

OWC

OWC Mercury Helios 2

ASSEMBLY MANUAL & USER GUIDE



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INTRODUCTION

1.1 MINIMUM SYSTEM REQUIREMENTS

1.1.1 Apple® Mac® Requirements

- Thunderbolt™ port, OS X® 10.6 or later

1.1.2 PC Requirements

- Thunderbolt port, Windows® 7 or later

1.1.3 Supported PCIe Cards

- Up to two Thunderbolt-compatible PCIe 2.0 cards (see **Section 1.6** for details).

1.2 PACKAGE CONTENTS



OWC Mercury
Helios 2



Power Supply
and cable



Thunderbolt cable

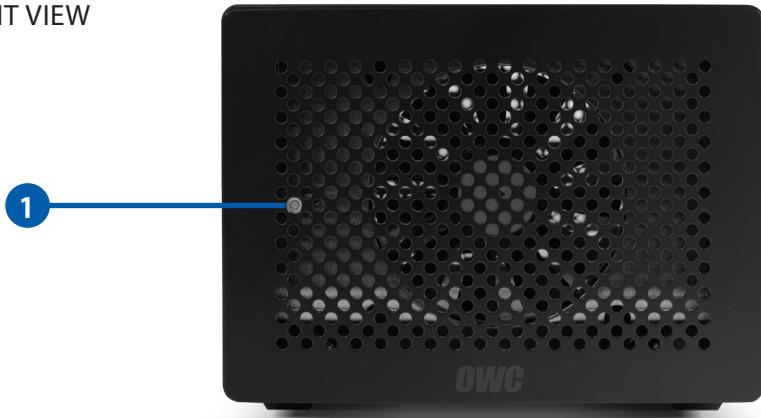


Thunderbolt
cable lock

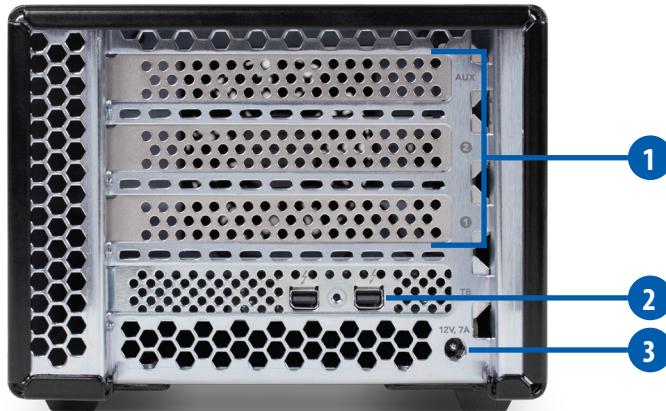
1.3 ABOUT THIS MANUAL

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 webpage for the most recent product specifications.

1.4 FRONT VIEW



1. LED Power Indicator — This LED illuminates when there is an active data connection between the Helios 2 and the computer. If the Helios 2 is unplugged from power or if the Thunderbolt cable is unplugged, the Helios 2 will power off and the LED power indicator will also turn off.



1. PCIe slot covers — Note that there are three total PCIe slot covers, but the third slot cover is used to accommodate a double-width PCIe card, not to install a third PCIe card. The Helios 2 contains two PCIe 2.0 slots.

2. Thunderbolt ports — Connect the included Thunderbolt cable between one of these ports and another Thunderbolt port on your computer. The other Thunderbolt port can be used to chain additional Thunderbolt devices. Thunderbolt device chains can contain up to six total Thunderbolt devices.

3. DC power input — Connect the included 12V DC power supply here.

1.6 SPECIFICATIONS

Interface Ports	Two Thunderbolt 2 (20Gb/s) ports
Expansion Slots	Two PCIe 2.0 (x8 slots, operate at x4)
Supported PCIe Cards	Two half-length (up to 7.75"), full-height, single-width PCIe cards up to x8; OR One half-length, full-height, single width card and one half-length, full-height, double width card
Power to Each PCIe Slot	25W
Power Adapter	AC Input: 100-240V, ~50-60Hz 2.0A DC Output: 12V, 7.5A (90W)
Dimensions	6.5 in. x 11 in. x 4.6 in. (16.5 cm x 27.9 cm x 11.7 cm)
Weight (Without PCIe Cards)	3.7 lbs. (1.7 kg)
Operating Temperatures	32° F to 95° F (0° C to 35° C)
Compliances	FCC part 15, RoHS

SYSTEM SETUP



These are static-sensitive devices. They are susceptible to invisible damage if not protected during assembly.

