SGI[®] External DVDRAM Drive Installation Guide

Document Number 007-4510-001

CONTRIBUTORS

Written by Mark Schwenden

Illustrated by Dan Young

Cover Design By Sarah Bolles, Sarah Bolles Design, and Dany Galgani, SGI Technical Publications

© 2003, Silicon Graphics, Inc.— All Rights Reserved

The contents of this document may not be copied or duplicated in any manner, in whole or in part, without the prior written permission of Silicon Graphics, Inc.

LIMITED AND RESTRICTED RIGHTS LEGEND

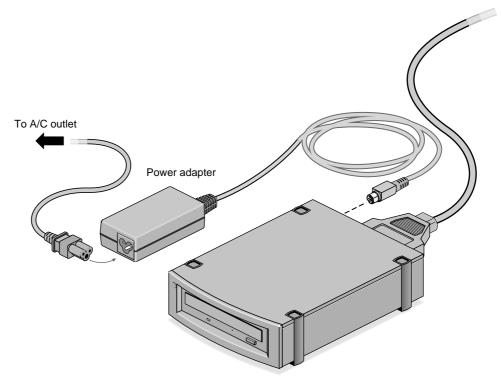
Use, duplication, or disclosure by the Government is subject to restrictions as set forth in the Rights in Data clause at FAR 52.227-14 and/or in similar or successor clauses in the FAR, or in the DOD, DOE, or NASA FAR Supplements. Unpublished rights reserved under the Copyright Laws of the United States. Contractor/manufacturer is Silicon Graphics, Inc., 1600 Amphitheatre Pkwy., Mountain View, CA 94043-1351.

SGI and the SGI logo, Silicon Graphics, Indy, O2, and Octane are registered trademarks of Silicon Graphics, Inc. Octane2, O2+, Fuel, and Tezro are trademarks of Silicon Graphics, Inc., in the United States and/or other countries worldwide. Centronics is a registered trademark of Centronics Data Computer Corporation Qlogic is a trademark of Qlogic corporation.

External DVDRAM Drive Installation Guide Document Number 007-4510-001

SGI® External DVDRAM Drive Installation Guide

This device is an 8-bit narrow SCSI, multispeed (40X maximum) DVDRAM drive with a 50-pin Centronics style connector. It is supported on TezroTM, FuelTM, O2[®], O2+TM, OCTANE[®], and OCTANE2TM workstations. Note that your workstation *must* be running IRIX 6.5.21 or later to support this drive. This device supports a specific set of functional features, see "Supported Drive Features" on page 2. The drive is shown in Figure 1. Note that this drive requires a separate AC power adapter.





Some installation information is provided in this guide. For complete information on your workstation's SCSI buses, how to determine and set the SCSI address for the device, and cable length restrictions, see the instructions for installing external SCSI devices in the printed owner's guide for your workstation. Some owner's guides are also online, as explained in the next section "Locating Online Documentation".

Locating Online Documentation

For the O2 or O2+ workstation, information is available in the online *Hardware Reference Guide*. For the Tezro, OCTANE, or OCTANE2 workstation, information is available in the online *Workstation Owner's Guide* or *User's Guide* on the Technical Publications Library. If you have access to the Internet, see http://docs.sgi.com.

Supported Drive Features

Your SGI DVDRAM drive supports the following functions:

- Command-line data transfer (dumps) from hard disk to DVDRAM.
- *cpio* or *tar* command transfer of data to the DVDRAM.
- Use of disc diagnostic (dd) tool to read and write data.
- Use of fx disc diagnostic tool to write headers and exercise the DVDRAM.
- Hard or soft eject.
- Using ISO 9660 discs is supported, but limited to a 2-Gigabyte capacity.

Note: The DVDRAM drive may support third-party features not listed through use of optional third-party software. Check with your SGI sales or service representative for information on additional features.

• Drag and drop functinality is also supported on the IRIX desktop with IRIX 6.5.21 or later.

Features Not Supported

The following features are not currently supported on the DVDRAM under IRIX:

- The DVDRAM drive cannot read/write EFS or XFS CDs.
- The drive does not generate or read EFS or XFS DVD-ROM/RAMs.
- User programs that attempt to change sector sizes to 512-byte blocks are not supported. These programs must be modified in order to prevent error messages.
- The IRIX desktop icon does not differentiate between DVDRAM and CDROM drives. The default icon will show the DVDRAM as a CDROM drive.
- Playing audio (red-book) discs is not supported.

Connecting the SCSI Cables

If attached to a Tezro workstation, you must use the VHDC 68-pin to Centronics (50-pin) cable (ordered as a separate line item) and the active terminator shipped with the drive. Using unapproved cables or terminators can result in data loss.

If attached to a Fuel workstation, you must use the VHDC 68-pin to Centronics (50-pin) cable (ordered as a separate line item). The drive must be connected to a Qlogic[™] 12160 (or other SGI approved PCI option card) installed in the Fuel workstation. Using unapproved cards, cables, or terminators can result in data loss.

