

Western Digital WDS100T2B0A

Western Digital 1TB WD Blue 3D NAND Internal PC SSD User Manual

Model: WDS100T2B0A

1. INTRODUCTION

The Western Digital 1TB WD Blue 3D NAND Internal PC SSD (Solid State Drive) is designed to provide high-performance storage for your computer. Utilizing 3D NAND technology, this drive offers enhanced reliability and efficient power consumption, making it suitable for a wide range of computing applications, from business to personal use.

This manual provides essential information for the proper installation, operation, maintenance, and troubleshooting of your WD Blue SSD.



Figure 1: Western Digital 1TB WD Blue 3D NAND Internal PC SSD.

2. WHAT'S IN THE BOX

Upon opening the product packaging, you should find the following item:

- WD Blue 3D NAND SATA SSD (1TB)

No additional cables, screws, or mounting brackets are typically included with the standalone SSD. These accessories are usually provided with your computer case or purchased separately.

3. SPECIFICATIONS

Feature	Detail
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Digital Storage Capacity	1000 GB (1 TB)
Hard Disk Interface	Serial ATA (SATA III 6 Gb/s)
Connectivity Technology	SATA
Brand	Western Digital
Model Number	WDS100T2B0A
Form Factor	2.5 inches / 7mm
Read Speed (Sequential)	Up to 560 MB/s
Write Speed (Sequential)	Up to 530 MB/s
Compatible Devices	Laptop, Desktop PC
Special Feature	WD F.I.T. Lab certification
Mean Time To Failure (MTTF)	1.75 Million hours
Terabytes Written (TBW)	Up to 600 TBW (varies by capacity)

4. SETUP AND INSTALLATION

Installing the WD Blue 3D NAND SATA SSD typically involves physical installation into your computer and then initializing/formatting the drive within your operating system. Always ensure your computer is powered off and unplugged before performing any internal hardware installation.

4.1 Physical Installation (2.5-inch Bay)

- 1. Prepare Your System:** Power down your computer completely and unplug it from the power outlet. Open your computer case to access the internal components.
- 2. Locate a Drive Bay:** Identify an available 2.5-inch drive bay in your desktop PC or laptop. Some desktop cases may require a 2.5-inch to 3.5-inch adapter bracket (not included) to fit the SSD into a larger bay.
- 3. Mount the SSD:** Secure the SSD into the drive bay or adapter bracket using appropriate screws.
- 4. Connect Cables:**
 - Connect a SATA data cable (not included) from the SSD to an available SATA port on your motherboard.
 - Connect a SATA power cable (from your power supply, not included) to the SSD.
- 5. Close the Case:** Once the SSD is securely mounted and connected, close your computer case and reconnect the power cable.



Figure 2: WD Blue SSD (2.5-inch form factor) and M.2 form factor options.

4.2 Initializing and Formatting the SSD

After physical installation, the SSD needs to be initialized and formatted by your operating system before it can be used for storage. The exact steps may vary slightly depending on your operating system (Windows, macOS, Linux).

1. **Boot Your Computer:** Start your computer normally.
2. **Access Disk Management:**
 - **Windows:** Right-click on the Start button and select "Disk Management".
 - **macOS:** Go to Applications > Utilities > Disk Utility.
3. **Initialize the Disk:** In Disk Management/Utility, you should see your new SSD listed as "Unallocated" or "Uninitialized". Right-click on the disk and select "Initialize Disk" (Windows) or "Erase" (macOS). Choose GPT (GUID Partition Table) for modern systems.
4. **Create a New Volume/Partition:** After initialization, right-click on the unallocated space and select "New Simple Volume" (Windows) or create a new partition (macOS). Follow the on-screen prompts to assign a drive letter (Windows) and format the drive (NTFS for Windows, APFS/HFS+ for macOS).
5. **Ready for Use:** Your SSD is now ready to store data.

5. OPERATING

The WD Blue 3D NAND SATA SSD is designed for optimal performance and reliability in various computing environments. It offers significant speed improvements over traditional hard disk drives (HDDs).

