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## LACIE 5BIG THUNDERBOLT 2 USER MANUAL



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# INTRODUCTION

## WHAT IS IN THIS MANUAL

Welcome to the User Manual for the LaCie 5big Thunderbolt™ 2. The LaCie 5big is a desktop direct-attached storage, or DAS. Connect it to a computer that supports Thunderbolt 2 technology for transfer rates that reach up to 20Gb/s! LaCie has constructed the 5big Thunderbolt 2 to handle bandwidth-intensive content such as raw 4K and 3D graphics so that professional editors, photographers, and graphic artists get the highest performing storage for their most challenging projects.



Use this manual to guide you through the process of connecting your LaCie storage. For questions on installation, consult the [Getting Help](#) page.

## BOX CONTENTS

- LaCie 5big Thunderbolt 2
- External power supply
- Thunderbolt cable
- Drawer key
- Cable lock clip
- Quick Install Guide

**Note on the power supply:** The included power supply is meant for use with the LaCie 5big Thunderbolt 2. It is not compatible with other models of the LaCie 5big enclosure. Further, the LaCie 5big Thunderbolt 2 cannot use power supplies shipped with other models of the LaCie 5big enclosure.

**Important info:** Save your packaging. In the event that the product should need to be repaired or serviced, it must be returned in its original packaging.

# MINIMUM SYSTEM REQUIREMENTS

## Client types

- Mac OS X 10.9 and later
- Windows 7 and higher
- A computer that supports Thunderbolt 2 technology or first generation Thunderbolt technology. To take advantage of the higher performance offered by Thunderbolt 2 technology, your computer must have a Thunderbolt 2 technology port (see [LaCie 5big Thunderbolt 2: Advanced Storage Technology](#)).

### **Important info:**

Your LaCie product's performance can be affected by such external forces as type of cable, hardware, distance, and setup.

For optimal performance: use the cables provided with your device or, cables supported by LaCie; make certain to follow the installation instructions provided in the Quick Install Guide and this user manual.

# LACIE 5BIG THUNDERBOLT 2: ADVANCED STORAGE TECHNOLOGY

## THUNDERBOLT 2 TECHNOLOGY

The LaCie 5big Thunderbolt 2 uses Thunderbolt 2 technology, the fastest, most versatile connection for your computer. While first generation Thunderbolt technology transfer rates are 10Gb/s bi-directional, Thunderbolt 2 technology provides 20Gb/s bi-directional. Additionally, Thunderbolt 2 technology gives priority to the video stream, apportioning the required bandwidth for playback. This is a critical advantage when working with high-end video and 3D graphics.

For example, a film editor is working with two streams, 4K video at 12Gb/s and data at 4Gb/s. Whereas first generation Thunderbolt technology may experience difficulty with the video signal, Thunderbolt 2 technology allows it to pass without a problem, dividing the bandwidth as needed for playback.

**Important cable info:** When connecting your Thunderbolt 2 enclosure to a computer or compatible devices, use cables specifically constructed to support Thunderbolt technology.

**Important info:** A Thunderbolt enclosure must be connected to a computer that supports Thunderbolt technology. While the ports on the back of the device can easily seat Mini DisplayPort cable ends for daisy chaining displays, the Thunderbolt storage will only work when connected to a computer that supports Thunderbolt technology.

## LaCie 5big Thunderbolt 2 technology: hardware RAID for protection and performance

Featuring hardware RAID, the LaCie 5big is a rarity in the world of high-end DAS. While most DAS must choose between high transfer rates or data protection, the LaCie 5big offers both extraordinary performance and built-in protection. Its powerful RAID engine saves your computer from expending critical processing resources on storage management, which is crucial for video and graphics applications that place heavy demands on computer CPUs. Further, hardware RAID solutions offer advanced RAID configurations to suit the needs of your working environment (see [RAID](#)).

The LaCie 5big Thunderbolt 2 features:

- Desktop convenience
- Aluminum front and all-metal enclosure
- A RAID-on-Chip (RoC) processor to manage the RAID
- Hardware RAIDs 0, 1, 10, 5, 5+Spare, 6, 6+Spare, and JBOD
- Five SATA channels, up to 6Gb/s per channel
- Two Thunderbolt 2 technology ports, up to 20Gb/s bi-directional per port
- Hot-swappable hard drives to reduce downtime
- A warning system with physical and email alerts
- Intelligent RAID rebuild with a spare drive

# SYSTEM OVERVIEW

The LaCie 5big Thunderbolt 2 is a desktop hard drive enclosure that houses up to five 3.5-inch hard drives.

Enclosures shipped with hard drives feature high-performance Seagate Desktop HDD.

In case of hard drive failure or, the need to expand storage capacity, each individual hard drive is hot-swappable and field replaceable. New or replacement hard drives must meet the following requirements:

- SATA I or higher
- 3.0Gb/s or higher
- Spin up to 7200 RPM

For further information on compatible hard drives, visit [LaCie support](#).

## SPECIFICATIONS

### Storage management

The 5big storage is managed by the software utility, LaCie RAID Manager. See [Software](#).

### Enclosure dimensions

Side	Dimensions (in / mm)
Width	6.8 / 173
Height	8.6 / 220
Length	7.7 / 196

### Enclosure weight

Hard drives	Weight (lbs / Kg)
-------------	-------------------

0	10.4 / 4.7
5	16.8 / 7.6

## Temperature ranges

Ambient environment	Temperature range
Standard (operating)	+5°C to +40°C
Storage (non-operating)	-20°C to +60°C

## Humidity

Environment	Humidity range
Standard (operating)	10% to 60% non-condensing
Storage (non-operating)	5% to 85% non-condensing

## Electrical

Power supply: 100-240VAC; 50/60Hz; 150W

**Note on the power supply:** The included power supply is meant for use with the LaCie 5big Thunderbolt 2. It is not compatible with other models of the LaCie 5big enclosure. Further, the LaCie 5big Thunderbolt 2 cannot use power supplies shipped with other models of the LaCie 5big enclosure.

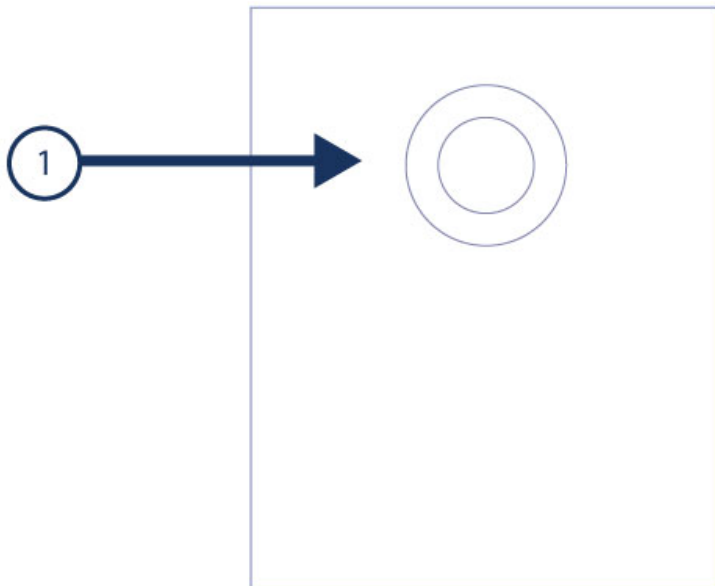
## Acoustics

State	Noise (dBA)
Standby	Negligible
Idle	25-28
Operational	25-29

**Note:** These measurements have been made under normal conditions, one meter/three feet from the front of the product. It may vary with conditions and product configuration.

## VIEWS

### Front panel view

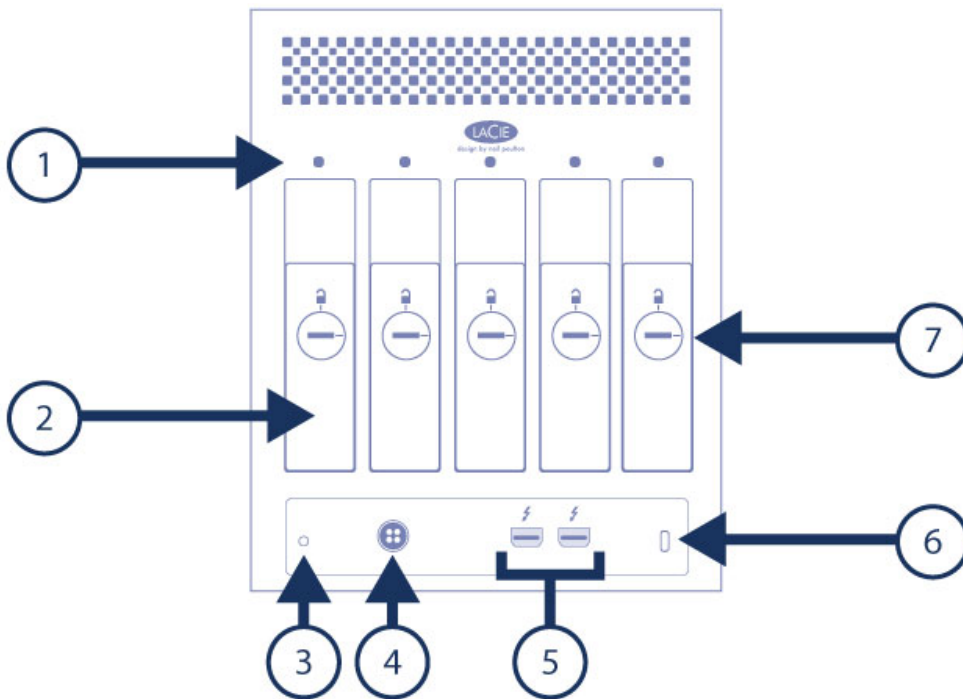


1. **Status LED/power button:** The LED indicates that the device is powered on and provides status signals (see [System LEDs](#)). It is also the power button. A short push will spin down the LaCie 5big's hard drives and place the system into idle mode. A long push is for emergency use only since it cuts power to the system without spinning the hard drives down. See [Operation](#) for more details.

For details on LED behavior. See System LEDs.



## Rear panel view

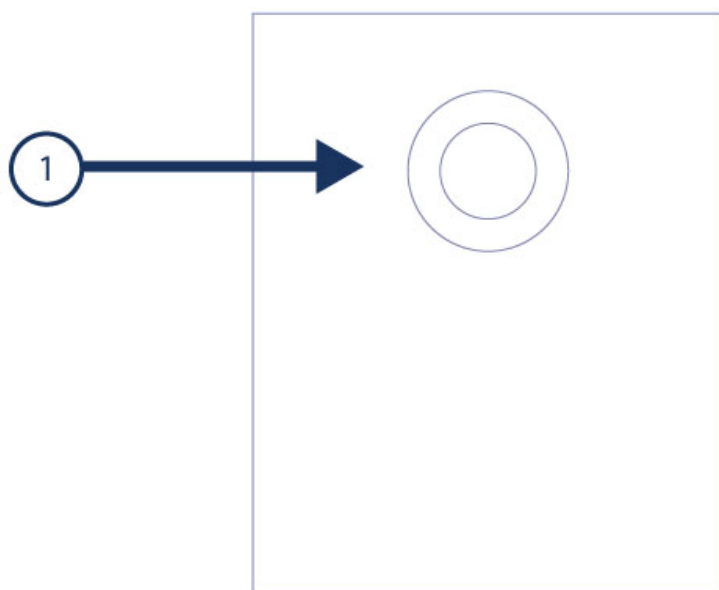


1. **Hard drive status LEDs:** Indicates hard drive activity and health (see [System LEDs](#)).
2. **Swappable hard drive trays:** Hard drive trays can be unlocked and removed to replace failed hard drives. The LaCie 5big storage is hot-swappable.
3. **Cable management clasp port:** Connect the included cable management clasp to this port.
4. **Power input:** Insert the AC adapter supplied with the LaCie 5big. See [Setting Up](#).
5. **Thunderbolt 2 ports:** The ports are not preconfigured with specific roles. Therefore, you can use either port as the host, connected to a computer, or the daisy chain, connected to other compatible devices. See [Setting Up](#) and [Daisy Chain](#).
6. **Kensington™ lock port:** Use this port to physically lock the 5big to a desk or rack.
7. **Hard drive tray lock:** The hard drive trays are fastened to the enclosure when the indicator points to the locked icon.

## SYSTEM LEDS

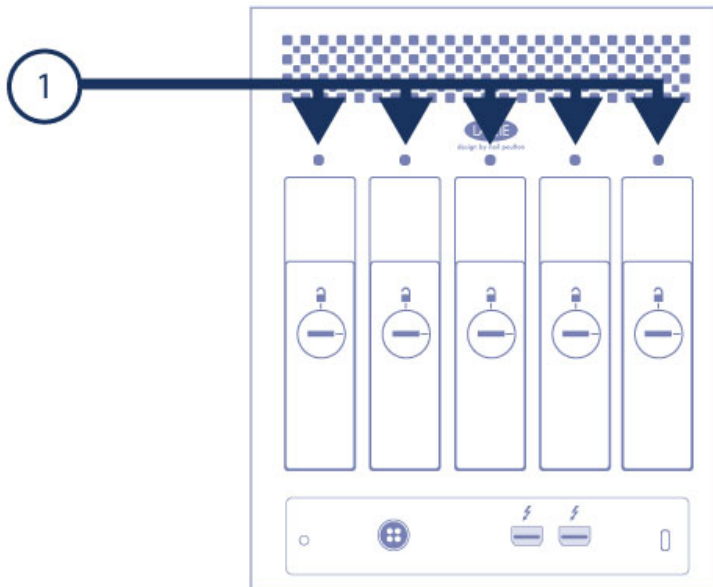
The LaCie 5big Thunderbolt 2 LEDs provide information on the system status. Review the illustrations below for the LED locations on the chassis.

