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› ORICO 4Bay RAID External Hard Drive Enclosure USB3.0 for 2.5/3.5 Inch SATA HDD/SSD User Manual

ORICO 9948RU3

ORICO 4Bay RAID External Hard Drive Enclosure User Manual

Model: 9948RU3

INTRODUCTION

This user manual provides detailed instructions for the setup, operation, maintenance, and troubleshooting of your ORICO 4Bay RAID External Hard Drive Enclosure. Please read this manual thoroughly before using the device to ensure proper functionality and data safety.



Figure 1: ORICO 4Bay RAID External Hard Drive Enclosure

The ORICO 4Bay RAID External Hard Drive Enclosure is designed to provide flexible and secure data storage solutions for 2.5/3.5 inch SATA HDDs and SSDs. It supports various RAID configurations for enhanced performance and data protection.

PACKAGE CONTENTS

Verify that all items listed below are present in your package:

- 1x ORICO 4Bay RAID Enclosure
- 1x 1M USB 3.0 Data Cable
- 1x Power Cable (for internal 150W power supply)
- 1x Screwdriver
- 1x Screw Pack
- 1x User Manual (this document)

Package List



① 4BIG DAS *1

② Screwdriver *1

③ Power Cable *1

④ Data Cable*1

⑤ Screw Pack *1

⑥ User Manual *1

Figure 2: Included Package Contents

This image displays all components typically found within the ORICO 4Bay RAID Enclosure package, including the enclosure, cables, tools, and documentation.

SETUP AND INSTALLATION

1. Hard Drive Installation

1. Press the door button on the left side of the drive bay to open the tray.

2. Pull out the hard drive bracket.
3. For 3.5-inch HDDs: Align the HDD with the bracket and secure it using the provided screws through the four fixing holes.
4. For 2.5-inch SSD/HDDs: Place the SSD/HDD into the bracket and secure it using the provided screws.
5. Slide the bracket with the installed drive back into the enclosure until it clicks into place.
6. Repeat for all desired drive bays.

