StorageWorks Solutions

5¼-Inch SBB Half-Height Device Installation Guide

Order Number: EK–SBB55–IG. B01

This publication describes the 5¼-Inch StorageWorks building block components (such as covers, connectors, and cables) and installation procedures.

March 1994

This document was prepared using VAX DOCUMENT Version 2.1.

Installing a Second 5¼-Inch Half-Height Device

This document presents the procedures for installing a second 5¼-inch **half-height (HH)** device when a second device is required. **StorageWorks building blocks (SBBs)** support the following 5¼-inch form factor devices: **full-height (FH)** hard drives and tape drives, and HH CD–ROMs and tape drives. When two HH devices are installed in one 5¼-inch SBB, the second device is the upper device. Refer to the *StorageWorks Family User's Guide* or the *StorageWorks Family Configuration Guide* for information on configuring and installing of 5¼-inch FH devices.

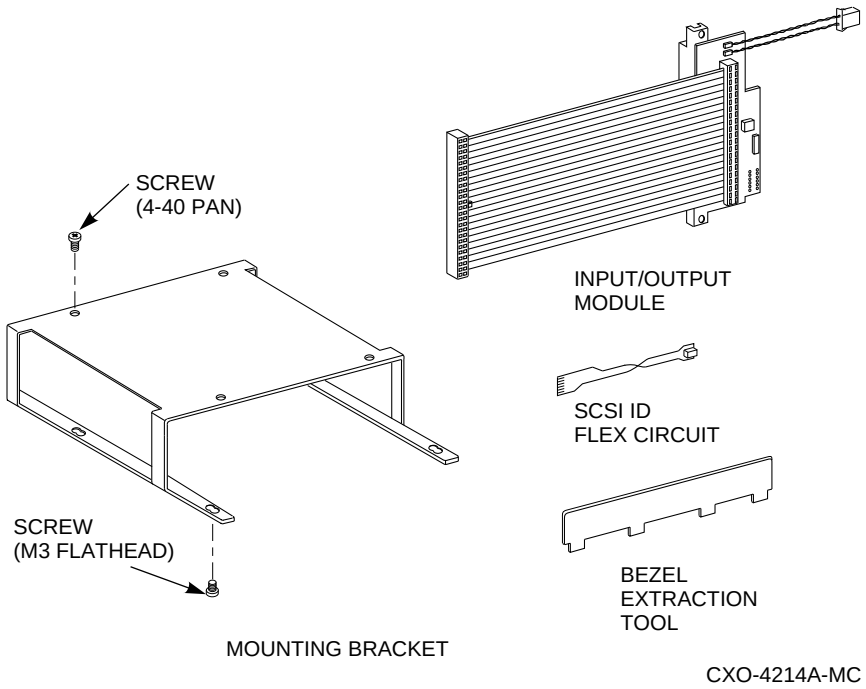
Use the following procedure to install a second 5¼-inch HH device in an SBB:

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 second 5¼-inch half-height option kit (as shown in Figure 1) and the second 5¼-inch HH device within easy reach.

