1 Pre Installation

Thank You

Thank you for selecting a Maxtor hard drive storage product.

Maxtor's goal is to provide you with the most up-to-date product possible, and we are constantly enhancing our software and documentation to better meet your needs. Please visit our web-site at **www.maxtor.com** *to view the latest that Maxtor has to offer!*

Handling Precautions

Allow the drive to reach room temperature before installing it in the computer.

Do not open the ESD bag until you're ready to install the drive. Handle the drive by its sides. Do not touch the circuit board (electronics).

Do not connect/disconnect any drive cables while your computer is turned on.

Do not drop, jar, or bump the drive.

System/OS Requirements

• A full version of your operating system (OS) is required for a new hard drive installation

(see kit package for details)

Tools for Installation

The following tools are needed to install your new Maxtor hard drive:

• Small Phillips head screw driver
• Small pair of pliers or tweezers
• Your computer user manual
• Operating system software

Backup Your Data

Maxtor highly recommends that you make a backup copy of your files *before* installing the new Maxtor hard drive.

Please refer to your computer user manual for more information.

2 Drive Jumper Setup

Configure the Drive Jumpers

If specific jumper options are needed for your system configuration, refer to the illustrations and definitions provided in this section.
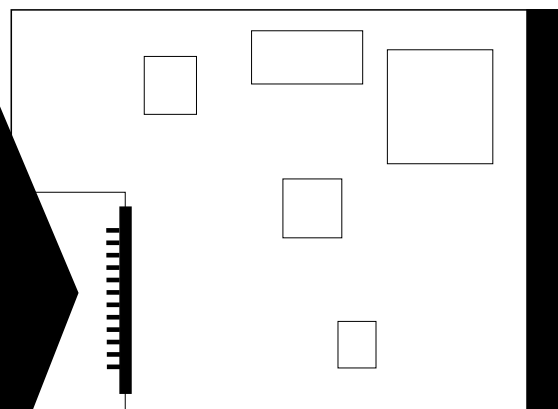
SCSI ID Jumper Settings

Drive ID	ID Bit O	ID Bit 1	ID Bit 2	ID Bit 3
ID 0	OFF	OFF	OFF	OFF
ID 1	ON	OFF	OFF	OFF
ID 2	OFF	ON	OFF	OFF
ID 3	ON	ON	OFF	OFF
ID 4	OFF	OFF	ON	OFF
ID 5	ON	OFF	ON	OFF
ID 6	OFF	ON	ON	OFF
ID 7	RESERVED FOR SCSI HOST			
ID 8	OFF	OFF	OFF	ON
ID 9	ON	OFF	OFF	ON
ID 10	OFF	ON	OFF	ON
ID 11	ON	ON	OFF	ON
ID 12	OFF	OFF	ON	ON
ID 13	ON	OFF	ON	ON
ID 14	OFF	ON	ON	ON
ID 15	ON	ON	ON	ON

Maxtor SCSI drives typically ship from the factory with jumpers set to SCSI ID 6, and termination power jumped.

SCSI ID 7 is usually reserved for the SCSI host adapter.

Front Jumper Option Connector

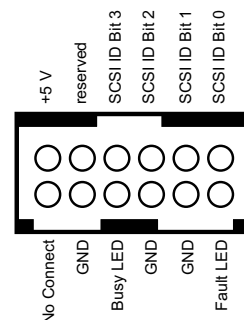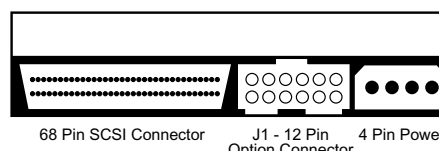| Pin 28	Pin 27
Term Power	Term Power
reserved	GND
No Wide	GND
Stagger Spin	GND
Write Protect	GND
Busy Out	+5 V
No Connect	No Connect
Force SE	GND
Delay Spin	GND
blank	Fault LED
SCSI ID Bit 0	GND
SCSI ID Bit 1	GND
SCSI ID Bit 2	GND
SCSI ID Bit 3	GND
Pin 2	Pin 1

Bottom View of Drive
(facing printed circuit board)

Note: Maxtor LVD SCSI drives do not support on-board termination. Maxtor recommends the use of Active LVD terminators and 68-pin twisted pair cabling.

