

***SUPER*DISK™**

Internal IDE Drive

User's Guide



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52-0000-5717-5 Rev. A 3/99

Owner's Record

For your convenience, record the serial number located on the side of the drive in the space provided below. Please refer to it when you contact Imation.

Serial No. _____

Imation Technical Support

Telephone support is free for 30 days from first contact. After 30 days there may be a basic charge (credit card only) for phone consultations and solutions to installation and operator problems. This charge is waived if the identified problem is under warranty coverage. There is no charge for "Where to buy" or general SuperDisk product information. Please see our free support offerings on the Internet, E mail, and Fax Back.

There are several ways to contact Imation for technical support.

Telephone Support for

US and Canada: 1-800-888-2700

Other Countries: 1-651-704-7229

Internet and FAQs: www.imation.com/superdisk/

E-mail: info@imation.com

Fax Back: 1-888-466-3456 (in the US and Canada)

1-415-596-4434 (outside the US and Canada)

Intended Use

This manual shows how to install and use the Imation Internal IDE SuperDisk™ Drive on your personal computer.

SuperDisk™ Internal IDE Drive

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Limited Warranty

LIMITED WARRANTY AND LIMITATION OF REMEDIES: Imation warrants that this product is free from defects in material and manufacture at the time of purchase. If any such defect appears within twelve (12) months from the date of purchase, Imation's entire liability is either a) repair, or b) replacement of the product, or c) refund of the purchase price of the product, which must be returned to Imation with proof of purchase. This warranty does NOT apply to product failure resulting from misuse, abuse, accident, neglect or mishandling, improper adjustment or maintenance, incorrect environments or wear from ordinary use. IMATION SHALL NOT BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL LOSS OR DAMAGE (INCLUDING WITHOUT LIMITATION DAMAGES FOR LOSS OF PROFITS, SAVINGS OR DATA) IN ANY WAY RELATED TO THE PRODUCT.

This does not exclude claims for personal injury. Some legal systems do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary depending upon the legal system which is applicable to your purchase and/or use of this product.

For technical support and service information, see the next page.

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Overview

Thank you for purchasing an Imation SuperDisk™ drive. Your new SuperDisk drive is a powerful, state-of-the-art tool that positions you on the crest of a new wave of floppy disk technology. Your SuperDisk drive has many features:

- ability to read, write, and format several different kinds of 3.5" diskettes, including 720KB, 1.44MB, 120MB, and others (1.2MB—NEC and Toshiba standards, Microsoft DMF format 1.68MB read only)
- transfer rate and access time over ten times faster than standard 1.44MB floppy drives
- combination of optical tracking and magnetic read/write technology for backward compatibility and higher capacity
- capacity of more than eighty-three times the standard 1.44MB floppy

This manual shows you how to install the SuperDisk drive as a peripheral drive into your personal computer. Your steps for installing the drive include:

- 1) Perform a pre-installation check. This includes checking the contents of your box and considering important information such as your operating system, BIOS version, and bay availability.
- 2) Back up your hard drive(s).
- 3) Install the SuperDisk hardware into your computer.
- 4) Configure BIOS (that is, CMOS setup) as required.
- 5) Install the device driver from the Driver Software Diskette if your operating system is DOS or Windows 3.1, 3.11, 3.51 (without Service Pack 5), 95, or 95A.
- 6) Restart your computer.
- 7) Test the completed installation.

Other topics covered in this manual include:

- operating and cleaning your SuperDisk drive
- troubleshooting
- specifications
- warranty and technical support information

United States FCC Information

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. 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 the 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 or television technician for help.

Canadian Notice

This class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Avis Pour Le Canada

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

European Electrical Conformity

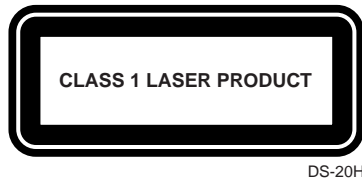
This equipment fully complies with the European CE requirements specified in the EMC Directive 89/336/EEC and the Low Voltage Directive 73/23/EEC. This product meets the relevant safety requirements and was tested according to: UL1950 EN60950 & EN60825. This product also complies with EN55022.

Type of Equipment: **Information Technology Equipment**

Regulatory Information

Laser Safety

The Imation SuperDisk drive contains a Class 1 laser that produces visible laser light at an intensity of up to 7 milliwatts (at 633 nanometers). Special precautions have been taken in the design of the disk drive to ensure that the operator will not be exposed to the laser light. Avoid looking directly into the laser beam path or any reflection of it. ***Laser light of this intensity can cause serious eye damage.***



Complies with IEC 825-1 and EN60825-1 as a Class 1 LASER Product.

