



Installing the RZ26 Hard Disk Drive in the BA42 Expansion Box

EK-BA42A-AD. A01

January 1993

Dear BA42 Expansion Box Customer:

This document describes how to install the RZ26 hard disk drive in your BA42 storage expansion box and provides the RZ26 drive hardware specifications.

The RZ26 drive installation differs from the hard disk drive installation described in the *BA42 Storage Expansion Box Installation Guide* because of a new internal SCSI ID switch cable adapter.

Insert this document into your *BA42 Storage Expansion Box Installation Guide* (in the hard disk drive section of Chapter 2) for future reference.

© Digital Equipment Corporation 1993. All rights reserved.
The following are trademarks of Digital Equipment Corporation:
VAXstation, VMS, and the Digital logo.

S2144

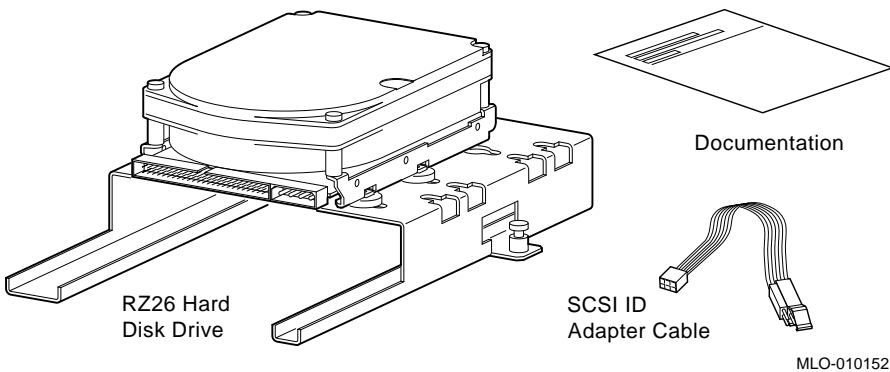
1 Installation Overview

The following list is an overview of the tasks involved in installing the RZ26 hard disk drive in the BA42 expansion box:

1. Check the contents of the shipment.
2. Check your system configuration.
3. Set the SCSI ID switches.
4. Install the RZ26 drive.
5. Verify the installation.

2 Checking Components Shipped

Your shipment should contain all the components shown here. If any component is missing, contact your Digital sales representative.



Note

The SCSI ID adapter cable may come already attached to the RZ26 drive.

3 Checking Your System Configuration

Before you begin the RZ26 drive installation, put your system in console mode and enter the SHOW CONFIG command. (If you need instructions, see the system's installation guide or user's guide.)

Make a note of which SCSI IDs are already being used.

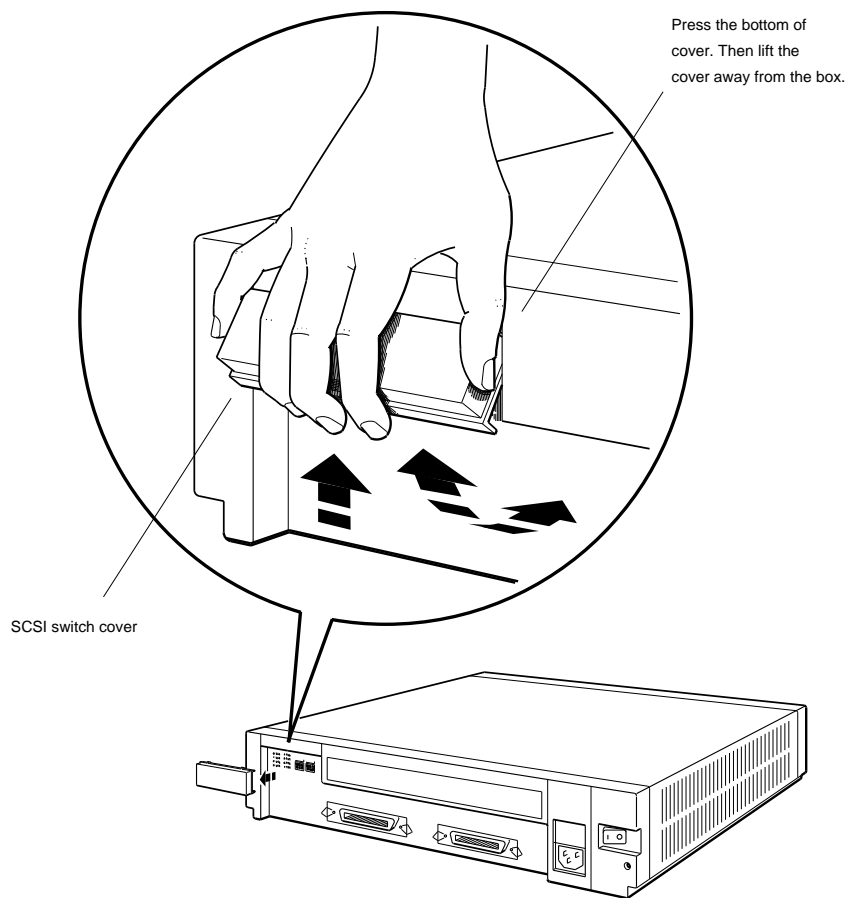
You must assign a SCSI ID number to each drive installed in a BA42 expansion box. Numbers that can be used range from 0 to 7, and you can assign each number only once.