### FRONT



1. Status

## REAR



1. Hard drive status LEDs

## LED BEHAVIOR

### General LED behavior

The list of colors below will help you identify the general status of your LaCie 5big:

<b>Color</b>	<b>State</b>
Solid blue	Ready
Slow blinking blue	Idle mode
Fast blinking blue	Startup and shutdown
Blinking red and blue	RAID synchronization
Blinking red	Warning
Solid red	Error

## Status and disk LEDs

The status and disk LEDs work together to provide up-to-date details on your LaCie 5big's health.

Status LED Behavior	Disk LEDs Behavior	State
Fast blinking blue	Blinking blue	Startup and shutdown
Slow blinking blue	Off	Disks have spun down and the Thunderbolt 2 ports are in idle mode, allowing for daisy chain
Solid blue	Solid blue	The DAS is ready.
Solid blue	Blinking blue for working disks	The hard drives are being accessed (read/write).
Blinking blue/red	Blinking blue/red	RAID synchronizing
Blinking red	Solid red for non-functional disks	RAID is degraded. Data remains intact but the array is no longer protected should another disk fail.
Blinking red	Blinking red on a disk	Disk warning. A hard drive may be experiencing errors or, it is about to fail.
Solid red	Solid red for a non-functional or failed disk	One or more disks have failed and the RAID is broken. Data is lost.
Blinking red	Blue	Temperature alert; a power supply is failing
Solid red	Blue	Temperature is critical.
Solid red	Solid or blinking blue	The fan is not spinning.





# CABLES AND CONNECTORS

## THUNDERBOLT

Your LaCie product features Thunderbolt 2 technology, the most flexible interface ever created. When connected to a computer that supports Thunderbolt 2 technology, your LaCie device can reach up to 20Gb/s, bi-directional, on a single port, the fastest data connection available on a personal computer.

You can also use Thunderbolt 2 technology storage devices with computers that support first generation Thunderbolt. However, you will be limited to first generation technology transfer rates, up to 10Gb/s, bi-directional.

Thanks to support for both data streams and mini DisplayPort video, you can connect either a storage peripheral or a display to a Thunderbolt port. However, it's not possible to use a mini DisplayPort cable to connect a storage peripheral to a Thunderbolt port. You must use a Thunderbolt cable.

Connector Face (to computer)	Cable End (to computer)	Cable End (to product)	Connector Face (to product)
			

## CABLE MANAGEMENT

This product includes a cable lock, a small plastic clasp that prevents cords from accidentally disconnecting.

**Important Info:** It is impossible to disconnect the cable lock without destroying it.

To use the cable lock:

1. Insert the clasp's locking head into the lock slot.
2. Make sure that the interface cable is connected to the product.
3. String the interface cable through the open cable lock gate.
4. Close and snap in place the cable lock gate.

## SETTING UP - MAC

The LaCie 5big Thunderbolt 2 is shipped with the following installation components:

- LaCie 5big Thunderbolt 2
- Power supply cable
- Thunderbolt cable

The instructions below are also available on the Quick Install Guide included with the LaCie 5big.

### STEP 1 - DOWNLOAD AND INSTALL LACIE RAID MANAGER

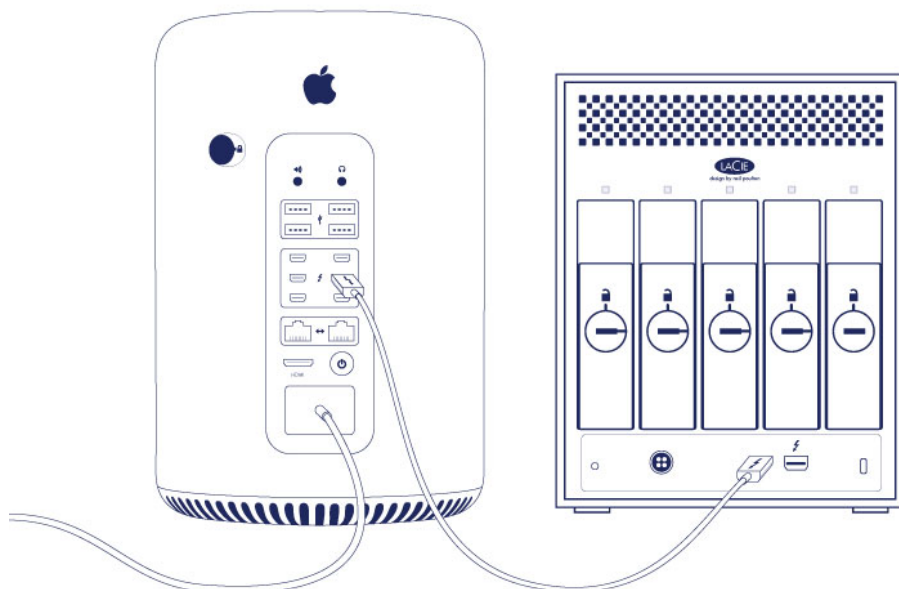


LaCie RAID Manager is the software utility that manages the LaCie 5big's storage. Before connecting the enclosure to your computer, download the installer for LaCie RAID Manager. The installer will load the software utility and the driver to recognize the storage.

1. Download the installer at <http://www.lacie.com/support/raidmanager>.
2. Launch the installer on the computer that will connect to the LaCie 5big.
3. Follow the on-screen instructions to complete the installation.



## STEP 2 - THUNDERBOLT 2 CONNECTION

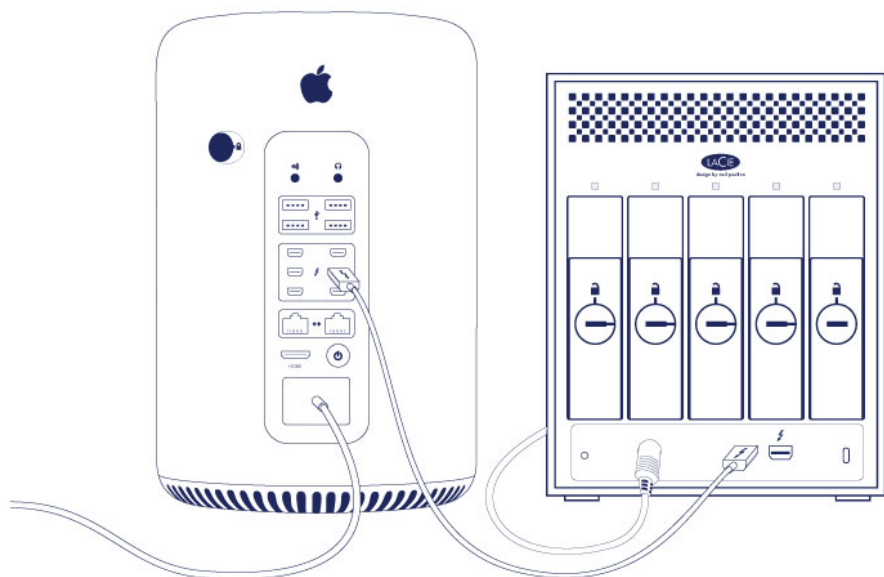


Connect the included Thunderbolt cable to:

1. The LaCie 5big
2. The computer

**Note on a Thunderbolt daisy chain:** You can also connect a second Thunderbolt cable to daisy chain compatible devices to the LaCie 5big. A Thunderbolt daisy chain supports up to seven devices, including the computer. See [Daisy Chain](#) for further information.

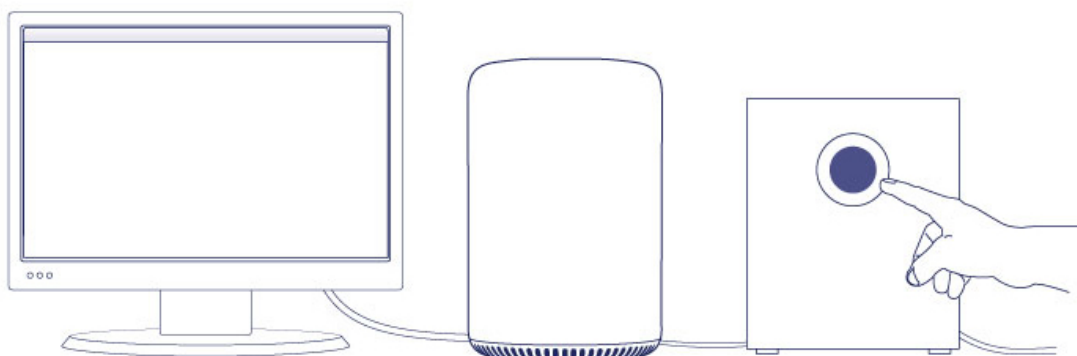
## STEP 3 - POWER CONNECTION



Connect the power supply in the following order:

1. The LaCie 5big power input
2. A live power outlet

## STEP 4 - POWER BUTTON



Apply a short press to the front LED button to power on the LaCie 5big.

**Note:** Make certain that the LaCie 5big is connected to a computer that is powered on. The computer must also support Thunderbolt 2 technology or first generation Thunderbolt technology.

## LACIE 5BIG STORAGE

The LaCie 5big storage is ready for use. It is:

- Formatted HFS+ for Mac
- Configured as RAID 5 (see [RAID](#)).

You can manage and configure the LaCie 5big storage using LaCie RAID Manager. See the [LaCie RAID Manager User Manual](#) for instructions.

# SETTING UP - WINDOWS

The LaCie 5big Thunderbolt 2 is shipped with the following installation components:

- LaCie 5big Thunderbolt 2
- Power supply cable
- Thunderbolt cable

## STEP 1 - DOWNLOAD THE THUNDERBOLT WINDOWS DRIVER

Perform the steps below on the PC that will use the 5big Thunderbolt 2.

1. Download the driver at the following link: [Thunderbolt for Windows](#).
2. Unzip the downloaded file and note where it is located. For example, you can unzip the file on your PC's desktop.

## STEP 2 - THUNDERBOLT 2 CONNECTION

Connect the included Thunderbolt cable to:

1. The LaCie 5big.
2. The PC.

**Note on a Thunderbolt daisy chain:** You can also connect a second Thunderbolt cable to daisy chain compatible devices to the LaCie 5big. A Thunderbolt daisy chain supports up to seven devices, including the computer. See [Daisy Chain](#) for further information.

## STEP 3 - POWER CONNECTION

Connect the power supply in the following order:

1. The LaCie 5big power input.
2. A live power outlet.

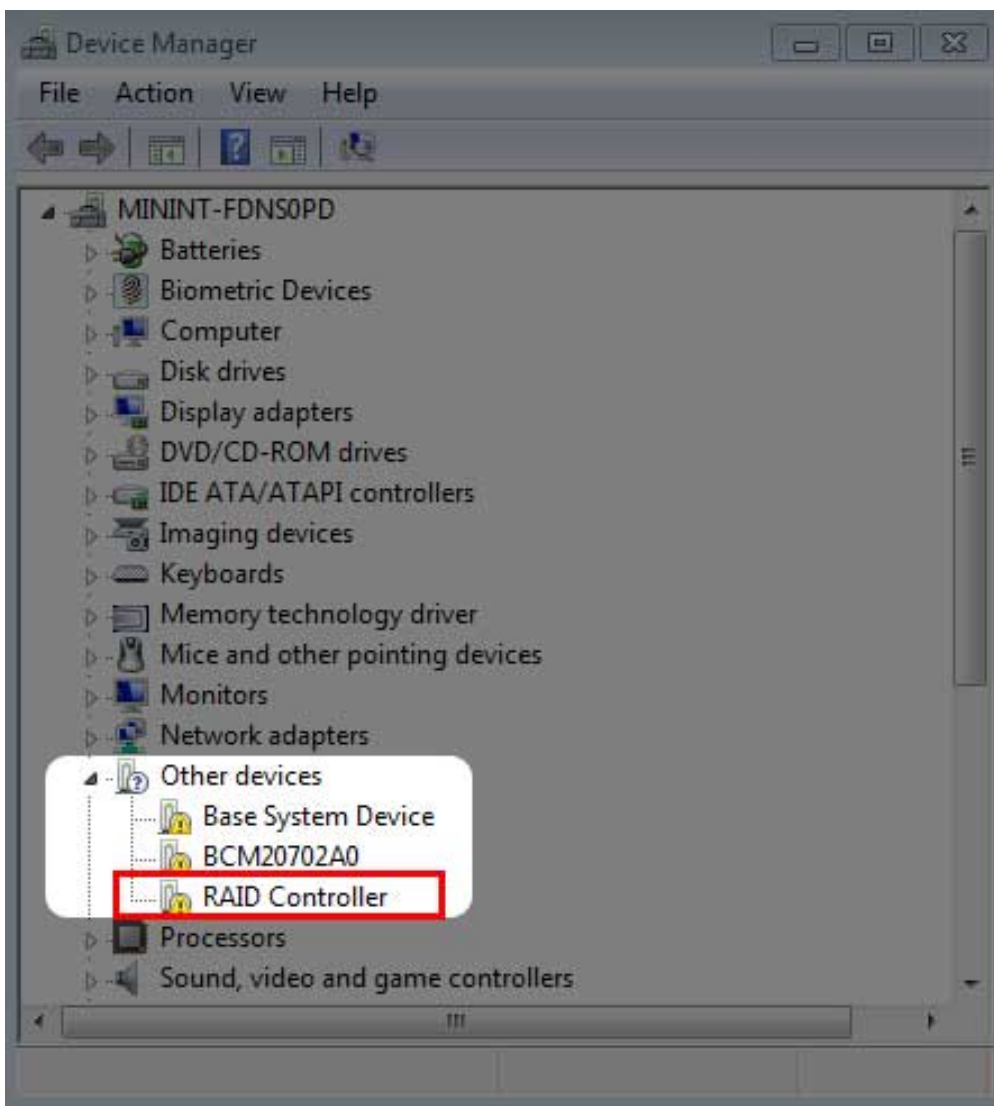
## STEP 4 - POWER BUTTON

If the LaCie 5big is off, apply a short press to the front LED button.

