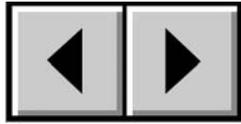
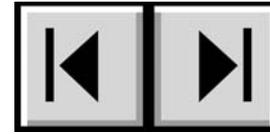


## How To Use This Manual

In the toolbar:



Previous Page / Next Page



Go to Contents Page / Go to Precautions Page

### Printing:

While optimized for onscreen viewing, the pages of this manual are formatted for printing on 8 1/2" x 11" and A4 sized paper, giving you the option to print the entire manual or just a specific page or section.

### To Exit:

From the Menu bar at the top of your screen, select: File > Quit.

## Icons Used In This Manual

These icons describe the type of information being given:



**Important Info:** This icon refers to an important step that must be followed.



**Tech Note:** This icon refers to tips to help maximize performance.



**Caution!** This icon indicates a potential hazard, and gives tips on how to avoid them.

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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.

### FCC Statement:

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



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

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.
- Consult the dealer or an experienced radio/TV technician for help.

Use only shielded cables to connect I/O devices to this equipment.

LaCie Biggest S1S



Tested To Comply  
With FCC standards

FOR HOME OR OFFICE USE



**Caution!** A shielded-type power cord is required in order to meet FCC emission limits and also to prevent interference to the nearby radio and television reception. It is essential that only the supplied power cord be used.

### Canada Compliance Statement

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

**Manufacturer's Declaration for CE Certification**

We, LaCie, solemnly declare that this product conforms to the following European standards:  
Class B EN60950, EN55022, EN55024, EN61000-3-2, EN61000-3-3



With reference to the following conditions:

73/23/EEC Low Voltage Directive

89/336/EEC EMC Directive

## Health and Safety Precautions

Only qualified persons are authorized to carry out maintenance on this device.

- Read this User's Guide carefully, and follow the correct procedure when setting up the device.
- Do not open your LaCie Biggest S1S 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 LaCie Biggest S1S contains no user-serviceable parts. If it appears to be malfunctioning, have it inspected by a qualified LaCie 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 LaCie Biggest S1S, as they may spill into its openings. Doing so increases the risk of electrical shock, short-circuiting, fire or personal injury.
- Make sure that the computer and LaCie Biggest S1S are electrically grounded. If the devices are not grounded, there is an increased risk of electrical shock.

## General Use Precautions

- Do not expose the LaCie Biggest S1S to temperatures outside the range of 0° C to 35° C (32° F to 96° F); or to operational humidity beyond 5-95%, non-condensing, or storage humidity beyond 5-75%, non-condensing. Doing so may damage the LaCie Biggest S1S or disfigure its casing. Avoid placing your LaCie Biggest S1S near a source of heat or exposing it to sunlight (even through a window). Inversely, placing your LaCie Biggest S1S in an environment that is too cold or humid may damage the unit.
- Always unplug the LaCie Biggest S1S 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 LaCie Biggest S1S 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 LaCie Biggest S1S near sources of magnetic interference, such as computer displays, televisions or speakers. Magnetic interference can affect the operation and stability of your LaCie Biggest S1S.
- Do not place heavy objects on top of the LaCie Biggest S1S or use excessive force on it.
- Never use excessive force on your LaCie Biggest S1S. If you detect a problem, consult the **Troubleshooting** section in this manual.
- Protect your LaCie Biggest S1S from excessive exposure to dust during use or storage. Dust can build up inside the device, increasing the risk of damage or malfunction.
- Never use benzene, paint thinners, detergent or other chemical products to clean the outside of the LaCie Biggest S1S. Such products will disfigure and discolor the casing. Instead, use a soft, dry cloth to wipe the device.
- Do not attempt to remove a hard disk from a Drive Bay. Removal of a hard disk by anyone other than an authorized LaCie Technical Support representative will void the warranty.



**Caution!** The LaCie Biggest S1S's warranty may be void as a result of the failure to respect the precautions listed above.

## 1. Introduction

Congratulations on the purchase of your new LaCie Biggest S1S! This high-performance, extremely flexible RAID (Redundant Array of Independent/Inexpensive Disks) subsystem is ideally suited for integration with databases, imaging systems and e-mail and Web servers.

RAID technology is one of the best means to protect your data, while providing greater performance, data integrity and availability than standard hard disk storage. With the ability to provide single error detection and redundant information to recover the original if a disk fails, a RAID system is an ideal means to safe-guard valuable data while also stream-lining performance.

The LaCie Biggest S1S is the ultimate approach to a flexible RAID solution, with its ability to manage three different RAID levels (0, 0+1 and 5) and also offer the option of RAID 5 + hot spare. Featuring intelligent online recovery, the LaCie Biggest S1S allows one drive to be designated a hot spare – that way, if one drive fails, the LaCie Biggest S1S will seamlessly rebuild the failed drive's data on the hot spare.



### 1.1. What Your LaCie Biggest S1S Can Do

- Supports powerful RAID 0, 0+1, 5, and RAID 5+spare
- Hot swappable disk drives for security and recovery
- Easy installation on PC or Mac - no driver required



**Important Info:** 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 drive, for instance, and a second copy either on your internal hard drive, another external hard drive or some other form of removable storage media, such as CD, DVD or Tape. LaCie offers a complete line of CD, DVD and Tape drives, and if you would like more information on backup, please refer to the LaCie white paper on backup methods and technology.

## 2. Your LaCie Biggest S1S

### 2.1. Minimum System Requirements

#### Supported RAID Levels:

- Hardware RAID level 0, 0+1, 5 and 5+spare
- Hot-swappable disks
- Automatic on-line rebuilding

#### Supported Hard Disks:

- Serial ATA I

#### Serial ATA

##### **Hardware Requirements for Serial ATA:**

- G3 or greater or Pentium III or higher compatible processor
- Serial ATA Host Bus Adapter card
- Host computer system with a Serial ATA interface
- 128MB RAM or higher

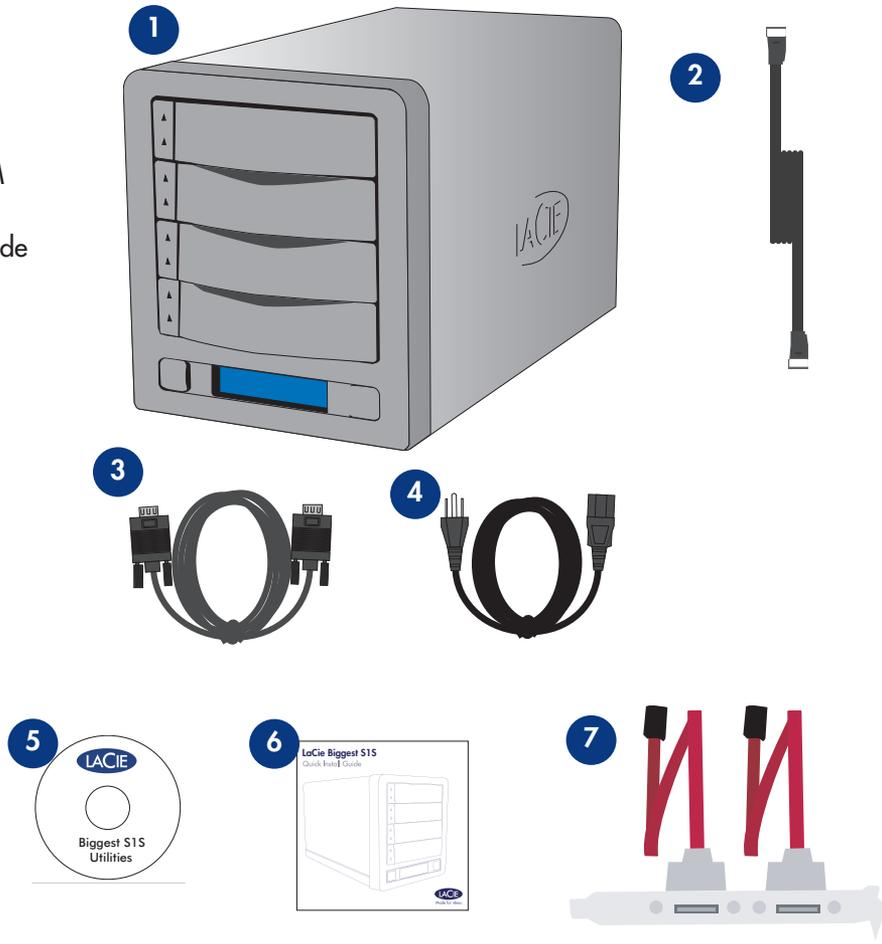
##### **System Requirements for Serial ATA:**

- Mac OS X, 10.2.8 or 10.3 or higher
- Windows 2000, Windows 2003 Server or Windows XP

## 2.2. Package Contents

Your LaCie Biggest S1S should ship with the following:

- 1 LaCie Biggest S1S RAID subsystem tower and 4 Drive Bays with hard disks
- 2 External SATA cable
- 3 Serial/RS-232 cable
- 4 Power cable
- 5 LaCie Biggest S1S Utilities CD-ROM
- 6 LaCie Biggest S1S Quick Install Guide
- 7 SATA bracket



**Important Info:** Please keep your box. In the event that the LaCie Biggest S1S RAID subsystem tower should need to be repaired or serviced, it must be returned in its original packaging. In the event that an individual disk should need to be repaired or serviced, please refer to section [6.1. Removing/Replacing A Disk](#).

## 2.3. Views Of The Drive

### 2.3.1. Front View

- 1 Drive Bays** – Each drive bay can hold one-inch high, 3.5-inch form factor Serial ATA disk drive.

Disk 1 – This is also the default Hot Spare Disk.

