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DEC 4000 Model 6x0/7x0 AXP Series
RRD43 Disc Drive Installation
EK–RRD43–OG. A01

March 1994

This document illustrates how to install the RRD43 CD–ROM disc drive in a DEC 4000 Model 6x0 or Model 7x0 AXP series system.

S2519

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RRD43 Disc Drive

Overview	
Description	Dual speed, half-height, optical CD–ROM disc drive
Features	Photo CD capable/ can be used as an independent audio CD player
Accessories	Audio playback/ audio line outputs/ headphone jack
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/sec, 2X: 300 KB/sec
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 max. (random seek)	1X: +5 V: 950 mA; 2X: +5 V: 1.0 A
Power	<7 W @ 5 V (maximum)

Add-On Option Part Number	
RRD43–MX	Embedded RRD43 disc drive 5.25-inch half-height form factor, with mounting assembly (first device in removable-media slot)
RRD43–MY	Embedded RRD43 disc drive 5.25-inch half-height form factor (second device in removable-media slot)
RRD43–FB	Tabletop RRD43 disc drive with cable kit and US power cord
RRD43–DH	Tabletop RRD43 disc drive with cable kit; requires country-specific power cord
Field Replaceable Units and Options	
RRD43 drive	RRD43–AA
Test disc	30–23507–03
Documentation	
RRD43 CD–ROM Drive Installation Guide	EK–RRD43–IN
DEC 4000 AXP Owner's Guide (VMS Ops)	EK–KN430–OP
DEC OSF/1 AXP Factory Installed Software User Guide	EK–SFFIS–UG

Figure 1 shows the indicators, jumpers, and connectors on the RRD43 disc drive.
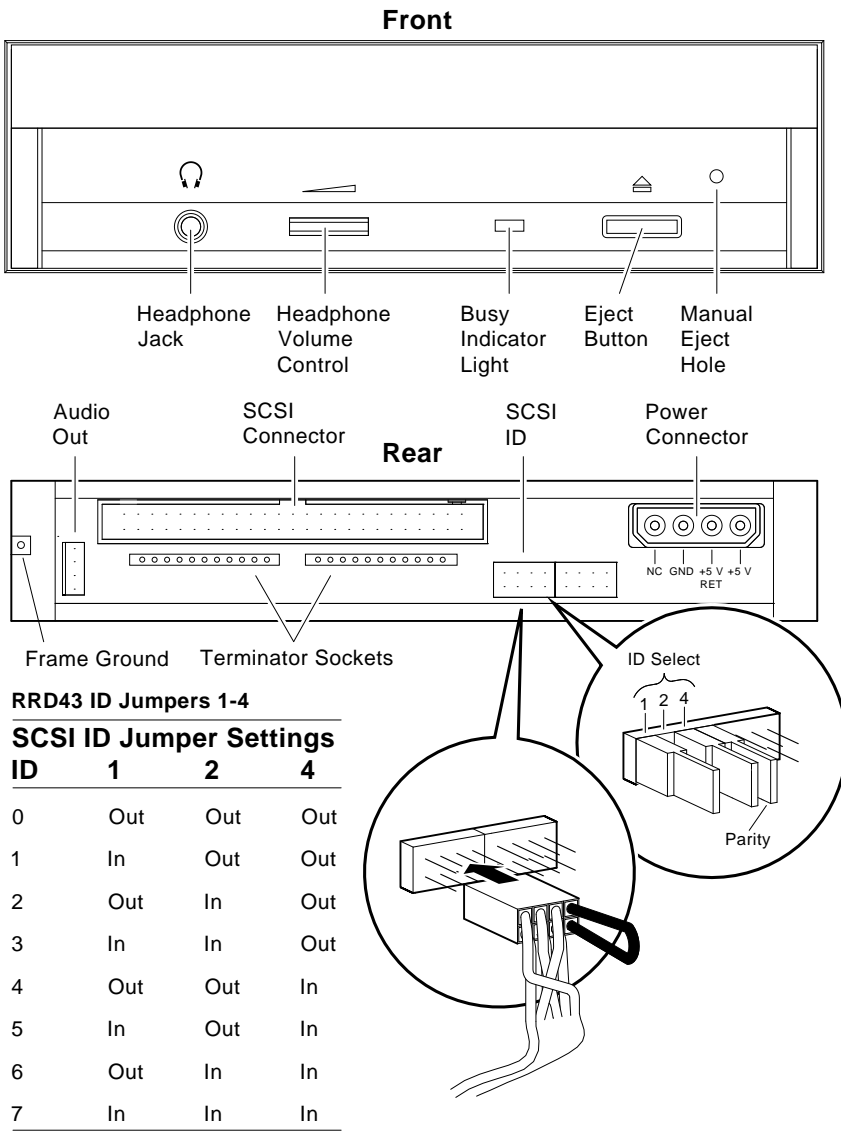
_____ **Note** _____

In a DEC 4000 system, the SCSI ID select cable is used instead of jumpers.

