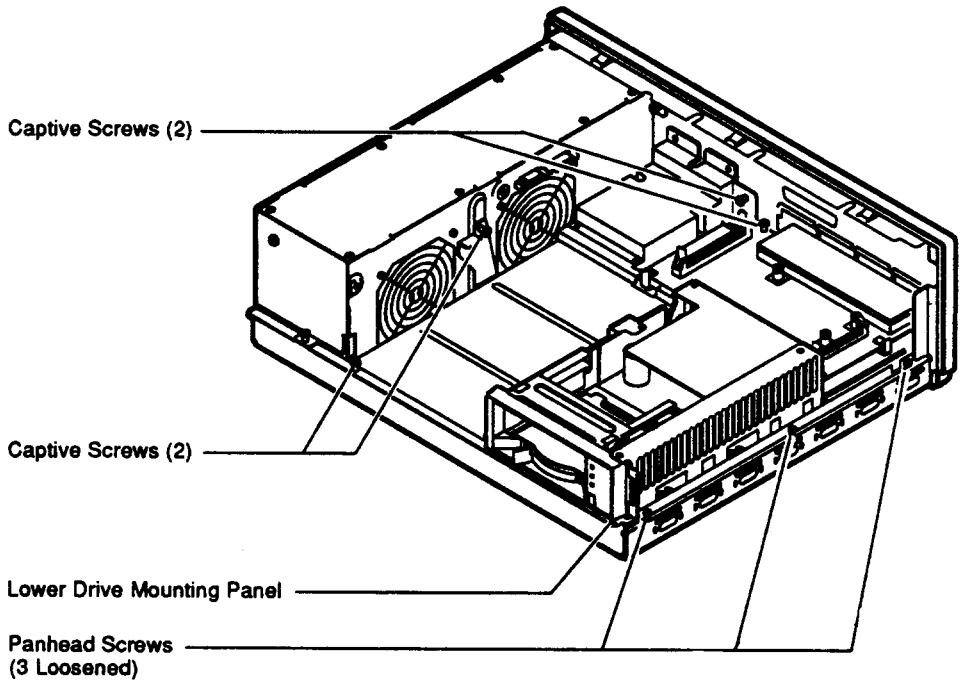
3. Loosen the four captive screws on the lower drive mounting panel. Two are located near the back panel. Two are located near the power supply. Loosen the three screws on the right side of the panel. Slide the panel forward and away from the system unit.



Step 9: Remove Device

To remove the device:

1. Turn the drive mounting panel over, and while supporting the device with one hand, loosen the two screws in the keyhole slots holding the device to the mounting panel. Remove the other two screws.
2. Slide the device to one side and remove it from the mounting panel. Remove the two screws loosened earlier.

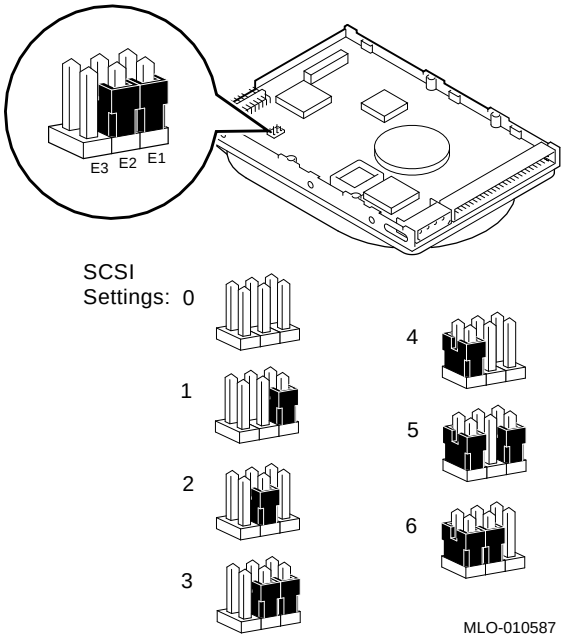
Step 10: Set SCSI IDs on Drives

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

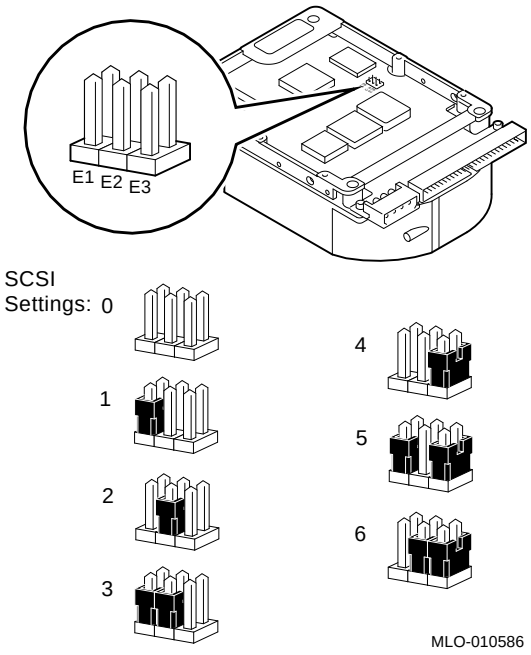
Check the SCSI ID settings you noted earlier. If one of the drives you are upgrading is set to SCSI ID 3, then change that setting. SCSI settings not found here can be found in the *DEC 3000 Model 600/600S Options Guide* or in the option documentation.

