
Silicon Graphics DLT 7000 Autoloader Configuration

This document is intended to help you identify and understand configuration requirements for DLT 7000 eight-slot autoloaders (see Figure 1) used with Silicon Graphics host systems.

At time of publication, the systems listed below were tested and approved for use with DLT 7000 eight-slot autoloaders. Consult your Silicon Graphics sales or service representative before connecting an eight-slot autoloader to other Silicon Graphics hosts.

- Origin200 deskside and rackmount systems
- Origin2000 deskside and rackmount systems
- Onyx2 deskside and rackmount systems

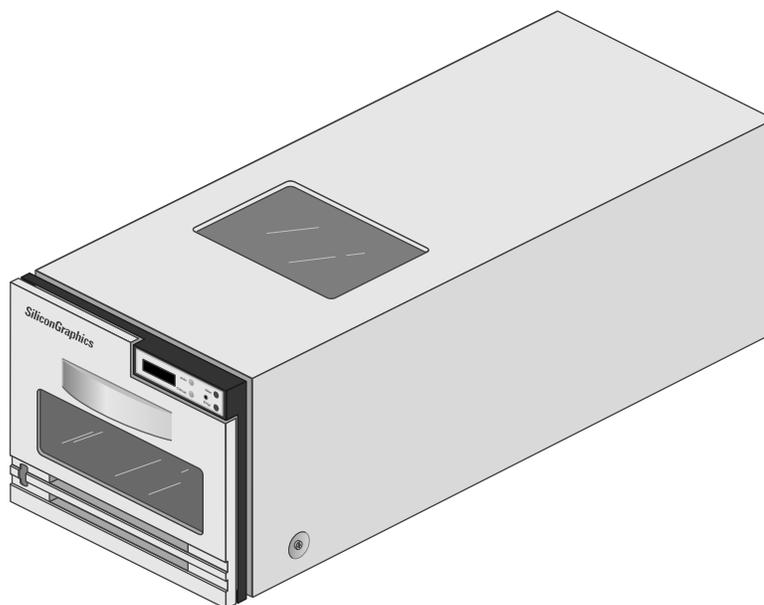


Figure 1 Silicon Graphics DLT 7000 Eight-Slot Autoloader

IRIX Operating System Requirements

The DLT 7000 eight-slot autoloader is tested and approved for use with the following IRIX operating systems only:

- IRIX 6.4.1
- IRIX 6.5 or later

Note: If your Origin or Onyx2 host system is running a release of IRIX other than 6.4.1 or IRIX 6.5 or later, contact your Silicon Graphics sales or support office to obtain the proper CD.

Host Connection and Cabling Guidelines

Each Silicon Graphics DLT 7000 eight-slot autoloader comes with a 12-foot (3.7 meter) differential SCSI cable with a 68-pin connector on each end. You may connect no more than one additional DLT 7000 eight-slot autoloader on a differential SCSI bus that supports an existing autoloader.

Note: Streaming tape drives such as the DLT 7000 eight-slot autoloader require sustained data throughput from the system and host SCSI bus. To guarantee the best SCSI bus throughput for sustaining streaming operation of the drive, configure the eight-slot autoloader as the only device on an individual SCSI bus. Performance can be adversely affected when the autoloader shares the bus with other devices.

SCSI Requirements for Silicon Graphics Host Systems

The standard external SCSI connector on the Origin2000 or Onyx2 desktop products (located on the BaseIO panel) is single-ended and does *not* support the differential DLT 7000 eight-slot autoloader. The autoloader *must* be connected to an optional differential SCSI connector. If your system does not have an external differential SCSI connector, you will need to order one and have it connected and configured by a trained field installer during or after the installation of the Origin2000 or Onyx2 host system.

Note: Installation of SCSI boards in Origin2000 or Onyx2 host systems is not considered an end-user task. Opening of the I/O panel by anyone other than a trained and qualified service person may violate safety agency requirements and regulations.

For more information about the differential SCSI board option (XT-SCSIB-4P) for Origin2000 or Onyx2 host systems, see the *Ultra SCSI XIO Board Owner's Guide* (p/n 007-3499-xxx).

Figure 2 shows an example differential SCSI connection to an Origin2000 deskside system.