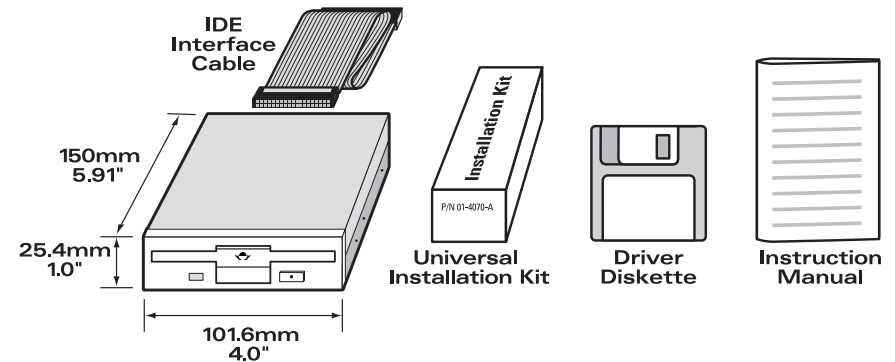
Class 1 Laser products are not classified as being hazardous. However, to ensure safety consistency over the entire product life cycle, the following precautions should be considered:

- 1) Use of controls or adjustment of procedures other than those specified herein may result in hazardous radiation exposure.
- 2) Do not open the drive cover. There are no user adjustments nor maintenance parts inside.

Pre-Installation Check

- 1) Make sure the following items are included in your box:

- Imation Internal IDE SuperDisk Drive
- Driver Software Diskette
- IDE cable
- 3.5" Universal Installation Kit (does not contain rails)
- User's Guide



- 2) Make sure you have the following:

- IBM PC and compatible, 80486 or higher (486/66 and Pentium class computers)
- 8MB of RAM
- DOS 5.0 or higher
- 1.44MB HD diskette drive (if drivers are needed)
- 5MB of free hard drive space
- Available 5.25" or 3.5" drive bay
- Available IDE position
- Consider the following:
- Do you know how to remove the computer cover? Does removing your computer cover void your warranty? Check your system owner's manual.

- Decide how and where you will install the SuperDisk drive. If it will replace your current 1.44MB diskette drive, make sure you copy the Driver Software Diskette to your hard drive before installing the SuperDisk drive.
 - How will the internal drive be used—as a secondary storage device or as a bootable drive? If bootable, it completely replaces your current 1.44MB diskette drive, whether installed into a 3.5" bay or 5.25" bay.
- Read the following operating information to get best results from your SuperDisk drive:
 - Never remove a diskette from your SuperDisk drive while the activity indicator (green LED) is lit or blinking. Doing so could corrupt data stored on the diskette.
 - Insist on Imation SuperDisk™ diskettes.
 - Do not ship or move the SuperDisk drive with a diskette installed. The diskette mechanism locks into place when a diskette is ejected to ensure that the drive will not be damaged during shipping or movement.
 - To keep up-to-date with product and software news, visit our web site. Make sure to register your drive on-line by following the links at: <http://www.imation.com/register/>
 - For future reference, this is a good time to take a minute and record your serial number on the front cover of your User's Guide.

✓ NOTE

For more information, see the Imation web site at www.imation.com/superdisk/.

Size

Height	1.00 inch	25.4 mm
Width	4.00 inches	101.6 mm
Length	5.91 inches (not including face plate)	150 mm

Specifications**Temperature Range (use in a non-condensing atmosphere)**

Operating	41° to 113° F	5° to 45° C
Non-operating	-22° to 140° F	-30° to 60° C

Power: 5VDC (regulated)

Diskette Types (3.5")

Diskette Type	Read/Write/Format	Diskette Used
SuperDisk	√	120MB PC (IBM) format SuperDisk diskettes
2HD	√	1.44MB IBM format 3.5" 2HD diskettes
2DD	√	720 KB IBM format 3.5" 2DD diskettes

Installation Position: Horizontal (preferred)

✓ NOTE

Mac format diskettes cannot be used in the SuperDisk drive without reformatting.

Each time you access the SuperDisk drive, the system locks up or you get a blue screen.

Solution: *McAfee "Virus Scanning" version four or earlier does not support the SuperDisk drive. Obtain an upgrade from McAfee.*

MS Backup does not eject the first disk when asking for a second.

Solution: *MS Backup does not support the SuperDisk drive for Windows 95. Upgrade to Windows 98 or obtain a third party backup utility.*

Windows 98

The SuperDisk drive does not work after you install Windows 98.