Screw Fixing

Fit for 2.5/ 3.5-inch HDD/SSD hard disk

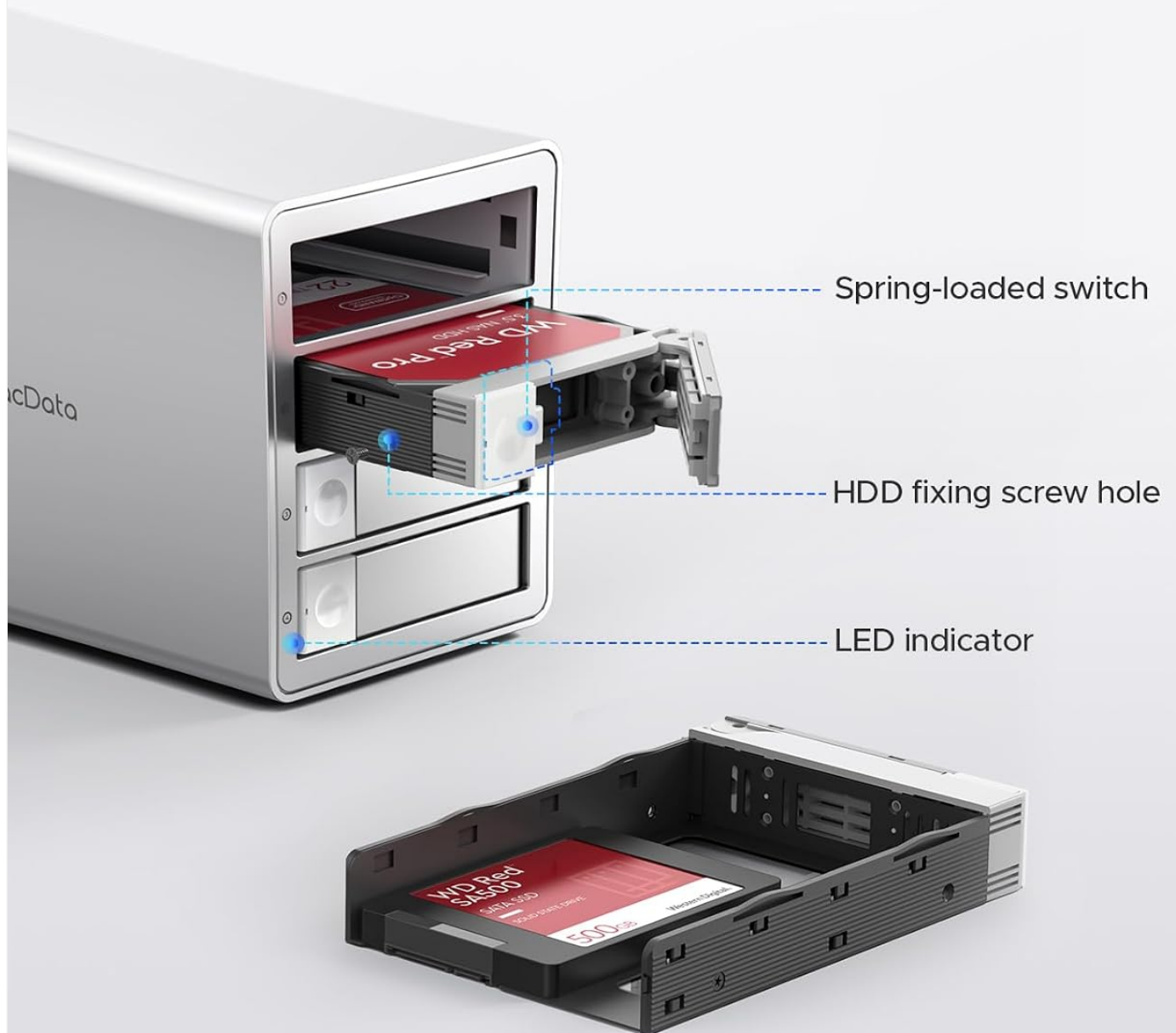


Figure 3: Drive Installation Steps

This image illustrates how to install 2.5-inch and 3.5-inch hard drives or SSDs into the enclosure's trays, highlighting the screw fixing points and the spring-loaded switch for tray release.

2. Connecting to Your Computer

- Connect one end of the USB 3.0 data cable to the USB 3.0 port on the back of the enclosure.
- Connect the other end of the USB 3.0 data cable to an available USB 3.0 port on your computer (Laptop or Desktop).
- Connect the power cable to the power input on the back of the enclosure and then to a power outlet.
- Turn on the enclosure using the power switch located on the back.

