CENMATE 4 Bay RAID USB+eSATA 5G

CENMATE 4-Bay RAID Enclosure User Manual

Model: 4 Bay RAID USB+eSATA 5G

Brand: CENMATE

1. Introduction

This manual provides detailed instructions for the installation, configuration, and operation of your CENMATE 4-Bay RAID Enclosure. This device is designed to provide reliable external storage for 2.5-inch and 3.5-inch SATA HDDs/SSDs, supporting a maximum capacity of 80TB and various RAID modes.

2. Package Contents

- 1 x CENMATE 4-Bay RAID Enclosure
- 1 x EU Power Cable
- 1 x User Manual
- 1 x Screwdriver and Screws (for 2.5" drives)
- 1 x USB A/C Cable

3. Product Features

- **4-Bay Design:** Supports up to four 2.5-inch or 3.5-inch SATA HDD/SSD drives.
- **High Capacity:** Total capacity up to 80TB (20TB per drive).
- **Multiple RAID Modes:** Supports RAID 0, RAID 1, RAID 3, RAID 5, RAID 10, CLONE, LARGE, and NORMAL modes.
- **High-Speed Data Transfer:** Equipped with USB 3.0 and eSATA output interfaces, offering speeds up to 5Gbps.
- **Efficient Cooling:** Features an aluminum alloy housing and a quiet 2-inch fan for optimal heat dissipation.
- **Wide Compatibility:** Plug-and-play with Windows 7 and above, Mac OS 9.1 and above, and Linux operating systems.
- **Tool-less Installation:** Designed for easy, screwless installation of 3.5-inch drives.



Figure 1: Diagram illustrating the 80TB maximum capacity of the 4-Bay RAID Enclosure.



Figure 2: Image showing the CENMATE 4-Bay RAID Enclosure connected to a monitor, highlighting 5Gbps data transfer speed.

4. Specifications

Feature	Detail
Model	4 Bay RAID USB+eSATA 5G
Maximum Supported Devices	4
Data Transfer Speed	5 Gigabits per second (USB 3.0)
Memory Storage Capacity	80 TB (20TB per drive)
Compatible Drive Form Factor	2.5 Inch / 3.5 Inch SATA HDD/SSD
Hardware Interface	USB 3.0, eSATA
Material	Aluminum, Plastic

Product Dimensions	20.2 x 13.2 x 14.6 cm
Item Weight	1.37 Kilograms
Compatible Platforms	Windows, Mac OS, Linux

5. Setup Guide

5.1. Hardware Installation

1. **Prepare Drives:** Ensure your 2.5-inch or 3.5-inch SATA HDDs/SSDs are ready for installation.
2. **Insert Drives:** Gently pull the blue locking mechanism on both sides of a drive tray upwards. Carefully slide your HDD/SSD into the tray. For 2.5-inch drives, use the provided screws to secure them to the tray. For 3.5-inch drives, the installation is screwless.
3. **Slide Trays into Enclosure:** Slide the loaded drive trays into the available bays of the enclosure until they click into place.
4. **Connect Cables:**
    - Connect the provided USB A/C cable from the enclosure to your computer.
    - Connect the eSATA cable (if using eSATA) from the enclosure to your computer.
    - Connect the EU power cable to the enclosure and then to a power outlet.
5. **Power On:** Press the power button on the back of the enclosure to turn it on.



Figure 3: Tool-less installation for 3.5-inch drives. For 2.5-inch drives, use the provided screws.



Figure 4: Connect the DC 12V power cable to ensure stable power supply.

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Video 1: General guide on how to install a hard drive into an enclosure.

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Video 2: Overview and installation steps for the Cenmate 4-bay 3.5-inch hard drive enclosure.

5.2. RAID Mode Configuration

The CENMATE 4-Bay RAID Enclosure supports 8 RAID modes. Refer to the diagram below for DIP switch settings.

