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Model: Dual Bay SATA RAID Enclosure

1. INTRODUCTION

This manual provides detailed instructions for the installation, configuration, and operation of your MAIWO Dual Bay SATA RAID Enclosure. This device is designed to house two 3.5-inch SATA HDDs or SSDs, offering versatile storage solutions with multiple RAID modes and high-speed data transfer capabilities.

2. PACKAGE CONTENTS

Verify that all items are present in the package:

- MAIWO Dual Bay RAID Enclosure
- USB Cable (2-in-1 USB-A to USB-C)
- Power Adapter (12V/4A)
- Screws for HDD installation
- Screwdriver
- User Manual (this document)



Figure 2.1: Package Contents

3. PRODUCT OVERVIEW

Familiarize yourself with the components and interfaces of the MAIWO Dual Bay SATA RAID Enclosure.

2 Bay RAID Enclosure for 3.5 inch HDD

Max 60TB

4 RAID Modes

Temperature-controlled Fan



RAID-0



RAID-1



Normal



Large

Figure 3.1: Rear Panel and Components

- **Aluminium Alloy Housing:** Durable outer casing for protection and heat dissipation.
- **HDD1/HDD2 Indicators:** LED lights indicating the status of each installed hard drive.
- **RAID Indicator:** LED light indicating the current RAID mode status.
- **ABS Bracket:** Internal plastic bracket for securing hard drives.
- **Reset Button:** Used for resetting RAID configurations.
- **Power Indicator:** LED light indicating power status.
- **Power Switch (ON/OFF):** Controls the power to the enclosure.
- **Power Input Interface (DC 12V):** Connects to the provided power adapter.
- **RAID Switch:** Used to select the desired RAID mode (Normal, JBOD, RAID 0, RAID 1).
- **Type-C Port (5Gbps USB 3.1):** Connects the enclosure to your computer for data transfer.

4. SETUP AND INSTALLATION

Follow these steps to install your 3.5-inch SATA HDDs/SSDs into the enclosure and connect it to your computer. For 2.5-

inch drives, a separate mounting bracket is required (not included).

1. **Step 1: Remove the Bracket**

Gently pull out the internal orange ABS bracket from the enclosure.

2. **Step 2: Install Hard Drives**

Place your 3.5-inch SATA HDD(s) into the bracket. Ensure they are seated correctly.

3. **Step 3: Secure Hard Drives**

Use the provided screws and screwdriver to secure the hard drives to the bracket from the bottom.

4. **Step 4: Insert Bracket into Enclosure**

Slide the bracket with the installed hard drives back into the aluminum alloy housing until it clicks into place.

5. **Step 5: Connect Power**

Connect the provided power adapter to the DC 12V input interface on the rear panel, then plug it into a power outlet.

6. **Step 6: Connect to Computer**

Connect the USB-C port on the enclosure to your computer using the provided USB cable.

7. **Step 7: Power On**

Flip the ON/OFF switch to the 'ON' position. The power indicator LED will light up.



Figure 4.1: Hard Drive Installation Steps

Your browser does not support the video tag.

Video 4.1: Product Overview and Basic Setup

This video demonstrates the physical installation of hard drives, connecting power, and connecting the enclosure to a computer. It also shows the product's design and features.

5. OPERATING MODES (RAID CONFIGURATION)

The MAIWO Dual Bay SATA RAID Enclosure supports four operating modes: NORMAL, JBOD, RAID 0, and RAID 1. **Always back up your data before changing RAID modes, as data loss may occur.**

Provides 48W of Stable Power

Robust 12V/4A Power Supply
Ensures Unwavering Stability



Figure 5.1: RAID Mode Overview

5.1. Changing RAID Modes

1. **Power Off:** Ensure the enclosure is powered off and disconnected from the computer.
2. **Select Mode:** Use a small tool (like the provided screwdriver) to adjust the RAID switch on the rear panel to your desired mode (Normal, JBOD, RAID 0, or RAID 1). Refer to Figure 3.1 for the switch location.
3. **Press Reset:** While holding down the Reset button, power on the enclosure. Continue holding the Reset button for approximately 5-10 seconds until the RAID indicator light changes or flashes, then release.
4. **Connect to Computer:** Connect the enclosure to your computer. The system will detect the new RAID configuration.
5. **Initialize/Format:** For new drives or after changing RAID modes, you may need to initialize and format the drives through your operating system's Disk Management (Windows) or Disk Utility (macOS).