3.1 Setting the SCSI ID Switches on the BA42 Expansion Box

SCSI ID switches for hard disk drives installed in a BA42 expansion box are located on the back of the expansion box behind the SCSI ID switch cover.

Remove the switch cover as shown in Figure 1.

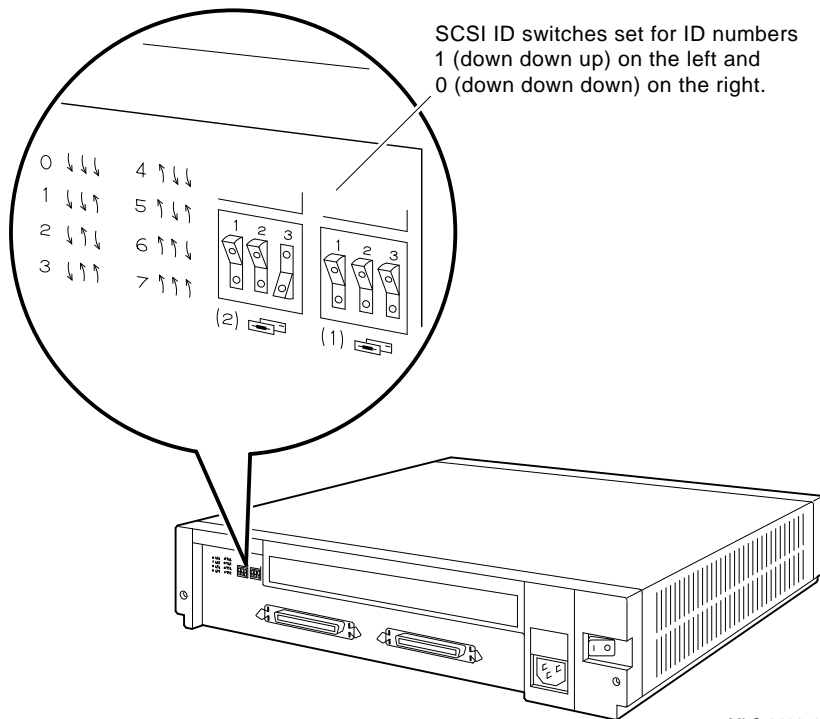
Figure 1 Removing the SCSI Switch Cover



WSEBAM25

If you have one hard disk drive installed in your expansion box, the right three SCSI ID switches on the back of the box determine the SCSI ID switch setting for that drive.

If you are installing a second hard disk drive in your expansion box, the left three SCSI ID switches on the back of the box determine the SCSI ID switch setting.



MLO-010153

3.2 Changing the SCSI ID Switch Setting

If the switches on your expansion box are set for a SCSI ID number that is not available for use, use a pen or a small pointed object to flip the switches you need to change.

Table 1 shows the SCSI ID switch settings for hard disk drives.

Table 1 SCSI ID Numbers and Switch Settings for Hard Disk Drives

SCSI ID Number	Switch Settings		
	Switch 1	Switch 2	Switch 3
0	Down	Down	Down
1	Down	Down	Up
2	Down	Up	Down
3	Down	Up	Up
4	Up	Down	Down
5	Up	Down	Up
6	Up	Up	Down
7	Up	Up	Up

4 Installing the RZ26 Hard Disk Drive

Here are the steps you follow to install the RZ26 drive. The sections following the list describe each step.