Disk 2 –

Disk 3 –

Disk 4 –

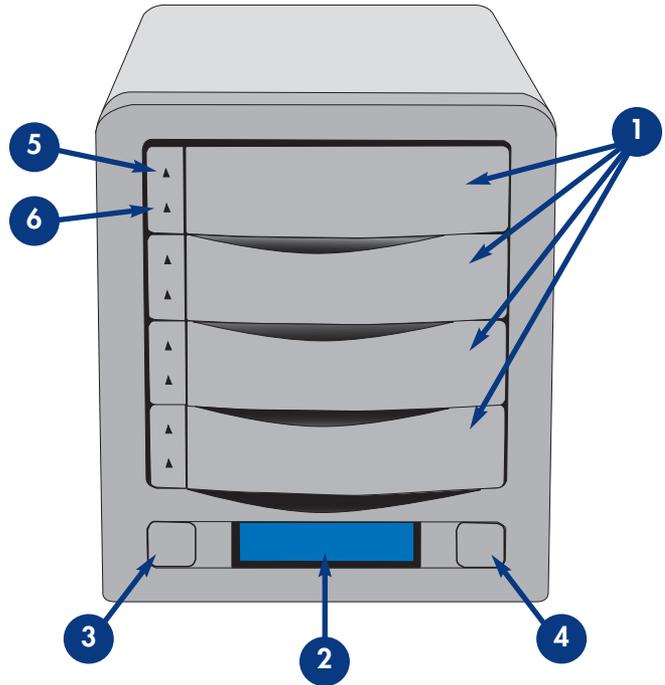
- 2 LCD Display** – The LCD Display alerts you to the status and configuration information of your LaCie Biggest S1S's subsystem and arrays. For more information about the LCD Display messages, please see section [5.2. LCD Display Messages](#).

- 3 Menu Button** – The Menu Button is used to navigate through the information on the LCD Display, and is used to select settings for setting the date and time.

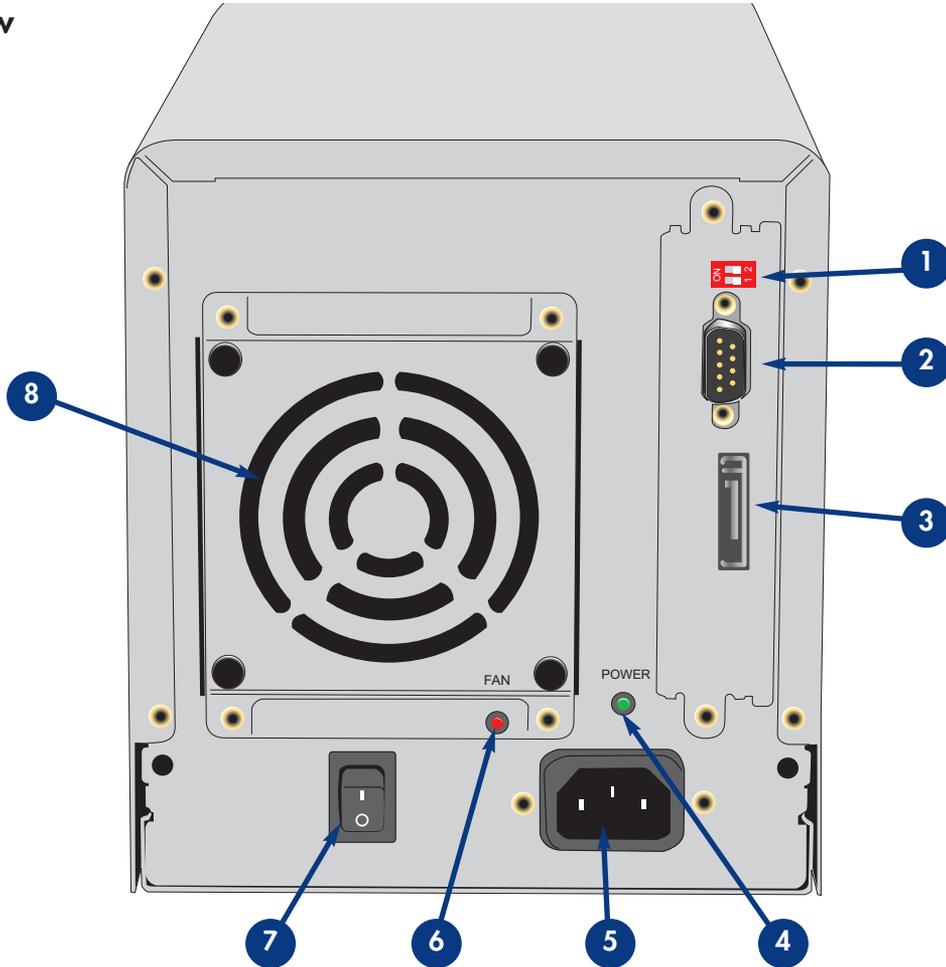
- 4 Enter Button** – The Enter Button is used to set the date and time, and is also used to mute the alert buzzer.

- 5 Disk Status Indicator** – Indicates the status of the disk. For more information, please see section [5.1. Disk Status And Activity Indicators](#).

- 6 Disk Activity Indicator** – Indicates when the disk is being accessed. For more information, please see section [5.1. Disk Status And Activity Indicators](#).



### 2.3.2. Rear View



- |                               |                        |
|-------------------------------|------------------------|
| 1 RAID Level Switch Selectors | 6 Fan Status Indicator |
| 2 Serial/RS-232 Port          | 7 Power Switch         |
| 3 SATA I port                 | 8 Ventilation Fan      |
| 4 Power Status Indicator      |                        |
| 5 Power Supply Connector      |                        |

- 1 **RAID Level Switch Selectors** – The RAID Level Switch Selectors consist of two switches, which are used to set the RAID level. For more information, please see section [4.1. Setting The RAID Level](#).
- 2 **Serial/RS-232 Port** – The Serial/RS-232 Port is used to connect the LaCie Biggest S1S to a terminal or a terminal-equipped PC with terminal emulation software. The status of the LaCie Biggest S1S can then be viewed remotely. For more information, please see section [6.2. Firmware Updates](#).
- 3 **Serial ATA port** – This is where you plug in the SATA cable furnished with the drive. For more information, please see section [2.4 eSATA cables and Connectors](#).
- 4 **Power Status Indicator** – This LED indicates the power supply status. During normal operation, the LED will light Green; the LED will be unlit when there is no power to the unit or the unit is turned off.
- 5 **Power Supply Connector** – This is where you plug in the AC adapter supplied with the drive. For more information, please see section [4.2. Creating An Array](#).
- 6 **Fan Status Indicator** – This LED indicates the status of the ventilation fan. During normal operation, the LED will remain off; the LED will light Red if the ventilation fan has failed. For more information, please see sections [5.2.3.4. Fan Failure Message](#) and [5.2.5.3. Fan And Temperature Information](#).
- 7 **Power Switch** – The Power Switch is the main on/off switch for the LaCie Biggest S1S.
- 8 **Ventilation Fan** – The Ventilation Fan help to keep your drive cool during operation. Be sure not to block these openings when using your drive.



**Caution!** To avoid overheating, the LaCie Biggest S1S should be installed in a well-ventilated area and in such a way as to maintain sufficient airflow across the controller chips. Also ensure that the Ventilation Fan is not obstructed.

Environmental Requirements:

Temperature: 0 – 35° C (32 – 96° F)

Operation Humidity: 5 – 95%, non-condensing

Storage Humidity: 5 – 75%, non-condensing

## 2.4. Cables And Connectors

### Serial ATA

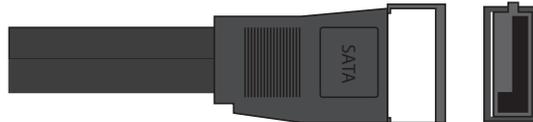
The Serial ATA interface was created to simplify and improve connectivity by utilizing point-to-point signaling, hot-plug capability, smaller and standardized connectors. Built upon an efficient and practical design, the Serial ATA cables and connectors offers several key features and benefits:

- Plug orientation – With the “L” shaped design, Serial ATA connectors have a defined placement within the port, to help prevent incorrect mating. There is also an extrusion on the outside of the connector to help guide and align the connector during insertion.
- Hot-plug support – Serial ATA enables adding and removing a drive without having to power down the system or reboot. Utilizing staggered pins to aid insertion, the specification ensures device detection and passive and active limits to in-rush current.

### SATA Cables And Connectors

The cables and connectors used to attach Serial ATA drives to your computer.

#### Serial ATA Cable



#### Serial ATA Port



## 3. Understanding RAID

Your LaCie Biggest S1S is shipped with a pre-configured RAID level of 5, but it supports four different RAID levels: 0, 0 + 1, 5 and 5 + Hot Spare. This section will help you decide which RAID level is right for your application.

### 3.1. RAID 0

#### Striped Disk Array Without Fault Tolerance

Also called striping, this level offers high transfer rates and is ideal for large blocks of data where speed is of the utmost importance. RAID 0 implements a striped disk array, where all of the hard disks are linked together to form one large aggregate hard disk. In this configuration, data is broken down into blocks and each block is written to a separate disk drive within the array; I/O performance is greatly improved by spreading the I/O load across several drives. In this array, however, when one disk fails, all of the data on the array is lost.

Storage capacity is determined by the smallest disk in the array, and the smallest disk's capacity is applied to all of the other disks in the array. So, for instance, if you had four disks installed, ranging in capacity from 40GB to 80GB, when the RAID 0 array is built your system will see one, 160GB (40GB x 4) hard disk.

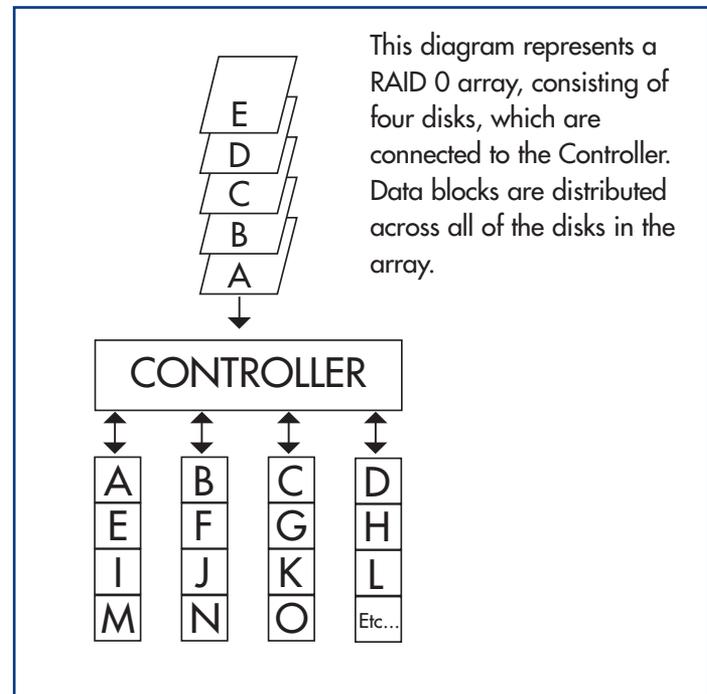
While this is a very simple and easily implemented design, RAID 0 should never be used in mission critical environments. When even just one disk in the array fails, all of the data on the entire array will be lost.

