

SWXOR Series 600-MB, 5.25-Inch, Multi-Speed CD-ROM Disk Drive

User's Guide

Order Number: EK-SM1RD-UG. B01

Second Edition, October 1994

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Revision Record

This Revision Record provides a concise publication history of this guide. It lists the manual revision levels, release dates, and reasons for the revisions. It also describes how the changes to affected pages are marked in the guide.

The following revision history lists all revisions of this publication and their effective dates. The publication part number is included in the *Revision Level* column, with the last entry denoting the latest revision. This publication supports the StorageWorks SWXOR Series 600 MB, 5.25-Inch, Multi-Speed, CD-ROM Disk Drive SBB.

Revision Level	Date	Summary of Changes
EK-SM1RD-UG. A01	July 1994	Original release
EK-SM1RD-UG. B01	October 1994	Adds Appendices D and E and updates Appendices A and C.

About This Guide

This section identifies the users of this guide and describes the contents and structure. In addition, it includes a list of conventions used in this guide.

StorageWorks SWXOR Series 600 MB, 5.25-Inch, Multi-Speed CD-ROM Disk Drive SBB User's Guide

This guide provides installation, operation, and maintenance information for the StorageWorks SWXOR Series 600 MB, 5.25-Inch, Multi-Speed CD-ROM Drive SBB.

Intended Audience

This guide is intended for people who will install, operate, and maintain the 600 MB, Multi-Speed CD-ROM Disk Drive.

Document Structure

This guide contains the following chapters:

Chapter 1: Introduction

Introduction gives a brief product description of the drive.

Chapter 2: Installation

Installation describes unpacking, setting the SCSI ID address, and how to install the drive in a StorageWorks SCSI storage subsystem. The chapter also discusses the drive Power On Self Test (POST).

Chapter 3 Operation and Maintenance

Operation and Maintenance describes the function of the drive front panel controls and the busy LED indicator, disk and caddy handling, loading the drive, ejecting the caddy, and preventive maintenance.

Appendix A: Drive Specifications

Specifications list the physical, electrical, operational, and environmental specifications for the drive.

Appendix B: Product Notes for Sun™

Product Notes for Sun™ provides SunOS 4.1.x and Solaris 2.x operating system information.

Appendix C: Product Notes for Novell™, MS-DOS™, and Windows NT™

Product Notes for Novell™, MS-DOS™, and Windows NT™ provides Novell, MS-DOS, MS-DOS/Windows, and Windows NT operating system information.

Appendix D: Product Notes for IBM™ RS/6000

Product Notes for IBM™ RS/6000 provides information needed to install the SWXOR CD-ROM on an IBM host system running the AIX 3.2.5 (or later) operating system.

Appendix E: Product Notes for HP™

Product Notes for HP™ provides information needed to install the CD-ROM on an HP-9000 Series 700 (running the HP-UX 9.05 operating system) and 800 (running the HP-UX 9.04 operating system).

Conventions

This guide uses the following conventions:

Style	Meaning
boldface type	For emphasis
<i>italic type</i>	<i>For emphasis and manual titles</i>

Introduction

This chapter provides a general description of the StorageWorks SWXOR Series, 600 MB, Multi-Speed CD-ROM drive. It also describes the three multi-speed CD-ROM models and their storage subsystem configurations.

1.1 Product Description

The 600 MB, multi-speed CD-ROM (Figure 1–1) is a half-height, 5.25-inch, 600 MB, compact storage device compatible with StorageWorks storage subsystems. The drive is capable of audio playback, has audio line outputs, and a headphone jack. It uses the SCSI-2 bus, and is designed to operate with all StorageWorks storage subsystems. The drive normally serves as the primary load device for operating systems, documentation, video products, and general application software.

NOTE

The audio capability of the CD-ROM drive is included in the hardware and is controlled by the host.

The CD-ROM drive is packaged in an industry standard 5.25-inch form factor referred to as a StorageWorks System Building Block (SBB). The SBB is capable of housing two identical CD-ROM drives. The SBB shown in Figure 1–1 is half populated (one drive). When installed in a StorageWorks storage subsystem such as the Expansion Storage Pedestal, the drive occupies any three adjacent 3.5-inch SBB slots.

The multi-speed CD-ROM series is offered in three base configurations. The configurations and their corresponding StorageWorks model numbers are defined as follows:

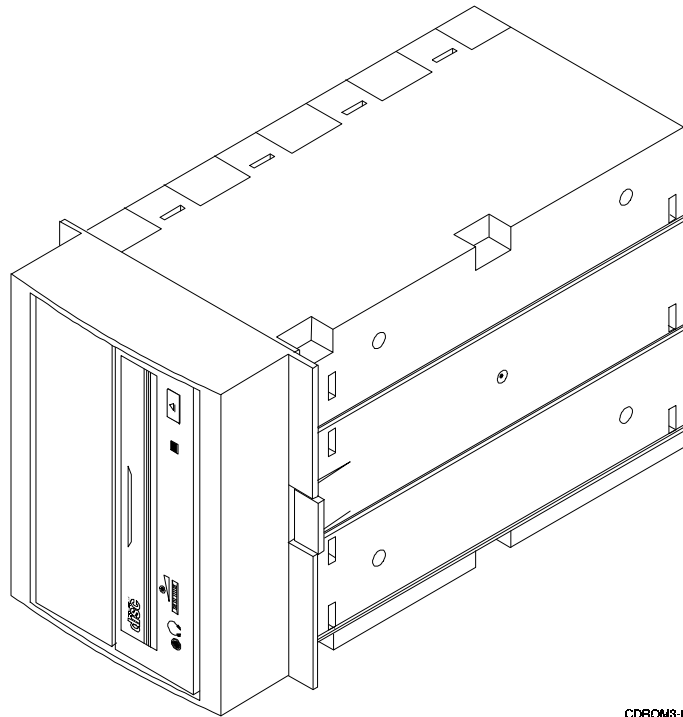
Table 1–1. SWXOR Multi-Speed Series CD-ROM Configurations

Model	Description
SWXOR-CA	5.25-inch, half-height CD-ROM single drive SBB (1/2 populated).
SWXOR-CB	Half-height CD-ROM upgrade kit for 5.25-inch SBB.
SWXOR-CC	Half-height CD-ROM upgrade kit for Desktop Expansion Unit.

1.1.1 Model SWXOR-CA

The SWXOR-CA drive configuration is packaged in a 5.25-inch SBB capable of housing two identical CD-ROM drives. The SWXOR-CA SBB contains a single drive as shown in Figure 1-1.

Figure 1-1. Model SWXOR-CA Drive SBB



CDROM3-01

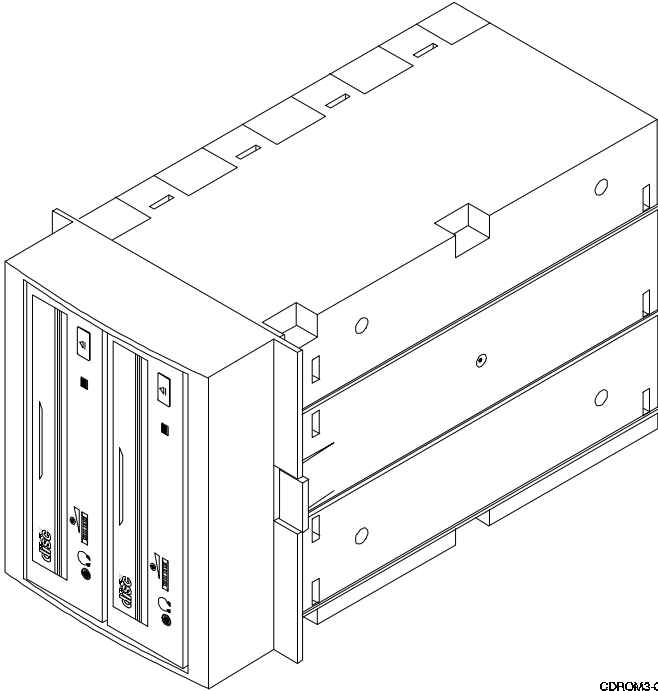
1.1.2 Model SWXOR-CB

The SWXOR-CB model consists of a half-height CD-ROM upgrade kit for 5.25-inch SBB. The kit contains all of the components necessary to convert the SWXOR-CA single drive 5.25-inch SBB to a dual-drive SWXOR-CB (Figure 1-2).

1.1.3 Model SWXOR-CC

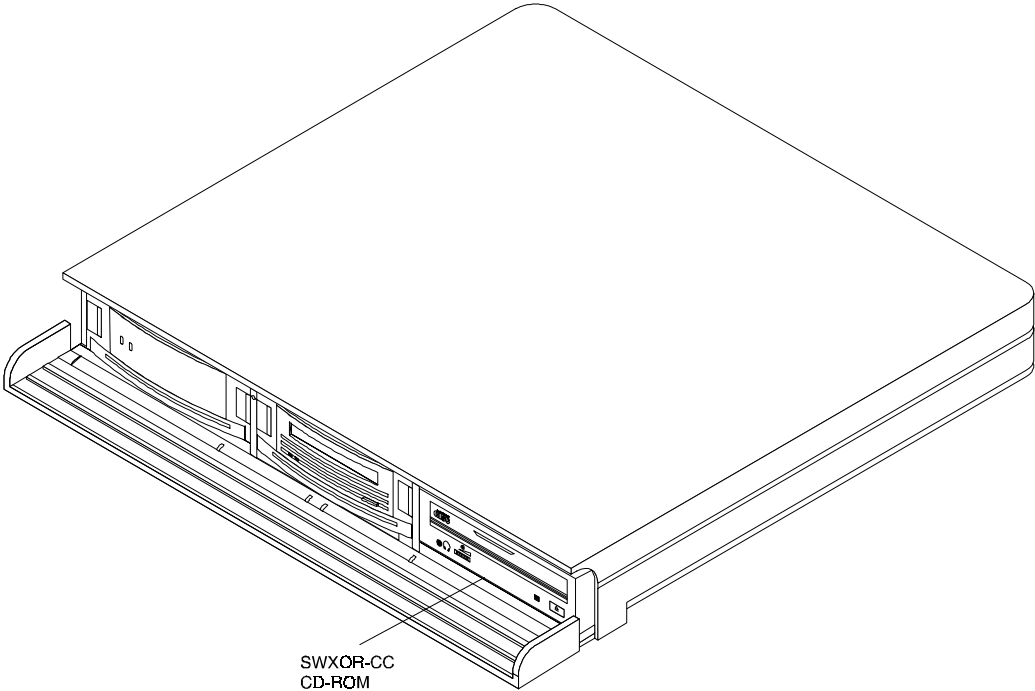
The SWXOR-CC configuration consists of a half-height CD-ROM conversion kit for the StorageWorks Desktop Expansion Unit. This kit is used to convert the right slot of the unit from a 3.5-inch SBB to a 5.25-inch half-height CD-ROM. Figure 1-3, shows the desktop expansion unit with the SWXOR-CC installed.