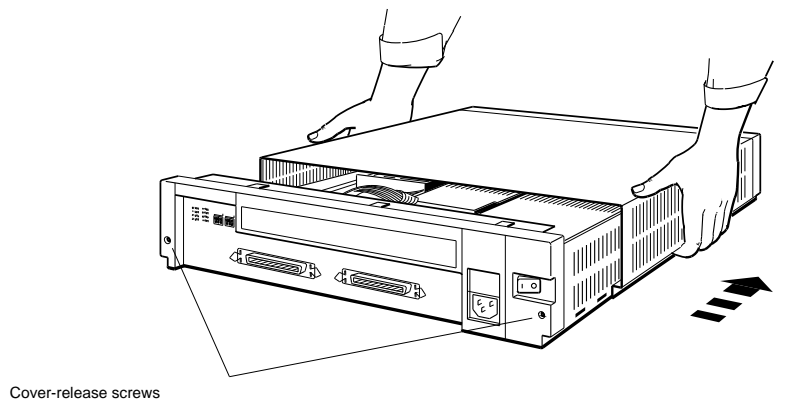
1. Remove the cover from the BA42 box.
2. Attach the adapter cable to the RZ26 drive.
3. Check the cables inside the box.
4. Attach the SCSI and power cables to the drive.
5. Insert the drive in the expansion box.
6. Tighten the captive screw on the drive bracket.
7. Replace the cover on the BA42 box.

Step One: Remove the cover from the expansion box.

Follow these steps to remove the expansion box cover:

1. Loosen the two cover-release screws on the back of the expansion box.
2. Grasp each side of the cover and pull it toward you as shown in Figure 2.

Figure 2 Removing the Expansion Box Cover



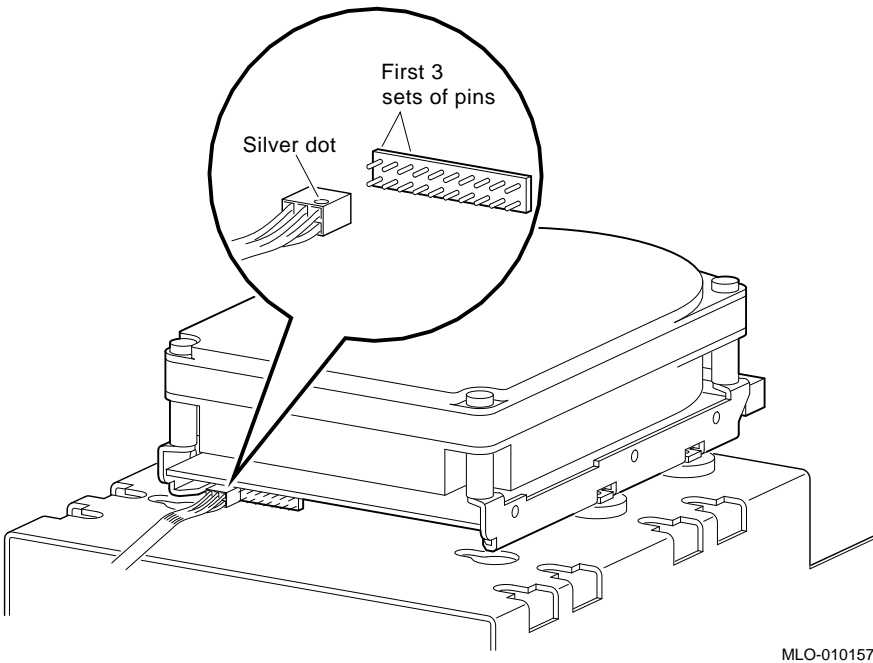
WSEBAI20

3. Pull the cover up and away from the box.

Step Two: Attach the adapter cable to the RZ26 drive.

Figure 3 shows where to attach the adapter cable to the RZ26 hard disk drive. The silver dot faces up as you insert the adapter cable onto the first three SCSI pins. If there are jumpers on the three SCSI pins, remove them. Do not remove any of the other jumpers.

