

# **D2 BLU-RAY XL USER MANUAL**



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# **INTRODUCTION**

Welcome to the User Manual for the LaCie d2 Blu-ray XL. The d2 Blu-ray XL is ideal for recording and playing large format HD video. A standard two-hour HD video (AVCHD) requires a minimum of 23.7GB, exceeding the limits of conventional optical disks. With support for BD XL discs up to 128GB, the d2 Blu-ray XL is a great solution for professionals and enthusiasts who wish to record their high-end projects and archive data.



This manual will guide you through the process of connecting your LaCie product and explain its features. If you have questions, please consult the <u>Getting Help</u> page.

#### **BOX CONTENT**

Your box contains the following:

- LaCie d2 Blu-ray XL
- USB 2.0 cable
- FireWire 400 cable (6-pin to 6-pin)
- FireWire 400 to 800 (6-pin to 9-pin)
- Power supply
- LaCie Software Utilities DVD-ROM (with the User Manual)
- Quick Install Guide (printed on the accessory box)

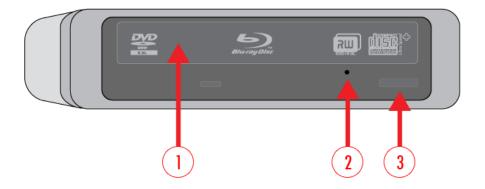
**Important info:** Please save your packaging. In the event that the optical drive should need to be repaired or serviced, it must be returned in its original packaging.

# MINIMUM SYSTEM REQUIREMENTS

Your system must meet certain requirements in order for your LaCie product to function properly. For a list of these requirements, please refer to the product packaging or consult the product support web page at <a href="https://www.lacie.com/support/">www.lacie.com/support/</a>.

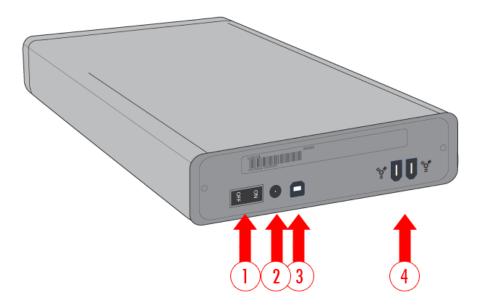
# VIEWS OF THE DRIVE

# Front View



- 1. Media Tray
- 2. Emergency Eject Hole
- 3. Load/Eject Button

# **Rear View**



- 1. On/Off Switch
- 2. Power supply connection
- 3. USB 2.0 port
- 4. FireWire 400 ports

# **CABLES AND CONNECTORS**

## **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 is the second-to-latest implementation of this standard, and it provides the necessary bandwidth and data transfer rates to support high speed devices such as hard drives, CD/DVD drives and digital cameras.

Your LaCie product is shipped with a Hi-Speed USB 2.0 cable to ensure maximum data transfer performance when connected to a Hi-Speed USB 2.0 port. The cable will also work when connected to a USB 1.1 port, but performance will be limited to USB 1.1 transfer rates.

| Connector Face (to computer) | Cable End<br>(to computer) | Cable End<br>(to product) | Connector Face (to product) |
|------------------------------|----------------------------|---------------------------|-----------------------------|
|                              |                            |                           |                             |

## FIREWIRE 400

FireWire 400, also known as IEEE 1394, is specifically aimed at multimedia peripherals such as digital video camcorders, CD-RW drives, DVD drives and hard drives.

FireWire is also a point-to-point interface, meaning that a FireWire device can transmit data to another FireWire device without having to go through a computer. This lets several computers share a given device, and also allows up to 63 devices to be daisy-chained to the same FireWire bus (with a max of 16 devices on one branch).

| Connector Face (to computer) | Cable End<br>(to computer) | Cable End<br>(to product) | Connector Face (to product) |  |
|------------------------------|----------------------------|---------------------------|-----------------------------|--|
|                              |                            |                           |                             |  |

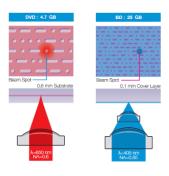
## FIREWIRE 400 TO 800 ADAPTER CABLE

FireWire 800 is backwards compatible with FireWire 400, so if you have this adapter cable, you can connect your LaCie FireWire 400 product to a FireWire 800 port on your computer. In this case, file transfers will be limited to FireWire 400 speeds. If your product does not include an adapter cable in the package, you can purchase one from <a href="https://www.lacie.com/accessories/">www.lacie.com/accessories/</a>.