#### Characteristics & Advantages

- Data is broken down into blocks and each block is written to a separate disk drive
- I/O performance improved by spreading the load across multiple drives
- Overhead is lowered due to no calculations for parity
- Simple design and easily implemented

#### Recommended Uses

- Video production and editing
- Image editing
- Pre-press applications
- Applications requiring high-bandwidth



## 3.2. RAID 0 + 1

### High Data Transfer Performance

This level combines striping and mirroring, which provides full data redundancy and protects data in the event that multiple drives fail (provided that the data on one of each mirrored pair of drives is intact).

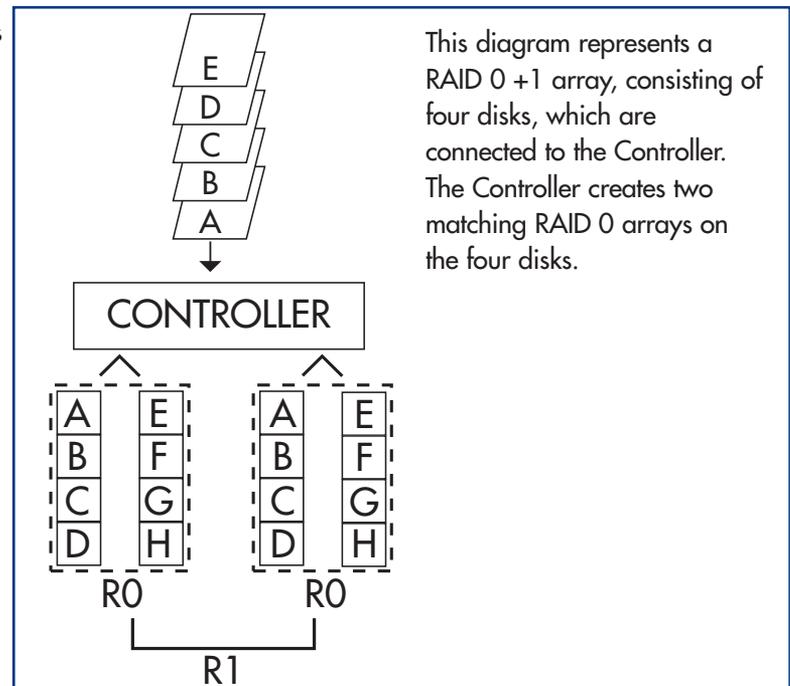
Storage capacity in this configuration is determined by multiplying the capacity of the smallest disk by two. If, for instance, there were four drives installed that ranged in capacity from 40GB to 70GB, as a RAID 0+1 array, the total available capacity would be 80GB (40GB x 2). In this configuration, you must have an even number of disks, so in the case of the LaCie Biggest S1S, you would need to have four hard disks installed.

### Characteristics & Advantages

- Implemented as a mirrored array with RAID 0 arrays as the segments
- The same fault tolerance as RAID level 5
- Fault-tolerance overhead is the same as that of mirroring
- High I/O rates are achieved thanks to multiple striped segments
- Excellent design for those seeking high performance, without achieving maximum reliability

### Recommended Uses

- Imaging Applications
- General Fileserver



### 3.3. RAID 5 And RAID 5 + Hot Spare

#### Independent Data Disks With Distributed Parity Blocks

This is the most versatile RAID level and offers high I/O transaction rates, which greatly helps applications that perform large numbers of concurrent requests. If one drive in a RAID 5 array fails, the lost data can be rebuilt from data on the remaining, functional disks.

Essentially, RAID level 5 is a striped set with parity, and requires at least three disks to implement. In this configuration, data is saved across several hard disks, as in a RAID 0 array, but parity information is also saved across the disks. It is this parity information which provides the fault-tolerance protection; if one hard disk in the set fails, the data that it contains can be rebuilt by utilizing the parity information from the other hard disks. With the parity data being stored across the array, this also serves to maximize the amount of storage capacity available amongst the disks in the array while still providing data redundancy.

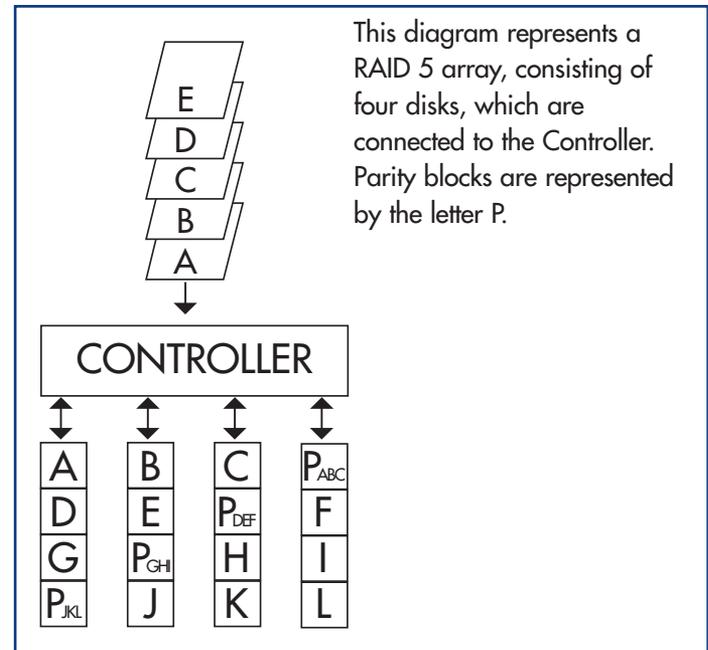
Storage capacity in a RAID level 5 configuration is the result of a mathematical expression that compares data from the drives and a calculates another piece of data called parity. In this situation, then, storage capacity is calculated by multiplying the number of disks in the array, minus one, by the capacity of the smallest disk in the array. So, for instance, if a RAID 5 array is created with four drives of varying capacities of 40GB, 50GB, 60GB and 70GB, the total capacity of the array would be 120GB [3 (4 disks – 1 disk) x 40 = 120].

#### Characteristics & Advantages

- Highest Read data transaction rate
- Medium Write data transaction rate
- High efficiency through a low ratio of ECC (Parity) disks to data
- Good aggregate transfer rate

#### Recommended Uses

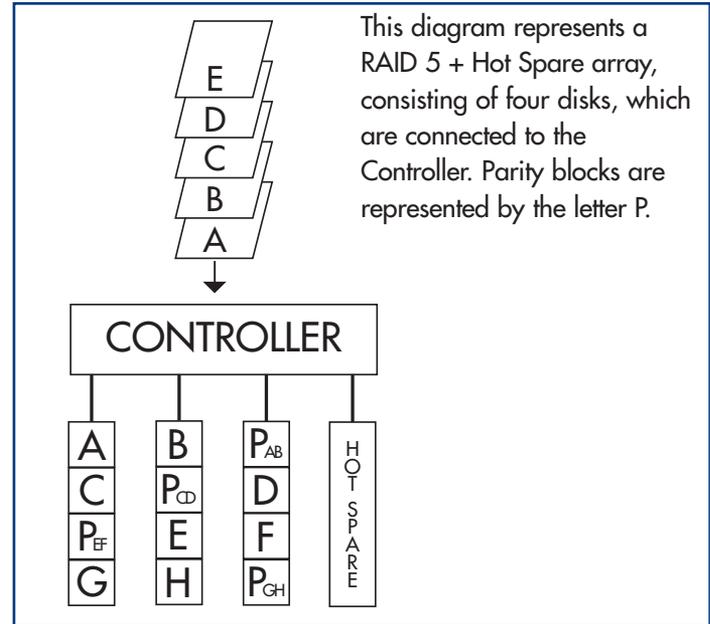
- File and Application Servers
- Database Servers
- Web, E-mail and News Servers
- Intranet Servers



### RAID 5 + Hot Spare

This level is the same as RAID 5, but one disk is designated as a "Hot Spare," which means that in the event of a disk failure, the "Hot Spare" disk would automatically be activated to replace the failed disk.

The storage capacity of a RAID 5+ Hot Spare array follows the same logic as that of RAID 5, but with the difference being that there is one less disk in the array. So, for instance, if there was a RAID 5+ Hot Spare array with three drives of varying capacities of 40GB, 50GB and 60GB, and one disk designated as the hot spare with a capacity of 70GB, the total capacity of the array would be 80GB [2 (3 disks - 1 disk) x 40 = 80].



## 4. Setting Up Your LaCie Biggest S1S

This chapter covers the installation and configuration of your LaCie Biggest S1S. A relatively easy process, you will be guided through the five following steps:

**4.1. Setting The RAID Level** – The LaCie Biggest S1S is pre-configured at RAID level 5, but you have the option of customizing your RAID level in this step.

**4.2. Creating An Array** – The LaCie Biggest S1S will automatically initialize the four hard disks in the unit.

**4.3. Connecting To A Host Computer** – The LaCie Biggest S1S can be connected to a host computer through the SATA interface. This section covers both connectivity methods.

**4.4. Setting The Date & Time** – Configure your LaCie Biggest S1S for your local use.

**4.5. Formatting & Partitioning Your LaCie Biggest S1S** – This section is divided between the two different operating systems, Mac OS and Windows, and details the process for formatting and partitioning the LaCie Biggest S1S.

