ORICO WS500RC3

ORICO WS500RC3 5-Bay 3.5-inch SATA III USB-C Hard Drive Enclosure User Manual

This manual provides detailed instructions for the installation, operation, and maintenance of your ORICO WS500RC3 5-Bay Hard Drive Enclosure.

1. PRODUCT OVERVIEW

The ORICO WS500RC3 is a high-capacity 5-bay external hard drive enclosure designed for 3.5-inch SATA HDDs/SSDs. It supports various RAID modes and offers high-speed data transfer via its Type-C interface, providing a robust solution for data storage and backup.

Key Features

- **Large Capacity:** Supports up to 80TB total capacity (16TB per single disk).
- **Multiple RAID Modes:** Supports RAID 0, 1, 3, 5, 10, JBOD, CLONE, and Normal modes to meet diverse storage needs.
- **Efficient Heat Dissipation:** Constructed from aluminum alloy with a built-in cooling fan and honeycomb ventilation holes for optimal thermal performance.
- **High-Speed Transfer:** Achieves data transfer rates up to 5Gbps via SATA 3.0 and a Type-C interface. Theoretical speeds up to 10Gbps in RAID 0 mode.
- **Secure Installation:** Features a mechanical screw installation method for securely mounting hard drives.
- **Broad Compatibility:** Compatible with Windows, macOS, and Linux operating systems.

Image: The ORICO WS500RC3 enclosure showcasing its 5-bay design and support for large capacity drives.

2. Package Contents

Please verify that all items are present in your package:

- ORICO WS500RC3 5-Bay Hard Drive Enclosure
- USB Type-C to Type-A Data Cable
- 12V/6.5A Power Adapter
- Screws and Screwdriver
- User Manual

3. Hardware Installation

3.1 Installing 3.5-inch SATA HDDs

1. Loosen the four screws on the front panel of the enclosure using the provided screwdriver.
2. Gently pull out an empty hard drive tray from the enclosure.

3. Place your 3.5-inch SATA HDD into the tray and secure it with the provided screws.

4. Slide the loaded tray back into the enclosure until it is fully seated.

5. Repeat steps 2-4 for all desired drives.

6. Secure the front panel back onto the enclosure with the four screws.

Installation Steps

① Loosen the screws on the front panel

② Take out the hard drive tray

③ Insert the hard disk and fix it with screws

④ Turn the screw to connect with the computer

Image: Step-by-step guide for installing 3.5-inch SATA hard drives into the enclosure.

3.2 Installing 2.5-inch SATA HDDs/SSDs (Optional)

To install 2.5-inch SATA HDDs/SSDs, an optional 1125SS Mounting Bracket (not included) is required. Secure the 2.5-inch drive to the bracket, then mount the bracket into a 3.5-inch tray as described above. For a visual guide, refer to the official product video in the RAID Configuration section.

4. CONNECTING TO YOUR COMPUTER

1. Connect the 12V/6.5A power adapter to the DC IN port on the back of the enclosure and then to a power outlet.
2. Connect the USB Type-C data cable from the enclosure's Type-C port to an available USB port on your computer.
3. Press the power button on the back of the enclosure to turn it on. The indicator lights on the front panel will illuminate.

Image: Rear view of the enclosure with power and USB cables connected.

5. RAID CONFIGURATION

The ORICO WS500RC3 supports multiple RAID modes to optimize performance or data redundancy.
Warning: Changing RAID modes will erase all data on the installed hard drives. Back up your data before proceeding.

5.1 Available RAID Modes:

- **RAID 0 (Striping):** Combines drives for maximum speed and capacity. Offers no data redundancy.
- **RAID 1 (Mirroring):** Duplicates data across two drives for redundancy. Usable capacity is reduced by half.
- **RAID 3 (Striping with dedicated parity):** Data is striped across drives with one dedicated drive for parity. Offers good performance and redundancy.
- **RAID 5 (Striping with distributed parity):** Data is striped across drives with parity information distributed among them. Offers good performance and redundancy. Requires at least 3 drives.
- **RAID 10 (Striping of Mirrors):** Combines RAID 1 and RAID 0 for both performance and redundancy. Requires at least 4 drives.
- **JBOD (Just a Bunch Of Disks):** Drives are treated as individual, independent disks.
- **CLONE:** Creates an exact copy of one drive onto another.
- **Normal:** Each drive operates independently without RAID.

5.2 Setting RAID Mode

The RAID mode is configured using DIP switches located on the back of the enclosure. Refer to the diagram on the enclosure or in the full user manual for specific switch combinations for each RAID mode. After setting the switches, press and hold the "SET" button for 3-5 seconds until the indicator lights change, then release.

Your browser does not support the video tag.