Figure 1 Second 5¼-Inch Half-Height Option Kit Components



2. Using Table 1, check to make sure you have all of the option kit components.

Table 1 Second 5¼-Inch Half-Height Option Kit Contents

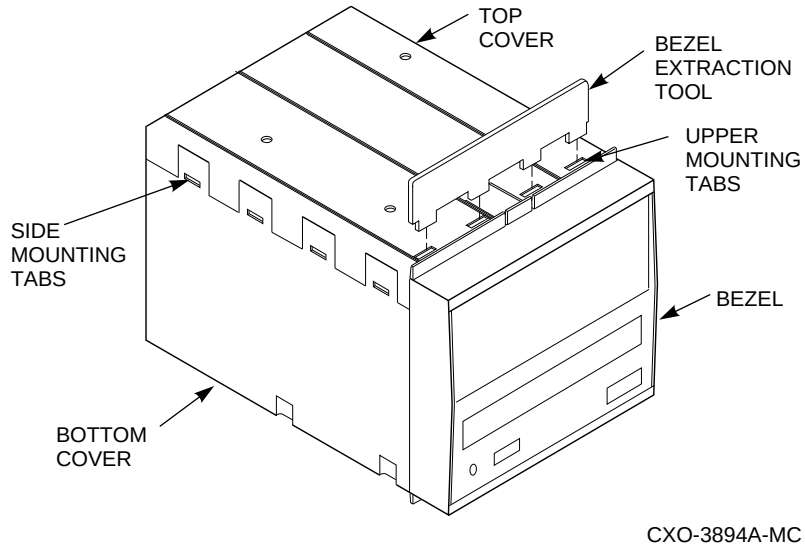
Component	Part Number	Quantity
Bezel extraction tool	74–47025–01	1
Input/Output module	54–22219–01	1
Label, generic	36–39997–01	1
Mounting bracket	74–45316–01	1
Screw, machine, 4–40, pan head	90–06011–01	4
Screw, machine, M3, 5 mm, flat head	90–40122–08	4
Screw, machine, M3, 5 mm, pan head	90–10556–02	4
SCSI ID Flex circuit	17–03608–06/10	1

3. Place the SBB (see Figure 2) on the work surface 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, and remove the bezel.

Figure 2 5¼-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, as shown in Figure 2.

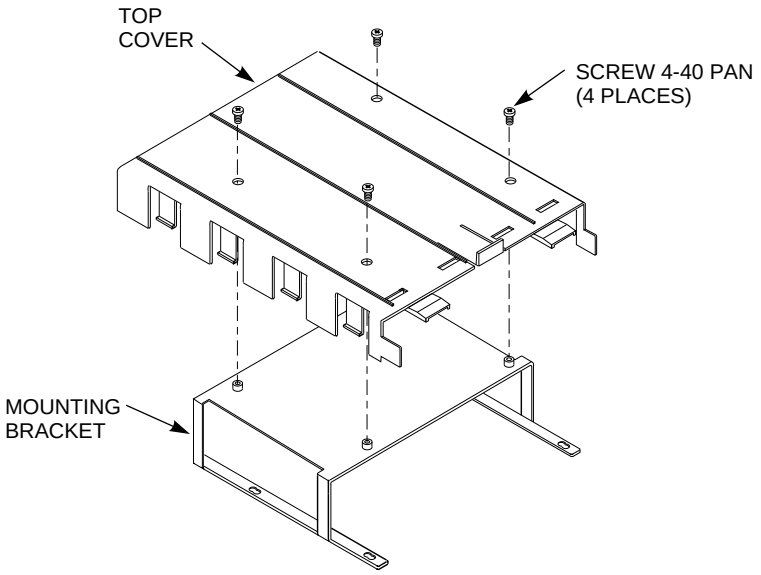
   b. On the right side, push in each of the four top cover side mounting tabs until this side is released, and remove the top cover.

5. Attach the top cover to the mounting bracket as follows:

   a. Position the top cover over the mounting bracket and align the cover mounting holes with the screw holes in the top of the mounting bracket, as shown in Figure 3.

   b. Insert and tighten the four 4–40 pan head screws (recommended torque is seven inch–pounds).

Figure 3 Top Cover to the Mounting Bracket



6. Attach the device to the mounting bracket as follows (see Figure 4):

   a. Position the device as shown in step ❶.

CAUTION

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

   b. Slide the device into the mounting bracket as shown in step ❷.

Note

Refer to device documentation to determine whether 4–40, 6–32, or M3 screws are used to mount the device.

   c. Select the appropriate pan head screws for mounting the device (that is, 4–40, 6–32, or M3).