## 4.1. Setting The RAID Level

The LaCie Biggest S1S is pre-configured at RAID level 5, but it may be re-configured. The RAID level is set using the RAID Level Switch Selectors on the rear panel of the LaCie Biggest S1S. The RAID level selectors consist of two switches, with four possible switch position combinations: RAID 0, 0 + 1, 5 and 5 + Hot Spare.



**Caution!** The LaCie Biggest S1S must be powered off to change the RAID level.



**Caution!** If there is data on the array, changing the RAID level may lead to the loss of all of the data on the array.



**Important Info:** In the event that the RAID level does not correspond to both the disk settings and the RAID Level Switch Selectors, the LCD will display the following two alternating messages:

- 1) "RAID level"  
"Unmatched"
  
- 2) "Current: Rx"                      i.e. the current RAID level settings of the installed disks  
"Original: Rx"                      i.e. the RAID level settings on the RAID Level Switch Selectors

Example:

The RAID Level Switch Selectors are positioned to indicate a RAID 0 setting, but the disks were set earlier as a RAID 5 array, the LCD will display the following two alternating messages:

- 1) "RAID Level"  
"Unmatched"
  
- 2) "Current: R5"  
"Original: R0"

In this situation, the array will not function. There are two options:

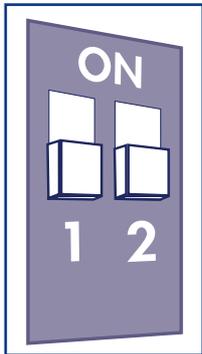
- 1) Shut down the LaCie Biggest S1S and re-position the RAID Level Switch Selectors to the previous RAID setting, in this case, RAID 5.
  
- 2) Re-insert the four drives, and re-create the array as a RAID 0 array. If there is any data on the disks, it will be lost during the initialization.

### 4.1.1. RAID 5

This is the default setting of the LaCie Biggest S1S.



**Caution!** In a RAID 5 array, in the event that a disk needs to be replaced, always replace the failed disk with the LaCie Biggest S1S's power on. Do not turn the LaCie Biggest S1S's power off; doing so may lead to the loss of the data on the array.

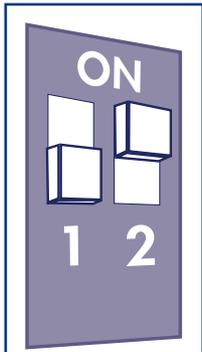


- 1) Power off the LaCie Biggest S1S.
- 2) Move switch 1 and 2 of the RAID Level Switch Selectors to the OFF position.

### 4.1.2. RAID 5 + Hot Spare



**Important Info:** In a RAID 5 + Hot Spare array, the disk in the top Drive Bay is designated as the Hot Spare (the default setting), and the Disk Status Indicator will light in amber to indicate this configuration.

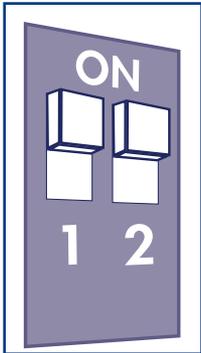


- 1) Power off the LaCie Biggest S1S.
- 2) Move switch 1 of the RAID Level Switch Selectors to the OFF position. Move switch 2 of the RAID Level Switch Selectors to the ON position.



**Tech Note:** In the initial configuration of a RAID 5 + Hot Spare array, the top Drive Bay (Drive Bay 1) is the default Hot Spare (the Disk Status Indicator will be amber). In the event that a disk fails, the Hot Spare position will change. For example, if the disk in Drive Bay 3 fails, then the Hot Spare disk in Drive Bay 1 will be re-built and will no longer be the Hot Spare. Instead, when you place a new disk in Drive Bay 3, it will become the new Hot Spare, and will be indicated by the amber Disk Status Indicator.

### 4.1.3. RAID 0

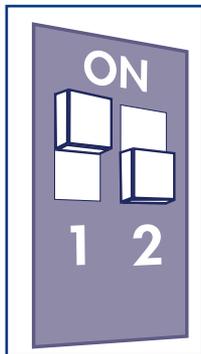


- 1) Power off the LaCie Biggest S1S.
- 2) Move switch 1 and 2 of the RAID Level Switch Selectors to the ON position.

### 4.1.4. RAID 0 + 1



**Tech Note:** In a RAID 0+1 array, the disks in Drive Bays 1 and 2 are one independent RAID 1 group, while the disks in Drive Bays 3 and 4 represent another independent RAID 1 group. This allows one disk from each separate RAID 1 group to fail simultaneously.

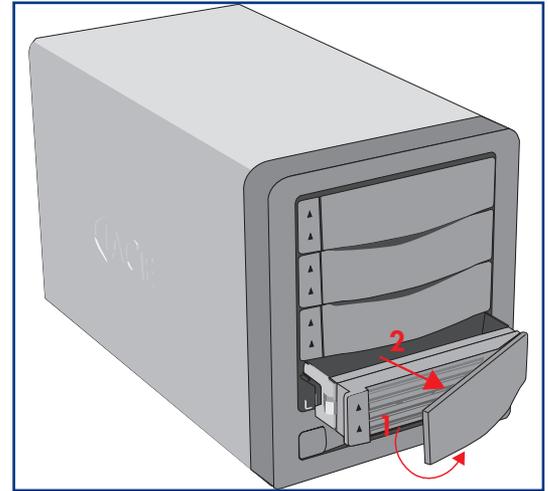


- 1) Power off the LaCie Biggest S1S.
- 2) Move switch 1 of the RAID Level Switch Selectors to the ON position. Move switch 2 of the RAID Level Switch Selectors to the OFF position.

## 4.2. Creating An Array

This step will initialize the array.

- 1) Ensure that the RAID level is correctly set and configured.
- 2) On each of the individual Drive Bays, pull the Drive Bay Handle to release the latch. Then slide each of the Drive Bays out from the LaCie Biggest S1S slightly.



- 3) Connect the power cable to the LaCie Biggest S1S and a grounded electrical outlet.
- 4) Turn on the LaCie Biggest S1S by pressing the Power Switch.



- 5) Slide each of the Drive Bays back into the LaCie Biggest S1S, and push the Drive Bay Handles flat to lock the Drive Bays into place.

Once all of the Drive Bays have been closed and locked, the LaCie Biggest S1S will check the status of the four installed disks. If all four of the disks have not been initialized before (which will be the case for the first connection of the LaCie Biggest S1S), the RAID level initialization will begin automatically.





**Important Info:** The initialization process is a time-intensive process and is dependent upon the size of the disks and the RAID level being initialized. For example, four, 400GB disks in a RAID 5 array could take over two hours.

If you are resetting the RAID level after having used the LaCie Biggest S1S at another RAID level, the LaCie Biggest S1S will display a warning on the LCD, asking if you are certain that you want to initialize the new RAID array. The initialization process will erase any data on the disks.



**Tech Note:** For a complete list of the LCD Display messages and Disk Status and Activity Indicators, please see sections [5.1. Disk Status And Activity Indicators](#) and [5.2. LCD Display Messages](#).



**Important Info:** In the event that the power is interrupted during the initialization process, the LaCie Biggest S1S will resume the initialization process from the point of interruption as soon as the power is restored.

The LCD Display of the LaCie Biggest S1S will issue a "Create New RAID" message. Press the **Enter** button to select **Yes**, or press the **Menu** button to select **No**.



**Important Info:** All four of the Drive Bays should be locked in place in the LaCie Biggest S1S before the initialization process. If the four Drive Bays are not installed correctly when the power is turned on, the alarm will sound and a "RAID Fail" message will be displayed on the LCD, unless: a RAID 5 + Hot Spare level has been set and the bottom three Drive Bays have disks installed. In this instance, the initialization of a RAID 5 array will begin.



**Tech Note:** The RAID capacity is determined by the RAID level and the capacity of the drives installed. For more information, please see the following sections: [3.1. RAID 0](#), [3.2. RAID 0 + 1](#) and [3.3. RAID 5 And RAID 5 + Hot Spare](#).

### 4.3. Connecting To A Host Computer

Once the LaCie Biggest S1S has finished the initialization of the array, you will be ready to connect the LaCie Biggest S1S to a host computer. This section is divided into the two different interface connectivity methods:



**Important Info:** The initialization must be completed before connecting the interface cable. Otherwise, the LaCie Biggest S1S will not be recognized by the host computer.

- 1) Follow steps [4.1. Setting The RAID Level](#) and [4.2. Creating An Array](#) to establish a RAID array.
- 2) Connect the external SATA cable into the SATA port on the back of the LaCie Biggest S1S.
- 3) Connect the other end of the SATA cable into an available SATA port on your computer.



**Tech Note:** When using internal SATA ports with the included SATA bracket, you must reboot the host computer for the volume to mount. If using a PCI SATA card (sold separately) no reboot is necessary.

It will take a few seconds for your computer to recognize the drive and for it to appear on the desktop or in **My Computer**.

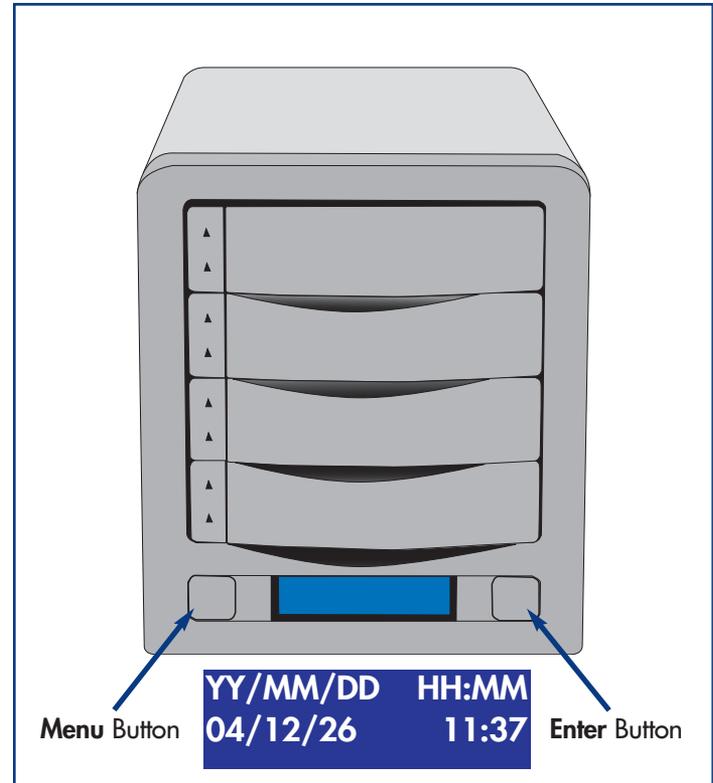
Your LaCie Biggest S1S will now need to be formatted. Go to section [4.5. Formatting And Partitioning Your LaCie Biggest S1S](#), for more information.

