



# THUNDERBAY<sup>®</sup> 4

Assembly Manual & User Guide



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# INTRODUCTION

## 1.1 MINIMUM SYSTEM REQUIREMENTS

### 1.1.1 Apple Mac Requirements

- Thunderbolt™ port: OS X 10.9.3 or later

**NOTE:** Boot Camp not supported

### 1.1.2 PC Requirements

- Thunderbolt port: Windows® 7 or later

### 1.1.3 Supported Drives: up to four 3.5" SATA drives (1.5Gb/s, 3.0Gb/s, or 6.0Gb/s)

## 1.2 PACKAGE CONTENTS



OWC ThunderBay® 4



Thunderbolt cable



Power cable



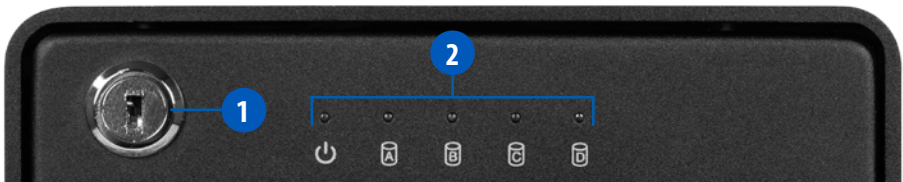
Keys

**NOTE:** Hard drive screws are included, but not pictured.

## 1.3 ABOUT THIS MANUAL

Firmware, images, and descriptions may vary slightly between this manual and the unit shipped. Functions and features may change depending on the firmware version. Please visit the product web page for the most recent product specifications.

## 1.4 FRONT VIEW



### 1.4.1 Front Features

**1. Locking faceplate** — Use the included keys to lock the faceplate for security, or to remove the faceplate to gain access to the drive bays.

**2. LED indicators** — See the following chart for details on the ThunderBay 4's LEDs.

LED	COLOR	ThunderBay ON	ThunderBay SLEEPING	DRIVE ACTIVITY	DRIVE BAD/BAY EMPTY
Power	Blue/orange	Solid blue	Orange	N/A	N/A
Drive (A, B, C, D)	Green	N/A	Off (all four)	Flashing green	Off

## 1.5 REAR VIEW



### 1.5.1 Rear Features

- 1. Kensington® Security Slot** — Connect a security tether here.
- 2. Thunderbolt 2 ports** — Attach the included Thunderbolt cable to one of these ports and to your computer, or to another Thunderbolt device. Use the other Thunderbolt 2 port to add more Thunderbolt devices to the chain.
- 3. ON/OFF switch** — Turn the power on and off using this switch.
- 4. Power input** — Connect the included power cable here.

#### NOTES:

- Although the on/off switch controls power to the device, the ThunderBay 4 requires an activate data signal for powered operation. As long as the on/off switch is in the 'on' position, the ThunderBay 4 will turn on when it receives a data signal through the Thunderbolt cable. If there is no Thunderbolt cable connected, or if the computer is off or in a sleep or hibernation mode, the ThunderBay 4 will turn off and its power LED will turn orange to indicate that it is not receiving a data signal.
- In order to use any Thunderbolt devices chained through the ThunderBay 4, the ON/OFF switch of the ThunderBay 4 must be in the 'ON' position.
- Thunderbolt device chains can support up to six Thunderbolt devices.
- Thunderbolt 2 is backwards compatible with Thunderbolt, but any devices connected in a Thunderbolt chain after a Thunderbolt device will operate at original Thunderbolt speed (10Gb/s) rather than Thunderbolt 2 speed (20Gb/s). If mixing Thunderbolt 2 and original Thunderbolt devices, make sure all Thunderbolt 2 devices are in front of the Thunderbolt devices (i.e. computer>Thunderbolt 2 devices>Thunderbolt devices).
- For the safe removal of your drive and to ensure that no data is lost, always eject or unmount the drive from your operating system before powering off.

# DEVICE SETUP

If your OWC ThunderBay 4 was purchased with drives included, the four drives have been installed into their drive trays and have been packed separately from the ThunderBay 4 enclosure. If you purchased the ThunderBay 4 enclosure by itself without drives, follow the instructions in **Section 2.1** to install your own drives into the ThunderBay 4. The drive trays are labeled A, B, C, and D, but the arrangement of the drive trays when they are installed in the ThunderBay 4 does not matter.

## 2.1 HARD DRIVE INSTALLATION

Follow these steps to install hard drives into your ThunderBay 4 enclosure, or to replace existing drives. Repeat steps 1 through 8 as necessary for each drive you are installing.



1. Insert one of the included keys into the lock on the upper left of the faceplate.
2. Turn the key clockwise, then pull it towards you. The faceplate will swing open, as shown.
3. Once the faceplate has swung open as far as it will go, pull up to remove it.
4. On the drive tray you wish to remove, turn the thumbscrew counter-clockwise until you no longer feel resistance. Then hold onto the thumbscrew and pull the drive tray out.
5. Set the drive tray as shown on your work surface. If you are replacing an existing hard drive, unscrew it from the drive tray at this time. If your ThunderBay 4 was purchased without drives, each drive tray will have a plastic bar to help the drive tray keep its shape during shipping. Unscrew the plastic bar before proceeding.
6. Place the hard drive inside the drive tray as shown. The label should face up and the SATA connectors should be on the far rear corner of the drive.
7. Fasten the drive into the drive tray using six of the included screws.
8. Slide the drive tray back into the rails in the ThunderBay 4 and push until it is seated fully, then push in on the thumbscrew and turn it clockwise until it stops moving. If you encounter resistance, do not force the drive tray. Remove it, check to make sure that there are no obstructions and that the drive tray is lined up correctly, then slide it in again.

