



[Manuals.plus](#) /

> [TOSHIBA](#) /

> Toshiba N300 6TB NAS Internal Hard Drive HDWN160XZSTA User Manual

TOSHIBA HDWN160XZSTA

Toshiba N300 6TB NAS Internal Hard Drive (HDWN160XZSTA) User Manual

[Overview](#) [What's in the](#)

[Box](#)

[Specifications](#)

[Setup](#)

[Operation](#)

[Maintenance](#)

[Troubleshooting](#)

[Warranty & Support](#)

1. OVERVIEW

The Toshiba N300 NAS internal hard drive is engineered for Network Attached Storage (NAS) systems in personal, home office, and small business environments. This drive provides substantial storage capacity and is designed for continuous 24/7 operation. It supports up to 8 drive bays in multi-RAID configurations, allowing for scalability as data storage requirements increase. The N300 offers high reliability with a workload rating of up to 180TB per year and is optimized for NAS environments that demand efficient daily storage and access of large data volumes.



Figure 1: Front view of the Toshiba N300 NAS Internal Hard Drive.

Key Features:

- Optimized for small office and home office NAS systems.
- Engineered for 24/7 continuous operation.
- High reliability with a workload rating of up to 180TB/year.
- High performance 7200 RPM drive with a 128 MB cache size.
- Integrated Rotational Vibration (RV) sensors to mitigate vibration effects in multi-bay systems.

2. WHAT'S IN THE BOX

The product package typically contains the following item:

- Toshiba N300 NAS Internal Hard Drive (Model HDWN160XZSTA)

Note: Additional accessories such as SATA cables, mounting screws, or documentation may be included depending on the retailer or specific product bundle. Please check your packaging contents upon receipt.

3. SPECIFICATIONS

The following table outlines the key technical specifications for the Toshiba N300 6TB NAS Internal Hard Drive (HDWN160XZSTA).

Feature	Specification
Model Number	HDWN160XZSTA
Digital Storage Capacity	6 TB
Hard Disk Interface	SATA 6 GB/s
Connectivity Technology	SATA
Hard Disk Form Factor	3.5 Inches
Hard Disk Description	Mechanical Hard Disk
Compatible Devices	Desktop, NAS Systems
Installation Type	Internal Hard Drive
Hard Disk Rotational Speed	7200 RPM
Read Speed	6 Gigabytes Per Second
Cache Memory Installed Size	128 MB
Data Transfer Rate	6 Gigabits Per Second
Hardware Platform	PC
Item Weight	1.7 Pounds
Enclosure Material	Aluminum



The Speed to Stay Ahead.

7200-RPM Performance & CMR Recording Technology

Figure 2: Product label detailing model and specifications.

4. SETUP AND INSTALLATION

This section provides general guidelines for installing the Toshiba N300 NAS hard drive. Specific steps may vary based on your NAS enclosure or computer system.

4.1 Safety Precautions

- Always power off and unplug your NAS device or computer before installation.
- Wear an anti-static wrist strap to prevent electrostatic discharge (ESD) damage to the drive and other components.
- Handle the hard drive by its edges; avoid touching the circuit board or connector pins.

4.2 Physical Installation

1. **Prepare the NAS/Computer:** Open your NAS enclosure or computer case to access the drive bays. Refer to your NAS or computer manual for specific instructions on opening the chassis and accessing drive bays.
2. **Mount the Drive:** Slide the Toshiba N300 hard drive into an available 3.5-inch drive bay. Secure the drive using the provided screws or tool-less mechanisms of your enclosure. Ensure the drive is firmly seated to

prevent vibration.

3. Connect Cables:

- Connect a SATA data cable from the hard drive to an available SATA port on your NAS motherboard or RAID controller.
- Connect a SATA power cable from your power supply unit (PSU) to the hard drive.

4. Close Enclosure: Once all connections are secure, close your NAS enclosure or computer case.



Figure 3: Hard drive being prepared for installation.