## 4.4. Setting The LCD Display Time & Date

To change the time and date on the LCD Display, press the **Enter** button for over five seconds. Release the button and the date and time settings screen will be displayed.

To adjust the time and date values, use the **Menu** button on the left-side of the LCD Display to scroll through the values. Press the **Enter** button to confirm your selection and move to the next value.

Start by adjusting the year (YY), then move to the month (MM), the day (DD), and finally the hour (HH) and minute (MM) (the time is measured in the 24-hour clock format). Pressing the **Enter** button on the final selection will set the time and date.



## 4.5. Formatting And Partitioning Your LaCie Biggest SIS

Before the LaCie Biggest SIS array can be fully utilized, it needs to be formatted. During this process, the array can also be customized with partitions.

Formatting a disk consists of the following: the operating system erases all of the bookkeeping information on the disk, tests the disk to make sure that all of the sectors are reliable, marks bad sectors (i.e., those that are scratched) and creates internal address tables that it later uses to locate information.

As you format the drive, you will have the opportunity to divide the hard drive into sections, called partitions. A partition is a section of the hard drive's storage capacity that is created to contain files and data.

Once formatted, the actual available storage capacity varies, depending on operating environment, and is generally about 10% less than the non-formatted capacity.

### File System Formats

- **Mac OS Extended (HFS+)** – for Mac OS 10.x
- **NTFS** – for Windows 2000, XP, and 2003 Server

### 4.5.1. Formatting And Partitioning – Mac Users

After having followed the steps to set the RAID level, create the array and connect the interface cable, the LaCie Biggest S1S must now be formatted and partitioned before it can be used:



**Important Info:** Before beginning the format and partition process, ensure that there are no warning or error messages being displayed on the LCD Display of the LaCie Biggest S1S.

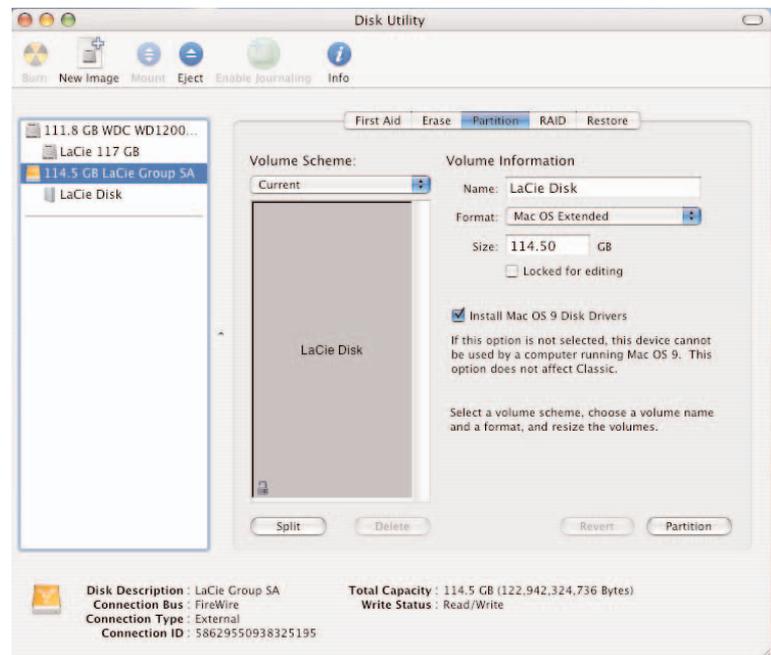
- 1) If it is not already on, power on the host computer.
- 2) As soon as the array is detected by your computer, it will mount to the desktop as an untitled device.
- 3) From **Finder**, use the **Go** menu and open the **Utilities** folder. Double-click on the **Disk Utility** program.

4) The **Disk Utility** dialog box will appear. Your LaCie Biggest S1S array will appear on the left-hand side, in the list of hard disks that are mounted on your system. You should see a volume that represents your internal hard drive, and one that reads LaCie.

5) Select the LaCie drive, and then click on the **Partition** tab.

6) From the **Volume Scheme:** button, choose the number of partitions you want to divide the drive into by clicking on the pull down menu starting with **Current** (Mac OS 10.x gives you the option of dividing the drive into at most 8 partitions). You can customize the size of the partitions by using the slide bar between the partitions in the **Volume Scheme:** area.

7) In the **Volume Information** section, create a name for each partition, choose the volume format (Mac OS Extended, Mac OS Standard, MS-DOS File System or UNIX File System) and the volume size.



**Tech Note:** For a more detailed discussion on the various file system formats and partitioning, please refer to section **7.1.1. File System Formats – Mac Users.**



**Tech Note:** Under Mac OS 10.3.x, the default format setting is Mac OS Extended (Journaled). Journaling provides a continuous record of changes to files on the hard drive. You will not be able to format in the MS-DOS File System, either, unless you choose the Erase tab in the Disc Utility window and create an entire MS-DOS File System volume. For more information, please refer to section [7.1.1. File System Formats - Mac Users](#).

8) Once you have finalized the volume format, number of partitions, size and options, click **OK**. The following message will appear: "Warning! Saving the new volume will erase all existing volumes. This can NOT be undone. Are you sure you want to do that?" Click **Partition** to continue.

9) Mac OS 10.x will automatically setup the disk with the partitions and volume format you selected, and your new drive will be available for use.

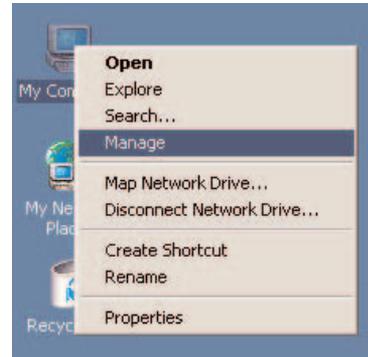
### 4.5.2. Formatting And Partitioning – Windows Users

After having followed the steps to set the RAID level, create the array and connect the interface cable, the LaCie Biggest S1S must now be formatted and partitioned before it can be used:



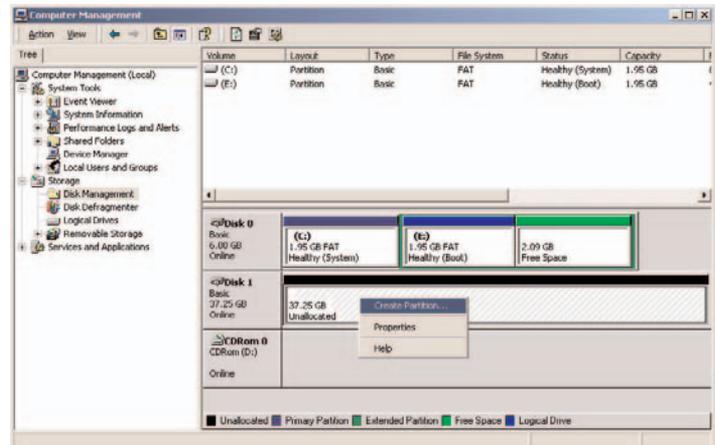
**Important Info:** Before beginning the format and partition process, ensure that there are no warning or error messages being displayed on the LCD Display of the LaCie Biggest S1S.

- 1) If it is not already on, power on the host computer.
- 2) From the desktop, right-click the **My Computer** icon.
- 3) Select the **Manage** option. The **Computer Management** dialog box should appear.
- 4) From the **Computer Management** dialog box, select **Disk Management** from the menu on the left-hand side. The LaCie Biggest S1S array will appear in the lower-right section of the **Disk Management** dialog box as an unallocated disk.



If there are other disks attached to the host computer, such as the main internal hard disk, they will have an assigned drive letter (e.g. C:). Do not click on one of these disks.

- 5) Right-click on the unallocated disk that represents the LaCie Biggest S1S array, and select **Create Partition**.



6) This will bring up the **Create Partition Wizard**. Click **Next**.

7) Select **Primary Partition**. Click **Next**.

8) Here you must specify partition size. It is recommended that you leave the partition set to the maximum available size, unless you want multiple partitions on the same drive. Click **Next**.

9) Select **Assign drive letter** and select the desired letter for the drive. Click **Next**.

10) Select **Format this partition...** and then select the default file system, **NTFS**.

