

## ADATA SLEG-900-2TCS

# ADATA LEGEND 900 PCIe Gen4 x4 M.2 2280 SSD User Manual

## 1. PRODUCT OVERVIEW

The ADATA LEGEND 900 is a high-performance PCIe Gen4 x4 M.2 2280 Solid State Drive designed for demanding applications such as gaming, content creation, and PC building. It offers significant storage capacity and high-speed data transfer rates, enhancing system responsiveness and loading times.

- **Massive Capacity:** Available in capacities up to 2TB for extensive storage needs.
- **High-Speed Performance:** Utilizes a PCIe Gen4 x4 interface, delivering read speeds up to 7,000 MB/s and write speeds up to 5,400 MB/s.
- **Enhanced Reliability:** Features Host Memory Buffer (HMB) technology, Error Correction Code (LDPC ECC), and secure file transfers to ensure data integrity and longevity.
- **Broad Compatibility:** Designed for seamless integration as a PC or laptop upgrade SSD, and compatible with Sony PlayStation 5.



Image 1.1: The ADATA LEGEND 900 M.2 2280 SSD with its integrated heatsink.

## 2. SETUP AND INSTALLATION

This section provides general guidelines for installing the ADATA LEGEND 900 M.2 SSD. Specific installation steps may vary depending on your computer's motherboard or console model. Always refer to your device's manual for detailed instructions.

### 2.1 Safety Precautions

- Ensure your computer or console is powered off and unplugged from the power source before installation.
- Discharge any static electricity by touching a grounded metal object or wearing an anti-static wrist strap.
- Handle the SSD by its edges to avoid touching the gold connectors or components.

### 2.2 PC/Laptop Installation

1. **Locate M.2 Slot:** Open your computer case or laptop. Identify an available M.2 slot on your motherboard. The

LEGEND 900 is a 2280 form factor, meaning it is 22mm wide and 80mm long.

2. **Insert SSD:** Gently insert the ADATA LEGEND 900 SSD into the M.2 slot at a 30-degree angle. The gold connectors should align with the slot.
3. **Secure SSD:** Push the SSD down until it is parallel with the motherboard. Secure it with the screw provided by your motherboard or laptop manufacturer.

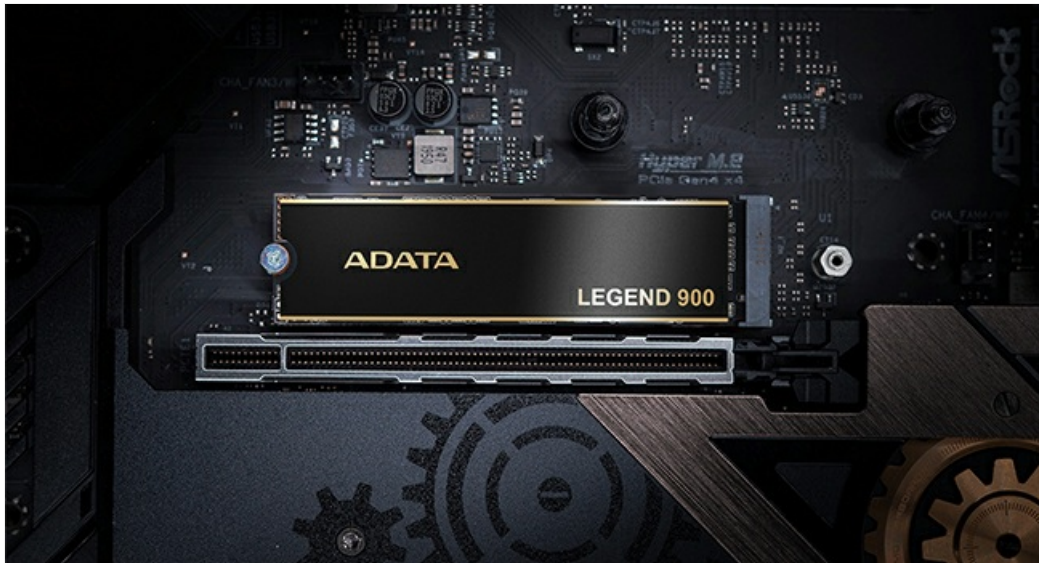


Image 2.1: The ADATA LEGEND 900 SSD correctly installed in an M.2 slot on a motherboard.