Figure 1–2. Model SWXOR-CB Drive SBB



CDROM3-02

Figure 1–3. Model SWXOR-CC Drive Installed in Desktop Expansion Unit



CDROM3-13

2

Installation

This chapter describes how to install the CD-ROM drive in a StorageWorks storage subsystem and how to upgrade a single-drive SBB from one to two drives.

2.1 General

The information in this chapter is divided into the following sections:

- Unpacking (Section 2.2)
- Setting the SCSI ID address of the SBB (Section 2.3)
- Installation into the expansion storage pedestal (Section 2.4)
- Installation into the desktop expansion unit (Section 2.5)
- Installing a second drive into an SBB carrier (Section 2.6)

2.2 Unpacking

Inspect the contents of your shipment. In addition to this guide, it should include the following items:

- CD-ROM drive
- CD-ROM disk caddy

Also, check your shipment for damaged components. Retain all boxes and packing material for reshipment.

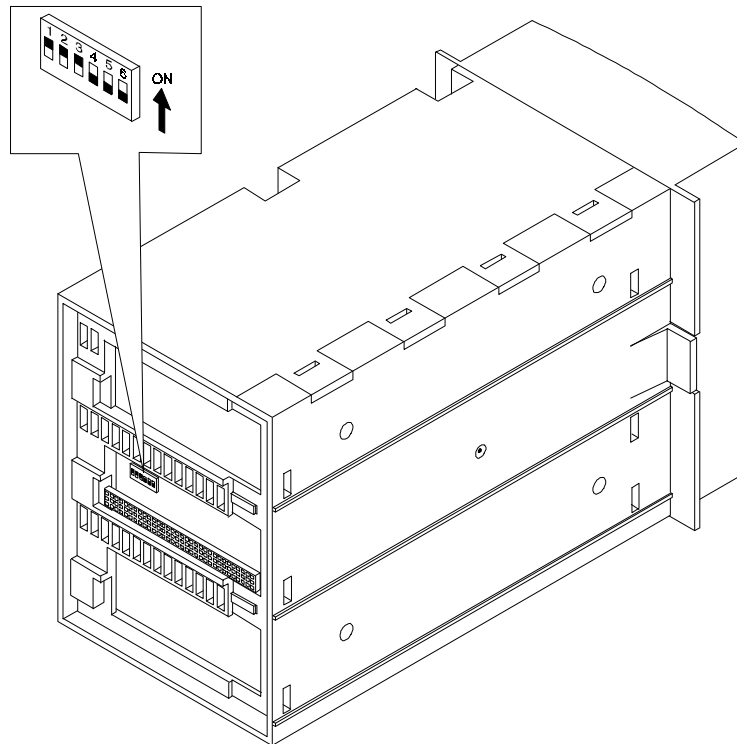
2.3 Setting the SCSI ID Address of the SBB

The switch pack on the rear of the CD-ROM SBB (Figure 2–1) is used to override the SBB default device address set by the expansion storage pedestal. Setting these switches to automatic sets the device address to the storage subsystem's slot number. The switches are preset at the factory to automatic, but can be set manually to a different address at your option. Refer to Table 2–1 to reset the SCSI address if required.

NOTE

Figure 2-1 depicts the switches for the SWXOR-CA SBB. The SCSI ID switch packs for a dual-drive SBB configuration are similarly located on a circuit board directly behind the associated drive. Use Table 2-1 to set the SCSI ID address of these devices as well.

Figure 2–1. SBB SCSI ID Switches



CDROM-08

Table 2-1. CD-ROM SBB SCSI ID Switch Settings

Address	SW-1	SW-2	SW-3	SW-4	SW-5	SW-6
0	Off	Off	Off	Off	Off	Off
1	On	Off	Off	Off	Off	Off
2	Off	On	Off	Off	Off	Off
3	On	On	Off	Off	Off	Off
4	Off	Off	On	Off	Off	Off
5	On	Off	On	Off	Off	Off
6	Off	On	On	Off	Off	Off
7*	On	On	On	Off	Off	Off
Automatic†	Off	Off	Off	On	On	On

* Normally reserved for host.

† Sets device address to storage subsystem slot number.

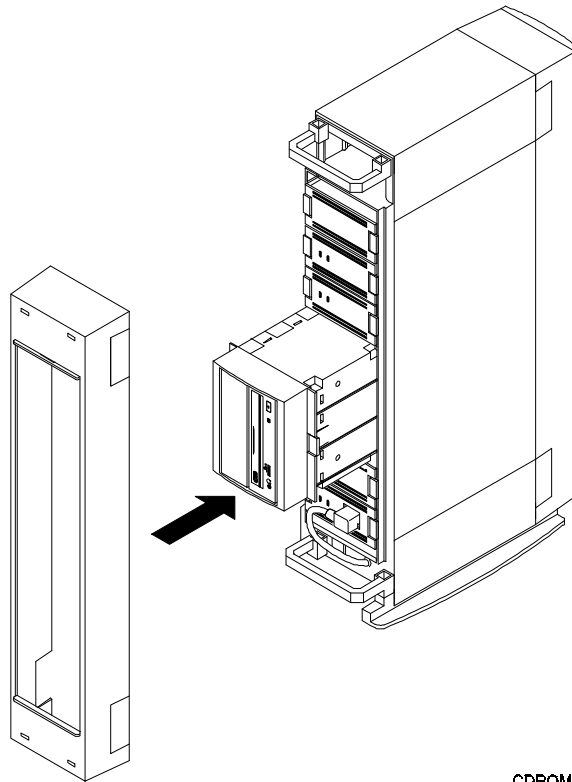
2.4 Installation into the Expansion Storage Pedestal

The 5.25-inch SBB occupies three standard 3.5-inch SBB slots in the Expansion Storage Pedestal and is installed by inserting the SBB into any three adjacent available SCSI device storage slots. Figure 2–2 shows a typical installation of a single drive device into the pedestal.

NOTE

Refer to Appendix B, C, D, or E for instructions on your specific operating system before installing the CD-ROM into your storage subsystem.

Figure 2–2. Installing the CD-ROM SBB into the Expansion Storage Pedestal



CDROM3-03

The CD-ROM SBB is installed in the Expansion Storage Pedestal by inserting the SBB into any three adjacent SBB device slots in the subsystem. The SBB can be installed using the *hot-swap* method where the drive is installed with the host system powered on and operating, or with the host system powered off. Consult your system administrator before using the *hot-swap* method to ensure your operating system supports this type of installation.

To install the CD-ROM SBB:

1. Remove the filler panels (or SBBs) from three adjacent device slots in the pedestal by squeezing the locking handles at the ends of the panels (or SBBs) and pulling forward until the panels or SBB is free of the subsystem.
2. Install the SBB into the open slots and slide it in firmly until the locking handles snap into place.
3. Proceed to the POST below to verify the proper operation of the drive(s).

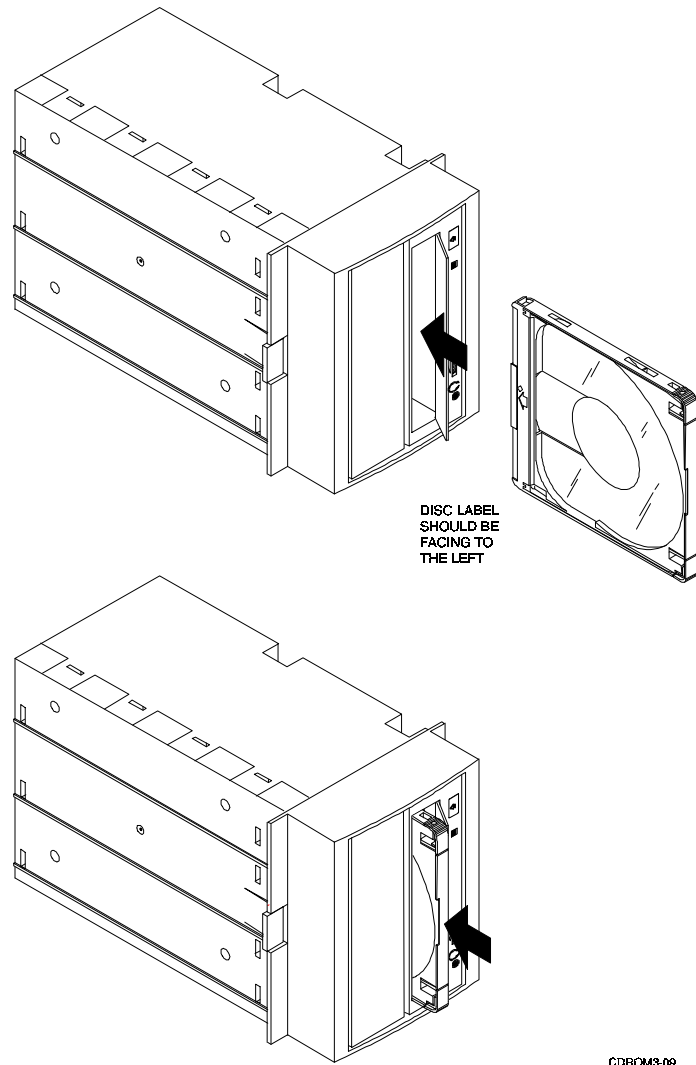
2.4.1 Power On Self Test (POST)

The POST test verifies the successful installation of the CD-ROM drive. To execute POST, perform the following:

1. Set the Pedestal ac power switch to *on*.
2. Load a disk with the caddy into the drive (Figure 2–3).
3. The drive BUSY LED indicator flashes for about five seconds and goes out.
4. If the SBB has more than one drive, repeat steps 2 and 3 for each device.

- Power on the remaining devices in the pedestal and power on the host system (s).

Figure 2–3. Loading a Caddy into the Drive



2.5 Installing Model SWXOR-CC into Desktop Expansion Unit

The right slot in the Desktop Expansion Unit is pre-configured at the factory to accept a 3.5-inch SBB. The right slot is easily converted to accept a 5.25-inch half height (HH) CD ROM by removing the top cover from the expansion unit, removing the SBB rails, and repositioning the SCSI backplane connector at the rear of the slot. To reconfigure the right slot of the expansion unit to accept the SWXOR-CC CD-ROM, proceed as follows:

CAUTION

Do not attempt the following procedure unless you have taken proper precautions against electrostatic discharge (ESD). Ensure you wear an ESD grounded wrist strap before removing the cover from any enclosure or device.

1. Set the power switch on the rear panel to off and disconnect the SCSI and power cables.
2. *If installed*, remove the right slot security screws from the bottom of the expansion unit (Figure 2-4).
3. Open the front panel dust cover and remove the drive (or filler panel) from the right slot of the expansion unit.
4. Place the expansion unit on a flat surface with the bottom side up and release the cover latch by inserting a flat-blade screwdriver into the hole behind the fan and pushing gently on the screwdriver until the latch releases (Figure 2-5).
5. To remove the cover, reposition the expansion unit right side up and use a flat-tip screwdriver to press the three cover tabs on the left side of the unit (Figure 2-6) and remove cover.
6. Squeeze the side rail locking tabs on the backside of the backplane to separate the rails from the backplane (Figure 2-7).

