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Seagate ST28000NM000C

Seagate Exos X 28TB Internal Hard Drive User Manual

Model: ST28000NM000C

Introduction

This manual provides essential information for the installation, operation, and maintenance of your Seagate Exos X 28TB Internal Hard Drive. The Seagate Exos enterprise hard drives are designed for hyperscale cloud scalability, offering high capacity and reliable performance. These drives are factory recertified, meaning they have undergone data sanitization, testing, and include all necessary firmware and parts to ensure optimal functionality.

Product Overview

The Seagate Exos X 28TB HDD is a 3.5-inch CMR SATA 6Gb/s drive, operating at 7200 RPM with a 512MB cache. It is engineered for large data transfers and low latency, making it suitable for cloud data centers and massive scale-out data center applications.

Image: Front view of the Seagate Exos X 28TB Internal Hard Drive, showing the product label with capacity, model number (ST28000NM000C), and "FACTORY RECERTIFIED" badge. This image provides a clear visual of the drive's physical appearance and key identifying information.

Image: A close-up view of the Seagate Exos X 28TB Internal Hard Drive's label, highlighting the "FACTORY RECERTIFIED" stamp, model number, and other technical specifications. This detailed view helps in identifying specific drive information.

Setup and Installation

This section outlines the steps for physically installing your Seagate Exos X 28TB Internal Hard Drive into a compatible system, such as a desktop computer or a server.

Before You Begin:

- Ensure your system is powered off and unplugged from the power source.
- Ground yourself to prevent electrostatic discharge (ESD) by touching a metal part of your computer chassis or using an anti-static wrist strap.
- Gather necessary tools: Phillips head screwdriver, SATA data cable, SATA power cable (usually from your power supply).
- Verify your system's motherboard and power supply support SATA 6Gb/s and have available ports/connectors.

Installation Steps:

1. **Open the Computer Case:** Remove the side panel of your computer case to access the internal components.
2. **Locate a Drive Bay:** Identify an available 3.5-inch drive bay. Some cases may require a drive caddy or adapter for installation.
3. **Mount the Hard Drive:** Slide the hard drive into the drive bay. Secure it with screws on both sides of the drive bay, ensuring it is firmly in place.
4. **Connect Cables:**
    - Connect one end of the SATA data cable to the data port on the hard drive and the other end to an available SATA port on your motherboard.
    - Connect a SATA power cable from your power supply unit to the power connector on the hard drive.
5. **Close the Computer Case:** Replace the side panel of your computer case and secure it.
6. **Power On:** Plug in your computer and power it on.

Image: Two Seagate hard drives resting on a bed of green leaves, illustrating the physical form factor of the drives. This image provides a general view of the product's size and design.

Image: Several Seagate hard drives arranged on a clean white surface, showcasing their uniform design and compact form factor. This image emphasizes the product's industrial design and suitability for multi-drive setups.

Operating the Hard Drive

After physical installation, the hard drive needs to be initialized and formatted by your operating system before it can be used for storage.

Initialization and Formatting (Windows):

1. **Access Disk Management:** Right-click on the Start button (or press Windows Key + X) and select "Disk Management".
2. **Initialize Disk:** A dialog box may automatically appear prompting you to initialize the new disk. If not, locate the new disk (it will likely be marked as "Unknown" or "Not Initialized"), right-click on it, and select "Initialize Disk". Choose MBR (Master Boot Record) for drives up to 2TB or GPT (GUID Partition Table) for drives larger than 2TB (recommended for 28TB). Click OK.
3. **Create New Simple Volume:** Right-click on the "Unallocated" space of the initialized disk and select "New Simple Volume".
4. **Follow the Wizard:** The New Simple Volume Wizard will guide you through the process.
    - Assign the volume size (usually the maximum available).
    - Assign a drive letter.
    - Format the partition: Choose a file system (NTFS is standard for Windows), allocate unit size (default is usually fine), and give the volume a label (e.g., "Seagate 28TB"). Perform a quick format.
5. **Complete:** Click "Finish" to complete the formatting process. Your drive will now appear in "This PC" (or "My Computer") and be ready for use.

Initialization and Formatting (macOS):

1. **Access Disk Utility:** Open Finder, go to Applications > Utilities > Disk Utility.
2. **Select the Drive:** In the sidebar, select your new Seagate drive (it will likely be listed under "External" or "Internal" drives).

3. **Erase the Drive:** Click the "Erase" button in the toolbar.
4. **Configure Format:**
    - **Name:** Enter a name for the drive (e.g., "Seagate 28TB").
    - **Format:** Choose a format. APFS is recommended for macOS 10.13 or later. Mac OS Extended (Journaled) is suitable for older macOS versions or if you need compatibility with certain applications.
    - **Scheme:** Select "GUID Partition Map".
5. **Erase:** Click "Erase" again to confirm. The drive will be formatted and mounted, ready for use.

Maintenance and Best Practices

To ensure the longevity and optimal performance of your Seagate Exos X hard drive, consider the following maintenance tips:

- **Regular Backups:** Always back up important data to multiple locations (e.g., another drive, cloud storage). No storage device is immune to failure.
- **Monitor Drive Health:** Use S.M.A.R.T. (Self-Monitoring, Analysis and Reporting Technology) tools to monitor the drive's health status. Many operating systems and third-party utilities offer this functionality.
- **Proper Shutdown:** Always shut down your computer properly. Avoid sudden power loss, which can damage the drive.
- **Temperature Control:** Ensure your computer case has adequate airflow to keep the drive within its optimal operating temperature range.
- **Firmware Updates:** Periodically check the Seagate support website for any available firmware updates for your specific model (ST28000NM000C). Firmware updates can improve performance and stability.