The following illustrate SCSI ID settings:

RZ23L Drive:



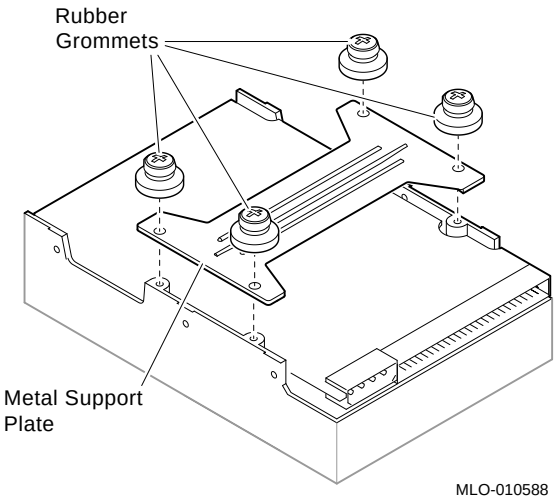
RZ24 Drive:



Step 11: Install New Mounting Bracket

To attach the new mounting bracket and rubber grommets to a fixed disk drive, follow these steps:

1. Place the metal support plate on the disk drive as shown below.
2. Screw the four rubber grommets (from your accessory kit) onto the plate and the drive until the plate is secure.



Step 12: Complete the Upgrade

Instructions for installing options that you have removed from your current system can be found in the *DEC 3000 Model 600/600S Options Guide.* Follow the instructions in the *DEC 3000 Model 600/600S Owner's Guide* to complete the upgrade.

Update the customer service contract to the DEC 3000 Model 600S AXP system.

Step 13: Return Your DECsystem to Digital

Return your DECsystem and any devices that are not upgradeable to Digital.

1. Pack the DECsystem and devices securely in packing material.
2. Attach the return-address label that was in your upgrade kit.

9

Upgrading a DECsystem 5500

Topics Covered in This Chapter

- Options you can upgrade
- Upgrading your system
- Removing drives
- Completing the upgrade

Options You Can Upgrade

Internal/External Options

Options that are supported internally or externally on the DEC 3000 Model 600S are listed in the following tables:

Drives	Comment
TZ30 TZK10	
RZ25	
RRD42	

External Options

Options that are supported externally on the DEC 3000 Model 600S are listed in the following tables:

Drives	Comment
RZ56 TLZ04	
SZ12	
RX23	OSF/1 AXP support only.
TSZ07	

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 display the SCSI ID settings of the drives in your DECsystem:

1. Enter the following command to shut down the software and put the system in console mode: `shutdown -h now`
2. Enter `maint` at the prompt (>>).
3. Enter `show scsi` at the prompt (>>>).

```
>> maint
>>>show scsi

SCSI Node 0
 -tz(0,0*)   (TLZ04)

SCSI Node 1
 -rz(0,1,*)  (RZ56)
.
.
>>>exit
>>
```

This display shows a TLZ04 set to SCSI ID 0 and an RZ56 set to SCSI ID 1.

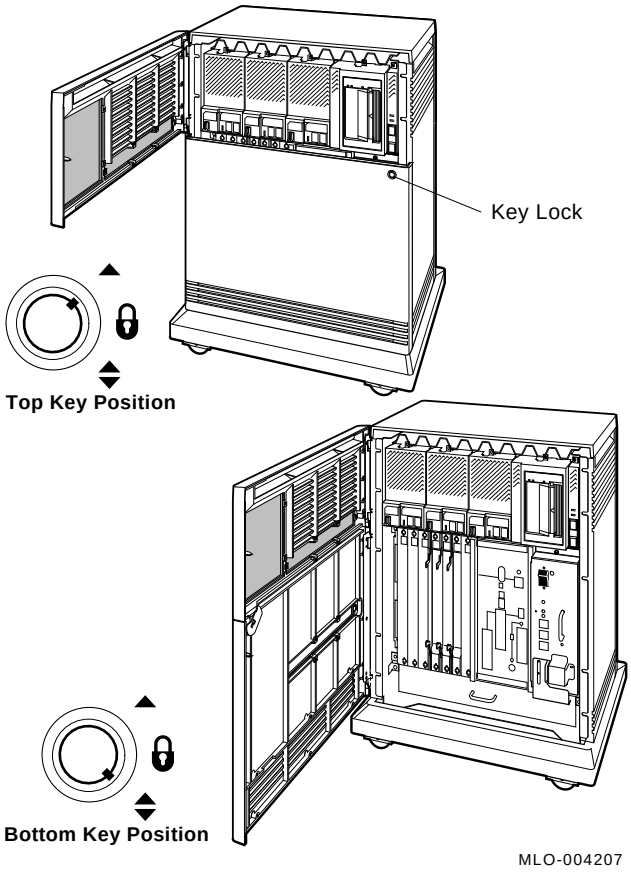
Write down your system drives and SCSI ID settings here. You will need them for future use.