Figure 2-4. Security Screws

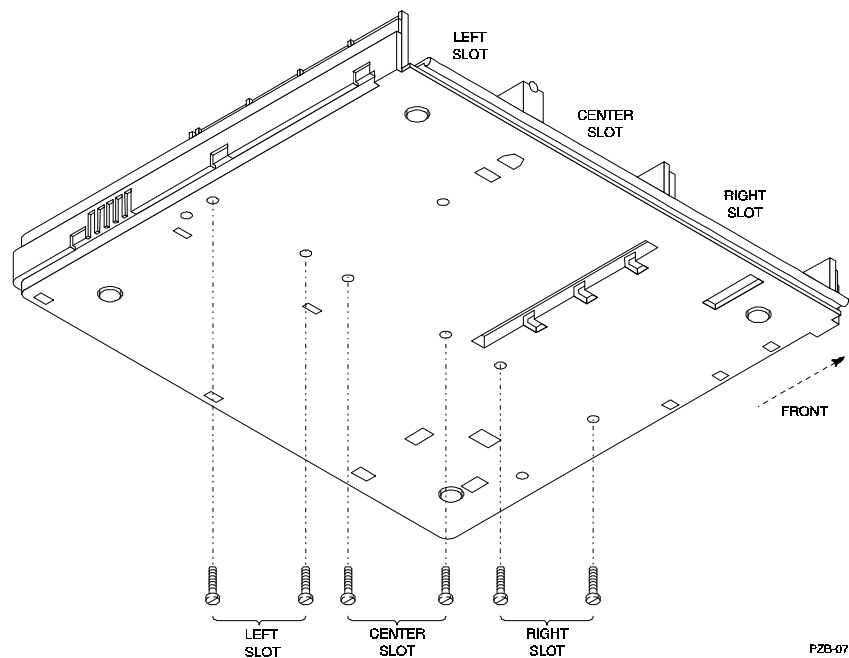
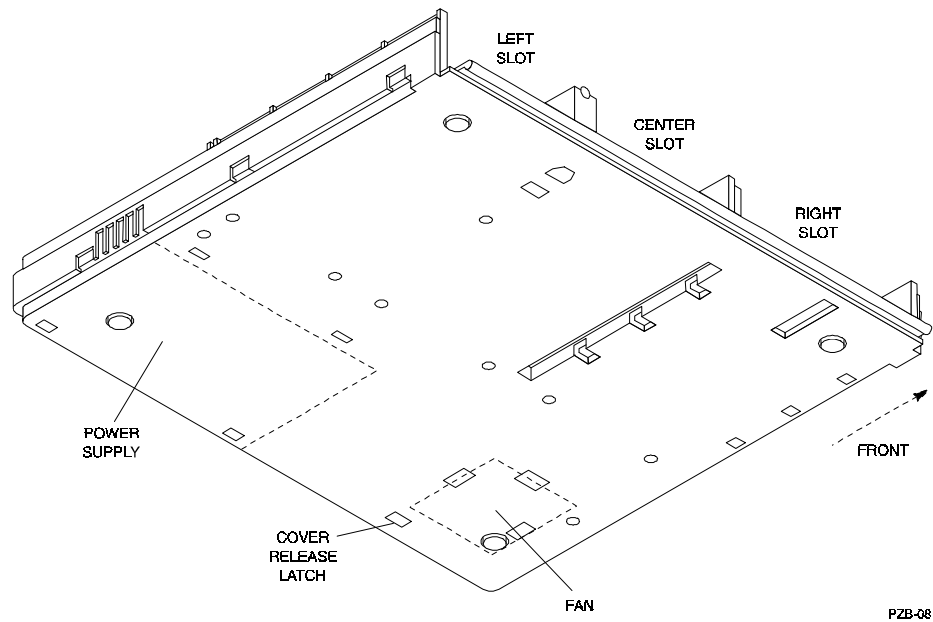
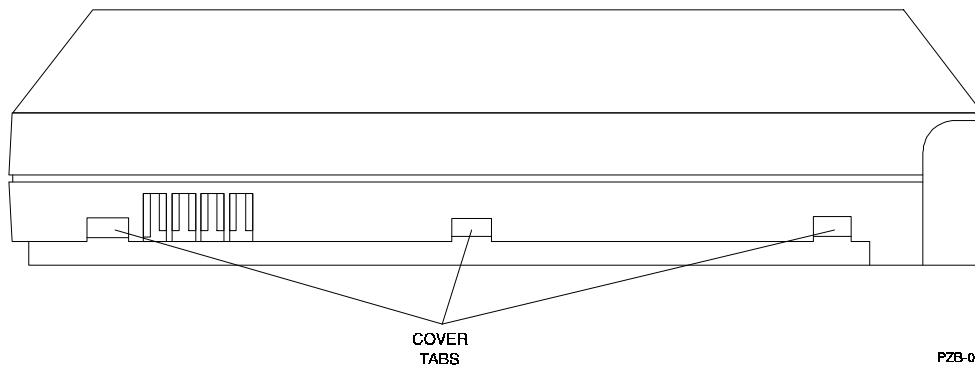


Figure 2-5. Cover Latch Release



PZB-08

Figure 2-6. Expansion Unit Cover Tabs

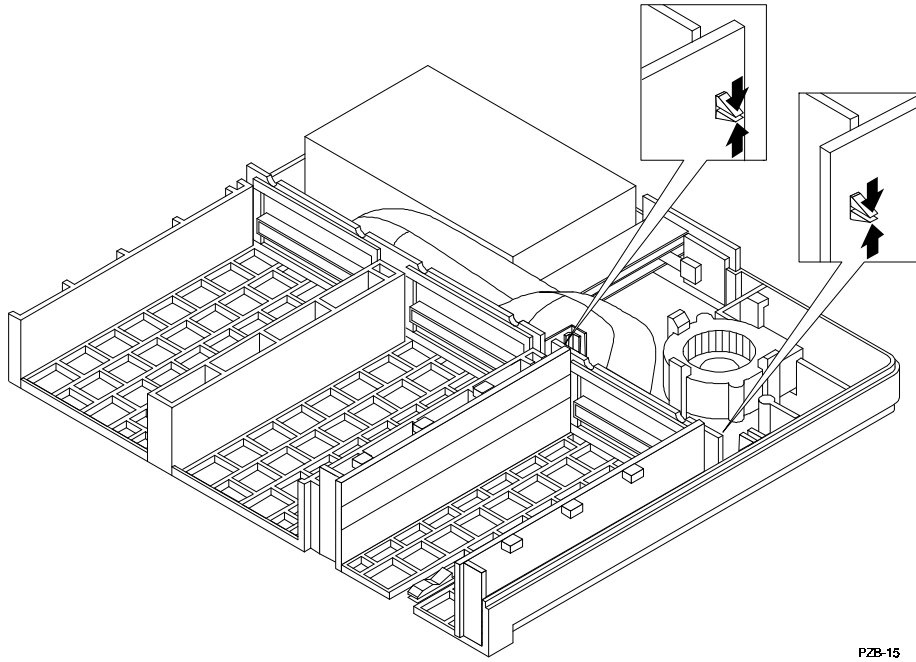


PZB-09

7. Pull the two side rails forward in the right slot to disengage the rail locking tabs and remove both rails (Figure 2-8).
8. Lift the backplane up and reinsert it into the rear holders at the rear of the slot (Figure 2-9).
9. Replace the cover on the expansion unit.

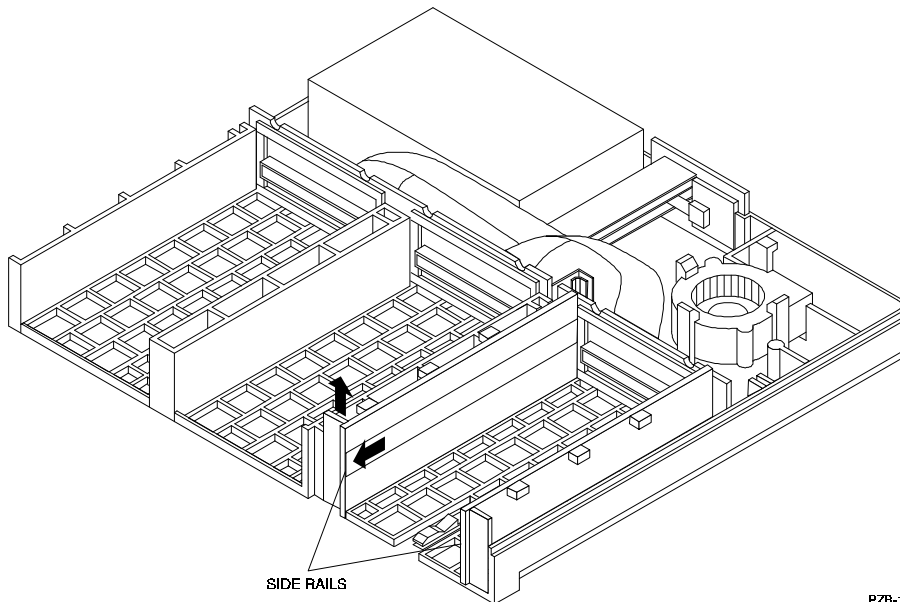
10. Install the 5.25-inch device into the right slot by aligning the device into the rails and pushing it back until the SCSI connection is firmly seated (Figure 2–10).

Figure 2–7. Separating Rails from Backplane



PZB-15

Figure 2–8. Removing SBB Rails



SIDE RAILS

PZB-16

Figure 2–9. Repositioning Backplane in Right Slot

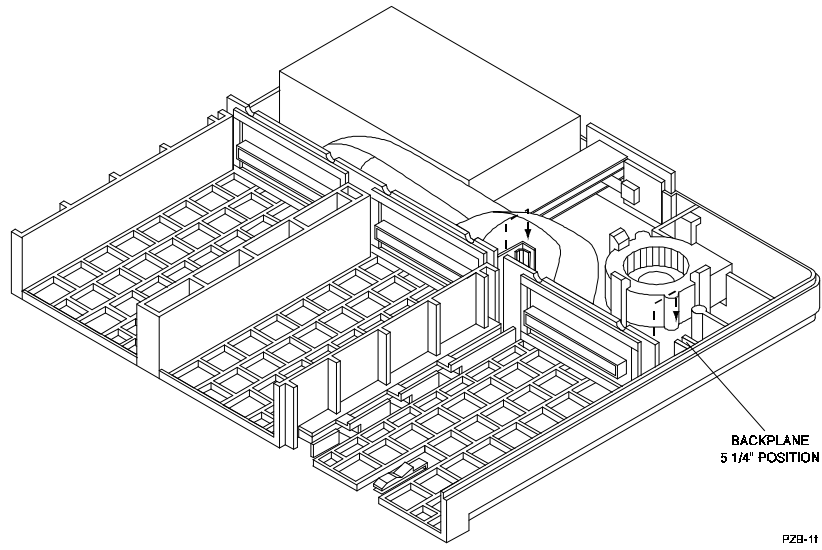
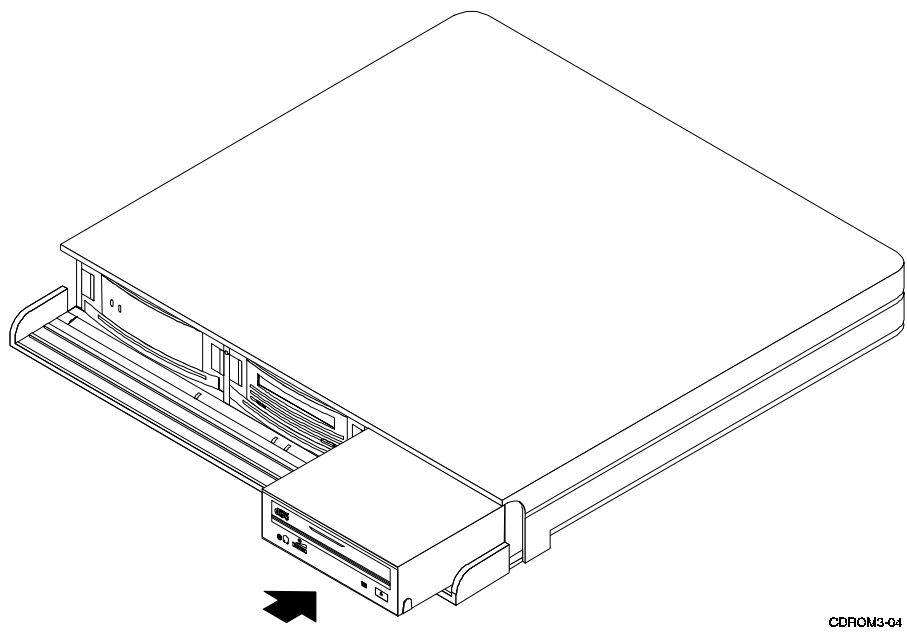