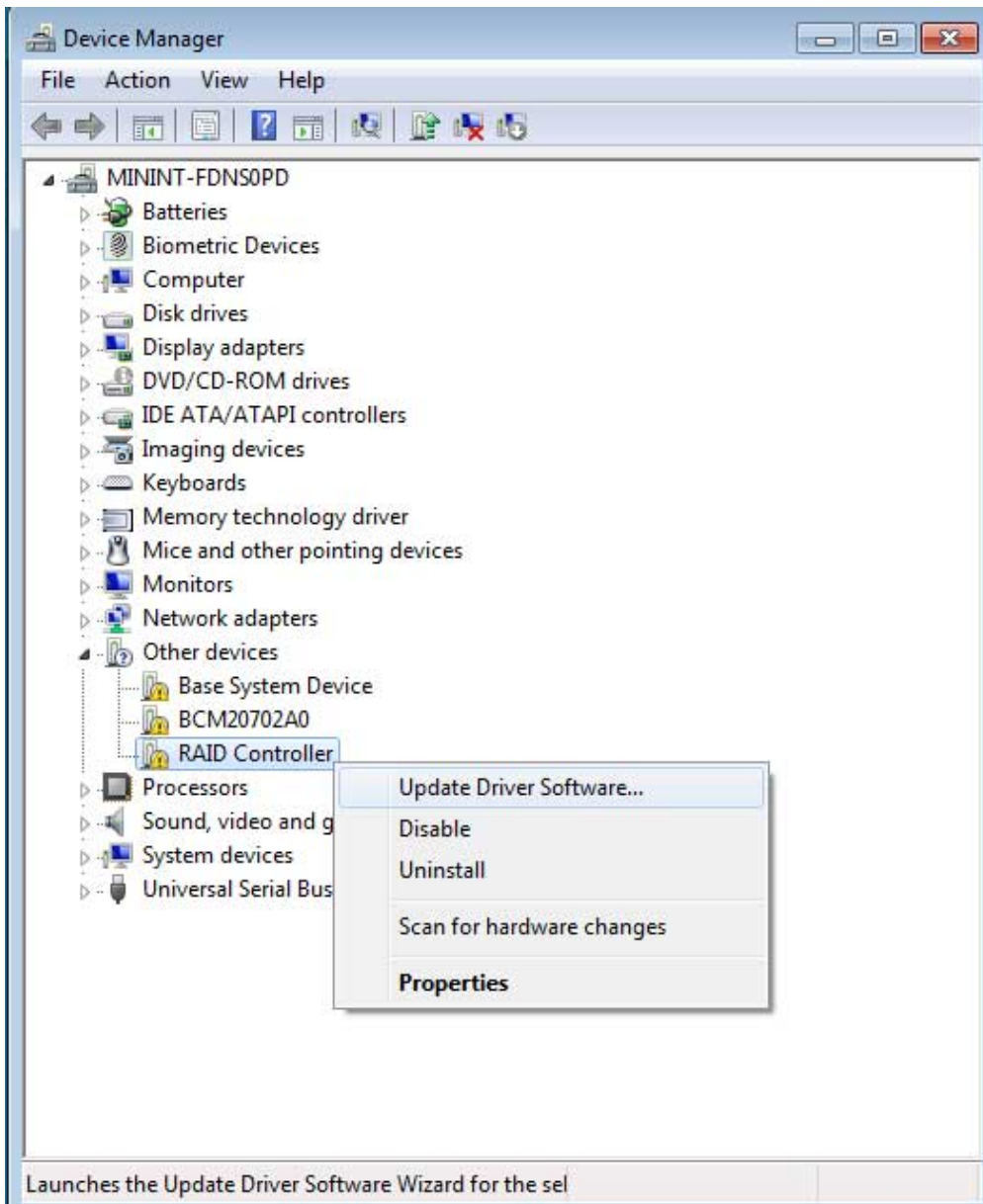
**Note:** Make certain that the LaCie 5big is connected to a computer that is powered on. The computer must also support Thunderbolt 2 technology or first generation Thunderbolt technology.

## STEP 5 - INSTALL THE THUNDERBOLT WINDOWS DRIVER

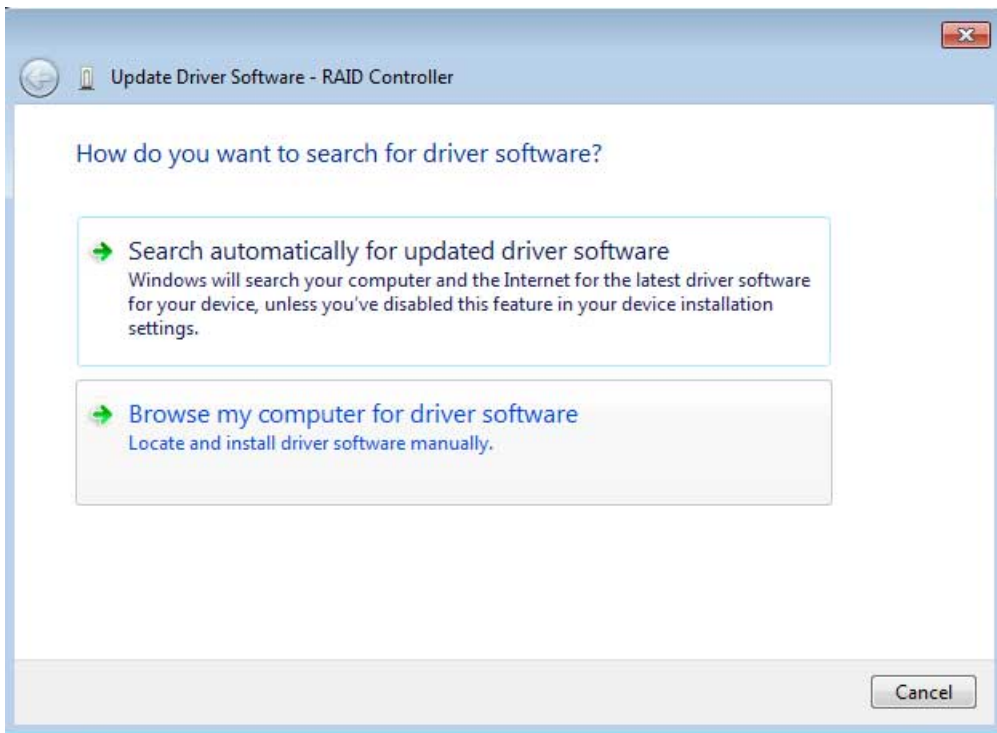
1. Go to **Start > Control Panel > Device Manager**.
2. Note that an item named *RAID Controller* appears in **Other devices**.



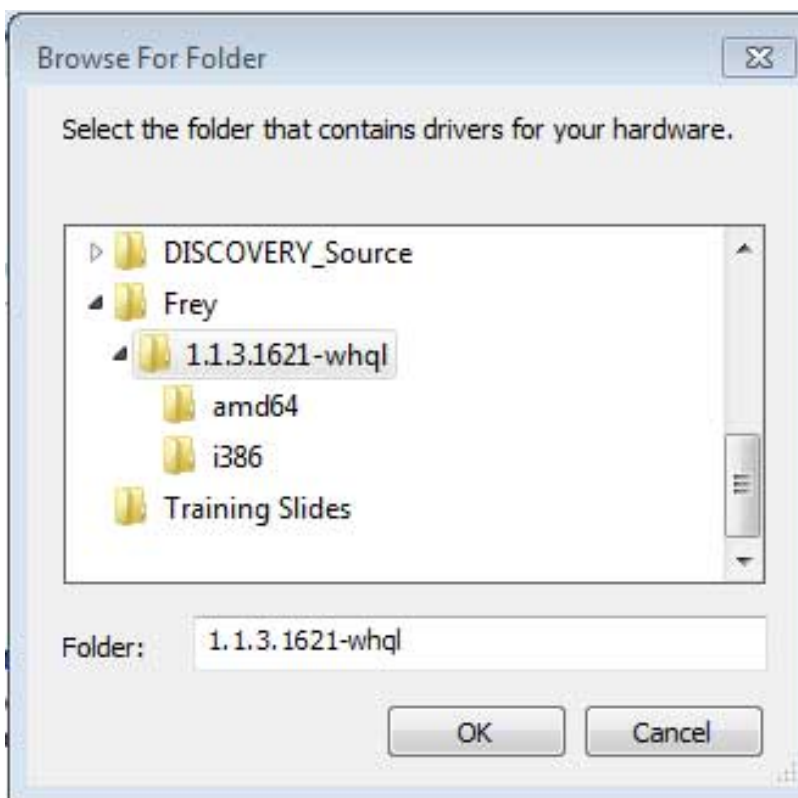
3. Right click **RAID Controller** and choose **Update Driver Software**.



4. Choose **Browse my computer for driver software** and navigate to the driver downloaded in Step 1.

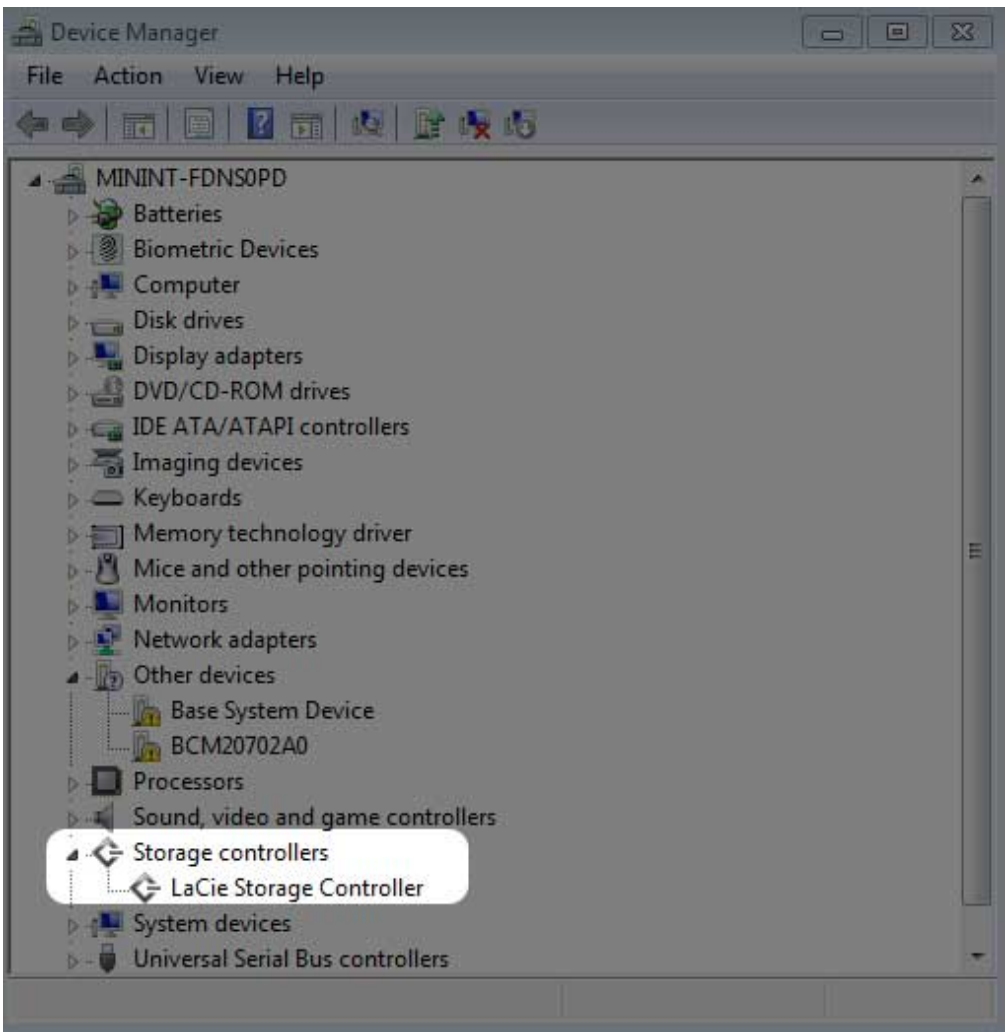


5. Choose the folder that applies to your version of Windows and then choose **OK**:



- 64-bit: Choose **amd64**.
  - 32-bit: Choose **i386**.
6. Choose **Next** to confirm the update.
7. Device Manager shows that the new driver has been installed.