Solution 1: *Use the Windows 98 bus-mastering feature. Third party bus-mastering is not needed.*

Solution 2: *Perform the following:*

- 1) Click on Start>Settings>Control Panel>System>Device Manager tab.*
- 2) If a driver is marked with either a ! or ?, from your CD-ROM change folders to \Tool\mtsutil and right-click on the noide.inf file.*
- 3) Chose Install from the menu.*
- 4) Restart your computer.*

Windows NT 4.0

You are unable to format a 1.44MB diskette.

Solution: *Upgrade to Service Pack 4.*

Your SuperDisk drive is not recognized when you boot up.

Solution: *Verify that the ATAPI device is set to Started at boot on the Devices icon of the Control Panel. Restart your computer.*

The SuperDisk drive is not recognized when added to a current installation of NT on a SCSI-based system.

Solution: *When NT boots from a SCSI device, the BIOS may disable the primary IDE channel. In BIOS, verify that the IDE controller the SuperDisk drive is attached to is enabled.*

Hardware Installation

CAUTION

- Always avoid eye contact with laser beams. Use of controls or adjustments, or performance of procedures other than those specified herein, may result in eye damage.
- This equipment employs a visible Class 1 (7 milliwatts) laser beam. Laser radiation may be present when the drive operates without panels or covers installed.
- If your SuperDisk drive does not work, never remove the case. Covers shall be removed by authorized service personnel only.
- Before you begin, touch a grounded metal object on your computer to discharge possible buildup of personal static electricity. Failure to eliminate significant build up could result in a shock and/or compromise your computer system's functionality. For added security, grounding straps (a band fitted to the wrist at the end of a trailing strap) are available from many computer vendors. We recommend using a grounding strap during the installation process to prevent static electrical build up.
- Make sure to back up your hard drive(s) and review the pre-installation checklist before installing your SuperDisk drive.

WARNING

- Never open your computer case when it's plugged into a power source.
- Be careful when working inside your computer case. Internal edges can be sharp and cause cuts.
- Allow your computer to cool before disassembling or touching computer components.
- Make sure that opening your computer case does not void your warranty.

Hardware Installation Procedure

- 1) Back up all important file on your hard drive(s).
- 2) Exit all programs and shut down your computer. Turn off the power to your computer and any connected devices.
- 3) Note where and how many cables you need to disconnect are attached, then unplug the power cord from your computer and its power source.
- 4) Remove all screws holding the cover onto the computer case (some newer cases do not use screws) and pull off the cover. Follow the instructions in your system owner's manual on how to remove the case cover. Two examples on the next page show typical case configurations.

CAUTION

Before opening, touch a grounded metal object or the metal frame of your computer case to eliminate static electricity build up. Failure to do so can result in a shock and/or compromise your computer system's functionality.

When copying large files, your system gets partly finished but then displays a blue screen and an error message.

Solution 1: *Use a different diskette to see if the problem persists. If it does not, you have a bad diskette. Running a thorough ScanDisk on the suspect disk may spare out the bad block, making the diskette usable again.*

Solution 2: *If you are using Windows 95 (retail or A) make sure you have the device driver installed.*

After rebooting your computer, you get the message: "SuperDisk device not ready, check the data cable and make sure the device has power, SuperDisk drivers not loaded <A>bort or <R>etry?"

Solution : Perform the following:

- 1) *Make sure that power and data cables are connected.*
- 2) *Enter R for retry.*
- 3) *If the SuperDisk drive is not recognized, stop the boot and switch power off, remove the diskette from the drive, and shut the power off and on (reset).*

A diskette is stuck in the SuperDisk drive.

Solution: *Carefully insert a pin or paper clip into the emergency eject hole located on the Eject button. Press the pin or clip in until the diskette ejects from the slot.*

You are unable to quick format a disk in Windows 95 or 98.

Solution: *Windows 95 and 98 do not automatically support the Quick Format option. Right-click on your Drive icon and select the Format option to perform a full format. Subsequent quick formats will work fine.*

The DISKCOPY command does not work with the SuperDisk drive.

Solution: *This command does not support disks larger than 32MB.*

MS Backup software reports that Floppy Media is unusable.

Solution: *Older backup packages may mis-identify the SuperDisk drive as a floppy drive. Only use backup packages that recognize the drive as a removable disk.*

You get a disk full error message or a "Can't create file or folder" message even though you're copying less than 120MB of data to the SuperDisk drive.

Solution: *The root or main directory of your disk may be full. The number of files that may reside in the root directory is limited, especially for files with long file names. Create a subfolder and copy your files to it instead of storing files in the root directory.*

The SuperDisk drive is not detected on the IDE channel.

Solution: *The IDE controller must have LBA support (EIDE) to work with the drive.*

Operation

The SuperDisk drive power indicator never flashed or remains lit.