SCSI host adapter manufacturers usually supply proper cabling and termination with the purchase of an LVD SCSI host adapter.

Attention: The Rear Jumper Option Connector is an OEM specific connector. Most installations will never use the jumper options on this connector. Always configure the drive using the jumpers at the **Front Jumper Option Connector**.

Rear Jumper Option Connector
(at 68-pin SCSI connector end of drive)

68 Pin SCSI Connector   J1 - 12 Pin Option Connector   4 Pin Power

+5 V / reserved / SCSI ID Bit 3 / SCSI ID Bit 2 / SCSI ID Bit 1 / SCSI ID Bit 0

No Connect / GND / Busy LED / GND / GND / Fault LED

Other Jumper Settings

TP - Termination Power
Pins 27-28 - Termination power ensures that there is a sufficient power level along the entire SCSI bus. It is recommended that the final device on the SCSI bus have the Termination Power jumper installed. All devices in between the host and final device typically have no jumper on Termination Power. Note that Termination Power is not the same as on-board termination, which this drive does not support.

NW - No Wide
Pins 23-24 are normally open, allowing for 16-bit data transfer. With a jumper added to the pins, negotiations can be limited to 8-bit (narrow) data transfer.

SS - Stagger Spin
Pins 21-22 - For most configurations this option is not utilized. Most current SCSI host adapters offer a Start Unit command enable or disable, which supersedes the functionality of the SS jumper setting. When the Delay Spin (DS) jumper is enabled on the drive, the Start Unit command from the SCSI host adapter will send Start Unit commands to all devices on the bus at pre-determined intervals. This can help prevent power supply overload when running several devices on the SCSI bus.

WP - Write Protection
Pins 19-20 - By factory default, the drive is shipped with no jumper on these pins, and the drive can be written to unless protected by application software. With the pins jumped, the drive can be used as a read-only device. This feature prevents accidental overwrites and is useful for frequently accessed archives and reference files.

Force SE – Force Single Ended Operation
Pins 13-14 - By factory default, the drive is shipped with no jumper on these pins. With most system configurations, it is not necessary to use this jumper. LVD drives are multi-mode capable. They will automatically detect the presence of a single-ended bus and revert to single-ended mode.

DS - Delay Spin

Disable Delay Spin: No jumper across pins 11-12 (factory default). Disabling Delay Spin allows the drive to spin up when the system is powered up.

Enable Delay Spin: Jumper across pins 11-12. This setting will prevent the drive from spinning up until it receives a Start Unit command from a SCSI host adapter. Most SCSI host adapters have the Start Unit command enabled by default in the host adapter BIOS. Enabling Delay Spin is only necessary when you are starting multiple devices at power on.

SCSI ID
Pin numbers 1-8 are typically referred to in pairs as A0 (pins 1 and 2), A1 (3,4), A2 (5,6), A3 (7,8). The jumper pairs will allow configuration of SCSI ID's 0 to 15. All SCSI devices must have an individual ID on the SCSI bus (there is no Master/Slave setting). SCSI ID 7 is usually reserved for the SCSI host adapter.