Step 2: Shut Down System

1. To access the power switch, you must turn the keylock to the bottom position. Pull the door open.
2. Turn off the power switch.

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

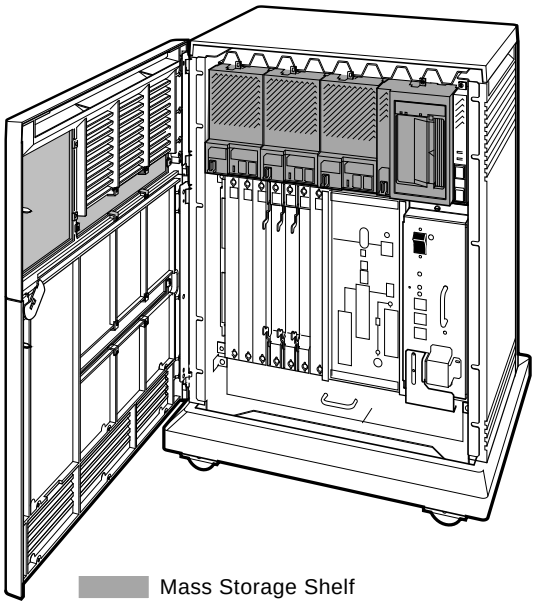
Figure 9–1 Keylock Positions



Step 3: Locate the RZ56E

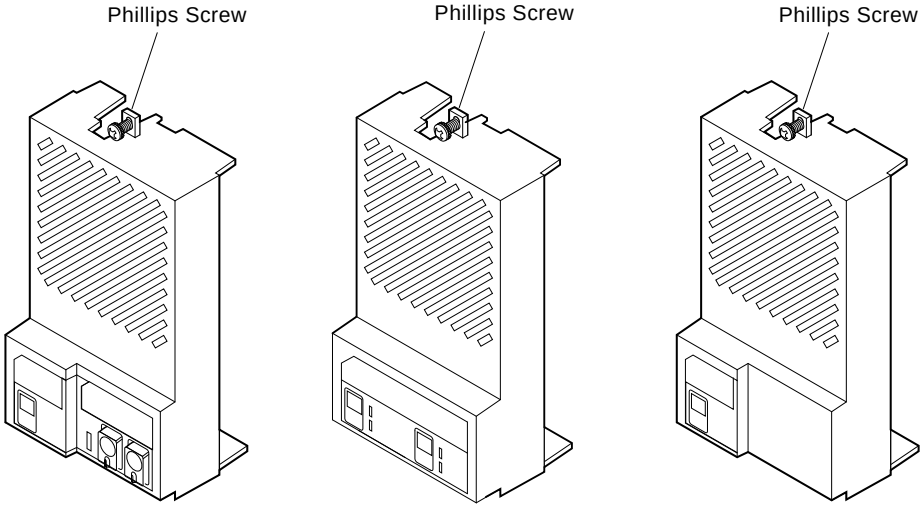
The DECsystem 5500 mass storage shelf extends across the top of the enclosure.

Figure 9–2 Mass Storage Shelf



Note that the front panel of the RZ56E drive, unlike the front panel for the EF/RF and RF series drives, has no buttons or indicators, only a plug for the bus node ID.