We recommend proper grounding by using a grounding strap. Make sure to work in a clean and static-free area, and avoid wearing clothing that retains static charges.

For more information, please visit: <http://www.macsales.com/static>

2.1 ASSEMBLY

1. Remove the Helios 2 from its packaging and place it upside down on a soft surface, as shown below.



2. Remove the four Phillips screws from the outer enclosure, as circled below in red.



3. Flip the Helios 2 over and set it on its feet. Push on the inner chassis at the rear to get the inner chassis to begin sliding out of the outer enclosure, as shown below. When the inner chassis has moved far enough, pull on the front of the inner chassis to remove it fully from the outer enclosure.



4. Turn the inner chassis so that the PCIe slots are facing up, as shown below. Remove the Phillips screw holding one of the PCIe slot covers in place, circled below in red.



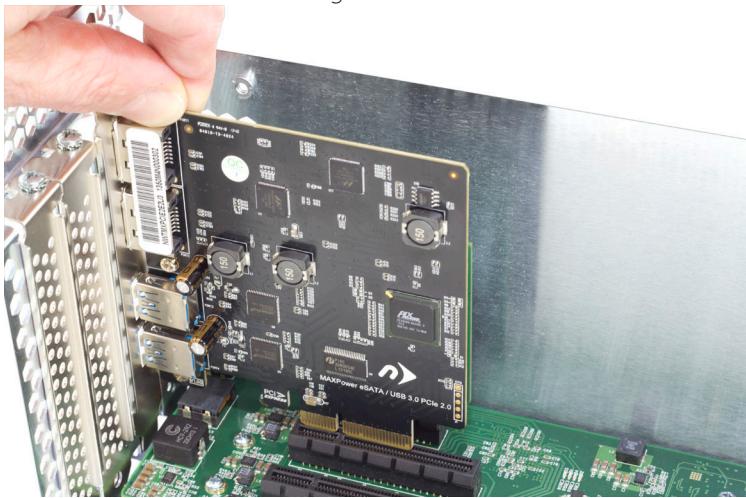
5. Remove the PCIe slot cover from the inner chassis, as shown below. Lift the PCIe slot cover directly up. It will come out easily.



6. If you are installing a second PCIe card and/or a double-width PCIe card, repeat step 4 and step 5 to remove the remaining PCIe slot covers, as necessary.

7. Install the PCIe card as shown below. Line up the connectors on the PCIe card with the PCIe slot, and make sure that the edge of the metal bracket on the PCIe card fits into the gap between the circuit board and the metal back of the inner chassis of the Helios 2.

NOTE: Handle the PCIe card only by its edges. Do not touch any of the components on the face of the PCIe card or the golden connectors.



8. Press down on the PCIe card to seat the connectors into the PCIe slot in the Helios 2, as shown below. Press directly down; do not twist or rock the card. If the card does not seat fully, do not force it in. Remove the card, check to make sure there is no damage to the card or the slot, then try again.

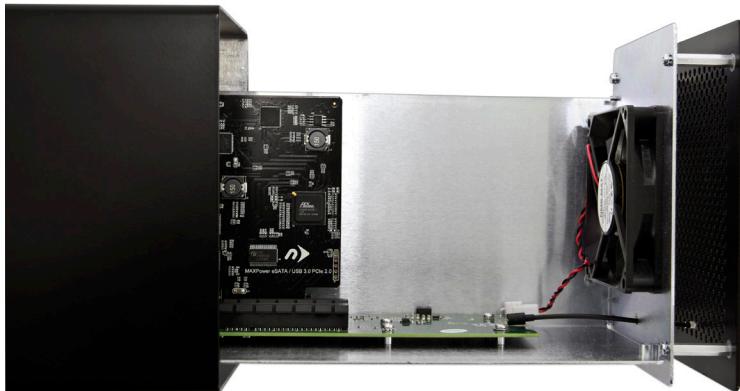


9. Use the screw that you removed in step 4 to secure the PCIe card to the inner chassis, as circled below. Do not overtighten the screw.