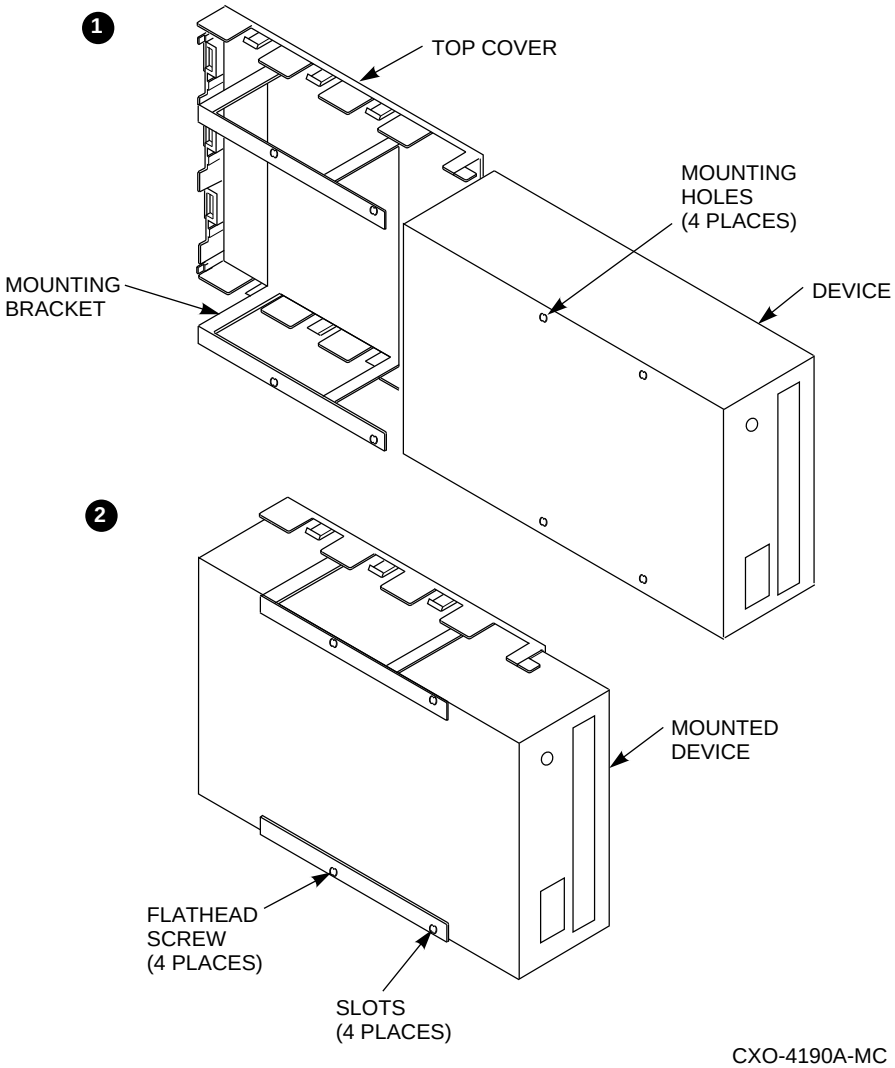
   d. Align the four device mounting holes with slots in the mounting bracket.

Note

If you are in doubt about which are the correct screws, insert and *finger-tighten* one of the mounting screws.

   e. Insert four flat head screws through the mounting bracket slots and into the device. **Do not tighten the machine screws.**

Figure 4 Device to the Mounting Bracket



7. Align the two devices in the SBB as follows:

   a. Slide the second device into the bottom cover guide slots, as shown in Figure 5.

   b. Align the front of the second device with the front of the first device.

Note

Firmly hold the second device to prevent it from moving in the mounting bracket and thereby losing alignment.

