

ORICO 8848RC3

ORICO USB C 4-Bay 2.5" RAID Enclosure User Manual

MODEL: 8848RC3

1. Introduction

This user manual provides comprehensive instructions for the ORICO USB C 4-Bay 2.5" RAID Enclosure (Model 8848RC3). It covers product features, setup procedures, operational guidelines, RAID configuration, maintenance, and troubleshooting to ensure optimal performance and longevity of your device. Please read this manual thoroughly before using the product.

2. Product Overview

The ORICO 8848RC3 is a compact and efficient 4-bay enclosure designed for 2.5-inch SATA SSDs and HDDs. It supports up to 32TB total storage capacity (4x 8TB drives) and offers 10Gbps data transfer speeds via USB 3.2 Gen 1. Its all-solid-state structure provides superior shock resistance, and the integrated cooling fan ensures stable operation.

- **Compact Design:** Over 50% smaller than traditional 3.5-inch enclosures, making it highly portable.
- **RAID Support:** Supports RAID modes 0, 1, 3, 5, 10, JBOD, and CLEAR for flexible data management and protection.
- **High Capacity:** Accommodates up to four 2.5-inch SSDs/HDDs, with a maximum individual drive capacity of 8TB.
- **Efficient Cooling:** Features a built-in cooling fan and an all-aluminum alloy chassis for effective heat dissipation, ensuring quiet operation below 30dB.
- **High-Speed Transfer:** Achieves data transfer rates of up to 10Gbps.



Figure 2.1: Front view of the ORICO 4-Bay 2.5 inch RAID Enclosure, showcasing its compact design and four drive bays.