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RRD43

Figure 1   RRD43 Disc Drive Connectors and Indicators

Front

Headphone Jack Headphone Volume Control Busy Indicator Light Eject Button Manual Eject Hole

Audio Out   SCSI Connector   **Rear**   SCSI ID   Power Connector

NC GND +5 V +5 V
RET

Frame Ground   Terminator Sockets   ID Select

1 2 4

Parity

RRD43 ID Jumpers 1-4

SCSI ID Jumper Settings

ID	1	2	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

Parity jumper Out = Mode 0 (MS-DOS and SCO UNIX)
Parity jumper In = Mode 1 (Open VMS and OSF/1)

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Installation

Before you begin the installation procedure, remove the bus continuity card from the option storage slot into which you intend to install the disc. Figure 6 shows the location of the bus continuity cards.

To install an RRD43-MX disc drive in your system, perform the following steps:

1. Slide the RRD43-MX mounting bracket assembly into the option storage slot and push until the connector on the SCSI paddle card on the bracket engages securely into the backplane. Secure the drive in place by tightening the two captive screws (Figure 2). Do not over-tighten the screws. It is normal for there to be a slight gap between the bracket and chassis.

2. Attach the SCSI ID cable to the OCP connector on the bezel assembly (Figure 2).

3. Insert the tabs on the bottom of the bezel into the slots on the storage slot (Figure 2).

4. Push in the top of the bezel, and tighten the Phillips screw (Figure 2).

5. Install a SCSI ID plug to the front of the bezel, making sure that the SCSI ID number is not used by another device.

To add an RRD43-MY disc drive to your system, perform the following steps:

1. Remove the mounting assembly by reversing steps 1 through 5 above.

2. Connect the SCSI ID cable to the back of the drive (Figure 1), making sure that the jumper is installed over the pins marked PARITY.

3. Slide the drive into the mounting assembly.

4. Attach the SCSI and power cables to the drive. Figure 1 shows the location of the connectors.

5. Secure the drive into the mounting assembly with the four mounting screws provided. Two screws attach to the top of the assembly, and two screws attach to the bottom of the assembly (Figure 3 shows the top of the assembly). Make sure that the top front screw goes through the grounding strip shown in the figure.

—————————————— **Caution** ——————————————

Failure to connect the grounding strip could result in data errors.

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6. Remove the blank panel from the bezel (Figure 4).

7. Remove the blank flat plug(s) from the bezel (Figure 5).

8. Return the OCP connector board to the bezel.

9. Install SCSI ID plugs on the front of the bezel. Each drive must have an unique SCSI ID number. If one of the drives was installed prior to this add-on procedure, make sure that you use the same SCSI ID number that was used previously. The bezel is marked to show the corresponding SCSI ID plug to each slot.

10. Slide the mounting bracket assembly into the option storage slot and push until the SCSI paddle card on the bracket engages securely into the backplane. Secure the drive in place by tightening the two captive screws (Figure 2). Do not over-tighten the screws. It is normal for there to be a slight gap between the bracket and chassis.

11. Attach each SCSI ID cable into the appropriate connector on the OCP connector board on the bezel (Figure 2). Make sure that the cable from the RRD43-MX drive is returned to the connector in which it was originally installed.

12. Insert the tabs on the bottom of the bezel into the slots on the storage slot (Figure 2).

13. Push in the top of the bezel, and tighten the Phillips screw (Figure 2).
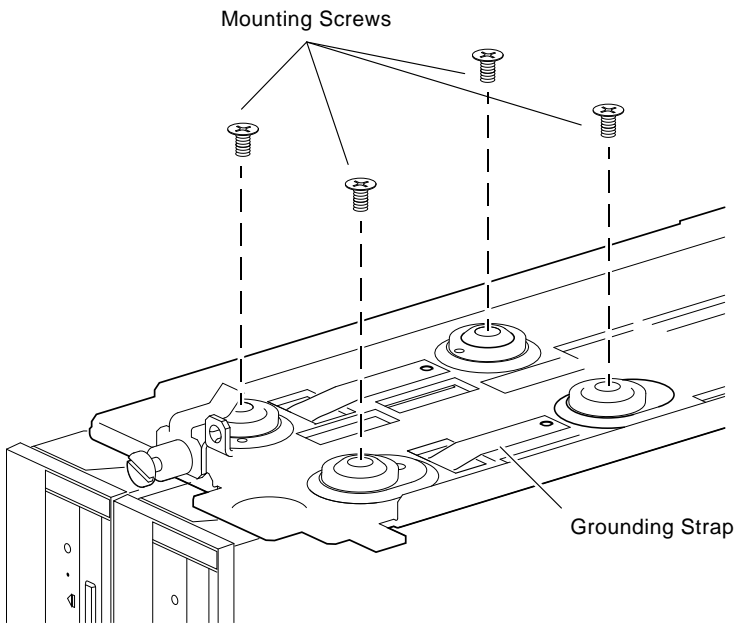
Figure 2 Installing an RRD43-MX Disc Drive