OPERATING INSTRUCTIONS

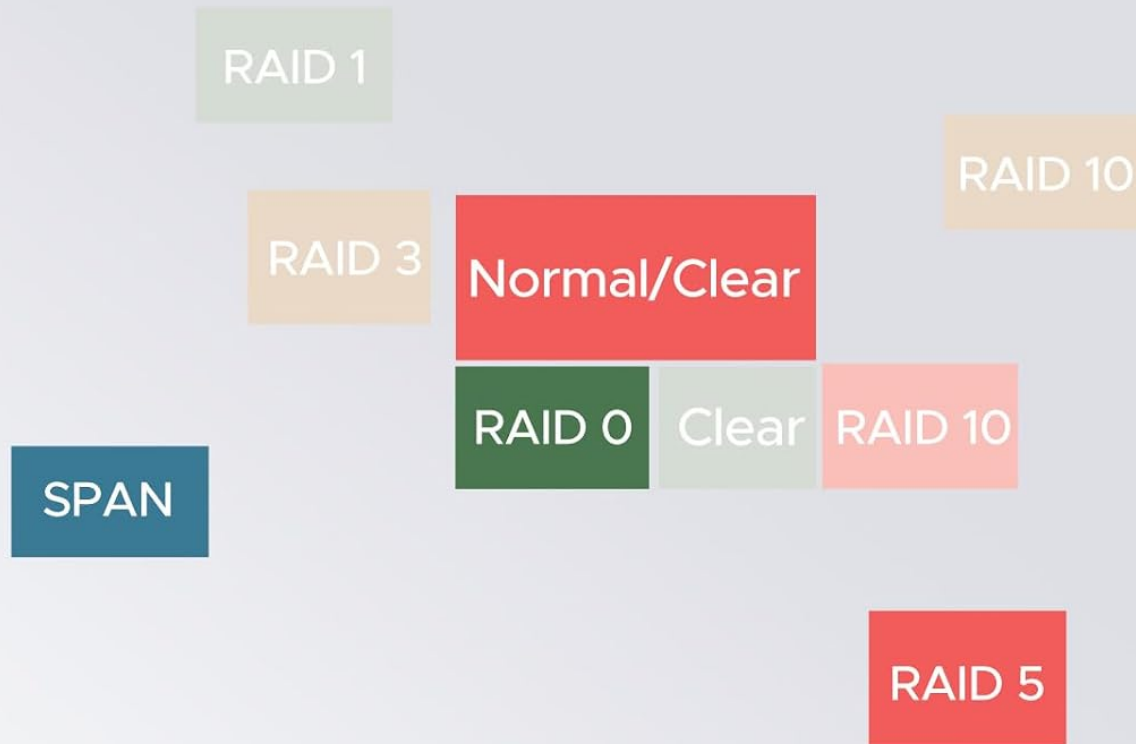
RAID Mode Configuration

The ORICO 4Bay RAID Enclosure supports multiple RAID configurations. It is crucial to understand that changing RAID modes will erase all data on the drives. **Always back up your data before changing RAID modes.**

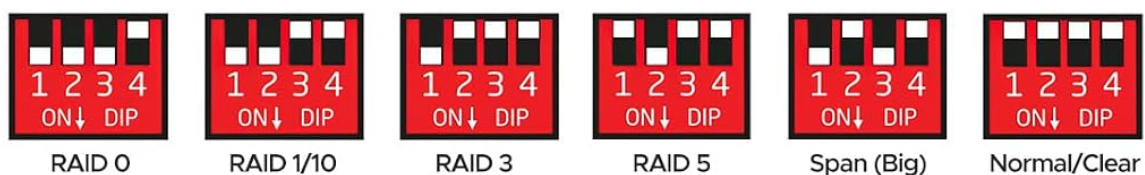
RAID modes can be configured using the DIP switches on the back of the enclosure or through the "ORico HW Raid Manager software" for Windows. For Mac OS and Linux systems, manual configuration via DIP switches is required.

Powerful Hardware RAID

Flexible video editing, enhance material transfer speed,
and ensure secure storage



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 4: RAID DIP Switch Settings

This diagram illustrates the various DIP switch settings for different RAID modes, including RAID 0, RAID 1, RAID 3, RAID 5, RAID 10, JBOD, Clone, and Clear Mode. Refer to the specific switch positions for your desired configuration.

Available RAID Modes:

- **RAID 0 (Striping):** Combines drives for maximum performance and capacity, but offers no data redundancy. Data loss occurs if any single drive fails.
- **RAID 1 (Mirroring):** Duplicates data across drives for high data redundancy. Capacity is limited to the size of a

single drive.

- **RAID 3 (Striping with dedicated parity):** Data is striped across drives with one dedicated drive for parity. Offers good performance and data redundancy.
- **RAID 5 (Striping with distributed parity):** Data and parity are striped across all drives. Offers good performance and data redundancy, allowing one drive failure without data loss.
- **RAID 10 (1+0 Mirroring and Striping):** Combines RAID 1 and RAID 0 for both performance and redundancy. Requires a minimum of four drives.
- **JBOD (Just a Bunch Of Disks):** Drives are concatenated to form one large volume. No performance or redundancy benefits.
- **CLONE:** Creates an exact copy of one drive onto another.
- **CLEAR Mode:** Resets the RAID configuration and clears all data.
- **Normal Mode (PM):** Each drive is recognized as an independent disk.