Figure 3 Attaching the SCSI ID Adapter Cable to the RZ26 Hard Disk Drive



MLO-010157

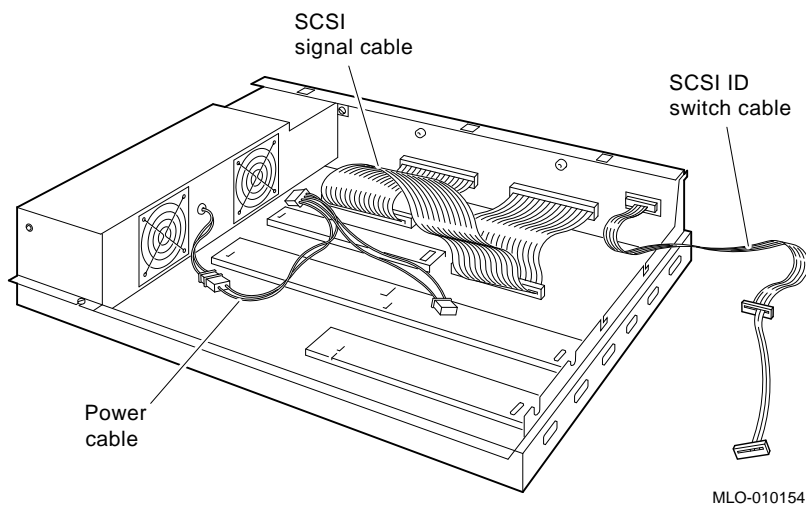
Note

The SCSI ID adapter cable may come already attached to the RZ26 drive.

Step Three: Check the expansion box cables.

Figure 4 shows the cables inside the BA42 expansion box. The SCSI ID switch cable connectors for the RZ5x drive and the RZ2x drive are different: the RZ5x cable connector has 24 pins, and the RZ2x cable connector has 6 pins.

Figure 4 BA42 Internal Cables

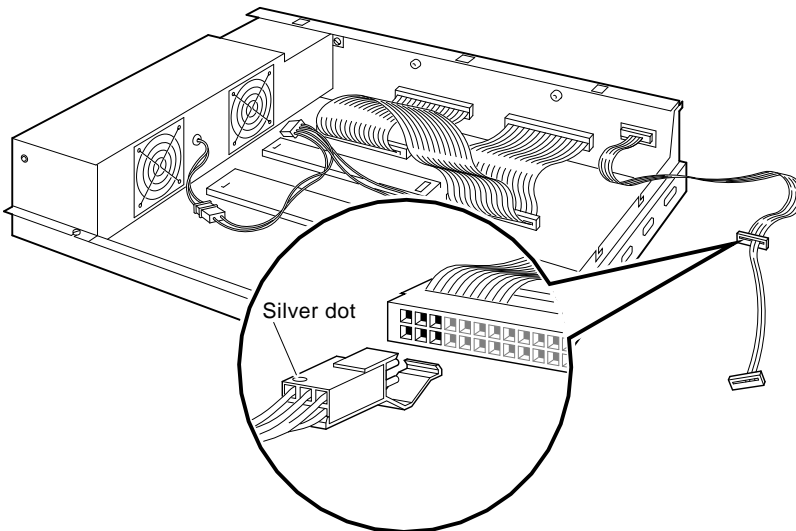


The SCSI ID adapter cable that came with your RZ26 drive attaches to either the 24-pin connector or the 6-pin connector on one end, and to the RZ26 drive on the other end.

Step Four: Attach the SCSI ID adapter cable.

Figure 5 shows how to attach the SCSI ID adapter cable to the RZ5x 24-pin SCSI ID cable connector.