## 2.3 PlayStation 5 Installation

The ADATA LEGEND 900 is compatible with the PlayStation 5 console. Refer to the official PlayStation 5 user guide for detailed instructions on how to open the console and install an M.2 SSD. Ensure the heatsink is properly attached or that your PS5 M.2 slot cover provides adequate cooling.



Image 2.2: Installation of the ADATA LEGEND 900 SSD into a PlayStation 5 console.

## 2.4 Initializing and Formatting (Windows)

After physical installation, the SSD needs to be initialized and formatted before it can be used in Windows.

1. **Open Disk Management:** Right-click on the Start button and select "Disk Management".
2. **Initialize Disk:** A dialog box may appear prompting you to initialize the new SSD. Select MBR (Master Boot Record) or GPT (GUID Partition Table) based on your system requirements (GPT is recommended for drives larger than 2TB).

and modern UEFI systems). Click "OK".

3. **Create New Simple Volume:** Right-click on the unallocated space of your new SSD and select "New Simple Volume". Follow the wizard to assign a drive letter and format the drive (NTFS is standard for Windows).

## 3. OPERATING THE SSD

Once installed and formatted, your ADATA LEGEND 900 SSD operates as a standard storage device. Its high-speed capabilities will be utilized automatically by your operating system and applications.

### 3.1 Performance Characteristics

- **PCIe Gen4 x4 Interface:** Provides a high-bandwidth connection for rapid data transfer.
- **SLC Caching:** Utilizes a portion of the NAND flash as Single-Level Cell (SLC) cache to boost write performance for short bursts.
- **Host Memory Buffer (HMB):** Allows the SSD to use a portion of the host system's DRAM for caching, improving performance without requiring dedicated DRAM on the SSD itself.

