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Changes

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Canada Compliance Statement

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

Federal Communications Commission Radio Frequency Interference Statement (FCC)



WARNING: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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 when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the 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 correct the interference by one of the following measures:

- ◆ Reorient or relocate the receiving antennas.
- ◆ Increase the separation between the equipment and the receiver.
- ◆ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

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

Shielded cables and I/O cards must be used for this equipment to comply with the relevant FCC regulations.

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.



We hereby certify that this device is in compliance with both the EMC Directive (2006/95/EC) and the Low Voltage Directive (2004/108/EC) issued by the Commission of the European Community.

Compliance with these directives implies conformity to the following European Norms:

Class B EN60950, EN55022, EN50082-1, EN61000-3-2

Class I Laser product

This equipment is certified to comply with DHHS Rule 21 CFR Chapter I, subchapter J in effect as of the date of manufacture.

This equipment is classified as a Class I Laser product and no hazardous laser radiation is emitted outside the drive.



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.

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

Health, Safety & General Use Precautions

The drive you have just purchased includes a laser diode device, which classifies it as a "Laser Class I" product. This laser is not dangerous for the user under normal operating conditions. However, we strongly advise you not to place any reflective objects in the disc loading system, due to the risk of exposure to laser emissions that may be reflected by such objects. Always follow the basic precautions listed below to use your LaCie drive safely and correctly. Respecting these guidelines will help to avoid the possibility of personal injury to yourself or others, as well as to prevent damage to your device and other computer equipment. These include, but are not limited to, the following precautions.

Health & Safety Precautions

- ◆ Read this User Manual carefully, and follow the correct procedure when setting up the device.
- ◆ Do not look inside or place your hand over the open media tray. Never look directly or indirectly (with a mirror) at the laser diode, even when the device is not in operation. If you expose your eyes to the laser inside you drive, you risk damage or loss of your vision or other injury.
- ◆ Do not open your drive or attempt to disassemble or modify it. Never insert any metallic object into the drive to avoid any risk of electrical shock, fire, short-circuiting or dangerous emissions. Your drive contains no user-serviceable parts. If it appears to be malfunctioning, have it inspected by qualified LaCie service staff.
- ◆ Never expose your device to rain or use it near water or in damp or wet conditions. Never place containers on it containing liquids that 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 drive are electrically grounded. If the devices are not grounded, there is an increased risk of electrical shock.

General Use Precautions

- ◆ Do not expose the drive to temperatures outside the range of 5° C to 40° C (41° F to 104° F) during operation. Doing so may damage the drive or disfigure its casing. Avoid placing your drive near a source of heat or exposing it to sunlight (even through a window). Inversely, placing your drive in an environment that is too cold or humid may damage the unit.
- ◆ Do not block the ventilation outlets on the rear of the drive. These help to keep your drive cool during

operation. Blocking the ventilation outlets may cause damage to your drive and cause an increased risk of short-circuiting or fire.

- ◆ Always unplug the drive if there is a risk of lightning or if it will not be used for an extended period of time. Otherwise, there is an increased risk of electrical shock, short-circuiting or fire.
- ◆ Do not place heavy objects on top of the drive or use excessive force on its buttons, connectors and tray.
- ◆ Always place your drive in a horizontal position before using it. This LaCie drive has not been designed to be used in an upright position. This may result in damage to the device or data loss.
- ◆ Always remove the disc from the disc tray before transporting your drive. Otherwise, written data may be destroyed or the drive's internal components may be damaged.
- ◆ Never use excessive force on the disc loading system; discs should be inserted effortlessly into your drive. If you detect a problem, consult the Troubleshooting section and contact your after-sales department.
- ◆ Protect your drive 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 drive. Such products will disfigure and discolor the front panel and casing. Instead, use a soft, dry cloth to wipe the device.

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. LaCie offers a complete line of CD and DVD drives. If you would like more information on backup, please refer to our website.

IMPORTANT INFO: 1GB = 1,000,000,000 bytes. 1TB = 1,000,000,000,000 bytes. Once formatted, the actual available storage capacity varies depending on operating environment (typically 5-10% less).

1. Introduction

Light and compact, the LaCie Slim Blu-ray is ideal for all your disc burning needs on a desktop or a laptop.

Blu-ray, DVD, and CD



The Slim Blu-ray gives you extraordinary flexibility to burn high-end content and back up all your important files. With writable blu-ray discs (BD) reaching up to 50 GB, you can now save high definition (HD) films*, back up all your photos, and copy multiple music libraries.

To provide support for more common formats, you also have the option to burn or copy files to DVD and CD. DVD dual layer (DL) can have up to 8.5GB capacity and remain a widely used format for many users. They are compatible with most DVD players and computer DVD-ROM drives.

Always portable, the Slim Blu-ray enables you to burn HD content at work, family pictures at home, and music on the road. When the BD authoring is finished, sit back and relax with a great movie in full HD played back on the LaCie Slim Blu-ray.

*A two hour HD movie takes an average of 23.3 GB of storage.

Quick Links

Click a topic:

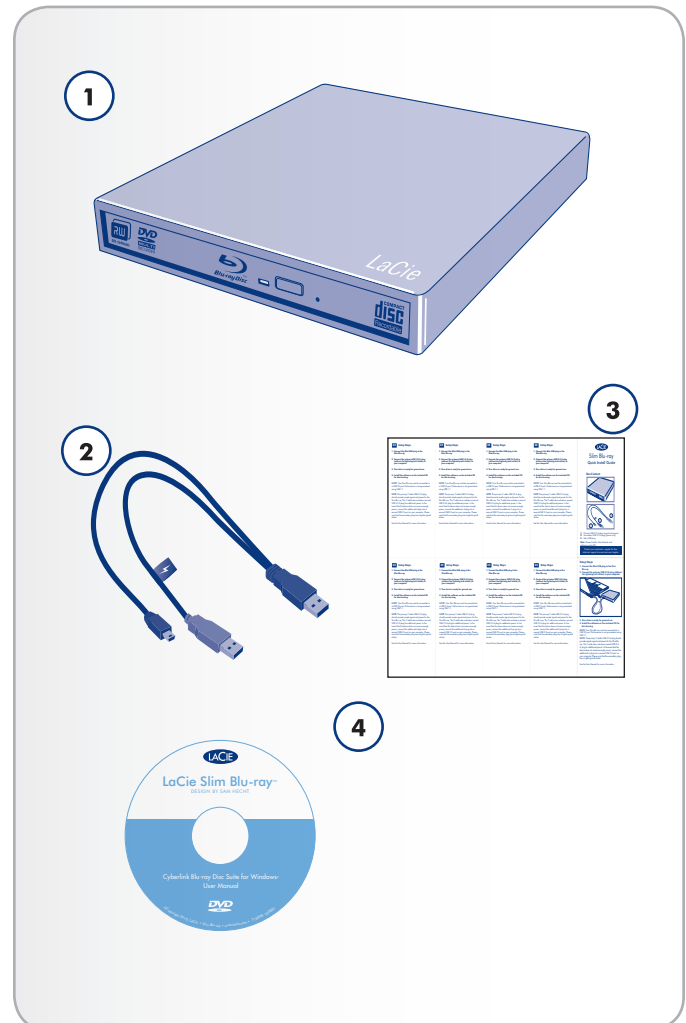
- ◆ [Connecting Your LaCie Slim Blu-ray](#)
- ◆ [Using Your LaCie Slim Blu-ray](#)
- ◆ [Troubleshooting](#)



1.1. Box Content

1. LaCie Slim Blu-ray
2. USB 2.0 Y cable - USB 2.0 mini B male to USB 2.0 A data and USB 2.0 A power (lightning bolt icon)
3. Quick Install Guide
4. LaCie Software Utilities DVD (includes the User Manual)

IMPORTANT INFO: Please save your packaging. In the event that the drive should need to be repaired or serviced, it must be returned in its original packaging.



