

## (8) Sleep

The MiniPro RAID V3 does not have an auto-sleep timer. However, it will follow the sleep settings of the computer. When your computer enters sleep mode, the MiniPro will sleep and the HDDs will spin down.

## (9) RAID 1 Rebuild

If one of the drives fail, the D1 or D2 LED will turn RED (or off) while connected to a computer. A new drive can be installed and will automatically rebuild with data (if configured for RAID 1).

1. Power down the MiniPro and remove the failed drive (see section 3 for removal instructions).
2. Install the new drive and power up the MiniPro.
3. Connect the MiniPro to a computer.
4. The D1/D2 LED will blink about three times per second, which indicates a rebuild in progress.
5. You may disconnect the MiniPro from the computer during the rebuild (if using DC external power). This will not interrupt the rebuild.

**Note:** To estimate the rebuild time, multiply the size of the RAID by 3 to get the approximate rebuild hours. For example a 4TB RAID 1 will take approximately 12 hours. For SSDs, multiply the size of the RAID by 1. For example, a 4TB SSD RAID1 will take about 4 hours.

## (10) Troubleshooting and FAQ

### 1) Does a "Clear" procedure delete data from existing RAID 1 or JBOD drive(s)?

No, if a Clear procedure is performed on RAID 1 or JBOD drives, the existing data on the drives will not be deleted.

### 2) Can I remove a drive from the RAID and install it in another enclosure for access to the files?

Yes, only if using RAID 1 (Mirroring) or JBOD.

### 3) Can I connect the MiniPro RAID V3 to a Thunderbolt 3 or 4 port?

Yes, the MiniPro RAID V3 is compatible with Thunderbolt 3 or 4 as well as all USB.

### 4) Is the MiniPro compatible with Thunderbolt 2 using a Thunderbolt 3 adapter?

No, the MiniPro is not compatible with Thunderbolt 2 using an adapter of any make or model.

### 5) How do I know the RAID was configured properly?

If using **Windows**, open Device Manager > Disk Drives. The MiniPro will be shown with the RAID mode in the title. If using **Mac**, open Disk Utility, then View > Show All Devices. The MiniPro will be shown with the RAID mode in the title. E.g. **MiniPro RAID V3 RAID 1**.

For other questions please contact tech support or visit the FAQ section of our Web site ([www.oyendigital.com/support.html](http://www.oyendigital.com/support.html)).

Technical Support: [info@oyendigital.com](mailto:info@oyendigital.com)

Video user guide available at: [TinyURL.com/MiniProV3Video](http://TinyURL.com/MiniProV3Video)

## (11) Warranty Information

This product includes a two (2) year repair/replacement warranty provided by Oyen Digital. This warranty is non-transferable and is limited to the original purchaser. Warranty service may be requested at: [oyendigital.com/support](http://oyendigital.com/support)

## (12) Safety and Compliance

### Location and placing precautions

- Avoid positioning it in locations with direct sunlight or other sources of heat with high temperatures (over 120° F).
- Do not expose the product to water or wet conditions.

### Regulatory Compliance

FCC Class B Information: This device has been tested and found to comply with the limits of a Class B digital device, pursuant to Part 15 of the FCC Rules.



## MiniPro RAID V3 System User Guide

For more information, visit our website at [www.oyendigital.com](http://www.oyendigital.com)

Video user guide available at:  
[TinyURL.com/MiniProV3Video](http://TinyURL.com/MiniProV3Video)

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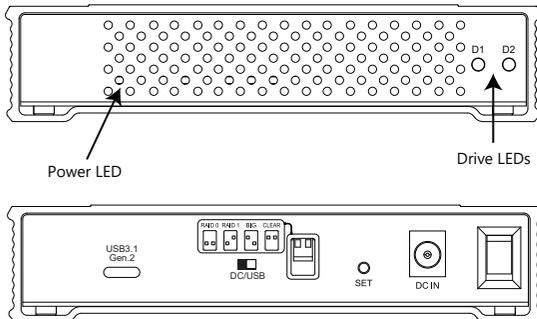
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For more information, visit our website at [www.oyendigital.com](http://www.oyendigital.com)

## (1) Specifications

Application	• 2 x 2.5" SATA HDDs or SSDs (up to 15mm height)
Interface/Ports	• USB Type-C (Up to 10Gbps)
RAID Modes	• RAID 0 Striping • RAID 1 Mirroring • JBOD Clear (independent drives) • BIG (non-RAID single volume)
System Requirements	• Windows, Mac, Linux
Operating Environment	• Temperature: 5°C ~ 55°C • Humidity: 10%RH ~ 80%RH
Storage Environment	• Temperature: -20°C ~ 70°C • Humidity: 5%RH ~ 90%RH
Power	Input: AC 100-240V, 50-60Hz; or bus power Output: DC +12V/2A
Enclosure Size	6.5 x 5.1 x 1.1 inches

