



Guardian **MAX**imusTM

**Dual-Drive Hardware RAID-1 (Mirror)
eSATA, FireWire 800/400 & USB 2.0**

Assembly Instructions

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Your computer is a static-sensitive device. It is susceptible to invisible damage if not protected during installation.

We recommend proper grounding by using a grounding strap. Make sure to work in a clean and static-free area, and avoid wearing clothing that retains static charges.

Got tools? If you don't have the tools necessary to complete this installation, Newer Technology has a fantastic toolkit with everything you need included to perform this installation, and most common computer hardware installations.



It's available at:

<http://newertech.com/products/11pctoolset.php>

Assembling a Newer Technology Guardian MAXimus

Chapter 1

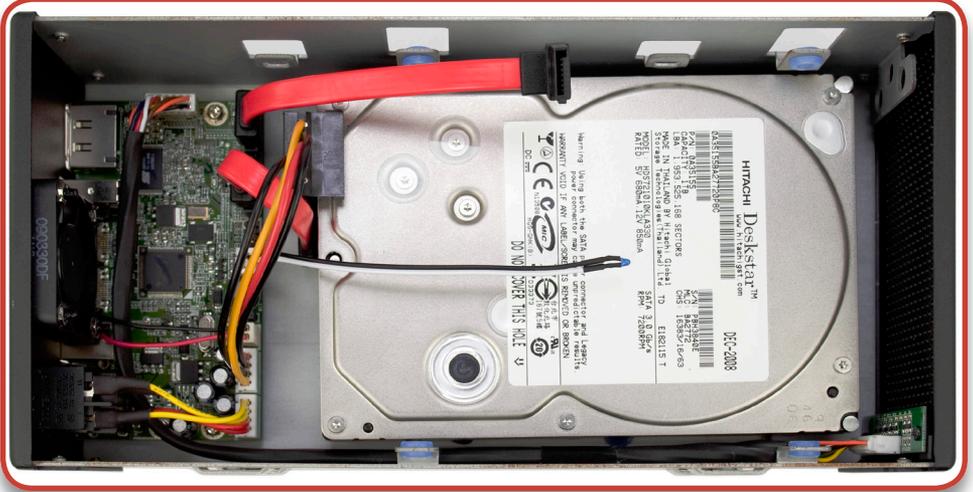


Begin by opening your Newer Technology Guardian MAXimus box.



Set the contents out in front of you and familiarize yourself with your new drive enclosure and it's contents.

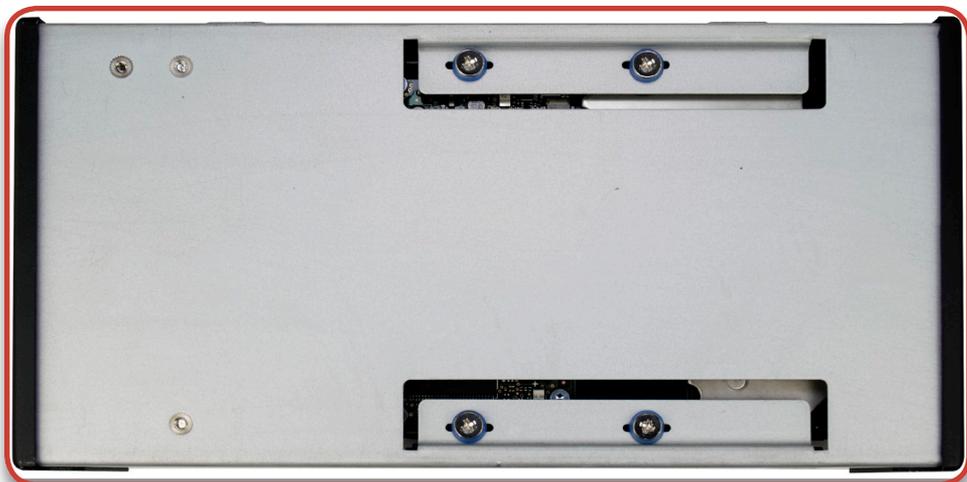
- Guardian MAXimus
- Power Transformer
- Power Cable
- eSATA Cable
- FireWire 800 Cable
- FireWire 400 Cable
- USB 2.0 Cable
- Software Bundle
- Screw Package *(not pictured)*



Set your hard drive into the chassis as shown above, sliding the drive as far forward as it will go. Lift the rear of the drive up and plug the bottom multicolored power cable and the inside red SATA cable into the hard drive. Place the white and black thermal probe wire above the drive.