Fault LED and Busy Out Jumpers
Typical installations do not require the use of the Fault LED and Busy Out jumpers. The Busy Out signal is usually supplied through the PCI bus to the PC motherboard's Busy indicator LED. If connecting the Busy Out jumper for a drive installed in an external case, please refer to the wiring documentation supplied by the manufacturer of the case. Connection of the Fault LED is not recommended in internal or external installations.
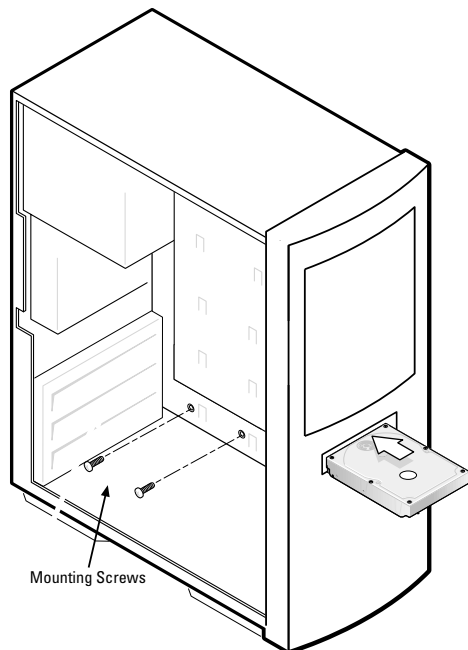
3 Drive Install

Installing Drive Inside of Your Computer System

Make sure your computer is powered down before installing the drive.

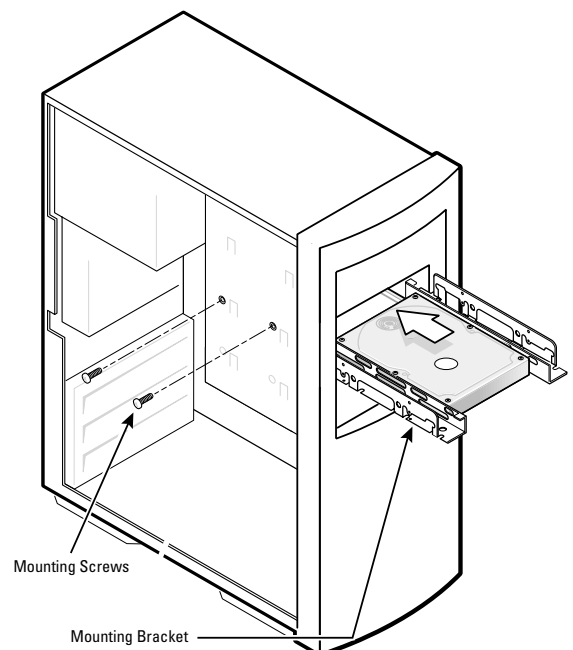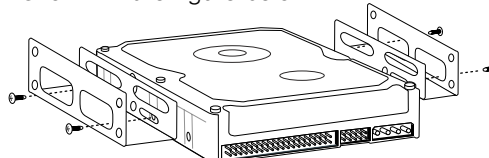The following illustrations are of typical computer systems and hard drive mounting styles.

Your computer may have a different mounting style. Please refer to your computer user manual for more information.

Be sure to secure the drive to the device bay with all four screws (included). The drive should be oriented with its printed circuit board facing down.

Mounting Screws

Computer with available 3.5-inch device bay

Installing 5.25-inch Mounting Brackets

If the hard drive will be installed in a 5.25-inch device bay, attach mounting brackets (available separately) to the hard drive as shown in the figure below.