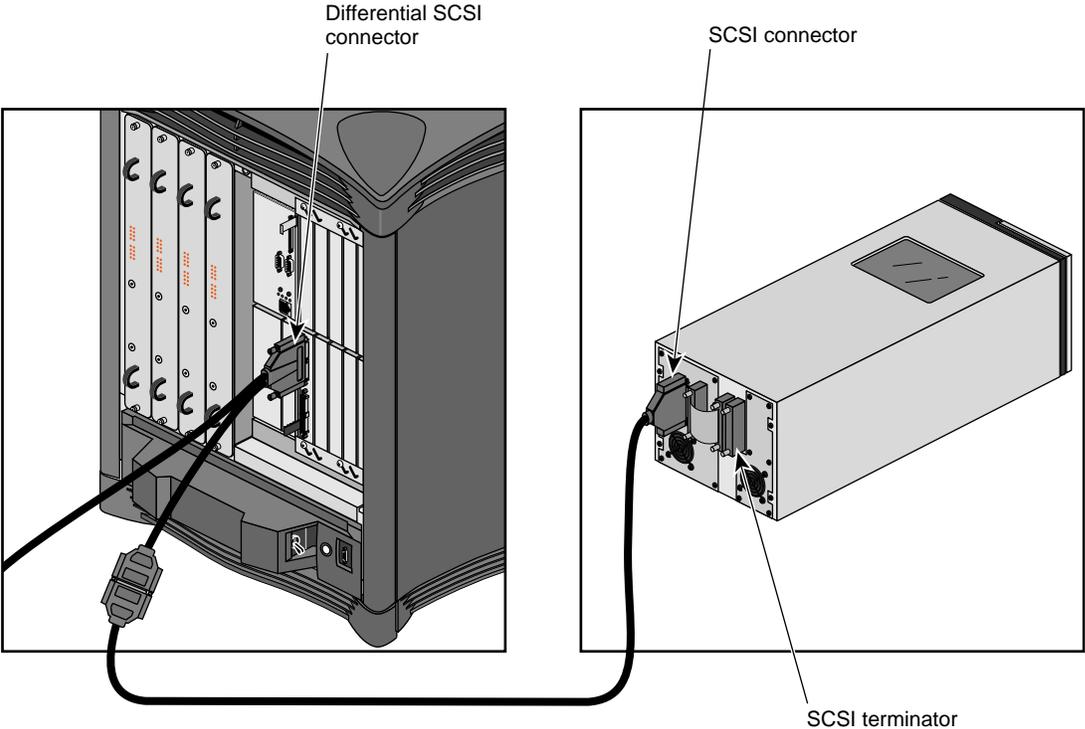


Figure 2 Origin2000 SCSI Connection Example

If your host system is an Origin200 server, connect the autoloader to the optional differential PCI SCSI board (PCI-SCSIB-Q-DF-1P). This board may be installed by an enduser or a trained field service technician. For more information about this board, see the *PCI SCSI Board Owner's Guide* (p/n 007-3627-xxx). Note that Origin200 systems using the optional Origin200 GIGAchanel XIO expansion tower can also use the XIO differential SCSI board option (XT-SCSIB-4P).

Figure 3 shows an example of a DLT 7000 eight-slot autoloader connected to an optional differential PCI SCSI board on the back of an Origin200 server.