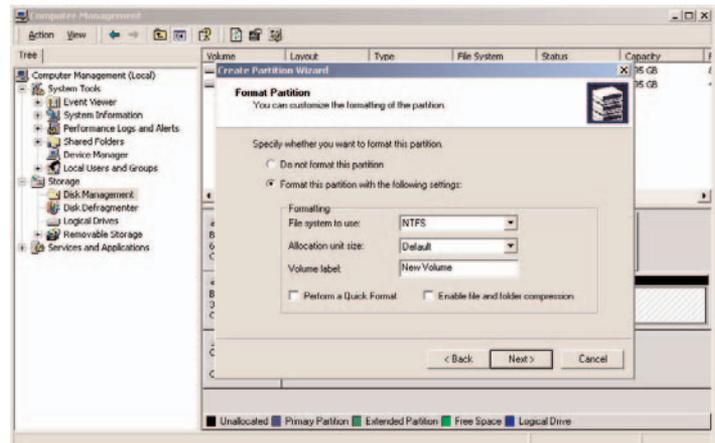
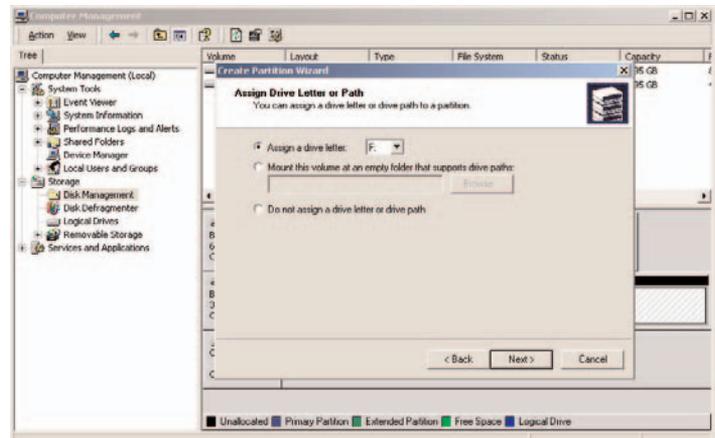
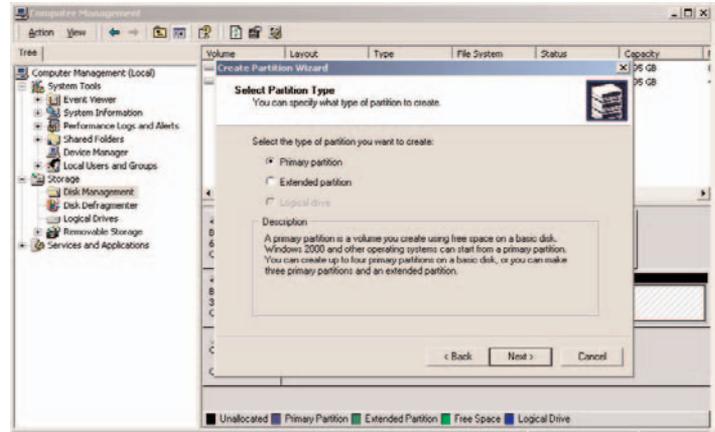


**Tech Note:** For a more detailed discussion on the various file system formats and partitioning, please refer to section **7.1.2. File System Formats – Windows Users**.

11) Click **Next**.

12) Click **Finish**.

13) **Disk Management** will create the partition and begin formatting the drive. Once completed, close **Disk Management** and your new drive will be ready to use.



## 5. Using Your LaCie Biggest S1S

### 5.1. Disk Status And Activity Indicators

This list is a key to the messages of the **Disk Status Indicator** and **Disk Activity Indicator** on each of the individual Drive Bays:

Disk Status Indicator	Disk Activity Indicator	Controller Status
Alternating green & amber	Flashing blue	RAID being initialized
Alternating green & amber	Flashing blue	RAID being rebuilt
Solid green	Unlit	RAID initialization complete
Solid green	Unlit	RAID established/no activity
Solid green	Flashing blue	Data being accessed
Solid red	Unlit	Disk failure/disk not properly installed
Solid amber	Unlit	Hot Spare disk in RAID 5 + Hot Spare mode

If the **Disk Status Indicator** is being displayed as a solid red light, ensure that the appropriate drive is not:

- Locked
- Installed incorrectly
- Failing (if the disk has failed, it will need to be replaced)



**Important Info:** In the event of a RAID failure, the alarm will sound. Press the **Enter** button to silence the alarm.

### 5.2. LCD Display Messages

The status of the LaCie Biggest S1S controller and array can be viewed through the **LCD Display**. By using the **Menu** button to scroll through the messages, the following information is available:

- RAID level and capacity
- Disk model
- Disk DMA mode and capacity
- Firmware version
- Fan and temperature status

### 5.2.1. Initialization Messages

These **LCD Display** messages may appear during the **Initialization** phase:

LCD Display	Message	Message cleared when...
<b>RAID INIT xx.x%</b> <b>Total: xxxxGB</b>	New RAID array being created.	<ul style="list-style-type: none"> <li>• Initialization completed successfully</li> <li>• Initialization failed</li> </ul>
<b>Create New RAID?</b> <b>(No)            (Yes)</b>	Re-create a new RAID array.	<ul style="list-style-type: none"> <li>• If the disks have been installed and a new RAID array has been created</li> </ul>
<b>RAID INIT 100%</b> <b>xxxxGB INIT OK!</b>	Initialization completed successfully.	<ul style="list-style-type: none"> <li>• The Enter button is pressed</li> </ul>
<b>RAID INIT Failed</b> <b>Dx offline</b>	Disk "x" failed during the initialization and cannot be accessed.	<ul style="list-style-type: none"> <li>• The Disk is replaced</li> </ul>
<b>RAID INIT Failed</b> <b>Dx Bad sectors</b>	Too many bad sectors on Disk "x." Initialization cannot proceed.	<ul style="list-style-type: none"> <li>• The Disk is replaced</li> </ul>

### 5.2.2. Rebuild Messages

These LCD Display messages may appear during a rebuild phase:

LCD Display	Message	Message cleared when...
<b>Dx Rebuild xx.x Total: xxxxB</b>	Rebuilding data to a new disk following a disk failure.	<ul style="list-style-type: none"> <li>• Rebuild completed successfully</li> <li>• Rebuild failed</li> </ul>
<b>Dx Rebuild 100% xxxxGB OK!</b>	Rebuild completed successfully.	<ul style="list-style-type: none"> <li>• The Enter button is pressed</li> </ul>
<b>Dx Rebuild Fail xxxxGB&lt;yyyyGB</b>	The capacity of the new disk is too small. xxxxGB = the capacity of the newly installed disk. yyyyGB = the minimum capacity allowed.	<ul style="list-style-type: none"> <li>• The Disk is replaced</li> </ul>
<b>Dx Rebuild Fail Dx offline</b>	Disk "x" cannot be accessed.	<ul style="list-style-type: none"> <li>• The Disk is replaced</li> </ul>
<b>Dx Rebuild Fail Dx Bad sectors</b>	Too many bad sectors on Disk "x." The rebuild process cannot continue.	<ul style="list-style-type: none"> <li>• The Disk is replaced</li> </ul>

### 5.2.3. Failure And Error Messages

These messages will be displayed in the event of a RAID or disk failure, or an error during a process:

#### 5.2.3.1. RAID Failure Messages

LCD Display	Message	Message cleared when...
<b>RAID Fail code: 0</b>	The RAID array failed. There are not enough disks for the RAID array to operate.	<ul style="list-style-type: none"> <li>• A disk is re-installed</li> </ul>
<b>RAID Fail code: 1 &lt;----&gt;</b>	The RAID array failed. The sequence of the disks in the array is incorrect. The current sequence is displayed within the "<---->" space.	<ul style="list-style-type: none"> <li>• The original disk sequence is restored</li> </ul>

#### 5.2.3.2. Disk Failure Message

LCD Display	Message	Message cleared when...
<b>DISK x Fail</b>	Disk "x" failed.	<ul style="list-style-type: none"> <li>• The failed disk is replaced</li> </ul>

#### 5.2.3.3. Fan Failure Message

LCD Display	Message	Message cleared when...
<b>FAN Fail xxxx rpm</b>	Fan failure. xxxx rpm = the current speed of the fan	<ul style="list-style-type: none"> <li>• The failed fan is repaired or replaced</li> </ul>

#### 5.2.3.4. RAID Configuration Error Message

LCD Display	Message	Message cleared when...
<b>RAID Level Unmatched</b>	The setting of the RAID Level Switch Selectors does not match the existing RAID level.	<ul style="list-style-type: none"> <li>The LaCie Biggest S1S is shut down and the RAID Level Switch Selectors are re-set to their original RAID level</li> </ul>
<b>RAID Fail code: 1 &lt;----&gt;</b>	The setting of the RAID Level Switch Selectors does not match the existing RAID level.	<ul style="list-style-type: none"> <li>If you intend to initialize a new RAID array, re-insert four disks and create a new RAID; or</li> <li>The LaCie Biggest S1S is shut down and the RAID Level Switch Selectors are re-set to their original RAID level</li> </ul>

#### 5.2.3.5. Overheating Error Message

LCD Display	Message	Message cleared when...
<b>Temperature!! Ambient Temperature °C &gt; 35°C</b>	The internal temperature of the LaCie Biggest S1S has reached 53°C.	<ul style="list-style-type: none"> <li>The temperature drops below 53°C</li> </ul>
<b>Over Temperature Disk Shutdown!</b>	The internal temperature of the LaCie Biggest S1S has exceeded 55°C.	<ul style="list-style-type: none"> <li>All of the disks are shutdown and the FAN module has been replaced</li> </ul>

### 5.2.4. RAID And Disk Status Messages

These messages will be displayed during one of the following processes:

#### 5.2.4.1. Power On

LCD Display	Message	Message cleared when...
LACIE Boot...	The LaCie Biggest S1S is being powered on.	<ul style="list-style-type: none"> <li>The LaCie Biggest S1S has completed its boot process</li> </ul>

#### 5.2.4.2. Disk Initialization

LCD Display	Message	Message cleared when...
LACIE Initialize Disks	The disks are spinning up.	<ul style="list-style-type: none"> <li>The LaCie Biggest S1S has completed disk initialization</li> </ul>

#### 5.2.4.3. Ready

LCD Display	Message	Message cleared when...
LACIE Ready hh:mm	The LaCie Biggest S1S has been powered on successfully.	<ul style="list-style-type: none"> <li>The LaCie Biggest S1S has completed disk initialization</li> </ul>

#### 5.2.4.4. RAID Level

LCD Display	Message	Message cleared when...
Level x xxxx GB	Displays the RAID level and capacity.	<ul style="list-style-type: none"> <li>The <b>Menu</b> button is pressed</li> </ul>

### 5.2.5. RAID And Disk Information Messages

The following messages will be displayed when there is an established RAID array and the **Menu** button is pushed. Press the **Menu** button to scroll through the messages, in the following order:

#### 5.2.5.1. Disk Information

LCD Display	Message	Message cleared when...
<b>Disk 1</b> <b>YYYYYYYY</b>	Information about the Disk in Drive Bay 1. YYYYYYYY = the Disk ID	<ul style="list-style-type: none"> <li>The <b>Menu</b> button is pressed</li> </ul>
<b>ATA mode X</b> <b>xxxx GB</b>	The ATA mode and capacity information about the Disk in Drive Bay 1.	<ul style="list-style-type: none"> <li>The <b>Menu</b> button is pressed</li> </ul>

#### 5.2.5.2. Firmware Version

LCD Display	Message	Message cleared when...
<b>Firmware</b> <b>Ver: x.xx</b>	Displays the firmware version.	<ul style="list-style-type: none"> <li>The <b>Menu</b> button is pressed</li> </ul>

#### 5.2.5.3. Fan And Temperature Information

LCD Display	Message	Message cleared when...
<b>Fan: xxxx rpm</b> <b>Temperature: xx°C</b>	Displays the fan speed and temperature in degrees Celsius.	<ul style="list-style-type: none"> <li>The <b>Menu</b> button is pressed</li> </ul>

## 6. Maintaining Your LaCie Biggest S1S

### 6.1. Removing/Replacing A Drive

In the event that an individual hard disk fails in the LaCie Biggest S1S, please contact your LaCie reseller or LaCie Customer Support. Additional, spare Drive Bays with pre-installed hard disks may also be purchased (sold separately).



