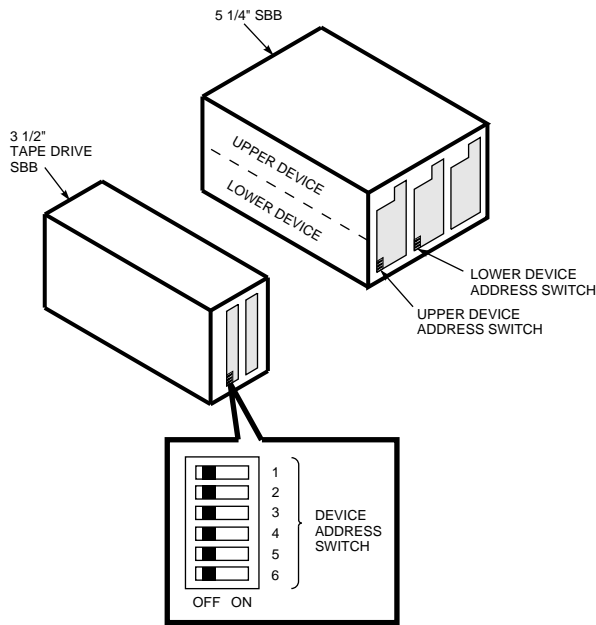## StorageWorks Building Blocks User's Guide

This document describes the procedures for setting device addresses, installing devices, and replacing devices in StorageWorks™ building blocks (SBBs).

## Device Addresses

The address switches on the rear of the 5¼-inch SBBs and **3½-inch tape drive** SBBs (see Figure 1) are used to override the SBB shelf connector device address. Setting these switches to automatic enables the shelf connector device address.

**Figure 1**
**SBB Device Address Switch Locations**



CXO-3630A-MC_R

Before installing the SBB in the shelf, set the switches on the rear of the SBB to one of the addresses shown in Table 1.

A 5¼-inch SBB can contain one full-height (FH) or two half-height (HH) devices. To set the device addresses for a 5¼-inch SBB with two HH devices installed (see Figure 1):

• Use the center switch to set the lower device address switch.

• Use the left switch to set the upper device address.

#### NOTE

Only the center switch is installed when there is a FH 5¼-inch device or only one HH 5¼-inch device in a 5¼-inch SBB.

To use the default shelf device address, set the switches to the automatic setting as shown in Table 1.

**Table 1**
**SBB Device Address Switch Settings**

| Address | Switch Number | | | | | |
|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 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 the host.

‡ Sets the device address to the shelf default value.

## Installing 5¼-Inch Devices

All half-height (HH) and full-height (FH) 5¼-inch devices are installed in a carrier[1] with four screws. Install FH devices and the lower HH device[2] by inserting four screws through the mounting slots in the *bottom* of the carrier.
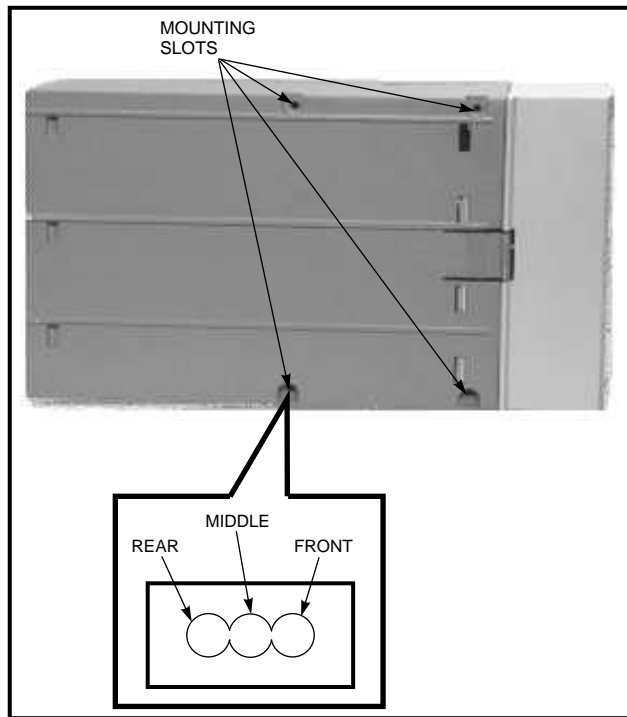
1. Attach a mounting bracket to the upper HH device.

2. Insert the device into the carrier.

3. Insert four screws through the mounting holes in the top of the SBB.

4. As shown in Figure 2, screws can be inserted in one of three positions in the mounting bracket and the carrier bottom mounting slots—the front, the middle, or the rear. The screws used and their mounting slot position are device dependent (see Table 2).

**Table 2**
**5¼-Inch Mounting Specifications**

| Device | Screws | Screw Position | |
| --- | --- | --- | --- |
| | | Slot | Bracket |
| RRD42–VB CD-ROM† | 4-40 | Middle | N/A |
| RRD42–VU CD-ROM‡ | 4-40 | N/A | Front |
| RZ73–VA disk | 6-32 | Rear | N/A |
| RZ74–VA disk | 6-32 | Rear | N/A |
| TKZ09–VA tape | 4-40 | Middle | N/A |
| TLZ6L–VA tape | M3 | Middle | N/A |
| TZK10–VA tape† | 4-40 | Rear | N/A |
| TZK10–VU tape‡ | 4-40 | N/A | Rear |

† Lower half-height device.

‡ Upper half-height device.

**Figure 2**
**5¼-Inch Mounting Slots**



CXO-3640A-PH_R

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[1] A carrier is the plastic case without a device installed.

[2] The lower device is always installed first.

## Replacing 5¼-Inch Devices

Refer to Figure 2 and use the following procedure to replace a device in a 5¼-inch SBB with an *identical* device. When installing a different device, refer Table 2 for the correct screws and mounting hole positions.