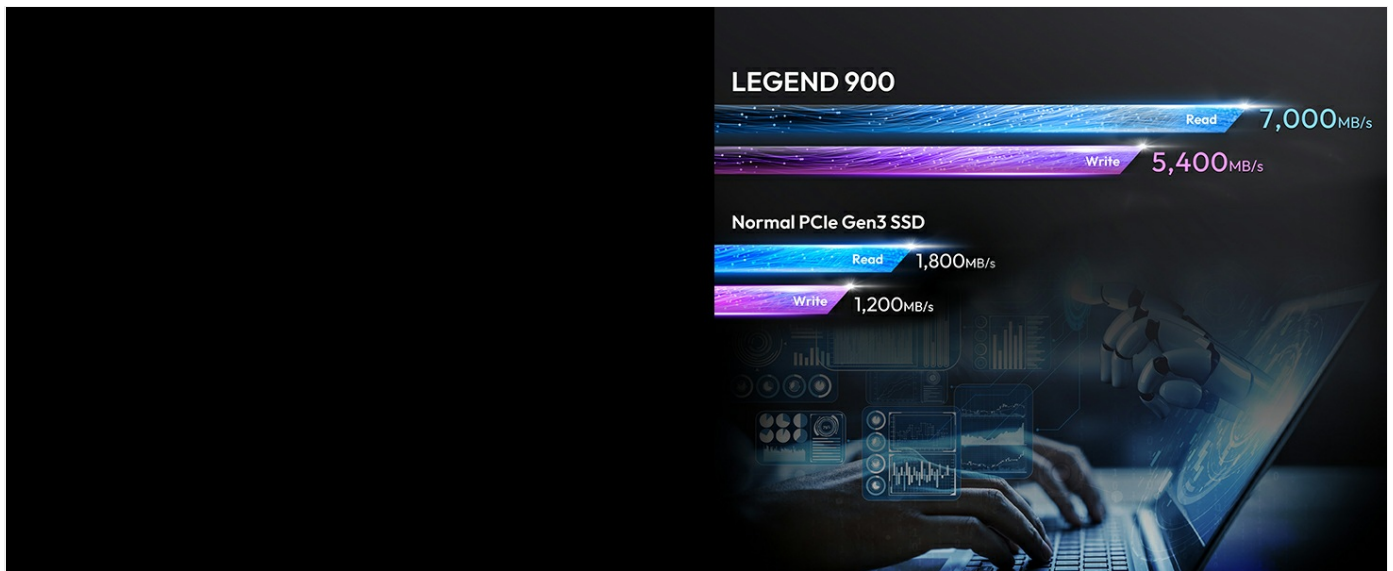


Image 3.1: Performance comparison illustrating the speed advantage of the LEGEND 900 over a standard PCIe Gen3 SSD.

## 4. MAINTENANCE

Proper maintenance ensures the longevity and optimal performance of your SSD.

### 4.1 ADATA SSD ToolBox

ADATA provides a free utility called "SSD ToolBox" for monitoring and managing your SSD. It can be downloaded from the official ADATA website.

- **Drive Information:** View detailed information about your SSD, including health status, temperature, and remaining lifespan.
- **System Optimization:** Optimize your operating system settings for SSD performance.
- **Diagnostic Scan:** Perform quick or full diagnostic scans to check for errors.
- **Firmware Update:** Check for and apply the latest firmware updates to improve performance and stability.



Image 4.1: The ADATA SSD ToolBox software interface, showing various monitoring and optimization features.

## 4.2 Data Integrity

- **LDPC ECC:** The SSD incorporates Low-Density Parity-Check Error Correcting Code to detect and correct data errors, ensuring reliable data storage.
- Regularly back up important data to another storage device.

## 5. TROUBLESHOOTING

If you encounter issues with your ADATA LEGEND 900 SSD, consider the following common troubleshooting steps.

### 5.1 SSD Not Detected

- **Check Physical Connection:** Ensure the SSD is securely seated in the M.2 slot and the retaining screw is in place.
- **BIOS/UEFI Settings:** Enter your system's BIOS/UEFI setup and verify that the M.2 slot is enabled and configured correctly (e.g., PCIe mode).
- **Disk Management (Windows):** As described in Section 2.4, check Disk Management to see if the drive is detected but uninitialized or unformatted.
- **Driver Updates:** Ensure your motherboard's chipset drivers are up to date.

### 5.2 Slow Performance

- **Verify PCIe Gen4:** Confirm your motherboard and CPU support PCIe Gen4. If installed in a Gen3 slot, performance will be limited to Gen3 speeds.
- **Thermal Throttling:** Ensure adequate airflow in your system. High temperatures can cause the SSD to reduce performance to prevent damage. The LEGEND 900 includes a heatsink to mitigate this.
- **Firmware:** Use the ADATA SSD ToolBox to check for and apply the latest firmware updates.
- **TRIM Command:** Ensure TRIM is enabled in your operating system for optimal SSD performance. Windows typically enables this by default.

## 6. SPECIFICATIONS

Feature	Description
Model Name	LEGEND 900

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Model Number	SLEG-900-2TCS
Digital Storage Capacity	2 TB (as per current variant)
Hard Disk Interface	Solid State
Connectivity Technology	PCIe Gen4 x4
Brand	ADATA
Special Feature	Backward Compatible
Hard Disk Form Factor	M.2 2280
Compatible Devices	Laptop, Desktop PC, Sony PlayStation 5
Installation Type	Internal Hard Drive
Read Speed	Up to 7000 MB/s
Write Speed	Up to 5400 MB/s
Enclosure Material	3D NAND
Item Weight	9 Grams

## 7. WARRANTY AND SUPPORT

The ADATA LEGEND 900 SSD comes with a **5-year limited warranty**. For detailed warranty terms and conditions, please refer to the official ADATA website or the warranty information included with your product.

For technical support, driver downloads, firmware updates, and additional product information, please visit the official ADATA support page:

[ADATA Official Support](#)

You can also find more information about ADATA products on their Amazon store:

[ADATA Amazon Store](#)