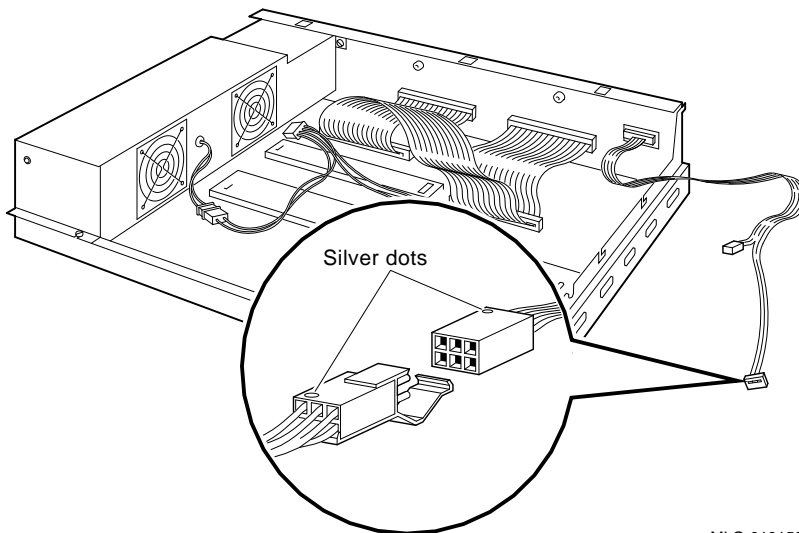
Figure 5 Attaching the SCSI ID Adapter Cable to a 24-Pin Cable Connector



MLO-010155

Figure 6 shows how to attach the SCSI ID adapter cable to the RZ2x 6-pin SCSI ID cable connector. Make sure both silver dots are facing the same way, and the plastic latch snaps to secure the connection.

Figure 6 Attaching the SCSI ID Adapter Cable to a 6-Pin Cable Connector

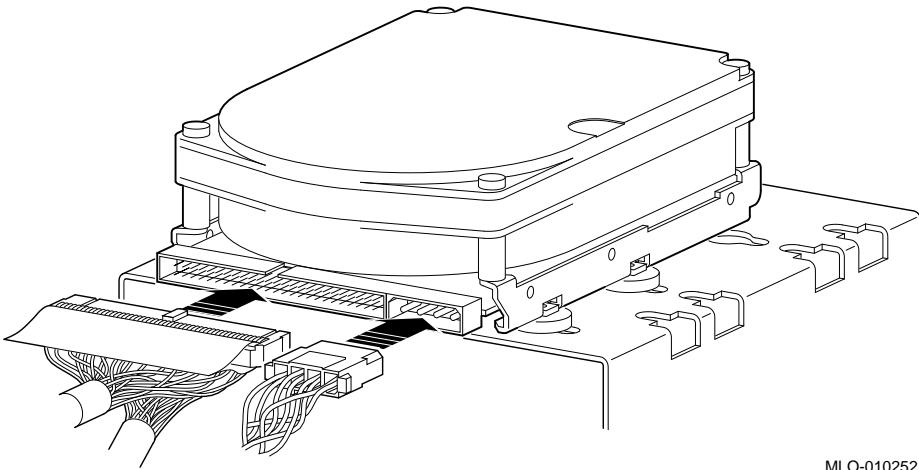


MLO-010156

Step Five: Attach the SCSI and power cables.

Figure 7 shows where to attach the SCSI and power cables to the RZ26 drive.

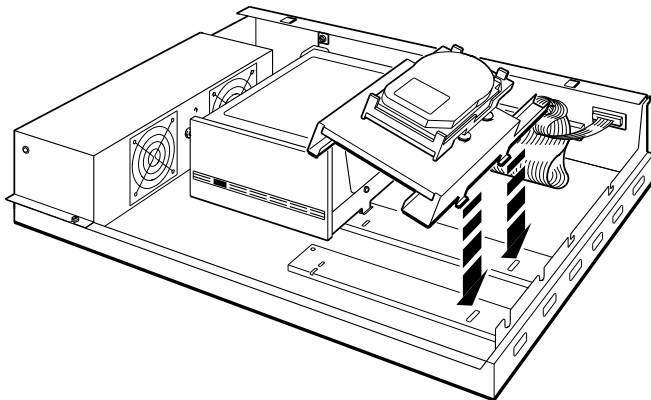
Figure 7 Attaching the SCSI and Power Cables



MLO-010252

Step Six: Insert the drive in the expansion box.

