

SP Silicon Power SP04KGBP44US7505

SP Silicon Power US75 NVMe PCIe Gen4 M.2 2280 SSD User Manual

Model: SP04KGBP44US7505

1. INTRODUCTION

This manual provides essential information for the installation, operation, maintenance, and troubleshooting of your SP Silicon Power US75 NVMe PCIe Gen4 M.2 2280 Solid State Drive (SSD). Please read these instructions carefully before using the product to ensure optimal performance and longevity.

2. PRODUCT OVERVIEW

The Silicon Power US75 NVMe PCIe Gen4 M.2 2280 SSD is designed for high-performance computing, offering advanced speed and reliability. It features a PCIe Gen 4x4 interface and NVMe 1.4 support, delivering read speeds up to 7,000MB/s and write speeds up to 6,500MB/s. This SSD is suitable for content creation, gaming, and general high-demand applications, providing a significant upgrade over previous generation SSDs.

- **High-Speed Performance:** PCIe Gen 4x4 interface with NVMe 1.4 support for rapid data transfer.
- **Versatile Compatibility:** M.2 2280 form factor compatible with desktops, laptops, and PlayStation 5 consoles.
- **Data Integrity:** Built-in data security and error-correction capabilities ensure reliable storage.
- **SP Toolbox Software:** Monitor drive health, available space, temperature, and perform secure erase functions.

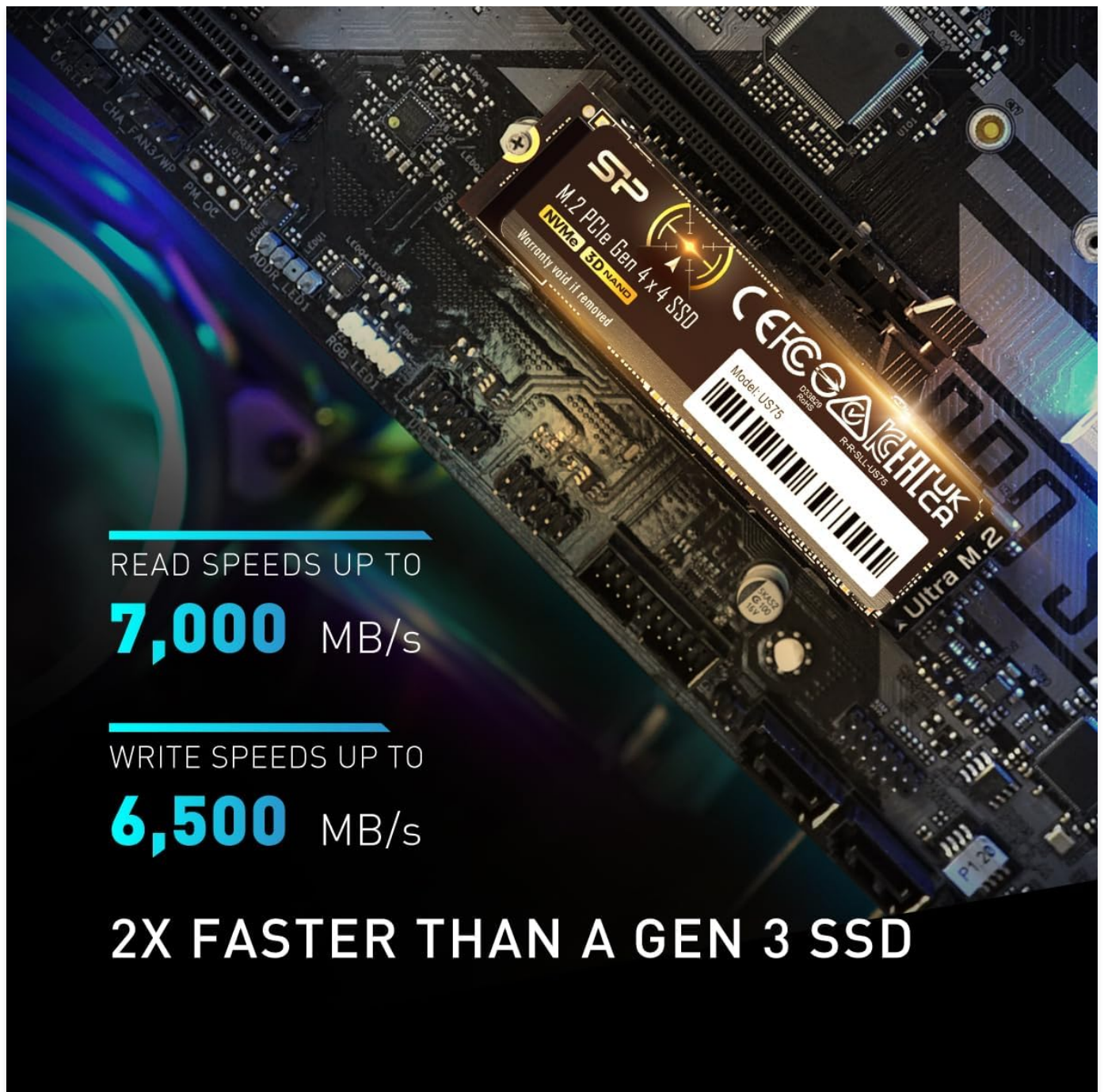


Image: The US75 SSD installed on a motherboard, illustrating its high read and write speeds.

