KIOXIA LVE10Z2T04G8

KIOXIA EXCERIA PRO G2 2TB M.2 2280 NVMe SSD User Manual

Model: LVE10Z2T04G8

1. INTRODUCTION

This manual provides essential information for the proper installation, operation, and maintenance of your KIOXIA EXCERIA PRO G2 2TB M.2 2280 NVMe Solid State Drive. This high-performance internal storage device utilizes the PCIe 5.0 interface and NVMe 2.0d protocol, designed for demanding applications such as gaming, content creation, and professional workstations.

Please read this manual thoroughly before proceeding with installation or use to ensure optimal performance and longevity of your SSD.

2. SAFETY INFORMATION

- Always handle the SSD by its edges to avoid touching the gold connectors or components.
- Wear an anti-static wrist strap or frequently touch a grounded metal object before handling the SSD to prevent electrostatic discharge (ESD) damage.
- Ensure your computer is powered off and unplugged from the wall outlet before opening the case or installing the SSD.
- Do not attempt to disassemble or modify the SSD. Doing so will void the warranty.
- Keep the SSD away from moisture, extreme temperatures, and strong magnetic fields.

3. PACKAGE CONTENTS

Verify that your package contains the following items:

- KIOXIA EXCERIA PRO G2 2TB M.2 2280 NVMe SSD
- Documentation (this user manual)

Image: KIOXIA EXCERIA PRO G2 SSD product packaging, showing the drive and branding.

4. Setup and Installation

4.1 Pre-installation Checklist

- A compatible motherboard with an available M.2 slot (M-key, PCIe Gen5x4 support recommended for full performance).
- A Phillips head screwdriver.
- An anti-static wrist strap (recommended).
- Backup any critical data from your existing storage devices.
- Consult your motherboard's manual for specific M.2 slot locations and installation procedures.

4.2 Physical Installation

1. Power off your computer and unplug the power cable from the wall outlet.
2. Open your computer case.
3. Locate an available M.2 slot on your motherboard. It is typically labeled and may be covered by a heatsink.
4. Remove the screw or standoff from the M.2 slot.
5. Carefully insert the KIOXIA EXCERIA PRO G2 SSD into the M.2 slot at a 30-degree angle, ensuring the gold

contacts are fully seated.

6. Gently push the SSD down until it is parallel with the motherboard.

7. Secure the SSD with the screw or standoff you removed earlier.

Image: The KIOXIA EXCERIA PRO G2 SSD module shown installed in a motherboard's M.2 slot.

4.3 Software Initialization and Formatting

1. Close your computer case, reconnect the power cable, and power on your computer.

2. Access your computer's BIOS/UEFI settings (usually by pressing DEL, F2, or F10 during startup) to confirm the SSD is detected.

3. Boot into your operating system.

4. **For Windows:** Open Disk Management (search for "Create and format hard disk partitions"). Locate the new SSD, right-click on it, and select "Initialize Disk." Choose GPT (GUID Partition Table) for modern systems. Then, right-click on the unallocated space, select "New Simple Volume," and follow the wizard to format the drive (NTFS recommended).

5. **For Linux:** Use utilities like `fdisk`, `gparted`, or `Disks` to partition and format the drive (e.g., ext4 filesystem).

6. **For macOS:** Open Disk Utility, select the new SSD, and erase/format it (APFS recommended).

5. OPERATING INSTRUCTIONS

The KIOXIA EXCERIA PRO G2 SSD functions as a high-speed storage device. Once installed and formatted, it will appear as a standard drive in your operating system. You can use it for:

- Operating system installation for fast boot times.
- Storing applications and games for quick loading.
- Managing large files for content creation, video editing, and data-intensive tasks.

The drive is designed to deliver sequential read speeds up to 14,900 MB/s and write speeds up to 13,700 MB/s (for the 2TB model), providing rapid data access and transfer capabilities.

PCIe Gen5 x4 / NVMe 2.0d

Excellent Transfer Speed & Performance

Image: A user engaged in high-performance computing, illustrating the SSD's suitability for demanding tasks like video editing or gaming.

5.1 Heat Dissipation

The EXCERIA PRO G2 SSDs incorporate innovative product labels designed to improve heat dissipation. This feature contributes to stable performance and sustained bandwidth during intensive workloads, such as demanding games, parallel workflows, and AI generation tasks. For optimal thermal management, ensure adequate airflow within your computer case and consider using a motherboard with an integrated M.2 heatsink.

Image: A diagram illustrating how heat is dissipated from the KIOXIA EXCERIA PRO G2 SSD module.

6. MAINTENANCE

6.1 Firmware Updates

Periodically check the official KIOXIA website for firmware updates. Firmware updates can improve performance, stability, and compatibility. Follow the instructions provided by KIOXIA carefully when performing firmware updates.

6.2 SSD Utility Software

KIOXIA provides an SSD Utility management software to monitor, maintain, and optimize your drive. This utility allows you to check the drive's status, remaining life, and maximize its performance. Download the latest version from the official KIOXIA website.

6.3 TRIM Command

Modern operating systems typically enable the TRIM command by default for SSDs. TRIM helps maintain the performance and longevity of the SSD by allowing the operating system to inform the SSD which data blocks are no longer in use and can be wiped internally. Ensure TRIM is enabled in your operating system settings.

7. TROUBLESHOOTING

7.1 SSD 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 the SSD is recognized.
- Verify that your motherboard's M.2 slot supports NVMe PCIe SSDs.
- Update your motherboard's BIOS/UEFI to the latest version.
- If using a PCIe adapter card, ensure it is properly installed and compatible.

7.2 Slow Performance

- Ensure the SSD is installed in a PCIe 5.0 x4 M.2 slot for maximum performance. Using a lower generation PCIe slot or fewer lanes will reduce speeds.
- Verify that your operating system has TRIM enabled.
- Check the SSD's temperature using the KIOXIA SSD Utility. High temperatures can lead to thermal throttling. Ensure adequate cooling.
- Ensure your system drivers (chipset, NVMe) are up to date.
- Avoid filling the SSD to its maximum capacity; leaving some free space can help maintain performance.

7.3 Operating System Issues After Installation

- If you installed the operating system on the new SSD, ensure the boot order in BIOS/UEFI is set correctly.
- If you cloned your operating system, ensure the cloning process was successful and the old drive is disconnected or its boot priority is lowered.

8. SPECIFICATIONS

Feature	Specification
Brand	KIOXIA
Series	EXCERIA PRO G2 SSD
Model Number	LVE10Z2T04G8
Digital Storage Capacity	2 TB
Hard Drive Interface	PCIE x 4
Connectivity Technology	NVMe 2.0d, PCIe Gen5x4
Max Sequential Read Speed	Up to 14,900 MB/s
Max Sequential Write Speed	Up to 13,700 MB/s
Hard Disk Form Factor	M.2 2280
Item Weight	0.257 ounces (approx. 7.28 grams)
Product Dimensions (LxWxH)	3.16 x 0.87 x 0.09 inches (approx. 80.3 x 22.1 x 2.3 mm)
Special Feature	Shock Resistant

Feature	Specification
Compatible Devices	Desktop PCs, Laptops

9. WARRANTY AND SUPPORT

KIOXIA products are manufactured with high-quality components and undergo rigorous testing. This product is covered by a limited warranty. Please refer to the official KIOXIA website for detailed warranty terms and conditions specific to your region.

For technical support, driver downloads, firmware updates, and additional resources, please visit the KIOXIA support page:

https://personal.kioxia.com/support/download/ssd.html