10Gbps Transfer Speed

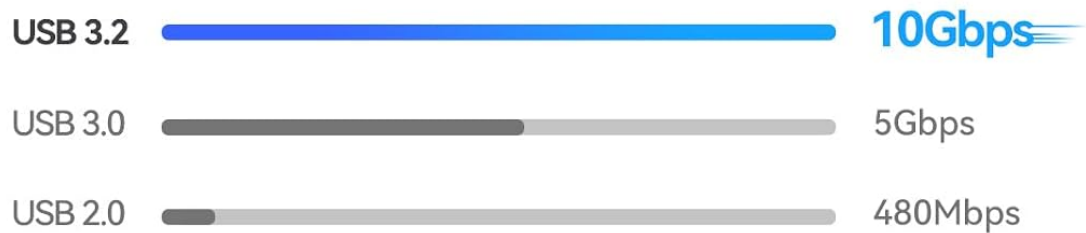
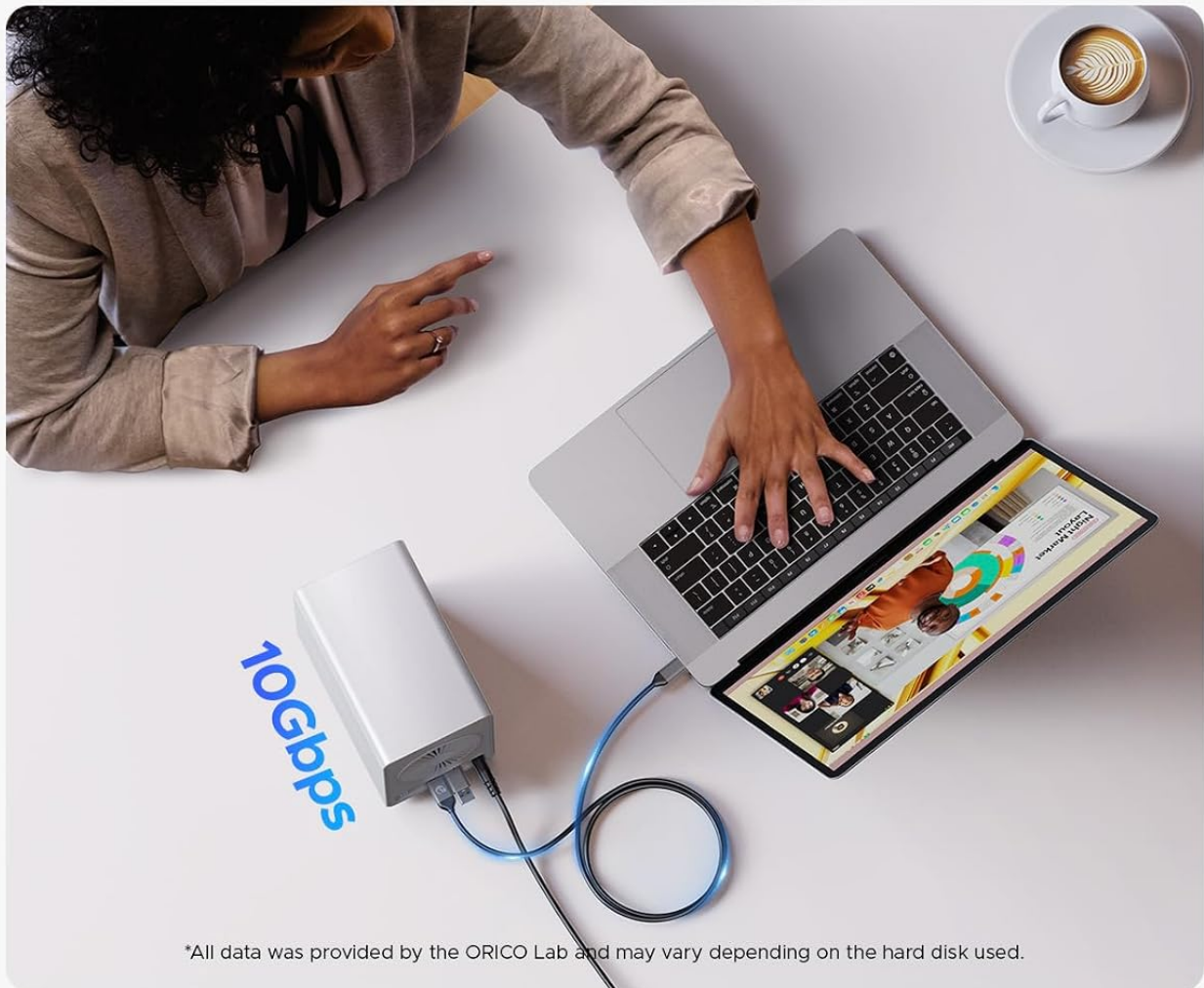


Figure 2.2: Illustration of the 10Gbps data transfer speed, demonstrating the enclosure connected to a laptop.

More Compact



Dimensions

167x101x119.5mm



55% Smaller

Than 3.5inch 4 bay enclosures



Figure 2.3: Size comparison showing the ORICO 2.5-inch enclosure (left) next to a larger 3.5-inch enclosure (right), highlighting its compact dimensions.

3. Setup

Follow these steps to set up your ORICO 4-Bay RAID Enclosure:

1. **Unpack the Enclosure:** Carefully remove all components from the packaging. Verify that all items listed in the "What's in the Box" section are present.
2. **Install Hard Drives/SSDs:**

- Push the slide buckle on the left side of the enclosure to automatically eject a hard drive tray.
 - Pull out the hard drive tray.
 - Align the screw holes at the bottom of your 2.5-inch hard drive or SSD with the 4 fixing holes on the tray.
 - Secure the drive to the tray using the provided screws and screwdriver.
 - Install the loaded tray back into the hard disk cabinet until it clicks into place.
 - Repeat for all desired drives.
3. **Connect Power:** Connect the provided power adapter to the DC 12V input port on the enclosure and then to a power outlet.
 4. **Connect to Computer:** Use the supplied 2-in-1 USB cable to connect the enclosure to your computer's USB-C or USB-A port.
 5. **Power On:** Press the power button on the enclosure to turn it on. The indicator lights will illuminate.

Silicone Anti-Slip Setting

Silicone anti-skid pad at the bottom can keep the dock stable protecting the dock against damage



Figure 3.1: Step-by-step guide for installing 2.5-inch drives into the enclosure's trays.