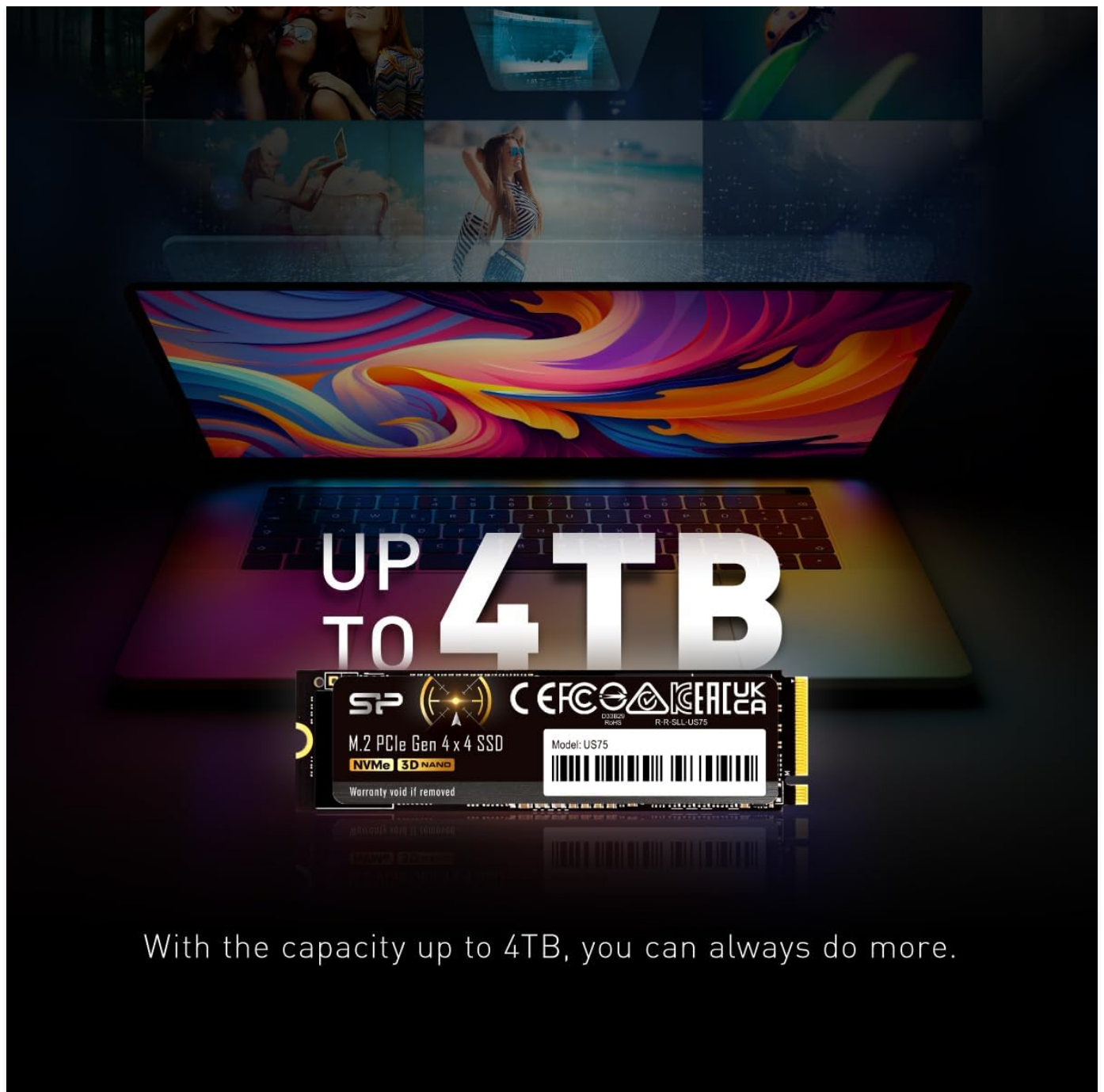


Image: The US75 SSD with a laptop in the background, emphasizing its capacity options up to 4TB.

3. SETUP AND INSTALLATION

3.1 System Requirements

- Computer with an M.2 slot supporting a PCIe interface.
- Operating System: Windows 8.1 or Windows 10 (or later).
- Compatible with PlayStation 5 (PS5) consoles.

3.2 Installation Steps (General Guide)

The installation process may vary slightly depending on your specific device (desktop, laptop, or PS5). Always refer to your device's manufacturer manual for detailed instructions.

1. **Power Off:** Ensure your computer or console is completely powered off and disconnected from the power source.
2. **Access M.2 Slot:** Open your computer case or PS5 expansion slot cover to access the M.2 slot.
3. **Insert SSD:** Gently insert the US75 SSD into the M.2 slot at a slight angle. Push it down until it clicks into place or aligns

with the screw hole.

