Crucial CT2000T700SSD3

Crucial T700 PCIe Gen5 NVMe 2TB SSD Instruction Manual

Model: CT2000T700SSD3

1. Introduction

The Crucial T700 PCIe Gen5 NVMe 2TB SSD is engineered for high-performance computing, offering exceptional speed and responsiveness. Designed for tech enthusiasts, hardcore gamers, and content creators, this solid-state drive delivers sequential read speeds up to 12,400MB/s and write speeds up to 11,800MB/s. It is compatible with Intel 13th/14th Gen and AMD Ryzen 7000 CPUs, utilizing M.2 Gen5 slots. For optimal performance and to prevent thermal throttling, the Crucial T700 SSD requires a compatible heatsink and proper system airflow.

Figure 1: Crucial T700 PCIe Gen5 NVMe M.2 SSD. This image displays the top view of the SSD module, highlighting the Crucial branding and T700 model name.

2. Safety Information

- **Static Electricity:** Always handle the SSD by its edges to avoid touching the gold connectors or components. Static electricity can damage electronic components. Use an anti-static wrist strap or discharge static by touching a grounded metal object before handling the SSD.
- **Power Disconnection:** Ensure your computer is completely powered off and disconnected from the power source before installation or removal of the SSD.
- **Heatsink Requirement:** The Crucial T700 SSD operates at high speeds and generates significant heat. It **must** be installed with a compatible heatsink (either motherboard-integrated or aftermarket) and within a system that provides adequate airflow to prevent thermal throttling and ensure stable performance. Failure to do so may result in reduced performance or drive damage.

- **Physical Damage:** Avoid bending, dropping, or applying excessive force to the SSD.

3. Package Contents

Your Crucial T700 PCIe Gen5 NVMe 2TB SSD package includes:

- Crucial T700 PCIe Gen5 NVMe M.2 SSD (2TB)
- Quick Start Guide

4. Setup and Installation

Follow these steps to properly install your Crucial T700 SSD:

1. **Pre-installation Checklist:**
    - Ensure your motherboard has an available M.2 Gen5 slot.
    - Confirm your CPU (Intel 13th/14th Gen or AMD Ryzen 7000 series) supports PCIe Gen5.
    - Acquire a compatible M.2 heatsink if your motherboard does not have an integrated one.
    - Ensure your PC case has adequate airflow.
2. **Power Down:** Completely shut down your computer and disconnect the power cable from the wall outlet.
3. **Open Case:** Open your computer case to access the motherboard.
4. **Locate M.2 Slot:** Identify the M.2 Gen5 slot on your motherboard. Refer to your motherboard's manual for exact location.
5. **Remove Heatsink/Cover:** If your motherboard has an integrated M.2 heatsink or cover, carefully remove it.
6. **Insert SSD:** Gently insert the Crucial T700 SSD into the M.2 slot at a 45-degree angle.
7. **Secure SSD:** Push the SSD down until it is parallel with the motherboard, then secure it with the provided screw or clip from your motherboard.
8. **Install Heatsink:** If using an aftermarket heatsink, apply it according to its instructions. If using a motherboard-integrated heatsink, reattach it over the SSD. Ensure proper contact for effective heat dissipation.
9. **Close Case:** Close your computer case and reconnect the power cable.
10. **Initialize and Format:** Power on your computer. You may need to initialize and format the new SSD through your operating system's Disk Management utility before it can be used. Crucial provides Acronis True Image software for easy data migration and cloning.