1.2. Minimum System Requirements

1.2.1. Burning and Mastering

Operating System:

- ◆ Windows XP SP 2, Windows Vista, or Windows 7. Burning and mastering software included.
- ◆ Compatible with Mac OS 10.6 and Linux. Burning and mastering software not included.

Connectivity:

- ◆ USB 2.0-equipped computer
- ◆ Performance is not guaranteed using USB 1.1 and lower.

Graphics Cards (with the most recent drivers):

- ◆ NVIDIA GeForce (Mobile)
- ◆ NVIDIA Quadro (Mobile)
- ◆ NVIDIA Tesla
- ◆ ATI Stream

Screen Resolution:

- ◆ 1024 x 768, 16-bit color

Internet Access

- ◆ Recommended

CPU:

Content	Minimum CPU
AVI Capture/Production	Pentium 2 450MHz or AMD Athlon 500MHz
VCD Quality (MPEG-1)	Pentium 3 600MHz or AMD Athlon 700MHz
DVD Quality (MPEG-2)	Pentium 4 2.2GHz or AMD Athlon XP 2200+
High-quality MPEG-4, WMV, Quicktime, RealVideo	Pentium 4 2.4GHz or AMD Athlon XP 2400+
AVCHD & MPEG-2 HD	Pentium Core 2 Duo E6400 or AMD Athlon X2 5000+

RAM:

Content	Minimum RAM
Data and music	128MB SDRAM
Video	256MB DDRAM (512MB DDRAM highly recommended)
HD content from prosumer or professional editing software	2GB DDR2

1.2.2. Video and High Definition (HD) Playback

Operating System:

- ◆ Windows XP SP 3, Windows Vista, or Windows 7

Connectivity:

- ◆ USB 2.0-equipped computer
- ◆ Performance is not guaranteed using USB 1.1 and lower.

Hard disk space:

- ◆ 300MB for installation

Internet Access

- ◆ Recommended

CPU:

Playback	Minimum CPU
DVD	Pentium 4 2.4GHz or AMD Athlon 2800+
Blu-ray	Pentium 4 541 3.2GHz or AMD Athlon XP 64 X2 3800+
Blu-ray 3D	Core 2 Duo E6750 2.66GHz or AMD Phenom 9450 2.10GHz

RAM:

Playback	Minimum RAM
DVD	1GB SDRAM
Blu-ray and Blu-ray 3D	2GB SDRAM

Graphics Cards (with the most recent drivers):

Playback	Minimum Graphics
DVD	AGP or PCI Express graphic accelerator supporting DirectX 9.0
Blu-ray	Intel G45 graphics decoder; NVIDIA GeForce 7600GT; ATI Radeon X1600
Blu-ray 3D	Intel G45 graphics decoder; NVIDIA GeForce 8600GT; ATI Radeon HD 2400

Display:

Playback	Minimum Display
DVD and Blu-ray	Digital Output - High-Bandwidth Digital Content Protection (HDCP) compliant display. Analog output - TV or computer monitor.
Blu-ray 3D	3D display with 3D glasses. Digital Output - HDCP compliant display. Analog output - TV or computer monitor.

1.3. Views of the Drive

Front View

1. **Disc Tray** – Open the tray by pressing the load/eject button, then place a BD, DVD, or CD into the tray with the label facing up. Close the tray by pushing the load/eject button or pushing the front part of the tray. This drive has not been designed to accept media with cartridges.
2. **Drive Activity LED**
3. **Load/Eject Button** – Push this button to open the media tray.
4. **Emergency Eject Hole** – Insert a straightened paper clip (or similar object) and push to eject the tray if the load/eject button does not work. In normal operation, the eject button should always be used to unload the tray. If you must use the emergency eject hole, make sure the drive's power is turned off and wait until disc rotation has stopped.

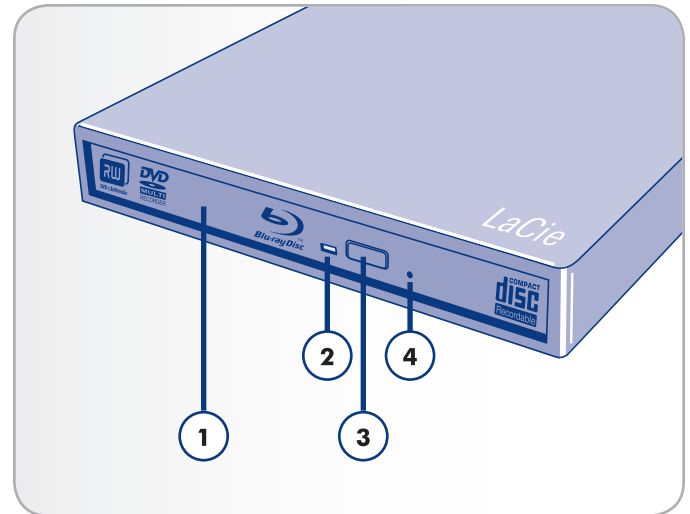


Fig. 01

Rear View

1. **Power Supply Connection** – Plug in the optional AC adapter. See section 2. [Connecting Your LaCie Slim Blu-ray](#) for more information.
2. **Hi-Speed USB 2.0 Port** – Plug in the USB 2.0 Y cable supplied with the drive. See section 2. [Connecting Your LaCie Slim Blu-ray](#) for more information.

