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> Kingston A400 M.2 2280 SSD User Manual

Kingston SA400M8/240G

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Brand: Kingston | Model: SA400M8/240G

PRODUCT OVERVIEW

The Kingston A400 solid-state drive is designed to significantly enhance the responsiveness of your computing system. It offers improved boot times, faster application loading, and quicker data transfers compared to traditional mechanical hard drives. Utilizing Flash memory, the A400 SSD operates without moving parts, contributing to its reliability and durability. It is also designed to be cooler and quieter, with resistance to shock and vibration, making it suitable for both desktop and notebook environments. This model, the SA400M8/240G, is an M.2 2280 form factor SSD with a capacity of 240GB, providing ample space for operating systems, applications, and essential documents.



Image: Kingston A400 M.2 2280 Solid State Drive. This image displays the physical appearance of the M.2 2280 SSD module, highlighting its compact form factor and key components.

INSTALLATION GUIDE

Installing the Kingston A400 M.2 2280 SSD requires careful handling and adherence to proper computer hardware installation procedures. It is recommended to consult your computer's motherboard or laptop manual for specific M.2 slot locations and installation instructions.

For detailed installation steps, please refer to the official Kingston Installation Manual (PDF): [Download Installation Manual](#)

General Installation Steps:

1. **Preparation:** Power off your computer and disconnect all cables. Open the computer case or laptop chassis.
2. **Locate M.2 Slot:** Identify an available M.2 slot on your motherboard. These slots are typically labeled and may have a small screw stand-off.
3. **Insert SSD:** Gently insert the Kingston A400 M.2 SSD into the slot at a slight angle. It should slide in smoothly.
4. **Secure SSD:** Once fully seated, push the SSD down towards the motherboard and secure it with the small screw provided with your motherboard or laptop.
5. **Reassemble and Power On:** Close your computer case or laptop chassis, reconnect all cables, and power on the system.
6. **Initialize and Format:** After booting, you may need to initialize and format the new SSD through your operating system's Disk Management utility before it can be used.



Image: Kingston A400 SSD in its retail packaging. This image shows the product as it is typically sold, indicating its form factor and capacity.

OPERATION

Once installed and configured, the Kingston A400 M.2 SSD operates as a primary or secondary storage device within your computer system. Its high read and write speeds contribute to overall system performance, including faster boot times, quicker application launches, and efficient file transfers. The SSD is designed to handle typical desktop and notebook computer workloads.

- **System Drive:** When used as a primary drive, the operating system and frequently used applications benefit most from the SSD's speed.
- **Data Drive:** When used as a secondary drive, it can store large files, games, or applications that require fast access.
- **Compatibility:** The drive supports SATA Rev. 3.0 (6Gb/s) and is backward compatible with SATA Rev. 2.0 (3Gb/s) interfaces.

MAINTENANCE AND LONGEVITY

Solid State Drives generally require less maintenance than traditional hard drives. However, following these guidelines can help ensure optimal performance and longevity:

- **Enable TRIM:** Ensure your operating system has TRIM enabled. TRIM helps the SSD manage its data more efficiently, preventing performance degradation over time. Most modern operating systems enable TRIM by default for SSDs.
- **Avoid Defragmentation:** Do not defragment an SSD. Defragmentation is unnecessary for SSDs and can reduce their lifespan by causing excessive write cycles.
- **Maintain Free Space:** Try to keep at least 10-15% of the SSD's capacity free. This allows the SSD's wear-leveling algorithms to function effectively and maintain performance.

- **Regular Backups:** As with any storage device, regularly back up your important data to prevent loss in case of unforeseen issues.
- **Firmware Updates:** Periodically check the Kingston website for any available firmware updates for your A400 SSD. Firmware updates can improve performance, stability, and compatibility.

TROUBLESHOOTING

If you encounter issues with your Kingston A400 M.2 SSD, consider the following common troubleshooting steps:

- **SSD Not Detected:**
 - Ensure the SSD is properly seated in the M.2 slot and secured.
 - Check your BIOS/UEFI settings to confirm the M.2 slot is enabled and the drive is recognized.
 - Verify that your motherboard supports M.2 SATA SSDs (some M.2 slots only support NVMe).
 - For new installations, ensure the drive has been initialized and formatted in Disk Management (Windows) or Disk Utility (macOS).
- **Slow Performance:**
 - Confirm TRIM is enabled on your operating system.
 - Ensure the SSD is connected to a SATA 6Gb/s port for optimal speed.
 - Check for background processes or applications that might be heavily utilizing the drive.
 - Ensure sufficient free space is available on the drive.
- **System Instability/Crashes:**
 - Check for overheating. While SSDs run cooler than HDDs, ensure proper airflow in your system.
 - Update your motherboard's BIOS/UEFI to the latest version.
 - Run a diagnostic tool (if available from Kingston or your OS) to check the SSD's health.

If these steps do not resolve the issue, please contact Kingston Technical Support for further assistance.

TECHNICAL SPECIFICATIONS

Feature	Specification
Model Number	SA400M8/240G
Capacity	240 GB
Form Factor	M.2 2280
Interface	SATA Rev. 3.0 (6Gb/s) – backward compatible with SATA Rev. 2.0 (3Gb/s)
Read Speed (Max)	Up to 500MB/s
Write Speed (Max)	Up to 450MB/s
Operating Temperature	0°C to 70°C (32°F to 158°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Vibration Operating	2.17G Peak (7–800Hz)
Vibration Non-operating	20G Peak (10–2000Hz)

Feature	Specification
Life Expectancy (MTBF)	1 million hours
Power Consumption	0.195W Idle / 0.279W Avg / 0.642W (MAX) Read / 1.535W (MAX) Write
Dimensions	0.05 x 0.87 x 3.15 inches (1.27mm x 22.1mm x 80mm)
Weight	0.16 ounces (4.5g)

WARRANTY AND SUPPORT

Kingston Technology provides a limited warranty for its A400 series Solid State Drives. The specific terms and duration of the warranty may vary by region and purchase date. Please retain your proof of purchase for warranty claims.

For detailed warranty information, technical support, and frequently asked questions, please visit the official Kingston support website or contact their customer service:

- **Kingston Support Page:** www.kingston.com/us/support
- **Contact Information:** Refer to the Kingston website for regional contact numbers and email support.

Before contacting support, it is often helpful to have your product model number (SA400M8/240G) and serial number ready.