| Connector Face (to computer) | Cable End<br>(to computer) | Cable End<br>(to product) | Connector Face (to product) |
|------------------------------|----------------------------|---------------------------|-----------------------------|
| E                            |                            |                           |                             |

# **BLU-RAY TECHNOLOGY**

The blue laser in a Blu-ray optical drive reads from and writes to smaller areas of information. Such precision allows for more data to fit on a Blu-ray disc than conventional CD/DVD discs. As the illustration below demonstrates, the red laser in CD/DVD optical drives locates data in wider swaths, thus making it impossible to read as much information on a single disc.



## POPULAR ACRONYMS

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

## **Disc Layers**

Layers are added to a BD to accommodate additional storage capacity. All layers are on one side of a disc.

- BD-R and BD-RE: Single layer (25GB) or dual layer (50GB)
- BD-R XL: Triple layer (100GB) and quadruple layer (128GB)
- BD-RE XL: Triple layer (100GB)

#### Uses

The impressive capacity of Blu-ray discs can be used for:

- HD television recording
- HD video distribution
- HD camcorder archiving
- Mass data storage
- Computer backups (ideal when businesses wish to keep data in a remote location)
- Transferring large files and entire projects from one computer to another
- Database storage

## **Recording Video**

The amount of video that can be recorded to a BD depends upon authoring criteria such as the video bandwidth, the number of audio tracks, and the codec.

For example, using MPEG-2 as the codec, a single layer disc can hold 135 minutes of HD video plus two hours of bonus material in standard definition. Alternatively, the same disc can store up to 10 hours of broadcast quality, standard definition video.

Due to the continued development of new and existing codecs as well as BDs, the total amount of video that can be stored on a single disc will vary.

#### COPYING FROM A PROTECTED BI U-RAY DISC

Pre-recorded Blu-ray discs use a strong copy protection scheme that requires playback on compatible devices. Further, copying from a protected Blu-ray device cannot be guaranteed. A protected Blu-ray can effect the replicator level of the disc, making it difficult to retrieve data and complete the copy process.

#### DISC DURABILITY FOR ARCHIVING

Blu-ray discs are a great solution for archiving data due to their hard coatings. With stronger resistance to scratches and fingerprints than other disc formats, BDs offer post-production facilities, libraries, and businesses a high level of reliability when archiving data.

## **OPTICAL DISCS**

#### OPTICAL DISC MEDIA FORMATS

The LaCie d2 Blu-ray XL allows you to create, save, and share your digital files on most current and legacy optical discs. Recording performance is based upon the disc type, format, and speed rating as well as its physical condition (i.e. scratches on the surface, dust, etc.).

#### BD-R (Single or dual layer) / BD-R XL (Triple or quadruple layer)

*Blu-ray Disc Recordable*. Record data once and it will never be erased. This is the ideal format for archiving valuable data or storing and distributing video material.

#### **BD-RE** (Single or dual layer) / **BD-RE** XL (Triple or quadruple layer)

*Blu-ray Disc Rewritable*. Record over data or video that you do not wish to keep. Good quality Blu-ray discs can be overwritten approximately 10,000 times. Additionally, you have extensive editing functionality to this type of disc. This is the ideal format for making sequential backups and recording video for time shifting purposes.

#### **BD-ROM**

Blu-ray Disc Read Only Memory. A BD-ROM disc contains pre-recorded data. Although a BD-ROM may store any form of data, most feature HD movies for playback on Blu-ray Disc players. A BD-ROM can be played back on your computer using the LaCie d2 Blu-ray XL provided that you have:

- The required playback software
- A compatible computer
- A compatible graphics card
- A compatible monitor

#### **BD-R LTH**

Blu-ray Disc Recordable Low to High. Similar to standard BD-R, this is a record once disc. Though it is a less expensive Blu-ray format, BD-R LTH is compatible with most Blu-ray drives.