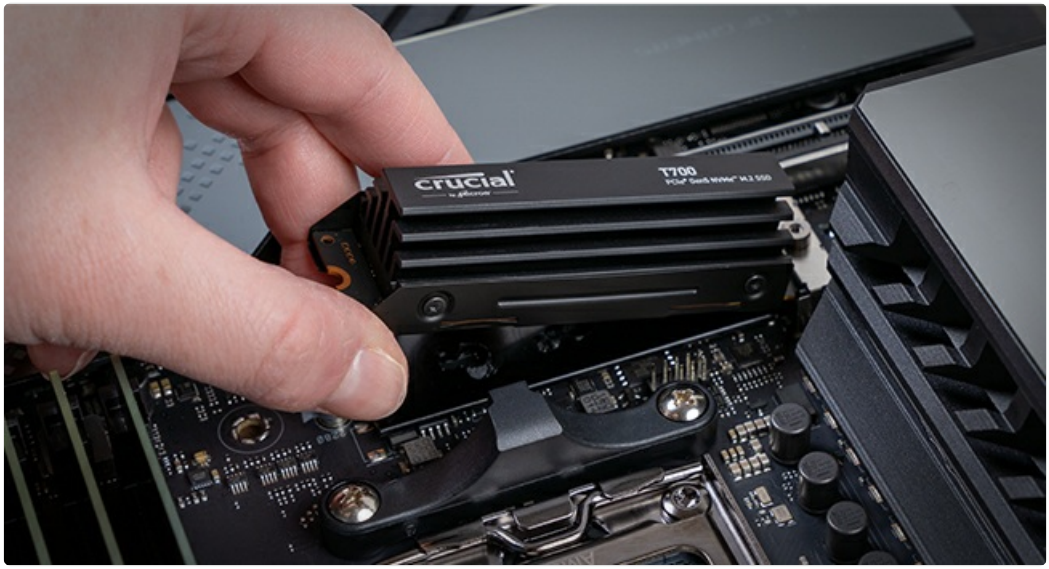


Figure 2: Proper insertion of the Crucial T700 SSD into an M.2 slot on a motherboard. The SSD is shown being gently pushed into the slot at an angle.

Figure 3: The Crucial T700 SSD with an aftermarket heatsink being installed onto a motherboard. This demonstrates the importance of a heatsink for thermal management.

Video 1: Crucial Pro Series Awareness. This official seller video provides an overview of the Crucial Pro series, which includes the T700 SSD, and may demonstrate installation or key features.

5. Operating Instructions

Once installed and configured, your Crucial T700 SSD will significantly enhance your system's performance:

- **Fast Bootups:** Experience rapid operating system boot times.
- **Immersive Gameplay:** Enjoy quicker game load times and smoother in-game performance, especially with titles optimized for Microsoft DirectStorage.
- **Content Creation:** Accelerate demanding workflows such as 3D rendering, 8K+ media editing, and large file transfers.
- **Multitasking:** Benefit from advanced responsiveness and seamless switching between applications.

Figure 4: Graphic illustrating the blistering sequential read (12,400MB/s) and write (11,800MB/s) speeds of the Crucial T700 SSD.