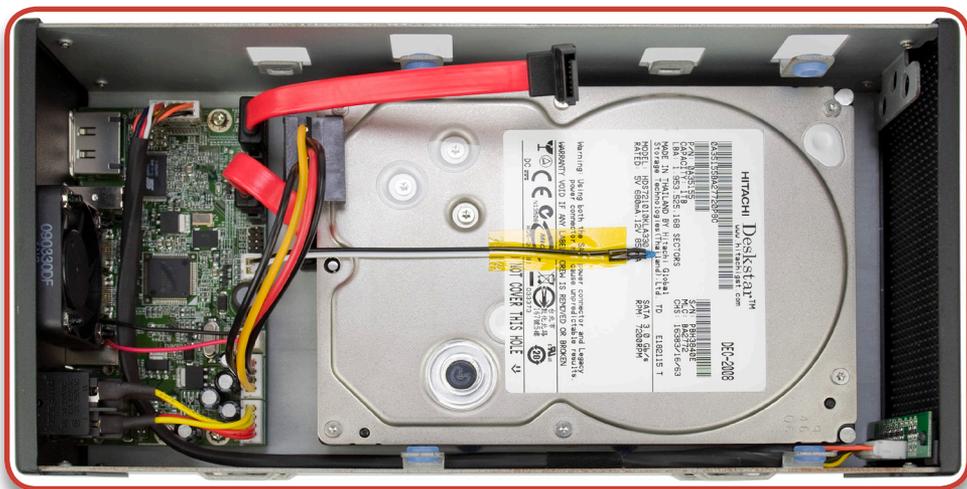
Be sure to use the SATA cable that is closest to the center of the bridge card, it will assist in proper fit.

Once the cables are attached, turn the chassis onto it's side while holding the hard drive in place to keep it from sliding around, you need to insert screws to fasten it into the chassis.



Here you see the bottom of the Newer Technology Guardian MAXimus chassis with 4 screws inserted into the bottom hard drive mechanism. Line the 4 screw holes up and insert the collared screws that are included with the kit through the silicone rubber grommets and tighten only partially until all 4 screws are inserted fully.

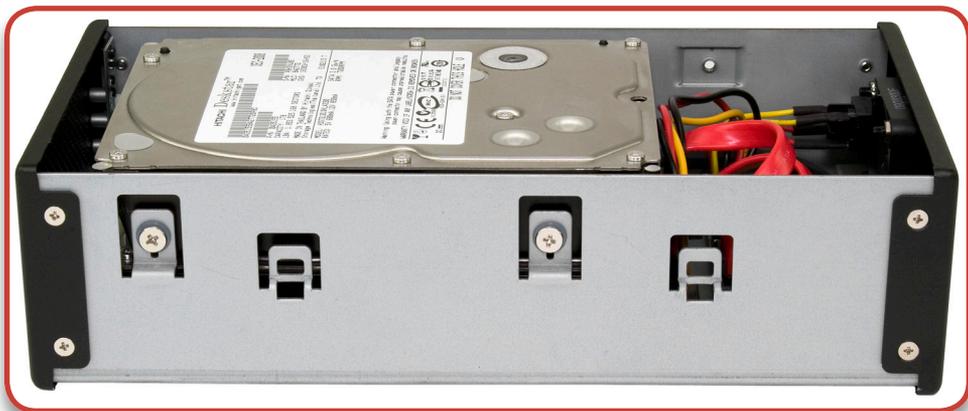
Once all 4 screws are inserted, firmly tighten but realize they will not overtighten, due to their collared design.



Turn the chassis back over so you can see the drive inside. Take the included yellow kapton tape and attach the black and white thermal probe as close to the center of the hard drive spindles as possible. Do not tape over the blue thermal probe lead, but rather tape the wire down to the top of the drive as shown.



