

# RRD43 CD-ROM Disc Drive Installation Guide for

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## MicroVAX 3100 and VAX 4000 Model 100 Systems

Order Number: EK-RRDVX-IN. A01

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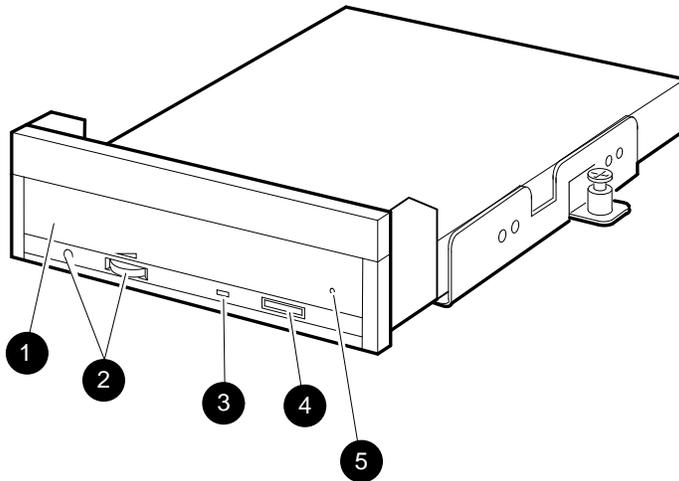
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## 1 The RRD43-AA CD-ROM Drive

The RRD43 CD-ROM drive is a compact disc, read-only memory (ROM), Small Computer Systems Interface (SCSI) device. It reads data from industry-standard 600 MB discs. The order number for the field-installable RRD43 CD-ROM drive is RRD43-EK. Figure 1 shows the RRD43 drive and its external features.

**Figure 1 RRD43 Compact Disc Drive Front Panel**



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- ❶ Disc tray.
- ❷ Volume control and headphone socket—not used.

- ③ Busy LED—This LED turns on when data is read from the disc. It flashes during seek operations.
- ④ Eject button—Press this button to eject the disc tray from the RRD43.
- ⑤ Emergency eject hole—Use the emergency eject hole to manually eject the disc tray if a power failure occurs.

## 2 Drive Contents

Each RRD43–EK option contains the following components:

- RRD43–AA CD-ROM drive
- Mounting bracket (PN 74–42449–01)
- Screws (4) (PN 90–10556–12)
- Bezel insert (for MicroVAX 3100 Model 30 systems only) (PN 74–37501–01)
- Documentation

## 3 SCSI ID Information

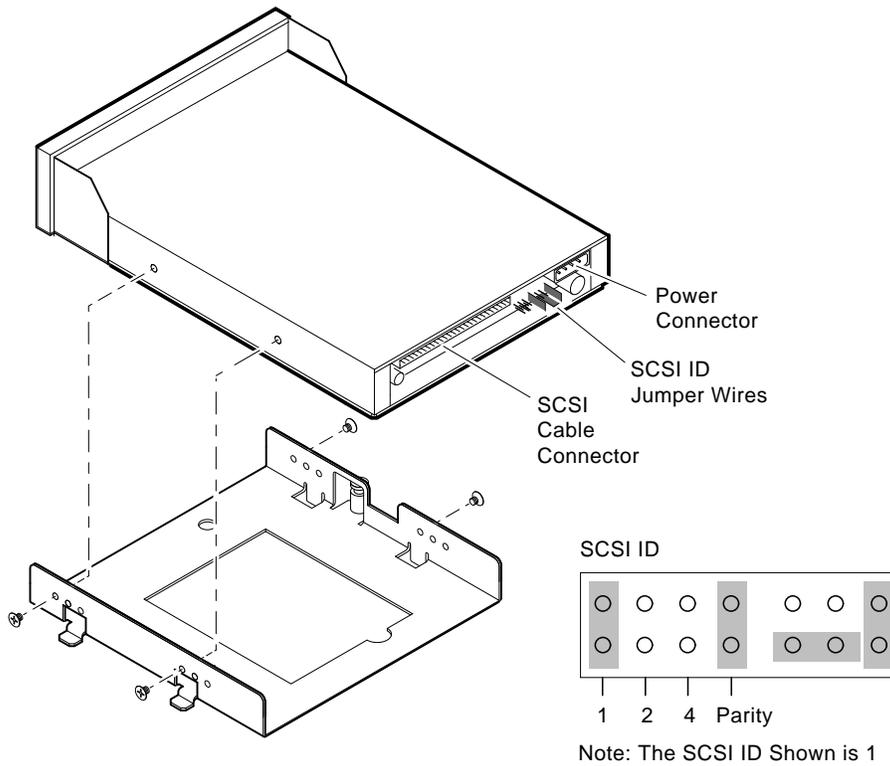
In any system, each SCSI device must have a unique identifier called the SCSI ID number. In an RRD43 CD-ROM drive, the SCSI ID number is determined by three jumpers (See Figure 2). When installing an RRD43 CD-ROM drive in a system, set the SCSI ID jumpers to a value that is not used by any of the other SCSI devices in the system. See your system documentation for more information about the SCSI bus.