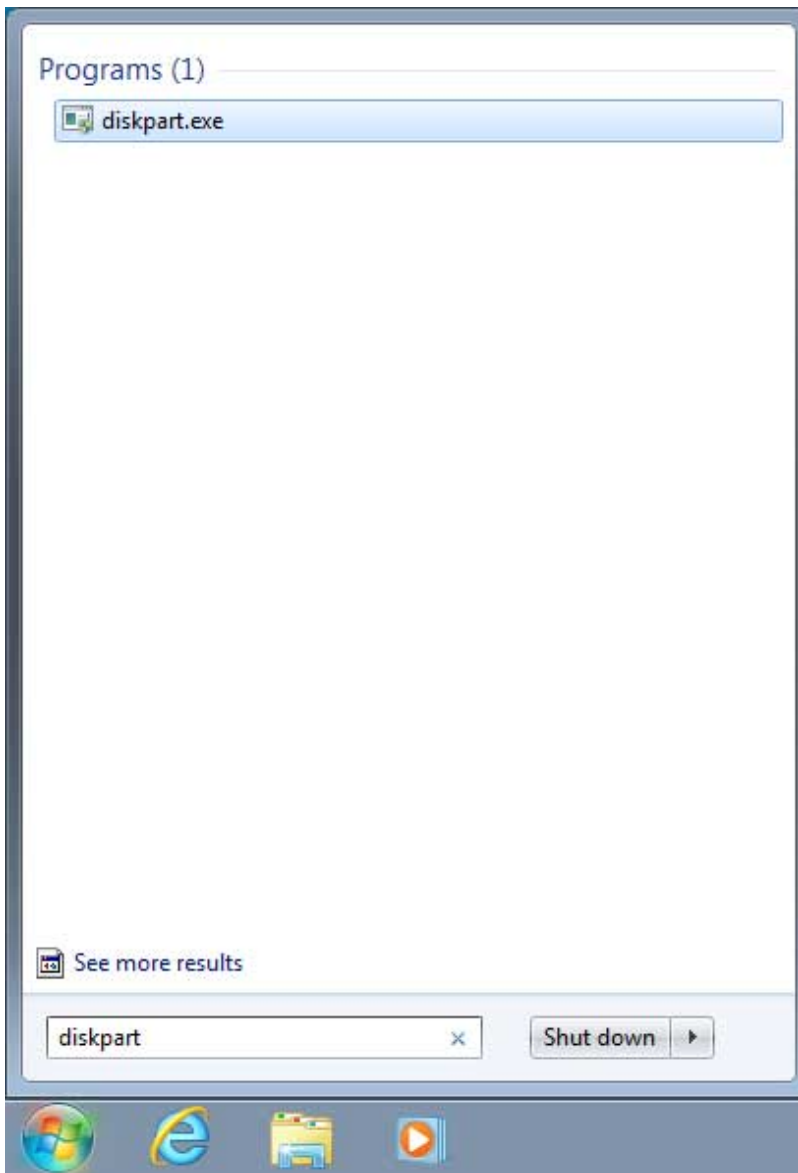
## STEP 6 - CLEAN THE HARD DRIVES

Since the hard drives are formatted for Mac (HFS+), all partitions must be erased, including the EFI partition. Windows Disk Management cannot erase the EFI partition so you must run **Diskpart**, a separate Windows utility. For additional information on Diskpart, see the [web site](#).

### Clean the hard drives

**Important info:** Diskpart deletes data from any hard drive that you select. Therefore, to avoid deleting data on other devices, disconnect all external hard drives from your PC except the LaCie 5big. Diskpart cannot delete the System disk. Additionally, if your LaCie 5big has data, make certain to copy all files before performing the steps below. **LaCie is not responsible for lost data.**

1. Search for and launch **Diskpart**.



2. If you are prompted to authorize Diskpart, choose **Yes** or equivalent.
3. In the Diskpart prompt, type **list disk**.

```
C:\windows\system32\diskpart.exe

Microsoft DiskPart version 6.1.7601
Copyright (C) 1999-2008 Microsoft Corporation.
On computer: MININT-FDNS0PD

DISKPART> list disk_
```

4. Locate the disk number for your LaCie device then type **select disk *n***. *n* is the number for the LaCie hard drive enclosure (1 in the screenshot below). If you are uncertain of the disk number for the LaCie product, launch **Disk Management**. You should see the number assigned to the LaCie product.

```
C:\windows\system32\diskpart.exe

Microsoft DiskPart version 6.1.7601
Copyright (C) 1999-2008 Microsoft Corporation.
On computer: MININT-FDNS0PD

DISKPART> list disk

  Disk ###  Status         Size           Free           Dyn  Gpt
  -----  -
  Disk 0    Online         167 GB          0 B
  Disk 1    Online         13 TB          127 MB          *

DISKPART> select disk 1
```

5. Diskpart confirms that the disk has been selected.

```
C:\windows\system32\diskpart.exe

Microsoft DiskPart version 6.1.7601
Copyright (C) 1999-2008 Microsoft Corporation.
On computer: MININT-FDNS0PD

DISKPART> list disk

   Disk ###  Status         Size         Free          Dyn  Gpt
   -----  -
   Disk 0    Online         167 GB        0 B
   Disk 1    Online         13 TB        127 MB          *

DISKPART> select disk 1

Disk 1 is now the selected disk.

DISKPART>
```

6. To delete all partitions on the enclosure's hard drives, type **clean**.

```
C:\windows\system32\diskpart.exe

Microsoft DiskPart version 6.1.7601
Copyright (C) 1999-2008 Microsoft Corporation.
On computer: MININT-FDNS0PD

DISKPART> list disk

   Disk ###  Status         Size         Free          Dyn  Gpt
   -----  -
   Disk 0    Online         167 GB        0 B
   Disk 1    Online         13 TB        127 MB          *

DISKPART> select disk 1

Disk 1 is now the selected disk.

DISKPART> clean
```

Diskpart confirms that your hard drive is clean, meaning that the partitions have been deleted. The LaCie product is ready to be formatted for your operating system. See [Step 7 - Format the hard drives](#) for instructions.

## STEP 7 - FORMAT THE HARD DRIVES

### Formats

You can customize the storage device by reformatting it with separate file system formats. Review the formats below.

**exFAT:** exFAT is an update of FAT32, allowing for compatibility with Windows and Mac. While FAT32 is limited in regard to volume and file sizes, exFAT allows for volumes up to 128PB and files up to 16EB. Similar to FAT32,

exFAT is not optimized for performance with Windows devices.

**NTFS:** This acronym stands for New Technology File System, and it is the native file system for Windows 7 and Windows 8. NTFS offers several features that are not available with exFAT: file compression, encryption, permissions, auditing, and mirroring drives. The minimum supported volume size for NTFS is 10MB with a maximum of 2TB when initialized in the MBR format. For greater flexibility, use the GPT format with NTFS to remove limits on file and partition sizes. Volumes created in NTFS are native read and write for Windows 7 and Windows 8. Mac OS X 10.5 or higher can read and write to the NTFS partitions with the help of third-party drivers.

See the table below for a comparison of NTFS and exFAT.

<b>Windows file system formats</b>
<b>Use NTFS if:</b>
...you will be using the storage device only with Windows 7 and Windows 8. NTFS performance is significantly better than exFAT. This file system is also compatible in read-only mode with Mac OS 10.3 and higher.
<b>Use exFAT if:</b>
...you will be using your storage device with both Windows and Mac computers. Performance is not optimized for Thunderbolt/Thunderbolt 2.

## Formatting Instructions

The steps listed below help you to format the storage device.

**Caution:** Formatting will erase everything on the storage device. **LaCie highly recommends that you back up all data on your storage device before performing the steps below. LaCie is not responsible for any data lost due to formatting, partitioning, or using a LaCie storage device.**

**Note:** Refer to your operating system's documentation for more information on formatting your storage device.

1. Make sure the storage device is connected to and mounted on the computer.
2. Right click on **Computer** and choose **Manage**. From the Manage window select **Disk Management**.
3. From the list of storage devices in the middle of the Disk Management window, locate your LaCie device.
4. Right click on the volume and select **New Simple Volume**. Follow the on-screen instructions when the New Simple Volume Wizard appears.

## STEP 8 - DOWNLOAD AND INSTALL LACIE RAID MANAGER

LaCie RAID Manager is the software utility that manages the LaCie 5big's storage.

1. Download the installer at <http://www.lacie.com/support/raidmanager>.
2. Launch the installer on the computer that will connect to the LaCie 5big.
3. Follow the on-screen instructions to complete the installation.

For instructions, see the [LaCie RAID Manager user manual](#).

# OPERATION

## STARTING THE LACIE 5BIG THUNDERBOLT 2

**Caution:** Do not operate the LaCie 5big until the ambient temperature is within the specified temperature range (see [System Overview](#)). If the hard drives have been recently installed, make sure they have had time to acclimatize before operating them.

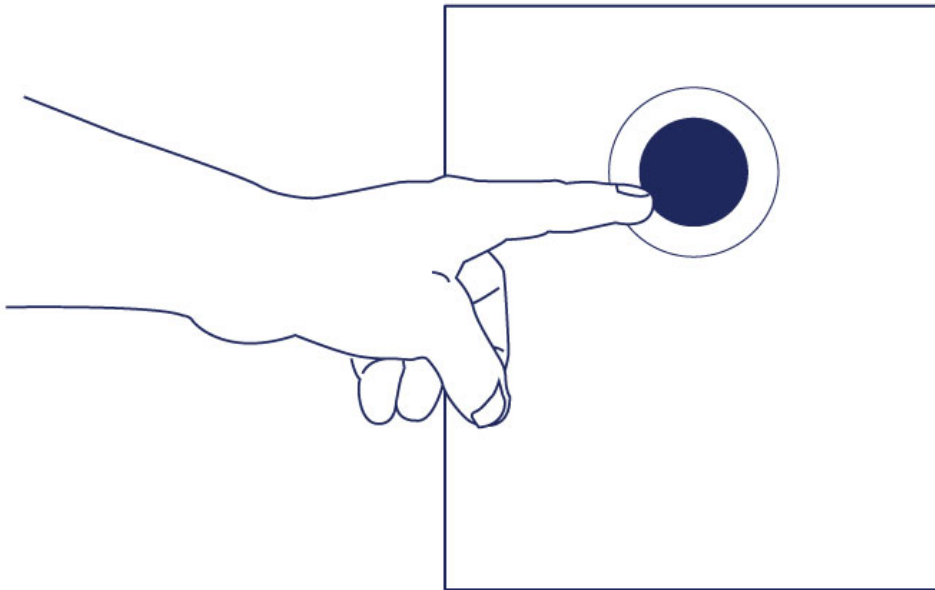
The LaCie 5big is ready to be powered on when:

- It is connected to a computer that supports Thunderbolt 2 technology or first generation Thunderbolt technology.
- It is plugged into a live power outlet.

To prepare the device, confirm the following:

- All the hard drive trays are firmly seated in their bays.
- The power supply is connected to a compatible, powered outlet.
- If the LaCie 5big is in idle mode or off, apply a short push on the LED power button. See the explanation below regarding a short push and a long push.





The LEDs blink blue while the disks spin up. You can start using the storage once all LEDs are solid blue.

## POWERING OFF THE LACIE 5BIG HARD DRIVES: IDLE MODE

1. Make certain that the LaCie 5big is not in use and that there are no active transfers.
2. Eject the LaCie 5big volumes from your computer.
3. Apply a short push on the power button. See the explanation below regarding a short push and a long push.
4. The status LED will blink slowly while the disk LEDs turn off.

You can daisy chain Thunderbolt 2 and first generation Thunderbolt devices when the LaCie 5big is in idle mode.

## POWERING OFF THE LACIE 5BIG ENCLOSURE

1. Make certain that the LaCie 5big is not in use and that there are no active transfers.
2. Eject the LaCie 5big volumes from your computer.
3. Apply a short push on the power button. See the explanation below regarding a short push and a long push.  
The status LED will blink slowly while the disk LEDs will turn off.
4. It is now safe to unplug the power and/or Thunderbolt cables from the device.

**Important info:** LaCie does not recommend applying a long push to power off the enclosure. See the note for long push below.

## Short push

**Important info:** Always eject the LaCie 5big volumes from your computer before applying a short push.

A short push is a manual depression on the LED power button that lasts no longer than one second. When the product is operating, a short push will spin down the hard drives within the enclosure. The Thunderbolt 2 ports remain active and are available for daisy chaining. This is called idle mode. For example, a display that is daisy chained with the LaCie 5big will remain available to the computer following a short push.

## Short push and RAID synchronization

Applying a short push during RAID synchronization will spin the hard drives down. The RAID synchronization will continue the next time you spin the hard drives up via a short push.

## Long push

A long push is a manual depression on the button that lasts more than four seconds. When the product is operating, a long push will cut the power from the LaCie 5big, forcing it to shut down immediately. A long push is not recommended as it may result in data loss.

## Removing the Thunderbolt cable during operation

It is highly recommended that users keep the Thunderbolt cable connection between the computer and the LaCie 5big during operation. Removing the cable during operation can have serious consequences, such as lost data. If the cable is removed while the system is synchronizing the RAID, the synchronization will continue but you will lose connection with the computer and your data.

## QUIET OPERATION AND HEAT MANAGEMENT

To reduce noise during operation, the LaCie 5big Thunderbolt 2 uses a Noctua® cooling fan to pull heat away from the internal components. In addition to being exceptionally quiet, the Noctua cooling fan is temperature controlled, which guarantees optimal heat management by adjusting the rotational speed for the environment. Additionally, the LaCie 5big enclosure's metal casing dissipates heat from the hard drives, keeping them safe and prolonging their life. Since LaCie's unique design draws heat away from the internal hard drives, the external casing will be warm to the touch after extended use.

**Important info:** The LaCie 5big's wide exhaust chamber on the rear of the device allows for enhanced airflow. Make sure that it is not obstructed and that there is a natural airflow across the casing.

## POSITION AND STACKING

Always make certain to place the LaCie 5big on a flat, even surface designed to support the heat output and airflow of a professional hard disk enclosure. For proper heat dissipation, the LaCie 5big is designed to stand on its rubber feet, situated on the bottom of the enclosure. DO NOT place the enclosure on its side when it is powered on.

When using multiple enclosures, you can stack one LaCie 5big Thunderbolt 2 on top of another LaCie 5big Thunderbolt 2. However, due to the weight and balance of the LaCie 5big Thunderbolt 2, stacking more than two enclosures poses a severe risk that the devices will fall. DO NOT stack other hard drives, enclosures, or equipment on top of the LaCie 5big Thunderbolt 2.