## (2) Detailed View



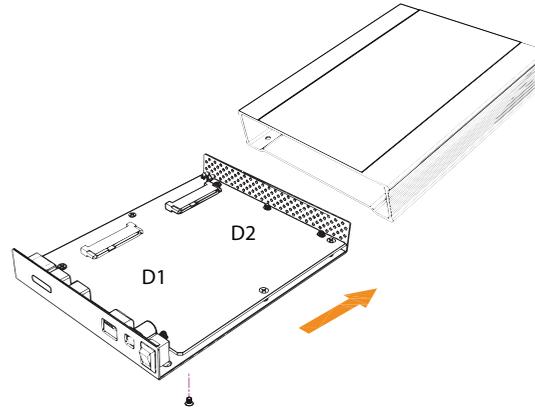
### LED indicators

State	Power LED	Drive 1 (D1)	Drive 2 (D2)
Powered & ready	Solid White	Solid Blue	Solid Blue
Read/Write activity	Solid White	Fast rapid blinking	Fast rapid blinking
Drive Error or missing	Solid White	Red	Red
HDD Sleep	Solid White	Off	Off
RAID 1 Rebuilding	Solid White	Slow steady blink	Slow steady blink

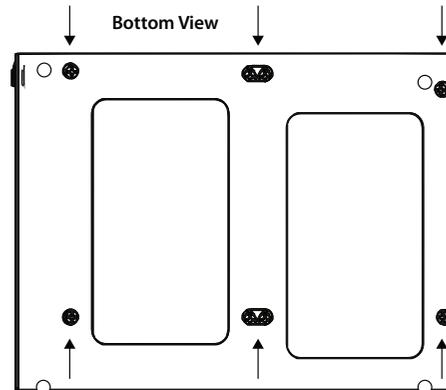
\* **Note:** D1 & D2 LEDs will be OFF when the MiniPro is not connected to a computer.

## (3) Installing Drives (Enclosure Version)

a) Remove the screws located at the bottom of the case and slide out the circuit board bracket from the enclosure.



- b) Install the drives in the D1 & D2 slots on the circuit board.  
c) With your hand holding the drives into the bracket, flip it over to view the screw holes.  
d) Using the 8 mounting screws, attach the drives to the bracket using the included screwdriver.



e) Slide the bracket back into the enclosure and fasten using the 4 exterior screws removed in step a.

## (4) Power

The MiniPro can be powered from the included DC adapter or bus power. To choose the power method, slide the selector switch to the desired position. **DC** = External Adapter, **USB** = Bus Power

### Note:

- USB-C or Thunderbolt host ports will have sufficient power without the need for the external adapter.
- If bus power is desired via USB 3.0, we recommend a USB y-cable, which connects to two USB 3.0 ports for max power. Available here, [www.oyendigital.com/USB-Y-F1M2](http://www.oyendigital.com/USB-Y-F1M2)

## (5) System Setup

The default mode is JBOD, which is two independent drives. If your MiniPro RAID V3 has pre-installed drives, they are formatted as exFAT for Windows and Mac. If you desire a mode other than JBOD, perform a 'Set RAID':

### Set RAID:

1. Set the switches on the MiniPro to the desired mode.
2. Connect the MiniPro to the host computer and turn on. Wait for the D1 and D2 lights to turn blue.
3. Using the tip of the screwdriver, press SET button for at least 5 seconds.
4. Release the SET button. The RAID is configured and ready for formatting (section 6).

If changing or deleting a RAID mode, perform a "Clear" procedure.

### Clear Procedure:

1. Set the switches on the MiniPro to Clear.
2. Connect the MiniPro to the host computer. Wait for the D1 and D2 lights to turn blue.
3. Using the tip of the screwdriver, press SET button for at least 5 seconds.
4. Release the SET button. Any previous RAID mode is removed and the drives are now set for JBOD mode.

## (6) Formatting the Drives

After setting a new RAID mode, you must format the volume. Note: RAID 0/1 or Span will appear as a single drive.

For instructions, visit: <http://oyendigital.com/format>

## (7) RAID Modes

**RAID 0 (Striping)** is a non-redundant data mapping technique. It combines data evenly across both drives simultaneously; dramatically increasing performance. RAID 0 will be viewed as one single storage unit. If one disk in the RAID System fails, all data in installed disks will be lost. The total capacity = smallest drive x the total number of drives. For example, if the smallest drive is 500GB and the other is 2TB, the total capacity will be 1TB (500 x 2).

**RAID 1 (Mirroring)** consists of two drives storing duplicate copies of the same data. In this mode, the data is simultaneously written to both drives. The speed of operation is slow in comparison to RAID 0; however if one drive fails, no data is lost. Simply replace the failed drive (section 9). RAID 1 will be seen as one single storage unit. The total capacity = one drive. For example, if installing 2 x 1TB drives, the total capacity will be 1TB.

**JBOD (Clear)** is simply a collection of drives that are recognized as separate drives by the OS. JBOD provides no performance increase or redundancy. This is the **default** setting.

**Big (Span)** combines both hard drives into a single logical unit. Unlike Striping, it writes data to the first drive until it reaches full capacity. When the first disk reaches full capacity, data is written to the second disk. Spanning does not increase performance or safety. "Big" mode is considered a legacy mode and may cause a decrease in drive performance. It is not recommended for use in most applications.