The following procedure describes how to set the SCSI ID number on an RRD43 CD-ROM drive option.

1. Determine the SCSI ID number to be assigned to the RRD43 CD-ROM drive option. Typically, the RRD43 CD-ROM uses SCSI ID 4; however, the system manager may prefer to make this decision.
2. At the console prompt on the system console terminal, enter the SHOW DEVICE command. This will list the SCSI ID numbers for the existing devices in the system. Verify that you are using a number that is not currently assigned to another device.
3. Locate the SCSI ID jumper pins on the CD-ROM drive. See Figure 2.

4. Position the jumpers for the SCSI ID number selected. Table 1 shows the jumper settings for each SCSI ID.

**Figure 2 RRD43 CD-ROM Drive Jumper Locations**



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**Table 1 RRD43 CD-ROM SCSI ID Jumper Settings**

SCSI ID	Jumper 1	Jumper 2	Jumper 4
0	Out	Out	Out
1	In	Out	Out
2	Out	In	Out
3	In	In	Out
4	Out	Out	In
5	In	Out	In
6	Out	In	In
7	In	In	In

A fourth jumper wire (Parity) resides to the right of the SCSI ID jumper wires and must be installed. When the Parity jumper is installed, the drive is in Digital operation mode. When the jumper is removed, the drive is in PC mode.

## 4 Installation

Before installing the RRD43 CD-ROM drive option, the enclosure cover must be removed. If you are installing the RRD43 CD-ROM drive option in a MicroVAX 3100 Model 40, 80, or 90 system, or a VAX 4000 Model 100 system, the upper drive-mounting shelf must also be removed. See the appropriate enclosure maintenance manual for these removal procedures.

You can install an RRD43 CD-ROM drive in the following MicroVAX 3100 and VAX 4000 Model 100 systems:

- A MicroVAX 3100 Model 30 system (right storage slot.)
- A MicroVAX 3100 Model 40, 80, or 90, or VAX 4000 Model 100 system (either storage slot in the lower drive-mounting shelf.)

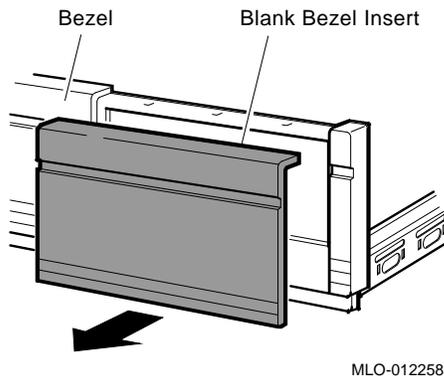
The location of the storage slot determines the position of the mounting bracket on the drive. The following sections describe how the mounting bracket should be attached to the CD-ROM drive.

## 4.1 Preparing to Install an RRD43 Option in a MicroVAX 3100 Model 30 System

Before you install an RRD43 CD-ROM in a MicroVAX 3100 Model 30 system, perform the following steps:

1. Attach the mounting bracket as shown in Figure 2. Facing the front of the drive, the captive screw should be on the left, and the four screws attaching the mounting bracket to the drive should be attached through the series of bracket holes that are closest to the front of the drive.
2. From inside the enclosure, push the blank bezel insert out of the front bezel.
3. Remove the blank bezel insert from the enclosure. Figure 3 shows the removal of the blank bezel insert from a MicroVAX 3100 Model 30 system.

**Figure 3 Removing the Blank Bezel Insert**



## 4.2 Preparing to Install an RRD43 Option in a System (Right Storage Slot)

Before you install an RRD43 CD-ROM drive option in the right storage slot on the lower drive-mounting shelf in a MicroVAX 3100 Model 40, 80, or 90, or VAX 4000 Model 100 system, perform the following steps:

1. Attach the mounting bracket as shown in Figure 2. Facing the front of the drive, the captive screw should be on the left, and the four screws attaching the mounting bracket to the drive should be attached through the series of bracket holes that are closest to the front of the drive.