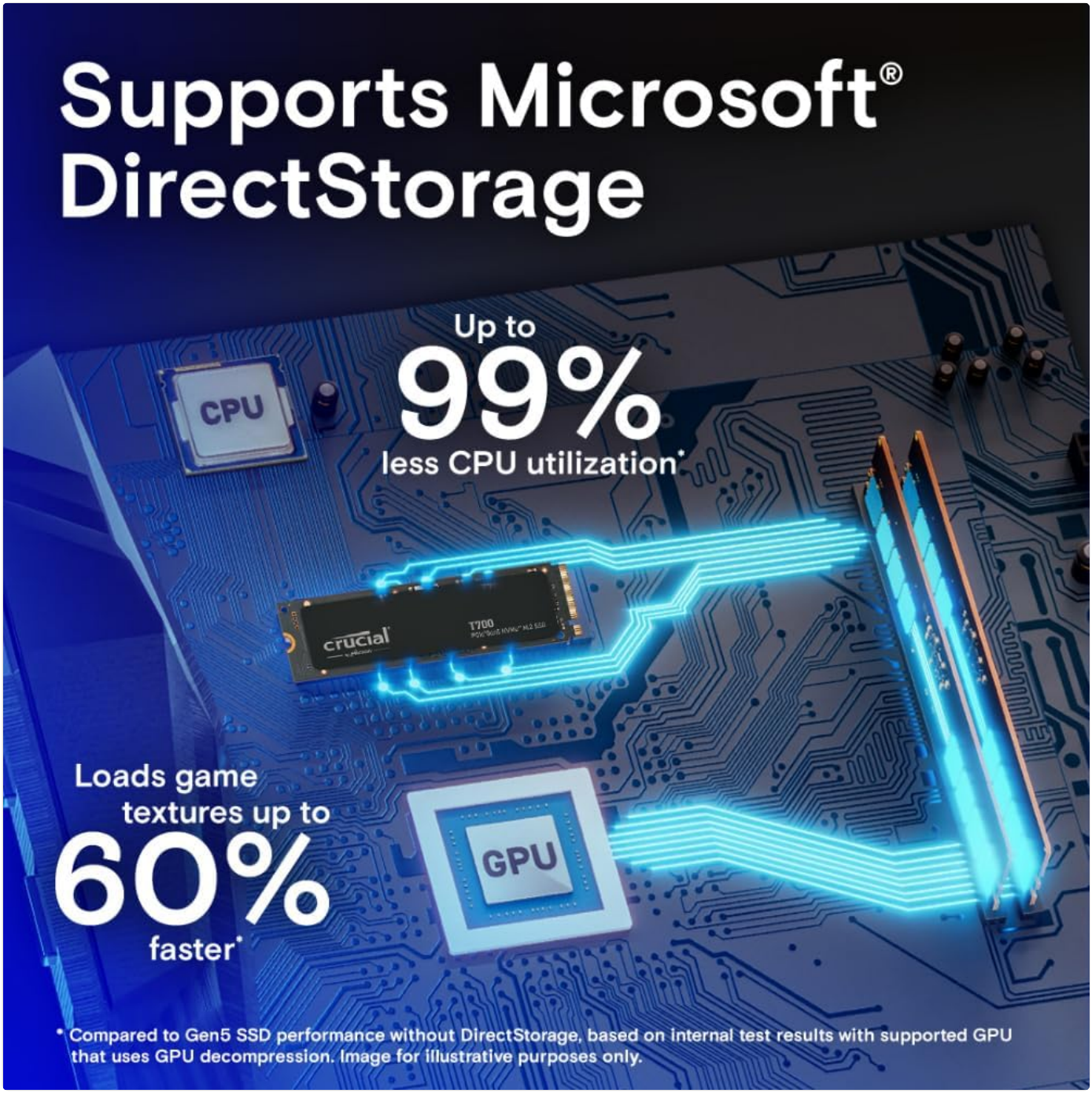


Figure 5: Graphic showing the Crucial T700 SSD supporting Microsoft DirectStorage, which reduces CPU utilization and loads game textures faster.

6. Maintenance

To ensure the longevity and optimal performance of your Crucial T700 SSD:

- **System Airflow:** Maintain good airflow within your computer case to assist the heatsink in dissipating heat effectively. Regularly clean dust from fans and vents.
- **Heatsink Integrity:** Periodically check that the SSD's heatsink is securely attached and free from obstructions.
- **Firmware Updates:** Check the official Crucial website for any available firmware updates for your SSD. Firmware updates can improve performance, stability, and compatibility.
- **Drive Health Monitoring:** Utilize Crucial's Storage Executive software (available for download from the Crucial website) to monitor your SSD's health, temperature, and performance.