#### DVD-R / DVD-R DL

Digital Versatile Disc Recordable - 4.7GB / Digital Versatile Disc Recordable Dual Layer - 8.5GB. Record data once and it will never be erased. There are two forms of DVD-R:

- General Media. Good for the home user due to its lower cost and availability.
- Authoring. Precision recording and compatibility with high-end authoring programs offer support for professional DVD-Video production.

#### DVD+R / DVD+R DL

Digital Versatile Disc Recordable - 4.7GB / Digital Versatile Disc Recordable Dual Layer - 8.5GB. Record data once and it will never be erased. Potentially more efficient than DVD-R due to support for "lossless linking", a technology that optimizes storage capacity by minimizing the empty data spaces on a disc.

#### **DVD-RW**

Digital Versatile Disc Rewritable. Discs can be written, re-written, and erased up to 1,000 times. The Direct Overwrite (DOW) system available on this disc allows you to write directly over existing data in a single pass.

#### DVD+RW

Digital Versatile Disc Rewritable. Discs can be written, re-written, and erased up to 1,000 times. The Direct Overwrite (DOW) system available on this disc allows you to write directly over existing data in a single pass. Potentially more efficient than DVD-RW due to support for "lossless linking", a technology that minimizes the empty data spaces on a disc.

#### CD-R

Compact Disc Recordable. Record data once and it will never be erased.

#### **CD-RW**

Compact Disc Rewritable. Discs can be written, re-written, and erased multiple times.

## D2 BLU-RAY XL SUPPORTED BD/DVD/CD FORMATS

| Disc                         | Write | Read | Write Speed | Read Speed | Capacity |
|------------------------------|-------|------|-------------|------------|----------|
| BD-R XL TL (Triple layer)    | X     | Χ    | 6x          | 4x         | 100GB    |
| BD-R XL QL (Quadruple layer) | X     | X    | 6x          | 4x         | 128GB    |
| BD-RE XL TL (Triple layer)   | Χ     | Χ    | 2x          | 2x         | 100GB    |
| BD-R                         | X     | Χ    | 12x         | 10x        | 25GB     |
| BD-R DL (Dual layer)         | Χ     | Χ    | 12x         | 8x         | 50GB     |
| BD-R LTH                     | Χ     | Χ    | 6x          | 6x         | 25GB     |
| BD-RE                        | Χ     | Χ    | 2x          | 10x        | 25GB     |
| BD-RE DL (Dual layer)        | Χ     | Χ    | 2x          | 6x         | 50GB     |
| BD-ROM                       | -     | Χ    | -           | 10x        | 25GB     |
| BD-ROM DL (Dual layer)       | -     | Χ    | -           | 8x         | 50GB     |
| DVD-R                        | Χ     | Χ    | 16x         | 16x        | 4.7GB    |
| DVD-R DL (Dual layer)        | Χ     | Χ    | 8x          | 12x        | 8.5GB    |
| DVD-RW                       | Χ     | Χ    | 6x          | 12x        | 4.7GB    |
| DVD+R                        | X     | Χ    | 16x         | 16x        | 4.7GB    |
| DVD+R DL (Dual layer)        | Χ     | Χ    | 8x          | 12x        | 8.5GB    |
| DVD+RW                       | Χ     | Χ    | 8x          | 12x        | 4.7GB    |
| DVD-RAM                      | X     | Χ    | 5x          | 5x         | 4.7GB    |
| DVD-ROM (Single)             | -     | Χ    | -           | 16x        | 4.7GB    |
| DVD-ROM DL (Dual layer)      | -     | Χ    | -           | 12x        | 8.5GB    |
| CD-R                         | Χ     | Х    | 40x         | 40x        | 700MB    |
| CD-RW                        | Χ     | Х    | 24x         | 24x        | 650MB    |
| CD-ROM                       | -     | Χ    | -           | 40x        | Varies   |

# **GETTING CONNECTED**

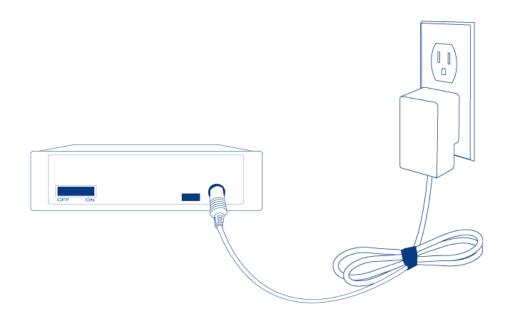
Please follow the steps below to install your LaCie d2 Blu-ray XL.