1 Tighten screw.

2 Insert SCSI ID connector.

3 Insert bezel.

4 Tighten screw.
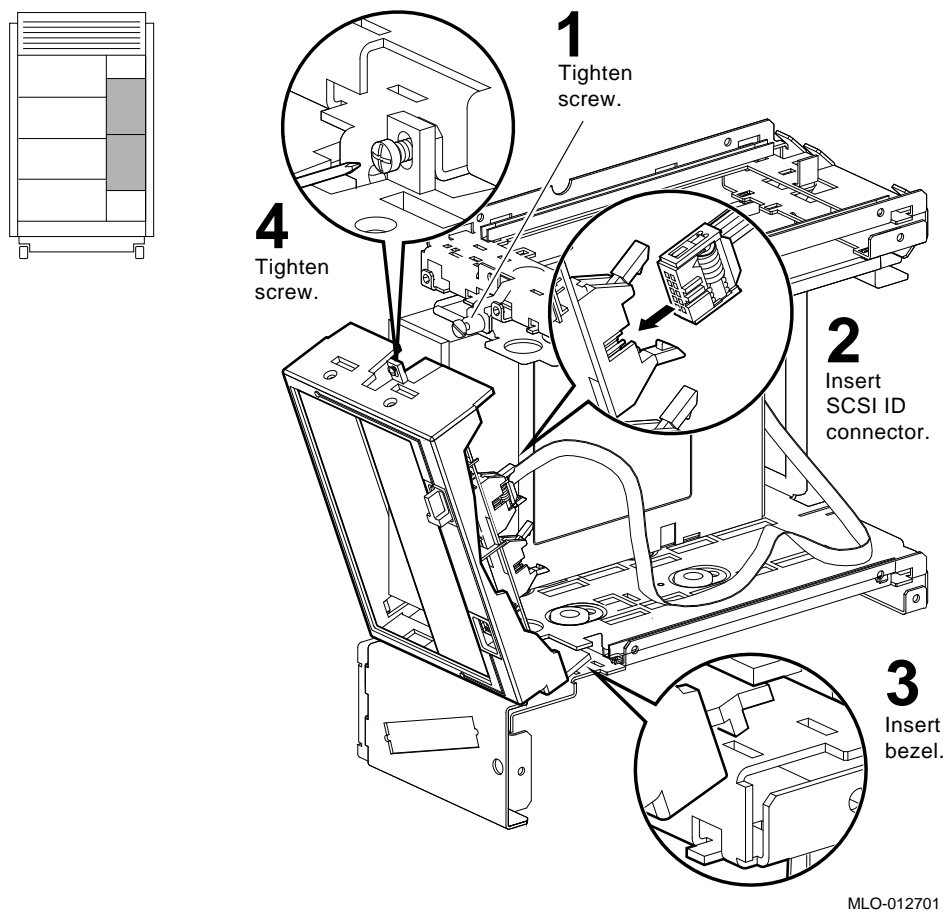
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_____ **Note** _____

When a removable-media compartment is empty, blank bezels are required to maintain maximum air flow.