1. **Select RAID Mode:** Use the DIP switches on the back of the enclosure to select your desired RAID mode (e.g., RAID 0, RAID 1, NORMAL).
2. **Reset RAID:** After changing the RAID mode, press and hold the "Reset" button for 5 seconds.
3. **Important Note:** When changing RAID modes, it is crucial to first revert to "NORMAL" mode before setting the new desired RAID mode. Changing RAID modes can lead to data loss. Back up all data before performing any RAID configuration changes. Mac OS does not support RAID software for this device.

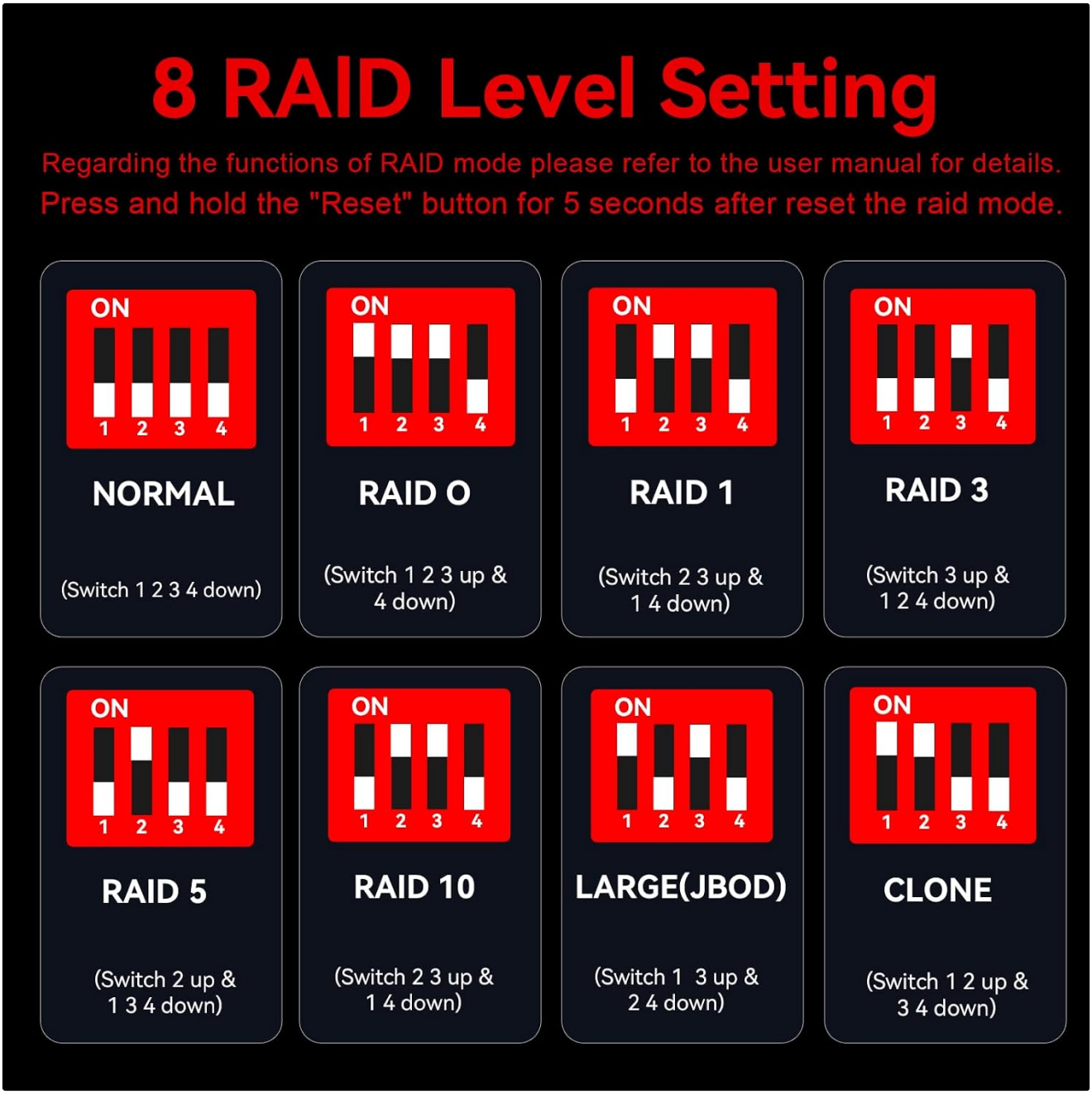


Figure 5: DIP switch settings for the 8 RAID modes.