7. Troubleshooting

If you encounter issues with your Crucial T700 SSD, consider the following troubleshooting steps:

- **Drive Not Detected:**
  - Ensure the SSD is correctly seated in the M.2 slot.
  - Check your motherboard's BIOS/UEFI settings to confirm the M.2 slot is enabled and configured correctly (e.g., PCIe mode).
  - Verify that your operating system's Disk Management (Windows) or Disk Utility (macOS) recognizes the drive and that it has been initialized and formatted.
- **Slow Performance:**
  - Confirm that a heatsink is properly installed and making good contact with the SSD.
  - Ensure your system has adequate airflow to prevent thermal throttling.
  - Check for the latest motherboard BIOS/UEFI and SSD firmware updates.
  - Verify that the SSD is installed in a PCIe Gen5 compatible M.2 slot and that your CPU supports Gen5 speeds.
  - Ensure your operating system is configured for optimal SSD performance (e.g., TRIM enabled).
- **System Instability:**
  - Re-check all connections, including the SSD and any power cables.
  - Ensure your system's power supply unit (PSU) is sufficient for all components.
  - Update all relevant drivers (chipset, GPU, etc.).

8. Specifications

Feature	Description
Model Number	CT2000T700SSD3
Capacity	2TB
Interface	PCIe Gen5 NVMe M.2
Form Factor	M.2 2280
Sequential Read Speed	Up to 12,400MB/s
Sequential Write Speed	Up to 11,800MB/s
NAND Type	Micron TLC NAND
Compatibility	Intel 13th/14th Gen, AMD Ryzen 7000 CPUs, M.2 Gen5 slots
Dimensions (LxWxH)	3.15 x 0.87 x 0.15 inches
Weight	0.353 ounces
Special Feature	Heatsink-compatible design (requires external heatsink for optimal performance)

9. Warranty

The Crucial T700 PCIe Gen5 NVMe 2TB SSD is backed by a 5-year limited warranty. For detailed terms and conditions,

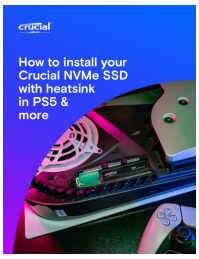
please refer to the official Crucial warranty policy available on their website.

10. Support

For additional support, resources, and software downloads:

- **Acronis True Image:** The SSD comes with Acronis cloning software for easy data recovery and transfers.
- **Adobe Creative Cloud:** A one-month Adobe Creative Cloud All-Apps subscription is included for creative photo, video, and 3D projects.
- **Crucial Storage Executive:** Download this software from the official Crucial website for drive management and monitoring.
- **Official Website:** Visit the Crucial Store for FAQs, troubleshooting guides, and contact information.

Related Documents - CT2000T700SSD3

	Crucial NVMe SSD Installation Guide: Laptop & Desktop Learn how to install your new Crucial NVMe SSD in a laptop or desktop with this comprehensive guide from Crucial by Micron. Follow step-by-step instructions to ensure compatibility, prepare your workspace, and successfully upgrade your computer's storage.
	Crucial NVMe SSD with Heatsink Installation Guide for PS5 and Desktops Step-by-step instructions from Crucial for installing their NVMe SSD with heatsink into a PlayStation 5 console or desktop computer, covering compatibility, preparation, and installation procedures.
	Crucial NVMe SSD Installation Guide for Laptops, Desktops, and PS5 Comprehensive guide on how to install your Crucial NVMe SSD in laptops, desktops, and PlayStation 5 consoles. Includes steps for installation with and without heatsinks, cloning data, and using Crucial Storage Executive.
	How to Install a Crucial NVMe PCIe M.2 SSD in Your Computer A step-by-step guide on how to install a Crucial NVMe PCIe M.2 SSD into your computer, including preparation, installation, data cloning, and software setup for optimal performance.

	[Crucial m4 SSD Firmware Update Guide (Revision 070H)] Step-by-step guide for updating the Crucial m4 2.5-inch SSD firmware to revision 070H using the Windows update utility. Includes instructions, troubleshooting, and release notes.
	[How to Install a Crucial SSD in Your Computer] A step-by-step guide on how to install a Crucial SSD in your computer, including preparation, data cloning, and physical installation. Learn how to improve your computer's speed and performance with a new SSD.