Solution: *Check your power connections and IDE cable connections.*

The SuperDisk drive has no drive icon.

Solution 1: *The icon may be hidden. Do an auto arrange of the window where the icon should be displayed.*

Solution 2: *Check your IDE cable connections.*

Solution 3: *Make sure the IDE port is enabled.*

Solution 4: *If you are using bus-mastering, obtain an update. If you cannot, use Microsoft's default bus-mastering. See READIMDE.EXE at <ftp://ftp.microsoft.com/bussys/winnt/winnnt-public/fixes/usa/hotfixes-postSP3>.*

Your drive is slower than the specifications in this manual.

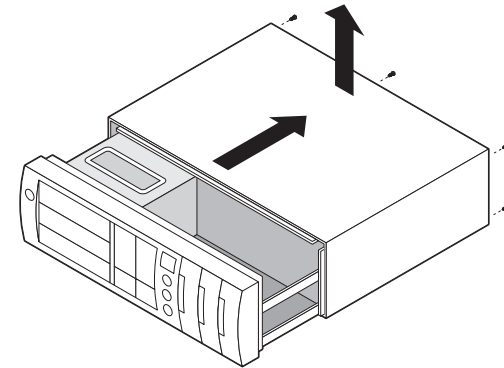
Solution: *Performance varies by computer type and file size. With a SuperDisk diskette, the SuperDisk drive reads and writes data over ten times faster than a standard floppy drive.*

Your SuperDisk drive works slowly or intermittently.

Solution: *Follow the drive cleaning instructions in the Maintenance section of this manual.*

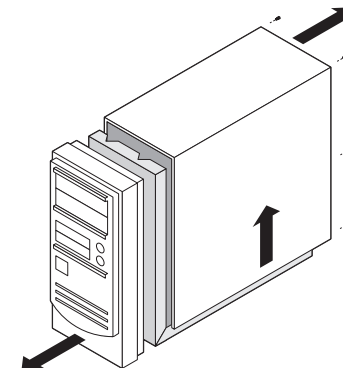
Desktop Case Example

This case has five screws holding the cover to the frame (one not shown). Remove each of the screws. To remove the cover, hold it on the sides and pull.



Tower Case Example

This case has six screws holding the cover to the frame. Remove each of the screws. To remove the cover, hold it at the top or bottom and pull.

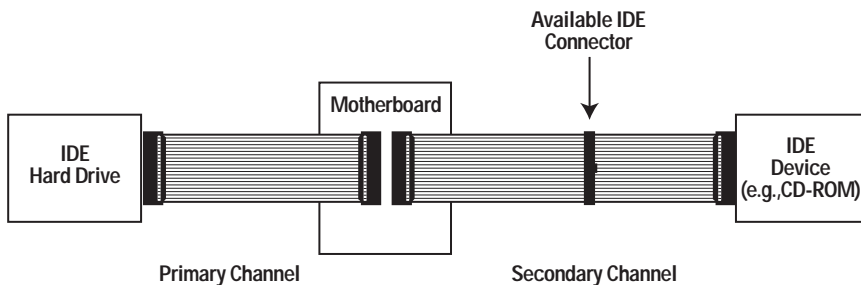


- 5) Touch the metal frame of your computer to discharge any static electricity built up in your body and reduce the chance of electric shock.
- 6) Familiarize yourself with the inside of your computer (motherboard). To determine where to install your new SuperDisk drive you need to know if it will replace your floppy as a bootable drive or act as an additional, non-bootable drive. Consult the "checking system configuration" section of your system owner's manual for further detail.

If your SuperDisk drive:

- replaces your floppy drive and your BIOS version supports SuperDisk drives, install the SuperDisk drive into the floppy drive slot. This means the SuperDisk drive will run from your A drive.
 - acts as an additional drive, install the SuperDisk drive into an available bay. This means the SuperDisk drive will run from the next available drive.
- 7) Determine where you will connect the supplied IDE cable. The IDE cable attaches from the motherboard to the rear of your SuperDisk drive. On new motherboards, there are two IDE cable connectors—one for the primary IDE channel and another for a secondary IDE channel. To find these connectors, locate your hard drive. It is the Master drive on the primary channel. We recommend that you connect your SuperDisk drive on the secondary channel.

Note that you have three connectors on your IDE cable: one in the middle of the cable and one at each end. Your SuperDisk drive can be attached to either the middle or end connector. The following illustration shows typical IDE cabling to your hard drive, SuperDisk drive, and CD-ROM. Consider the example below to help locate the appropriate connector best suited to your system's configuration.



You don't know how to reassign a drive letter to the SuperDisk drive.