2. From inside the enclosure, push out the blank bezel insert that covers the right storage slot on the lower drive-mounting shelf.
3. Remove the blank bezel insert from the enclosure.

### **4.3 Preparing to Install an RRD43 Option in a System (Left Storage Slot)**

Before you install an RRD43 CD-ROM drive option in the left storage slot on the lower drive-mounting shelf in a MicroVAX 3100 Model 40, 80, or 90, or VAX 4000 Model 100 system, perform the following steps:

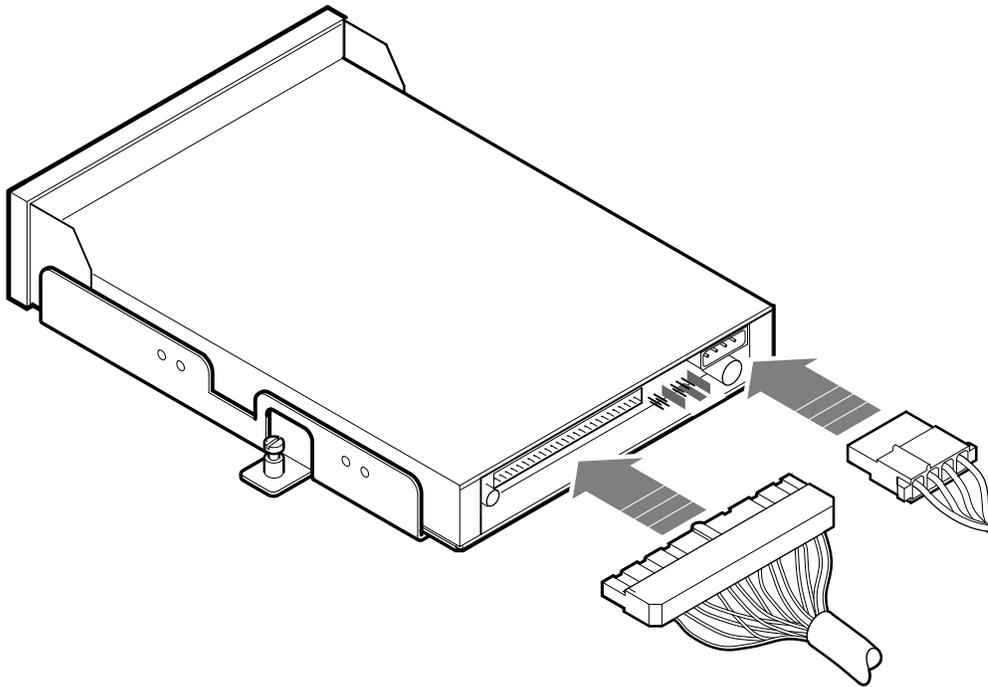
1. Attach the mounting bracket as follows: Facing the front of the drive, the captive screw should be on the right, and the four screws attaching the mounting bracket to the drive should be attached through the series of bracket holes that are closest to the front of the drive.
2. From inside the enclosure, push out the blank bezel insert that covers the left storage slot on the lower drive-mounting shelf.
3. Remove the blank bezel insert from the enclosure.

### **4.4 Installing the RRD43 CD-ROM Option**

After you have prepared the system as described previously, install the RRD43 CD-ROM drive option as follows:

1. Check the storage slot on the drive-mounting shelf to verify that all spring-lock clips are in the locked position. If they are in the released position, install a lock-out screw to secure them down.
2. Identify the power cable connector that supplies power to the storage slot where the RRD43 CD-ROM drive will be installed.
3. Connect the power cable to the power connector on the back of the RRD43 CD-ROM option. See Figure 4.
4. Identify the SCSI cable connector that has a pull-tab number that corresponds to the storage slot where the RRD43 option will be installed.
5. Connect the SCSI cable to the back of the RRD43 option. See Figure 4.
6. Align the tabs on the mounting bracket with the cutouts in the drive-mounting shelf.
7. Tilt the drive slightly to slide the tabs in the drive-mounting shelf cutouts.

**Figure 4 Connecting the Power and SCSI Cables**



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8. Lower the CD-ROM into position and tighten the captive screw on the mounting bracket to secure the tape drive in place. Figure 5 shows the installation of an RRD43 option in the left storage slot of the lower drive-mounting shelf.