RRD43

Figure 3 Inserting Mounting Screws

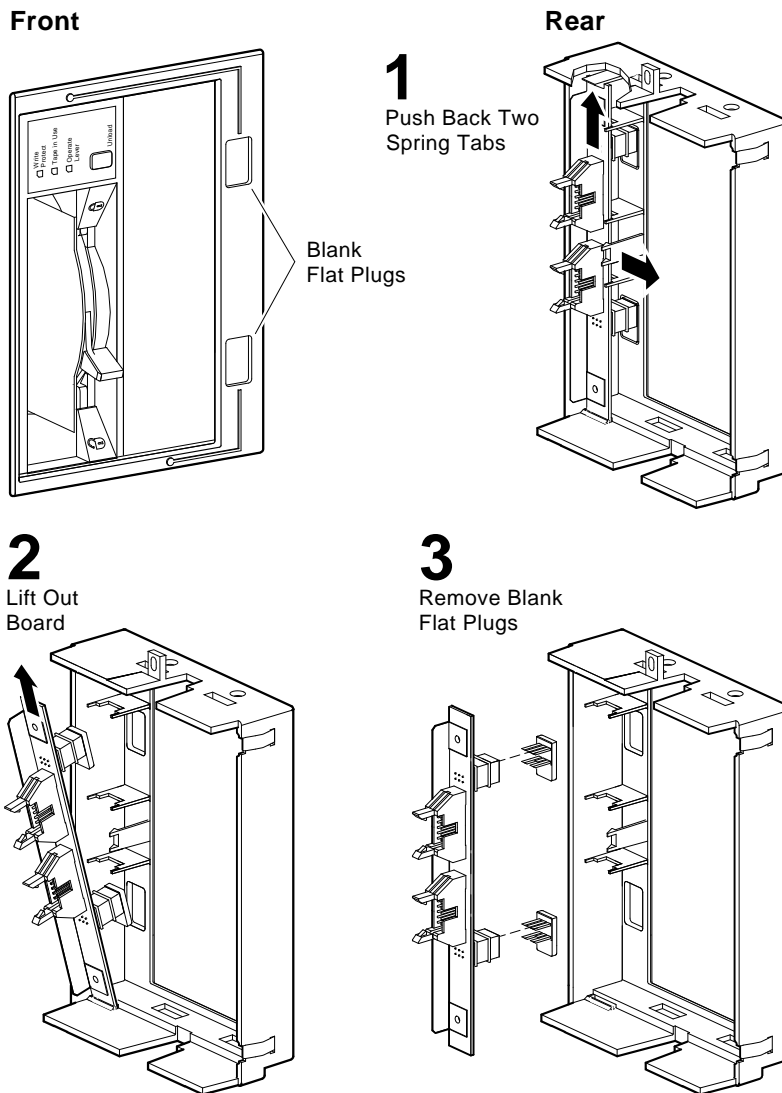Mounting Screws

Grounding Strap

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Figure 4   Removal of Blank Panel

1
Push Spring Tab

2
Remove Blank Panel

Blank Panel

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RRD43
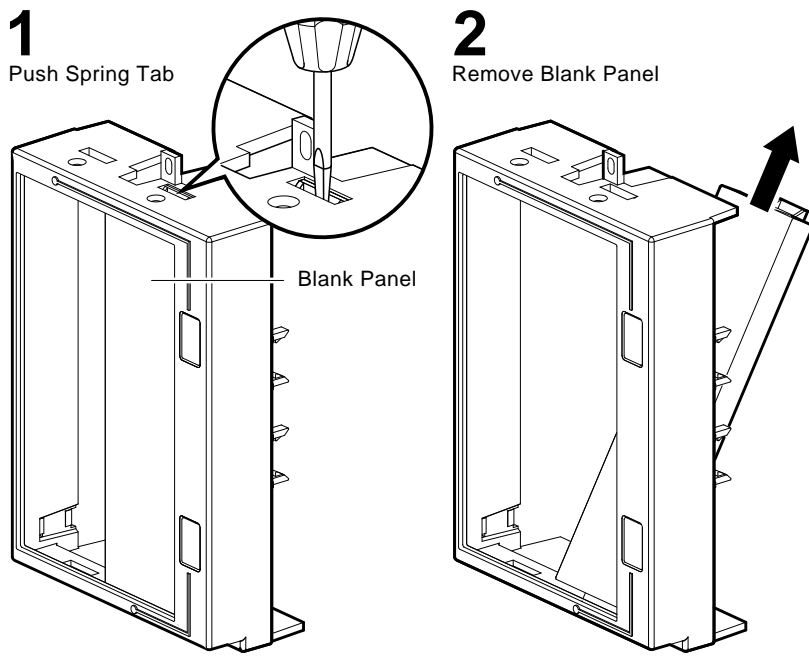
Figure 5   Removal of Blank Flat Plugs