Gently set the 2nd hard drive on top of the lower drive that's already installed into the chassis and once again, plug in the multicolored power cable and red SATA cable into the drive. This drive is easier to install.



Once the cables are installed, look at the side of the drive chassis and align the screw holes in the sides of the hard drives up and fasten the same collared screws that you used on the bottom drive through the silicone rubber grommets and attach one side of the hard drive into the chassis. Repeat on the opposite side of the chassis.



Gently fold the power and SATA cables into the chassis to prevent them from interfering with the outer case shell and slide the inner chassis into the outer shell from the front as shown above.



Again, lay the Newer Technology Guardian MAXimus onto it's side and insert the 4 black Phillips screws (2 you removed to start this process, and 2 from the bag) through the outer shell into the inner chassis, fully fastening the Newer Technology Guardian MAXimus together and completing the assembly process.



Turn the Newer Technology Guardian MAXimus so you can see the rear port as shown above. First, make sure that the power switch is off. Then, connect the power cable to the back of the Guardian MAXimus. Finally, you need choose which interface you want to use to connect to your computer.

The Newer Technology Guardian MAXimus has 4 interface options to choose from.

- eSATA, for maximum speed
- FireWire 800 for excellent speed and the ability to daisy-chain multiple devices using either FireWire 800 or 400
- FireWire 400 for good speed and the ability to daisy-chain multiple devices using either FireWire 800 or 400
- USB 2.0 for good speed and maximum cross-platform compatibility

Connect the eSATA, FireWire 400, 800 or USB 2.0 cable - appropriate for the interface your computer supports, into the drive and computer.

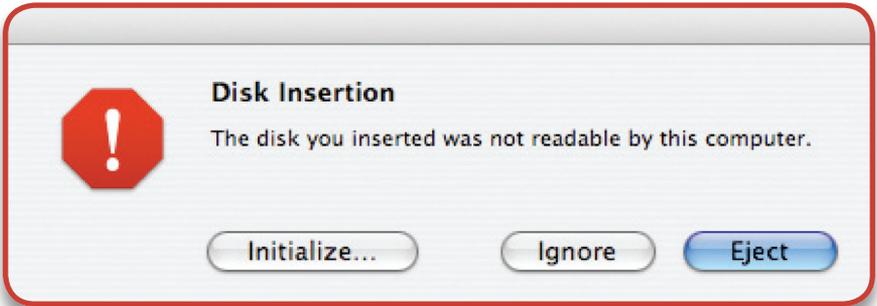
Power the Newer Technology Guardian MAXimus on. You should hear the hard drives spin up, and click a couple of times. After 10 or so seconds, the following dialog box will appear on your screen (see next page - Chapter 2).

Initializing the Newer Technology Guardian MAXimus

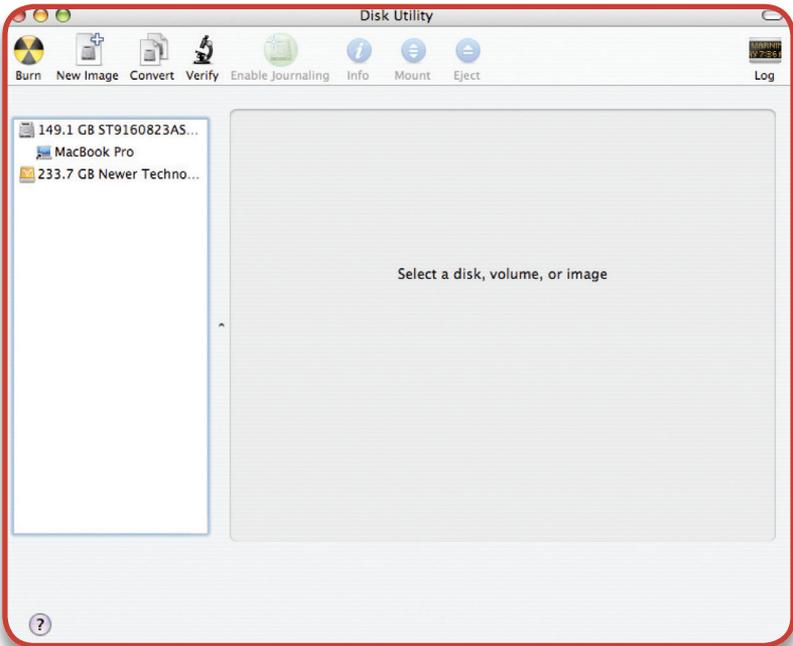
Chapter 2

The instructions that follow are for initializing the Newer Technology Guardian MAXimus with a Macintosh system running Mac OS X. If you wish to view initialization instructions for other operating systems, please visit our support website at:

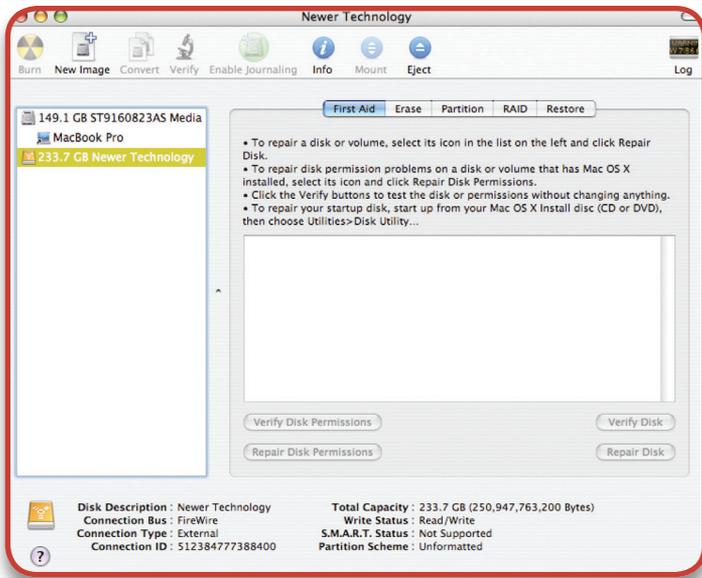
<http://newertech.com/support>



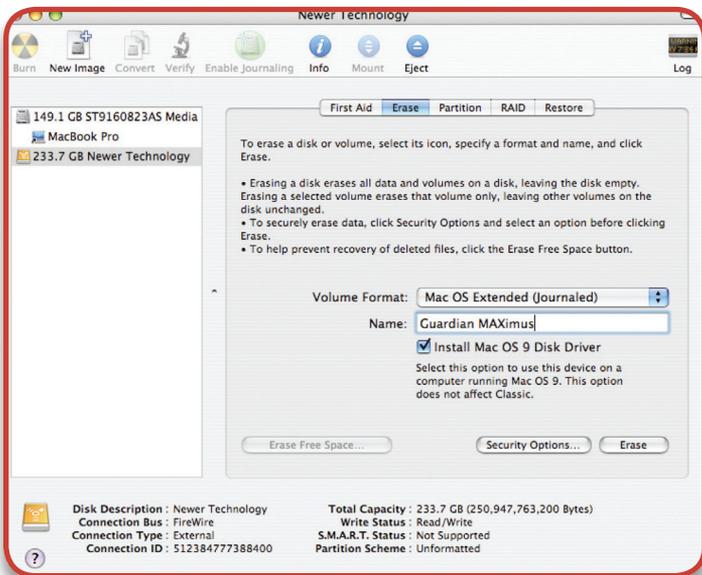
Click on the "Initialize" button.



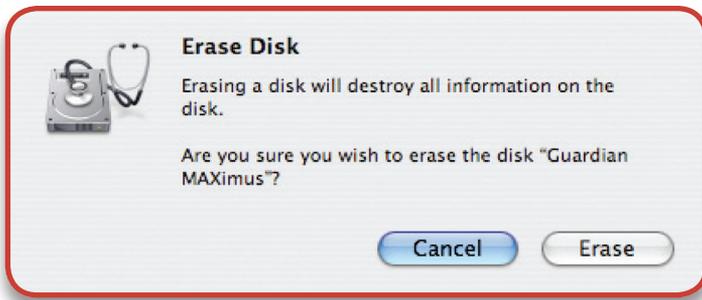
Select the device with no volumes attached to it; in this picture, that would be the 233.7GB Newer Technology device. Click on the picture of the drive icon next to the text.