**Caution!** Do **NOT** attempt to replace a hard disk yourself. Removing a hard disk from a Drive Bay will void the warranty.

### 6.2. Firmware Updates

The LaCie Biggest S1S may periodically have releases of updated firmware. Visit LaCie's Web site, [www.lacie.com](http://www.lacie.com), for the latest firmware update.

When you would like to install new firmware, download the update and install the firmware to the LaCie Biggest S1S by utilizing a host computer that has some form of third-party communication, such as HyperTerminal, that supports ANSI terminal emulation. The setup process covered in this section is based on HyperTerminal; however, other terminal programs may also be used.



**Important Info:** Array configuration and data are not affected by firmware updates.



**Tech Note:** HyperTerminal is a standard bundle with the Microsoft Windows operating system, and is located in the Communications folder. If you do not have a version installed, it may be downloaded from Hilgraeve Software, at <http://www.hilgraeve.com/htpc/>

- 1) Power off the LaCie Biggest S1S.
- 2) Connect one end of the Serial/RS-232 cable to the Serial/RS-232 port on the back of the LaCie Biggest S1S, and the other end to a Serial/RS-232 port on the host computer.
- 3) Launch HyperTerminal: **Start > Programs > Accessories > Communications > HyperTerminal.**
- 4) The **Connection Description** dialog box will appear (if this is the first time that HyperTerminal has been launched, you will be prompted to enter information about your location). Enter a name that will identify the LaCie Biggest S1S connection (e.g. Biggest), and select an icon that will represent the connection. Click **OK**.

5) The **Connect To** dialog will appear. From the **Connect using:** drop-down menu, select COM1 or COM2, depending on which Serial/RS-232 port you are using to connect the LaCie Biggest S1S.

6) The **COM Properties** dialog box will appear. Set the values to the following:

Bits per second: 19,200

Data bits: 8

Parity: None

Stop bits: 1

Flow Control: Xon/Xoff

Once the values are entered, click **OK**. The HyperTerminal connection is now established.

7) Power on the LaCie Biggest S1S and press the ESC key on the host computer's keyboard. The >>>> prompt will appear.

8) Type in the command: **download**.

9) When the **Enter '1' to Download Firmware** is prompted, type in: **1**.

10) Now, locate the updated firmware file to send. If you are using HyperTerminal, go to the **Transfer** menu and select **Send Text File....**

11) Send the firmware file as a text file. The file will start to download.

12) When the file has been downloaded, restart the LaCie Biggest S1S to finish the firmware update process. Once the LaCie Biggest S1S has finished restarting, you can view the new firmware version through the LCD Display.

## 7. Tech Tips

### 7.1. File System Formats

#### 7.1.1. Mac Users

##### Mac OS 10.x Users:

You may customize the drive by reformatting and/or partitioning the drive with separate file system formats. For optimal performance in Mac OS environments, format and partition the drive as one large Mac OS Extended volume.

##### Mac OS Extended (HFS+)

HFS+ represents an optimization of the older HFS file system by using hard disk space more efficiently. With HFS+, you are no longer limited by block size.

##### MS-DOS File System (FAT 32)

This is the Microsoft file system, more typically known as FAT 32. This is the file system to use if you are going to be using your LaCie Hard Drive between Macs and Windows operating systems.



**Important Info:** If you will be sharing the hard drive between Mac and Windows operating environments, you will want to follow these guidelines:

Mac OS X prefers that all partitions be the same format, therefore only the first FAT 32 partition is guaranteed to mount.

Mac OS 10.1.x -

- Works reliably with FAT 32 partitions less than 32GB

Mac OS 10.2.x -

- Works reliably with FAT 32 partitions less than 128GB
- Does not mount FAT 32 partitions greater than 128GB

Mac OS 10.3.x -

- Mounts any FAT 32 drive of any size
- Mounts NTFS volumes as READ-only



**Tech Note:** Mac OS 10.3.x Users - Mac OS Extended (Journaled) Under Panther, Apple introduced journaling to the Mac OS Extended file system, which helps protect the file systems on Mac OS volumes. When journaling is enabled, file system transactions are maintained and recorded continuously in a separate file, called a journal. In the event of an unplanned shutdown, the OS uses the journal to restore the file system. Journaling is also backward compatible, and all volumes with journaling enabled can be fully used by computers not running Mac OS 10.3.x. For more information, please visit Apple's Web site.

### 7.1.2. File System Formats – Windows Users

There are basically two file system formats for Windows: FAT 32 and NTFS. The following information will hopefully make choosing one or the other a little easier.

#### FAT 32

FAT is an acronym for File Allocation Table, which dates back to the beginnings of DOS programming. Originally, FAT was only 16 bits, but after the second release of Windows 95 it was upgraded to 32 bits, hence the name FAT 32. In theory, FAT 32 volume sizes can range from less than 1MB all the way to 2TB. It is the native file system of Windows 98 and Windows Me, and is supported by Windows 2000 and XP. When FAT 32 is used with Windows 2000 and XP, though, volume size is limited to 32GB (by the Windows partition utility, i.e. Disk Manager), and the individual file size is limited to 4GB.

#### NTFS

This acronym stands for New Technology Filing System, and it is the native file system for Windows NT, Windows 2000 and XP. NTFS offers several features that are not available with FAT 32; i.e. file compression, encryption, permissions, and auditing, as well as the ability to mirror drives and RAID 5 capabilities. The minimum supported volume size for NTFS is 10MB, with a maximum of 2TB, with no limit to file size. Volumes created in NTFS can only be directly accessed (not through shares) by Windows NT, Windows 2000 and XP, without resorting to help from third-party products.

#### Guidelines for Choosing FAT 32 Or NTFS

##### Use FAT 32 if:

- You want to access your data on any Operating System - FAT 32 is compatible with Windows 98 SE, Me, 2000, XP, NT, Mac OS 9.x and Mac OS 10.x (see the Important Info note in section [7.1.1. File System Formats - Mac Users](#) for more information).
- You will be dual booting with an Operating System other than Windows NT or Windows 2000.
- You may need the ability to dual boot down the line. Once you have converted a volume from FAT 32 to NTFS, there is no going back. You can convert from FAT 32 to NTFS, but not the other way around.

##### Use NTFS if:

- You want to optimize drive performance under Windows 2000 or XP.
- You want to encrypt files, assign permissions to files, or want to audit files for access.
- You will be formatting partitions larger than 32GB.
- You need to store individual files that are larger than 4GB.
- You need a filing system that can be mirrored or structured like a RAID 5 configuration.

## 7.2. Available Storage Capacity

A gigabyte (GB) means 1,000,000,000 bytes. In order to utilize a hard disk drive, it has to be formatted first. Formatting a disk consists of the following: the operating system erases all of the bookkeeping information on the disk, tests the disk to make sure that all of the sectors are reliable, marks bad sectors (i.e., those that are scratched) and creates internal address tables that it later uses to locate information. Once formatted, the actual available storage capacity varies, depending on operating environment, and is generally about 5 to 10% less than the non-formatted capacity.



**Tech Note:** Another important factor in file transfer speeds is how the drive has been formatted. For more information in choosing the correct file system format, please see section **7.1. File System Formats**.

## 8. Serial ATA Questions & Answers

### What is Serial ATA?

The Serial Advanced Technology Attachment (ATA) is the evolutionary successor to the Parallel ATA/ IDE (Integrated Drive Electronics) interface, which has been in use for the last twenty years to connect peripheral devices to the computer. The Parallel ATA standard can deliver data at a maximum of 133MB/s, while Serial ATA provides for a data throughput of 150MB/s with the initial release, and specification developers are planning increased speeds over the next several years. Serial ATA removes the performance bottleneck of the Parallel ATA specification, and follows a clearly defined road-map to greater and greater data transfer rates and feature improvements.

Deriving its name from the way that it transmits signals, in a single stream, or serially, Serial ATA operates in a point-to-point topology. This connectivity methodology delivers the entire available interface bandwidth to each device, allowing each device to operate at its maximum throughput, and provides direct communication between the device and the system at any time, reducing arbitration delays associated with shared bus topologies.

### What are the features and benefits of Serial ATA?

The Serial ATA specification provides several key advancements that will help spur widespread implementation:

- **Performance:** Serial ATA is a point-to-point topology, and does not have to share the bus, instead dedicating full bandwidth to the device. These dedicated links make creating a Serial ATA RAID array quick and relatively inexpensive to implement.
- **Easy installation and configuration:** There are no device IDs, termination or master/slave conflicts, and the standard supports hot-plug connectivity. Drives can be added, upgraded or removed without having to power down the whole system.
- **Improved reliability:** Serial ATA also uses 32-bit cyclic redundancy checking (CRC) on all transfers to ensure correct data transmissions. Due to this CRC capability, Serial ATA performs protection and recovery features at multiple levels: PHY layer, link layer and transport and software layers.
- **Simplified structure:** Serial ATA utilizes a more efficient signaling voltage (250mV vs. 5V for Parallel ATA), and much smaller, thinner and compact cables and connectors. Due to the simplified cabling (the reduction in the number of pins and wires), the number of fault possibilities decreases.