Front

Rear

1
Push Back Two
Spring Tabs

Write Protect
Tape in Use
Option Lever
Unload

Blank
Flat Plugs

2
Lift Out
Board

3
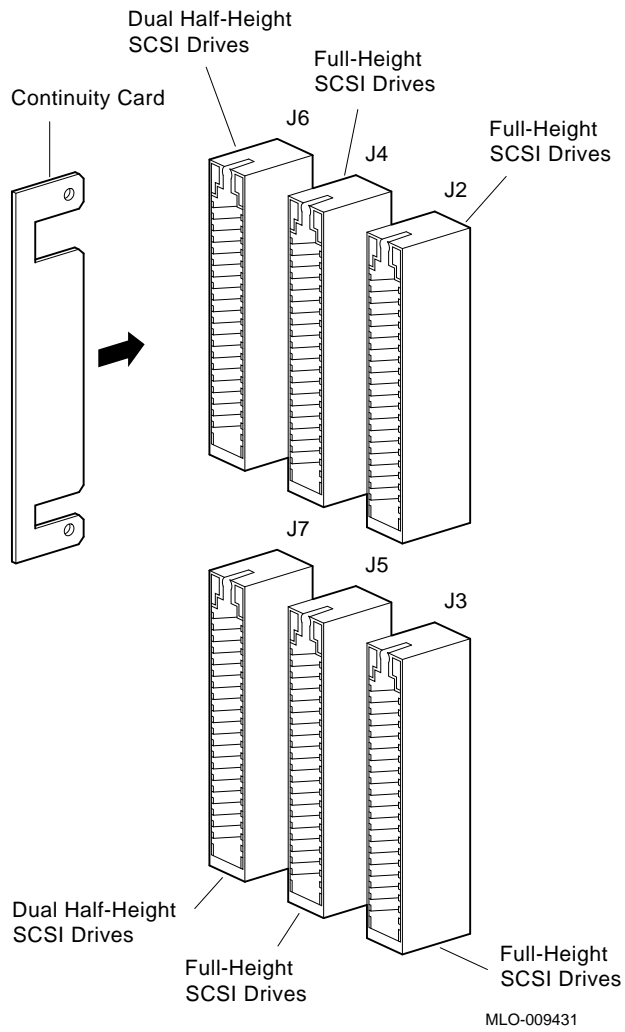Remove Blank
Flat Plugs

Note: Re-install board and then insert standard ID plugs.

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Figure 6   Bus Continuity Card

Dual Half-Height
SCSI Drives

Full-Height
SCSI Drives

Continuity Card

J6

Full-Height
SCSI Drives

J4

J2

J7

J5

J3

Dual Half-Height
SCSI Drives

Full-Height
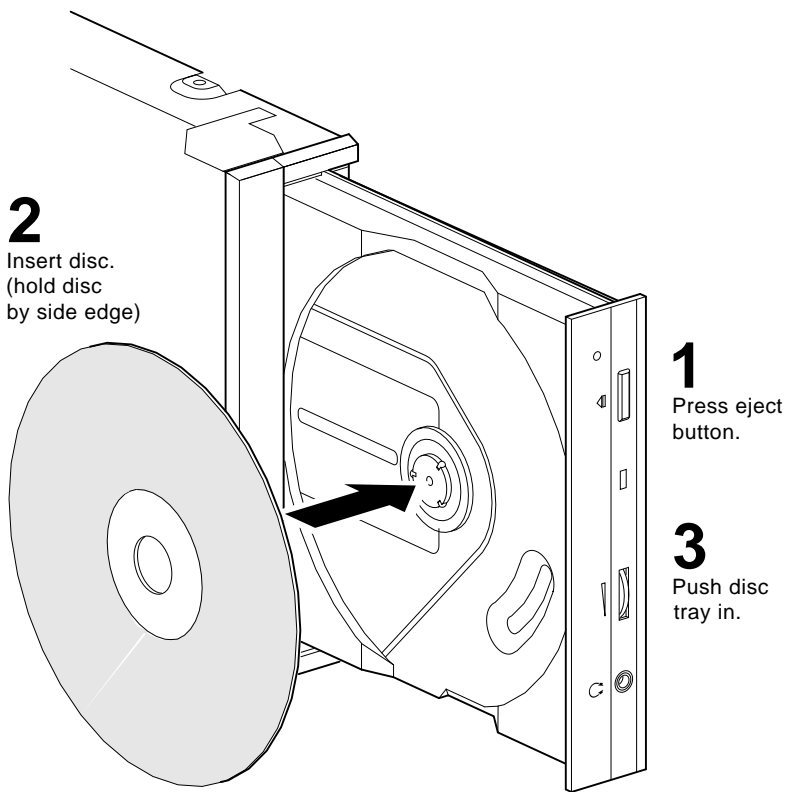SCSI Drives

Full-Height
SCSI Drives

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_____ **Note** _____

When either the J6 or J7 backplane connector is not used, insert a bus
continuity card into those slots to maintain bus continuity. There are
two bus continuity cards already installed in the backplane.

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Figure 7   Inserting an RRD43 Disc

2
Insert disc.
(hold disc
by side edge)

1
Press eject
button.

3
Push disc
tray in.

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