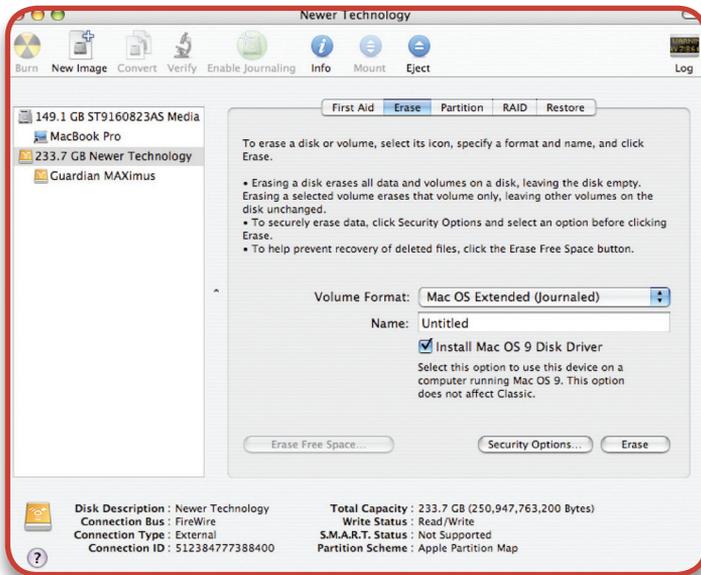
Once you've selected the Newer Technology Guardian MAXimus drive icon, you will notice the above change in the Disk Utility application. Click on the "Erase" tab, next to the highlighted blue "first aid" tab in this picture.



You then need to name the volume that you want to format, and erase it. Name the volume as you want, choose the Volume Format pulldown (Mac OS Extended (Journaled) is default), and click the Erase button.



Click the erase button to confirm you wish to erase the disk.



After a few moments, the erase command will complete and the Newer Technology Guardian MAXimus volume will mount on your desktop. You can quit Disk Utility, you're all set!

To disconnect or unhook your Newer Technology Guardian MAXimus hard drive, follow these important steps to properly disconnect your drive.

If you wish to disconnect your drive without shutting down your computer, simply drag the Newer Technology Guardian MAXimus drive icon to the trash can icon. Your drive is now safe to power off and unhook. Do not disconnect, or power off the Newer Technology Guardian MAXimus until you have completed this step.

Identifying the Newer Technology Guardian MAXimus front status lights

Chapter 3

The NewerTech Guardian Maximus has 4 LED status lights on the front of the case to visually display what it is doing and to warn you of any errors.

- The leftmost LED is a blue power light. This will illuminate when the case is powered on.
- The middle two LEDs (HDD1 and HDD2) are green and will illuminate when hard drive #1 and hard drive #2 are being written to. They will not illuminate if the drive is not being accessed; they will turn off.
- If a hard drive fails, one of the middle two lights (HDD1 or HDD2) will turn red, indicating which drive has failed. Upon replacement of the failed mechanism*, the failed mechanism's indicator light will flash from red to orange, as it is being accessed to write data onto the drive, rebuilding the mirrored RAID
- The rightmost LED is the Rebuild indicator. If a drive has failed and the Guardian MAXimus is rebuilding, the LED will illuminate green. If the rebuild fails, it will illuminate red. If the LED illuminates red, please contact our support department for further assistance.



In the event of a drive failure, rebuilding can take several hours to overnight. You may continue to use your Newer Technology Guardian MAXimus as you normally would during the rebuild process.

* In the event of a drive failure, you must make sure the good drive with your data is in HDD1 and the new drive you are writing to is in HDD2. If the good drive with your data is in HDD2, it will be overwritten and the data possibly lost.

Troubleshooting

Chapter 4

If your Newer Technology Guardian MAXimus is not functioning properly, begin by checking some basic possibilities, such as:

- Are all the cables tightly attached to both the computer and drive?
- Is the power supply plugged in firmly, and is the LED lit on the power supply brick?

If the above solutions do not correct the problem, a full reset of your system may be in order.

Apple provides detailed instructions on the type of reset that is required for your system.