Figure 2–10. Installing CD-ROM



NOTE

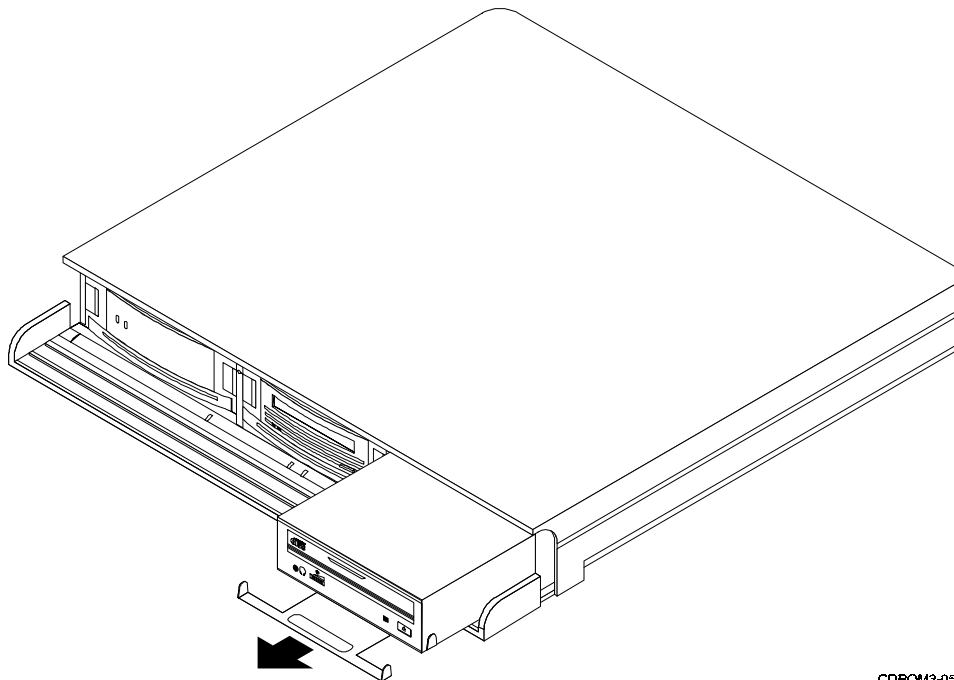
It may be necessary to align the backplanes with the interfacing channels in the cover to properly install and secure the cover in the following step. If you have difficulty installing the cover, insert your hand into the storage slot (ensure power is off) and wiggle the backplane until it aligns with the channels in the cover.

11. Replace the top cover on the expansion unit by aligning the three female tabs on the right side of the cover with the tabs in the base, and then aligning the tabs on the right side of the cover and gently pushing down on the cover until the tabs lock into place.
12. If removed in step 2, replace the security screws in the right slot of the expansion unit.
13. Reconnect the SCSI and power cables, set the power switch to on, and perform the POST test (Section 2.4.1) to verify the successful installation of the drive.

2.5.1 Removing the Drive

The HH drive is equipped with a retractable handle at the bottom to remove the device if desired. To remove the drive, extend the handle until it stops. Grasp the opening in the handle and continue to pull until the backplane connection is disconnected and remove the drive (Figure 2–11).

Figure 2–11. Removing the Drive



CDROM3-05

2.6 Installing a Second Drive into a 5.25-Inch SBB

This section describes how to install a second HH drive when a second device is required. When two HH devices are installed in one 5.25-inch SBB, the second device is installed in the left slot location of the carrier. Refer to the StorageWorks Family User's Guide or the StorageWorks Family Configuration Guide for information on configuring and installing 5.25-inch FH devices.

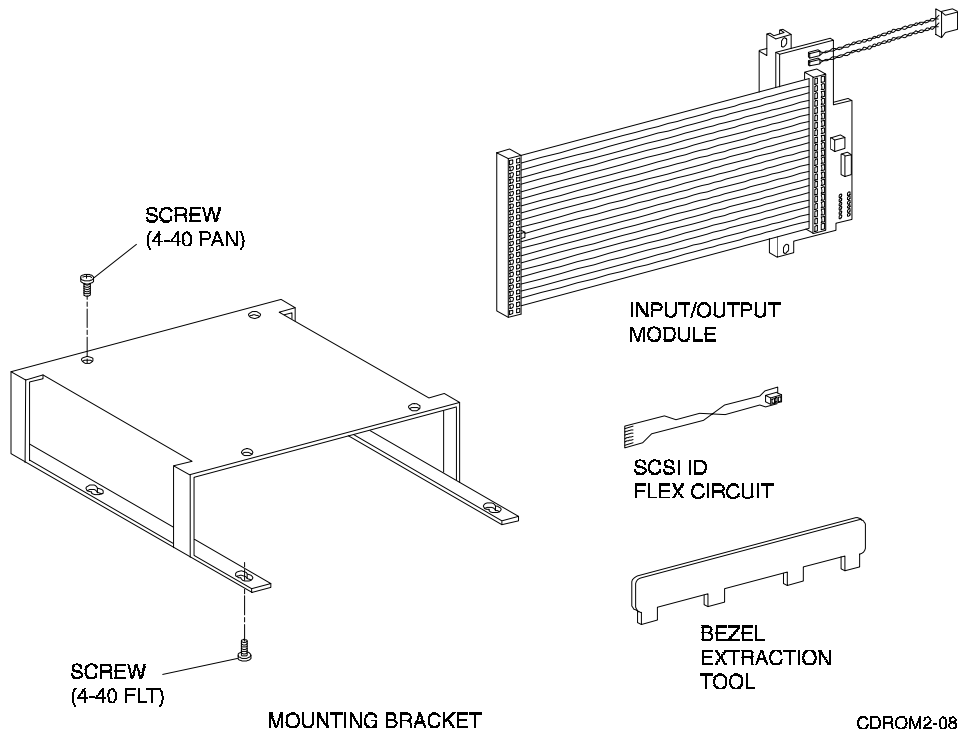
Use the following procedure to install a second drive into an 5.25-inch SBB.

CAUTION

Do not attempt the following procedure unless you have taken proper precautions against electrostatic discharge (ESD). When you remove the cover from any enclosure or device, wear an ESD grounding wrist strap to avoid damaging the equipment.

1. Place the contents of the 5.25-inch half-height option kit (Figure 2–12) and the second drive on a flat surface and within easy reach.

Figure 2–12. SWXOR-CB Option Kit Components



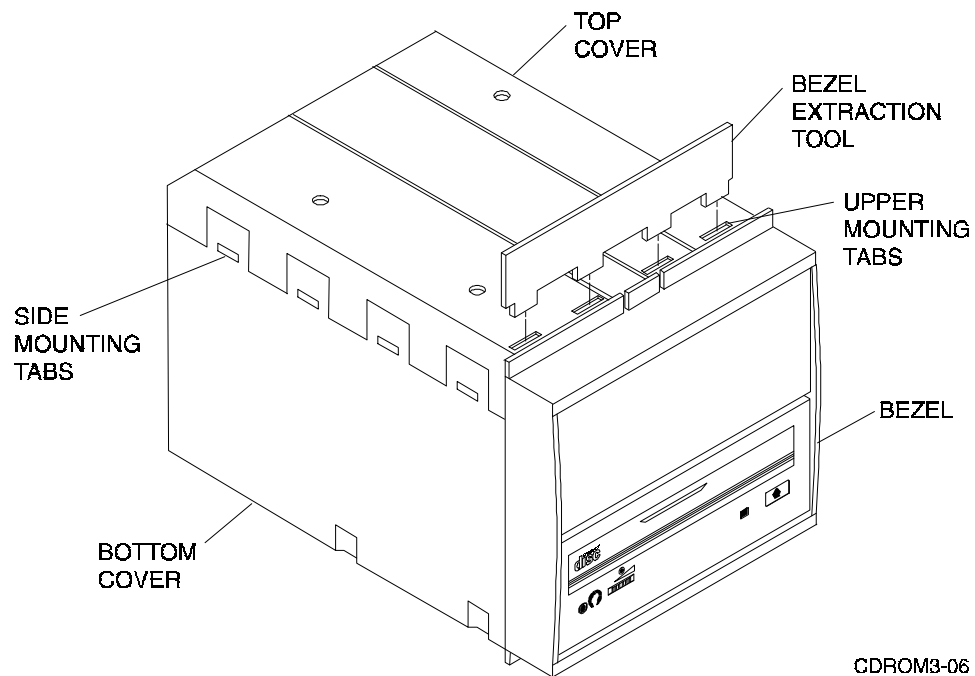
2. Inspect the contents of the option kit and ensure that all of the components are included (Table 2–2).

Table 2–2. Option Kit Contents

Component	Part Number	Quantity
Mounting Bracket	74-45316-01	1
Input/Output Module	54-22219-01	1
SCSI ID Flex Circuit	17-03608-06	1
Bezel Extraction Tool	74-47025-01	1
Screw, Machine 4-40 Pan	90-06011-01	4
Screw, Machine 4-40 Fit	90-09414-02	4

3. Place the SBB (Figure 2–13) in front of you and remove the bezel as follows:
 - a. Push down on the four upper mounting tabs with the bezel extraction tool while pulling the top of the bezel away from the SBB.
 - b. When the upper mounting tabs are free, pull the bezel forward slightly to release the bottom mounting tabs, then remove the bezel.