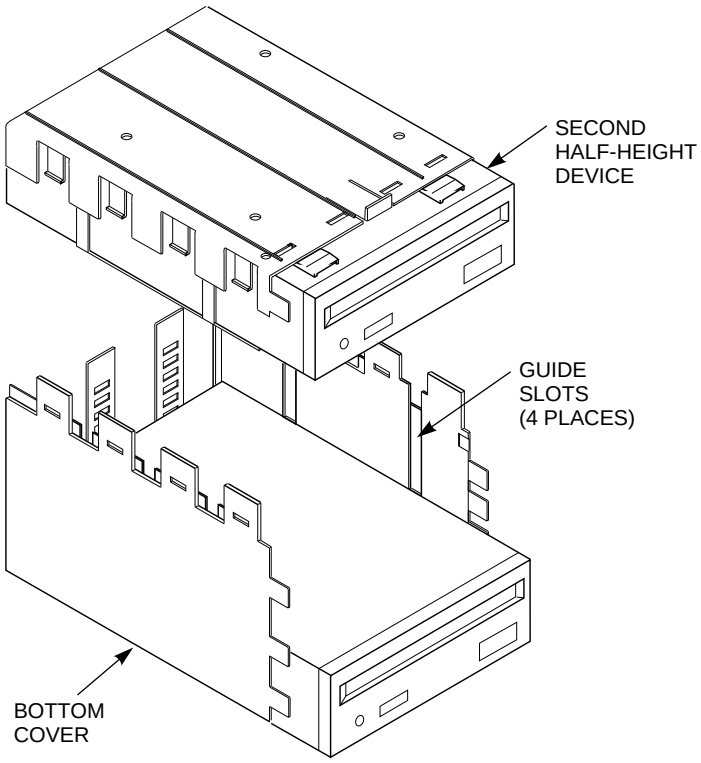
   c. Lift the device from the bottom cover and tighten the four flat head screws (recommended torque is seven inch–pounds). Refer to Figure 4.

   d. Slide the second device into the bottom cover guide slots to make sure the alignment has not changed.

   e. If the alignment has changed, repeat the alignment procedure starting with step a.

   f. When the alignment is correct, remove the second device from the bottom cover and proceed to the next step.

Figure 5 Aligning Two Devices in the SBB



8. Attach the **small computer system interface (SCSI)** ID flex circuit to the Input/Output (I/O) module **zero insertion force (ZIF)** connector as follows:

   a. Locate and unlock (pull) the edge of the ZIF connector (see Figure 6).

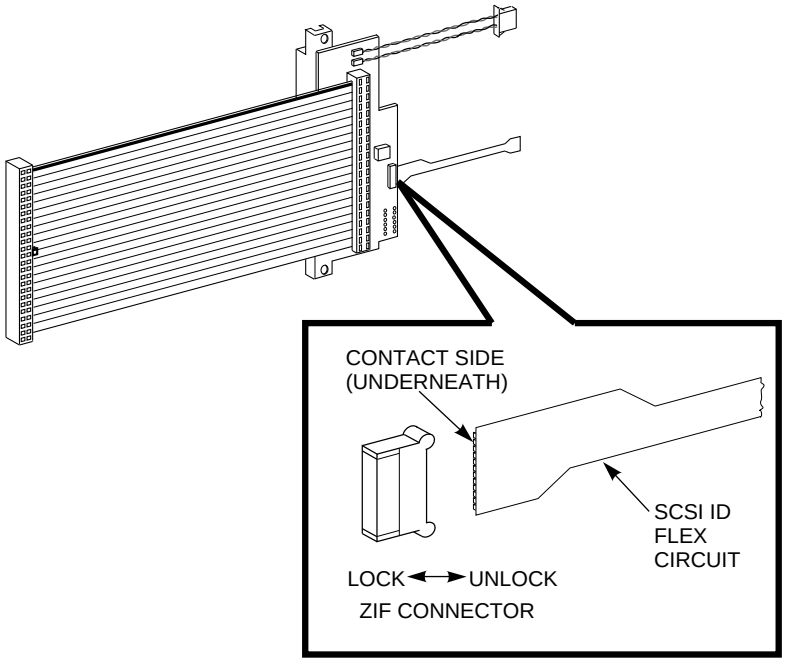
CAUTION

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

   b. Insert the flat end of the SCSI ID flex circuit into the ZIF connector. Make sure that the contacts (shiny side) are face down.

   c. Lock (push) the edge of the ZIF connector to secure the SCSI ID flex circuit.