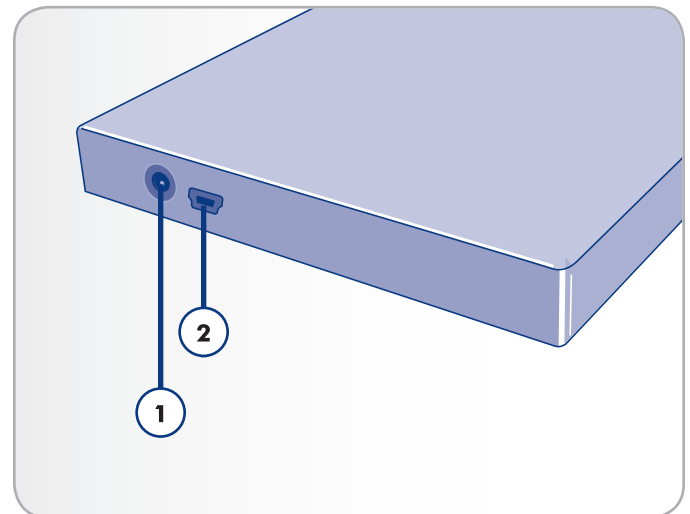


Fig. 02

IMPORTANT INFO: You may attach an optional external power supply (not included) to the power supply connector.

1.4. Cables and Connections

1.4.1. Hi-Speed USB 2.0

USB is a serial input/output technology for connecting peripheral devices to a computer or to each other. Hi-Speed USB 2.0 provides the necessary bandwidth and data transfer rates to support high speed devices such as hard drives, Blu-ray drives, and digital cameras.

USB 2.0 Y Cable

Your LaCie drive is shipped with a Hi-Speed USB 2.0 Y cable to ensure maximum data transfer performance when connected to a Hi-Speed USB 2.0 port. The Y cable has a secondary USB 2.0 B plug to provide additional power to the LaCie Slim Blu-ray.

Please see [Fig. 03 - USB 2.0 Y Cable Ends](#) to become acquainted with the USB 2.0 Y cable:

1. The primary USB 2.0 A plug that connects a device to a computer. For most computers, attaching this primary A plug will provide ample signal and power for the LaCie Slim Blu-ray. This USB 2.0 A plug carries the data signal to and from your device.
2. In the event that the device does not receive enough power via the primary USB 2.0 A plug, you may connect this secondary USB 2.0 A plug into a second USB 2.0 port on your computer. Please note the sticker with the lightning bolt to indicate that this plug is only meant for additional power and does not carry the data signal to and from your device.
3. Mini USB 2.0 plug for a device, such as the LaCie Slim Blu-ray.

USB Icons

These icons will help you easily identify the USB interfaces. They appear on USB cables and next to the USB port connectors on certain computers.

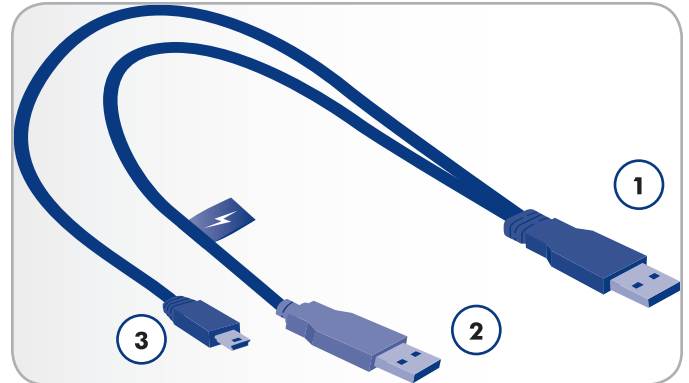


Fig. 03 - USB 2.0 Y Cable Ends



Fig. 04 - USB 2.0 logo



Fig. 05 - USB 1.0 logo

1.5. Blu-ray Technology

Blu-ray receives its name from the blue color of the laser that reads and writes BD data. Standard CD and DVD writers and players have red lasers. The blue laser is superior since it reads and writes smaller areas of information, allowing much more data to fit on a disk than red rays. Blu-ray also lasers also maintain superb HD picture quality.

The LaCie Blu-ray records onto:

- ◆ BD-R/BD-RE/DVD±R, single layer and dual layer
- ◆ DVD±RW/CD-R/CD-RW

The LaCie Blu-ray reads BD-ROM, DVD-ROM and CD-ROM.

Blu-ray Disc abbreviations

Blu-ray Disc can be shortened to “BD”:

- ◆ BD-R is one-time writable Blu-ray media
- ◆ BD-RE is rewritable.

Both BD-R and BD-RE are available as single layer or dual layer. Please note that “layer” does not indicate both sides of the BD. Data is written on one side of a disc, no matter if it is dual layer or single layer. Dual layer discs include a second physical layer to store up to twice as much data.

Blu-ray Disc video capacities

As with DVD, this depends upon video bandwidth, the number of audio tracks, and other authoring criteria. The choice of the codec has great impact on playback time as well. For example, on a single layer BD, two hours of HD Video is approximately equal to:

135 minutes of HD using MPEG2 compression plus two hours of bonus material in standard definition quality;

OR

10 hours of broadcast-quality, standard definition video.

There are many different codecs that can increase or decrease the amount of video and audio stored on a BD.

Manage Copies Across Home Networks

Watching or copying media stored on pre-recorded BD is almost always dependent upon the compatibility of playback devices. Provided that your devices support the level of copyright protection (usually HDCP), you will be able to copy a Blu-ray disc content throughout your home.

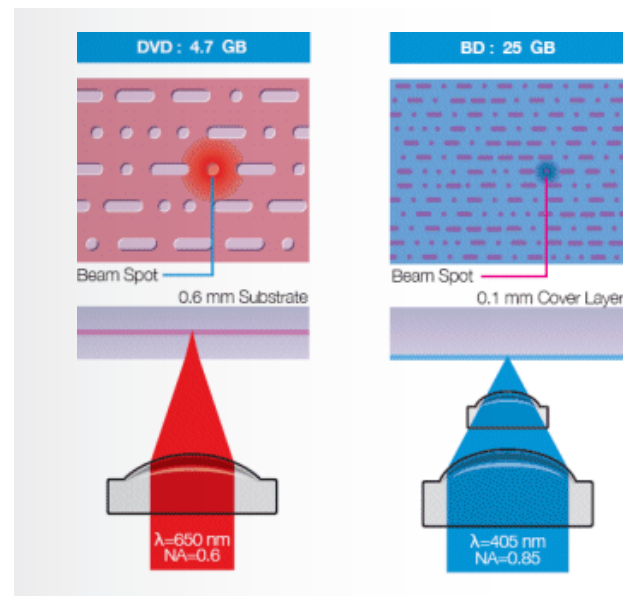


Fig. 06

Disc durability

Blu-ray discs have a more advanced coating than previous disc formats, making them much stronger and more resistant to scratches. Due to its physical durability and larger capacity, BD is a great choice for archiving.

Uses

Blu-ray discs are particularly suitable for:

- ◆ High Definition television recording
- ◆ High Definition video distribution
- ◆ High Definition camcorder archiving
- ◆ Mass data storage
- ◆ Backup of workstations (the media can even be stored in a remote location)
- ◆ Transferring large files and entire projects from one computer to another
- ◆ Database storage

1.6. Supported BD, DVD, and CD Formats

1.6.1. Maximum Read and Write Speeds

Table 01 - *BD, DVD, and CD Format Speeds* below provides the read and write speeds for formats compatible with the Slim Blu-ray. Please note that USB 2.0 transfer rates may impact device performance.