# STEP 1 - CONNECT THE POWER CABLE

1. Connect the appropriate wall plug adapter for your country to the power supply.

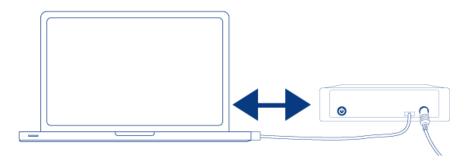


2. Connect the power supply to a wall outlet and to the drive.



## STEP 2 - CONNECT THE INTERFACE CABLE

Connect the USB 2.0 or FireWire 400 cable from the drive to the computer.



**Important info regarding the interfaces:** Only one interface type may be used to connect your computer to the device. Unmount the drive from your computer if wish to switch between the USB 2.0 and FireWire 400 interfaces.

#### **Technical note:**

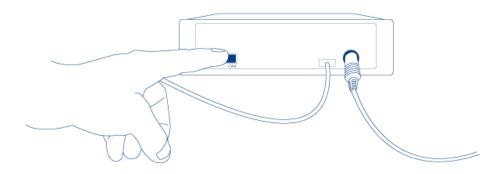
#### **FireWire Connection:**

Daisy chaining multiple non-powered FireWire devices may effect individual performance. To guarantee optimal performance, LaCie recommends daisy chaining *powered* FireWire devices to your LaCie hard drive.

FireWire 800 is backwards-compatible with FireWire 400, which means that you can connect your LaCie FireWire 400 product to a FireWire 800 port on your computer. In this case, file transfers will be limited to FireWire 400 speeds.

# STEP 3 - TURN ON THE DRIVE

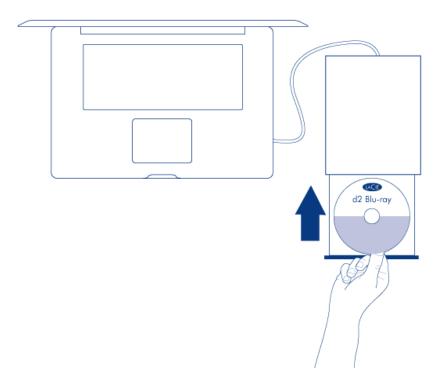
Turn the drive's power switch to the **On** position.



The d2 Blu-ray XL is ready for use. To confirm that it is properly connected to your computer, go to the Apple pulldown menu to select **About This Mac > More Info.** This will open the Apple System Profiler. Your drive should be listed under *Hardware*.

## STEP 4 - DVD SOFTWARE UTILITIES

Insert the included d2 Blu-ray XL DVD into your optical drive to install the software utilities. For more information about a program, please refer to the software's **Help** section.



You may be prompted for the software key or serial number the first time you use the application. The number is located on the back of the DVD-ROM sleeve.

**Important info:** Available software will vary according to the drive. Please check the packaging of your product or the label of the included DVD-ROM. For software updates, go to <u>Software Update</u>.

## **OPERATION**

#### **INSERTING A DISC**

To insert a disc, push the **Open/Close** (A) button on the LaCie d2 Blu-ray XL. When the disc tray opens, place the BD, DVD, or CD onto the tray with the label side facing up. Make sure the BD, DVD, or CD is correctly placed in the center of the disc tray. Push the **Open/Close** button (A) to close the tray. LaCie recommends against pushing the media tray to close it.



# **USING THE DEVICE**

Please keep the following in mind when using the LaCie d2 Blu-ray XL:

- The power must be on to open the tray.
- Do not attempt to force the door open as it may damage the drive.
- Always remove discs before transporting the drive. Keeping the disc inside the drive during transport may damage the data.
- Do not transport the drive with the disc tray open. Doing so may damage the drive and will void your warranty.
- Never move the drive while it is in operation.
- This drive is not compatible with cartridges.

## **ACCESSING DISCS**

The BD, DVD, or CD will appear as an icon on the desktop. Click on the icon to access the contents of your media.

# **EJECTING DISCS**

Please make certain that the disc is not being accessed before ejecting the disc.