Figure 6 SCSI ID Flex Circuit to the ZIF Connector



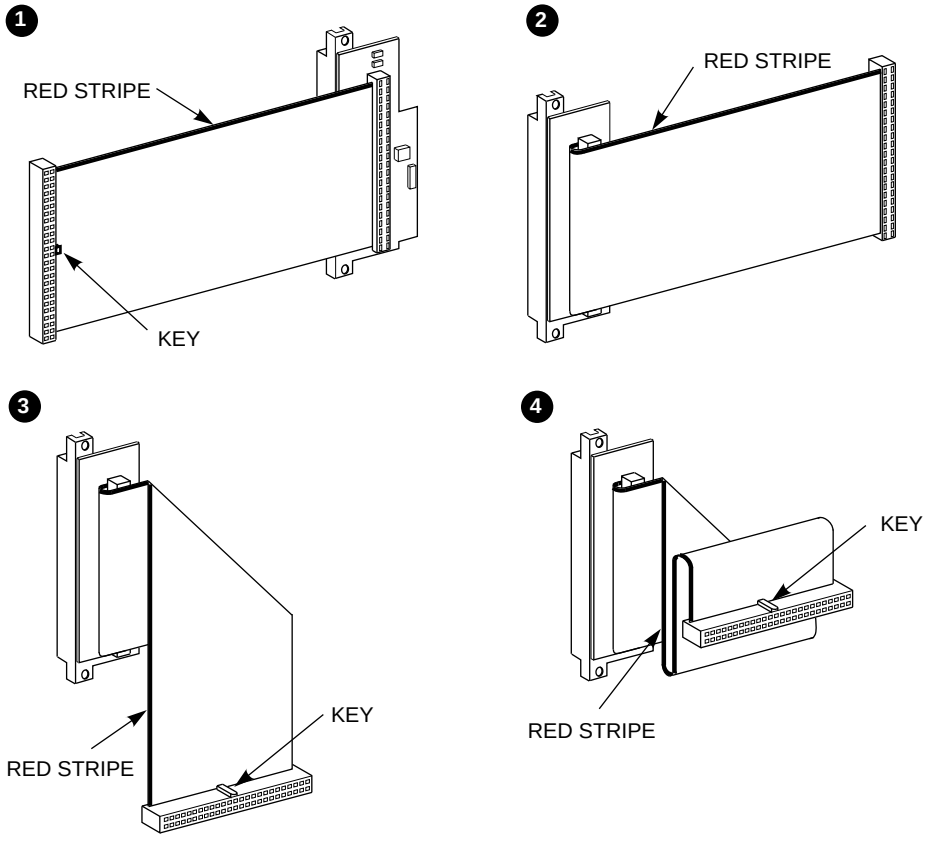
CXO-3876A-MC

9. If the device you are installing is a tape drive, fold the cable as shown in Figure 7.

Note

Make sure the red stripe and the key are properly positioned.