Mac (Intel based) Portables:

<http://support.apple.com/kb/HT1411>

Mac Pro:

<http://support.apple.com/kb/HT1806>

All PowerPC based systems:

<http://support.apple.com/kb/HT1379>

If you are still experiencing problems with your Newer Technology Guardian MAXimus, please continue on to Chapter 6: Contacting Customer Service.

Tips

Chapter 5

To disconnect or unhook your Newer Technology Guardian MAXimus hard drive, follow these important steps to properly dismount your drive.

If you wish to disconnect your drive without shutting down your computer, simply drag the Newer Technology Guardian MAXimus drive icon to the trash can icon. Your drive is now safe to power off and unhook. Do not disconnect, or power off the Newer Technology Guardian MAXimus until you have completed this step.

Contacting Customer Service

Chapter 6

Before contacting Customer Service:

- Read the manual and review Chapter 4: Troubleshooting
- Try and confirm the problem is with the hard drive. If you have a second Macintosh based computer, move the drive to that system and verify that the drive does not function with that machine.
- Visit our FAQ section for more suggestions
<http://www.newertech.com/support>

If you still need support, have the following available to speed up your contact:

- The serial number of the hard drive
- Your invoice number (if at all possible)
- Which operating system you're using
- Which kind of computer you're using

There are 3 ways to contact Technical Support or Customer Service:

Via Email:

Submit your support request via our online form:
<http://helpcenter.newertech.com/>

Via Phone:

(815) 308-7001
8AM–8PM CST Monday-Friday
9AM–4PM CST Saturday

Via Live Chat:

Newer Technology's distributor, OWC, offers live technical assistance:
7AM–10PM CST Monday-Friday
10AM–4PM CST Saturday
12PM–4PM CST Sunday
<http://newertech.com/Service/index.cfm?page=nochat.html>

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FCC Statement:

Warning! Modifications not authorized by the manufacturer may void the user's authority to operate this device.

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.

NOTE: 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 and 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.

Health And Safety Precautions

- Use proper anti-static precautions while performing the installation of your hard drives into this drive enclosure. Failure to do so can cause damage to your drive mechanisms, and / or the hard drive enclosure.
- Read this User's Guide carefully, and follow the correct procedure when setting up the device.
- Do not open your hard drive or attempt to disassemble or modify it. Never insert any metallic object into the drive to avoid any risk of electrical shock, fire, short-circuiting or dangerous emissions. Your hard drive contains no user-serviceable parts. If it appears to be malfunctioning, have it inspected by a qualified Newer Technology Technical Support representative.
- Never expose your device to rain, or use it near water, or in damp or wet conditions. Never place objects containing liquids on the drive, as they may spill into its openings. Doing so increases the risk of electrical shock, short-circuiting, fire or personal injury.

General Use Precautions:

- Do not expose the hard drive to temperatures outside the range of 5° C to 40° C (41° F to 104° F). Doing so may damage the drive or disfigure its casing. Avoid placing your drive near a source of heat or exposing it to sunlight (even through a window). Inversely, placing your drive in an environment that is too cold or humid may damage the unit.
- Always unplug the hard drive from the electrical outlet if there is a risk of lightning or if it will be unused for an extended period of time. Otherwise, there is an increased risk of electrical shock, short-circuiting or fire.
- Use only the power supply shipped with the device.
- Do not use the hard drive near other electrical appliances such as televisions, radios or speakers. Doing so may cause interference which will adversely affect the operation of the other products.
- Do not place the drive near sources of magnetic interference, such as computer displays, televisions or speakers. Magnetic interference can affect the operation and stability of your hard drive.
- Do not place heavy objects on top of the drive or use excessive force on it.
- Never use excessive force on your drive. If you detect a problem, consult the Troubleshooting section in this manual.
- Protect your hard drive from excessive exposure to dust during use or storage. Dust can build up inside the device, increasing the risk of damage or malfunction.
- Newer Technology recommends the use of normal glass cleaning products to keep the high lustre finish at it's finest with this product. Be sure to not get any moisture inside the holes and if you do, allow time to air dry before use.
- Do not block the ventilation outlets on the rear of the drive. These help to keep your drive cool during operation. Blocking the ventilation outlets may cause damage to your drive and cause an increased risk of short-circuiting or fire.



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