Mounting Screws

Mounting Bracket

Computer with available 5.25-inch device bay
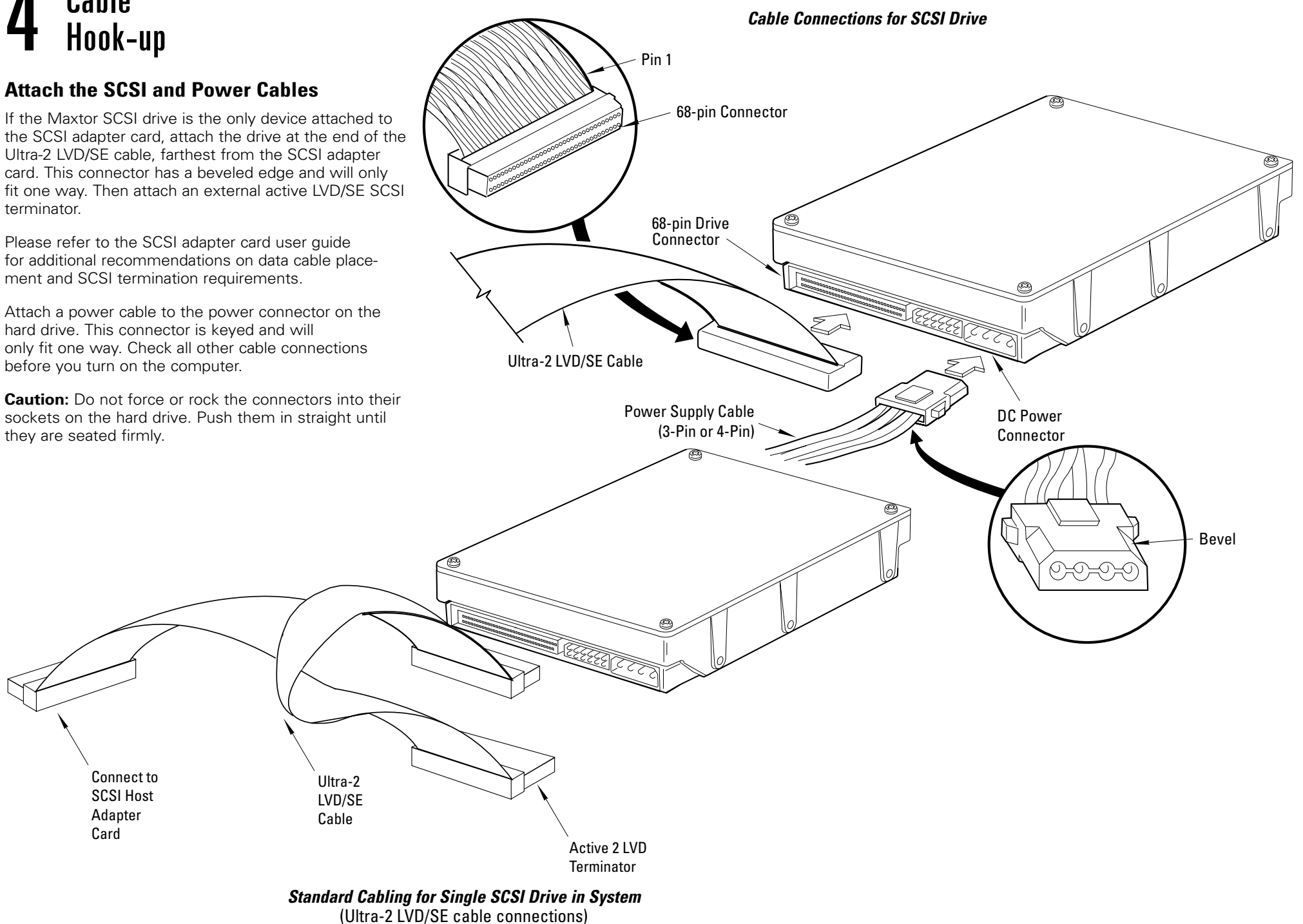
4 Cable Hook-up

Attach the SCSI and Power Cables

If the Maxtor SCSI drive is the only device attached to the SCSI adapter card, attach the drive at the end of the Ultra-2 LVD/SE cable, farthest from the SCSI adapter card. This connector has a beveled edge and will only fit one way. Then attach an external active LVD/SE SCSI terminator.

Please refer to the SCSI adapter card user guide for additional recommendations on data cable placement and SCSI termination requirements.

Attach a power cable to the power connector on the hard drive. This connector is keyed and will only fit one way. Check all other cable connections before you turn on the computer.