Figure 2–13. 5.25-Inch SBB



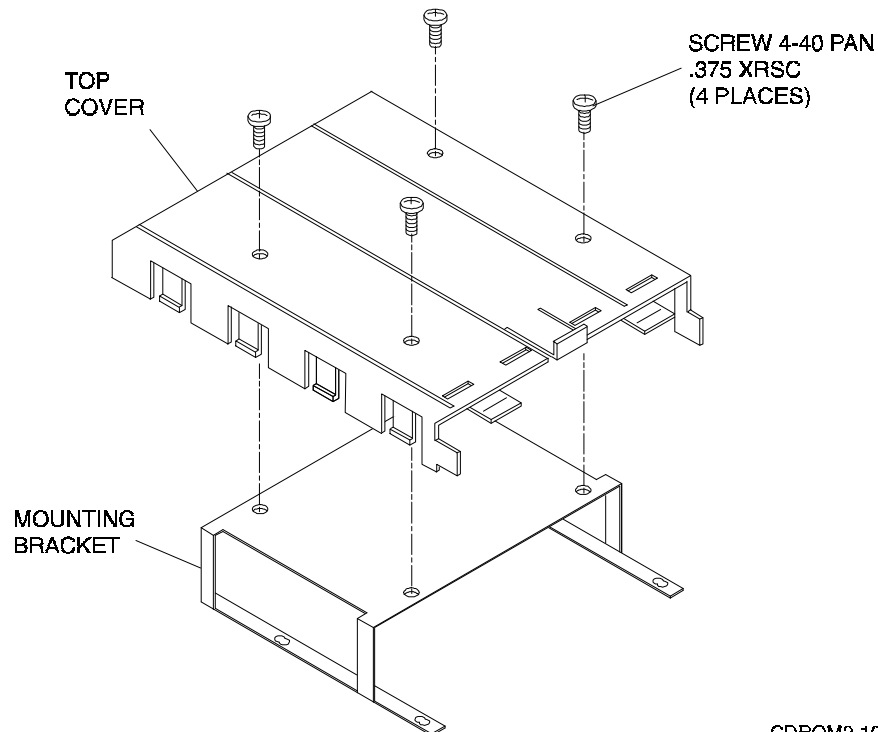
4. Remove the top cover as follows:

CAUTION

To prevent damage to the SBB or the device, use a screwdriver and *minimal pressure* to release each mounting tab.

- a. On the left side, push in each of the four top cover side mounting tabs until they are released from the bottom cover (Figure 2–13).
 - b. On the right side, push in each of the four top cover side mounting tabs until this side is released, then remove the top cover.
5. Attach the top cover to the mounting bracket as follows:
 - a. Position the top cover over the mounting bracket and align the mounting holes with the screw holes in the top of the mounting bracket (Figure 2–14).
 - b. Insert and tighten the four 4-40 pan machine screws (recommended torque is seven inch-pounds).

Figure 2–14. Top Cover to the Mounting Bracket



CDROM2-10

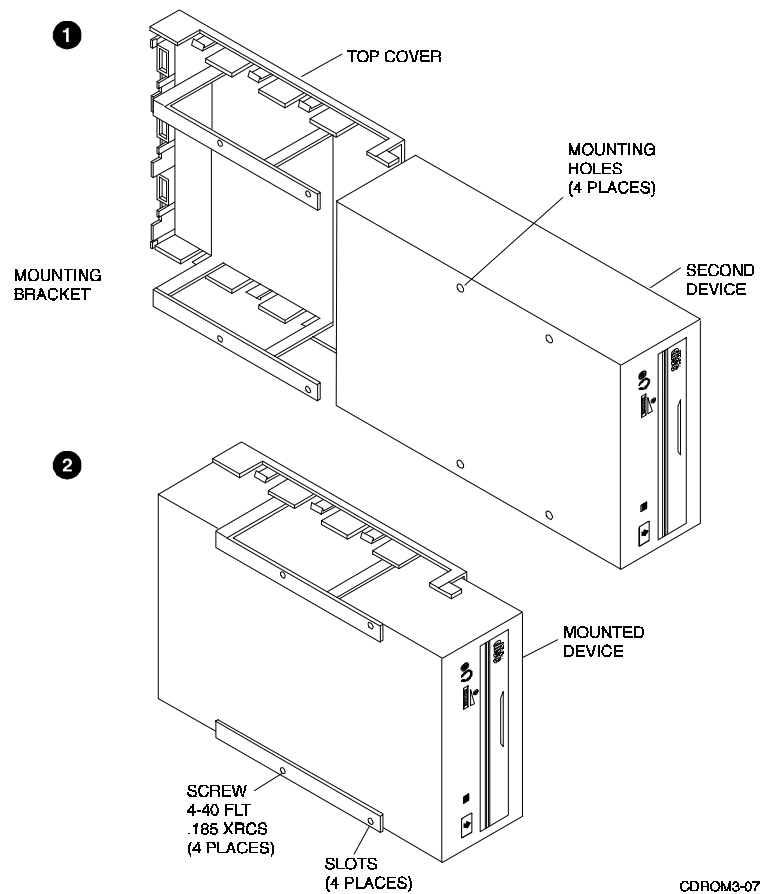
6. Attach the CD-ROM device to the mounting bracket as follows (Figure 2–15):

CAUTION

Use care when sliding the device into the mounting bracket.
Excess force may damage the device.

- a. Slide the device into the mounting bracket as shown in Figure 2–15.
- b. Align the four device mounting holes with slots in the mounting bracket.
- c. Insert four 4-40 flat machine screws through the mounting bracket slots and into the device. Do not tighten the machine screws.

Figure 2–15. Securing Device to the Mounting Bracket

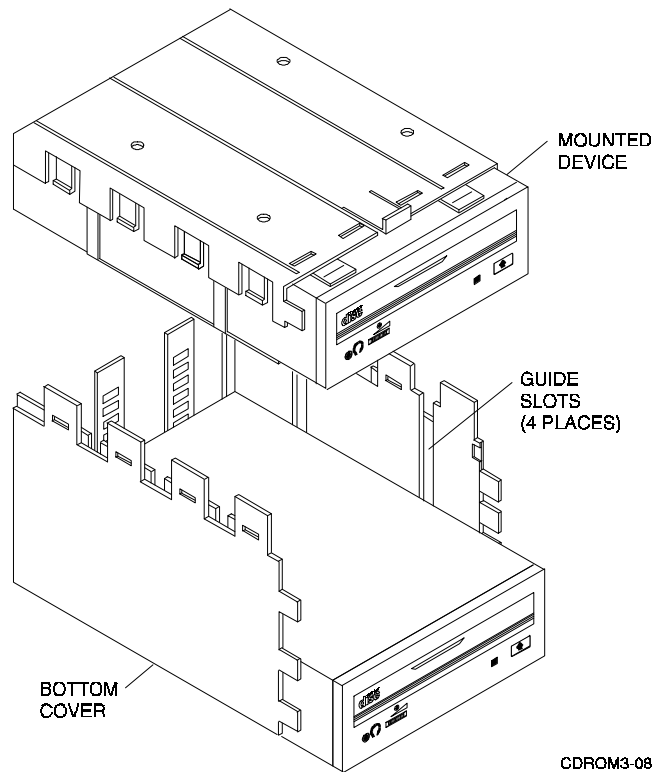


7. Align the two devices in the SBB as follows:
 - a. Slide the mounted device into the bottom cover guide slots (Figure 2–16), but do not engage the top and bottom covers.
 - b. Align the front of the top device with the front of the bottom device.

NOTE

To avoid losing alignment, hold the device to prevent it from moving in the mounting bracket.

- c. Lift the device from the bottom cover and tighten the four 4-40 flat machine screws (recommended torque is seven inch-pounds).
- d. Slide the mounted device into the bottom cover guide slots to ensure the alignment has not changed. If the alignment changed, repeat steps a. through d.
- e. If the alignment has not changed, lift the device from the bottom cover and proceed to the next step.

Figure 2–16. Two Devices in the SBB

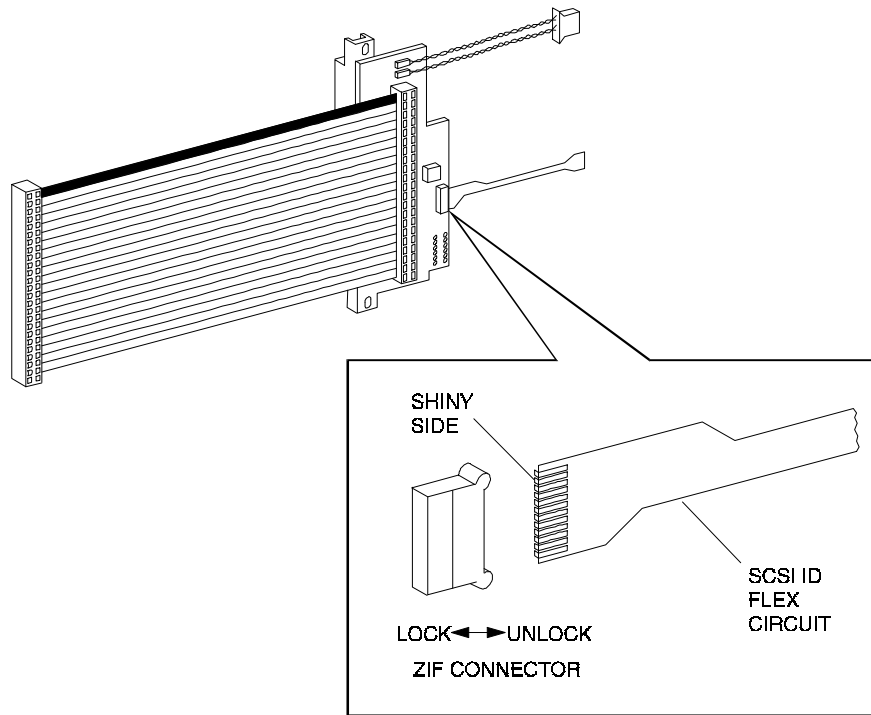
8. Attach the SCSI ID flex circuit to the I/O module ZIF connector as follows:

CAUTION

The SCSI ID connector must fit straight into the ZIF connector or a possible short circuit condition could occur.