Solution: *Perform the following:*

- 1) Click on Start>Settings>Control Panel.
- 2) In the Control Panel, double-click on System.
- 3) Click on the Device Manager tab.
- 4) Click on Disk Drives and then double-click on SuperDisk drive.
- 5) Click on Settings and set the desired drive letter.
- 6) Restart your computer when prompted.

When running SETUP.EXE to install the device driver, you get an error message stating your system already has support for the drive. The install program aborts without finishing the install, but your SuperDisk drive does not work.

Solution: *The last step the install program performs is to look at the date stamp of the ESDI_506.PDR file. If the file is newer than July 1995, the install program aborts. Edit the registry to change it from ESDI_506.PDR to ATAPI.MPD.*

Your SuperDisk drive letter is greater than C, and you still see your removed floppy drive as an A drive. How do you establish a bootable drive?

Solution 1: *Because your SuperDisk drive is not bootable, reinstall your floppy drive.*

Solution 2: *Upgrade your BIOS to make the SuperDisk drive bootable.*

Troubleshooting

Installation

You cannot boot from a DOS 6.22, Windows 95, or 95A boot diskette.

Solution 1 *Only Windows 98, 95, OSR/2, and NT 4.0 allow you to boot from either a 1.44MB or 120MB diskette.*

Solution 2: *Obtain a current version of BIOS from your computer vendor. If none are available, call 800-800-BIOS (Unicore). Also, check the following web sites:
<http://ping4.ping.be/bios/index.shtml>
<http://ping4.ping.be/bios/numbersami.shtml>
<http://www.unicore.com>*

After you install the SuperDisk drive, your CD-ROM or other IDE device does not work.

Solution 1: *Check your jumper settings. Change which drive is Master and which is Slave.*

Solution 2: *Make sure your CD-ROM or other device is compatible.*

Solution 3: *Move the SuperDisk drive to a different IDE channel or its own IDE channel.*

Solution 4: *Check your cable connections.*

After you install the device driver, your computer can no longer play music CDs.

Solution: *Make sure the CD-ROM driver you are using is the newest available from the vendor. Make sure it is a protected mode driver.*

✓ NOTES

The SuperDisk drive DOES NOT function on a sound card IDE channel.

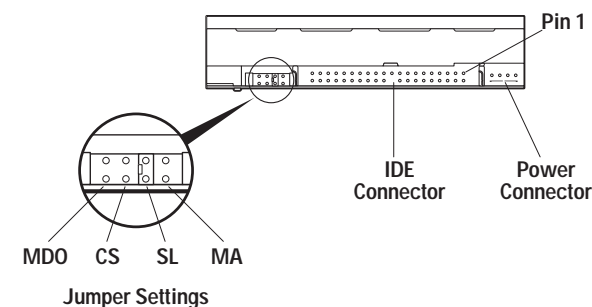
We don't recommend setting a CD-ROM drive as a Slave to the hard drive.

- 8) Set the jumpers located on your SuperDisk drive, hard drive, and/or CD-ROM by pulling them off with tweezers, pliers, or your thumbnail. Reposition them according to your system configuration. If you have two drives on a single IDE cable, make sure you set one of them as Master and the other as Slave. See the following table.

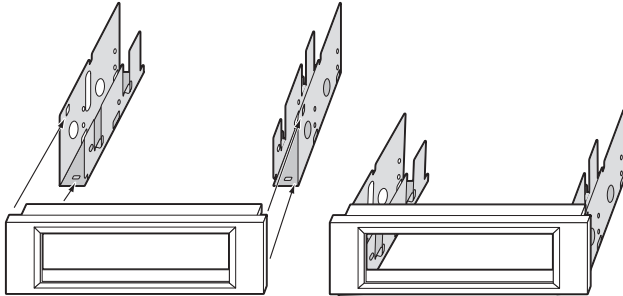
Jumpers are located on the rear of drives. They are usually defaulted to Master, although some hard drives have their jumpers set to "cable-select." (See your system owner's manual to find out how your hard drive jumpers are set. Also, examine the front of the drive, where computer manufacturers often print jumper settings.)

SuperDisk Drive Jumper Settings

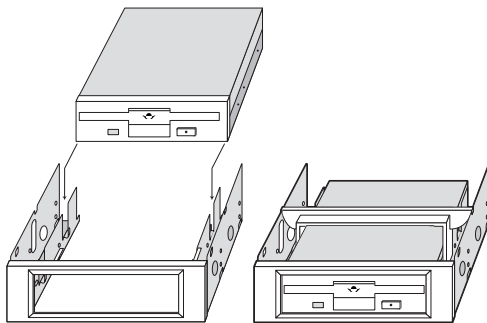
Abbreviation	Jumper Name	What it does
MA	Master	Configures the SuperDisk drive as the Master drive on the secondary IDE channel.
SL	Slave	Configures the SuperDisk drive as the Slave drive on either the primary or secondary IDE channel.
CS	Cable Select	This setting is only for computers that use cable-select cable.
MDO	Factory Setting	For factory use ONLY. Do not use this setting.