Table 01 - BD, DVD, and CD Format Speeds

Format	Type of Disc	Read Speed	Write Speed	Capacity
Blu-ray	BD-R (SL*)	6x	6x	25GB
	BD-R (DL**)	4x	4x	50GB
	BD-RE (SL* or DL**)	4x	2x	25/50GB
	BD-R LtH***	6x	6x	25GB
	BD-ROM (SL*)	6x	--	--
	BD-ROM (DL**)	4x	--	--
DVD	DVD±R (SL*)	8x	8x	4.7GB
	DVD±R (DL**)	6x	4x	8.5GB
	DVD+RW	6x	8x	4.7GB
	DVD-RW	6x	6x	4.7GB
	DVD-RAM	5x	5x	9.4GB
	DVD-ROM (SL*)	8x	--	4.7GB
	DVD-ROM (DL**)	6x	--	8.5 GB
CD	CD-R	24x	24x	700MB
	CD-RW	24x	10x	650MB
	CD-ROM	24x	--	--

*SL = Single Layer

**DL = Dual Layer

***LtH = Low to High; BD-R LtH have a recording layer made of an organic dye and are created from converted CD-R/DVD-R production lines. The process also includes recycling excess materials.

1.6.2. Blu-ray, DVD, and CD Media Format Definitions

Blu-ray Disc Recordable - BD-R (Single or dual layer)

- ◆ Recorded once.
- ◆ Cannot be accidentally erased.
- ◆ Ideal format for archiving valuable data or storing and distributing video material.

Blu-ray Disc Rewritable - BD-RE (Single or dual layer)

- ◆ Capable of rerecording or rewriting. Good quality Blu-ray discs can be overwritten approximately 10,000 times.
- ◆ Extensive editing functionality on the disc.
- ◆ Ideal format for making sequential backups or recording video for time shifting purposes.

Blu-ray Disc Read Only Memory - BD-ROM

- ◆ Contains pre-recorded data.
- ◆ Although a BD-ROM may contain any form of data, most are HD movies for playback on Blu-ray Disc players.
- ◆ BD-ROM can be read on your computer using the LaCie Slim Blu-ray drive provided you own the appropriate playback software, compatible system, graphic card, and monitor (see [1.2.2. Video and High Definition \(HD\) Playback](#)).

Blu-ray Disc Recordable Low to High - BD-R LTH

- ◆ A write-once format that supports less expensive Blu-ray discs with an organic dye recording layer.
- ◆ Many existing Blu-ray burners are compatible with this new format and no further investment in new technology is necessary.

DVD+RW Discs

- ◆ Best suited for: backing up and archiving digital content.
- ◆ These discs are functionally similar to CD-RW and DVD-RW discs, but record in the same way as DVD+R. Using Direct Overwrite (DOW) recording, this type of disc allows new data to be written directly over existing data in a single pass.

DVD-RW Discs

- ◆ Best suited for: backing up and archiving digital content.
- ◆ These discs serve the same general purpose as CD-RW media, but with 4.7GB of space versus 650MB.
- ◆ Discs can be written and erased up to 1,000 times.

DVD+R Discs

- ◆ Best suited for: recording DVD videos, storing multiple photo albums, and data storage under 4.7GB.
- ◆ Just as CD-R discs, DVD+R is write-once, but with 4.7GB of capacity versus 700MB for CD-R discs.
- ◆ DVD+R supports “lossless linking” and the combination of Constant Angular Velocity (CAV) and Constant Linear Velocity (CLV) recording.

DVD-R Discs

- ◆ Best suited for: recording DVD videos, storing multiple photo albums, and data storage under 4.7GB.
- ◆ These discs are also functionally similar to CD-R media and have the same capacity as DVD+R discs.
- ◆ There are two types of DVD-R discs: DVD-R General, which is intended for home applications, and DVD-R Authoring, which is intended for professional DVD-Video development applications.

DVD+RDL or DVD-RDL (Double Layer) Discs

- ◆ Ideal for: recording high-quality DVD videos, backing up, and archiving large data DVDs.
- ◆ These discs follow the DVD+ recording techniques, but with 8.5GB of capacity versus 4.7GB for DVD±R discs.
- ◆ Larger disk capacity makes it possible to increase the video bit rate for higher quality DVD videos.

DVD-RAM

- ◆ Best suited for camcorders and set-top boxes, as well as many other situations where rewriting data is important.
- ◆ Considered a very reliable format thanks to its built-in error control and defect management system.

CD-R Discs

- ◆ Best suited for: recording audio CDs and storing files, such as photos or important documents.
- ◆ Files can not be deleted from CD-R discs, and you cannot write over existing files on a CD-R disc.

CD-RW Discs

- ◆ Best suited for: exchanging files up to 650MB.
- ◆ Discs can be reformatted up to 1,000 times, and files can be written over.
- ◆ Most CD-ROM drives and audio CD players cannot read CD-RW discs.

1.6.3. For Best Recording Results:

- ◆ Close all other open programs and disconnect from the internet
 - ◆ Copy data to your hard drive first
 - ◆ Check media speed rating
 - ◆ Use media that is free of scratches and fingerprints
-

2. Connecting Your LaCie Slim Blu-ray

2.1. Connecting the USB 2.0 Y Cable

1. Connect the Y cable's primary Hi-Speed USB 2.0 A connector (see [1.4. Cables and Connections](#)) to an available USB 2.0 port on your computer.

IMPORTANT INFO: The Y cable has two USB 2.0 connectors: the primary A connector for signal and power and the secondary A connector for additional power, if necessary. The difference is clearly marked by a lightning bolt sticker on the secondary (power only) connector. You must connect the primary A connector in order to send and receive data. See [1.4. Cables and Connections](#).

2. Attach the other end (mini USB) of the USB 2.0 Y cable to your LaCie Slim Blu-ray. See [Fig. 07](#)
3. Your drive should now be ready for use. To verify that your drive is correctly installed and communicating with your computer, follow these steps:

- ◆ Windows Users
 - Right-click [My Computer](#) to select **Properties > General**. Your drive should be listed.
 - ◆ Mac Users
 - In the Apple menu, choose **About This Mac > More Info** to open the [Apple System Profiler](#). Your drive should be listed under [Hardware](#).
4. If your Slim Blu-ray does not appear to be receiving adequate power, attach the secondary USB 2.0 A plug (with the lightning sticker) to an available USB 2.0 port on your computer. See [Fig. 08](#).

TECHNICAL NOTE: Your drive must be connected to a USB 2.0 port. Performance is not guaranteed with USB 1.1. See section [1.4. Cables and Connections](#).

TECHNICAL NOTE: For more information on USB connections, see sections [1.4. Cables and Connections](#) and [4.7. USB Questions & Answers](#).

