U.2 **SHUTTLE**
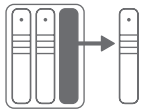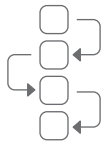### 3.5-inch U.2 NVMe SSD Carrier Shuttle

Fast and Easy Drive Swaps
Move between U.2 devices,
PCs, and servers

RAID Ready
Harness the power of RAID 0, 1, 4, 5, or 10
via your choice of RAID utilities

Ideal for Media Production Workflows
Offload day's shoot and send drive to post

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INTRODUCTION

1.1 SYSTEM REQUIREMENTS

Operating System:
- Mac and PC OS requirements differ based on enclosure type (see below)

Hardware:
- Mac or PC with an enclosure supporting a 3.5-inch drive form-factor using an NVMe U.2 connection.
  Supported OWC enclosures include:
    - OWC ThunderBay Flex 8 (top 4 bays only, top-left recommended)
    - OWC Mercury Helios 3S with U.2 NVMe Interchange System
    - OWC Mercury Pro U.2 Dual

Supported Drives Types:
- (4) NVMe M.2 drives with 2280 form factor and M-key connector

1.2 PACKAGE CONTENTS

OWC U2 Shuttle   Security keys   Quick start guide

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.

DEVICE SETUP

2.1 INSTALLATION OF M.2 DRIVE(S)

This section describes the process of installing one or more M.2 drives into the OWC U2 Shuttle. NVMe drives with a 2280 form factor and M-key connector are required. Other M.2 drive types are not supported.

1. Remove the device from the retail packaging and set it on a static-free work surface.

2. Remove the four cover screws at the locations shown (there are two on each side).

3. Lift the cover off the device and set it aside.

4. Based on the number of M.2 drives you wish to install, remove the screws from the corresponding drive posts (highlighted), then set them aside.

5. For each SSD, align the M-key connector on the drive with a connector on the PCBA and carefully seat the drive in the connector. Minimal force is required. If a drive does not seat correctly, do not apply more force. Remove the drive, re-align it, and try again. Note: once seated it is normal for each drive to sit at an angle.

6. For each SSD, hold the end of the M.2 drive down against the corresponding drive post, then re-affix the screw you removed earlier, to secure the drive in place.

7. Re-seat the cover, making sure that it sits flush with the shuttle chassis on all sides. While maintaining a modest amount of downward pressure on the cover, re-affix the four screws you removed in Step 2 to secure it. IMPORTANT: when the cover is seated and affixed correctly, the tops of the "fins" on the cover will sit flush with the top edges of the chassis. This reduces the potential for installation issues when working with the U.2 NVMe Interchange System.

This completes the drive installation process.

- To install with Mercury Helios 3S and U.2 NVMe Interchange System, go to Section 2.2.

- To install in a ThunderBay Flex 8, skip to Section 2.3.

- To install in Mercury Pro U.2 Dual, skip to Section 2.4

2.2 HOST INSTALLATION: HELIOS 3S WITH U.2 NVME INTERCHANGE SYSTEM

This section describes the process of installing the OWC U2 Shuttle into the U.2 NVMe Interchange System. If you are using both devices for the first time, you need to set up the Helios 3S with the interchange system first. Please see the assembly manual at www.owc.com/support/manuals for instructions, then return to this page to install the Shuttle.

1. Note the shape of the cutout on the back of the U.2 NVMe Interchange System; when installing the U2 Shuttle, you need to first rotate it so that the side with the U.2 connector is facing up. Make sure the connector is oriented to the left, far edge.

2. Carefully slide the shuttle into the U.2 Interchange chassis. When the shuttle contacts the U.2 connector inside the device, a modest amount of force is required to fully connect them. If the shuttle does not seat, do not apply more force. Slide it back a small amount and then try again. When seated it should "snap" into place.

    IMPORTANT: when the cover is seated and affixed correctly, the tops of the "fins" on the cover will sit flush with the top edges of the chassis. If this is not the case, you may have difficulty completing this step and potentially cause cosmetic damage to the fins on the Shuttle. If the fins are not completely flush please re-visit Section 2.2, Step 7. You may need to remove and then reseat and re-affix the cover, as described.

3. If you would like to lock the U2 Shuttle into place, insert the included key into the lock and turn it until the lock is secured, then remove the key.

    Note: even though you are not using a PCIe card, this Helios 3S configuration is not hot-swappable. Each time you perform this installation you should power the Helios 3S off and disconnect it from power and the host computer, install the U2 Shuttle, then reconnect the Helios 3S.

    You can now mount the Helios 3S to your host computer, format and/or RAID the M.2 drives installed using SoftRAID or the RAID Assistant feature in Apple's Disk Utility application, and then begin using the drives.

2.3 HOST INSTALLATION: THUNDERBAY FLEX 8

This section describes the process of installing the OWC U2 Shuttle into the ThunderBay Flex 8. If you are using both devices for the first time, please familiarize yourself with the ThunderBay and its drive sleds first. Please see the assembly manual at www.owc.com/support/manuals for instructions, then return to this page to install the Shuttle.

1. While it's possible to install a U.2 drive or the U2 Shuttle in any of the top four bays, we strongly recommend the **top-left bay** to get the best performance. This bay offers four lanes of PCIe bandwidth (x4) while the other three only offer a single lane each (x1).