If this is the only SCSI device attached to an OCTANE/OCTANE2, or O2/O2+ workstation, use a SCSI-3 (68-pin) to Centronics (50-pin) cable. This cable is not included with the drive and must be ordered as a separate line item. A Centronics 50-pin active terminator is shipped with each drive.

For the second and each additional 8-bit narrow SCSI device, use a Centronics 50-pin to Centronics 50-pin 0.3–meter cable. Attach the Centronics active terminator included with this device to the last narrow SCSI device on the daisy chain.

Mixing 16-bit Wide (Ultra) and 8-bit Narrow (Fast) SCSI Devices

If you want to mix 16-bit wide and 8-bit narrow devices on the same SCSI bus, you must place the wide devices as a group closest to the workstation, and place the narrow

devices at the end of the daisy-chain. See your workstation's owner's guide for complete instructions, including cable restrictions.

Connecting the Power Cable

Connect the drive's power converter (supply) cables as follows:

- Attach the power supply cable to the drive's power connector (located at the back of the unit).
- Plug the 3-line connector into the power supply and the other end into a working electrical wall outlet.

Manufacturer's Regulatory Declarations

Caution: This device has several governmental and third-party approvals, licenses, and permits. Do not modify this product in any way that is not expressly approved by Silicon Graphics. If you do, you may lose these approvals and your governmental agency authority to operate this device.

The device conforms to several national and international specifications and European Directives listed on the Manufacturer's Declaration of Conformity. The CE insignia displayed on each device is an indication of conformity to the European requirements.

CMN Number

The drive model number, or CMN number, is on the system label on the bottom of the drive.

To obtain the Manufacturer's Declaration of Conformity from SGI, you must either provide the CMN number to your local SGI sales representative, or, contact the Technical Assistance Center at 1 800 800 4SGI.

Class A Compliance

This equipment complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this

device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution: Users should note that changes or modifications to the equipment not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Electromagnetic Emissions

This device complies with the Class A limits of Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

Also, this device complies with Class A electromagnetic emissions limits of C.I.S.P.R. Publication 22, Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment.

VCCI Notice (Japan Only)

この装置は、情報処理装置等電波障害自主規制協議会(VCCI)の基準に 基づくクラスA情報技術装置です。この装置を家庭環境で使用すると 電波妨害を引き起こすことがあります。この場合には使用者が適切な 対策を講ずるよう要求されることがあります。

Industry Canada Notice (Canada Only)

This Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique német pas de perturbations radioélectriques dépassant les normes applicables aux appareils numériques de Classe A préscrites dans le Règlement sur les interferences radioélectriques établi par le Ministère des Communications du Canada.

Radio and Television Interference

The equipment described in this guide generates and uses radio frequency energy. If it is not installed and used in accordance with the instructions in this guide, it can cause radio and television interference.

This equipment has been tested and complies with the limits for a Class A computing device in accordance with the specifications in Part 15 of FCC rules. These specifications are designed to provide reasonable protection against such interference in an industrial or office installation. However, there is no guarantee that the interference will not occur in a particular installation. This system is not certified for home use.

You can determine whether your system is causing interference by turning it off. If the interference stops, it was probably caused by the workstation or one of the peripherals. To tell if the interference is caused by one of the peripherals, try disconnecting one peripheral at a time to see if the interference stops. If it does, that peripheral is the cause of the interference.

If your workstation does cause interference to radio or television reception, try to correct the interference by following one or more of these suggestions:

• Turn the television or radio antenna until the interference stops.

- Move the workstation to one side or the other of the radio or television.
- Move the workstation farther away from the radio or television.
- Plug the workstation into an outlet that is on a different circuit from the radio or television. (That is, make certain the workstation and the radio or television are on circuits controlled by different circuit breakers or fuses.)
- For additional information, see the FCC website at http://www.fcc.gov/cib/Publications/tvibook.html

Shielded Cables

The device is FCC-compliant under test conditions that include the use of shielded cables between the workstation and its peripherals. Your workstation and any peripherals you purchase from Silicon Graphics have shielded cables. Shielded cables reduce the possibility of interference with radio, television, and other devices. If you use any cables that are not from Silicon Graphics, be sure they are shielded. Telephone cables do not need to be shielded.

Electrostatic Discharge

Silicon Graphics designs and tests its products to be immune to the effects of electrostatic discharge (ESD). ESD is a source of electromagnetic interference and can cause problems ranging from data errors and lockups to permanent component damage.

Note: While operating your workstation, keep all covers and doors, including the plastics, in place. The shielded cables included with the workstation and its peripherals should be installed correctly, with all thumbscrews fastened securely.

An ESD wrist strap is included with some products, such as memory and graphics upgrades. The wrist strap is used when installing these upgrades to prevent the flow of static electricity, and it should protect your system from ESD damage.

Product Support

Silicon Graphics provides a comprehensive range of product support for its products. If you are in North America and would like support for your Silicon Graphics-supported products, contact the Technical Assistance Center at 1 800 800 4SGI or your authorized service provider. If you are outside North America, contact the Silicon Graphics subsidiary or authorized distributor in your country.