Figure 9–3 Front Panel Assemblies



Step 4: Remove the RZ56E

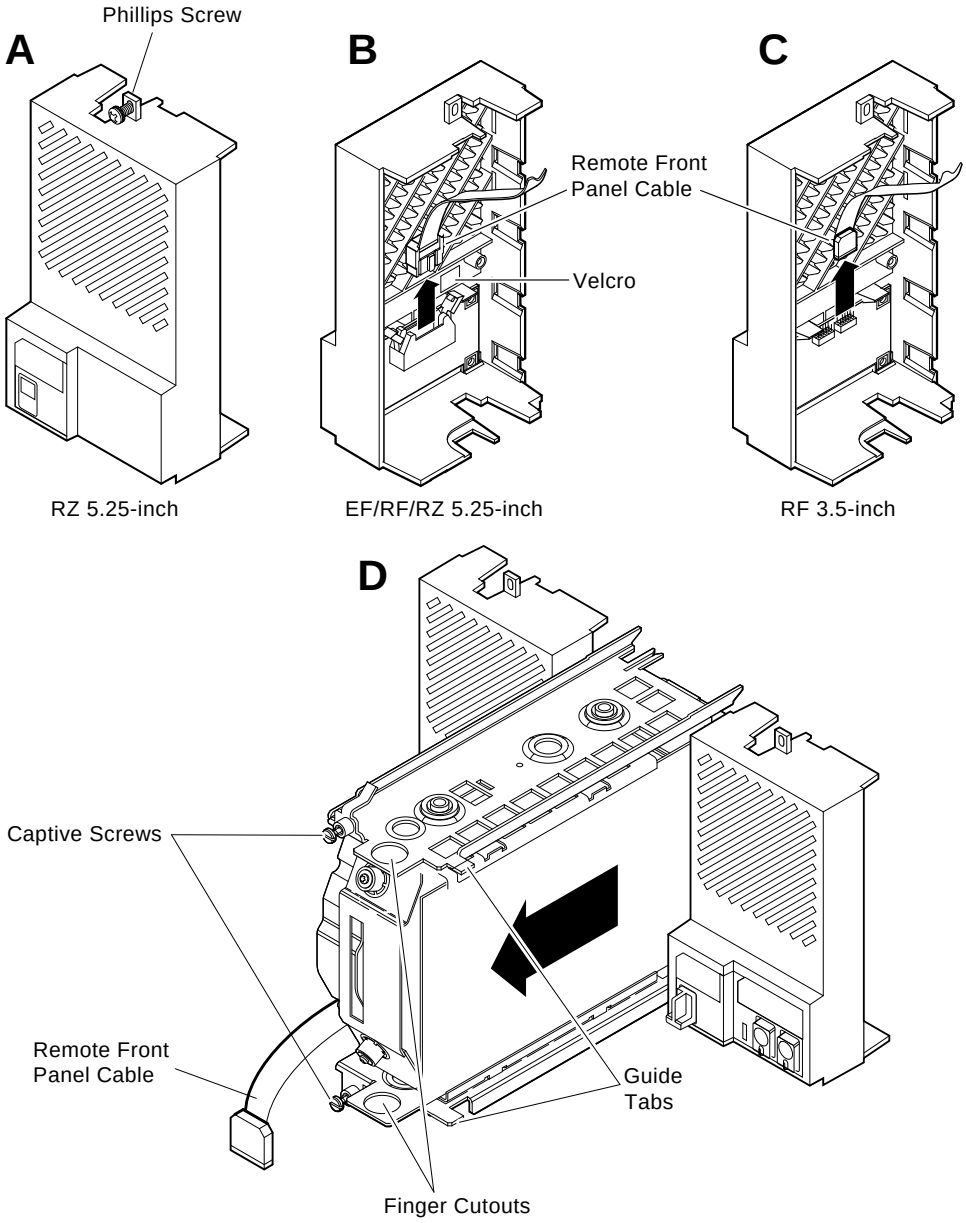
To remove the drive:

1. Loosen the captive Phillips screw that secures the front panel. See Figure 9–3.
2. Separate the front panel from the enclosure, being careful of the remote front panel cable, which is connected to the front panel.
3. Unplug the remote front panel cable from the module inside the front panel, and set the front panel aside. See Figure 9–4.
4. Loosen the upper and lower captive screws that hold the drive in place. See Figure 9–4.
5. Using the upper and lower finger cutouts on the drive bracket, carefully pull the drive out of its backplane connector and slide the drive out of the enclosure. Support the weight of the drive at the underside of the lower bracket as the drive clears the enclosure.

Caution

Do not touch the drive module. The drive module contains sensitive electronic circuitry.

Figure 9–4 Remove RZ56E

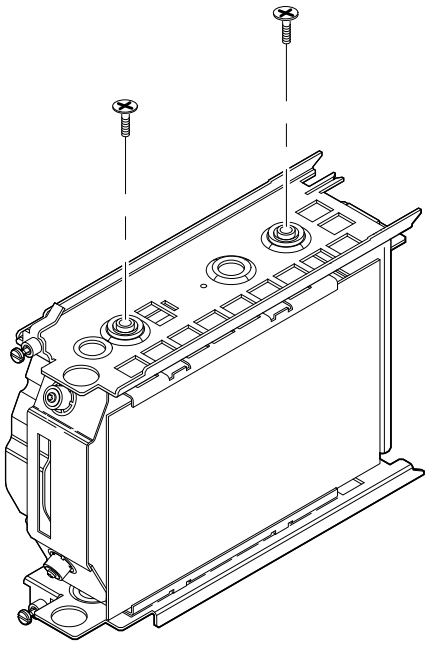


Step 5: Remove Drive Bracket from RZ56E

To remove the drive bracket:

1. Place the drive with its bracket on an antistatic mat.
2. Remove the two Phillips screws at the rubber shock bushing that secure the top bracket to the drive assembly.