## 2.2 QUICK START

1. Install hard drives into the ThunderBay 4 according to the instructions in **Section 2.1**.
2. Connect the power cable to the back of the ThunderBay 4 and a power outlet, then make sure the ON/OFF switch is set to the 'ON' position.
2. Connect a Thunderbolt cable between the ThunderBay 4 and a computer. When you do this, the ThunderBay 4 will turn on and the drives will be available for use on the computer.
3. If the ThunderBay 4 was purchased with drives, or if you are using new drives that have not been used before, the drives will need to be formatted before they can be used.
4. Go to [www.owcdigital.com/format](http://www.owcdigital.com/format) for Mac and PC drive formatting options.
5. Once the formatting is finished, the drives are ready to use.

## 2.3 SOFTWARE RAID

While the OWC ThunderBay 4 has no built-in RAID capabilities, it is possible to use software to configure the drives inside the ThunderBay 4 as members of a RAID array. OS X and Windows both have software RAID capabilities natively through their disk management applications, and there are third-party applications that offer expanded RAID support, including SoftRAID for the Mac. To learn more about SoftRAID options for the ThunderBay 4, please visit: [www.owcdigital.com/support/softraid](http://www.owcdigital.com/support/softraid)

## 2.4 CHANGING DRIVES

You can add or remove any drive without needing to turn off the device or to unmount any of the other drives. Each drive operates independently of the others and is not affected by the addition or removal of another drive unless you set them up as members of a RAID array using software.

### 2.4.1 Drive Failure

By itself, the ThunderBay 4 does not monitor drive health, and it will not alert you to a drive failure. You can monitor the health of your drives through software in order to determine when a drive has failed or is in a pre-failure state. To replace a failed drive, simply remove the drive from its bay and replace it with another drive, following the steps in **Section 2.1**. The ThunderBay 4 does not need to be turned off during this process.

# SUPPORT RESOURCES

## 3.1 TROUBLESHOOTING

Begin your troubleshooting by verifying that the power cable is connected to the OWC ThunderBay 4 and to a power source. If the power cable is connected to a power strip, make sure that the power switch on the strip is turned on. Then, verify that both ends of your cables are properly plugged into the computer and the ThunderBay 4.

If the ThunderBay 4 is still not working properly, try connecting to another computer or using another Thunderbolt cable. Remember that the ThunderBay 4 needs an active data signal in order for the power to remain on. If it is disconnected from the computer, or if the computer goes to sleep or turns off, the ThunderBay 4 will go to sleep. If you are still experiencing problems, consult **Section 3.4** for OWC technical support contact information.

## 3.2 ABOUT DATA BACKUP

To ensure that your files are protected and to prevent data loss, we strongly suggest that you keep two copies of your data: one copy on your ThunderBay 4 and a second copy on your internal drive or another storage medium, such as an optical backup, or on a second external storage unit. Any data loss or corruption while using the ThunderBay 4 is the sole responsibility of the user, and under no circumstances may OWC, its parents, partners, and affiliates be held liable for loss of the use of data including compensation of any kind or recovery of the data.

## 3.3 ONLINE RESOURCES

To access our online knowledge base, including things like FAQs and a step-by-step walk-through of our recommended method for migrating your data from an old drive to a new one, please visit: [www.owcdigital.com/support/faq](http://www.owcdigital.com/support/faq)

## 3.4 CONTACTING TECHNICAL SUPPORT

### Hours:

8am to 8pm (CT) Monday - Friday  
9AM - 4PM (CT) Saturday

### Telephone:

(866)-692-7100 (North America)  
+1 (815) 338-4751 (International)

### Live Chat:

[www.owcdigital.com/support](http://www.owcdigital.com/support)

### Email:

[www.owcdigital.com/support](mailto:www.owcdigital.com/support)

## Changes:

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## FCC Statement:

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

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference with radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

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

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

## Health And Safety Precautions:

- Use proper anti-static precautions while performing the installation of your hard drives into this drive enclosure. Failure to do so can cause damage to your drive mechanisms and/or the hard drive enclosure.
- Read this user guide carefully and follow the correct procedures when setting up the device.
- Do not attempt to disassemble or modify the device. To avoid any risk of electrical shock, fire, short-circuiting or dangerous emissions, never insert any metallic object into the device. If it appears to be malfunctioning, contact OWC technical support.
- Never expose your device to rain, or use it near water or in damp or wet conditions. Never place objects containing liquids on the drive, as they may spill into its openings. Doing so increases the risk of electrical shock, short-circuiting, fire or personal injury.

## General Use Precautions:

- To avoid damage, do not expose the device to temperatures outside the range of 5° C to 40° C (41° F to 104° F).
- Always unplug the device from the electrical outlet if there is a risk of lightning or if it will be unused for an extended period of time. Otherwise, there is an increased risk of electrical shock, short-circuiting or fire.
- Do not use the device near other electrical appliances such as televisions, radios or speakers. Doing so may cause interference which will adversely affect the operation of the other products.
- Do not place the device near sources of magnetic interference, such as computer displays, televisions or speakers. Magnetic interference can affect the operation and stability of hard drives.
- Do not place heavy objects on top of the device.
- Protect your device from excessive exposure to dust during use or storage. Dust can build up inside the device, increasing the risk of damage or malfunction.
- Do not block any ventilation openings on the device. These help to keep the device cool during operation. Blocking the ventilation openings may cause damage to the device and cause an increased risk of short-circuiting or fire.
- For up-to-date product and warranty information, please visit the product web page.

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