4.3 Initial Configuration (NAS Systems)

1. **Power On:** Plug in and power on your NAS device.
2. **Access NAS Interface:** Log in to your NAS operating system (e.g., Synology DSM, QNAP QTS) via a web browser.
3. **Initialize Drive:** Navigate to the storage manager or disk management section. The newly installed Toshiba N300 drive should be detected as uninitialized. Follow the on-screen prompts to initialize, format, and add the drive to your storage pool or RAID array.
4. **Create Volumes:** Once the drive is part of a storage pool, create one or more volumes for data storage.



Figure 4: Hard drive installed in a NAS enclosure.

5. OPERATION

The Toshiba N300 is designed for continuous operation within a NAS environment. Once installed and configured, it functions as a reliable storage component for your data.

5.1 Data Access and Management

- Access data stored on the N300 drive through your NAS system's network shares, cloud synchronization services, or direct connections.
- Utilize your NAS operating system's tools for file management, user permissions, and data backup tasks.

5.2 Continuous Operation

The N300 is built for 24/7 power-on operation. Ensure your NAS system has adequate ventilation and power supply to maintain optimal performance and longevity of the drive.



Figure 5: The N300 drive is designed for continuous operation in demanding environments.

6. MAINTENANCE

Proper maintenance ensures the longevity and reliability of your Toshiba N300 NAS hard drive.

6.1 Data Backup

Regularly back up critical data from your NAS to external storage, cloud services, or another NAS. While RAID provides redundancy against single drive failures, it is not a substitute for a comprehensive backup strategy.

6.2 Drive Health Monitoring

- Utilize your NAS system's built-in S.M.A.R.T. (Self-Monitoring, Analysis and Reporting Technology) tools to monitor the health status of the N300 drive.
- Periodically check for firmware updates for your NAS device and hard drives, as these can improve performance and stability.

6.3 Environmental Control

- Ensure your NAS enclosure has adequate airflow and cooling to prevent overheating, which can degrade drive performance and lifespan.
- Keep the operating environment clean and free of dust.

7. TROUBLESHOOTING

This section addresses common issues you might encounter with your Toshiba N300 NAS hard drive.

7.1 Drive Not Detected

- **Check Connections:** Ensure both the SATA data and power cables are securely connected to the drive and the motherboard/PSU.
- **Verify Power:** Confirm that your NAS or computer is receiving power and that the power supply is functioning correctly.
- **BIOS/UEFI Settings:** For computer installations, check your system's BIOS/UEFI settings to ensure the SATA

port is enabled and the drive is recognized.

- **NAS Storage Manager:** For NAS systems, check the storage manager interface to see if the drive is listed, even if uninitialized.
- **Test in Another Port/System:** If possible, test the drive in a different SATA port or another compatible system to rule out a faulty port or controller.

7.2 Performance Issues

- **Check Network Load:** High network traffic can impact NAS performance.
- **NAS System Resources:** Ensure your NAS CPU and RAM are not overloaded by other tasks.
- **Drive Health:** Use S.M.A.R.T. tools to check for any impending drive failures or errors.
- **RAID Configuration:** Verify your RAID array status; a degraded array will impact performance.

7.3 Unusual Noises

- A clicking, grinding, or repetitive scratching sound often indicates a mechanical failure. Immediately back up any accessible data and consider replacing the drive.
- Vibration noise can sometimes be reduced by ensuring the drive is securely mounted in its bay.

Your browser does not support the video tag.

Video 1: Official Toshiba N300 NAS Internal Hard Drive overview. This video highlights key features and benefits of the N300 series for NAS systems.

8. WARRANTY AND SUPPORT

8.1 Warranty Information

The Toshiba N300 NAS Internal Hard Drive (HDWN160XZSTA) includes a **3-year limited warranty**. For detailed terms and conditions, please refer to the warranty brochure available on Toshiba's official Consumer HDD website or contact Toshiba customer service.

8.2 Technical Support

For technical assistance, product registration, or further inquiries, please visit the official Toshiba support website or contact their customer service department. Ensure you have your product model number (HDWN160XZSTA) and serial number ready when seeking support.

Online Resources:

- Toshiba Storage Products Website: www.toshiba-storage.com (General link, please refer to specific regional sites for localized support)