Figure 7 Tape Drive I/O Cable

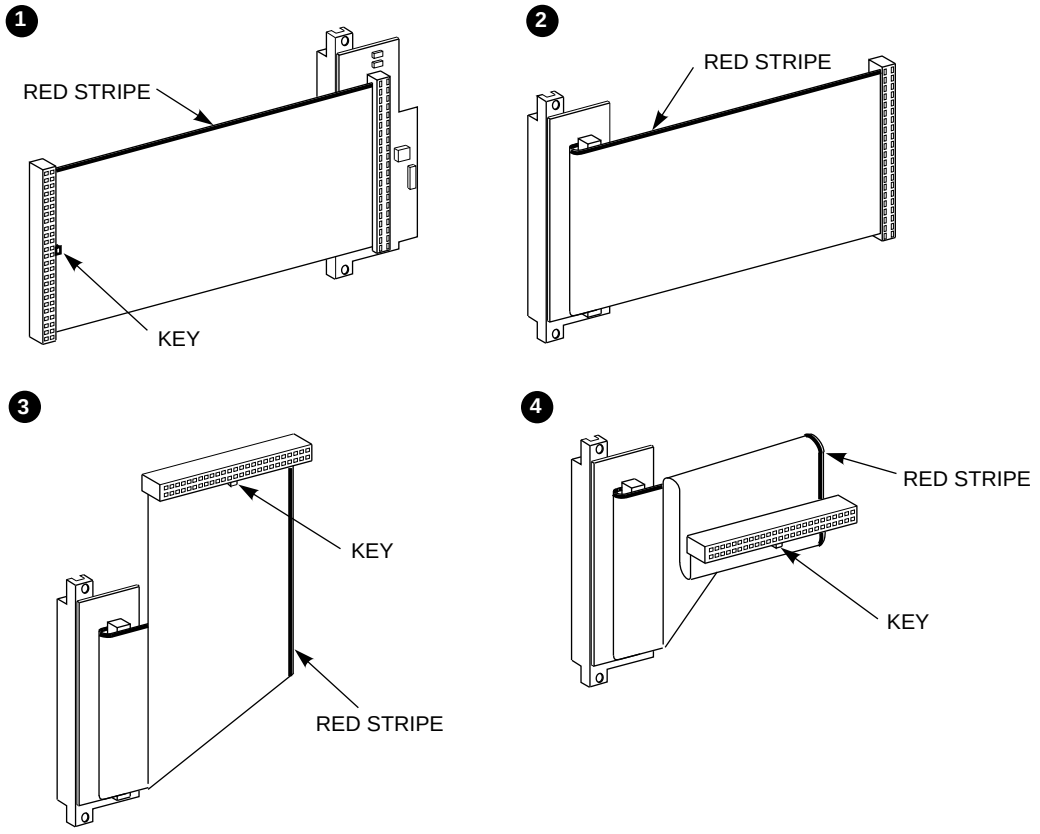


10. If the device you are installing is a CD–ROM, fold the cable as shown in Figure 8.

Note

Make sure the red stripe and the key are properly positioned.

Figure 8 CD–ROM I/O Cable



CXO-3890A-MC

11. Attach the I/O module connectors to the second 5¼-inch HH device. See Figure 9.
    a. Keep the ribbon cable folded while you plug in the connectors.
    b. Stand the device on end with the I/O module connector facing up.
    c. Connect the 50-pin interface connector.
        - If connecting to a RRD42 device, see Figure 10.
        - If connecting to a RRD43 device, see Figure 11.
        - If connecting to a RRD44 device, see Figure 12.