Video: This official ORICO video demonstrates the installation process, including how to set the RAID mode using the DIP switches on the back of the WS500RC3 enclosure.

6. OPERATING INSTRUCTIONS

6.1 Disk Management and Formatting

After connecting the enclosure and configuring RAID (if desired), the drives will appear in your operating system's disk management utility. You will need to initialize and format the drives before they can be used for storage.

1. **For Windows:** Right-click "This PC" (or "My Computer") > "Manage" > "Disk Management".
2. **For macOS:** Go to "Applications" > "Utilities" > "Disk Utility".
3. Initialize the new disk(s) if prompted.
4. Create new volumes (partitions) and format them with your preferred file system (e.g., NTFS for Windows, APFS/HFS+ for macOS).

Your browser does not support the video tag.

Video: This official ORICO video demonstrates the process of initializing and formatting new volumes in Windows Disk Management for the WS500RC3.

6.2 Data Transfer

Once formatted, your new storage volume(s) will appear as regular drives in your operating system. You can drag and drop files, copy, paste, or use backup software to transfer data to and from the enclosure. The enclosure supports up to 5Gbps transfer speeds, ensuring efficient data handling.

6.3 Automatic Sleep Function

The enclosure features an automatic sleep function to conserve power and extend the lifespan of your hard drives. After approximately 30 minutes of inactivity, the installed drives will enter sleep mode. Any data access will automatically wake the drives.

Automatic Sleep Function

After 30 minutes fixed data access, it will enter sleep mode

Image: Illustration of the automatic sleep function, which activates after 30 minutes of fixed data access.

7. MAINTENANCE

- **Ventilation:** Always place the enclosure in a well-ventilated area to ensure proper airflow and optimal heat dissipation.
- **Firmware Updates:** Periodically check the official ORICO website for any available firmware updates for your device.
- **Environmental Conditions:** Avoid exposing the enclosure to extreme temperatures, high humidity, or direct sunlight.
- **Cleaning:** Clean the exterior of the enclosure with a soft, dry cloth. Do not use liquid cleaners or abrasive

materials.

- **Data Backup:** Regularly back up your important data to another storage device, especially when using RAID modes that do not provide redundancy (e.g., RAID 0, JBOD).

8. TROUBLESHOOTING

8.1 Enclosure not recognized by computer:

- Ensure all cables (power and USB) are securely connected to both the enclosure and your computer.
- Verify that the power adapter is plugged into a working electrical outlet and the enclosure is powered on.
- Try connecting the enclosure to a different USB port on your computer or using a different USB cable.
- Check your computer's Device Manager (Windows) or System Information (macOS) to see if the USB device is detected.
- Confirm that the hard drives are properly installed and secured within their trays inside the enclosure.

8.2 Drives not appearing after connection:

- Access Disk Management (Windows) or Disk Utility (macOS) to check if the drives are detected but are uninitialized or unformatted. Follow the instructions in Section 6.1 to prepare the drives.
- If using RAID, ensure the RAID mode is correctly configured according to Section 5 and the drives are initialized and formatted.
- Test the hard drives individually in another enclosure or directly connected to a computer, if possible, to rule out individual drive failure.

8.3 Slow data transfer speeds:

- Ensure you are connecting the enclosure to a USB 3.0/3.1 compatible port on your computer using the provided USB 3.0 Type-C cable.
- Actual transfer speeds can be influenced by the performance of your installed hard drives and your computer's system resources.
- Verify that your computer's USB drivers are up to date.

8.4 Enclosure feels warm during operation:

- Ensure the enclosure is placed in a location with adequate ventilation and that the cooling fan is not obstructed.
- The aluminum alloy construction is designed to dissipate heat. Some warmth during continuous operation is normal and indicates effective heat transfer.

9. TECHNICAL SPECIFICATIONS

Material	Aluminum Alloy
Color	Silver
Output Interface	Type-C
Supported Drive	3.5-inch SATA HDD/SSD
Data Transfer Speed	5Gbps (Up to 10Gbps under RAID0 Mode, theoretical)

Power Supply	12V/6.5A External Power Supply
Installation Method	Mechanical Screw Installation
Supported Systems	Windows / macOS / Linux
Supported Capacity	Up to 16TB Single Disk, 80TB Total
Dimensions (L x W x H)	242 x 165 x 139 mm (9.53 x 6.5 x 5.47 inches)
RAID Modes	RAID 0, 1, 3, 5, 10, JBOD, CLONE, Normal

10. WARRANTY AND SUPPORT

ORICO products typically come with a standard manufacturer's warranty. Please refer to the warranty card included with your product or visit the official ORICO website for detailed warranty terms and conditions specific to your region and purchase date.

Customer Support

For technical assistance, troubleshooting, or warranty claims, please contact ORICO customer support through their official website or the contact information provided in your product packaging.

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