5.2. RAID Mode Descriptions

- **NORMAL Mode:** Each hard drive operates independently. Two separate drive letters will appear on your computer.
- **JBOD (Just a Bunch Of Disks) Mode:** The two hard drives are combined into a single large volume. Data is written sequentially across the drives. If one drive fails, all data may be lost.
- **RAID 0 (Striping) Mode:** Data is split and written across both hard drives simultaneously. This mode offers the highest performance and combines the capacity of both drives, but provides no data redundancy. If one drive fails, all data is lost.
- **RAID 1 (Mirroring) Mode:** Data is written identically to both hard drives. This mode provides data redundancy; if one drive fails, your data is still safe on the other drive. The total usable capacity is equal to the capacity of a single drive.

6. DATA TRANSFER

The enclosure supports USB 3.1 Gen 1 (USB 3.0) with data transfer speeds up to 5Gbps. Actual speeds may vary depending on the installed hard drives, computer's USB port, and operating system.

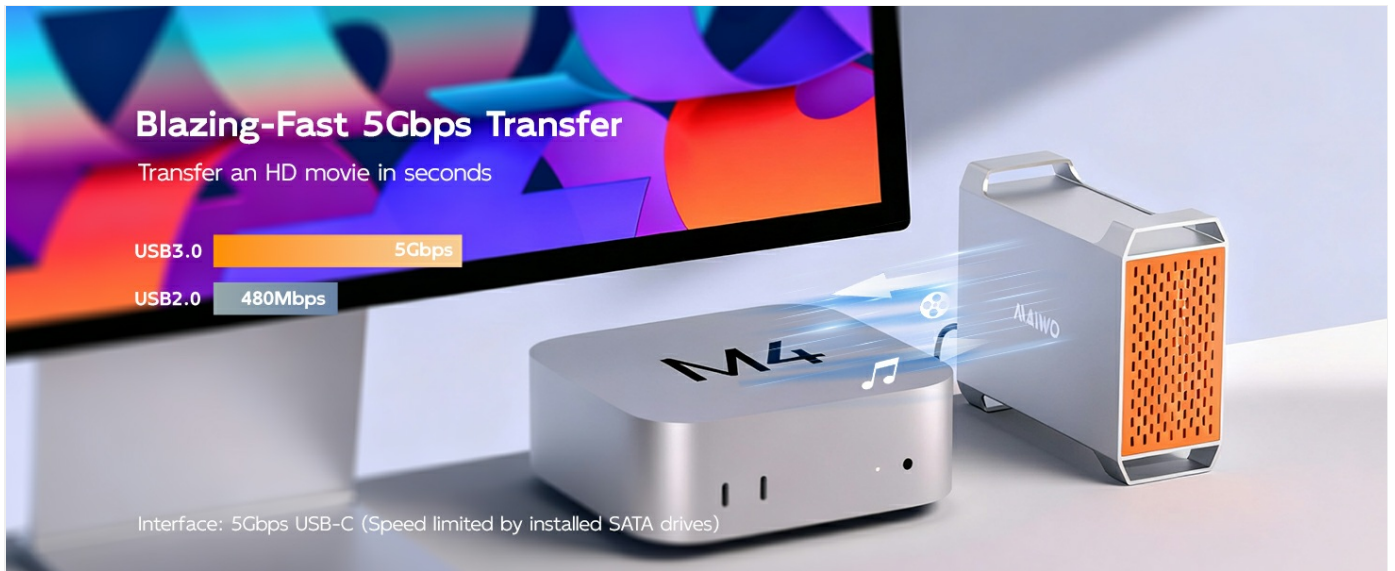






Figure 6.1: High-Speed Data Transfer

7. SMART TEMPERATURE CONTROL

The MAIWO enclosure features a smart temperature-controlled fan designed to maintain optimal operating temperatures for your hard drives, extending their lifespan and ensuring stable performance.

- When the internal temperature is below or reaches 28°C, the fan operates at a very low RPM or turns off.
- When the internal temperature rises above 28°C, the fan automatically turns on to increase cooling.