10. If you are installing a second PCIe card, repeat steps 7-9.

11. Turn the inner chassis back to its original position, then slide it back into the outer enclosure, as shown below.



12. Flip the Helios 2 upside down and use the four screws removed in step 2 to secure the inner chassis to the outer enclosure, as shown below.



Assembly is now complete. Proceed to **Section 2.2** for information on connecting the Helios 2 to a computer and to other Thunderbolt devices.

2.2 CONNECTION

1. Connect the included Thunderbolt cable between the Helios 2 and your computer. If you intend to chain more Thunderbolt devices, connect a cable between the other Thunderbolt port on the Helios 2 and a Thunderbolt port on the device you would like to add to the chain.
2. If you would like to secure the Thunderbolt cables to the Helios 2, use a Phillips screwdriver to install the optional Thunderbolt cable lock, as shown below. Note that the Thunderbolt cable lock is not compatible with optical Thunderbolt cables. If you are using one or more optical Thunderbolt cables, skip this step.



3. Make any necessary cable connections to the PCIe cards installed in the Helios 2.
4. Connect the power adapter to the Helios 2 and into a power outlet.

NOTES:

- The Helios 2 does not have an on/off switch. As long as the power supply is connected, the Helios 2 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 Helios 2 will turn off.
- Thunderbolt chains can contain up to six total Thunderbolt devices.
- Make sure that all installed PCIe cards are Thunderbolt compatible, either natively or through a Thunderbolt-compatible driver from the manufacturer.
- Never install a PCIe card while the Helios 2 is connected to power or to a computer. Doing so carries a risk of injury as well as damage to the PCIe card, the Helios 2, and the computer.
- While the Helios 2 supports up to two PCIe cards, it can be used with a single PCIe card installed. If installing only one card, it does not matter which PCIe slot is used.

APPENDIX

3.1 TROUBLESHOOTING

Begin your troubleshooting by verifying that the power cable is connected to the Helios 2 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 Thunderbolt cable are properly plugged into the computer and the Helios 2.

Try to confirm that the Helios 2 and any installed PCIe cards are seen correctly by the computer. In Windows, go to Device Manager (right-click on 'Computer' or 'This PC', select 'Manage', then select 'Device Manager'). In OS X, go to System Information (click on the Apple logo on the left of the menu bar, hold down the 'Option' key, then select 'System Information').

In OS X, the Helios 2 will show up under 'Thunderbolt' if it is connected correctly. Any installed PCIe cards will show up under 'PCI Cards'. If you do not see the Helios, try using a different Thunderbolt cable. If you do not see your PCIe card, unplug the Helios and follow the assembly steps in **Section 2.1** to remove and re-install the PCIe card. If you do see the PCIe card in System Information, check the 'Tunnel Compatible' section. If it says 'No', the PCIe card is not currently using a Thunderbolt-compatible driver. Check with the PCIe card manufacturer for a Thunderbolt-compatible driver.

In Windows, it is less immediately obvious that the Helios or any installed PCIe cards are seen by the computer. The Helios 2 will show up under 'System Devices' as multiple PCI-to-PCI bridges. The computer's Thunderbolt ports also show up as PCI-to-PCI bridges, so the best way to determine if the Helios is communicating with the computer is to see if the number of PCI-to-PCI bridges changes when the Helios is connected and disconnected. If the number of PCI-to-PCI bridges does not change, try using a different Thunderbolt cable. Installed PCIe cards will show up in the appropriate subsection of Device Manager, though there is no way in Device Manager to determine if a PCIe card is using a Thunderbolt-compatible driver.

If problems persist, consult our online collection of frequently asked questions (<http://www.macsales.com/FAQ>) or see **Section 3.2** for information on contacting OWC technical support.

3.2 TECHNICAL SUPPORT HOURS AND CONTACT INFORMATION

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

Telephone:

(800) 275-4576 (North America)
(815) 338-8685 (International)

Live Chat:

www.macsales.com/livechat

Email:

www.macsales.com/ts_email

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 Other World Computing 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 webpage.

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