THUNDERBAY 4 MINI

Assembly Manual & User Guide

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INTRODUCTION

1.1 Minimum System Requirements

1.1.1 Apple Mac Requirements
- Any Mac with a Thunderbolt™ port
- Thunderbolt™ 2 port recommended for best performance
- OS X 10.9.3 or later

1.1.2 PC Requirements
- Any PC with a Thunderbolt port
- Thunderbolt 2 port recommended for best performance
- Windows® 7 SP1 or later (Boot Camp is not supported)

1.1.3 Supported Drives
- 2.5 inch SATA drives (identical model and capacity required for RAID configurations)

1.2 Package Contents

| OWC ThunderBay 4 mini | Thunderbolt cable | Power supply and cable | Keys |

Not pictured: If the ThunderBay 4 mini high-performance storage enclosure was purchased without drives, a packet of screws is included.

1.3 About This Manual

The images and descriptions may vary slightly between this manual and the unit shipped. Functions and features may change depending on the firmware version or driver version, if applicable. Please visit the product web page for the most recent product requirements, specifications, and warranty information.

General Use Precautions

- Do not place heavy objects on top of the device.

- To avoid damage, do not expose the device to temperatures outside: 41° — 107° F (operating) or -40° — 149° F (non-operating)

- 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 product near electrical applicances such as televisions, radios or speakers. Doing so may cause interference which can adversely affect the operation of the appliances.

- Do not place the device near sources of magnetic interference, such as computer displays, or speakers. Magnetic interference can affect the operation and stability of hard drives.

- 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.

Safety Precautions

- Use proper anti-static precautions while installing your SATA drives into this drive enclosure. Failure to do so can cause damage to the drives and/or the enclosure.

- Read this guide carefully and follow the recommended steps for assembly.

- 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, please contact 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.

1.4 Front View

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. **LEDs indicators** — See the chart below for details on the ThunderBay 4 mini'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. **Thunderbolt 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.

2. **DC input** — Connect the included power supply here.

1.6 Usage Notes

- There is no power switch on the OWC ThunderBay 4 mini. If the power supply is connected, the device will power on when it receives a data signal through the Thunderbolt cable. If there is no data signal, or if the computer is off or in a sleep mode, the ThunderBay 4 mini will power off.

- 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, use the device order shown below.

    Computer > Thunderbolt 2 devices > Thunderbolt devices

- To safely remove drives and to ensure that no data is lost, always eject or unmount the drives from your operating system before unplugging the ThunderBay 4 mini or removing the drives. See the tips below for unmounting a drive from your specific OS.

OS X:
- Drag the icon for the disk you wish to unmount to the trash can.
- Right-click the disk icon on the desktop, then click "Eject".
- Highlight the disk on your Desktop and pre ss Command-E.

Windows:

1. Go to the System Tray (located in the lower-right corner of your screen). Click on the "Eject" icon (a small green arrow over a hardware image).

2. A message will appear, detailing the devices that the "Eject" icon controls (i.e. "Safely remove [device name]") Click on this prompt.

3. You will then see a message that says, "Safe to Remove Hardware." It is now safe to disconnect the Elite Pro Dual from the computer.

DEVICE SETUP

If your OWC ThunderBay 4 mini was purchased with drives included, the four drives have been affixed to their drive trays and installed in the ThunderBay 4 mini. Please skip to Section **2.2**. If you purchased the ThunderBay 4 mini enclosure without drives, follow the instructions in Section 2.1 to install your own drives into the ThunderBay 4 mini.

2.1 Drive Installation

Follows the steps below to install drives into your ThunderBay 4 enclosure, or to replace existing drives. Repeat Steps 1 through 8 as necessary for each drive you are installing.
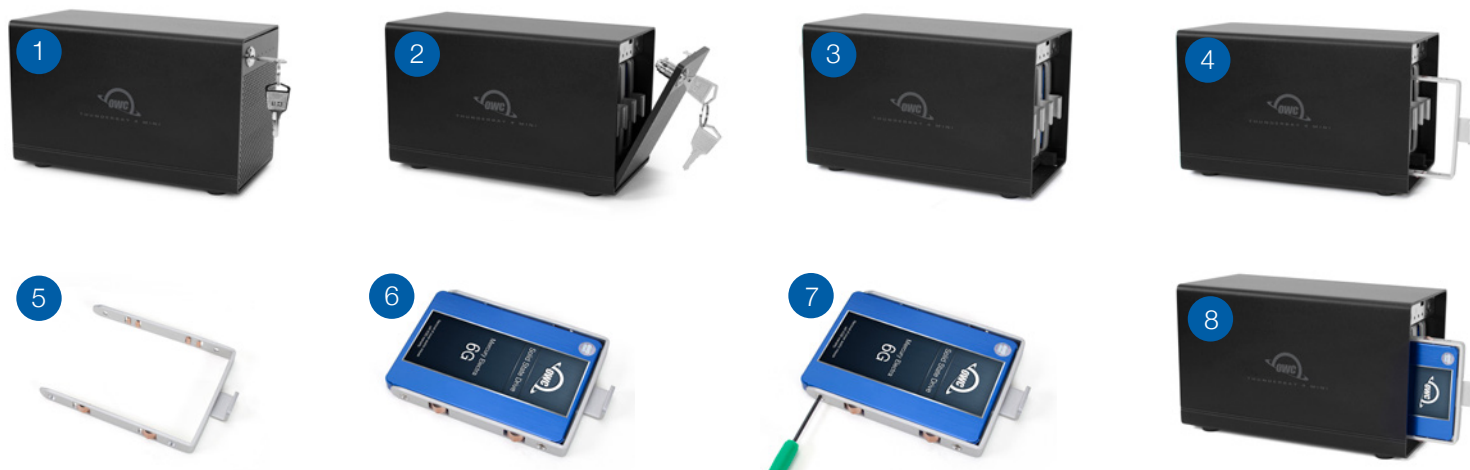
1. Insert one of the keys into the lock on the top left of the faceplate.