After setting the DIP switches, power cycle the enclosure for the new RAID configuration to take effect. You may need to initialize and format the new volume in your operating system's Disk Management utility.

Data Transfer and Performance

The enclosure utilizes a USB 3.0 interface, providing data transfer speeds up to 5Gbps (approximately 235MB/s). This allows for efficient backup and transfer of large files and videos.

5Gbps Transmission Speed



Read Speed up to
230MB/s



Write Speed up to
230MB/s



Figure 5: High-Speed Data Transmission

This image visually represents the 5Gbps data transfer capability of the enclosure when connected to a computer, ideal for demanding tasks like video editing.

MAINTENANCE

Heat Dissipation

The ORICO enclosure features an aluminum alloy casing and an 80mm silent cooling fan to ensure effective heat

dissipation and stable operation, even under prolonged use. Ensure proper airflow around the device and keep vents clear of obstructions.

Improved Heat Dissipation

Aluminum alloy + 80mm silent fan for quieter cooling



Figure 6: Effective Heat Dissipation System

The rear view of the enclosure highlights the 80mm silent cooling fan and ventilation design, which work together with the aluminum casing to maintain optimal operating temperatures.

Power Management

The built-in 150W power supply provides stable power for multiple high-performance hard drives. It includes protection

features such as overcurrent, short circuit, static, and overheat protection. Always use the provided power cable and connect to a stable power source.



Figure 7: Integrated 150W Power Supply

This image emphasizes the internal 150W power supply, which ensures stable operation and includes multiple safety protections for the connected drives.

Problem	Possible Cause	Solution
Enclosure not recognized by computer.	Loose USB cable connection. Incorrect USB port used (not USB 3.0). Power not supplied to enclosure. Drives not properly installed or formatted.	Ensure USB cable is securely connected to both the enclosure and the computer. Use a USB 3.0 port on your computer. Verify the power cable is connected and the enclosure is powered on. Check drive installation. Initialize and format new drives in Disk Management (Windows) or Disk Utility (Mac).
RAID configuration not applying.	DIP switches set incorrectly. Enclosure not power cycled after setting DIP switches.	Double-check DIP switch settings against the manual's RAID configuration diagram. Power off the enclosure, wait 10 seconds, then power it back on.
Slow data transfer speeds.	Connected to a USB 2.0 port. Drive performance limitations. Background processes on computer.	Ensure connection to a USB 3.0 port. Verify the health and speed of the installed hard drives/SSDs. Close unnecessary applications during large transfers.
Enclosure overheating.	Blocked ventilation. Excessive ambient temperature.	Ensure the enclosure's vents are clear and it has adequate space for airflow. Operate the device in a well-ventilated area.

SPECIFICATIONS

Feature	Detail
Model Number	9948RU3
Supported Drives	2.5/3.5 inch SATA HDD/SSD
Number of Bays	4 Bays
Max Single Disk Capacity	Up to 22TB
Max Total Capacity	88TB (4 x 22TB)
RAID Modes Supported	RAID 0, 1, 3, 5, 10, JBOD, CLONE, CLEAR, Normal (PM)
Interface	USB 3.0 Type A
Transfer Speed	Up to 5Gbps (235MB/s)
Power Supply	Built-in 150W
Cooling System	80mm Silent Cooling Fan, Aluminum Casing
Compatible Systems	Windows, Mac OS, Linux
Material	Aluminum, ABS

Feature	Detail
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Product Dimensions	10 x 2 x 2.7 inches
Item Weight	8.41 pounds

WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the official ORICO website or contact ORICO customer service directly. Keep your purchase receipt for warranty claims.

Manufacturer: SHENZHEN ORICO TECHNOLOGIES CO.,LTD

For further assistance, visit the [ORICO Store on Amazon](#).

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ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question