The warranty for your LaCie 5big Thunderbolt 2 will be voided if you:

- Stack more than two LaCie 5big Thunderbolt 2 enclosures.
- Stack other hard drives, enclosures, or equipment on top of the LaCie 5big Thunderbolt 2.

# DAISY CHAIN

Use the enclosure's two Thunderbolt 2 technology ports for:

- Direct connection to a computer that is compatible with Thunderbolt 2 technology or first generation Thunderbolt technology.
- Daisy chaining with devices and displays that are compatible with Thunderbolt 2 technology and first generation Thunderbolt technology

## DAISY CHAIN: THUNDERBOLT 2 TECHNOLOGY AND FIRST GENERATION THUNDERBOLT TECHNOLOGY

Thunderbolt 2 technology is an update of first generation Thunderbolt technology. While Thunderbolt technology continues to provide impressive transfer rates of up to 10Gb/s bi-directional, Thunderbolt 2 technology offers improved performance with a potential of up to 20Gb/s bi-directional. Thunderbolt 2 technology also gives you greater flexibility when using video and data, assigning greater throughput to the stream that carries the heavier load. You must have a computer that supports Thunderbolt 2 technology to take advantage of the updates in performance and the intelligent sharing of bandwidth.

Similar to first generation Thunderbolt technology, a single Thunderbolt 2 technology daisy chain can have up to seven devices, including the computer. For example, you can daisy chain five LaCie 5big Thunderbolt 2 enclosures on the same line with a display. Provided that your computer supports Thunderbolt 2 technology, transfer rates have the potential to reach up to 20Gb/s bi-directional for all devices.

You can also add the LaCie 5big to a daisy chain that includes first generation Thunderbolt technology devices. For example, your computer supports Thunderbolt 2 technology and you add the LaCie 5big to a daisy chain that includes three first generation Thunderbolt technology storage devices and a monitor with a MiniDisplay port. In such a case, make certain that the LaCie 5big is the first enclosure connected to the computer. You can lose the higher performance offered by Thunderbolt 2 technology if a Thunderbolt 2 device is daisy-chained behind first generation Thunderbolt devices and/or displays.

## How to daisy chain

Connect the cable to one of the interface ports on the back of the LaCie 5big and to your computer. The additional port may be used to daisy chain compatible first generation Thunderbolt and Thunderbolt 2 peripherals, such as hard drives and monitors. If you have another Thunderbolt 2 storage device, make certain to connect it to the LaCie 5big before adding first generation Thunderbolt technology devices and/or displays.

**Important cable info:** When connecting your enclosure to a computer or compatible devices, use cables specifically constructed to support Thunderbolt technology. Thunderbolt technology cables are compatible with Thunderbolt 2 technology devices and first generation Thunderbolt technology devices.

**Important info:** To reach Thunderbolt 2 technology transfer rates up to 20Gb/s bi-directional, the LaCie 5big Thunderbolt 2 must be connected to a computer that supports Thunderbolt 2 technology. Connecting the LaCie 5big to a computer that supports first generation Thunderbolt technology allows for transfer rates up to 10Gb/s bi-directional.

### Daisy chain: Idle mode

You can daisy chain Thunderbolt 2 technology and first generation Thunderbolt technology devices even when the LaCie 5big hard drives are spun down. Apply a short push on the LED power button (see [Operation](#)). The status LED will blink slowly, indicating that the LaCie 5big is in idle mode.

## SOFTWARE

The storage for the LaCie 5big Thunderbolt 2 is managed by LaCie RAID Manager. Use LaCie RAID Manager to:

- Configure RAID
- Check the health of the storage
- Set up storage alerts
- Troubleshoot the hard drives

See the [LaCie RAID Manager User Manual](#) for instructions on how to manage the LaCie 5big storage.

# RAID

The information below provides a basic guide to the RAID modes available to the LaCie 5big Thunderbolt 2. Note that the levels of performance and protection will differ based upon the number of hard drives in a volume. For instructions on how to configure RAID, see the [LaCie RAID Manager User Manual](#).

## RAID EXAMPLE

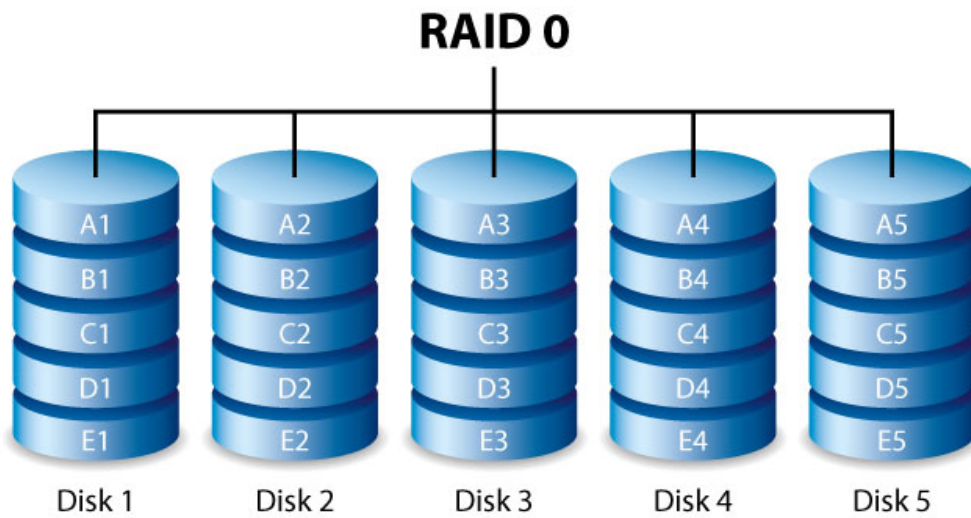
The level of RAID is contingent upon the amount of disks. For example, a volume with four disks supports all levels of RAID except RAID 1, which is not compatible with volumes greater than two disks. When making comparisons in a volume with four disks, RAID 0 appears to be the best choice since it offers 100% storage capacity and high performance. However, RAID 0's major weakness is a lack of data protection in case of hard drive failure. Further, its performance is not much greater than RAID 5, which includes data protection in case one hard drive should fail. RAID 6 and, in unique cases, RAID 10, can provide data protection in the event that two hard drives fail.

## RAID LEVELS

Review the summaries of each RAID before selecting your configuration for the LaCie 5big storage.

RAID mode	Minimum hard drives
RAID 0	2
RAID 1	2
RAID 5	3
RAID 6	4
RAID 10	4

## RAID 0

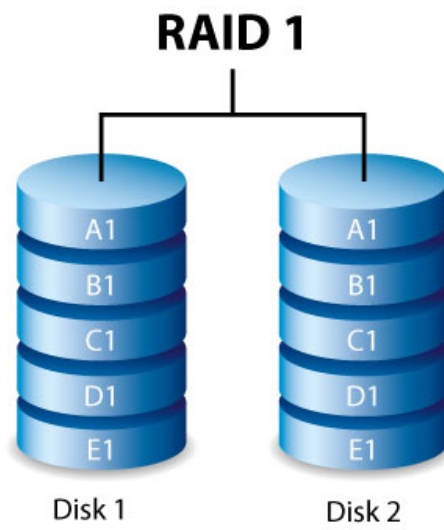


RAID 0 is the fastest RAID mode since it writes data across all of the volume's hard drives. Further, the capacities of each disk are added together for optimal data storage. However, RAID 0 lacks a very important feature: data protection. If one hard drive fails, all data becomes inaccessible. A recommended option is RAID 5, which offers:

- Performance that can approach RAID 0
- Approximately 75% of the storage capacity of all the hard drives in the RAID configuration
- Data protection in case a single hard drive fails

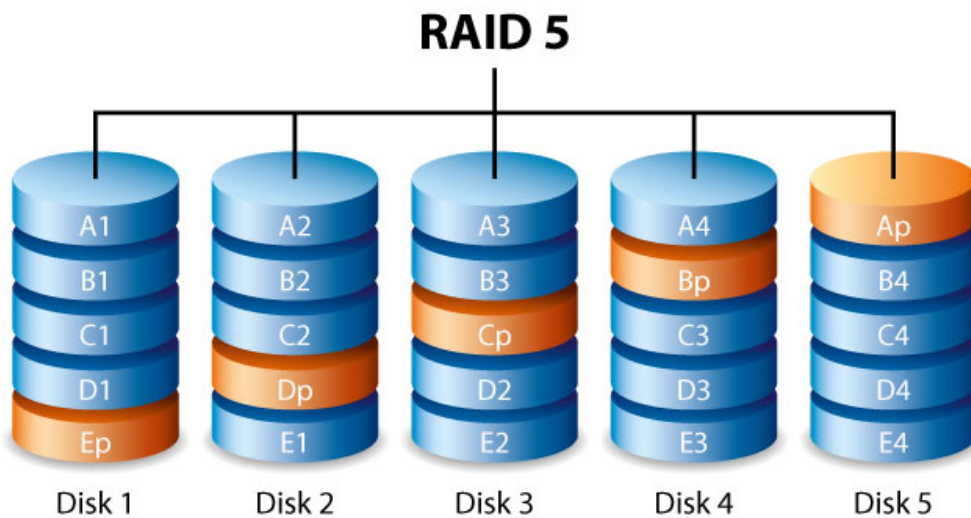


## RAID 1



RAID 1 provides enhanced data security since all data is written to each disk in the volume. If a single disk fails, data remains available on the other disk in the volume. However, due to the time it takes to write data multiple times, performance is reduced. Additionally, RAID 1 will cut disk capacity by 50% or more since each bit of data is stored on both disks in the volume.

## RAID 5



RAID 5 writes data across all hard drives in the volume and a parity block for each data block. If one physical hard drive fails, the data from the failed hard drive can be rebuilt onto a replacement hard drive. While the files stored on a RAID 5 volume remain intact should one hard drive fail, data can be lost if a second hard drive fails before the RAID is rebuilt with the replacement hard drive.

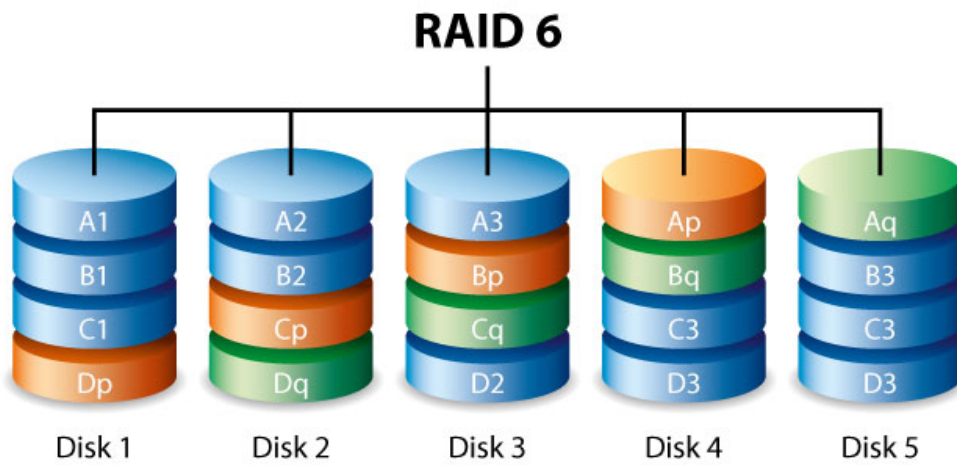
A minimum of three hard drives is required to create a RAID 5 volume.

RAID 5 offers performance that can approach RAID 0. The strong advantage that RAID 5 gives you is data protection. Additionally, you still have approximately 75% of the storage capacity of a RAID 0 array (based upon total available hard drives and storage capacities). The equation for determining the storage is: (The size of the hard drive with the smallest capacity in the array)\*(Total hard drives-1).

Example 1: An array is assigned five 3TB hard drives for a total of 15TB. The equation is:  $3\text{TB} * 4 = 12\text{TB}$ .

Example 2: An array is assigned Three 2TB hard drives and one 3TB hard drive for a total of 9TB. The equation is:  $2\text{TB} * 3 = 6\text{TB}$ .

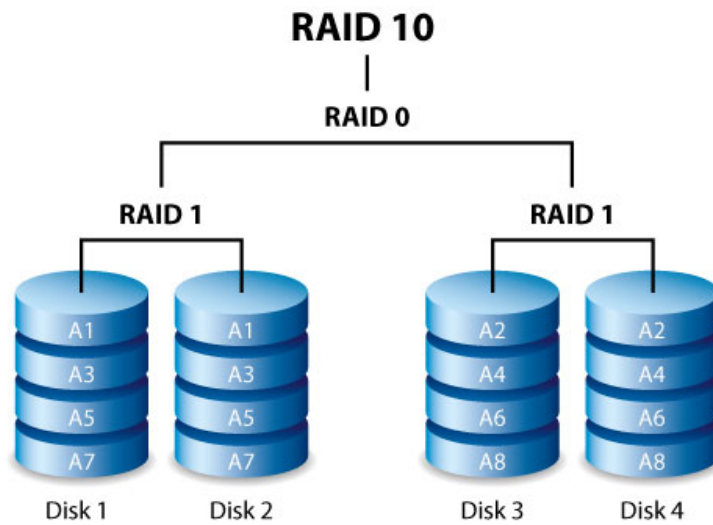
## RAID 6



RAID 6 writes data across all disks in the volume and two parity blocks for each data block. If one physical disk fails, the data can be rebuilt onto a replacement disk. With two parity blocks per data block, RAID 6 supports up to two disk failures with no data loss. RAID 6 synchronizing from a failed disk is slower than RAID 5 due to the use of double parity. However, it is far less critical due to its double-disk security.