1. Drag the DVD/BD/CD icon on the desktop to the Trash.



- 2. Once the drive tray is open, remove the DVD, BD, or CD.
- 3. Push the **Open/Close** button to close the tray.

# **EMERGENCY DISC EJECTION**

**Important info:** Only use this method when the Open/Close button is not working.

**Caution:** Make sure the d2 Blu-ray XL is off and the power unplugged before attempting the emergency ejection procedure.

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

- 1. Move the power switch to the **Off** position.
- 2. Unplug the interface and power cables.
- 3. Locate the emergency eject hole on the front of the device.



4. Insert a small metal poker, such as the end of a paper clip, into the emergency eject hole until it presses against the manual eject mechanism. You will feel the mechanism eject the disc tray.

## **TECHNICAL INFORMATION**

#### FILE SYSTEM FORMATS

The file format defines how a computer names and organizes files for storage and how it manages data exchange. There are three primary file system formats to choose from when creating a BD/DVD/CD.

**Universal Disk Format (UDF)**: Developed by the Optical Storage Technologies Association, UDF is the predominant file system for BD/DVD/CD. It offers compatibility across most popular authoring applications, hardware platforms, and computer operating systems.

**ISO 9660**: Published by the International Organization of Standardization, this file system format was created for DVD-ROM and CD. ISO 9660 is a standard file system that can be read on most popular operating systems. While ISO 9660 supports operating systems that follow the Unix specification, it does not recognize certain features found on Mac file systems, such as long file names or icon options. Joliet, an extension to ISO 9660 created by Microsoft, allows for Unicode file character names and file names up to 64 characters.

**Mac OS Extended (HFS+)**: The file system native to Macintosh is best used when media is only shared among Apple computers.

Hybrid: Another popular format is a hybrid disc, which includes two partitions: one for Mac and one for Windows.

#### OPTICAL DISC WRITING METHODS

**Disc at Once (DAO)**. The entire disc is recorded in one session and data cannot be added after the recording is finished. DAO on DVDs differs from DAO on CD-R since the lead-in and lead-out areas are written sequentially.

**Session at Once (SAO)**. SAO provides more control than DAO and PW since data can be written in multiple sessions. Additionally, SAO optimizes disc capacity by foregoing gaps between tracks.

**Incremental Recording (IR)**. Data may be added in multiple sessions but the minimum recording size during a single session is 32KB. Capacities and write speeds are decreased due to the overhead of combined lead-in/out areas and data. A disc must be finalized before it can be played back on a drive other than the recording drive.

**Multi-Border Recording (MBR)**. Using MBR, IR discs that have not been finalized can be read by more than one player. MBR inserts a very short boundary zone around an IR recording session so a compatible player or DVD-ROM drive does not attempt to play beyond the border of the recorded area.

**Restricted Overwriting (RO)**. New data segments can be randomly inserted anywhere within the boundary of a recorded disc. However, data can only be added to an area of the disc that has already been recorded over and from the point where the last session ended.

**Packet Writing (PW)**. Drag-and-drop writing that is very useful for data backup. Buffer underruns are rare when using PW because data is written in "packets", a few kilobytes at a time. PW is a CPU-hungry process since it constantly checks the available space on the disc.

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

**Technical note on Buffer Underruns:** 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 the an error in the recording process. If this problem occurs often, try recording at a slower speed.

#### AVAILABLE CAPACITY ON AN OPTICAL DISC

Optical discs are manufactured in two physical sizes: 4.7" (12cm) and 3.1" (8cm); both are .47" (1.2cm) thick. DVD and BD are:

- Single-sided
- Single layer (SL) or dual layer (DL). DL discs usually hold twice as much data as SL discs.
- Triple layer (TL) and quadruple layer (QL) (BD XL only)

While an optical disc is listed with a maximum capacity (i.e. 4.7GB, 25GB, 100GB, etc.), the amount of data that it can hold is dependent upon many factors including the amount of audio on a recording, the type of compression used on the file(s), etc. For example, a dual layer BD-R can store just over four hours of HD video using MPEG-2 (AVCHD) or 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 ( $1000 \times 1000 \times 1000$  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 ( $1024 \times 1024 \times 1024$  bytes).