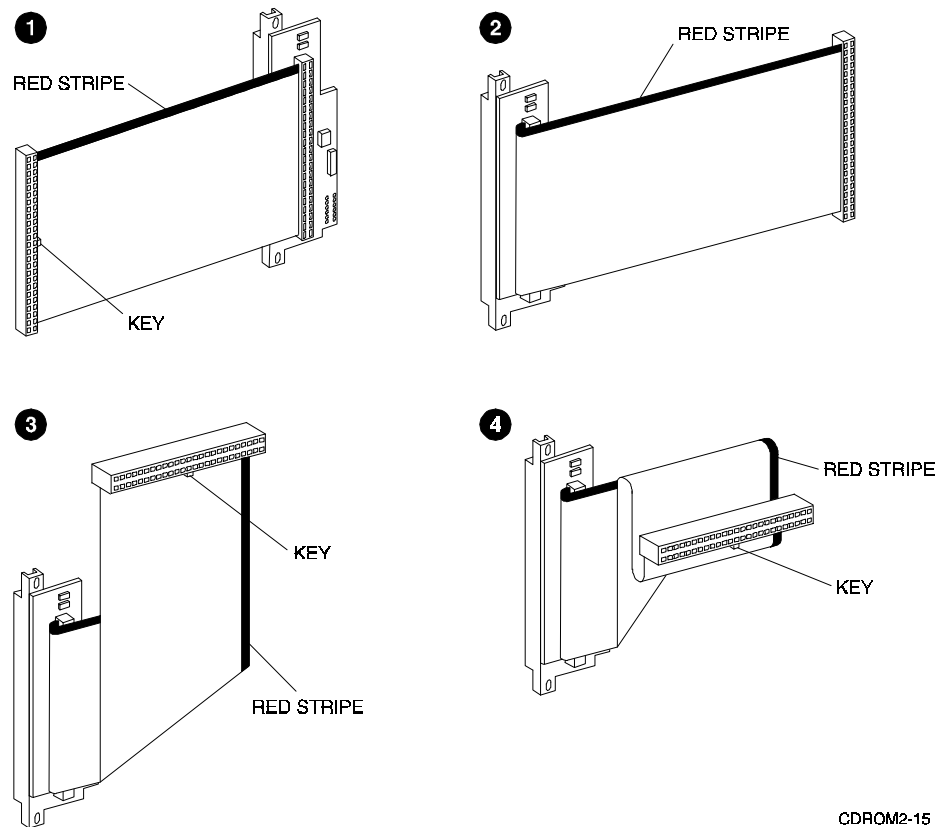
- a. Locate and unlock (pull) the edge of the ZIF connector (Figure 2-17).
 - b. Insert the flat end of the SCSI ID flex circuit into the ZIF connector. Ensure that the contacts (shiny side) are face down.
 - c. Lock (push) the edge of the ZIF connector to secure the SCSI ID flex circuit.
9. Fold the I/O cable as shown in Figure in 2-18.

Figure 2-17. SCSI ID Flex Circuit to the ZIF Connector



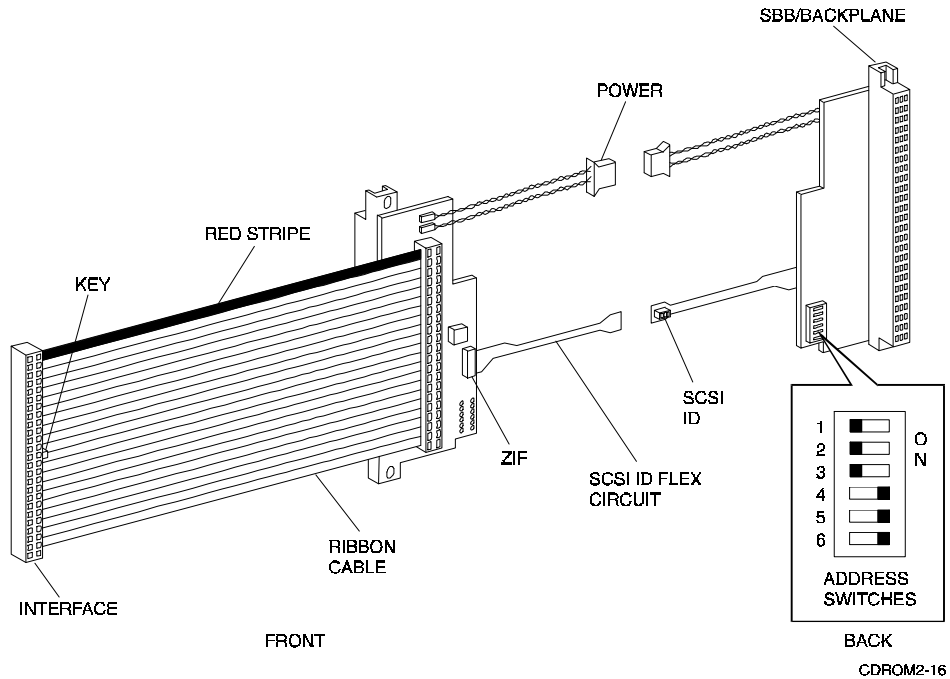
CDROM2-13

Figure 2–18. Folding the CD-ROM I/O Cable



10. Attach the I/O module connectors (Figure 2–19) to the second CD-ROM as follows:
 - a. Keep the ribbon cable folded while you plug in the connectors.
 - b. Plug in the interface connector.
 - c. Plug in the power connector.
 - d. Plug in the SCSI connector.
 - e. Remove and discard the protective cover over the address switches.
 - f. Set the address switches as shown in Figure 2–19.

Figure 2–19. I/O Module Connectors and SCSI Address Switches

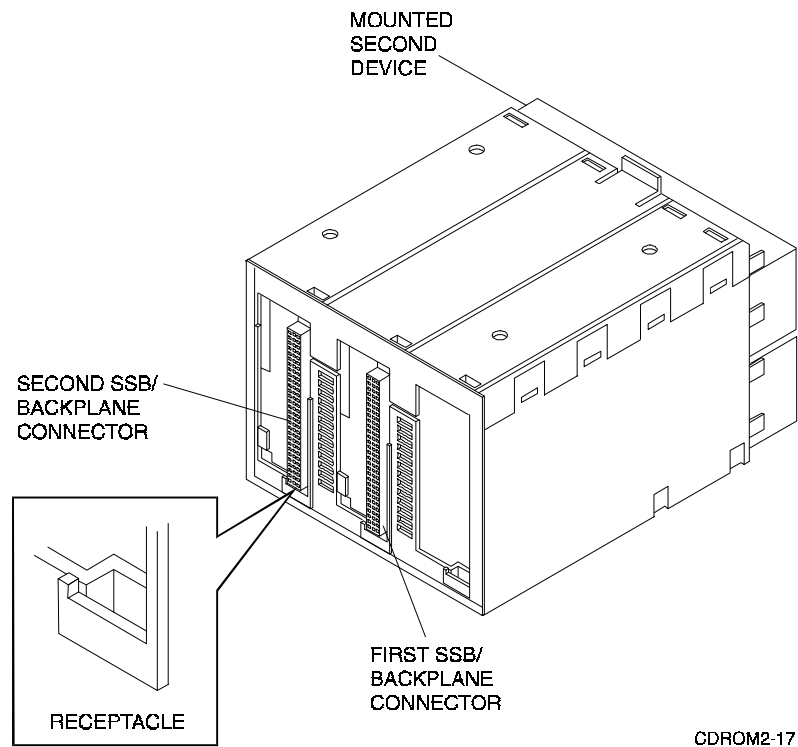


11. Insert the mounted second device into the bottom cover guide slots (Figure 2–8).

NOTE

The second connector is positioned in the slot to the left of the first connector.

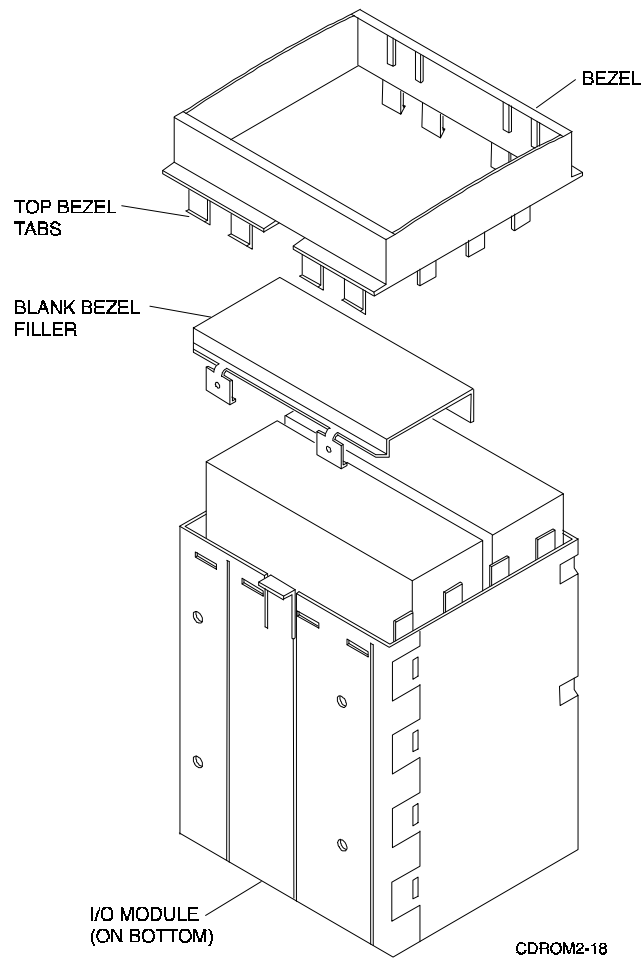
12. Position the bottom of the SBB/backplane connector into the receptacle in the bottom cover as shown in Figure 2–20. The top cover has a similar receptacle for the top of the SBB/backplane connector.
13. As you align the top and bottom covers, make sure that both SBB/backplane connectors move freely up, down, and sideways.
14. Push the top cover into the bottom cover until the eight tabs on the sides of the covers engage and snap into place.

Figure 2–20. Mounted Second CD-ROM Device

15. Attach the bezel as follows:

- a. Stand the SBB on the I/O module end as shown in Figure 2–21.
- b. Pick up the bezel and remove the blank filler bezel.
- c. Fit the top bezel tabs into the SBB. Make sure the tabs are aligned as shown, then gently push until the four top bezel tabs and four bottom bezel tabs are secure.
- d. The second 5.25-inch HH device is installed and the SBB is ready to install into your storage subsystem.

Figure 2-21. Bezel Attachment



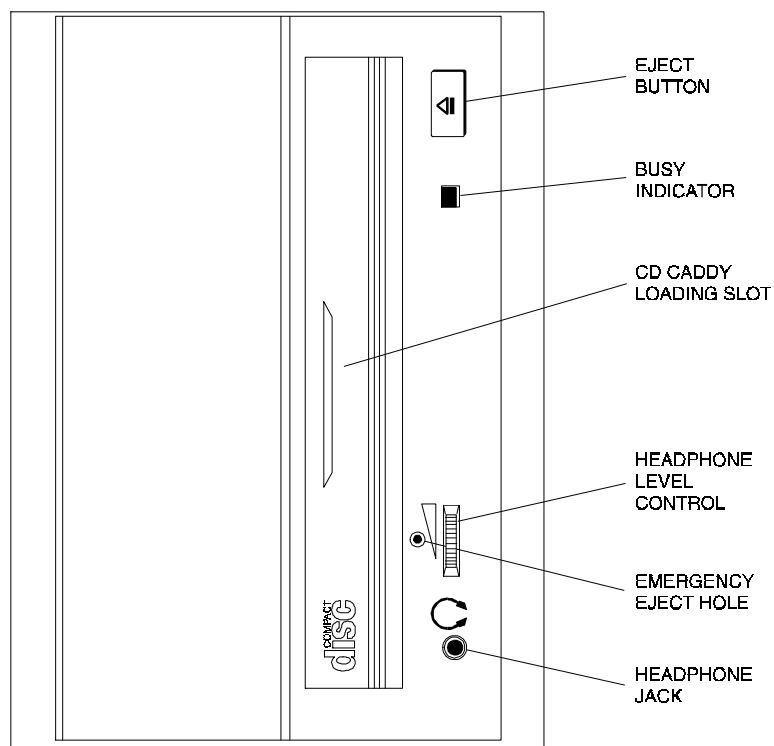
Operation and Maintenance

This chapter discusses the operation of the controls and the LED indicator on the front panel of the drive.

