OWC Mercury Elite Pro Dual mini

ASSEMBLY MANUAL & USER GUIDE

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INTRODUCTION

1.1 MINIMUM SYSTEM REQUIREMENTS

1.1.1 Apple® Mac Requirements

- PowerPC G4 CPU, 128MB RAM
- FireWire 800: Mac OS X 10.2 or later
- USB 3.0 (backwards compatible to USB 2.0): Mac OS X 10.2 or later

1.1.2 PC Requirements

- 500MHz Intel® Pentium® 3 CPU, 128MB RAM
- FireWire 800: Windows® XP or later
- USB 3.0 (backwards compatible to USB 2.0): Windows XP or later

1.1.3 Supported Drives

- 2.5" SATA hard drives (HDDs) or solid-state drives (SSDs) up to 12.5 mm tall.

NOTE: Drives of identical capacity and model are required for RAID 0 and RAID 1.

1.2 PACKAGE CONTENTS

Mercury Elite Pro Dual mini

USB 3.0 cable (Standard-A to Micro-B)

FireWire 800 (1394b) 9-9 pin cable

NOTE: If purchased without drives installed, a set of eight Phillips screws is also included.

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 REAR VIEW

1.4.1 Rear Features

1. **FireWire 800 ports —** Attach the included 9-9 pin FireWire 800 cable to one of these ports and to your computer. Use the other FireWire 800 port to daisy-chain other FireWire 800 devices. **NOTE:** Any device daisy-chained off of the Mercury Elite Pro Dual mini must be powered by its own power supply. The Mercury Elite

Pro Dual mini does not support bus-powering other devices.

2. USB 3.0 port — Attach the included USB 3.0 (Standard-A to Micro-B) cable here.

3. On/off switch — Turn on and off the Mercury Elite Pro Dual mini here.

4. Power input — Connect the optional 12V power adapter here (sold separately).

NOTE:

- The Mercury Elite Pro Dual mini is designed to receive all needed power through the USB or FireWire cable, therefore a separate power adapter is not necessary and not included. For the few situations in which external power may be necessary, an optional 12V power adapter is available at: http://eshop.macsales.com/item/OWC/MEP2BAYM15/
- If the Mercury Elite Pro Dual mini is daisy-chained off of another FireWire device instead of being connected directly to a computer, you must use the optional 12V power adapter. Attempting to bus-power the Mercury Elite Pro Dual mini using the FireWire port of another device could cause damage to one or both devices and should not be attempted.
- Even when the optional power 12V power adapter is not connected, the on/off switch must be in the 'on' position in order to use the Mercury Elite Pro Dual mini.
- Only one interface (USB or FireWire) at a time can be used.
- 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.

1.5 LED INDICATORS

The Mercury Elite Pro Dual mini has two multicolored LED indicators located behind the front grill, one for each drive. The following chart shows how to interpret the activity of these LED indicators.

	NORMAL OPERATION	DRIVE 1 FAILURE	DRIVE 1 REBUILD	DOUBLE FAILURE
DRIVE 1 LED	SOLID BLUE FOR POWER, FLASHING BLUE FOR ACTIVITY	SOLID RED	STEADY BLINKING RED FOR REBUILD, FLASHING BLUE FOR ACTIVITY	SOLID RED
DRIVE 2 LED	SOLID BLUE FOR POWER, FLASHING BLUE FOR ACTIVITY	SOLID BLUE FOR POWER, FLASHING BLUE FOR ACTIVITY	SOLID BLUE FOR POWER, FLASHING BLUE FOR ACTIVITY	SOLID RED

NOTE: In the event of a failure and rebuild of drive 2, simply switch the rows for "Drive 1 LED" and "Drive 2 LED".

SYSTEM SETUP

2.1 QUICK START

If you purchased the Mercury Elite Pro Dual mini as an empty enclosure, see **Section 2.2, Assembly**. If you purchased the Mercury Elite Pro Dual mini with drives already installed, the OWC Drive Guide formatting utility has been installed on your Mercury Elite Pro Dual mini. Follow these steps to use the OWC Drive Guide to format your Mercury Elite Pro Dual mini for Mac OS X (10.4 and later) or Windows (XP and later).

1. Connect your drive to your computer using the proper cable, then turn on your drive. If you prefer to use a different formatting utility, do so at this time and skip the rest of these instructions.
2. Your drive will show up as "OWC HD". Open your drive to view its contents.
3. Open the "Macintosh Setup" or "Windows Setup" folder, depending on the computer's operating system, then double-click the OWC Drive Guide application.
4. Follow the simple on-screen instructions to complete the formatting process.
5. Once the formatting is finished the drive is ready to use.