RAID	Your Data, Your Strategy		Best for
RAID 0 (Striping)	The Performance Engine	 RAID-0	Video editing, gaming, large file transfers, and any task where speed is critical
RAID 1 (Mirroring)	The Digital Vault	 RAID-1	Backing up irreplaceable data like family photos, financial documents, and client work
LARGE / Normal Mode	The Independent Expansion	  Large Normal	Using drives of different sizes, or simply accessing two separate drives directly

NOTE: Please back up your data before setting up and switching the RAID mode




Figure 7.1: Smart Temperature Control Mechanism

8. COMPATIBILITY

8.1. Hard Drives

Supports 3.5-inch SATA HDDs/SSDs. For 2.5-inch drives, a mounting bracket is required (not included).

8.2. Devices

Compatible with devices featuring USB-A or USB-C ports, including:

- PCs (Desktop, Laptop)
- Tablets (iPad, Android tablets)

- Gaming Consoles
- Routers
- Smart TVs

8.3. Operating Systems

Supports various operating systems, including:

- Windows
- macOS
- Linux
- Android
- Chrome OS
- Harmony OS
- iPadOS
- iOS



Figure 8.1: Wide Compatibility

9. MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the enclosure. Do not use liquid cleaners or solvents.
- **Ventilation:** Ensure the enclosure's ventilation holes are not obstructed to allow for proper airflow and cooling.
- **Firmware Updates:** Check the official MAIWO website periodically for any available firmware updates for your enclosure.
- **Safe Removal:** Always safely eject the enclosure from your computer before disconnecting the USB cable or powering off the device to prevent data corruption.

10. TROUBLESHOOTING

- **Enclosure not detected by computer:**
 - Ensure the power adapter is securely connected and the enclosure is powered on.
 - Verify the USB cable is properly connected to both the enclosure and the computer.
 - Try a different USB port on your computer.
 - Check if the hard drives are correctly installed and seated within the enclosure.

- **Hard drives not appearing after RAID configuration:**

- Ensure you followed the RAID mode change procedure correctly, including holding the Reset button during power-on.
- Access your operating system's Disk Management (Windows) or Disk Utility (macOS) to initialize and format the new RAID volume.

- **Slow data transfer speeds:**

- Ensure you are connected to a USB 3.0 (or higher) port on your computer. USB 2.0 ports will limit speeds to 480Mbps.
- The speed of the installed hard drives can also limit transfer rates.
- Check for other devices consuming USB bandwidth.

- **Enclosure overheating:**

- Ensure the ventilation holes are clear and not obstructed.
- Place the enclosure in a well-ventilated area.
- The smart fan should activate when temperatures rise above 28°C. If it does not, contact support.

- **Hard drives do not enter sleep mode:**

- This behavior has been reported by some users. Ensure your operating system's power management settings are configured to allow hard drives to spin down.
- If the issue persists, it may be a characteristic of the enclosure's firmware. Contact MAIWO support for potential solutions or firmware updates.

11. SPECIFICATIONS

Brand	MAIWO
Model	Dual Bay SATA RAID Enclosure
Hardware Interface	USB Type C (USB 3.1 Gen 1 / USB 3.0)
Data Transfer Rate	Up to 5 Gigabits Per Second (5Gbps)
Supported Hard Drive Form Factor	3.5 Inches SATA HDD/SSD (2.5 Inches with adapter, not included)
Supported Devices Quantity	2
Maximum Memory Storage Capacity	60 TB (30TB per drive)
RAID Modes	NORMAL, JBOD, RAID 0, RAID 1
Cooling System	Smart Temperature-Controlled Fan
Enclosure Material	Aluminum, Plastic
Product Dimensions (L x W x H)	7.24" x 2.6" x 5.63" (184mm x 66mm x 143mm)
Item Weight	2.1 Pounds
Power Supply	External 12V/4A Adapter (48W)

12. WARRANTY AND SUPPORT

12.1. Warranty Information

MAIWO provides a warranty for this product. Please review the following terms:

- Shipment received with visible damages must be reported within three (3) calendar days of delivery.
- Returns with missing parts (accessories, manuals, packaging) will not be processed until all parts are received.
- Customer is responsible for return shipping expenses and restocking fees unless otherwise stated. Replacements will be shipped at MAIWO's expense.
- Return products must be shipped with sufficient packaging to prevent damage during transit. Damages due to insufficient packaging may result in rejection or charges.
- Refunds will be issued to the original payment method after the warehouse receives, inspects, and processes the return in like-new condition.

12.2. Technical Support

For technical assistance, troubleshooting, or warranty claims, please contact MAIWO customer support. Refer to the official MAIWO website or your purchase documentation for contact details.

