



# MERCURY HELIOS 3S

Assembly Manual & User Guide



Notebook Charging



4K Support



Mac and Windows



Thunderbolt 3

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## 1.1 Minimum System Requirements

### Operating Requirements

- macOS 10.13 or later
- Windows 10 or later

### Hardware

- Works with any Thunderbolt 3 equipped Mac or Windows PC

### Supported Cards

- Mechanical / Electrical
  - Dimensions: supports cards up to half-length, full-height, double-width
  - Mechanical: x16 PCIe slot
  - Electrical: x4 PCIe 3.0
- Cards with drivers must be Thunderbolt-aware
- GPUs are not supported

## 1.2 Package Contents



OWC Mercury Helios 3S



Thunderbolt 3 cable



Power supply and cable

## 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. The latest product details and warranty information can be found on the product web page. OWC's Limited Warranty is not transferable and subject to limitations.



## General Use Precautions

- To avoid damage, do not expose the device to temperatures outside:

### Environmental (Operating)

- Temperature (°F): 41° — 95°
- Temperature (°C): 5° — 35°

### Environmental (Non-Operating)

- Temperature (°F): -4° — 140°
- Temperature (°C): -20° — 60°

- 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 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.



## Safety Precautions

- Read this user guide carefully and follow the recommended steps for assembly.
- Use proper anti-static precautions while installing your PCIe card into this enclosure. Failure to do so can cause damage to your PCIe card and/or the enclosure.
- 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. Power LED — emits a solid blue light when the Mercury Helios 3S is powered on.



## 1.5 Rear View

1. Security slot – connect a security tether here.
2. 12V DC Power – connect the 6-pin power cable here.
3. DisplayPort – connect a DisplayPort display here (supports up to DisplayPort 1.4 )
4. Thunderbolt 3 ports (2) – connect the Thunderbolt 3 host and any additional Thunderbolt 3 devices here. The 85W port is recommended for the host connection when using laptops.



## 1.6 Usage Notes

- The Mercury Helios 3S uses a PCIe 3.0 x4 interface. PCIe cards that require a minimum of 8 or more PCIe lanes are not supported.
- The Mercury Helios 3S can deliver up to 85W of power for host charging when the host is connect to the 85W port.
- For configurations where the PCIe card requires more than 25W of power, and the host computer and/or a connected Thunderbolt device require Power Delivery, make sure the computer is connected to its own power adapter instead of drawing power from the Mercury Helios 3S.

## 2.1 Assembly

Please follow the steps below to install a PCIe card in the Mercury Helios 3S.

The Mercury Helios 3S and your PCIe card are static-sensitive devices. They are susceptible to invisible damage if not protected during installation. For proper grounding, we recommend using a grounding strap. Work in a clean, static-free area, and avoid wearing clothing that retains static charges. Please visit this URL for more information: [www.owcdigital.com/anti-static](http://www.owcdigital.com/anti-static)

1. Loosen the thumbscrews on the rear panel until they spin freely. These are captive screws; they cannot be removed.



2. Set the Mercury Helios 3S on its side, then grip the front grill and pull the inner-chassis so that it slides out of the outer-enclosure.



3. Set the inner chassis on a working surface, with the rear ports oriented to the left, as shown.



4. Remove the circled thumb-screw; this will be used to secure the PCIe card's bracket to the inner chassis. If you are using a double-width card, please remove the additional thumb-screw and bracket cover as well.



5. Install the PCIe card. Line up the connector on the card with the PCIe slot (highlighted in red), and make sure that the edge of the metal bracket on the PCIe card lines up with the slot in the bottom of the Mercury Helios 3S. The card shown is an example of a single-width, half-length, full-height card. Your card's dimensions and appearance may differ.



6. Once the PCIe card is fully seated, the PCIe bracket will sit flush with the opening on the back of the inner-chassis. Take the screw you removed in Step 4 and secure the PCIe card bracket to the Mercury Helios 3S.



- Slide the inner-chassis back into the outer-enclosure as shown above.



- When the inner-chassis is fully seated into the outer-enclosure, tighten the thumbscrews on the rear panel. Press each screw in toward the enclosure, then twist clockwise while still applying pressure. Keep twisting until you feel increased resistance.

**This completes the assembly process.**





## 3.1 Troubleshooting

Many problems can be traced back to an improperly seated PCIe card or card compatibility issues (such as those which are not supported by the operating systems required by the Mercury Helios 3S, or cards which have drivers that are not Thunderbolt-aware).

First disconnect the power and any connected data or display cables, then open the Mercury Helios 3S and check the seating of the PCIe card. Make sure it sits flush in the PCIe slot. If the card is seated properly, the issue may be related to the Thunderbolt 3 cable. Try using the Mercury Helios 3S with a different Thunderbolt 3 cable.

If you're still having trouble, please contact technical support.

## 3.2 Contacting Technical Support



**Phone:** M–F, 8am–5pm Central Time  
1.866.692.7100 (N. America) | +1.815.338.4751 (Int'l)



**Chat:** M–F, 8am–8pm Central Time  
[www.owcdigital.com/support](http://www.owcdigital.com/support)



**Email:** Answered within 48 hours  
[www.owcdigital.com/support](http://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 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 OWC Mercury Helios 3S is covered by a [3 Year OWC Limited Warranty](#). For up-to-date product and warranty information, please visit the [product web page](#).

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