#### COMPRESSION STANDARDS

Most BD and DVD are compressed using an MPEG codec (Moving Picture Expert Group), a compression standard recognized by the ISO. "MPEG video" in commercial discs actually consists of three finalized standards: MPEG-1, MPEG-2, and MPEG-4. The latter was finalized in 1998 for Very Low Bitrate Audio-Visual Coding.

HD Video, with full-motion video and multi-channel sound (multi-lingual soundtracks, surround sound, etc.), requires a great deal of data. Using MPEG-2 compression, you can fit a full-length feature film in HD plus bonus material on a single disc. MPEG-4 (H.264) and VC-1 are two other HD video compression standards that can match the best possible MPEG-2 quality at up to half the data rate.

Bit rates for HD compression:

- MPEG-2 = 21Mb/s
- MPEG-4 (H.264) = 8Mb/s
- VC-1 (WMV9) = 8Mb/s

## **INTERFACES**

## FIREWIRE QUESTIONS AND ANSWERS

#### What is FireWire 400/IEEE 1394?

A serial bus used to connect external computer and consumer electronic devices to computers and consumer electronic consoles. IEEE (the Institute of Electrical and Electronic Engineers) is the name of the engineering corps that developed this standard.

#### What does IEEE 1394 mean?

"1394" is an abbreviation of IEEE 1394, the name given to this high-performance serial bus. The 1394 refers to the 1,394th standard that the IEEE has produced.

What is the relationship between IEEE 1394, FireWire, iLink, and DV?

These four names all refer to the same interface:

- IEEE 1394 the name used in the computer industry.
- FireWire the brand name used by Apple.
- iLink the brand name used by Sony.
- DV the logo used by video camcorder manufacturers.

#### What can the FireWire interface be used for?

FireWire is a great interface for consumer electronics such as optical disc recorders, external hard drives, and video devices due to its extremely large bandwidth. FireWire offers greater stability with video due to its support for asynchronous and isochronous data transfers. It is also a point-to-point interface, meaning that a FireWire device can transmit data to another FireWire device without having to go through a computer. This form of linking peripherals to a computer is commonly referred to as "daisy chaining". To daisy chain FireWire peripherals, connect one device (Peripheral A) directly to the computer then connect another FireWire device (Peripheral B) to the first device (Peripheral A). FireWire 400 supports a daisy chain of up to 63 devices on the same bus, with 16 devices on one branch.

#### Does my computer have a FireWire port?

Macs and PCs can have FireWire or i-Link interfaces. If your computer does not include a FireWire interface, an expansion card can be purchased from your LaCie reseller or from the LaCie website <u>Accessories</u>.

#### Can I connect the LaCie Blu-ray XL to a FireWire 800 port?

Yes. It can be connected to a FireWire 800 port using the included FireWire 400 to FireWire 800 cable. Please note that transfer rates will not exceed FireWire 400.

For more information about FireWire, please visit our Technology Page.

# **USB QUESTIONS AND ANSWERS**

What are the benefits of the USB interface?

- Cross-platform: All Apple computers and PCs include USB 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.
- Multiple USB devices on a single USB port: Using USB hubs, you can connect up to 127 peripherals on a single USB port.
- Easy installation: One standardized port makes it simple to connect.

There are multiple types of USB: SuperSpeed USB 3.0, Hi-Speed USB 2.0, and USB 1.1. Can I use any type of USB device with any USB interface?

Yes. Please note that adding slower USB types to faster USB interfaces does not enhance performance. For example, a USB 1.1 device will not go faster than 12Mb/s when attached to a USB 2.0 port.

For more information about USB, please visit our <u>Technology Page</u>.

#### FIREWIRE OR USB?

If your computer supports both interfaces, LaCie recommends using FireWire. With support for asynchronous and isochronous data transfers and easy daisy chaining, FireWire can be a more efficient interface for peripherals such as the LaCie d2 Blu-ray XL.

#### **DELAYED DATA TRANSFERS**

Data transfers are the flow of data (i.e. files, folders, etc.) from storage to computer RAM or between storage devices. To avoid delays in data transfers or "hanging", it is best to wait for a transfer to finish before launching other applications on the same FireWire or USB port. Another reason for a data hang could be FireWire or USB controllers that do not conform to OHCI (Open Host Controller Interface) standards.