A minimum of four disks is required to create a RAID 6 volume. RAID 6 offers very good data protection with a slight loss of performance compared to RAID 5.

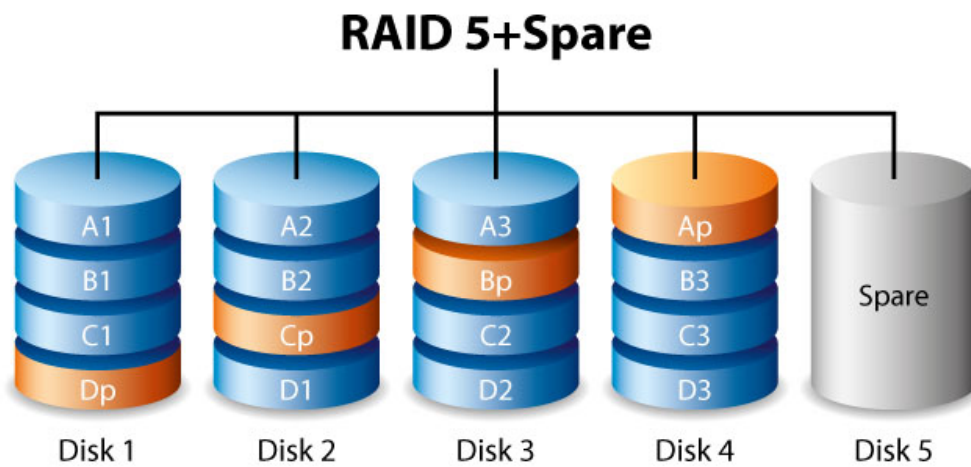
## RAID 10



RAID 10 combines the protection of RAID 1 with the performance of RAID 0. Using four disks as an example, RAID 10 creates two RAID 1 segments, and then combines them into a RAID 0 stripe. Such configurations offer exceptional data protection, allowing for two disks to fail across two RAID 1 segments. Additionally, RAID 10 writes data at the file level and, due to the RAID 0 stripe, gives users higher performance when managing greater amounts of smaller files. This means a more generous input output per second for data, referred to as IOPS.

RAID 10 is a great choice for database managers that need to read and write a multitude of smaller files across the volume's disks. The impressive IOPS and data protection offered by RAID 10 gives database managers impressive reliability both in keeping files safe and rapid access.

## RAID 5+Spare and RAID 6+Spare



A RAID+Spare volume gives you a “hot-spare” that is ready to synchronize data immediately should a hard drive fail. If a hard drive in the volume fails, the data starts to synchronize with the spare. The clear advantage for a RAID volume with a spare is that you do not have to wait for a replacement hard drive. However, the spare cannot be used as storage during standard operation since its sole task is to take over should a hard drive fail. You can replace the failed hard drive immediately and, once synchronization is complete, assign it as new hot spare.

**Important info:** For RAID+Spare volumes, data remains intact when a single hard drive fails and the spare begins synchronizing automatically. However, if a second hard drive in a RAID 5 volume fails before synchronization is complete, all data in the volume will be lost. The same is true for a RAID 1 volume. In the case of RAID 10, the second failed hard drive would have to be on the same mirrored set as the spare hard drive.. RAID 6 allows for two hard drives to fail.

# HARD DRIVE MAINTENANCE

**Important info:** Refer to the product's [Warranty Information](#) before performing any hardware repairs or maintenance that is not described in this manual.

## PRECAUTIONS

- “Hot-swapping” means that you can perform maintenance or upgrade hardware while the DAS is powered on. The LaCie 5big Thunderbolt 2 features hot-swappable hard drives.
- During operation, the hard drives should remain in their slots for optimal air flow. Airflow and fan performance are regulated by temperature.
- Observe all conventional ESD precautions when handling hard drives.

## REPLACING A HARD DRIVE

You can replace a hard drive if:

- You want to expand the available storage space by adding a hard drive with a larger capacity.
- The hard drive has failed.

If a failed hard drive is under warranty, make certain to contact LaCie support to receive a replacement disk (see [Getting Help](#) for contact information). When adding or replacing hard drives, consider using Seagate Desktop HDD that are optimized for use with your LaCie 5big Thunderbolt 2. For further information on compatible hard drives, visit [LaCie support](#).

### Important info:

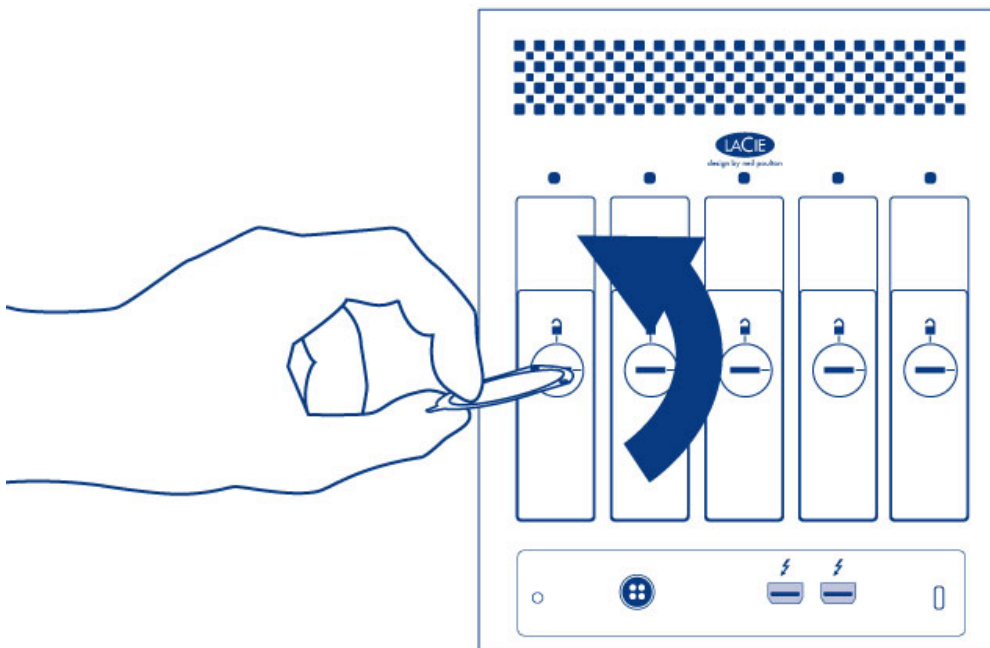
Replace a faulty hard drive with a hard drive of equal or greater capacity.

For a list of compatible hard drives, visit [LaCie 5big Thunderbolt 2 hard drives](#).

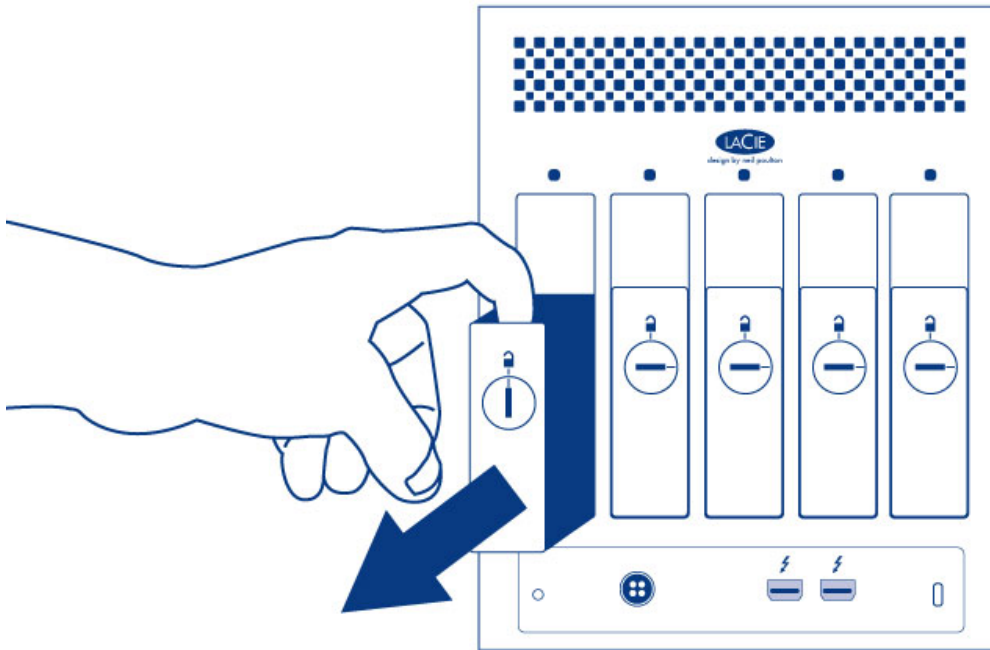
When handling hard drives, make sure that they are placed and stored on a cushioned surface.

Since the LaCie 5big supports hot swapping hard drives, replacing a single disk usually does not require that you power down the device before following the steps below.

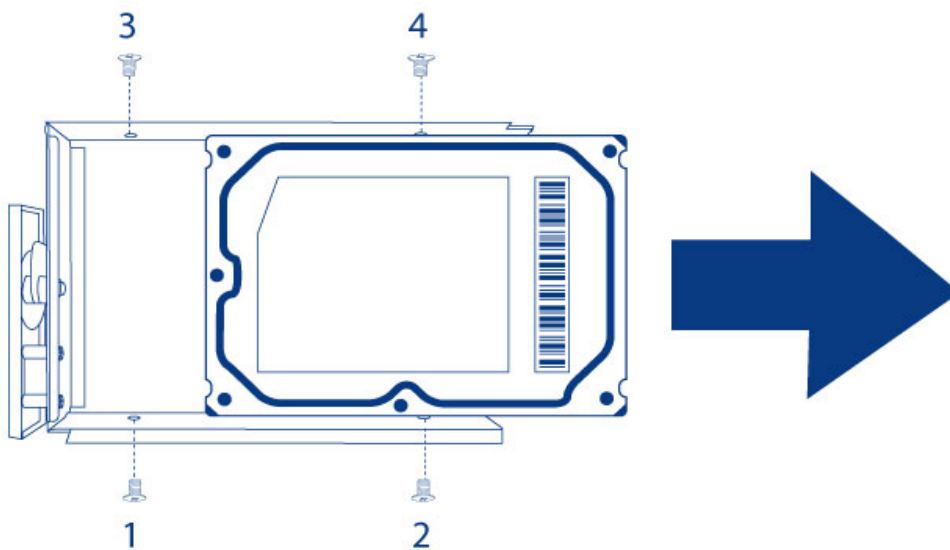
1. Remove the disk tray for the hard drive that you will replace. To unlock the disk tray, use the included disk drawer key to rotate the lock.



2. Remove the disk tray by inserting your finger into the space behind the disk tray handle and pulling. Repeat the process if you are replacing multiple disks.

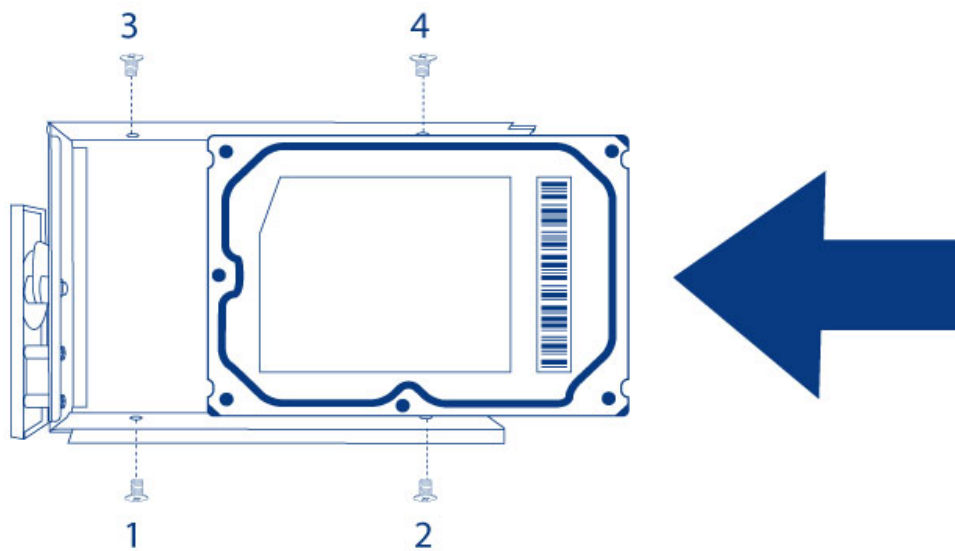


3. If you are replacing a failed hard drive with a full disk tray, skip to Step 5. Continue here if you are replacing the hard drive using the same disk tray:
  1. Using a Phillips head screwdriver, carefully unfasten all four screws from the four tray slots and slide the disk out of the tray. Repeat the process if you are installing multiple disks.