3.1 Controls and Indicator

The front panel of the CD-ROM (Figure 3–1) contains controls and an indicator which allow the operator to access, control, and monitor the operation of the drive. Table 3–1 lists the front panel items and describes their functions.

Figure 3–1. Front Panel Controls and Indicator



CDROM3-12

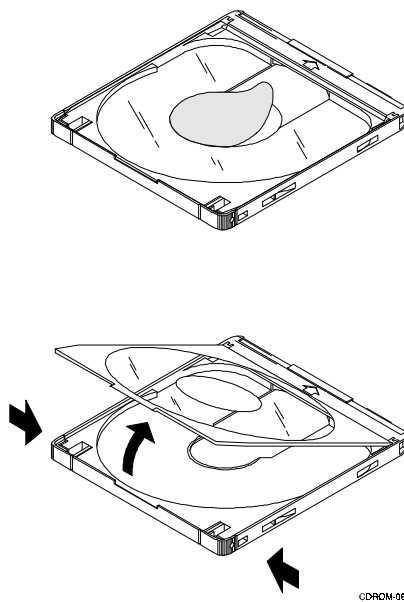
Table 3-1. Multi-Speed CD-ROM Front Panel Controls and Indicator

Front Panel Item	Function
Caddy insertion slot	Accepts a caddy loaded with a disk.
Emergency eject hole	Used to manually eject a caddy (See Section 3.5).
Eject button	Ejects the caddy from the drive when power is on (See Section 3.4).
Busy indicator	Lights when data is read from the disk, and flashes during seek operations.
Dimple	Where the drive number label is placed.
Headphone level control	Adjusts the volume.
Headphone jack	Accepts headphone connector.

3.2 Disk and Caddy Handling

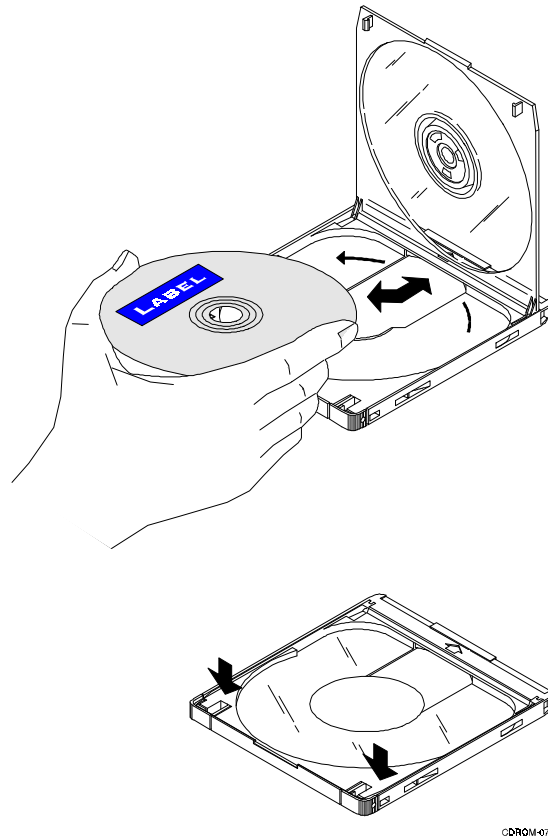
Follow these steps to handle the disk and caddy (refer to Figures 3–2 and 3–3):

1. If a protective film is on the lid of the caddy, remove the film before using the caddy.
2. To open the lid of the caddy, press the tabs on both sides and lift the lid.
3. To load an empty with a disk, hold the disk by the edges and place the disk (with disk label up) into the caddy. (Figure 3-3). Do not touch the surface of the disk and be sure to place the disk beneath the edge of the caddy.
4. Press both corners firmly to close the lid (Figure 3–3).

Figure 3–2. Opening the Caddy

CDROM-06

Figure 3–3. Loading a Disk into the Caddy



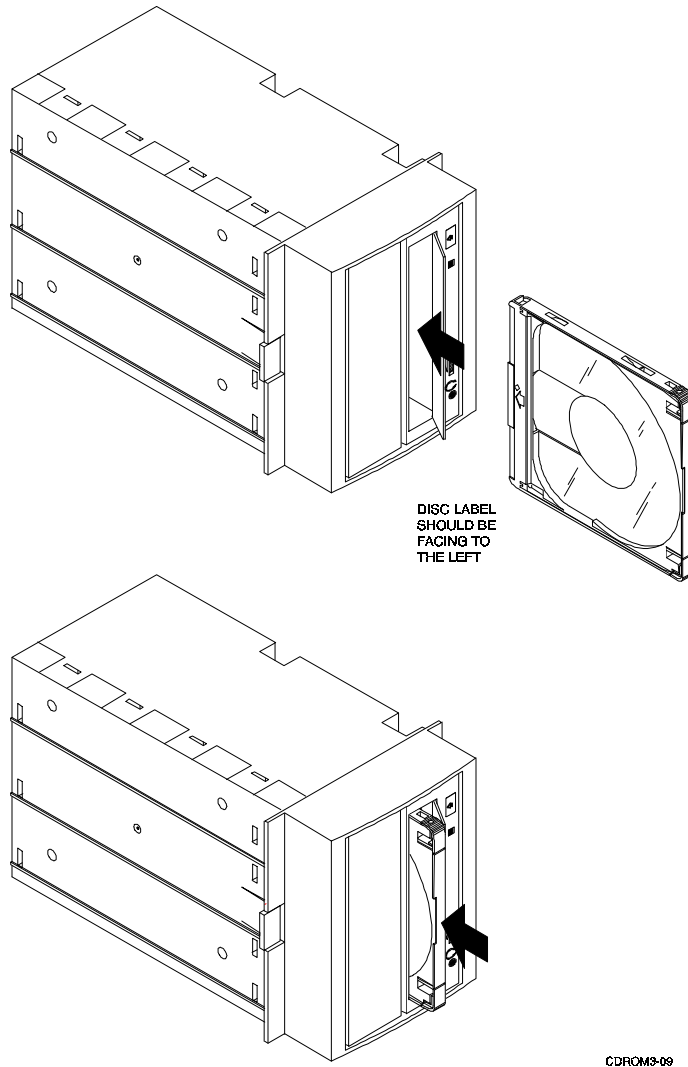
3.3 Loading the Drive

NOTE

Ensure the supporting software is installed in the host system before operating the drive.

Perform the following steps to load a disk and caddy into the drive:

1. Set the power switch on the storage subsystem to on.
2. Insert the caddy into the caddy insertion slot as shown in Figure 3–4.
3. The *busy* LED should light as the drive reads the Table of Contents (TOC) on the disk.
4. When the *busy* LED goes out, the drive is ready to receive the command from the host computer.
5. Follow the instructions provided by the host system's software manual.

Figure 3–4 Loading a Caddy into the Drive.

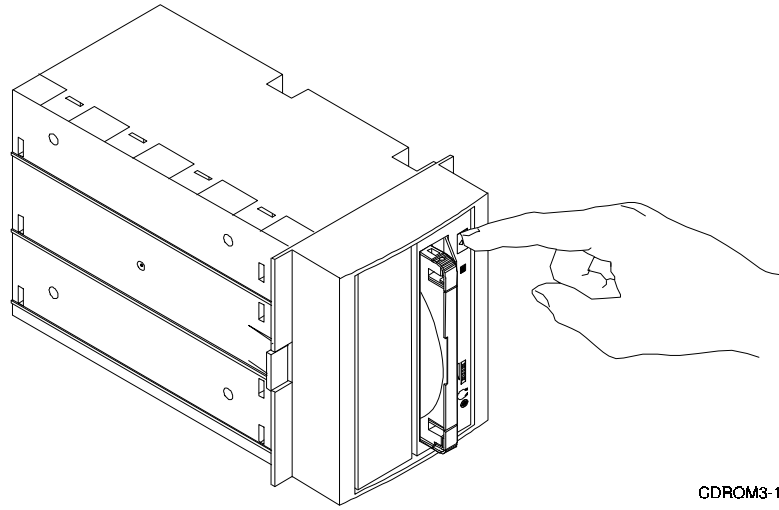
3.4 Ejecting the Caddy

When the drive is powered on and operating, the *eject* push-button on the drive is used to eject the caddy (Figure 3–5). If the *eject* push-button function is disabled by software or the drive does not eject the caddy after you press the *eject* push-button, refer to Section 3.5 below for manual-ejection instructions.

CAUTION

Never press the *eject* push-button while the drive is in operation. In particular, media should never be changed when the drive is executing a data transfer operation (green LED on front panel on). Pressing the *eject* push-button during a data transfer may cause the device to enter an indeterminate state.

Figure 3-5. Ejecting the Caddy from the Drive.



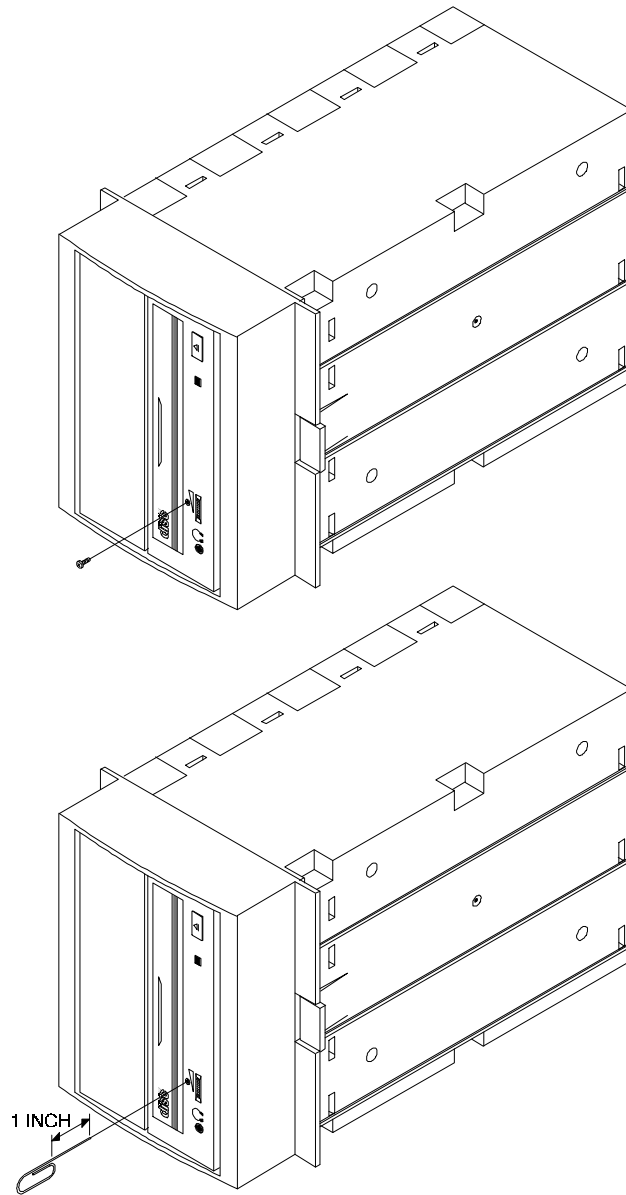
CDROM3-10

3.5 Ejecting a Caddy Manually

The *eject* push button on the drive does not function when the switch is disabled by software or if power to the drive is turned off. Use the following procedure to manually eject a caddy from the drive (refer to Figure 3-6):

1. Set the power switch on the storage subsystem to off to remove power from the drive.
2. Remove the screw above the volume control using a small Phillips-head screwdriver.
3. Straighten one end of a large paper clip and insert it into the *emergency eject hole*.
4. Push the clip to eject the caddy from the drive.