- Seamless integration: Serial ATA maintains register and software compatibility with Parallel ATA, and should be transparent to both the BIOS and operating system. Simply add more Serial ATA links to increase the number of connectivity points in your system.

#### **What are the ideal uses of Serial ATA?**

Although the specification supports all ATA and ATAPI devices (i.e. CD, DVD, tape drives, etc.), and delivers superior performance than both Hi-Speed USB 2.0 and FireWire/IEEE 1394, external Serial ATA connectors are intended for storage devices. Serial ATA works best in storage environments that require high data throughput to deliver large files quickly and efficiently, maximizing the storage systems utilization and enhancing overall productivity.

Due to its performance, reliability, scalability and cost-effectiveness, Serial ATA can be implemented in a wide-range of settings, from desktop usage to network storage applications.

## 9. Troubleshooting

In the event that your LaCie Biggest S1S is not working correctly, please refer to the following checklist to find out where the problem is coming from. If you have gone through all of the points on the checklist and your drive is still not working correctly, please have a look at the FAQs that are regularly published on our Web site – [www.lacie.com](http://www.lacie.com). One of these FAQs may provide an answer to your specific question. You can also visit the drivers pages, where the most recent software updates will be available.

If you need further assistance, please contact your LaCie reseller or LaCie Technical Support (see [11. Contacting Customer Service](#) for details).



### Tech Note: Manual Updates

LaCie is constantly striving to give you the most up-to-date, comprehensive User's Manuals available on the market. It is our goal to provide you with a friendly, easy-to-use format that will help you quickly install and utilize the many functions of your new device.

If your manual does not reflect the configurations of the product that you purchased, please check our Web site for the most current version available.

The Problem	Possible Answers
When I lock a Drive Bay into place, the Disk Activity Indicator turns red and the alarm beep sounds.	Exchange the Drive Bay with another Drive Bay and attempt to lock them in place again to see if it is a faulty Drive Bay. If the problem continues, contact your LaCie reseller or LaCie Customer Support.
The alarm beep is sounding. How do I turn it off?	Either unlock the Drive Bay of the failed disk, or press the Enter button.
The LaCie Biggest S1S does not appear in the BIOS.	Ensure that the array has completed the initialization process.
What should I do in the event of a disk failure?	<p>For a RAID 5/RAID 0+1 array, you will need to replace the disk. Data rebuilding will begin as soon as the failed disk is replaced.</p> <p>For a RAID 5 + Hot Spare array, data will be re-built automatically to the hot spare disk. You do not need to replace the failed disk immediately.</p> <p>When adding a new disk, the capacity of the new disk <i>MUST</i> equal or be greater than the smallest disk in the array. Otherwise, the LaCie Biggest S1S will reject the disk, even though it works.</p> <div data-bbox="584 906 1492 1027" style="border: 1px solid yellow; padding: 5px;">  <p><b>Caution!</b> Do not attempt to replace a hard disk yourself. You will void your warranty. Please see the disk replacement procedure: <b>6.1. Removing/Replacing A Disk.</b></p> </div>
Using the existing disks, I want to create a new RAID array.	First, power off the LaCie Biggest S1S and remove all the Drive Bays. Next, set the new RAID level with the RAID Level Switch Selectors and power the LaCie Biggest S1S back on. Gently slide and lock the Drive Bays back into place to begin the initialization process. Since you are using previously installed disks, the LaCie Biggest S1S will display a message, "Create New RAID?" Choose yes by pressing the Enter button, and the initialization will start. Note – all data on the disks will be erased during the initialization.
The LaCie Biggest S1S is not recognized by the host computer.	Ensure that the interface cable (SATA) is securely attached to both the LaCie Biggest S1S and the host computer. Check the LCD Display of the LaCie Biggest S1S for error messages.

The Problem	Possible Answers
I was creating a RAID 5 array, and a disk failed. What should I do?	Replace the failed disk with another disk of equal or greater capacity. The array will re-initialize when the failed disk is replaced and the process is restarted.
I only have two or three disks. Can I still create a RAID array?	The LaCie Biggest S1S cannot create an array from just two disks. If you only have three disks, you can only create a RAID 5 + Hot Spare array. The three disks must be installed in the bottom three Drive Bays, with the top Drive Bay (the Hot Spare location) empty.
The LCD Display reads "unmatched."	<p>The RAID Level Selector Switch is not set to the level of the existing array. In the event that the RAID level does not correspond to both the disk settings and the RAID Level Switch Selectors, the LCD will display the following two alternating messages:</p> <ol style="list-style-type: none"> <li>1) "RAID level" "Unmatched"</li> <li>2) "Current: Rx" i.e. the current RAID level settings of the installed disks "Original: Rx" i.e. the RAID level settings on the RAID Level Switch Selectors</li> </ol> <p>Example: The RAID Level Switch Selectors are positioned to indicate a RAID 0 setting, but the disks were set earlier as a RAID 5 array, the LCD will display the following two alternating messages:</p> <ol style="list-style-type: none"> <li>1) "RAID Level" "Unmatched"</li> <li>2) "Current: R5" "Original: R0"</li> </ol> <p>In this situation, the array will not function. There are two options:</p> <ol style="list-style-type: none"> <li>1) Shut down the LaCie Biggest S1S and re-position the RAID Level Switch Selectors to the previous RAID setting, in this case, RAID 5.</li> <li>2) Re-insert the four drives, and re-create the array as a RAID 0 array. If there is any data on the disks, it will be lost during the initialization.</li> </ol>

# 10. Contacting Customer Support

## Before You Contact Technical Support

1) Read the manuals and review the Troubleshooting section.

2) Try to isolate the problem. If possible, make the drive the only external device on the CPU, and make sure that all of the cables are correctly and firmly attached.

If you have asked yourself all of the pertinent questions in the troubleshooting checklist, and you still can't get your LaCie drive to work properly, contact us via the provided Web link. Before contacting us, make sure that you are in front of your computer and that you have the following information on hand:

- Your LaCie drive's serial number
- Operating system(Mac OS or Windows) and version
- Computer brand and model
- Names of CD or DVD drives installed on your computer
- Amount of memory installed
- Names of any other devices installed on your computer

## LaCie Technical Support

### **LaCie Asia, Singapore and Hong Kong**

Contact Us At:

<http://www.lacie.com/asia/contact>

### **LaCie Belgium**

Contact Us At:

<http://www.lacie.com/be/contact/>

### **LaCie Denmark**

Contact Us At:

<http://www.lacie.com/dk/contact/>

### **LaCie France**

Contact Us At:

<http://www.lacie.com/fr/contact/>

### **LaCie Italy**

Contact Us At:

<http://www.lacie.com/it/contact/>

### **LaCie Netherlands**

Contact Us At:

<http://www.lacie.com/nl/contact/>

### **LaCie Spain**

Contact Us At:

<http://www.lacie.com/es/support/request>

### **LaCie Switzerland**

Contact Us At:

<http://www.lacie.com/chfr/contact>

### **LaCie USA**

Contact Us At:

<http://www.lacie.com/contact/>

### **LaCie Australia**

Contact Us At:

<http://www.lacie.com/au/contact/>

### **LaCie Canada**

Contact Us At:

<http://www.lacie.com/caen/contact/> (English)

### **LaCie Finland**

Contact Us At:

<http://www.lacie.com/fi/contact>

### **LaCie Germany**

Contact Us At:

<http://www.lacie.com/de/contact/>

### **LaCie Japan**

Contact Us At:

<http://www.lacie.co.jp>

### **LaCie Norway**

Contact Us At:

<http://www.lacie.com/no/contact/>

### **LaCie Sweden**

Contact Us At:

<http://www.lacie.com/se/contact/>

### **LaCie United Kingdom & Ireland**

Contact Us At:

<http://www.lacie.com/uk/support/request>

### **LaCie Grand Export**

Contact Us At:

<http://www.lacie.com/intl/contact/>

## 12. Warranty

LaCie warrants your LaCie Biggest S1S and Drive Bays against any defect in material and workmanship, under normal use, for the period designated on your warranty certificate. In the event this product is found to be defective within the warranty period, LaCie will, at its option, repair or replace the defective LaCie Biggest S1S and/or Drive Bay(s).

This warranty is void if:

- The LaCie Biggest S1S was operated/stored in abnormal use or maintenance conditions;
- The LaCie Biggest S1S is repaired, modified or altered, unless such repair, modification or alteration is expressly authorized in writing by LaCie;
- The LaCie Biggest S1S was subjected to abuse, neglect, lightning strike, electrical fault, improper packaging or accident;
- The LaCie Biggest S1S was installed improperly;
- The serial number of the LaCie Biggest S1S or an individual Drive Bay is defaced or missing;
- The broken part is a replacement part such as a pickup tray, etc.
- The tamper seal on the LaCie Biggest S1S or an individual Drive Bay casing is broken.
- A hard disk from one of the Drive Bays was removed or replaced by someone other than a LaCie technician or a repair technician authorized by LaCie.

LaCie and its suppliers accept no liability for any loss of data during the use of this device, or for any of the problems caused as a result.

LaCie will not, under any circumstances, be liable for direct, special or consequential damages such as, but not limited to, damage or loss of property or equipment, loss of profits or revenues, cost of replacement goods, or expense or inconvenience caused by service interruptions.

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.

Under no circumstances will any person be entitled to any sum greater than the purchase price paid for the drive.

To obtain warranty service, call LaCie Technical Support. You will be asked to provide your LaCie product's serial number, and you may be asked to furnish proof of purchase to confirm that the drive is still under warranty.

The LaCie Biggest S1S subsystem must be securely packaged in its original box and shipped with postage prepaid. Individual Drive Bays are shipped in a separate package; please consult LaCie Customer Support or your LaCie reseller for more information on the return procedure for individual Drive Bays.



**Important Info:** Register online for free technical support: [www.lacie.com/register](http://www.lacie.com/register)