1. Place the SBB on a solid surface and align the four blades of the bezel tool with the four bezel tabs in the SBB cover (see Figure 2). Press down on the tool while *gently* pulling the top of the bezel away from the carrier. *Be careful not to damage the LED flexible cable attached to the bezel.* When the upper mounting tabs are free, you can remove the bezel.

2. Remove the LED flexible cable assembly from the bezel.

3. *Optional*–Remove the upper half-height device.

4. Remove the cover by pushing down on the end of the upper mounting tabs while pulling the top of the cover away from the base. When both upper mounting tabs are free, you can remove the cover.

5. Remove the device mounting screws from the carrier bottom.

6. Remove the storage device.

Complete the following procedure to install a full-height device or two half-height devices in a carrier:
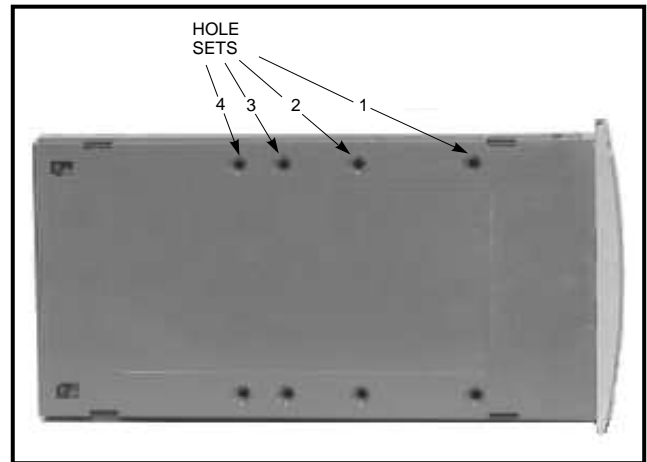
1. Align the full-height or lower half-height device with the mounting holes in the bottom of the carrier.

2. Install the four mounting screws.

3. Align the cover mounting tabs with the base and snap the cover into place.

4. *Optional*–Install the upper half-height device.

5. Route the LED flexible cable out the front of the carrier.

6. Install the LED on the bezel and attach the LED flexible cable to the bezel.

7. Align the bezel mounting tabs with mounting holes in the base and cover and snap the bezel into place.

8. Install the SBB in the shelf and apply power to the shelf.

9. Observe the SBB LEDS and verify that the SCSI bus and devices are functioning properly.

## Installing 3½-Inch Devices

All 3½-inch devices are installed in an *assembled* carrier with four screws. Install devices by inserting four screws through the mounting holes in the *bottom* of the carrier.

As shown in Figure 3, screws can be inserted in four different sets of mounting holes. The screws used and their mounting hole sets are device dependent (see Table 3).

**Figure 3**
**3½-Inch Mounting Hole Sets**



CXO-3641A-PH–R

**Table 3**
**3½-Inch Mounting Specifications**

| Device | Screws | Hole Sets |
|---|---|---|
| RZ25–VA disk | 6-32 | 2 and 4 |
| RZ26–VA disk | 6-32 | 2 and 4 |
| RZ27–VA disk | 6-32 | 2 and 4 |
| TLZ06–VA tape | M3 | 1 and 3 |

## Replacing 3½-Inch Devices

See Figure 4 and use the following procedure to replace a device in a 3½-inch SBB with an *identical* device. When installing a different device, refer to Table 3 for the correct screws and mounting hole sets.
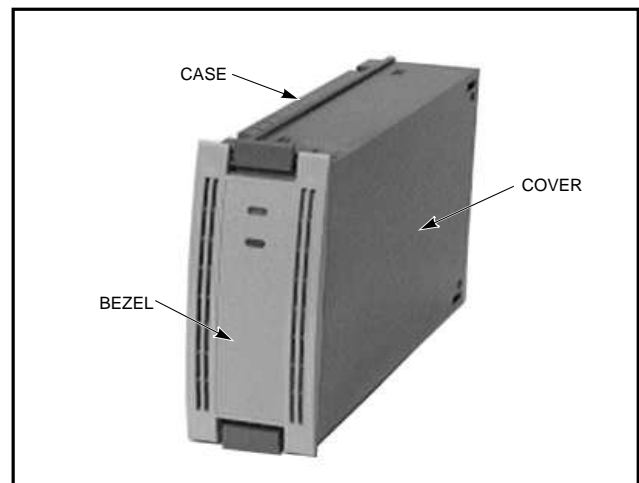
### CAUTION

Use minimal pressure when pressing the mounting tabs to prevent damage.

1. Push down on the end of the upper bezel mounting tabs in the base and cover while *gently* pulling the top of the bezel away from the carrier. *Be careful not to damage the LED flexible cable attached to the bezel.* When both upper mounting tabs are free, you can remove the bezel.

2. Remove the cover by pushing down on the end of the upper mounting tabs while pulling the top of the cover away from the base. When both upper mounting tabs are free, you can remove the cover.

3. Remove the four mounting screws from the carrier bottom.

4. Remove the storage device.

Complete the following procedure to install a storage device in a carrier:

1. Align the storage device with the mounting holes in the bottom of the carrier.

2. Install the four mounting screws.

3. Route the LED flexible cable out the front of the carrier.

4. Align the cover mounting tabs with the base and snap the cover into place.

5. Install the LED on the bezel and attach the LED flexible cable to the bezel.

6. Align the bezel mounting tabs with mounting holes in the base, and cover and snap the bezel into place.

7. Install the SBB in the shelf and apply power to the shelf.

8. Observe the SBB LEDS and verify that the SCSI bus and devices are functioning properly.

**Figure 4**
**Typical 3½-Inch SBB**



CXO-3645A-PH_R