4. **Secure SSD:** Secure the SSD with the provided screw (usually included with your motherboard or console).
5. **Close Cover:** Reattach the computer case or PS5 expansion slot cover.
6. **Initialize and Format:** After powering on, you may need to initialize and format the new SSD through your operating system's Disk Management utility (Windows) or PS5 settings before it can be used.

Note for PS5 and High-Performance PCs: For optimal performance and to prevent thermal throttling, especially in a PlayStation 5 or high-demand PC environment, it is highly recommended to install a compatible heatsink on the SSD. The US75 SSD does not include a heatsink.

4. OPERATING THE SSD

Once installed and formatted, the US75 SSD functions as a standard storage device. You can install operating systems, applications, games, and store files on it. Its high-speed capabilities will significantly reduce load times and improve overall system responsiveness.

4.1 SP Toolbox Software

Silicon Power provides the SP Toolbox software to help you manage and monitor your SSD. This utility allows you to:

- Monitor drive health and S.M.A.R.T. status.
- Check available storage space.
- Monitor operating temperature.
- Perform performance tests.
- Execute Secure Erase for data sanitization.

Download the latest version of SP Toolbox from the official Silicon Power website.



Drive Health



Performance Test



TBW Check



Secure Erase

RELIABLE PERFORMANCE

Ensure optimal and reliable SSD performance with SP Toolbox.

Image: Features of the SP Toolbox software for managing your SSD.

5. MAINTENANCE

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

- **Monitor with SP Toolbox:** Regularly use the SP Toolbox software to check the drive's health, temperature, and remaining TBW (Total Bytes Written).
- **Keep Firmware Updated:** Check the Silicon Power website for any available firmware updates for your US75 SSD. Firmware updates can improve performance and stability.
- **Ensure Proper Cooling:** Especially in compact systems or high-usage scenarios, ensure adequate airflow or consider a heatsink to prevent overheating, which can impact performance and lifespan.
- **Avoid Excessive Writes:** While SSDs are durable, excessive and unnecessary writes (e.g., constant large file transfers or defragmentation, which is not needed for SSDs) can reduce their lifespan.
- **Maintain Free Space:** Keep a portion of your SSD free (e.g., 10-15%) to allow for efficient wear leveling and garbage collection, which are crucial for SSD performance.

6. TROUBLESHOOTING

If you encounter issues with your US75 SSD, consider the following troubleshooting steps:

- **SSD Not Detected:**
 - Ensure the SSD is correctly seated in the M.2 slot and securely fastened.
 - Check your system's BIOS/UEFI settings to confirm the M.2 slot is enabled and configured correctly (e.g., NVMe mode).
 - Verify that your operating system is compatible (Windows 8.1/10 or later).
 - For new installations, ensure the drive has been initialized and formatted in Disk Management (Windows).
- **Slow Performance:**
 - Confirm your system's M.2 slot supports PCIe Gen4 x4 speeds. Older motherboards may only support Gen3, limiting performance.
 - Check SSD temperature using SP Toolbox. Overheating can cause thermal throttling and reduced speeds. Ensure proper cooling.
 - Ensure your system drivers (chipset, NVMe) are up to date.
 - Verify that the SSD is not nearly full. Performance can degrade when storage is almost at capacity.
- **System Instability/Crashes:**
 - Run a diagnostic check using SP Toolbox to assess drive health.
 - Ensure your system's power supply is stable and sufficient.
 - Check for any conflicting drivers or software.

If issues persist after these steps, please contact SP Silicon Power customer support.

7. SPECIFICATIONS

Feature	Specification
Model Name	US75
Model Number	SP04KGBP44US7505
Digital Storage Capacity	4 TB
Hard Disk Interface	NVMe
Connectivity Technology	PCIe Gen4 x4
Form Factor	M.2 2280
Read Speed (Max)	7000 MB/s
Write Speed (Max)	6500 MB/s
Compatible Devices	Desktop, Laptop, PlayStation 5
Item Dimensions (L x W x Th)	3.15" x 0.87" x 0.14"
Item Weight	8 Grams
Operating Temperature	0°C to 70°C

Shock Resistance Test	1500G/0.5ms
MTBF (Mean Time Between Failures)	1,500,000 hours
Certifications	CE, FCC, UKCA, BSMI, Green dot, WEEE, RoHS, KCC

8. WARRANTY

The SP Silicon Power US75 NVMe PCIe Gen4 M.2 2280 SSD comes with a **5-year limited warranty**. The warranty period is based on either the duration or the Total Bytes Written (TBW) limit, whichever comes first. Please refer to the official Silicon Power website for detailed warranty terms and conditions.



Image: The US75 SSD highlighting its 5-year limited warranty.

9. SUPPORT

For further assistance, technical support, or warranty claims, please visit the official SP Silicon Power website:

www.silicon-power.com

You can also find additional resources and FAQs on their support pages.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question

Open the live page

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