Figure 3–6. Manually Ejecting the Caddy



CDROM3-11

3.6 Preventive Maintenance

The drive does not require any form of periodic cleaning. To maintain optimum performance, ensure the environment where the drive is installed is free of contamination. If the errors are recurrent, clean the disk as described in Section 3.6.1.

3.6.1 Disk Care

Observe the following to maintain maximum performance and trouble-free operation of the drive:

- Do not drop the disk or caddy
- The caddy's shutter automatically opens when it is inserted into the drive. Do not open the shutter manually and touch the disk
- When transporting the drive, remove the caddy from the drive
- When a disk is dirty, clean it with a clean, lint-free cloth. Wipe the disk from the center out
- Do not use solvents such as benzene, thinner, commercial cleaners, or anti static sprays
- Do not place the disk and caddy in a location subject to:
 - Dust
 - Direct sunlight
 - High temperature
- High humidity



Specifications

This appendix describes the physical, electrical, operational, and environmental specifications for the drive.

NOTE

The physical specifications in the following table apply to the characteristics of the drive with no front filler bezel attached.

Table A-1. Drive Specifications

Characteristic	Specification(s)
Dimensions	5.75 in W 1.63 in H x 8.0 in D (146 mm x 41.5 mm x 203 mm)
Weight	2 lb., 7 oz. (1.1 kg.)
Drive interface	SCSI-2, (8-bit, single-ended)
Formatted data capacity	Approximately 682 Mbytes
Average data transfer rate	Sustained rate: 330 Kbyte/s (2.2x mode) Burst rate: 4.2 Mbyte/s
Random access time	310 ms (1x mode) 200 ms (2.2x mode)
Spin-up time	1.5 seconds (1x and 2.2x mode)
Data buffer	256 Kbytes
Audio output level†	Line output: 0.5 V @ 47 Kohms Headphone: 0.55 V @ 32 ohms (at maximum volume)
Average Power	+5 Vdc \pm 5% @ 340 ma (except for the terminator power supply) +12 Vdc \pm 5% @ 140 ma
Operating temperature	5° to 50° C (41° to 122° F)
Operating humidity	10 to 90% relative humidity, maximum, non-condensing
Operating altitude	0 to 15,000 ft. (0 to 4.6 km)

† Support of the audio function is operating system dependent.



Product Notes for Sun[™]

This appendix provides information for the system administrator. It should be read before installing and using the drive with a host operating under the SunOS 4.1.x and Solaris 2.x operating systems.

B.1 SunOS 4.1.x

B.1.1 Load Device

Any CD-ROM used as a load device to install SunOS 4.1.x must be configured for a SCSI target ID of 6. After the operating system has been installed, the drive can be set to any other valid SCSI ID if you edit your `config` file and rebuild the kernel. For more information, consult the SunOS documentation.

B.1.2 Boot Message

During system boot, a message similar to the following is normally generated by the host:

```
sr0: Unrecognized Vendor 'DEC ', product 'RRD44(C)DEC 'sr0 at esp0
target 6 lun 0
```

This message indicates that the CD-ROM has been installed and configured correctly by the operating system and is ready for use.

B.1.3 Adding a Second CD-ROM

A second or multiple CD-ROM drives can be added by re-building the kernel. You will need to know the target ID and which SCSI bus the existing drives are connected to. For additional information concerning "adding devices", consult the SunOS documentation.

B.2 Solaris 2.x

B.2.1 Load Device

If you are installing Solaris 2.x using the CD-ROM and your drive is not configured for a SCSI target ID of 6, instead of typing "boot cdrom" you must type the following at the console prompt:

```
boot /sbus/esp@0,80000/sd@x,0:c
```

where, **x** is the target ID of your CD-ROM drive.

Once Solaris is installed, the default CD-ROM driver target ID is set to 6. If your drive is at some other ID, you must make a symbolic link to it.

For example, the default is: `sr0 -> dsk/c0t6d0s2`

If your drive is at SCSI ID 5, then type the following at the shell as root:

```
# cd /dev
# rm sr0
# umask 0
# ln -s dsk/c0t5d0s2 sr0
```

B.2.2 Adding a Second CD-ROM

A second or multiple CD-ROM drives can be added by re-configuring the kernel. Under Solaris, this is done using the "-r" switch at boot time. After installing your drive, type:

```
"boot -r" at the boot prompt.
```

After the kernel re-configures and the system has booted, you must create a symbolic link for any drive that does not have a target ID of 6. For example, if you have CD-ROM drives at target ID 5 and 6, you must create a symbolic link for the drive at ID 5. The drive at ID 6 has a symbolic link by default. Refer to the example in section B.2.1 above for information describing how to add a symbolic link.



Product Notes for Novell[™], MS-DOS[™], and Windows NT[™]

This appendix provides information for the system administrator. It should be read before installing and using the drive with a host system operating under the Novell, MS-DOS, MS-DOS/WINDOWS, or Windows NT operating systems.

CAUTION

Novell's CDROM.NLM module does not support the "hot swapping" of the CD-ROM SBB. Therefore, when using CDROM.NLM module, **do not remove** the SBB from a StorageWorks enclosure while running the NetWare[™] server. Always unload the module before removing the SBB from the storage subsystem.

C.1 Host SCSI Interface

The CD-ROM drive utilizes the standard SCSI-2 command set to interface to a PC-based host system. Therefore, the host system must be equipped with a SCSI adapter to properly interface the CD-ROM with the host. For example, the host SCSI adapter might interface the computer's EISA bus to the SCSI-2 port of the drive.

A host PC SCSI adapter will normally be supplied with a compatible software driver for use with its operating system. When operating under Novell and MS-DOS, the software driver must be pre-loaded in accordance with the SCSI adapters manufacturer's installation procedure to ensure a proper interface between the CD-ROM and the host. In addition, third-party software may be required to access the drive.

Before purchasing a third-party software product, ensure that the drive is supported by that product. Third-party product vendors usually publish a supported hardware list, or have telephone technical support personnel that will answer questions regarding compatibility of a particular drive. When choosing a software product suitable for your application, follow the software vendor's installation procedure to implement support for your CD-ROM drive. Finally, if your host is operating under NetWare, Novell, Inc. provides a NetWare Loadable Module (NLM) called "CDROM.NLM" with some of its operating systems. This module is compatible with the SWXOR drive.

NOTE

The SWXOR drive is functionally equivalent to the RRD44 (DEC part number) CD-ROM drive. Commercial software products that support the RRD44 will also support the SWXOR.



Product Notes for IBM[™] RS/6000

This appendix provides information for the system administrator. It should be read before installing and using the SWXOR CD-ROM drive with a host system with the AIX 3.2.5 (or later) operating system.

Installation Procedure

Perform the following procedure to install the SWXOR CD-ROM onto an IBM RS/6000 AIX system:

1. After the CD-ROM has been installed on the SCSI bus, either invoke the `cfgmgr` command at the `#` prompt from the *root* account, or invoke the `smit dev` command and from the menu, "Configure Devices Added after IPL".
2. To mount "InfoExplorer", refer to the *AIX, Version 3.2, Installation Guide (SC23-2341)*, Chapter 8.



Product Notes for HP™

This appendix provides information for the system administrator. It should be read before installing and using the drive with an HP 9000-Series 700 (running HP-UX 9.05) and 800 (running HP-UX 9.04) host operating systems.

E.1 General Information

The SWXOR CD-ROM drive may be installed in any three consecutive SBB slot locations of the SWXSE-02 expansion storage pedestal or in the right slot of the SWXSE-03 desktop expansion unit. Following its installation, ensure that there are no SCSI address conflicts with any existing devices on the SCSI bus of the storage subsystem.

E.1.1 Load Device

The SWXOR may be used as a "boot device" on both the HP 9000-series 700 and 800 computers.

On the 700 series, you will need to specify the CD-ROM drive as the boot device while interacting with the boot process. For more information, refer to the **man** pages of **boot** (1M) and **isl** (1M).

To use the SWXOR CD-ROM as a boot device on series 800 computers, perform the following procedure:

- ❶ Invoke the `ioscan` command to obtain the hardware address of the CD-ROM (for example, 52.1.0).
- ❷ Issue the `reboot -r` command to reboot the system.
- ❸ Press any key when the message "To override, press any key within 10 seconds" appears on the screen.
- ❹ The response to the next prompt depends on the type of server in the HP 9000 series you are using. If you are asked for a primary and alternate boot path, answer "N" and then enter the correct hardware boot path when prompted to do so (for example, 52.1.0). If a menu appears instead of the preceding questions, enter "BO" followed by the boot path (for example, 56/52.1.0).
- ❺ When "Interact with ISL (Y or N)?>" appears, enter **Y**.
- ❻ Next, "isl?>" is displayed. At this point, a list of available utilities or executable programs on the CD-ROM is displayed. For example, using the HP support disc, select the "eisadiag" utility.

- 7 Finally, type "support" to reboot the system.

E.1.2 Adding a Second CD-ROM

A second or multiple CD-ROM drives can be added by inserting them into the SWXSE-02 enclosure, running "ioscan -f", and creating the appropriate device files as necessary. You will need to know the target ID and which SCSI bus the existing drives are connected to. For additional information concerning "adding devices", consult the HP publication: *Installing Peripherals, Document # B2355-40041*.

E.2 Mounting the CD-ROM as a Read-Only-Device

To read information contained on a non-bootable CD, place the media into a caddy and insert the caddy into the SWXOR. Next, become superuser and issue the "mount" command to the block device.

Example:

For an SWXOR installed in an SWXSE-02 enclosure in slot locations 0, 1, and 2, issue the following command:

```
/etc/mount /dev/dsk/c201d1s0 /cdrom
```

E.3 Testing the SWXOR CD-ROM Drive

- 1 Ensure the media is inserted into the CD-ROM device and that it is mounted.
- 2 Obtain a directory listing of the device by issuing the following command (assuming the mount point is /cdrom):

```
ls /cdrom
```

- 3 The top-level contents will be displayed. Change the directory to "/cdrom" and copy a file to the "/tmp" directory as follows:

```
cd /cdrom  
cp filename /tmp
```

where,

filename is any file of "type file" displayed with the ls command above. Ensure the file has been copied to "/tmp".

Reader's Comments

Manual Order Number:

EK-SM1RD-UG.

B01 _____

SWXOR Series 600 MB, 5.25-Inch, Multi-Speed CD-ROM Disk Drive

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