10Gbps 2-in-1 USB Cable

Compatible Systems



Windows



Chrom OS



Android



Mac OS

Compatible Devices

Type-C



Laptop



Phone



Tablet

USB-A



PC



Projector



Router



Figure 3.2: Image showing the silicone anti-slip pads on the bottom of the enclosure for stability.

4. Operating Instructions

Once the enclosure is powered on and connected to your computer, the operating system should detect the drives. You may need to initialize and format new drives through your operating system's disk management utility before use.

The enclosure supports data transfer speeds of up to 10Gbps, ensuring fast and efficient file transfers for large media files, backups, and other data-intensive tasks.



Figure 4.1: Depiction of the enclosure connected to a laptop, illustrating high-speed data transfer.

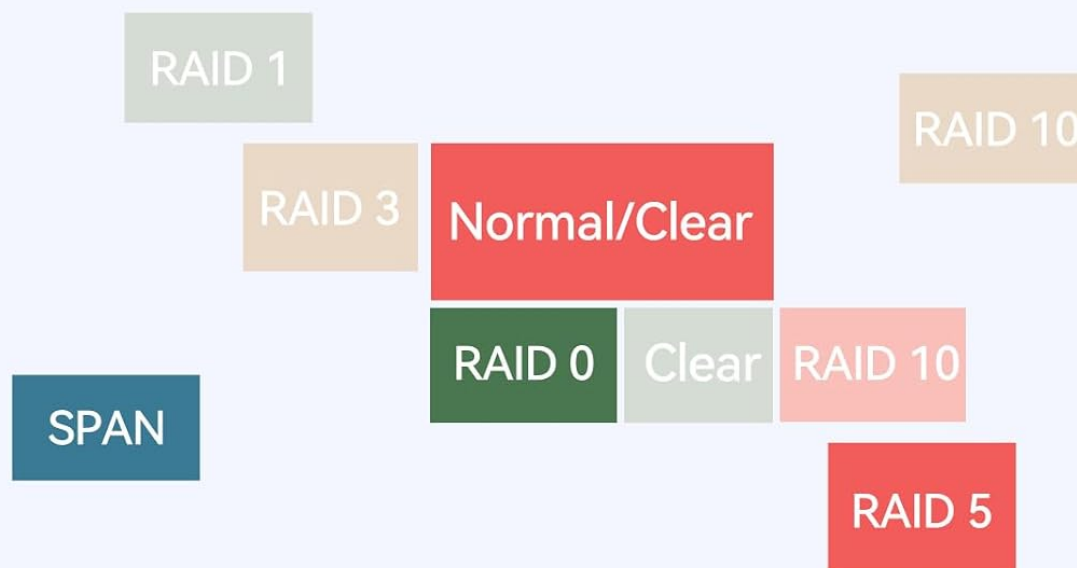
5. RAID Configuration

The ORICO 8848RC3 supports multiple RAID modes, allowing you to optimize for speed, redundancy, or capacity. RAID modes are configured manually using DIP switches on the back of the enclosure. **WARNING: Please back up all data before changing the RAID mode! Changing RAID modes will erase all data on the drives.**