- 9) Remove the plastic front plate and any shielding from the bay where you plan to install the SuperDisk drive.
- 10) If you are installing the SuperDisk drive into a 5.25" bay, use the 3.5" Universal Installation Kit to prepare your SuperDisk drive. Perform the following steps:
 - a) Attach the face plate to the brackets (kit rails) one side at a time. The face plate snaps into place with two clips on either side. The clips on the plate should face the sides and bottom of the brackets.



- b) Position the drive on the four pins located on the inside of the brackets. Snap the drive retaining clip into place over the top of the drive and brackets.



MS Backup

MS Backup does not support the SuperDisk drive for Windows 95 and earlier. If you need to use a backup program, upgrade to Windows 98 or use a third party backup utility.

Bootting from the Drive

120MB diskettes are not bootable to DOS. If you create a DOS system disk on a 120MB diskette, the system will try to boot it, but will freeze up after you restart your computer.

To Uninstall the Device Driver

For Windows, enter the SETUP.EXE install program and check the Uninstall SuperDisk Device Driver & Utility button. Run the de-installation process as you would an installation.

For DOS, do a search for these lines in the CONFIG.SYS file: c:\atlas\atapimgr.sys and c:\atlas\mkels120.sys. Delete these lines everywhere they occur.

Maintenance

Clean your SuperDisk Drive after every 40 to 80 hours of operation, depending on the cleanliness of your operating environment. Head cleaning is an easy and effective way to prevent data loss. This does not mean the drive won't work if it isn't clean; it is only recommended to ensure optimum drive performance. Think of head cleaning as preventive maintenance—clean heads mean less trouble later on.

WARNING!

Use only Imation's LS-120 SuperDisk Head Cleaning Kit. Because of potential damage to the drive's head, use of any other head cleaning kit voids your warranty. **DO NOT use standard diskette head cleaning kit.**

The Imation LS120 SuperDisk Head Cleaning Kit is available through your retailer or Imation Internet store (US only): www.imation.com

- 3) Repeat steps 1 and 2 with a 1.44MB diskette (for example, the Driver Software Diskette).

Windows 95--all versions/98/NT

The SuperDisk drive is automatically assigned a Drive icon in My Computer. Depending on your system, the Drive icon is either a 3.5" floppy drive or a removable drive. Perform the following steps:

- 1) Insert a SuperDisk diskette into the SuperDisk drive.
- 2) Double-click on the Drive icon in My Computer. After a few seconds, the diskette's directory appears. This confirms that the drive was installed correctly.
- 3) Repeat steps 1 and 2 with a 1.44MB diskette (for example, the Driver Software Diskette).

Operating the SuperDisk Drive

The SuperDisk drive performs all the normal Windows or DOS copy, move, and format features your floppy drive performed. These features and others are described below.

Copying Disks

To copy disks greater than 32MB you will need to use COPY or XCOPY instead of the DISKCOPY command.

Formatting Disks

With the correct BIOS and system support, SuperDisk diskettes can be formatted using the **Quick Format** or (full) **Format** option in Windows 95 or 98. If your system does not have BIOS support, the **Quick Format** option won't work the first time you attempt to reformat a SuperDisk diskette. Subsequent quick formats work correctly.

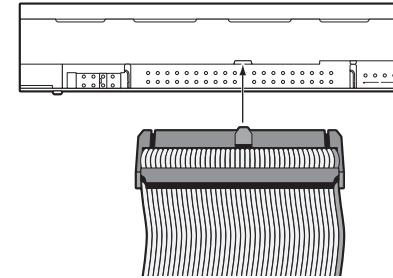
✓ NOTE

If you need only to erase files on a diskette but not reformat the entire diskette, use either the **Delete** key (click on **Windows Explorer>Edit>Select All**) for Windows 95 or 98 or the **DEL** *.* command for DOS. These commands may erase the diskette faster than reformatting.

Ejecting a Diskette

Always wait for the activity indicator (green LED) light to go off or stop blinking before ejecting a diskette to avoid compromising the integrity of stored data.