IMPORTANT INFO: The LaCie Slim Blu-ray includes a power supply connection (see [1.2. Minimum System Requirements](#)) that will accept an external power supply (not included).

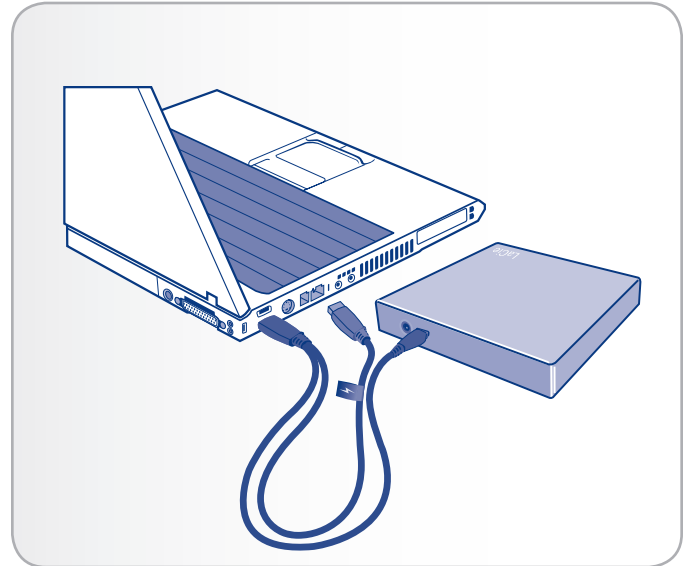


Fig. 07

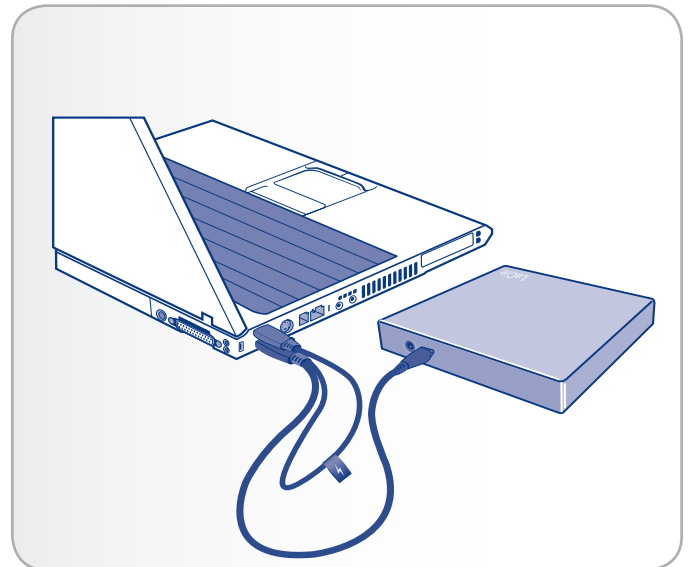


Fig. 08

2.2. Installing the BD/DVD/CD Burning Software (Windows)

The software bundled with the Slim Blu-ray is for computers running Windows XP (SP3 preferred), Windows Vista, and Windows 7 (see [1.2.1. Burning and Mastering](#) & [1.2.2. Video and High Definition \(HD\) Playback](#)).

IMPORTANT INFO: While the Slim Blu-ray is compatible with Mac OS 10.6 and Linux 2.6, LaCie cannot guaranty performance with third-party burning, authoring, and playback software.

2.2.1. Installing the Recording Software

Insert the included LaCie Software Utilities DVD into your computer's optical drive, and follow the instructions below. For more information about the various programs, please refer to the software's [Help](#) section.

1. Double-click the LaCie Software Utilities DVD icon
2. Open the Cyberlink Blu-ray Disc Suite folder.
3. Double-click the installer and follow the on-screen steps to completion.

TECHNICAL NOTE: You will be prompted for the CD key the first time you use your application. The serial number for your copies of the Cyberlink software suite are located on the back of the CD sleeve.

IMPORTANT INFO: Please check the LaCie website for software updates: <http://www.lacie.com/support/index.htm?id=10008>

2.2.2. Software Bundle

The Cyberlink Blu-ray Disc Suite is included with your LaCie Slim Blu-ray. The software bundle includes the following:

PowerDVD 9

- ◆ HD playback
- ◆ Blu-ray 3D support
- ◆ HD Home Theater Audio

Power2Go 6.1

- ◆ Drag-and-drop burning
- ◆ Burn any disc, any file
- ◆ Secure data back-up (128-bit encryption)
- ◆ Quick search

PowerDirector 8 HE

- ◆ Video enhancement technology
- ◆ Easy-to-use video authoring (BD, DVD, CD)
- ◆ Customizable photo sideshows
- ◆ Show and share your videos

PhotoNow 1.1

- ◆ Easy-to-use image editing
- ◆ Drag-and-drop
- ◆ Special photo effects, image resizing, and many other photo editing features

PowerStarter 7.0

- ◆ One unique interface for all Cyberlink software
- ◆ Shortcuts to basic functions

Supported languages for the Cyberlink Blu-ray Disc Suite:

- ◆ Chinese simplified
 - ◆ Chinese traditional
 - ◆ English
 - ◆ French
 - ◆ German
 - ◆ Italian
 - ◆ Japanese
 - ◆ Korean
 - ◆ Spanish
-

3. Using Your LaCie Slim Blu-ray

3.1. Inserting Discs

Please keep in mind:

- ◆ The power must be on in order to open the drive.
- ◆ The drive must be on a flat surface to work correctly.
- ◆ Do not attempt to force the door open as it may damage the drive.

To insert a disc:

1. Push the [Open/Close](#) button on your LaCie Slim Blu-ray.
2. When the disc tray opens, put the BD, DVD, or CD into the tray.
 - ◆ The label side must be facing up.
 - ◆ Make sure the disc is correctly placed in the center of the disc tray.
3. Push the [Open/Close](#) button to close it ([Fig. 09](#)).

To close the disc tray:

Press the [Open/Close](#) button ([Fig. 09](#)). LaCie highly recommends pushing the [Open/Close](#) button to close the media tray.

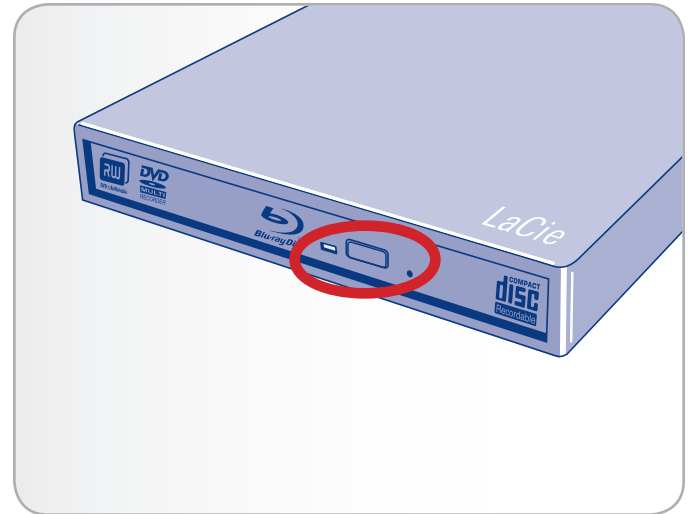


Fig. 09

3.2. Accessing Discs

The BD, DVD, or CD volume will appear in [My Computer](#) (Windows XP users) or [Computer](#) (Windows Vista and Windows 7 users). Click on the icon to access the contents of the disc.