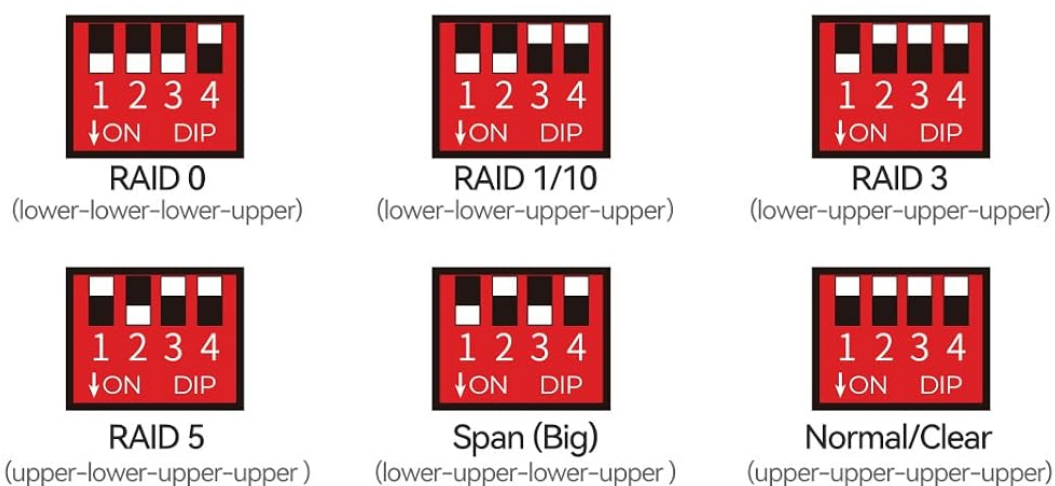
The RAID management software is not supported for Mac OS and Linux systems. You need to manually group RAID.

7 Raid Modes

RAID 0, RAID 1, RAID 3, RAID 5, RAID 10, Span, Clear



Supports RAID 0/1/3/5/10/Span and Clear



- * WARNING: Please back up all data before change the RAID mode!
- * The RAID management software is not supported for Mac OS and Linux systems. You need to manually group RAID.

Figure 5.1: Visual representation of the seven supported RAID modes and their corresponding DIP switch settings.

RAID Mode Descriptions and Setup:

RAID Mode	How to Set Up (DIP Switch)	Minimum Number of Disks	Utilization	RAID Usage Scenarios
RAID 0	(lower-lower-upper-upper)	2-5	100%	HD Movies/Photoshop/Video Editing

RAID Mode	How to Set Up (DIP Switch)	Minimum Number of Disks	Utilization	RAID Usage Scenarios
RAID 1	(lower-lower-upper-upper)	2	50%	Enterprise Files/Database Storage/Servers
RAID 3	(upper-lower-upper-upper)	3-5	2/3≈66%	Video Editing/Streaming Services
RAID 5	(upper-lower-upper-upper)	3-5	2/3≈66%	Finance/Data Centers/Database Storage
RAID 10	(lower-lower-upper-upper)	4	1/2≈50%	Banks/Finance/Business Supermarkets/Document Management
Span (JBOD)	(upper-lower-upper-upper)	2-5	100%	Server/Database Storage
Normal/Clear	(upper-upper-upper-upper)	1-5	100%	Audio-Visual Collection, Security Monitoring

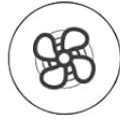
Note: It is advised to use hard disks of the same capacity to form a RAID array to maximize capacity utilization.

6. Heat Dissipation

The ORICO 8848RC3 is engineered for optimal thermal management. It features a fan-integrated all-aluminum alloy chassis that facilitates highly efficient heat conduction. Strategically designed front and rear cooling vents ensure effective and timely heat dissipation, guaranteeing long-term stable and efficient device operation, even under heavy loads.

Faster Heat Dissipation

Upgraded built-in cooling fan and aluminum alloy design



Cooling Fan



Aluminium Alloy



Figure 6.1: Diagram illustrating the airflow and heat dissipation mechanism within the ORICO enclosure, highlighting the cooling fan and aluminum alloy design.

7. Compatibility

The ORICO 8848RC3 is widely compatible with various operating systems and devices, ensuring seamless integration into your existing setup.

- **Operating Systems:** Compatible with Windows, macOS, Linux, and Android.
- **Supported Drives:** Designed for 2.5-inch SATA SSDs and HDDs (7-9.5mm thickness).
- **Compatible Devices:** Can be connected to Laptops, Desktops, OTG Phones, Mac mini, Mac Studio, Mac

Widely Compatible

Compatible 2.5inch hard drives



2.5inch SSD/HDD

2.5inch SSD



2.5inch HDD



Suitable Devices



Laptop



Desktop



OTG Phone



Mac mini



Mac Studio



Mac Pro



iPad



NAS



Projector

Figure 7.1: Chart detailing the wide compatibility of the ORICO enclosure with various operating systems and device types.