Figure 9–5 Remove Bracket Screws



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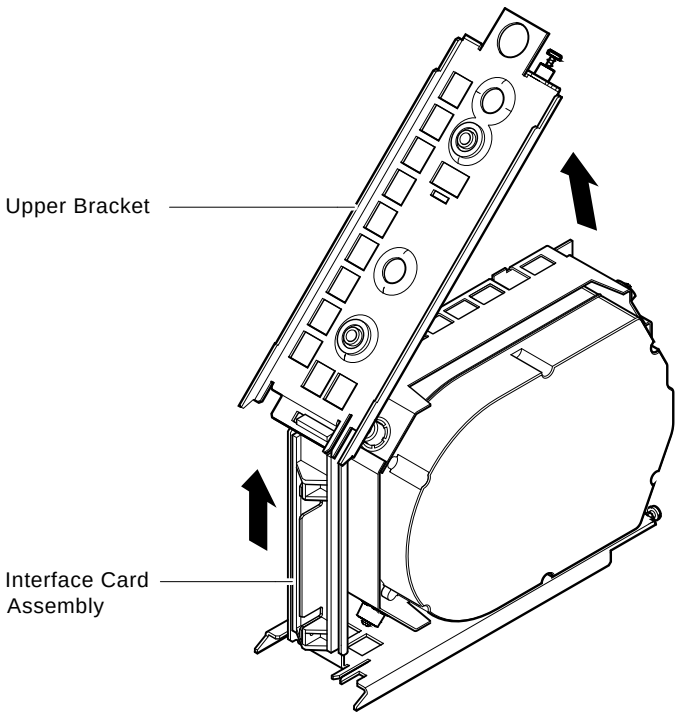
3. Slide the interface card assembly up and lift off the top bracket. Place the bracket aside.

Figure 9–6 Remove Drive Top Bracket



4. Unplug the 4-pin power cable and the SCSI cable from their connectors on the drive controller module.
5. Unplug the remote front panel cable from the controller module on the drive.

Figure 9–7 Disconnect Cables

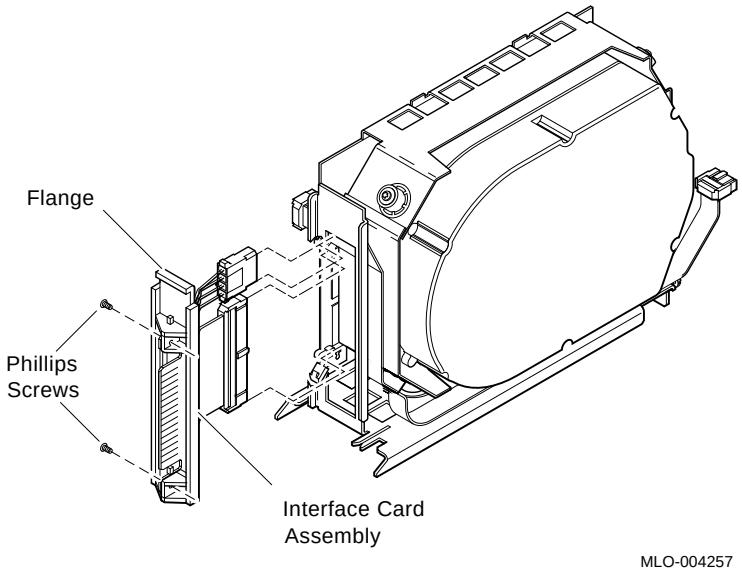
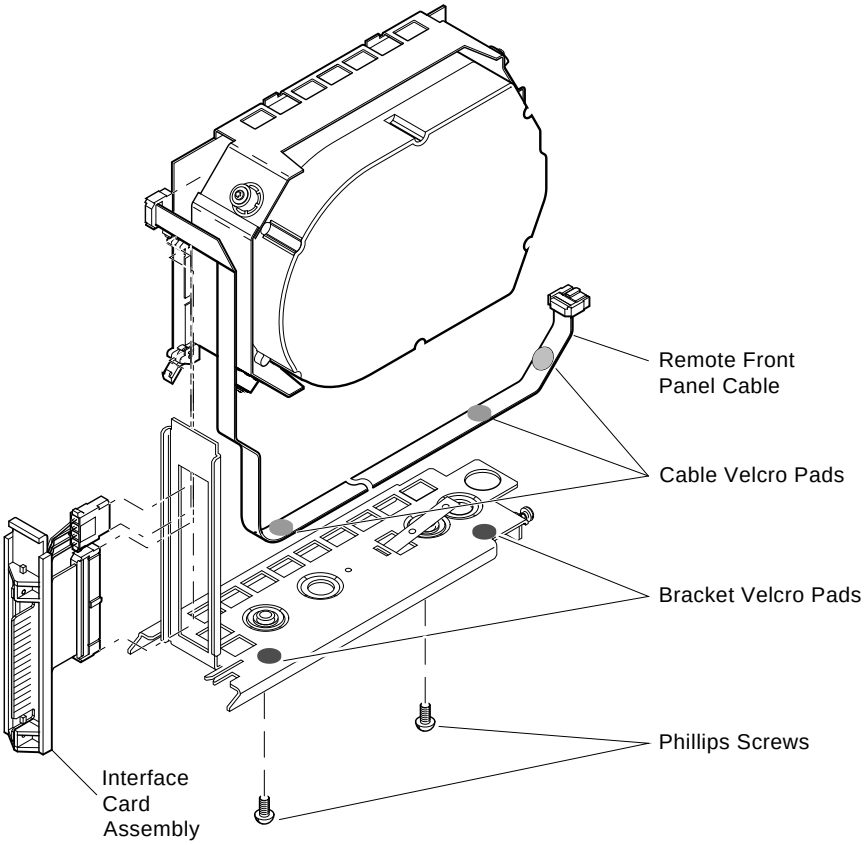