CAUTION: Do not force the disc tray open or closed, as you will damage the drive. Also always remove discs before transporting the drive, and never move the drive while it is in operation.

IMPORTANT INFO: This drive is not compatible with cartridges.

3.3. Ejecting Discs

1. Press the [Open/Close](#) button on the front of the drive.
2. Remove the disc.
3. Push the [Open/Close](#) button on the drive to close the disc tray.

CAUTION: Do not attempt to open the drive's disc tray or remove the disc while the unit is in use and being accessed by the computer. You may injure yourself, damage the drive, and disrupt your computer operating system. Do not transport the drive with the disc tray open or with a BD, DVD, or CD disc inside. Doing so may damage the drive and/or data stored on the disc, and will void your warranty.

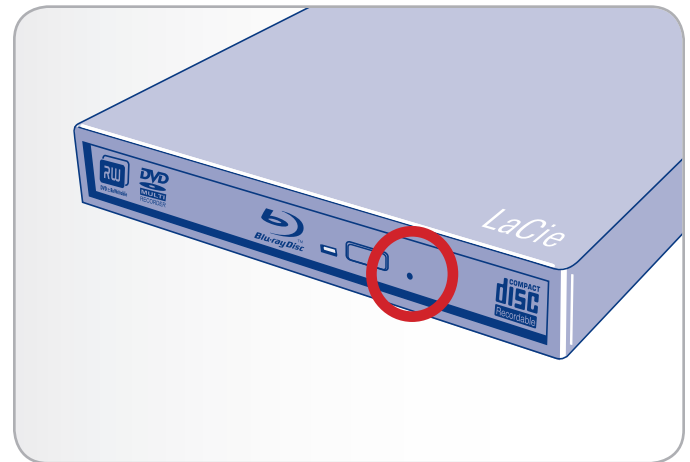


Fig. 10

3.4. Emergency Disc Ejection

Use this method only if the [Open/Close](#) button is not working.

In the event that a BD, DVD, or CD cannot be ejected with the [Open/Close](#) button and software is not controlling the drive, use the emergency eject operation to open the disc tray.

1. Make sure the drive is off and the power (if applicable) unplugged before attempting the emergency ejection procedure.
 2. Switch off the drive and unplug the interface cable.
 3. Insert a small metal poker, such as an unbent paper clip, into the emergency eject hole (see [Fig. 10](#)). Lightly push the small metal poker until it gently presses against the manual eject mechanism. You will feel the mechanism eject the disc tray.
-

4. Helpful Technical Information

4.1. Cyberlink Software Assistance

All supported operating systems (see [1.2. Minimum System Requirements](#)) include basic BD, DVD, and CD reading and writing functions. However, if you require more features for your disc writing, LaCie recommends using the include Cyberlink Blu-ray Disc Suite. If you have questions about your Cyberlink software, go to www.cyberlink.com.

IMPORTANT INFO: LaCie cannot guarantee that third-party software will work with the LaCie Slim Blu-ray.

4.2. File System Formats

When writing BD-R/RE, DVD±R/RW, and CD-R/RW discs, you will have the option to assign the disc a particular file format. The file format is the way in which a computer names and organizes files for storage and to manage data exchange.

LaCie recommends one of four primary file system formats when using the Slim Blu-ray:

- ◆ Universal Disk Format (UDF)
- ◆ ISO 9660
- ◆ Mac OS Extended (also known as HFS+)
- ◆ Hybrid discs (Mac & PC)

UDF – This specification, developed by Optical Storage Technologies Association, is the predominant file system that allows compatibility across various Blu-ray, DVD and CD applications, hardware platforms, and computer operating systems.

ISO 9660 – This is the standard file system which allows media to be read on a Mac, PC, or other major computer platform. Published by the International Organization of Standardization, this standard defines a file system for DVD-ROM and CDs. It supports Microsoft Windows, Mac OS, and operating systems that follow the Unix specification, but doesn't support custom features of Mac file systems such as long file names or icon options. Microsoft created an extension to the format, called Joliet, which allows for Unicode file character names and file names up to 64 characters in length (twice as many as the ISO 9660 Level 2 and 3 specifications).

Mac OS Extended – Also known as HFS+, this is the file system used by Macintosh. This is the preferred file format if you will be using your disc only with the Mac OS. Please note that LaCie cannot guarantee performance when using the Slim Blu-ray with the Mac OS.

Hybrid discs (Mac & PC) – Mac users can also choose to create hybrid discs which contain two partitions: one to be viewed by Mac users, one by Windows users. Certain software, such as Toast Titanium, offers this file system for formatting your disc.

4.3. Acronyms

BD	Blu-ray Disc
BDMV	Blu-ray Disc Video
BD-R	Blu-ray Disc Recordable Media
BD-ROM	Blu-ray Disc Read Only Media
BD-R LTH	Blu-ray Disc Low-to-High
CPS	Content Protection System
MPEG	Moving Picture Experts Group
BDAV	Blu-ray Disc, Audio Visual
BD-CPS	Content Protection System for Blu-ray Disc
BD-RE	Blu-ray Disc Rewritable Media
CCI	Copy Control Information
ECC	Error Correction Code

4.4. Blu-ray Writing Methods

Disc at Once (DAO) – The entire DVD is recorded in one session, and data cannot be added after the recording is finished. This differs somewhat from the CD-R DAO method because the lead-in area, data area, and lead-out area are all written sequentially.

Session at Once (SAO) – A writing process which is similar to DAO, where all of the information is written in one session, but SAO allows for the ability to begin another session and record at a later time. This mode allows for greater control of the recording process than Packet Writing (PW) or TAO. Additionally, more disc space can be utilized because there is no need for gaps between tracks.

Incremental Recording (IR) – A writing process that is similar to the Session at Once (SAO) CDR writing method. Files may be added directly to the DVD-R disc one recording at a time, instead of recording the files to a hard drive before writing the disc. The minimum recorded size, though, must be at least 32KB, even if the file to be recorded is smaller. Capacities and write speeds are decreased due to the overhead of combined lead-in/out areas and data. Also, the disc must be finalized before it may be played back by a drive other than the drive recording the disc.

Multi-Border Recording (MBR) – A writing process that is very similar to IR. MBR allows you to make an IR disc and then play the disc back on an IR-compatible device without finalizing the recording. MBR creates a very short boundary zone around a recording session so a compatible player or DVD-ROM drive does not attempt to play beyond the border of the recorded area. Instead the unfinished disc is read by a player that supports IR.