- ① 4 Bay DAS
- ② Product Box
- ③ Thimbles
- ④ Instruction Manual
- ⑤ 2-in-1 USB Cable
- ⑥ Power Adapter
- ⑦ Screw Accessories
- ⑧ Screwdriver



Figure 7.2: Diagram showing the compatibility of the 2-in-1 USB cable with Type-C and USB-A devices.

8. Maintenance

To ensure the longevity and optimal performance of your ORICO RAID Enclosure, follow these maintenance guidelines:

- **Cleaning:** Use a soft, dry cloth to wipe the exterior of the enclosure. Do not use liquid cleaners or aerosols, as they may damage the device.
- **Ventilation:** Ensure that the cooling vents are not obstructed to allow for proper airflow and heat dissipation.
- **Safe Handling:** Avoid dropping or subjecting the enclosure to strong impacts, despite its shock-resistant design.
- **Power Off Safely:** Always power off the enclosure and disconnect it safely from your computer before moving or storing it.

9. Troubleshooting

If you encounter issues with your ORICO RAID Enclosure, refer to the following common troubleshooting steps:

- **Enclosure Not Detected:**
 - Ensure the power adapter is securely connected and the enclosure is powered on.
 - Verify the USB cable is firmly connected to both the enclosure and your computer.
 - Try a different USB port on your computer.
 - Test with a different USB cable if available.
- **Drives Not Appearing:**
 - Check if the drives are properly seated in their trays and the trays are fully inserted into the enclosure.
 - For new drives, ensure they are initialized and formatted through your operating system's Disk Management (Windows) or Disk Utility (macOS).
 - Verify the RAID mode setting. If you changed the RAID mode, drives will need to be re-initialized and formatted.
- **Slow Transfer Speeds:**
 - Ensure you are using a USB 3.0/3.2 compatible port on your computer.
 - Check the quality of your USB cable; use the provided cable for optimal performance.
 - Performance can be affected by the speed of the installed drives and the computer's system resources.

- **Enclosure Overheating:**

- Ensure the enclosure's cooling vents are not blocked.
- Place the enclosure in a well-ventilated area.

If the issue persists, please contact ORICO customer support for further assistance.

10. Specifications

Feature	Detail
Model Number	8848RC3
Brand	ORICO
Memory Storage Capacity	Up to 32 TB (4x 8TB)
Compatible Devices	Desktop, Laptop, Tablet, OTG Phones, NAS, Projectors
Hard Disk Form Factor	2.5 Inches (7-9.5mm)
Max Number of Supported Devices	4 (drives)
Data Transfer Rate	10 Gigabits Per Second (USB 3.2 Gen 1)
Hardware Interface	USB 3.2 Gen 1 Type-C
Material	Aluminum Alloy
Color	White
Item Weight	4.22 pounds
Package Dimensions	10.59 x 7.8 x 6.1 inches
Supported RAID Modes	RAID 0, 1, 3, 5, 10, JBOD, CLEAR

11. What's in the Box

The ORICO USB C 4-Bay 2.5" RAID Enclosure package includes the following items:

- 1 x ORICO 4-Bay 2.5-inch RAID Enclosure (Model 8848RC3)
- 1 x Power Adapter
- 1 x 2-in-1 USB Cable (USB-C to USB-C/USB-A)
- 1 x Screwdriver
- Screw Accessories (for drive installation)
- Thimbles
- Instruction Manual

DC 12V

Provide safe data transfer environment



Figure 11.1: Contents of the ORICO 4-Bay RAID Enclosure package.

12. Warranty and Support

ORICO products come with a standard manufacturer's warranty. For specific warranty terms and conditions, please refer to the warranty card included in your product packaging or visit the official ORICO website.

If you require technical support, have questions about product operation, or need assistance with troubleshooting, please contact ORICO customer service through their official channels. Contact information can typically be found on the ORICO website or in your product documentation.

ORICO Official Website: www.oricotech.com