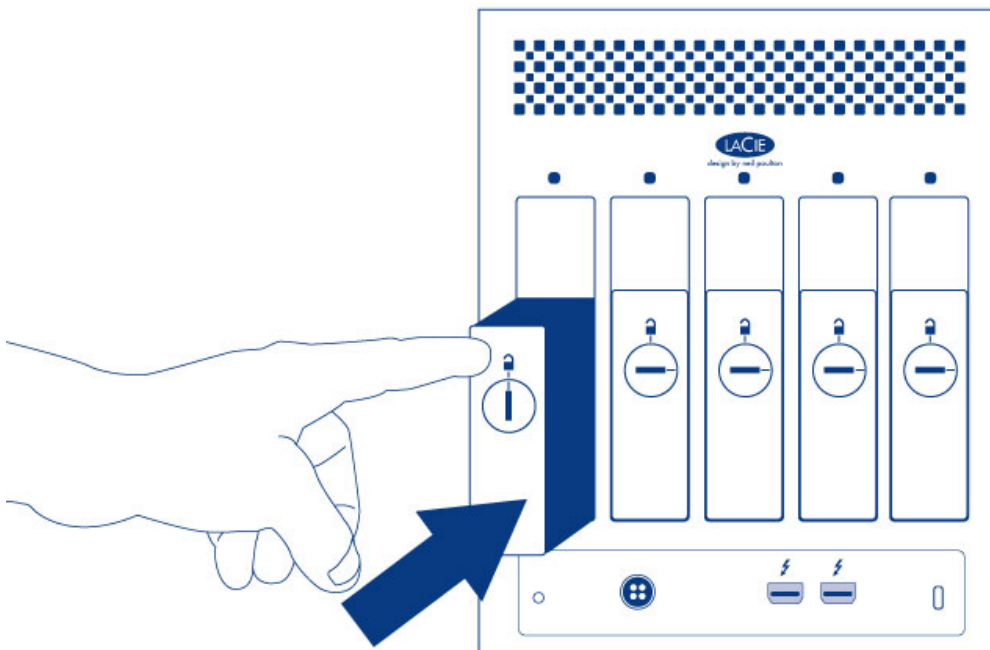


4. Install the new hard drive into the disk tray:
  1. Place the empty disk tray onto the flat work area with the handle on the bottom left.
  2. Many disks have a label on one side and the printed circuit board on the opposite side. With its label side facing up, gently place the hard disk within the disk tray. Keep the side with the printed circuit board on the work space and the SATA connector facing to the right. The four tray screw slots should align with the disk's four screw holes.
  3. Using a Phillips head screwdriver, carefully fasten all four screws into the four tray slots. Do not over tighten the screws. Repeat the process if you are installing multiple disks.

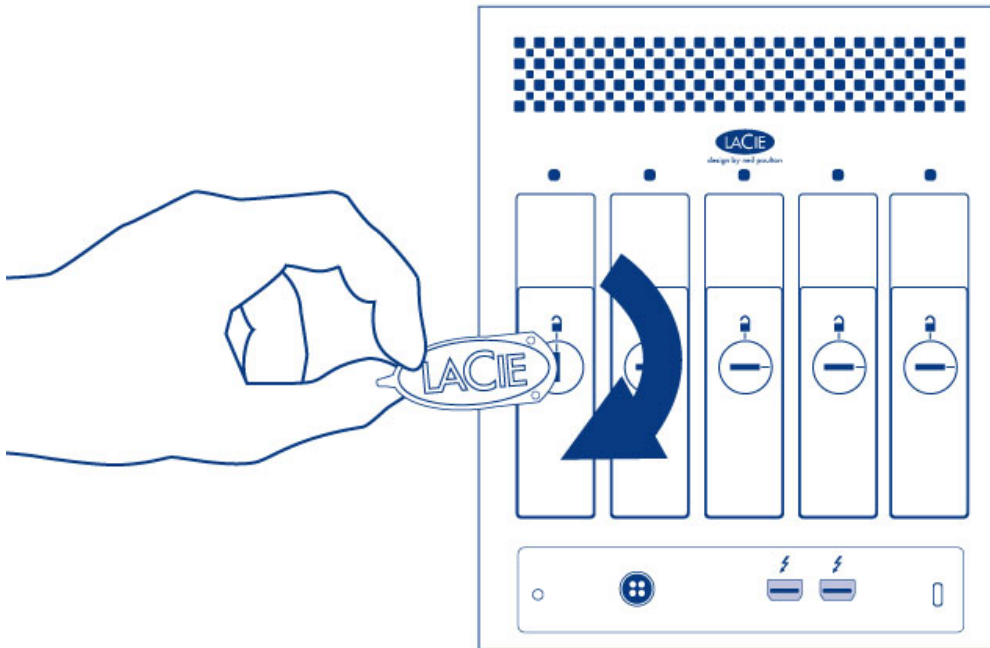




5. Carefully insert the full disk tray into the empty disk slot. Gently push the disk tray handle firmly until you feel it snap into place. The disk tray handle should be flush with the back of the enclosure. Repeat if you are adding multiple disks.



6. Use the disk lock tool to lock the disk(s) in place.



7. See the [LaCie RAID Manager User Manual](#) for instructions on how to manage the LaCie 5big storage.

When replacing disks that are members of an active RAID configuration, the disk LEDs will blink red and blue indicating that the RAID is synchronizing data. You can continue to use the LaCie 5big storage but performance will be reduced until the synchronization is complete.

## LACIE 5BIG ENCLOSURE: NON-SERVICEABLE COMPONENTS

The components inside the chassis are **NOT** hot-swappable and are **NOT** serviceable at any location outside of LaCie-approved service centers. **Removing the cover will void your product's warranty.** Additionally, removing, replacing, or changing any part in the enclosure or, performing any action that involves the components in the enclosure, will void the product's warranty. If you are experiencing hardware errors or failure, contact LaCie support for assistance (see [Getting Help](#) for contact information).

# GETTING HELP

If you are having problems with your LaCie product, consult the table below for a list of available resources.

Order	Source	Description	Location
1	Quick Install Guide	Concise steps to follow for getting your product up and running	Either a printed leaflet or accessory box and included in the product box, or download PDF from the product page
2	Support Pages	Includes interactive troubleshooting topics for most common problems	<a href="http://www.lacie.com/support/">www.lacie.com/support/</a> , select your product, then click the "Troubleshooting" tab
3	User Manual	Includes common troubleshooting topics	See <b>Troubleshooting Topics</b> below
4	Customer Support	Create an account on <a href="http://lacie.com">lacie.com</a> , register your product, and fill out a support ticket	Create an account here: <a href="http://www.lacie.com/us/mystuff/login.htm?logout&amp;rtm=mystuff">www.lacie.com/us/mystuff/login.htm?logout&amp;rtm=mystuff</a>

**Note:** LaCie is dedicated to providing high quality products that enrich the lives of our customers. To help LaCie offer the best customer support, we encourage you to create an account and register your product at [www.lacie.com/us/mystuff/login.htm?logout&rtm=mystuff](http://www.lacie.com/us/mystuff/login.htm?logout&rtm=mystuff). You can give us important feedback as well as receive updated information on your LaCie device.

## TROUBLESHOOTING TOPICS

**Note:** Interactive troubleshooting, a highly effective way to resolve problems with your product, is available from [www.lacie.com/support/](http://www.lacie.com/support/). Select your product, then click the “Troubleshooting” tab.

### **The LaCie 5big Thunderbolt 2 will not turn on.**

Q: Can you confirm that the LaCie 5big is properly connected?

A: Make certain:

- The power supply is properly connected to a live power source.
- The Thunderbolt cable is connected to a computer that supports Thunderbolt 2 technology or first generation Thunderbolt technology.
- The computer connected to the LaCie 5big is powered on.

If all of the above has been met, try applying a short push to the LED power button.

Q: Is there a problem with the power supply?

A: Contact LaCie support if you believe that the power supply has failed.

### **The LaCie 5big Thunderbolt 2 turns off when I daisy chain a device.**

Q: Did the product turn off as soon as the device and the LaCie 5big's port came into contact?

A: The device may not be compatible with Thunderbolt products. Unplug any devices you have connected and reboot the product.

### **The LaCie 5big Thunderbolt 2 is unresponsive.**

Q: Have you tried to restart the system?

A: Eject the volume from the computer and shut down the LaCie 5big by applying a short push on the front button. If nothing happens after a few minutes, you can force the LaCie 5big to turn off by applying a long push (more than four seconds), then release it. Once off, restart the product by pushing and immediately releasing the front button. Note that a long push is not recommended under standard operating conditions as it may result in data loss. Once the status LED stops blinking blue, check your computer for proper connection to the LaCie 5big volumes.

### **The LaCie 5big Thunderbolt 2 is overheating.**

Q: Is the ambient temperature too high? Is the air vent blocked? Are several fans malfunctioning?

A: If the ambient temperature is below 40°C and the fan output is clear, you may have one or several malfunctioning fans. If the LEDs are flashing blue and red, check [System LEDs](#) for details on the meaning.

### **I am not certain if the LaCie 5big firmware should be updated.**

Q: Where can I check the firmware version?

A: Check LaCie RAID Manager for the firmware version.

Q: How do I know if the firmware is the latest version?

A: Go to the [LaCie support](#) for the latest information on the product.

## **Problem: I do not see the LaCie 5big Thunderbolt 2 volume on my computer.**

Q: Are there first generation Thunderbolt technology and/or Thunderbolt 2 devices connected to the same port?

A: Disconnect other Thunderbolt devices and see if the LaCie 5big volume appears on the desktop.

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Q: Does the icon/Do the icons for the LaCie 5big Thunderbolt 2 volume(s) appear on the desktop?

A: The hard drive icon(s) for the storage should appear on your desktop. Confirm that the Finder preference for displaying external volumes on the desktop is selected at **Finder > Preferences > General**.

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Q: Is the LaCie 5big Thunderbolt 2 technology enclosure connected to a computer that supports Thunderbolt 2 technology or first generation Thunderbolt technology?

A: The connection type for Thunderbolt 2 technology and first generation Thunderbolt technology is the Mini DisplayPort. While older Macintosh computers include Mini DisplayPorts, they are only used to connect one or more monitors. Legacy Macs with Mini DisplayPorts do not support Thunderbolt 2 technology devices such as the LaCie 5big Thunderbolt 2.

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Q: Did you follow the correct installation steps?

A: Review the installation steps (see [Setting Up](#)). Make certain that both ends of the Thunderbolt cable are firmly connected to the ports and that the device is receiving power via the included power supply.

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Q: I connected the enclosure to my new Mac with an older Mini DisplayPort cable that I use for my monitors. Why can't I see the volume(s) on the desktop?

A: Thunderbolt 2 storage requires cables specifically constructed for Thunderbolt technology. Use the cable that was shipped with your device.

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Q: I connected a cable that supports Thunderbolt technology to my new Mac but the LaCie 5big Thunderbolt 2 does: (a.) not power on and/or (b.) not receive sufficient power.

A: The enclosure must also receive power via the included power supply. See [Setting Up](#).

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Q: Are both ends of the Thunderbolt technology cable securely attached?

A:

- Only use a cable that supports Thunderbolt technology.
- Check both ends of the Thunderbolt cable to make sure they are fully seated in their respective ports.
- Try disconnecting the Thunderbolt cable then wait 10 seconds before reconnecting it.
- If the volume is still not recognized, restart your computer and try again.

## Problem: I'm receiving file transfer error messages and Time Machine does not work.

Q: Did you get an "Error -50" message while copying to the storage?

A: When copying files or folders from a computer to a FAT 32 volume, certain characters cannot be copied. These characters include, but are not limited to:

? < > / \ :

LaCie does not recommend using the FAT 32 file system with Thunderbolt 2 technology storage.

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Q: Did you get an error message telling you that the hard drive has been disconnected when coming out of sleep mode?

A: Ignore this message. The hard drive will remount on the desktop.

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## Problem: The storage space does not seem right.

Q: I just threw a lot of files into the Trash. Why don't I see more space to copy new files?

A: Disk space will not be reclaimed until the files are erased. To remove the files forever:

- Click the **Trash** icon in the Dock.
  - A Finder window will open. Click **Empty** in the upper right.
-

**Problem:** The bandwidth for the LaCie 5big Thunderbolt 2 is not as fast as I had expected. It has the same transfer rates as my first generation Thunderbolt technology storage device.

Q: Does your computer support Thunderbolt 2?

A: The LaCie 5big Thunderbolt 2 must be connected to a computer that supports Thunderbolt 2 technology to attain Thunderbolt 2 technology transfer rates.

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Q: Did you daisy chain the LaCie 5big Thunderbolt 2 with first generation Thunderbolt technology devices?

A: Thunderbolt 2 technology devices can share the same daisy chain with first generation Thunderbolt technology devices. However, the LaCie 5big Thunderbolt 2 can only reach Thunderbolt 2 transfer rates if it is connected directly to the computer with the other devices daisy-chained behind it. If your computer supports Thunderbolt 2 technology, make certain that the LaCie 5big Thunderbolt 2 is the first device on the daisy chain.

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Q: Did you daisy chain the LaCie 5big Thunderbolt 2 behind a display?

A: Thunderbolt 2 technology devices can share the same daisy chain as a display. However, the LaCie 5big Thunderbolt 2 can only reach Thunderbolt 2 transfer rates if it is connected directly to the computer with the other devices daisy-chained behind it. If your computer supports Thunderbolt 2 technology, make certain that the LaCie 5big Thunderbolt 2 is the first device on the daisy chain.

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# SAFETY GUIDELINES

**Important info:** Do-it-yourself repairs not covered in this manual will invalidate the warranty.

## SAFE HANDLING

The LaCie 5big Thunderbolt 2 must run with all of its parts and units in place. In order to comply with applicable safety, emission, and thermal requirements, no covers should be removed. All parts must be installed according to the instructions (see [Setting Up](#)).

Permanently unplug the unit if you think that it has become damaged in any way.

The LaCie 5big Thunderbolt 2 features one hot-swappable part, the hard drives.

The DAS can remain powered on when replacing a hot-swappable part. For all other types of maintenance and physical troubleshooting, shut down and disconnect power from the DAS. Only qualified technical service personnel should be allowed to maintain the DAS.

Shut down and unplug the unit before moving it.

**Caution:** If this equipment is used in a manner not specified by LaCie, the protection provided by the equipment may be impaired.