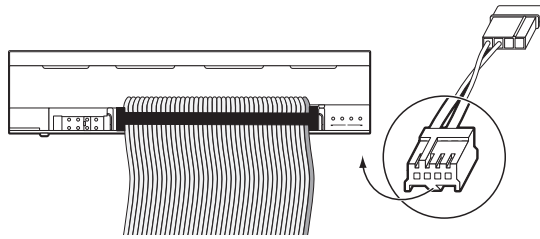
- 11) Install the SuperDisk drive into an available bay. For a
 - 3.5" bay, slide the SuperDisk drive directly into the bay.
 - 5.25" bay, mount the SuperDisk drive assembly to your computer's rails. Install the screws through either the upper or lower positions on the brackets so that the drive slides into its bay.
- 12) Attach the supplied IDE cable to the rear of the SuperDisk drive. Make sure Pin 1 (identified by a red stripe or marking) on the cable is on the side closest to the power connector. Holding the SuperDisk drive right side up with the rear of the unit facing you, the red wire should be on the right side of the cable. When positioned correctly, you should not need to force the connection but will feel a slight resistance followed by a soft click. **DO NOT** use the floppy drive cable supplied with your computer.
- 12) After you have successfully attached the supplied IDE cable to the SuperDisk drive, plug the other end of the IDE cable into an available IDE connector (often, but not always, located on the motherboard).
- 13) Attach your SuperDisk drive to an available power connector.



Make sure the notch located on the top of the power connector is facing up, forming a snug connection. If necessary, use a polarized power adapter.

WARNING

Plugging in the power cable incorrectly destroys your SuperDisk drive and voids your warranty.



14) Once you have made sure the proper connections are in place, you can safely plug your SuperDisk drive into an available power supply. Reinstall the case cover and reconnect power. The activity indicator (green LED) lights briefly.

Windows NT 4.0/NT 3.51 (with SP5)

- 1) On the Control Panel, double-click on System and then click on the Device Manager icon. A list of all the drivers used by the system appears.
- 2) Select the ATAPI device driver and change its setting to Started at boot.
- 3) Restart your computer. The SuperDisk drive is now recognized as the logical A or B drive within My Computer.

✓ NOTE

For new NT installations, install the SuperDisk drive BEFORE installing Windows NT. As you install Windows NT, your system automatically identifies the SuperDisk drive and loads the appropriate drivers. After you restart your computer, the system recognizes the SuperDisk drive as the logical A or B drive.

Testing the Installation

After you install the SuperDisk drive and device driver (as needed), make sure the system has correctly assigned the SuperDisk drive a drive letter or icon. Follow the testing procedures below for your specific operating system.

✓ NOTE

If you have a CD-ROM, the SuperDisk drive may have taken its drive assignment. To make sure your CD-ROM functions properly, either change its drive letter, as described in the Troubleshooting section of this manual, or reinstall certain CD-ROM programs.

Testing Procedures

DOS/Windows 3.1

The SuperDisk drive is automatically assigned to the next available drive letter after the hard drive. Perform the following steps:

- 1) Insert a SuperDisk diskette into the SuperDisk drive.
- 2) At the C:\> prompt, enter the assigned directory letter (ie: dir D). After a few seconds, the diskette's directory appears. This confirms the drive was installed successfully.

skip to the Testing the Installation section.

If your operating system is Windows NT 4.0 or NT 3.51 (with SP5), you do not need to change your system settings. Follow the procedures for Windows NT 4.0/NT 3.51 (with SP5).

Software Installation Procedures

DOS/Windows 3.1 Installation

- 1) Insert the Driver Software Diskette into your 1.44MB floppy drive.
- 2) For Windows 3.1, click on Start and select the Run option.
- 3) Type in A:\INSTALL and press Enter.
- 4) Select option two, Express Install, for the quickest install process. Press Enter.
- 5) Remove the Driver Software Diskette.
- 6) Reboot your computer by pressing Ctl Alt Del. The system modifies your CONFIG.SYS file and saves a backup of the original file. Your system displays this message to verify the installation:

```
ID 2: LS-120 Ver 4 420 Direct Access Device (removable)
ID 2 Drive Letter is D LS-120
SuperDisk driver(s) connected
SuperDisk driver installed
```

If this message does not appear, check your operating system type and version and then reinstall the device driver.

Windows 95/95A/NT 3.51 (without SP5) Installation

- 1) Insert the Driver Software Diskette into your 1.44MB floppy drive.
- 2) Click on Start and select the Run option.
- 3) Enter A:\SETUP.EXE and press Enter. A menu-driven installation program guides you through the installation process. This process automatically updates the system's registry with the appropriate drivers.
- 4) When the installation process is complete, remove the Driver Software Diskette.
- 5) Restart your computer.