Figure 9 Input/Output Module Connectors

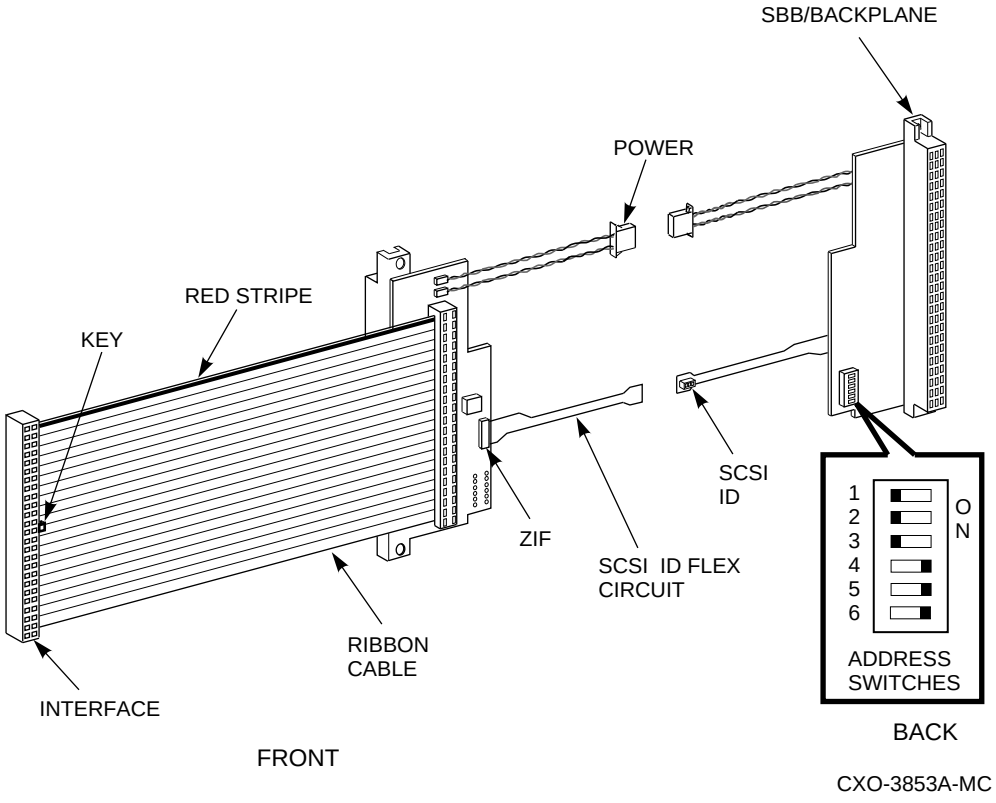
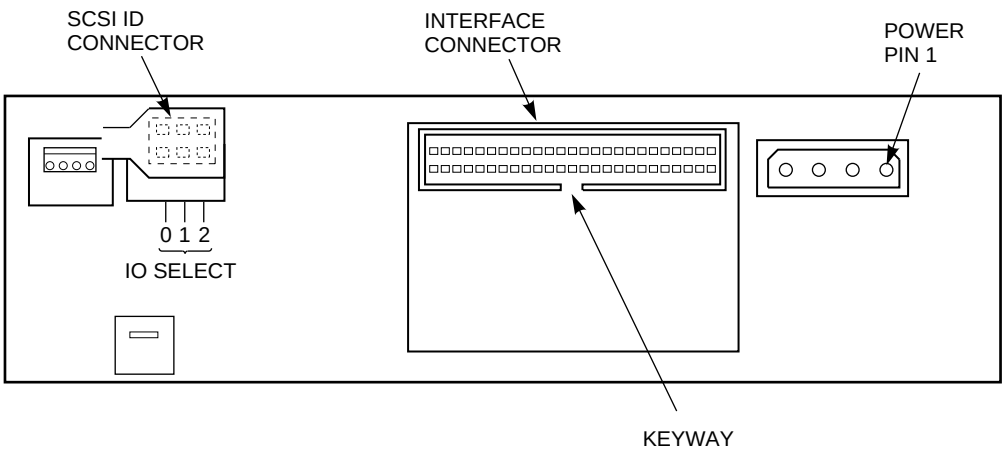
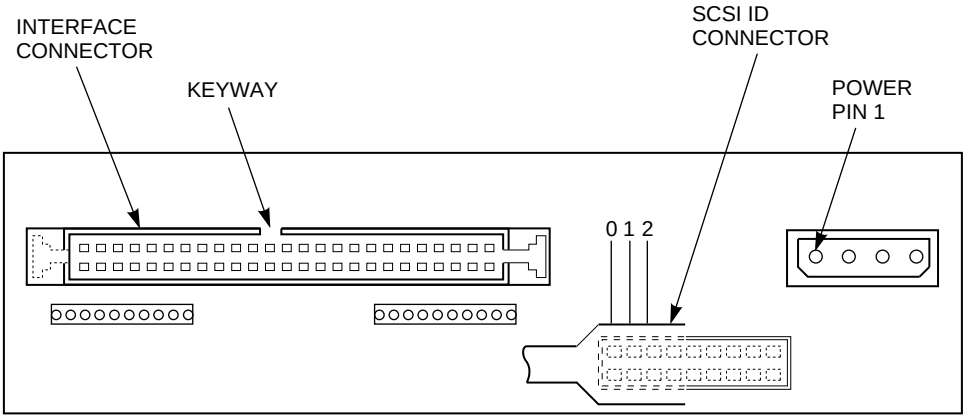