## SAFETY

### Power supply

The LaCie 5big Thunderbolt 2 must be operated using the included power supply. The input voltage range for a single power supply is 100- 240 VAC, 50/60 Hz, 150W.

Make sure that the outlet sockets are located near the equipment and are easily accessible.

## ENVIRONMENT

A safe electrical ground connection must be provided to the power cord. Check the grounding of the enclosure before applying power.

Provide a suitable power source with electrical overload protection to meet the requirements laid down in the technical specification.

Never expose your device to rain, or use it near water, or in damp or wet conditions. Never place objects containing liquids on the enclosure, as they may spill into its openings. Doing so increases the risk of electrical shock, short-circuiting, fire, or personal injury.

Always unplug the device 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.

Hot surfaces (heat sinks) are exposed when the enclosure top cover is removed. Disconnect power and allow the enclosure to cool before working inside the system.

**Caution:** Do not attempt to troubleshoot the power supply: there is a danger of electric shock inside. If the power supply fails during the warranty period, return it to LaCie.

## Fans

**WARNING:** Do not attempt to open the cover to view or troubleshoot the fan, especially while the enclosure is powered on. You risk:

- voiding the warranty for your device
- serious injury due to moving parts

## POSITION AND STACKING

Always make certain to place the LaCie 5big Thunderbolt 2 on a flat, even surface designed to support the heat output and airflow of a professional hard disk enclosure. For proper heat dissipation, the LaCie 5big Thunderbolt 2 is designed to stand on its rubber feet, situated on the bottom of the enclosure. DO NOT place the enclosure on its side when it is powered on.

When using multiple enclosures, you can stack one LaCie 5big Thunderbolt 2 on top of another LaCie 5big Thunderbolt 2. However, due to the weight and balance of the LaCie 5big Thunderbolt 2, stacking more than two enclosures poses a severe risk that the devices will fall. DO NOT stack other drives, enclosures, or equipment on top of the LaCie 5big Thunderbolt 2.

**Important info:** The warranty for your LaCie 5big Thunderbolt 2 will be voided if you:

- Stack more than two LaCie 5big Thunderbolt 2 enclosures.
- Stack other drives, enclosures, or equipment on top of the LaCie 5big Thunderbolt 2.

## EQUIPMENT HANDLING PRECAUTIONS

Observe all conventional ESD precautions when handling LaCie 5big Thunderbolt 2 hard drives. Avoid contact with backplane components, module components, etc.

Drives are fragile and must be handled with care during removal/replacement.

## DATA SECURITY

Any loss, corruption, or destruction of data while using a LaCie drive or a LaCie drive system is the sole responsibility of the user, and under no circumstances will LaCie be held liable for the recovery or restoration of this data. To help prevent the loss of your data, LaCie highly recommends that you keep TWO copies of your data: one copy on your DAS; and, a second copy on one of the following:

- Direct-attached storage (DAS)
- A second DAS
- Some form of removable storage or archival media

**Important Info:** 1GB = 1,000,000,000 bytes. 1TB = 1,000,000,000,000 bytes. Once formatted, the actual available storage capacity varies depending upon the operating environment (typically 10-15% less).

# WARRANTY INFORMATION

Please read this page carefully in order to understand your warranty rights and responsibilities.

1. If your product's warranty is still valid and you wish to receive support, please contact LaCie technical support. In order to do this, you must first create an account [here](#).
2. LaCie discourages customers from performing repairs to the product that are not explained in this manual.
3. Please contact LaCie technical support before performing hardware repairs.
4. Please save your packaging. If LaCie technical asks you to send the product for servicing, it must be returned in its original packaging.
5. If LaCie technical asks you to send the product for servicing, first remove the drives and any post-factory components (RAM, riser card, PCIe card, etc.) you have installed. Note that if you send drives with the chassis, they will be reformatted and all data erased unless data recovery is a part of the service rendered.

**Note:** It's possible to purchase a warranty upgrade for this product. Upgrades entitle you to a warranty extension up to five years and other benefits such as Advanced Care Option or data recovery. Refer to [www.lacie.com/warranties](http://www.lacie.com/warranties) for details.

LaCie offers first-rate service and support through our generous three-tiered warranty policy. Our 1-, 2-, 3-, and 5-year policies include comprehensive, complimentary web-based resources, expert in-house technical support, and worldwide repair and/or replacement coverage. To benefit from this warranty, please contact LaCie Support at [www.lacie.com/us/support](http://www.lacie.com/us/support) where you can find online support and contact information. You may also contact representatives at the original point of purchase who will be able to help guide you.

Standard warranties vary depending on the product. To verify your product's warranty status and to see which standard warranty is included with your product, type in your product's serial number at [www.lacie.com/us/support](http://www.lacie.com/us/support). If no warranty is listed under your product's name, this means that the warranty has expired.

## WARRANTY UPGRADES

If you wish to extend your warranty coverage, you can purchase Silver, Gold, or Platinum Care or Advanced Exchange. For details, see [www.lacie.com/warranties](http://www.lacie.com/warranties).

## LEGAL INFORMATION

A standard LaCie limited warranty is included with all products. Please read the terms and conditions below.

### LaCie Limited Warranty Policy

LaCie ("LaCie") warrants, to the original purchaser, that this equipment shall be free of defects in materials and workmanship for a period of one (1), two (2), three (3), or five (5) years, depending on the model, from LaCie's date of original shipment when the equipment is used normally and is properly serviced when needed. If you discover a defect covered by the warranty set forth above, your sole and exclusive remedy will be for LaCie, in

its sole discretion to (i) repair or replace the product at no charge to you; or, if a repaired unit or replacement product is not available, (ii) to refund the current market value of your product. You acknowledge and agree that replacement product, at the sole option of LaCie, may be a new product or a remanufactured product. In order to receive the remedy set forth above, you must return the product during the warranty period and include with each returned product (i) a copy of your original purchase invoice to verify your warranty; (ii) a Return Material Authorization number; (iii) your name, address and telephone number; (iv) a copy of the bill of sale bearing the appropriate LaCie serial numbers as proof of date of original retail purchase; and (v) a description of the problem. The customer must pay all transportation costs for a returned product. The product will need to be returned to LaCie within the country of original retail purchase. This warranty applies only to hardware products; LaCie software, media, and manuals are licensed and warranted pursuant to separate written agreement. This warranty does not apply if the product has been misused or has been damaged by accident, abuse, misuse, or misapplication; if it has been modified without permission of LaCie; or if any LaCie serial number has been removed or defaced. If a customer has purchased a LaCie Advance Care Option (ACO) to go with this equipment, the ACO shall be valid for three (3) years from activation.

EXCEPT FOR THE LIMITED WARRANTY SET FORTH ABOVE, ALL PRODUCTS ARE SOLD "AS IS" AND LACIE EXPRESSLY DISCLAIMS ALL WARRANTIES OF ANY KIND, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY, NONINFRINGEMENT AND FITNESS FOR A PARTICULAR PURPOSE. WITHOUT FURTHER LIMITING THE GENERALITY OF THE FOREGOING, DOES NOT WARRANT (1) THE PERFORMANCE OR RESULTS OBTAINED FROM USING THIS PRODUCT, (2) THAT THE PRODUCT IS APPROPRIATE FOR THE CUSTOMER'S PURPOSES, (3) THE MANUAL IS ERROR FREE, OR (4) THAT NO DATA WILL BE LOST WHILE USING THE PRODUCT. THE ENTIRE RISK AS TO THE RESULTS AND PERFORMANCE IS ASSUMED BY THE CUSTOMER. THE WARRANTY AND REMEDIES SET FORTH ABOVE ARE EXCLUSIVE AND IN LIEU OF ALL OTHERS, ORAL OR WRITTEN, EXPRESS OR IMPLIED.

## EXCLUSIONS AND LIMITATIONS

This Limited Warranty applies only to hardware products manufactured by or for LaCie that can be identified by the "LaCie" trademark, trade name, or logo affixed to them. The Limited Warranty does not apply to any non-LaCie hardware products or any software, even if packaged or sold with LaCie hardware. Manufacturers, suppliers, or publishers, other than LaCie, may provide their own warranties to the end user purchaser, but LaCie, in so far as permitted by law, provides their products "as is". Software distributed by LaCie with or without the LaCie brand name (including, but not limited to system software) is not covered under this Limited Warranty. Refer to the licensing agreement accompanying the software for details of your rights with respect to its use.

LaCie does not warrant that the operation of the product will be uninterrupted or error-free. LaCie is not responsible for damage arising from failure to follow instructions relating to the product's use. This warranty does not apply: (a) to consumable parts, unless damage has occurred due to a defect in materials or workmanship; (b) to cosmetic damage, including but not limited to scratches, dents and broken plastic on ports; © to damage caused by use with non-LaCie products; (d) to damage caused by accident, abuse, misuse, flood, fire, earthquake or other external causes; (e) to damage caused by operating the product outside the permitted or intended uses described by LaCie; (f) to damage caused by service (including upgrades and expansions) performed by anyone who is not a representative of LaCie or a LaCie Authorized Service Provider; (g) to a product or part that has been modified to alter functionality or capability without the written permission of LaCie; or (h) if any LaCie serial number on the product has been removed or defaced.

No LaCie dealer, agent, or employee is authorized to make any modification, extension, or addition to this warranty.

Any loss, corruption or destruction of data while using a LaCie drive is the sole responsibility of the user, and under no circumstances will LaCie be held liable for the recovery or restoration of this data. To help prevent the loss of your data, LaCie highly recommends that you keep TWO copies of your data; one copy on your external hard disk, for instance, and a second copy either on your internal hard disk, another external hard disk or some other form of removable storage media. LaCie offers a complete line of CD and DVD drives. If you would like more information on backup, please refer to our website.

LACIE IS NOT RESPONSIBLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY BREACH OF WARRANTY, OR UNDER ANY LEGAL THEORY, INCLUDING LOST PROFITS, DOWNTIME, GOODWILL, DAMAGE TO OR REPLACEMENT OF EQUIPMENT AND PROPERTY, AND ANY COSTS OF RECOVERING, REPROGRAMMING, OR REPRODUCING ANY PROGRAM OR DATA STORED IN OR USED WITH LACIE PRODUCTS EVEN IF IT HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Some states do not allow the exclusion or limitation of implied warranties or liability for 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 have other rights, which vary from state to state.

Your opening of your package, your use of the product, or your return of the enclosed Registration Card acknowledges that you have read and agree to the terms of this Agreement. You further agree that it is the complete and exclusive state of the agreement between us and supersedes any proposal or prior agreement, oral or written, and any other communications between us relating to the subject matter of this Agreement.

Read carefully all information related to warranty and precautions of use of your new LaCie product in the user manual.

For products purchased in the United States, you may contact LaCie at 7555 Tech Center Drive, Tigard, Oregon 97223 USA. Email: [sales@lacie.com](mailto:sales@lacie.com). Website: [www.lacie.com](http://www.lacie.com). Customer service: 503-844-4503.

## Service DOA

On rare occasions, a newly purchased LaCie product may be delivered in non-working order. We are working to avoid these issues, but unfortunately, these situations may arise from time to time. Within the 15 calendar days of purchase, should you experience an issue with your new LaCie product, we ask you to return the product to the place where it was originally bought. You will be required to give a proof of purchase.

## Customer Warning

Please be sure to back up your data before returning your drive to LaCie for repair. LaCie cannot under any circumstances guarantee the integrity of data remaining on a returned drive. We make no provisions for data recovery and cannot be held liable for any data loss on drives or media returned to LaCie.

All products returned to LaCie must be securely packaged in their original box and shipped with postage prepaid, except for Products registered under the Advance Care Option.

## NOTE TO AUSTRALIAN CUSTOMERS

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

Contact us:

LaCie Australia, 6/151 Beauchamp Rd, Matraville NSW 2036 AUSTRALIA

Phone: 02 8063 3711

Email: [info.au@lacie.com](mailto:info.au@lacie.com)

For fast technical support, create a support ticket after registering your product at [www.lacie.com/au/register](http://www.lacie.com/au/register).

# LEGAL INFO

## COPYRIGHTS

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## CHANGES

The material in this document is for information only and subject to change without notice. While reasonable efforts have been made in the preparation of this document to assure its accuracy, LaCie assumes no liability resulting from errors or omissions in this document, or from the use of the information contained herein. LaCie reserves the right to make changes or revisions in the product design or the product manual without reservation and without obligation to notify any person of such revisions and changes.

## FEDERAL COMMUNICATION COMMISSION INTERFERENCE STATEMENT

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 of the following measures:

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

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device 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.

**Important info: FCC Radiation Exposure Statement:** This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20 cm between the radiator & your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. The availability of some specific channels and/or operational frequency bands are country dependent and are



firmware programmed at the factory to match the intended destination. The firmware setting is not accessible by the end user.

## WEEE



This symbol on the product or on its packaging indicates that this product must not be disposed of with your other household waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designed collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service, or the shop where you purchased the product.

## TRADEMARKS

Apple, Mac, Time Machine, and Macintosh are registered trademarks of Apple Computer, Inc. Microsoft, Windows XP, Windows Vista, and Windows 7 are registered trademarks of Microsoft Corporation. Other trademarks mentioned in this manual are the property of their respective owners.

## CANADA COMPLIANCE STATEMENT

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

CAN ICES-3 (B)/NMB-3(B)

## MANUFACTURER'S DECLARATION FOR CE CERTIFICATION



We, LaCie, solemnly declare that this product conforms to the following European standards: Electromagnetic Compatibility Directive (2004/108/EC); Low-Voltage Directive: 2006/95/EC

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<sup>1</sup> 1.Thunderbolt and the Thunderbolt logo are trademarks of Intel Corporation in the U.S. and/or other countries.