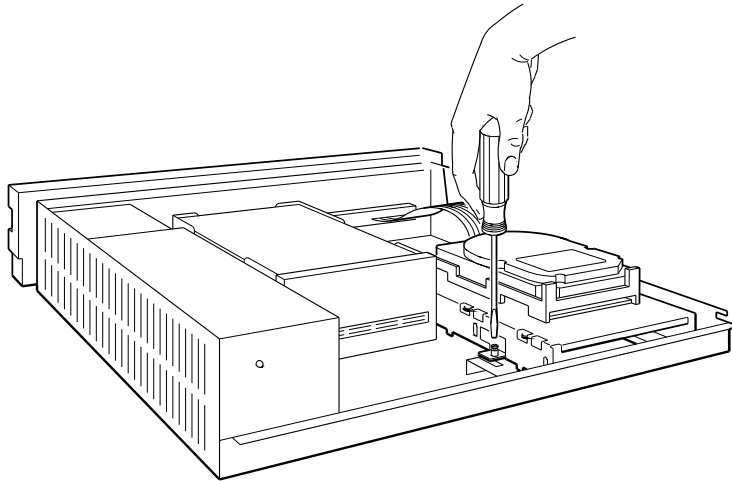
Tilt the drive until you can place the metal tabs on the bottom of the drive bracket into the openings in the floor of the box.



WSEBA187

Step Seven: Tighten the captive screw on the drive bracket.

Tighten the captive screw, as shown, to hold the drive in place.



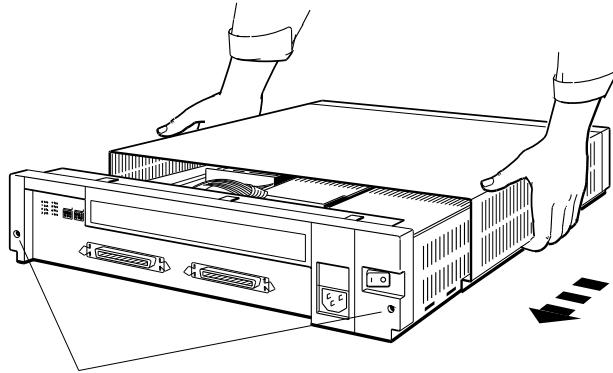
WSEBA188

Step Eight: Replace the cover and tighten the cover-release screws.

Position the cover over the SCSI ID switches on the back of your expansion box by inserting the notch on the bottom of the cover into the opening below the switches. Slide the cover forward, as shown, and snap the cover into place.

Caution:

Make sure the internal cables are pushed down into the box before replacing the cover. Closing the cover on the cables can damage them.



Cover-release screws

WSEBA19

5 Verifying the RZ26 Installation

To verify that the installation has been done correctly, turn on power to all expansion boxes and then the system unit.

Put your system in console mode and enter the SHOW CONFIG command. (If you need instructions, see the system's installation guide or user's guide.)

If the RZ26 drive does not appear in your configuration display, check the On/Off switch on the expansion box.

If the switch is *off*, follow this procedure:

1. Turn off your system unit.
2. Turn on all expansion boxes and then the system unit. Check the configuration display again.

If the switch is *on*, follow this procedure:

1. Turn off your system unit and expansion boxes.
2. Be sure all expansion box cables and power cords are connected securely.
3. Be sure the SCSI terminator is attached securely to the expansion box.
4. Be sure the internal cables are connected securely to the drive.
5. Check the expansion box cable connectors for damaged pins.
6. Check the SCSI ID switch settings.
7. Turn on all expansion boxes and then the system unit. Check the configuration display again.

If the configuration display still does not show the drives in the expansion box, contact your system manager or Digital service representative.

6 RZ26 Hard Disk Drive Hardware Specifications

Table 2 RZ26 Weight and Dimensions

Weight	Height	Width	Depth
0.9 kg (1.9 lb)	4.13 cm (1.625 in)	10.2 cm (4.00 in)	14.6 cm (5.75 in)

Table 3 RZ26 Drive Formatted Storage Capacity

Per drive	1050 MB
Per surface	75 MB
Bytes per track	29,640
Buffer size	512 KB

Table 4 RZ26 Drive Performance

Data transfer rate to/from media	2.6 MB/sec
Seek time track to track	1 msec
Seek time average	10 msec
Seek time maximum (full stroke)	≤ 20 msec
Average latency	5.6 msec
Rotational speed	5363 rpm

Table 5 RZ26 Drive Operating Conditions

Ambient temperature	10°C to 50°C (50°F to 122°F)
Relative humidity	10%–90%

Table 6 RZ26 Drive Nonoperating Conditions

Ambient temperature	–40°C to 66°C (–40°F to 151°F)
Relative humidity	8%–95% (non-condensing)