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> WD_BLACK SN850 NVMe Internal Gaming SSD with Heatsink User Manual

Western Digital WDS100T1XHE

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Model: WDS100T1XHE

Brand: Western Digital

1. PRODUCT OVERVIEW

The WD_BLACK SN850 NVMe Internal Gaming SSD with Heatsink is a high-performance solid-state drive designed to enhance your gaming experience. Featuring PCIe Gen4 technology, it offers exceptional read and write speeds, significantly reducing load times for games and applications. The integrated heatsink helps maintain optimal performance by minimizing thermal throttling, making it ideal for demanding gaming environments, including compatibility with PlayStation 5 consoles.

DIMENSIONS



Image: The WD_BLACK SN850 NVMe SSD with Heatsink, showcasing its compact M.2 form factor.

2. SETUP AND INSTALLATION

This section provides instructions for installing your WD_BLACK SN850 NVMe SSD with Heatsink. Proper installation is crucial for optimal performance and system stability.

2.1 Physical Installation (PlayStation 5)

1. **Prepare your PS5:** Power off your PlayStation 5 console completely and disconnect all cables. Place the console on a soft cloth on a flat surface.
2. **Remove the side cover:** With the PS5 logo facing up, gently lift the bottom-right corner of the side cover and slide it down to remove it.
3. **Locate the expansion slot:** Identify the M.2 SSD expansion slot, typically covered by a metal plate.
4. **Remove the expansion slot cover:** Use a Phillips screwdriver to remove the screw securing the expansion slot cover. Carefully remove the cover.
5. **Adjust the spacer and screw:** Inside the slot, you'll find a spacer and a screw. Remove them. Position the spacer at the 80mm mark, which corresponds to the length of the SN850 SSD.
6. **Insert the SSD:** Hold the WD_BLACK SN850 SSD at an angle (approximately 15-20 degrees) and align the M-key connection with the slot. Gently push the SSD into the slot until it clicks into place.

7. **Secure the SSD:** Push the SSD down so it is parallel with the slot. Secure it with the screw you removed earlier, ensuring it's snug but not overtightened.
8. **Reattach covers:** Replace the expansion slot cover and secure it with its screw. Reattach the PS5 side cover by aligning it and sliding it back into place until it clicks.

Your browser does not support the video tag. Please update your browser to view this content.

Video: Official guide demonstrating the physical installation of the WD_BLACK SN850 NVMe SSD with Heatsink into a PlayStation 5 console.



Image: The WD_BLACK SN850 NVMe SSD with Heatsink securely installed in the PlayStation 5's M.2 expansion slot.

3. OPERATING INSTRUCTIONS

After physical installation, your PS5 console will guide you through the necessary software setup for the new M.2 SSD.

3.1 Formatting the M.2 SSD

1. **Power on:** Reconnect all cables and power on your PlayStation 5 console.
2. **Follow on-screen prompts:** The console will detect the new M.2 SSD and prompt you to format it.

Follow the on-screen instructions carefully.

3. **Confirm formatting:** Confirm that you wish to format the M.2 SSD. Be aware that formatting will erase all data on the drive if it was previously used.
4. **Speed test:** After formatting, the console will perform a read speed test. Note the reported speed.

3.2 Changing Installation Location

Once formatted, you can set the M.2 SSD as the default installation location for new games and applications.

1. **Navigate to Settings:** From the PS5 home screen, go to **Settings** (gear icon).
2. **Select Storage:** Scroll down and select **Storage**.
3. **Choose Installation Location:** Select **Installation Location**.
4. **Set default:** You can now choose to install PS5 games and apps, and PS4 games and apps, to the M.2 SSD Storage.

Your browser does not support the video tag. Please update your browser to view this content.

Video: Official guide demonstrating the PS5 storage menu, formatting the M.2 SSD, and setting the installation location for games.

4. MAINTENANCE

To ensure the longevity and optimal performance of your WD_BLACK SN850 NVMe SSD, consider the following maintenance tips:

- **Firmware Updates:** Periodically check the Western Digital website for any available firmware updates for your SSD. Firmware updates can improve performance, stability, and compatibility.
- **Avoid Overfilling:** While the SSD offers ample storage, avoid consistently filling it to its maximum capacity. Leaving some free space can help maintain performance and extend the drive's lifespan.
- **Proper Shutdown:** Always perform a proper shutdown of your console or computer. Avoid sudden power loss, which can potentially corrupt data or damage the drive.
- **Environmental Conditions:** Ensure your console or computer is operated in a well-ventilated area to prevent excessive heat buildup. The integrated heatsink helps, but good airflow is still beneficial.
- **Intended Use:** This SSD is optimized for top-tier gaming and general computing. It is not intended for NAS (Network Attached Storage) or server environments.

5. TROUBLESHOOTING

If you encounter issues with your WD_BLACK SN850 NVMe SSD, refer to the following common troubleshooting steps:

- **SSD Not Detected:**
 - Ensure the SSD is correctly seated in the M.2 slot and securely fastened.
 - Verify that the expansion slot cover is properly reinstalled.
 - Check your console's system software version. PS5 requires version 21.02-04.00.00 or higher for M.2 SSD support.
- **Slow Performance:**
 - Confirm the SSD is formatted correctly.

- Ensure the heatsink is properly attached and not obstructed.
 - If experiencing problems while playing a game installed in M.2 SSD storage, try installing it in console storage to rule out the SSD as the cause.
 - Check for any background processes or downloads that might be consuming bandwidth or system resources.
- **Formatting Errors:**
 - If the console fails to format the SSD, try restarting the console and attempting the process again.
 - Ensure the SSD is fully compatible with your device's M.2 slot specifications (e.g., PCIe Gen4, M.2 2280).

6. SPECIFICATIONS

Key technical specifications for the WD_BLACK SN850 NVMe Internal Gaming SSD with Heatsink (1TB model):

- **Digital Storage Capacity:** 1000 GB (1TB)
- **Hard Disk Interface:** NVMe
- **Connectivity Technology:** NVMe
- **Special Feature:** Heatsink
- **Hard Disk Form Factor:** M.2 2280
- **Hard Disk Description:** Solid State Drive
- **Compatible Devices:** Laptop, Motherboards, Sony PlayStation 5
- **Read Speed:** Up to 7000 MB/s
- **Write Speed:** Up to 5300 MB/s (1TB model)
- **IOPS:** Up to 1,000,000 (1TB and 2TB models)
- **Item Weight:** 0.85 Ounces
- **Item Dimensions (L x W x Thickness):** 3.15"L x 0.92"W x 0.35"Th
- **Model Number:** WDS100T1XHE



Image: Diagram illustrating the dimensions of the WD_BLACK SN850 NVMe SSD with Heatsink (80mm length, 23.4mm width, 8.8mm thickness).

7. WARRANTY INFORMATION

Your WD_BLACK SN850 NVMe Internal Gaming SSD with Heatsink is covered by a limited manufacturer's warranty.

- **Warranty Duration:** 5-year limited manufacturer warranty.
- For detailed terms and conditions, please refer to the official Western Digital warranty statement available on their website.



Image: Graphic indicating a 5-year manufacturer limited warranty for the product.

8. SUPPORT

For further assistance, technical support, or to access additional resources, please visit the official Western Digital support website:

- **Western Digital Support:** <https://support.wdc.com>
- You can find FAQs, driver downloads, and contact information for customer service on their support portal.