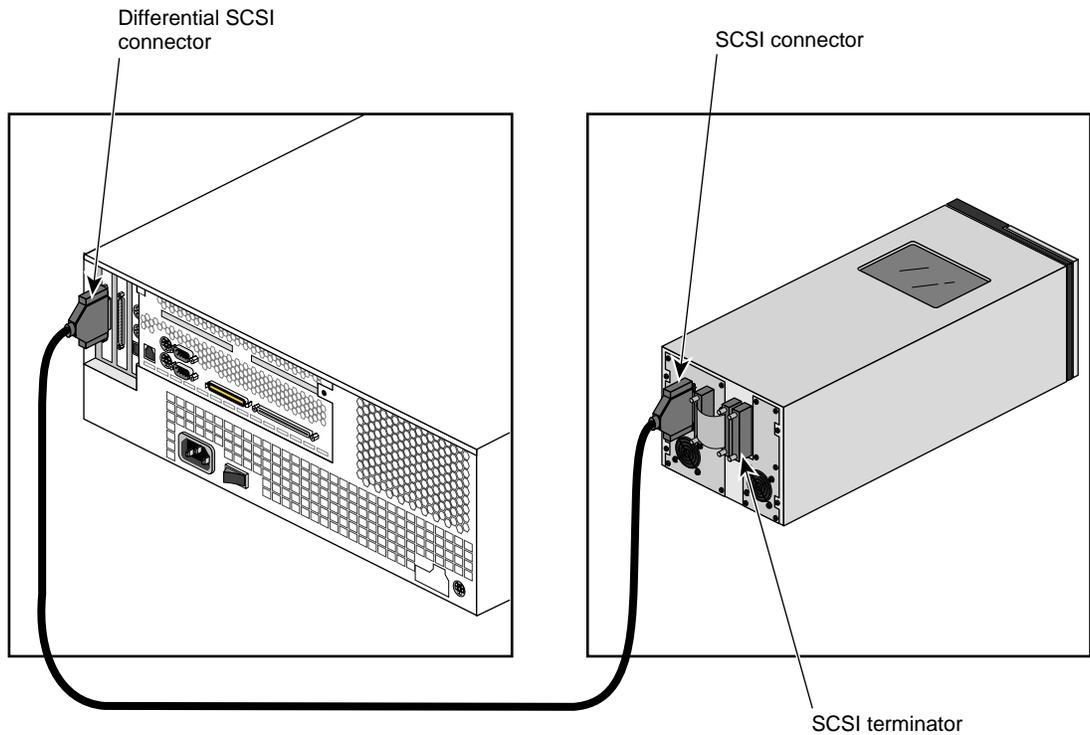


Figure 3 Origin200 SCSI Connection Example

SCSI ID Settings and Requirements

The DLT 7000 eight-slot autoloader always uses two SCSI ID numbers on the bus:

- The autoloader ID (used by the robotic mechanism)
- The tape drive ID (used by the DLT drive)

These IDs come from the factory set at 1 and 2. If you have any other device connected to the SCSI bus (such as another eight-slot autoloader), you must reconfigure the SCSI

IDs to different numbers. Information on this procedure is supplied in Chapter 2 of the *DLT Eight-Slot Autoloader User's Guide* shipped with each DLT autoloader.

Note: Never set the DLT 7000 autoloader or tape drive ID to the SCSI ID used by the Origin or Onyx2 host controller. A default ID of 0 is reserved to the SCSI controller board.

Each autoloader must be properly configured, or SCSI bus errors and possible data loss can result when you bring the autoloader on line. Note that the unit must be powered on before you can set the SCSI IDs.

Caution: Always power on the autoloader before powering on the host system. Always leave the unit powered on while the host system is operational. Failure to follow these procedures can result in SCSI errors on the bus.

HINV Output

To confirm that your host system recognizes the DLT(s) you have installed, or to verify each autoloader's two SCSI IDs, use the *hinv* command. The following example output shows two DLT 7000 eight-slot autoloaders daisy chained on SCSI controller 4.

```
# hinv
FPU: MIPS R10010 Floating Point Chip Revision: 0.0
CPU: MIPS R10000 Processor Chip Revision: 2.6
2 180 MHZ IP27 Processors
Main memory size: 128 Mbytes
Instruction cache size: 32 Kbytes
Data cache size: 32 Kbytes
Secondary unified instruction/data cache size: 1 Mbyte
Integral SCSI controller 0: Version QL1040B
    Disk drive: unit 1 on SCSI controller 0
    Disk drive: unit 3 on SCSI controller 0
    Disk drive: unit 4 on SCSI controller 0
    Disk drive: unit 5 on SCSI controller 0
Integral SCSI controller 1: Version QL1040B
Integral SCSI controller 2: Version QL1040B (rev. 2)
Integral SCSI controller 3: Version QL1040B (rev. 2)
Integral SCSI controller 4: Version QL1040B (rev. 2)
    Jukebox: unit 1 on SCSI controller 4
    Tape drive: unit 2 on SCSI controller 4: DLT
    Jukebox: unit 3 on SCSI controller 4
    Tape drive: unit 4 on SCSI controller 4: DLT
Integral SCSI controller 5: Version QL1040B (rev. 2)
```

```
Integral SCSI controller 6: Version QL1040B (rev. 2)
Integral SCSI controller 7: Version QL1040B (rev. 2)
Integral SCSI controller 8: Version QL1040B (rev. 2)
Integral SCSI controller 9: Version QL1040B (rev. 2)
IOC3 serial port: tty1
IOC3 serial port: tty2
Integral Fast Ethernet: ef0, version 1
IOC3 external interrupts: 1
```

Jukebox 1 and drive 2 are the default SCSI ID's, and Jukebox 3 and drive 4 have had the SCSI ID's changed to reflect the daisy chain configuration on this system. Both units are on SCSI controller 4.

Note: If a robotic firmware upgrade is done on a DLT 7000 autoloader, these SCSI ID's will reset to Jukebox ID 0 (zero) and drive ID 1. This may conflict with the default SCSI ID 0 used by the SCSI controller board. See the note on page 5 regarding use of ID 0.

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