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Video 3: Guide on how to build a RAID without RAID management software.

5.3. Initializing and Formatting Drives

After installing the drives and configuring the RAID mode, the drives must be initialized and formatted by your operating system before use.

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Video 4: Instructions for partitioning and formatting hard drives in Windows, Mac OS, and Linux systems.

1. **For Windows:**
    - Right-click "This PC" and select "Manage".
    - Go to "Disk Management".
    - Locate the newly added disk(s), right-click, and select "Initialize Disk". Choose MBR or GPT partition style.

    - Right-click the unallocated space, select "New Simple Volume", and follow the wizard to format the drive (NTFS recommended).

2. **For Mac OS:**
    - Use Command+Spacebar to open Spotlight Search, type "Disk Utility", and open it.
    - Select the newly added disk from the sidebar.
    - Click "Erase" and choose a suitable format (e.g., APFS or Mac OS Extended (Journaled)).
    - Name the drive and click "Erase" to format.
3. **For Linux:**
    - Open a terminal (Ctrl+Alt+T).
    - Install `exfat-fuse` and `exfat-utils` if needed: `sudo apt install exfat-fuse exfat-utils -y`.
    - Open the "Disks" utility.
    - Select the newly added disk.
    - Click the "+" icon to create a new partition. Choose the desired size and format (e.g., exFAT for cross-platform compatibility).
    - Click the play icon to mount the partition.

6. Operating Instructions

Once the drives are installed, configured, and formatted, the enclosure functions as an external storage device. You can access the drives through your computer's file explorer (Windows), Finder (Mac), or mounted directories (Linux).

- **Data Transfer:** Drag and drop files to and from the drive volumes as you would with any other storage device. The USB 3.0 and eSATA interfaces provide fast data transfer speeds.
- **Safe Removal:** Always safely eject the enclosure from your computer before disconnecting cables or powering down to prevent data corruption.

7. Maintenance

- **Cooling System:** The enclosure features an integrated cooling fan. Ensure the fan is not obstructed to maintain optimal operating temperatures for your drives. The fan requires a USB or eSATA cable to be connected to function.
- **Fan Noise:** The fan operates at approximately 40-50 decibels. If you are highly sensitive to noise, this may be a consideration.
- **Cleaning:** Use a soft, dry cloth to clean the exterior of the enclosure. Do not use liquid cleaners or solvents.



Figure 6: Internal view of the cooling fan and aluminum housing for heat dissipation.

8. Troubleshooting

- **Drives Not Recognized:**
  - Ensure all cables (USB/eSATA and power) are securely connected.
  - Verify that the enclosure is powered on.
  - Check Disk Management (Windows), Disk Utility (Mac), or Disks (Linux) to see if the drives are detected but uninitialized/unformatted. Follow the initialization and formatting steps.
  - If using RAID, ensure the RAID mode is correctly set and the drives are initialized.
- **Slow Data Transfer:**
  - Ensure you are using USB 3.0 ports on your computer for optimal speed.
  - Check cable integrity.
  - Performance can vary based on the type and speed of the installed drives.
- **Fan Noise is High:**

- The fan operates between 40-50 decibels. This is normal operation.
- Ensure the fan vents are clear of obstructions.

- **Data Loss After RAID Change:**
  - As noted in the RAID configuration section, changing RAID modes without proper procedure (reverting to NORMAL first) can lead to data loss. Always back up your data before making RAID changes.
- **Drive Tray Protrusions Conflict with HDD:**
  - If the protrusions on the drive tray conflict with your hard drive, you may need to trim the protrusions or remove the blue tabs and secure the hard drive with screws.

9. Warranty and Support

CENMATE provides technical support for this product. If you have any questions or encounter issues, please do not hesitate to contact CENMATE customer service. We aim to respond and resolve your problem within 24 hours.
For further assistance, please visit the official CENMATE website or contact their support channels.

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

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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