If you experience a lag when transferring your data:

- 1. Make sure that the FireWire or USB cable is connected tightly and securely on the drive and the computer. If you are using a FireWire cable other than the one supplied with your LaCie drive, check that it is IEEE 1394 certified.
- 2. Check that the power supply and ground connection are seated properly.
- 3. Disconnect your computer's FireWire or USB cable. Wait 30 seconds. Reconnect.

**Technical note on the Controller:** This is a component or an electronic card ("controller card") that enables a computer to communicate with and manage peripheral devices. An external controller is an expansion card that fits into a free slot inside your computer and enables you to connect a supported peripheral (i.e. DVD/RW drive, Hard Drive, scanner, printer, etc.). If your computer is not equipped with a FireWire controller card, you can purchase an external controller through LaCie at <u>Accessories</u>.

# **GETTING HELP**

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

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

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

## TROUBLESHOOTING TOPICS

**Note:** Interactive troubleshooting, a highly effective way to resolve problems with your product, is available from <a href="www.lacie.com/support/">www.lacie.com/support/</a>. Select your product, then click the "Troubleshooting" tab.

## Problem: The drive is not recognized.

Q: Is the drive's power on?

A: 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.

Q: After a disc has been inserted into the drive, does an icon appear on the computer desktop?

A: The icon should appear on your desktop. If not, verify that the drive is recognized by the computer in your System Profiler. To confirm connection to the drive, go to the Apple pulldown to select **About this Mac > More info**.

Q: Are all of the cables connected securely and correctly?

A: Make sure that all the installation steps 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.

Q: Are both ends of the FireWire or USB cable connected and properly seated?

A: Check both ends of the FireWire or USB cable. Disconnect them, wait 10 seconds, and reconnect them. If the drive is still not recognized, restart your computer and try again.

# Problem: The drive's media tray will not open.

Q: Has a running software program locked the eject function?

A: Disconnect the interface cable, then reconnect it before pressing the **Open/Close** button. If the disc will still not eject, go to <u>Operation</u> for instructions on how to perform an emergency eject.

# Problem: The drive automatically ejects a disc when you try to record on it, or the drive is not writing to BD/DVD/CD correctly.

Q: Is the disc full?

A: Select the disc icon and press **Cmd+I** on your keyboard. You will see the capacity available on the disc.

- Q: Does the drive support the format of the disc you have inserted?
- A: See Optical Discs for supported disc formats.
- Q: Do I need a new HDTV to play a Blu-ray Disc?

A: No. Pre-recorded Blu-ray Disc titles will play on any standard definition TV set, even if the video was encoded in HD. Likewise, a Blu-ray Disc recorder can also record standard definition video, for example from regular TV broadcasts or camcorders.

## **PRECAUTIONS**

**Caution:** With applicable LaCie products, it is essential that you use only the power supply that shipped with your product, since it is a shielded-type power cord that meets FCC emission limits as well as to prevent interference to the nearby radio and television reception.

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

**Important info:** Any loss, corruption or destruction of data while using a LaCie optical 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 an external hard disk, for instance, and a second copy either on your internal hard disk, another external hard disk or some other form of removable storage media. If you would like more information on backup, please refer to our website.

**Important info:** 1TB (Terabyte) = 1,000GB. 1GB = 1000MB. 1MB = 1,000,000 Bytes. Total accessible capacity varies depending upon operating environment (typically up to 10% less per TB).

#### HEALTH AND SAFETY PRECAUTIONS

- Only qualified persons are authorized to carry out maintenance on this device.
- Read this User Manual carefully and follow the correct procedure when setting up the device.
- Do not open an optical disk 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. The LaCie optical drive 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 optical drive, as they may spill into its openings. Doing so increases the risk of electrical shock, short-circuiting, fire or personal injury.

#### GENERAL USE PRECAUTIONS

- Power requirements 100-240 V~, 50-60 Hz, (supply voltage fluctuations not exceeding ± 10% of the nominal and transient over-voltages according to over-voltage category II).
- Do not expose the LaCie optical drive to temperatures outside the range of 5° C to 30° C (41° F to 86° F); or to operational humidity beyond 10-80%, non-condensing, or non-operating humidity beyond 10-90%, non-condensing. Doing so may damage the LaCie optical drive or disfigure its casing. Avoid placing your LaCie

optical drive near a source of heat or exposing it to sunlight (even through a window). Inversely, placing your LaCie drive in an environment that is too cold may damage the unit.