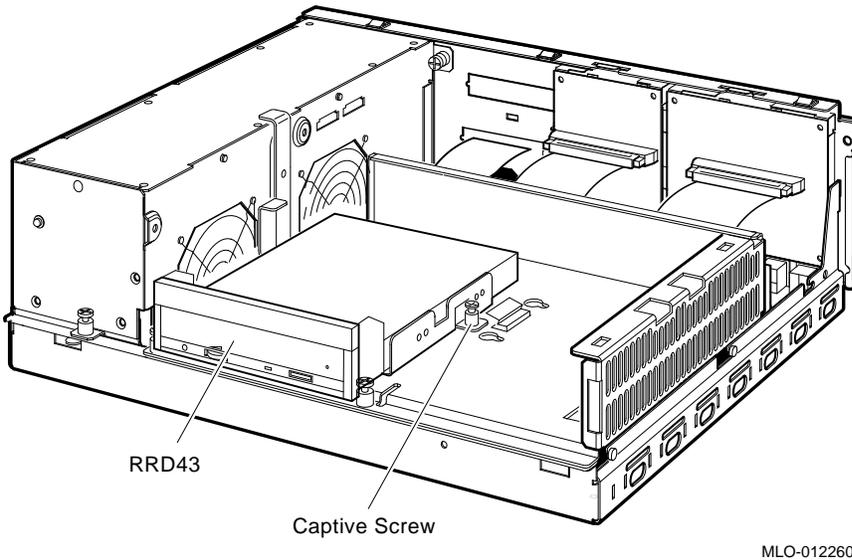
Replace the upper drive-mounting shelf (if removed) and the enclosure cover.

## 5 Diagnostic Support

The systems provide diagnostic support that tests the operation of an RRD43 CD-ROM drive option.

- If you are using a MicroVAX 3100 Model 30, 40, or 80 system, enter one of the following commands at the console prompt to test the operation of the RRD43 option:

**Figure 5 Installing the RRD43 Option**



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```
>>> T SCSI  
>>> T 10
```

- If you are using a MicroVAX 3100 Model 90 or VAX 4000 Model 100 system, enter the following command at the console prompt to test the operation of the RRD43 option:

```
>>> T E0
```

A successful pass of the test is indicated when the console displays the console prompt.

If the test fails, the LED display on the back of the system unit displays a code in the range A0 to A5 (hexadecimal), and the console terminal displays a hard error message containing the test number (10) and the test mnemonic (SCSI). The following is an example of an error printout.

```
?? 001 10 SCSI 0050
```

See your system maintenance manual for more information about the diagnostics.

## 6 Drive Specifications

**Table 2 RRD43 Disc Drive Specifications**

<b>Overview</b>	
Description	Half-height optical CD-ROM disc drive
Features	Photo CD capable/ can be used as an independent audio CD player
Media	Removable 5 1/4-inch compact disc
Capacity	600 MB
Form factor	5 1/4 in
Average access time	320 ms
Transfer rate	1X: 150 KB, 2X: 300 KB
Rotational speed	1X: Inner track = 530 rpm/Outer track = 200 rpm 2X: Inner track = 1060 rpm/Outer track = 400 rpm
Temperature	5°C (41°F) – 50°C (122°F) (operating) -10°C (14°F)—65°C (149°F) (nonoperating)
Relative humidity	8%–80%
Voltage	+5 VDC ±5%
Current	1X—+5 V: 950 mA; 2X—+5 V: 1.0 A
Power	<7 W @ 5 V (maximum)
<b>Add-On Option Part Number</b>	
RRD43–EK	Embedded RRD43 disc drive 1.5-inch brick, with mounting hardware for the MicroVAX 3100 and VAX 4000 Model 100 systems.
RRD43–FA	Tabletop RRD43 disc drive with cable kit and U.S. power cord.
RRD43–DG	Tabletop RRD43 disc drive with cable kit. Requires country-specific power cord.

(continued on next page)

**Table 2 (Cont.) RRD43 Disc Drive Specifications**

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**Field Replacable Units and Options**

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RRD43 drive	RRD43-AA
Test disc	30-23507-03

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**Documentation**

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<i>RRD43 CD-ROM Drive Installation Guide</i>	EK-RRD43-IN
<i>RRD43 CD-ROM Disc Drive Information for VAX 4000 Model 100 Systems</i>	EK-RRDCD-IN

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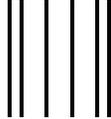
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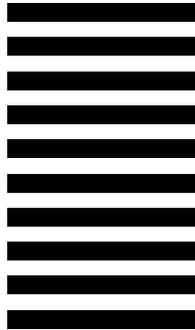
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