Caution: Do not force or rock the connectors into their sockets on the hard drive. Push them in straight until they are seated firmly.

Cable Connections for SCSI Drive

Pin 1

68-pin Connector

68-pin Drive Connector

Ultra-2 LVD/SE Cable

Power Supply Cable (3-Pin or 4-Pin)

DC Power Connector

Bevel

Connect to SCSI Host Adapter Card

Ultra-2 LVD/SE Cable

Active 2 LVD Terminator

Standard Cabling for Single SCSI Drive in System
(Ultra-2 LVD/SE cable connections)

5 Partitioning and Formatting

Maxtor hard drives can accept nearly all operating systems. Some operating systems have volume size limitations that may require you to partition your drive into multiple volumes. Please refer to your system or SCSI adapter card user guide for information about formatting and partitioning the drive.

General Guidelines

- **DOS/Windows 9X/ME:**
  Use FDISK.EXE to partition and FORMAT.COM to format the drive.

- **Windows NT/2000:**
  Boot your system from the installation floppy disks provided with the OS to partition and format the drive. If you do not have the original installation floppies, you can create them using your Windows installation CD.

- **Windows XP:**
  Boot your system from the Windows XP installation CD to partition and format the drive. If your system is not capable of booting from a CD, you can download bootable Windows XP installation floppies from Microsoft's website at www.microsoft.com

- **Macintosh:** Most non-Apple branded hard drives can be formatted using the Drive Setup utility included in Mac OS 8.6 and above. Mac OS versions before 8.6 will require a third-party hard drive utility such as FWB Hard Disk Toolkit (www.fwb.com) or Intech Hard Disk SpeedTools (www.intechusa.com) to partition and initialize the drive. Please visit the FWB or Intech website for details on these non-Maxtor software products.

6 Product Registration

Take Advantage of the Benefits!

By registering your new Maxtor product, you'll have the option to receive product updates, special offers, and other valuable information about other data storage solutions from Maxtor.

Simply point your web browser to:
www.maxtor.com – go to the product registration page, and complete the short questionnaire.

Maxtor Limited Warranty

Maxtor's warranty obligations are limited to the terms set forth: Maxtor warrants to the original consumer purchaser that new Maxtor SCSI products will be free from defects in material and workmanship for 5 years from the date of original purchase. For replacement disk drives the warranty on the replacement drive is the remainder of the warranty on the original drive or 90 days, whichever is longer. For SCSI disk drives obtained under the Maxtor Upgrade Program, the warranty period is 5 years commencing on the date Maxtor ships the drive to the customer.

If you discover a defect, Maxtor will, at its option, repair or replace the product at no charge to you, provided you return it during the warranty period, with transportation charges prepaid, to Maxtor in Dallas, TX; Bray, Ireland or Singapore. Drives must be properly packaged in Maxtor packaging or Maxtor approved packaging to obtain warranty service. Before returning a Maxtor product, please contact Maxtor at **www.maxtor.com or 1-800-2MAXTOR** (in USA) to obtain a Return Material Authorization (RMA) number. A copy of the receipt or a bill of sale bearing the appropriate Maxtor serial number and model number may be required for warranty service.

The warranty applies only to the Maxtor products that can be identified by the Maxtor trademark, trade name or logo affixed to them. Maxtor does not warrant any product that is not manufactured by, for or with permission from Maxtor. This warranty is not applicable to:

- Abnormal wear and tear
- Abuse, unreasonable use, mistreatment, or neglect
- Damage caused during installation of the disk drive
- Damage caused by the equipment or system with which the disk drive is used
- Damage caused by modification or repair not made or authorized by Maxtor
- Disk drives whose Maxtor Serial Number has been removed or defaced
- Damage caused by use of non-Maxtor packaging
- Damage caused by improper or improperly used packaging
- Damage caused by lack of ESD protection
- Drives that are determined to be stolen

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