- Rated cooling for altitudes up to 2000 meters.
- If your drive features a power cable, always unplug it 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 (if applicable).
- Do not use the LaCie optical drive near other electrical appliances such as televisions, radios or speakers.

  Doing so may cause interference which will adversely affect the operation of the other products.
- Never use excessive force on your LaCie optical drive. If you detect a problem, consult the troubleshooting section in this manual.
- Protect your LaCie optical 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 LaCie optical drive. Such products will disfigure and discolor the casing. Instead, use a soft, dry cloth to wipe the device.

## WARRANTY INFORMATION

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

Standard warranties vary depending on the product. To verify your product's warranty status and to see which standard warranty is included with your product, type in your product's serial number at <a href="https://www.lacie.com/us/support">www.lacie.com/us/support</a>. If no warranty is listed under your product's name, this means that the warranty has expired.

#### WARRANTY UPGRADES

If you wish to extend your warranty coverage, you can purchase Silver, Gold, or Platinum Care or Advanced Exchange. For details, see <a href="https://www.lacie.com/warranties">www.lacie.com/warranties</a>.

#### LEGAL INFORMATION

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

# LaCie Limited Warranty Policy

LaCie ("LaCie") warrants, to the original purchaser, that this equipment shall be free of defects in materials and workmanship for a period of one (1), two (2), three (3), or five (5) years, depending on the model, from LaCie's date of original shipment when the equipment is used normally and is properly serviced when needed. If you discover a defect covered by the warranty set forth above, your sole and exclusive remedy will be for LaCie, in its sole discretion to (i) repair or replace the product at no charge to you; or, if a repaired unit or replacement product is not available, (ii) to refund the current market value of your product. You acknowledge and agree that replacement product, at the sole option of LaCie, may be a new product or a remanufactured product. In order to receive the remedy set forth above, you must return the product during the warranty period and include with each returned product (i) a copy of your original purchase invoice to verify your warranty; (ii) a Return Material Authorization number; (iii) your name, address and telephone number; (iv) a copy of the bill of sale bearing the appropriate LaCie serial numbers as proof of date of original retail purchase; and (v) a description of the problem. The customer must pay all transportation costs for a returned product. The product will need to be returned to LaCie within the country of original retail purchase. This warranty applies only to hardware products; LaCie software, media, and manuals are licensed and warranted pursuant to separate written agreement. This warranty does not apply if the product has been misused or has been damaged by accident, abuse, misuse, or misapplication; if it has been modified without permission of LaCie; or if any LaCie serial number has been removed or defaced. If a customer has purchased a LaCie Advance Care Option (ACO) to go with this equipment, the ACO shall be valid for three (3) years from activation.

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

#### **EXCLUSIONS AND LIMITATIONS**

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

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

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

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

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

Some states do not allow the exclusion or limitation of implied warranties or liability for incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may have other rights, which vary from state to state.

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

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

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

#### Service DOA

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

#### **Customer Warning**

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

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

#### NOTE TO AUSTRALIAN CUSTOMERS

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

Contact us:

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

Phone: 02 8063 3711 Email: info.au@lacie.com

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

## **LEGAL INFORMATION**

#### **COPYRIGHTS**

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#### **CHANGES**

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

## FEDERAL COMMUNICATION COMMISSION INTERFERENCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

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

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

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

The availability of some specific channels and/or operational frequency bands are country dependent and are

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

#### WEEE



This symbol on the product or on its packaging indicates that this product must not be disposed of with your other household waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designed collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that

protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service, or the shop where you purchased the product.

#### MANUFACTURER'S DECLARATION FOR CE CERTIFICATION



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

#### **TRADEMARKS**

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

#### CANADA COMPLIANCE STATEMENT

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

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

# JAPAN COMPLIANCE STATEMENT

This is a Class B product based on the standard of the Voluntary Control Council for Interference from Information Technology Equipment (VCCI). If this is used near a radio/TV receiver, it may cause radio interference. Install the equipment according to the manual. This statement does not apply to the LaCie CloudBox.