Figure 9–8 Remove the Bottom Bracket



6. Remove the bottom bracket by removing the two Phillips screws at the rubber shock bushings that secure the bracket to the drive assembly. Put the bottom bracket and the screws aside.

Step 6: Remove TLZ04 Tape Drive

Use the following instructions to remove the tape drive. Refer to Figure 9–9.

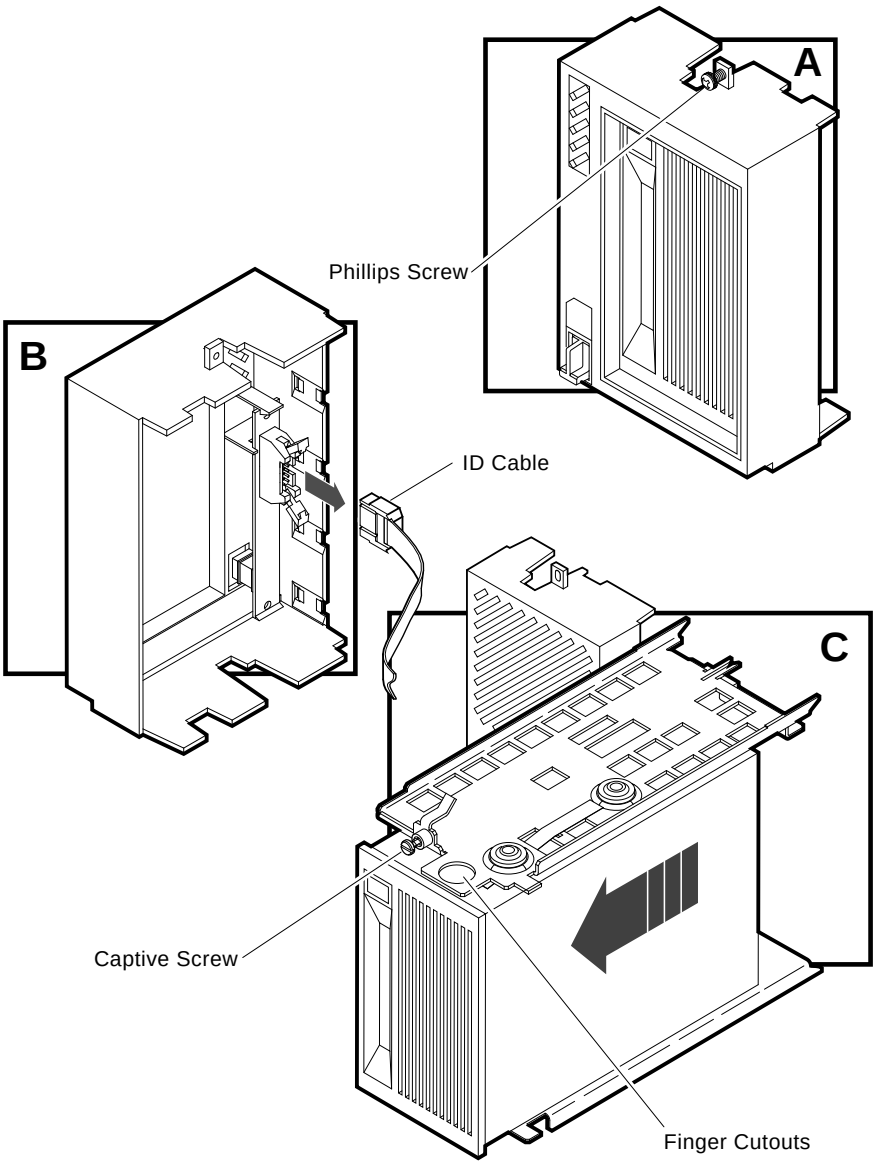
1. Locate the TLZ04 tape drive on the mass storage shelf. As you face the shelf, the TLZ04 is on the far right.
2. Loosen the captive Phillips screw that secures the front panel to the mass storage shelf.
3. Unplug the ID cable from the TLZ04 front panel and set the front panel aside (Figure 9–9B).
4. Loosen the upper and lower captive screws that hold the drive in place (Figure 9–9C).