Checking System Configuration

The SuperDisk drive can completely replace your former 1.44MB floppy drive as a bootable drive if your BIOS version supports SuperDisk drives. If you plan to replace your floppy drive with the SuperDisk drive, perform the following steps:

- 1) Check your BIOS for compatibility--that is, whether BIOS supports SuperDisk as a bootable drive.
- 2) Configure BIOS.
- 3) Test your SuperDisk drive for bootability.

These steps are discussed on the following pages.

If, however, you are installing your SuperDisk drive as an additional drive--that is, you are not replacing your floppy drive with your SuperDisk drive--the SuperDisk drive will not be bootable. Skip to the Software Installation section to install your SuperDisk drive as an additional, non-bootable drive.

✓ NOTE

IBM Microchannel PCs DO NOT support bootable SuperDisk drives.

Check for Compatibility

To check your BIOS version for compatibility, perform the following steps:

- 1) When booting up your system, write down your BIOS type, version number, and serial number. Press the **Pause** key to halt the system long enough to record this information.
- 2) Call your computer manufacturer and tell him or her this information. The manufacturer can tell you whether your BIOS is compatible. If he or she cannot, follow steps three and four.
- 3) From your CMOS setup, go to the BIOS features or Advanced Settings section. Look for the Boot Sequence setting--this tells your system how and where to boot from first. Normally, it is set to **A, C**. This tells the system to boot from the floppy drive first, but if no diskette is present, to boot from the hard drive.
- 4) Browse through the setting and look for either **SuperDisk Drive**, **Floptical Drive**, **LS-120**, **UHD Floppy**, **Removable Device**, or **Removable Drive**. If you find one of these settings, go to the next step, Configure BIOS. If you don't find any of these settings, your system BIOS probably does not support the SuperDisk drive as a bootable drive. Skip to the **Software Installation** section to install your SuperDisk drive as an additional, non-bootable, drive.

Configure BIOS

Follow these general steps for making the SuperDisk drive bootable:

- 1) Enter your CMOS setup and make sure the SuperDisk drive is identified correctly on the IDE bus.
- 2) Set Floppy Drive A to Not Installed.
- 3) Set the Floppy Drive Controller to Disabled.
- 4) Make sure the SuperDisk drive is first in the boot sequence order. (If it is not first, it may still be bootable.) Go to the last step, Test Bootability.

Some CMOS setups require more entry on your part. Here is an example of one such setup.

Example

- 1) Restart your computer. As the first screen comes up, press F2.
- 2) At the BIOS main screen, set IDE Adapter 1 Master to ARM and press Enter. (ARM stands for ATAPI Removable Medium.)
- 3) Make sure Autotype Fixed Disk is set to Press Enter. Press Enter. Press ESC to return the cursor to the main screen.
- 4) Set Diskette A and Diskette B to Not Installed. Use the right and left arrow keys to select the Advanced menu option.
- 5) Highlight Integrated Peripherals and press Enter.
- 6) Set the Diskette Controller to Disabled and set the Local Bus IDE adapter to Both.
- 7) Use the right and left arrow keys to select the Boot menu option. On the Boot screen, reorder the listed devices as follows:

Removable Devices

Hard Drive

ATAPI CD ROM Drive

- 8) Save your changes and exit from CMOS setup.

For additional CMOS setup information, see your system owner's manual.

Test Bootability

To make sure you have configured BIOS correctly, perform the following test:

- 1) Insert a non-system disk into your SuperDisk drive.
- 2) Restart your computer. If the "Not a system disk" error message appears, your hardware connections are correct and the system successfully tried to reboot. If the message does not appear, recheck your system configuration. Make sure your BIOS version supports SuperDisk as a bootable drive. If not, see the Software Installation section below to install your SuperDisk drive as an additional, non-bootable, drive.

Software Installation

The Driver Software Diskette (1.44MB floppy) installs and integrates the device driver into your system. This process varies by operating system and is required for

- DOS
- Windows 3.1 or 3.11
- Windows NT 3.51 without Service Pack 5
- Windows 95 and 95A

Follow the software installation procedures for your operating device. If you don't know the version of your operating system, right-click on My Computer and then click on Properties>General tab. The General tab shows your operating system type followed by a string of numbers and/or a letter representing the version. For example, Windows 95 4.00.950 B stands for Windows 95, version B.

The following operating systems have native support for the SuperDisk drive and do not require you to load device drivers:

- Windows 98
- Windows 95 OSR/2 (B or C)
- Windows NT 4.0
- Windows NT 3.51 with Service Pack 5

These operating systems automatically detect your SuperDisk drive. The drive shows up as the logical A drive (3.5" floppy) under My Computer. If you have other peripheral devices such as hard drives or CD-ROMs, they are automatically assigned the next available drive letter. If your operating system is Windows 98 or 95, you can