Restricted Overwriting (RO) – If a disc has already been written to, new data segments can be randomly inserted anywhere within the recorded boundary. New data, however, can only be added to an area of the disc that has already been recorded over and from the point where the last session was stopped.

Packet Writing (PW) – A drag-and-drop writing process that is very useful for data backup. Buffer underrun* is impossible in this mode, because the data is written in “packets” of a few KBs. Packet Writing is a CPU-intensive process because it constantly checks the available space on the disc.

Table 02 - Disc Writing Methods

	DAO	SAO	IR	MBR	RO	PW
CD	X	X				X
DVD	X		X	X	X	
BD-R				X		X
BD-RE		X				X

* Buffer Underrun – The recording of a disc is a system-intensive application, and the rewritable drive needs a constant stream of data. A buffer underrun occurs when the stream of data to the rewritable drive is not fast enough to keep the rewritable drive’s buffer full, causing an error in the recording process. If this problem occurs often, turn down the recording speed.

4.5. About BD/DVD/CD Available Capacity

There are important factors to consider when recording video, audio, or data to BD, DVD and CD. The disc media specification provides for two physical sizes: 4.7" (12cm) and 3.1" (8cm) (both are .47" (1.2cm) thick). Discs are single-sided and can have one (SL) or two (DL) layers of data.

The amount of data a disc can hold is dependent upon many factors. Two primary considerations are the type and the degree of compression used for data, video, and/or audio. For example, a double-layer BD-R will store just over four hours of HD video using MPEG2, but it is possible to store up to 20 hours of broadcast quality standard definition video.

When media companies reference the amount of data that a disc can hold, they represent the total amount in terms of gigabytes (GB), or a billion bytes (1000 x 1000 x 1000 bytes). This number, though, is not the way in which a computer addresses the data; to a computer the value is binary and larger than a billion bytes – 1,073,741,824 (1024 x 1024 x 1024 bytes).

4.6. About compression standards

Most Blu-ray video and all DVD video are compressed using MPEG2 codec. The acronym MPEG stands for Moving Picture Experts Group, which worked to generate compression specifications under ISO. What is commonly referred to as "MPEG video" actually consists of three common media standards, MPEG1, MPEG2, and MPEG4.

HD, with full-motion video and multi-channel sound (multi-lingual soundtracks, surround sound, etc.), is a data-hungry application. MPEG2 compression allows you to fit a full-length feature film in HD, plus bonus material, on just one disc. MPEG4 AVC (H.264) and VC-1 are two other HD video compression standards that match MPEG2 quality while using half the data rate.

An example of HD bit rates:

- ◆ MPEG2 = 21Mb/s
- ◆ MPEG4 (H.264) = 8Mb/s
- ◆ VC-1(WMV9) = 8 Mb/s

4.7. USB Questions & Answers

What Are the Benefits of the USB Interfaces?

- ◆ Cross-platform: All recent Macs and PCs include USB 2.0 ports.
- ◆ "Hot Swappable": No need to shut down or restart your computer when adding or removing a USB device. Plug it in and its ready.
- ◆ Automatic configuration: Once your device is connected, your computer recognizes the device and configures the software (Windows XP, Windows Vista, and Windows 7).
- ◆ Daisy-Chaining: USB 2.0 ports on your computer support up to 127 peripherals using hubs.
- ◆ Easy Installation: One standardized port and plug combination makes it simple to connect.

Will Hi-Speed USB 2.0 Devices Work on USB 1.1 Hubs and Vice Versa?

Many Hi-Speed USB 2.0 devices work with USB 1.1 hubs, but the peripherals will be limited to USB 1.1 performance levels. Please note that LaCie cannot guaranty performance when using the Slim Blu-ray with USB 1.1 and lower.

For more information about the USB interface, please visit the LaCie website:

www.lacie.com/technologies

4.8. Data Transfers

Data transfers are the flow of data that accomplishes a task, usually related to moving data from storage to computer RAM or between storage devices. During data transfers, it is best to wait before launching other applications on the same USB port. Anomalies may arise with USB controllers that do not conform to OHCI (Open Host Controller Interface) standards. LaCie cannot ensure proper operation when using interface controllers that are not OHCI compliant. If you encounter a problem with an unsupported peripheral connectors, such as a time lag (“hanging”), proceed as follows:

1. Make sure that the USB cable is connected tightly and securely on both ends of the cable, from the drive to the computer. If you are using a USB cable other than the one supplied with your LaCie drive, check that it is Hi-Speed USB 2.0 certified.
2. Check that the power supply and ground connection are seated properly.
3. Disconnect your computer’s USB cable. Wait 30 seconds. Reconnect.

TECHNICAL NOTE: *Controller - This is a component or an electronic card (referred to in this case as a “controller card”) that enables a computer to communicate with or manage certain peripherals. An external controller is an expansion card which fills one of the free slots (i.e. PCI or PCMCIA) inside your PC and which enables a peripheral (i.e. DVD/RW drive, hard drive, scanner, or printer) to be connected to the computer. If your computer is not equipped with a USB controller card, you can purchase an external controller through LaCie. Contact your LaCie reseller or LaCie Technical Support (section 6. [Contacting Customer Support](#)) for more information.

5. Troubleshooting

In the event that your LaCie Slim Blu-ray is not working correctly, please refer to the following checklist to determine the source of the problem. If you have gone through all of the points on the checklist and your drive is still not working correctly, please check the FAQs that are regularly published on our Web site, www.lacie.com. One of these FAQs may provide an answer to your specific question. You can also visit the downloads page, where the most recent software updates will be available.

If you need further assistance, please contact your LaCie reseller or LaCie Technical Support (see section 6. *Contacting Customer Support* for details).

Manual Updates

LaCie strives to give you the most up-to-date, comprehensive user 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 user manual does not reflect the configuration of the product you purchased, please check our website for the most current version of the user manual.

www.lacie.com

5.1. The LaCie Slim Blu-ray and Mac OS 10.6

The Slim Blu-ray is compatible with Mac OS 10.6 but LaCie cannot guaranty performance when using it with your Mac computer. Additionally, LaCie cannot guaranty that the Slim Blu-ray will burn, author, or copy any type of data when using it with any third-party software on a Mac computer.