5.1 Performance Characteristics

- **Fast Boot-up and Application Loading:** Experience quicker system boot times and faster loading of applications and games due to high sequential read/write speeds (up to 560 MB/s read, 530 MB/s write).
- **Enhanced Multitasking:** The SSD's performance allows for smoother multitasking and responsiveness, even with demanding applications.
- **Low Power Consumption:** With an active power draw up to 25% lower than previous generations of WD Blue SSDs, it contributes to longer battery life in laptops and reduced energy consumption in desktops.

- **Durability:** As a solid-state device, it has no moving parts, making it more resistant to shock and vibration compared to traditional HDDs.

5.2 Product Overview Video

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Video 1: Official product overview of the WD Blue 3D NAND SATA SSD, highlighting its features and benefits.

6. MAINTENANCE

SSDs generally require less maintenance than HDDs due to the absence of moving parts. However, a few practices can help ensure optimal performance and longevity.

- **Firmware Updates:** Periodically check the Western Digital support website for firmware updates for your SSD. Firmware updates can improve performance, stability, and compatibility.
- **TRIM Support:** Ensure your operating system has TRIM enabled. TRIM helps the SSD manage its stored data more efficiently, preventing performance degradation over time. Most modern operating systems enable TRIM by default for SSDs.
- **Avoid Full Capacity:** While SSDs can be filled close to capacity, leaving some free space (e.g., 10-15%) can help maintain optimal performance and extend the drive's lifespan.
- **Data Backup:** Regularly back up your important data to another storage device. While SSDs are reliable, no storage device is immune to failure.
- **WD Dashboard Software:** Western Digital offers free downloadable software, WD Dashboard, which allows you to monitor the health, temperature, and performance of your SSD. It can also be used for firmware updates and secure erase functions.

7. TROUBLESHOOTING

If you encounter issues with your WD Blue SSD, consider the following troubleshooting steps:

- **SSD Not Detected:**
 - Check all SATA data and power cable connections to ensure they are secure.
 - Try connecting the SSD to a different SATA port on your motherboard or using different cables.
 - Verify that the SATA controller mode in your system's BIOS/UEFI is set to AHCI (Advanced Host Controller Interface).
 - Ensure the drive is initialized and formatted in Disk Management (Windows) or Disk Utility (macOS) as described in the Setup section.
- **Slow Performance:**
 - Confirm that TRIM is enabled for your operating system.
 - Check if the SSD is connected to a SATA III (6 Gb/s) port. Connecting to an older SATA II (3 Gb/s) port will limit performance.
 - Ensure your system drivers (especially chipset drivers) are up to date.
 - Monitor the SSD's health and temperature using WD Dashboard software. Overheating can lead to

performance throttling.

- Avoid filling the SSD to its absolute maximum capacity.

- **System Instability/Crashes:**

- Ensure your SSD firmware is up to date.
- Run a diagnostic scan on the SSD using WD Dashboard or your operating system's built-in tools.
- Check for any conflicting software or drivers.

If these steps do not resolve your issue, please refer to the Warranty and Support section for further assistance.

8. WARRANTY AND SUPPORT

Western Digital products are designed for reliability and come with a limited warranty. For specific warranty terms and conditions, please refer to the documentation included with your product or visit the official Western Digital support website.

- **Warranty Period:** The WD Blue 3D NAND SSD typically comes with a 5-year limited warranty.
- **Technical Support:** For technical assistance, product registration, and warranty claims, please visit the Western Digital support website or contact their customer service.
- **WD F.I.T. Lab Certification:** This product has undergone extensive testing in the WD F.I.T. Lab to ensure compatibility with a wide range of computers.
- **Downloadable Software:** Free downloadable software, such as WD Dashboard, is available to help you monitor your drive's status, clone a drive, or back up your data.

Note: The legal disclaimer regarding "3M industrial and occupational products" found in some product information is not relevant to this Western Digital SSD and should be disregarded.