Caution

Do not touch the drive module. The drive module contains sensitive electronic circuitry.

5. Using the upper and lower finger cutouts on the drive brackets, carefully pull the drive out of its backplane connector and slide the drive out of the enclosure. Support the weight of the drive at the underside of the lower bracket as the drive clears the enclosure (Figure 9–9C).

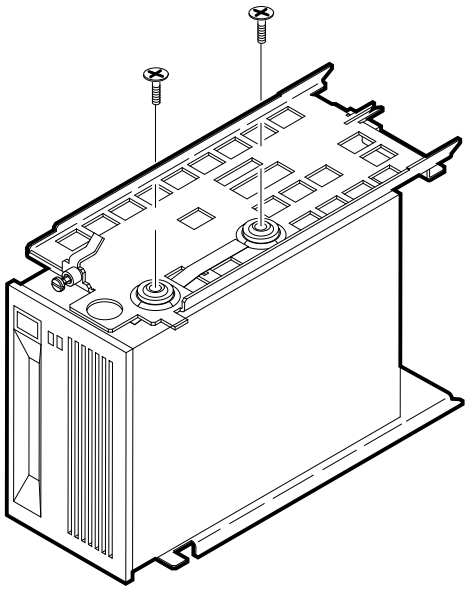
Figure 9–9 Remove the TLZ04 Tape Drive



Step 7: Remove the Top Mounting Bracket

1. Place the drive on an antistatic mat.
2. Remove the two Phillips screws at the rubber shock bushings that secure the top bracket to the tape drive (Figure 9–10).

Figure 9–10 Remove Bracket Screws



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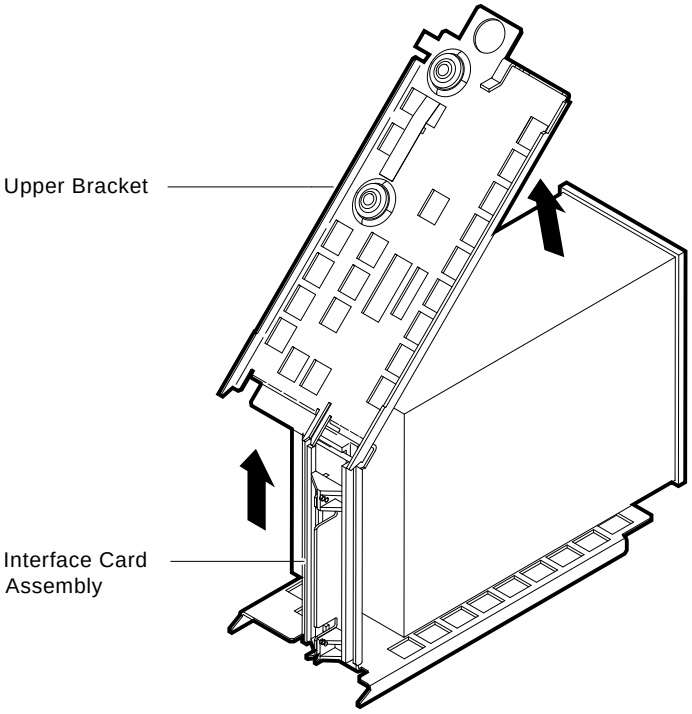
3. Slide the interface card assembly up and lift off the top bracket (Figure 9–11). Put the bracket aside.