2.2 ASSEMBLY

NOTE: The following instructions show how to open the Mercury Elite Pro Dual mini in order to change the RAID settings and install drives. If you purchased the Mercury Elite Pro Dual mini with drives already installed, follow the assembly instructions through step 3 to gain access to the DIP switches that control the RAID settings. If you wish to remove or replace the drives after the expiration of the original warranty, you may do so at that time. **Removal of the pre-installed drives before the expiration of the original warranty of the Mercury Elite Pro Dual mini will VOID the warranty.**

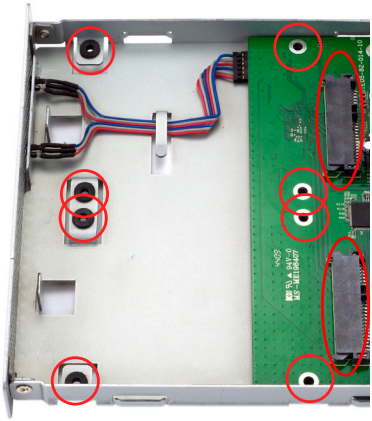
1. Use a Phillips screwdriver to remove the two screws at the rear of the enclosure, as circled below in red.

2. Tilt the Mercury Elite Pro Dual mini up at the front to allow the back plate to fall free. Note the three DIP switches in the blue block to the left of the on/off switch. You will use these switches to configure the desired RAID mode. For now, set aside the back plate and continue to step 3.

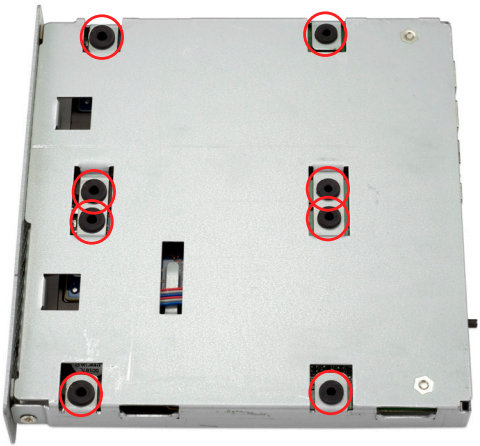
3. Gently push on the inner chassis that was exposed by removing the back plate. The inner chassis should slide easily out of the outer enclosure. Once there is enough room at the front, as shown to the left, you can pull on the front of the inner chassis to remove it fully.

NOTE: You are now able to access the DIP switches to change the RAID mode of the Mercury Elite Pro Dual mini. See **Section 2.3, RAID Settings** for instructions on how to change the RAID mode.

4. Once the inner chassis has been removed from the outer enclosure, note the two SATA connectors on the right. There are also eight screw holes: four through the metal on the left and four through the green circuit board on the right. These are the items that you will use to secure your drives to the inner chassis.

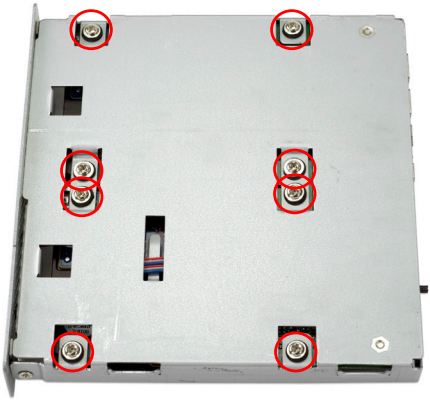


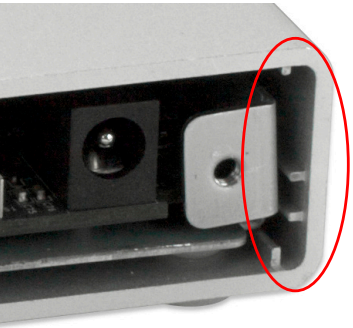
5. Place your drives in the inner chassis as shown to the right. Press each drive toward the rear of the inner chassis to make sure that the drives are fully seated in the SATA connectors.



6. Use one hand to hold both drives down, then flip over the inner chassis. There are eight screw holes on the bottom of the inner chassis, as circled in red.

7. Using a Phillips screwdriver, insert the eight included screws into the screw holes to fasten the drives to the inner chassis, as shown. When this is done, flip the inner chassis back over.





8. Slide the inner chassis back into the outer enclosure. Note that the inner chassis can slide in either end of the outer chassis, but the rails on one end of the outer chassis are notched, as shown to the left. This allows the back plate to sit flush when attached.

9. Using a Phillips screwdriver, attach the back plate as shown. The Mercury Elite Pro Dual mini is now assembled and ready to be used.

2.3 RAID SETTINGS

WARNING: Changing the RAID mode will destroy the data on the drives. Be sure to back up your data first! See section 3.2 for information on proper backup strategies.

2.3.1 Changing the RAID Mode

The RAID mode on the Mercury Elite Pro Dual mini is controlled by a set of three DIP (dual in-line package) switches located in a blue block inside the enclosure. **Section 2.2, Assembly** shows how to access the DIP switches.