Figure 10 RRD42 Device Interface Connection



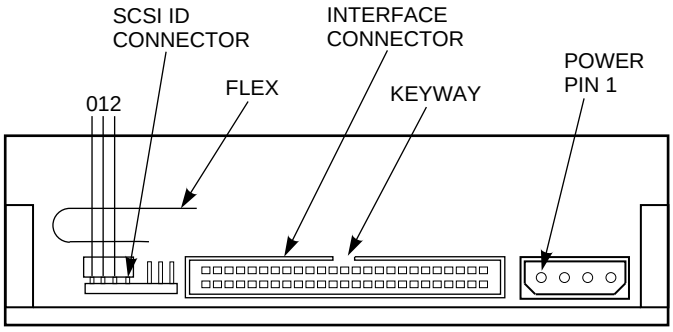
CXO-4207A-MC

Figure 11 RRD43 Device Interface Connection



CXO-4209A-MC

Figure 12 RRD44 Device Interface Connection



d. Plug in the 4-pin power connector.

- If connecting to a RRD42 device, refer to Figure 10.
- If connecting to a RRD43 device, refer to Figure 11.
- If connecting to a RRD44 device, refer to Figure 12.

e. Plug in the SCSI ID connector.

Note

Prior to installing the SCSI ID flex circuit, remove all two-pin jumpers from the SCSI ID connector on the rear of the device. Refer to the device documentation.

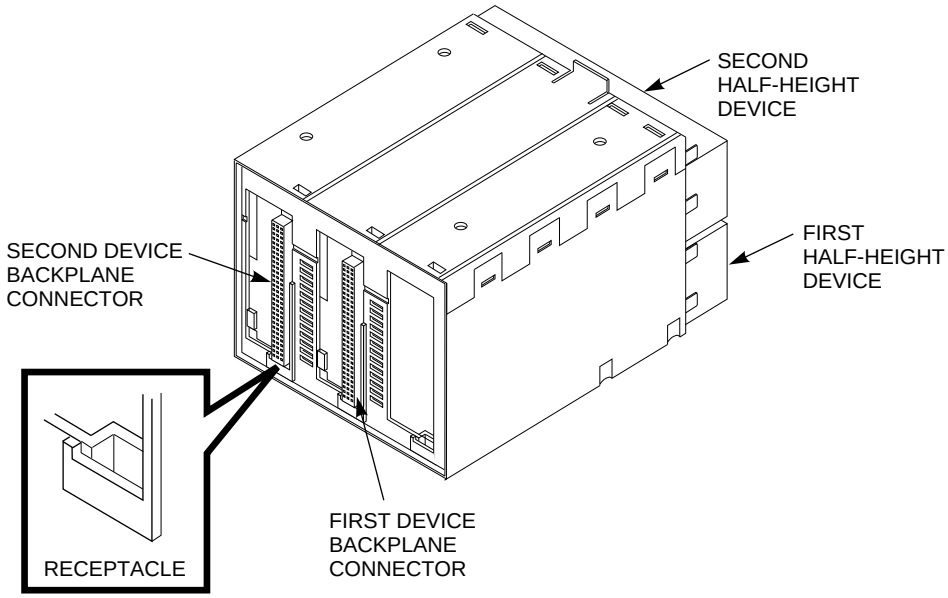
12. Insert the mounted second device into the bottom cover guide slots (refer to Figure 5).

Note

The second device connector is the left rear modular carrier connector as shown in Figure 13.

13. Position the lower end of the backplane connector into the receptacle in the bottom cover. The top cover has a similar receptacle for the upper end of the backplane connector.
14. Align the top and bottom covers so that the backplane connectors move freely (up, down, and sideways).
15. Push the top cover into the bottom cover until the eight tabs on the sides of the covers engage and snap into place.

Figure 13 Mounted Second Device



16. Attach the bezel as follows:

    a. Stand the SBB on the I/O module end as shown in Figure 14.

    b. Pick up the bezel and remove the blank bezel filler panel.

    c. Fit the top bezel tabs into the SBB. Make sure the tabs are aligned and the three evenly spaced top bezel tabs are on the left side. Gently push until the four top bezel and four bottom bezel tabs are secure.

Figure 14 Bezel Attachment