Troubleshooting

This section addresses common issues you might encounter with your hard drive.

Problem	Possible Cause	Solution
Drive not detected by OS.	Loose cables, incorrect BIOS/UEFI settings, drive not initialized.	Check SATA data and power cable connections. Verify SATA port is enabled in BIOS/UEFI. Check Disk Management (Windows) or Disk Utility (macOS) to initialize and format the drive.
Slow performance.	Fragmented drive, full drive, background processes, faulty cables.	Defragment the drive (Windows) or ensure TRIM is enabled (SSDs, not applicable here). Free up disk space. Check for background applications consuming resources. Replace SATA cables.
Clicking or grinding noises.	Impending drive failure.	Immediately back up all critical data. Contact Seagate support for warranty or replacement options.

Problem	Possible Cause	Solution
Drive shows less capacity than advertised.	Operating system calculation difference (binary vs. decimal), unallocated space.	This is normal. Manufacturers calculate capacity in base 10 (e.g., 1TB = 1,000,000,000,000 bytes), while operating systems use base 2 (e.g., 1TB = 1,099,511,627,776 bytes). A 28TB drive will typically show around 25.47 TB usable capacity. Ensure all partitions are created and formatted in Disk Management/Disk Utility.

Specifications

Feature	Detail
Model Number	ST28000NM000C
Capacity	28 TB
Form Factor	3.5 Inches
Interface	SATA 6Gb/s
Rotational Speed	7200 RPM
Cache	512MB
Dimensions (LxWxH)	5.91 x 3.94 x 4.92 inches
Weight	1.53 pounds
Installation Type	Internal Hard Drive
Compatible Devices	Desktop systems
Special Feature	Data Recovery Service (Rescue Data Recovery Services)

Image: A graphic displaying the "FACTORY RECERTIFIED" logo and "28TB" capacity, emphasizing the product's renewed status and storage size. This visual confirms the drive's recertification and capacity.

Warranty and Support

As a factory recertified device, this Seagate Exos X hard drive typically comes with a limited warranty. Please refer to the specific terms provided at the time of purchase or on the official Seagate website for exact warranty duration and coverage.

Seagate offers **Rescue Data Recovery Services** for most of its drives, which can help protect your data against unexpected data loss due to mechanical, accidental, or natural disaster. For details on activating or utilizing this service, visit the official Seagate support website.

For technical support, troubleshooting assistance, or to inquire about warranty claims, please visit the official Seagate Support website or contact their customer service directly.

Official Seagate Support: https://www.seagate.com/support/

Seagate Product Verification: https://verify.seagate.com/

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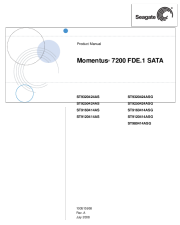
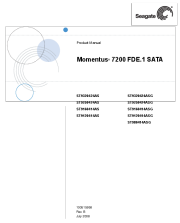
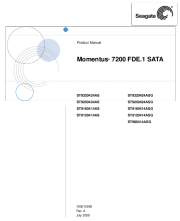
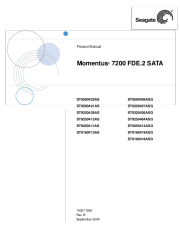
Related Documents - ST28000NM000C

	Seagate Exos Xz SATA Product Manual - ST32000NM001F Specifications Comprehensive technical manual for the Seagate Exos Xz SATA hard drive, model ST32000NM001F. Details specifications, features, configuration, mounting, and interface information for enterprise storage solutions.
	Seagate Momentus 7200 FDE.1 SATA Product Manual Detailed product manual for Seagate Momentus 7200 FDE.1 SATA hard drives, covering specifications, features like Full Disc Encryption (FDE) and DriveTrust technology, installation, compatibility, and support information.
	Seagate Momentus 7200 FDE.1 SATA Product Manual Comprehensive product manual detailing the specifications, features, and operational guidelines for Seagate Momentus 7200 FDE.1 SATA hard drives, including advanced security features like Full Disc Encryption (FDE) and DriveTrust technology.
	Seagate Momentus 7200 FDE.1 SATA Hard Drive Product Manual This comprehensive product manual from Seagate details the specifications, features, installation, and compatibility of the Momentus 7200 FDE.1 SATA series of hard drives, including Full Disc Encryption (FDE) and DriveTrust technology.
	Seagate Surveillance HDD v4 SATA Product Manual | ST1000VX001 Specifications and Guide Detailed product manual for the Seagate Surveillance HDD v4 SATA drive (model ST1000VX001). Covers specifications, installation, interface details, environmental requirements, and agency certifications for surveillance applications.
	Seagate Momentus 7200 FDE.2 SATA Product Manual This product manual details the specifications, features, and compatibility of Seagate's Momentus 7200 FDE.2 SATA hard drives, including Full Disc Encryption (FDE) and DriveTrust technology.

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Seagate Exos Enterprise Hard Drive Data Sheet - High Capacity, Scalable Storage

Detailed data sheet for Seagate Exos enterprise hard drives, featuring high capacity, hyperscale cloud scalability, reliable performance, and advanced technologies for data centers. Includes specifications for 22TB, 24TB, 26TB, and 28TB models.
lang:en score:22 filesize: 152.83 K page_count: 3 document date: 2024-06-27

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