The switches are labeled 1, 2, and 3, and the blue block has the word '**ON**' at the top. The '**ON**' position for each switch is toward the word '**ON**', while the '**OFF**' position for each switch is toward the numbers. The following chart shows the switch positions that correspond to each RAID mode. See **Section 2.3.2, RAID Modes** for more information on each RAID mode that can be used.

MODE	SW#1	SW#2	SW#3
RAID 1	---	OFF	OFF
RAID 0	---	OFF	ON
SPAN	---	ON	OFF
2TB MODE	ON	---	---

2TB MODE — Switch #1 has no effect on the RAID mode. Instead, it controls the 2TB volume limitation. When switch #1 is in the **OFF** position, the total capacity of the drives is limited to a maximum of 2TB for compatiblity with older operating systems.

NOTE:

- If setting switch #1 to **ON** does not initially allow volume sizes to exceed 2TB, do the following: keeping switch #1 in the **ON** position, change to a different RAID mode, then turn on the Mercury Elite Pro Dual mini. Format the new RAID volume, then shut off the Mercury Elite Pro Dual mini, change to the desired RAID mode, and turn on the Mercury Elite Pro Dual mini.
- When 2TB mode is enabled, PowerPC Macs and Intel Macs introduced before 2008 cannot use the OWC Mercury Elite Pro Dual mini as a startup drive over the FireWire connection. This is a limitation of these computers. Mac models introduced in 2008 and later are fully capable of using the OWC Mercury Elite Pro Dual mini as a startup drive over FireWire, even with 2TB mode enabled. Note that this only affects FireWire booting. All Intel Macs are still able to use the OWC Mercury Elite Pro Dual mini as a startup drive over USB, regardless of whether 2TB mode is enabled.

2.3.2 RAID Modes

Span Mode:

The drives show up as one large single volume. The total size will depend on the drives installed; you can use drives of different capacities. A span is an array (not RAID) in which the data is written sequentially across the drives. This combines the capacities of the drives, but it does not provide any performance or redundancy benefits.

RAID 0 "Drive Striping" Mode:

The drives show up as one large single volume with a size equal to the combined capacities of both drives. RAID 0 is used when speed is the primary objective, but it does not have any redundancy for protection. Data is alternated very quickly across both drives to gain speed by distributing the workload. This allows for the fastest data transfer rates, but if one drive fails, the whole array can become corrupted and data will be lost. Always maintain a backup of your data!

RAID 1 "Drive Mirroring" Mode:

The drives show up as one volume with a size equal to the capacity of one of the two drives used in the array. RAID 1 copies (or "mirrors") a set of data from the first drive to the second drive. This is useful when reliability and redundancy are more important than capacity. When one drive fails, it can be replaced and the data will be rebuilt automatically.

2.4 DRIVE FAILURE

In the event that one of the drives fails, the corresponding drive LED will turn solid red. If the Mercury Elite Pro Dual mini was configured as a RAID 0 or span, the data on the array is lost and the volume cannot be used. In a span, only the data stored on the failed drive is lost, although data recovery software will be required to recover the data from the other drive in the span.

If the drive was part of a RAID 1 array, then it can be replaced. In the meantime, the data will remain accessible through the other drive in the RAID 1 array. If the Mercury Elite Pro Dual mini was purchased with drives already installed and it is still under warranty, see **Section 3.4** for information on how to contact OWC technical support. If the unit is outside its warranty or was purchased without drives, follow the instructions in **Section 2.2** to access and replace the failed drive. After the failed drive is replaced, the RAID 1 array will be rebuilt automatically. This process may take several hours to a day, based on the capacity of the drives. **NOTE:** The failed drive must be replaced with a drive that is identical in model and capacity.

APPENDIX

3.1 TROUBLESHOOTING

First, verify that both ends of your cable are properly plugged into the computer and the Mercury Elite Pro Dual mini. After that, try connecting to another interface (USB or FireWire). You can also connect the Mercury Elite Pro Dual mini to a different computer.

In some rare instances, the power being provided through the interface cable may not be sufficient to power the Mercury Elite Pro Dual mini. If you suspect this is the case, an optional 12V power adapter is available at: http://eshop.macsales.com/item/OWC/MEP2BAYM15/

If problems persist, our online collection of frequently asked questions is available at www.macsales.com/FAQ, or see **Section 3.4** for information on contacting OWC technical support.

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 Mercury Elite Pro Dual mini and a second copy on either your computer's 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 Mercury Elite Pro Dual mini is the sole responsibility of the user, and under no circumstances will Other World Computing be held liable for compensation or the recovery of any lost data.

3.3 ONLINE RESOURCES

Formatting:

For formatting information, including instructions on how to format your Mercury Elite Pro Dual mini for Mac or Windows, go to: www.macsales.com/format

Data Migration:

For a step-by-step walkthrough of our recommended method for migrating your data from an old drive to a new one, go to: www.macsales.com/migration

FAQs:

Access our online collection of frequently asked questions at: www.macsales.com/FAQ

3.4 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

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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:
- 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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