5.2. Self-Help

Problem	Question	Solution
The drive is not recognized.	Is the drive's power on?	Check to see that all of the power cords are properly connected and that the switch on the rear of the drive is turned on. If you are using a surge protector, make sure that it is switched on, too.
	Does an icon for the drive appear on the computer (a disc must be inserted in the drive)?	PC: Check for an icon on our My Computer folder (a disc has to be inserted in the drive) . Mac: The icon should appear on your desktop. If not, verify that the drive is recognized by the computer in your System Profiler (from the Finder, click on the Apple and select About this Mac/More info).
	Are all of the cables connected securely and correctly?	Make sure that all the steps in 2. Connecting Your LaCie d2 Blu-ray Drive have been followed correctly. Examine the connections carefully to ensure that all the cables are inserted in the correct orientation and in the correct location.
	Are both ends of the FireWire or USB cable connected and properly seated?	Check both ends of the FireWire and USB cable. Disconnect them, wait 10 seconds, and reconnect them. If the drive is still not recognized, restart your computer and try again.
	Are the FireWire or USB drivers installed correctly and enabled?	To check drivers, right click your My Computer folder, select the Hardware tab, and click on Device Manager . If your device is not listed, recheck the cables and try the other troubleshooting solutions listed here. If you cannot see the device, recheck the cables and try the other troubleshooting solutions listed here.

Problem	Question	Solution
The drive is not recognized.	Is there a conflict with other device drivers or extensions?	Consult LaCie Technical Support. See 6. Contacting Customer Support for more details.
	Try using the eject function of the software program that you are using.	
	Check if the drive is seen by the computer.	<p>PC: Right-click My Computer and select Properties. Select the Hardware tab and then Peripheral Manager (may be listed under “Games & Audio Devices”). If your drive isn’t listed, recheck the cables and try the other troubleshooting tips listed here.</p> <p>If you see a yellow exclamation mark in the Peripheral Manager, then the drivers may have been installed incorrectly. To fix this problem, follow these steps:</p> <ol style="list-style-type: none"> Insert the LaCie Utilities DVD-ROM into your computer’s disc drive. In the Peripherals Manager, choose the Drivers tab and select Update. From the Welcome screen, choose Manual Update and then location: DVD-ROM. <p>Mac: Click on the Apple icon in the finder bar and select About this Mac. Select More Info... The Apple System Profiler will launch and will list your internal and external peripherals.</p>
The drive’s media tray will not open.	Has a running software program locked the eject function?	<p>To check, disconnect the USB or FireWire cable, then reconnect and press the Open/Close button.</p> <p>If the disc will still not eject, go to 3.4. Emergency Disc Ejection for more instructions on how to eject your media.</p>
The drive automatically ejects a disc when you try to record on it, or the drive is not writing to BD/DVD/CD correctly.	Is the disc already full?	<p>PC: Verify the contents of the disc by using your recording software or viewing its contents at File > Get Info. If you’ve checked and it still won’t record, try recording on a new blank disc.</p> <p>Mac: Select the disc icon and press Cmd+I.</p>
	Does the drive support the format of the disc you have inserted?	Check 1.6. Supported Blu-ray/DVD/CD Formats for the disc formats supported by your drive.
	Do I need a new (HD) TV to play Blu-ray Disc?	No. Pre-recorded Blu-ray Disc titles will play on any standard definition TV set, even if the video was encoded in High Definition. Likewise, a Blu-ray Disc recorder can also record standard definition video, for example from regular TV broadcasts or camcorders.

6. Contacting Customer Support

Before You Contact Technical Support

1. Read the User Manual and review section 5. *Troubleshooting*.
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 securely 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 at www.lacie.com. Before contacting us, make sure that you are in front of your computer and that you have the following information on hand:

Information	Where to Find Information
LaCie Slim Blu-ray serial number	Located on a sticker at the back of drive or on the original packaging
Macintosh/PC model	Mac users: Click on the Apple icon in the menu bar and select About This Mac . Windows users: Right click My Computer and select Properties > General .
Operating system version	
Processor speed	
Computer memory	
The brands and models of other internal and external peripherals installed on your computer	Mac users: Click on the Apple icon in the finder bar and select About This Mac . Select More Info... The Apple System Profiler will launch and will list your internal and external peripherals. Windows users: Right click My Computer and select Properties > Hardware .

6.1. LaCie Technical Support Contacts

LaCie Asia http://www.lacie.com/cn/contact/	LaCie Australia http://www.lacie.com/au/contact/
LaCie Belgium http://www.lacie.com/be/contact/ (Dutch) http://www.lacie.com/befr/contact/ (French)	LaCie Brazil http://www.lacie.com/us/contact/
LaCie Canada http://www.lacie.com/ca/contact/ (English) http://www.lacie.com/cafr/contact/ (French)	LaCie Denmark http://www.lacie.com/dk/contact/
LaCie Finland http://www.lacie.com/fi/contact/	LaCie France http://www.lacie.com/fr/contact/
LaCie Germany http://www.lacie.com/de/contact/	LaCie Ireland http://www.lacie.com/ie/contact/
LaCie Italy http://www.lacie.com/it/contact/	Japan – Elecom CO., LTD. http://www.lacie.jp/
LaCie Korea http://www.lacie.com/kr/contact/	LaCie Latin America http://www.lacie.com/la/contact/
LaCie Netherlands http://www.lacie.com/nl/contact/	LaCie Norway http://www.lacie.com/no/contact/
LaCie Portugal http://www.lacie.com/pt/contact/	LaCie Singapore http://www.lacie.com/asia/contact/
LaCie Southeast Asia http://www.lacie.com/sea/contact/	LaCie Spain http://www.lacie.com/es/contact/
LaCie Sweden http://www.lacie.com/se/contact/	LaCie Switzerland http://www.lacie.com/ch/contact/ (German) http://www.lacie.com/chfr/contact/ (French) http://www.lacie.com/chit/contact/ (Italian)
LaCie UK http://www.lacie.com/uk/contact/	LaCie USA http://www.lacie.com/us/contact/ (English) http://www.lacie.com/uses/contact/ (Spanish)
LaCie Grand Export http://www.lacie.com/intl/contact/	

7. Warranty Information

LaCie warrants your drive 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 drive.

This warranty is void if:

- ◆ The drive was operated/stored in abnormal use or maintenance conditions;
- ◆ The drive is repaired, modified or altered, unless such repair, modification or alteration is expressly authorized in writing by LaCie;
- ◆ The drive was subjected to abuse, neglect, lightning strike, electrical fault, improper packaging or accident;
- ◆ The drive was installed improperly;
- ◆ The serial number of the drive is defaced or missing;
- ◆ The broken part is a replacement part such as a pickup tray, etc.
- ◆ The tamper seal on the drive casing is broken.

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. As a precaution, it is recommended that the all BD, DVD, and CD media be tested after they have been written to. Under no circumstances do LaCie or its suppliers guarantee the reliability of the BD, DVD, or CD media used in this drive.

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 may be asked to furnish proof of purchase to confirm that the drive is still under warranty.

All drives returned to LaCie must be securely packaged in their original box and shipped with postage prepaid.

IMPORTANT INFO: Register online for free technical support: www.lacie.com/register

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, 458 Gardeners Road Alexandria, NSW 2015 AUSTRALIA.

Phone: 02 8063 3711

Email: info.au@lacie.com

For fast technical support, create a support ticket after registering your product at <http://www.lacie.com/au/register>.