2. Turn the key clockwise, then pull it towards you. The faceplate will swing open.

3. Pull up on the faceplate to remove it.

4. Pull on the tab at the center of an empty drive tray to remove the tray from the enclosure.

5. Set the drive tray on your work surface as shown above. If you are replacing an existing drive, unscrew it from the drive tray.

6. Place the drive inside the drive tray as shown. The SATA connectors should be on the end opposite the tray handle.

7. Fasten the drive into the drive tray using four of the included Phillips screws.

8. Slide the tray into the ThunderBay 4 mini. If you feel resistance, do not force the tray. Remove it, verify the alignment of the tray and the corresponding slot, then try again.

2.2 Quick Start

1. Install drives into the ThunderBay 4 mini according to the instructions in Section 2.1.

2. Connect the power supply between the ThunderBay 4 mini and a power outlet.

3. Connect the included Thunderbolt cable to the ThunderBay 4 mini and your computer. When you do this, the ThunderBay 4 mini will power on and the drives will be available for use with your operating system.

4. If the ThunderBay 4 was purchased as part of a SoftRAID bundle, the drives are already set up and formatted as a RAID 5 volume. You should install SoftRAID according to the included SoftRAID guide and notices at this time.

   If the ThunderBay 4 mini was purchased with drives only, or if you are using new drives that have not been used before, the drives need to be formatted before they can be used.

   Please visit www.owcdigital.com/format for tips on formatting drives for Mac or Windows. Once formatted, the drives are ready to use.

2.3 Why Install SoftRAID?

- RAID levels supported: 0, 1, 1+0, 4, and 5
- Certify disks — writes a pattern to each sector on the disk and then reads it back to ensure that the drive is functioning as designed.
- Verify disks — reads every sector on the disk to ensure that it can be read without errors.
- Validate volumes — reads every block on the volume to ensure it can be read without errors.
- S.M.A.R.T monitoring of all connected drives, including early warning for disk failure.
- Custom email alerts for important events

For more information please visit:
www.softraid.com/pages/support.html

2.4 Changing Drives

You can add or remove any drive without needing to turn off the ThunderBay 4 mini or 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

The ThunderBay 4 mini 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 mini does not need to be turned off during this process.

SUPPORT RESOURCES

3.1 Formatting

For additional formatting information, including instructions on how to format your ThunderBay 4 mini for Mac or Windows, please visit: www.owcdigital.com/format

3.2 Troubleshooting

Begin your troubleshooting by verifying that the power cable is connected to the OWC ThunderBay 4 mini 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 enclosure. If the device is still not working properly, try connecting to another computer or using another Thunderbolt cable.

Remember that the ThunderBay 4 mini needs an active data signal to remain on. If it is disconnected from the computer, or if the computer goes to sleep or turns off, the ThunderBay 4 mini will go to sleep. If you are still experiencing problems, please see **Section 3.5** to contact Technical Support.

3.3 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 OWC ThunderBay 4 mini and a second copy on either your internal drive or another storage medium, such as an optical backup, or on another external storage unit. Any data loss or corruption while using the ThunderBay 4 mini is the sole responsibility of the user, and under no circumstances may OWC, its parent, partners, affiliates, officers, employees, or agents be held liable for loss of the use of data including compensation of any kind or recovery of the data.

3.4 Online Resources

To access our online knowledge base, which includes topics like migrating your data from an old drive to a new one, please visit: www.owcdigital.com/faq

3.5 Contacting Technical Support

8am - 5pm (CT) Monday - Friday

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

Live chat is available during normal business hours at:
www.owcdigital.com/support

Email support is available at:
www.owcdigital.com/support

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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 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.

Warranty:

The ThunderBay 4 mini has a 3 Year OWC Limited Warranty if it was bundled with drives. ThunderBay 4 mini enclosures that do not ship with drives have a 1 Year OWC Limited Warranty.

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