Figure 9–11 Remove the Drive Top Mounting Bracket

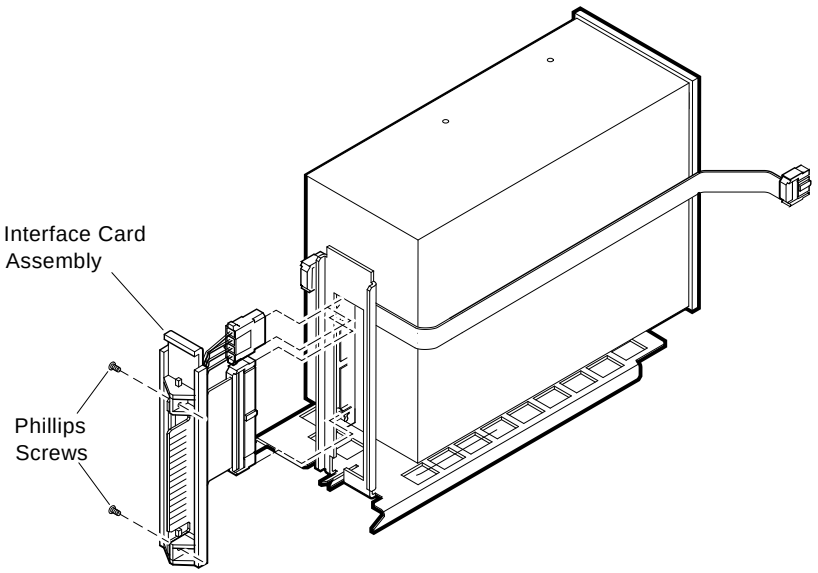


Step 8: Remove the Bottom Mounting Bracket

Remove the bottom mounting bracket as follows:

1. Unplug the 4-pin power cable and the SCSI cable from their connectors on the drive controller module.
2. Unplug the remote front panel cable from the controller module on the drive.

Figure 9–12 Disconnect Cables



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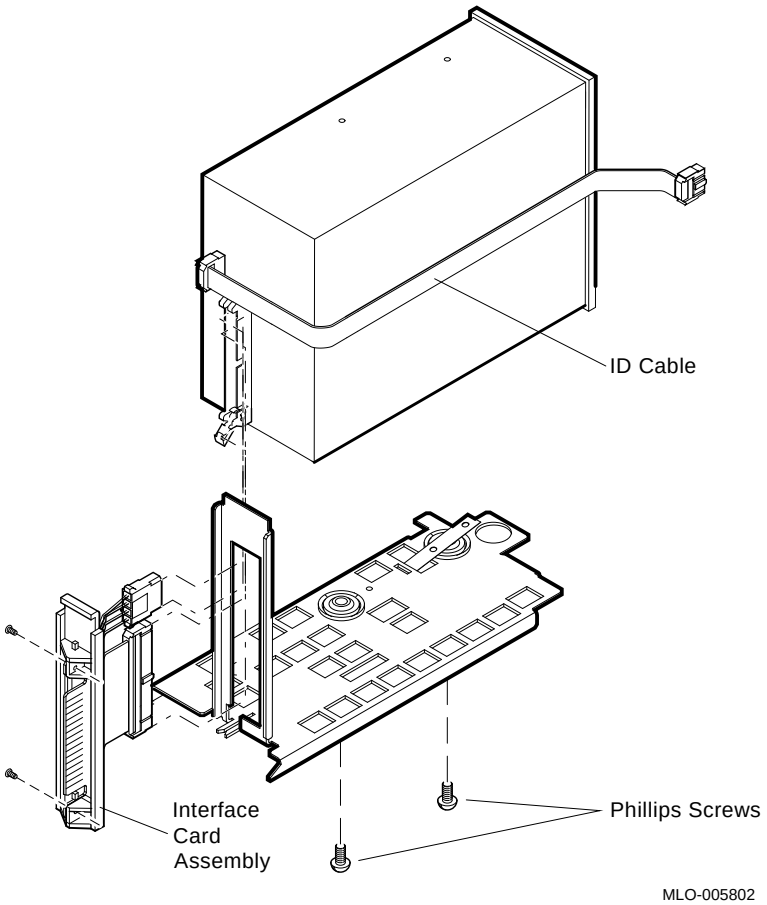
3. Remove the bottom bracket by removing the two Phillips screws at the rubber shock bushings that secure the bracket to the drive assembly. Put the bottom bracket and the screws aside.

Figure 9–13 Remove the Bottom Bracket



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, then change that setting. SCSI settings can be found in the *DEC 3000 Model 600/600S Options Guide* or in the option documentation.

Step 10: Complete the Upgrade

Instructions for installing options that you have removed from your current system can be found in the *DEC 3000 Model 600/600S Options Guide.* Follow the instructions in the *DEC 3000 Model 600/600S Owner's Guide* to complete the upgrade.

Update the customer service contract to the DEC 3000 Model 600S AXP system.

Step 11: Return Your DECsystem to Digital

Return your DECsystem and any devices that are not upgradeable to Digital.

1. Pack the DECsystem and devices securely in packing material.
2. Attach the return-address label that was in your upgrade kit.

10

Upgrading Other Systems

No Options Can Be Upgraded

There are no options that you can remove from systems, such as a DECsystem 5400/5800, and install in your DEC 3000 Model 600S.

Upgrade Procedure

To upgrade your current system, follow these steps:

Step 1: Return Your DECsystem to Digital

Return your DECsystem and any devices that are not upgradeable to Digital.

1. Pack the DECsystem and devices securely in packing material.
2. Attach the return-address label that was in your upgrade kit.

Step 2: Update Service Contract

After installing the DEC 3000 Model 600S, update the customer service contract to the DEC 3000 Model 600S AXP system.