2. Seat the U2 Shuttle into the drive sled, making sure the connector on the bottom of the shuttle is aligned with the connector cutout at the front edge of the sled.

3. Also make sure the six screw holes on the shuttle (3 aside) align with the corresponding holes on the sides of the drive sled, then affix the shuttle using six of the 3.5 inch drive screws that shipped with the ThunderBay.

4. Align the drive sled with the corresponding track inside the chassis, then carefully insert the sled and slide it back until the connector on the shuttle seats with the connector on the ThunderBay; this is similar to the drive install process described in Section 2.1, Step 8 in the ThunderBay manual. If it does not seat initially, do not apply more force, remove the tray, re-align it and try again.
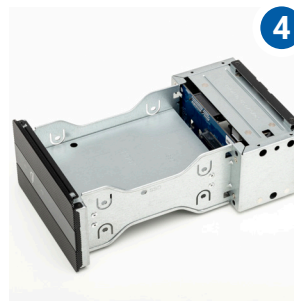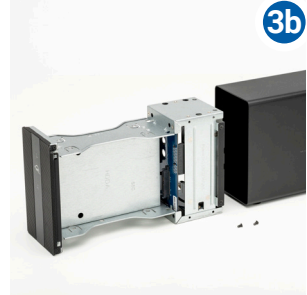
   Once the OWC U2 Shuttle is installed, you can format and/or RAID the M.2 drives installed using SoftRAID or the RAID Assistant feature in Apple's Disk Utility application, and then begin using the drives.

2.4 HOST INSTALLATION: MERCURY PRO U.2 DUAL

This section describes the process of installing the OWC U2 Shuttle in the Mercury Pro U.2 Dual. The instructions listed here will the same or very similar to the ones found in that product's assembly manual, located at www.owc.com/support/manuals.

1. Remove Mercury Pro U.2 Dual from its packaging and set it on a static-free work surface.

2. Remove the two screws highlighted in red from the back of the enclosure and set them aside.

3. Pull on the front plate of the enclosure so the inner-chassis slides out (A), then remove it fully (B).

4. Set the inner chassis flat on the work surface.

5. Making sure the connector on the shuttle aligns with the connector on the inner-chassis, place the shuttle into the housing. Then, connect the inner-chassis to the U2 Shuttle by sliding it in the direction shown until it is fully seated. If the device does not seat fully, do not apply more force. Move it back and try again. As long as the OWC U2 Shuttle is sitting flush in the drive carrier, the connectors should automatically align.

6. Affix the U2 Shuttle to the inner-chassis at the locations shown. Note: the hole for a 2.5 inch U.2 drive is circled in yellow. A total of one screw is required for 2.5 inch drives, and four screws (two per side) for 3.5 inch drives and the OWC U2 Shuttle.

7. Once the U2 Shuttle is secured, flip the inner chassis if needed and repeat Steps 5 and 6 to install another U.2 device or OWC U2 Shuttle.

8. Make sure the ports on the back of the inner chassis and the port cut-outs on the back of the outer enclosure are oriented the same way, then slide the inner chassis into the outer enclosure so that the chassis' front plate is flush with the cover's front edge.

9. Re-affix the screws you removed in Step 2.

This completes the assembly process.

Once you've completed the installation steps, you can format and/or RAID the M.2 drives using SoftRAID or the RAID Assistant feature in Apple's Disk Utility application, and then begin using the drives. You can also format and use the individual M.2 drives as independent volumes, or a mix of independent and RAID volumes.

2.5 USAGE NOTES

- When using this device with a ThunderBay Flex 8, the top-left drive bay is recommended because it provides the greatest PCIe bandwidth, to be shared among the drives installed in the Shuttle. The other 3 bays in the top row will function, but at potentially much slower speeds, unless you're using a single M.2 drive in the shuttle.

SUPPORT RESOURCES

3.1 TROUBLESHOOTING

Most problems with the U2 Shuttle can be traced back to one or more improperly installed M.2 drives and/or a shuttle that is not fully connected to the host enclosure in which it is being used. Please disconnect any host enclosure from power, remove the U2 Shuttle, then remove the cover and inspect the M.2 drive connections. If they're OK, re-seat and affix the cover, then re-seat the U2 Shuttle itself into the bay or drive sled you're using and try again. If you are still unable to see the M.2 drives in your system afterward, please contact Technical Support.

3.2 FORMATTING

For additional formatting information, including instructions on how to format your M.2 SSDs for Mac or Windows, go to: www.owc.com/support/formatting

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 U2 Shuttle 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 U2 Shuttle 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 CONTACTING TECHNICAL SUPPORT

Phone: M–F: 8am–6pm CT, Sat & Sun: Closed
1.866.692.7100 (N. America) | +1.815.338.4751 (Int'l)

Chat: Sun: 9am–midnight, M–Th: 12am–4am & 7am–midnight (closed from 4am–7am),
Fri: 12am–4am & 7am–10pm (closed from 4am–7am), Sat: 9am–5pm
www.owc.com/support

Email: Answered within 48 hours
www.owc.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 U2 Shuttle has a 1 Year OWC Limited Warranty without drives pre-installed and a 3 Year OWC Limited Warranty on solutions with drive pre-installed. For up-to-date product and warranty information, please visit the product web page.

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