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› Kingston A400 SATA3 2.5-inch Internal SSD (SA400S37/960G) User Manual

Kingston SA400S37/960G

Kingston A400 SATA3 2.5-inch Internal SSD User Manual

Model: SA400S37/960G

1. INTRODUCTION

The Kingston A400 Solid State Drive (SSD) is designed to enhance the performance of your existing system by offering faster boot-up, loading, and data transfer speeds compared to traditional mechanical hard drives. Utilizing Flash memory, the A400 SSD operates without moving parts, contributing to increased reliability, durability, and quieter operation. Its shock and vibration resistance make it suitable for both desktop and notebook computer environments.

2. SAFETY INFORMATION

Please observe the following safety guidelines during installation and handling:

- Always disconnect power from your computer before opening the case or handling internal components.
- Ground yourself to prevent electrostatic discharge (ESD) by touching a metal part of the computer chassis before handling the SSD.
- Handle the SSD by its edges to avoid touching the connectors or circuit board.
- Ensure proper ventilation within your computer case to maintain optimal operating temperatures for all components.

3. PACKAGE CONTENTS

Your Kingston A400 SSD package should contain:

- One Kingston A400 SATA3 2.5-inch Internal SSD (SA400S37/960G)

Note: Mounting screws, SATA data cables, and SATA power cables are typically not included and may need to be purchased separately if not already available in your system.

4. PRODUCT OVERVIEW



Figure 1: Front view of the Kingston A400 SSD, showing the Kingston logo and branding.



Figure 2: Back view of the Kingston A400 SSD, illustrating the standard SATA data and power connectors.

The Kingston A400 SSD features a 2.5-inch form factor with a 7mm height, making it compatible with a wide range of desktop and notebook computers. It utilizes a SATA Revision 3.0 interface, which is backward compatible with SATA Revision 2.0. The drive is built with Flash memory, offering enhanced durability and

performance over traditional hard disk drives.

5. SETUP AND INSTALLATION

5.1 Pre-installation Checklist

- Backup all important data from your existing drive.
- Gather necessary tools: Phillips head screwdriver, SATA data cable, SATA power cable (if not already present).
- Ensure your computer's power supply provides sufficient power. A power supply with at least 3A at 5V is recommended for optimal performance and stability.

5.2 Physical Installation (Desktop)

1. Shut down your computer and disconnect the power cord.
2. Open the computer case.
3. Locate an available 2.5-inch drive bay. If your case only has 3.5-inch bays, you may need a 2.5-inch to 3.5-inch adapter bracket (not included).
4. Secure the SSD into the drive bay using screws.
5. Connect one end of the SATA data cable to the SSD and the other end to an available SATA port on your motherboard.
6. Connect a SATA power cable from your power supply to the SSD.
7. Close the computer case and reconnect the power cord.



Figure 3: The Kingston A400 SSD integrated into a desktop computer system.

5.3 Physical Installation (Notebook)

1. Shut down your notebook and disconnect the power adapter and remove the battery.
2. Locate and open the drive bay access panel, typically on the bottom of the notebook.
3. Remove the existing hard drive or SSD. This usually involves unscrewing it from a bracket or sliding it out of a connector.
4. If the old drive was in a bracket, transfer the bracket to the new Kingston A400 SSD.
5. Insert the Kingston A400 SSD into the drive bay, ensuring it connects properly to the SATA interface.
6. Secure the SSD with screws if applicable and close the access panel.
7. Reinstall the battery and reconnect the power adapter.

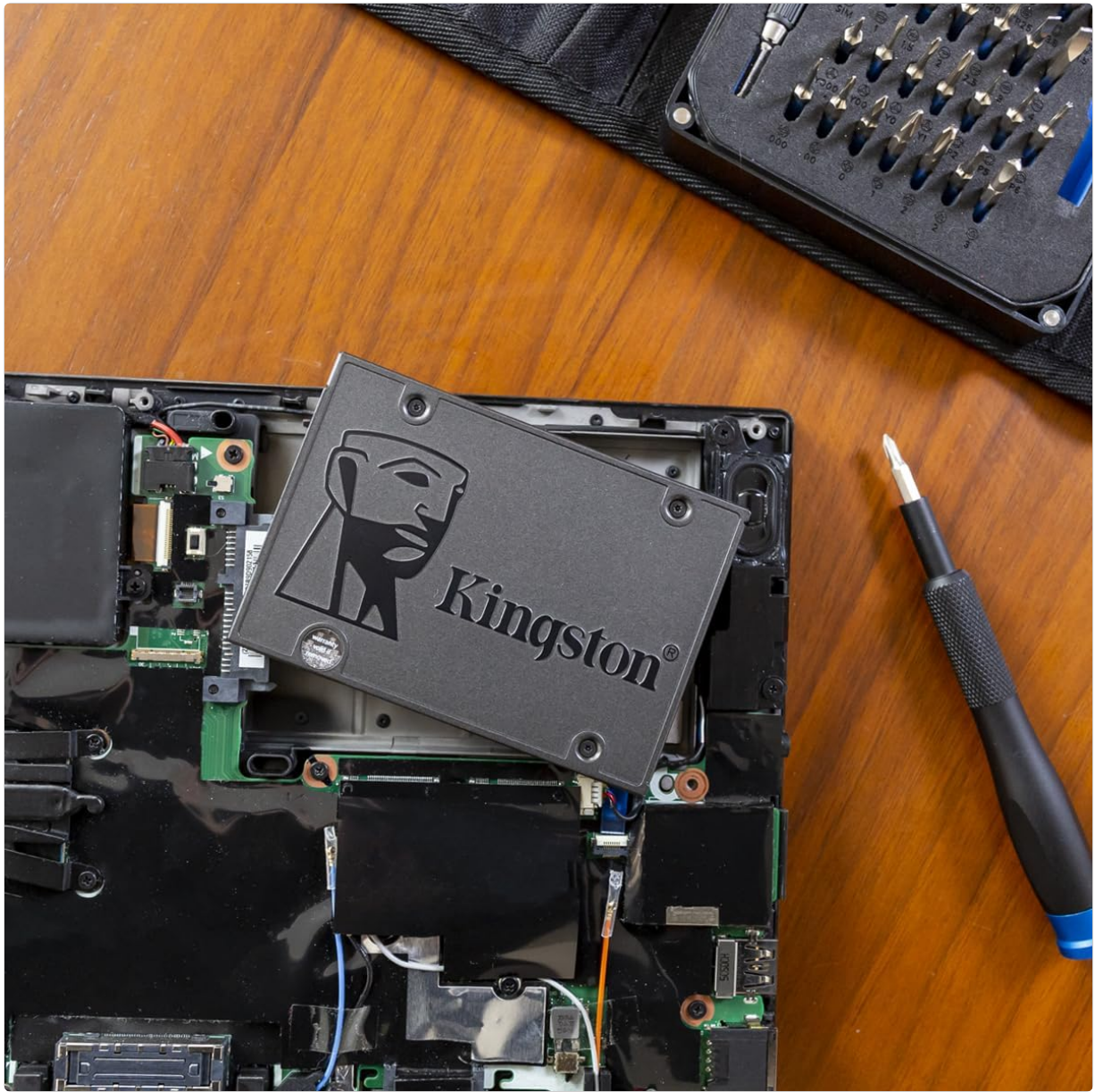


Figure 4: The Kingston A400 SSD being positioned for installation into a notebook computer.



Figure 5: The Kingston A400 SSD fully installed within a notebook computer's drive bay.

5.4 Software Setup

After physical installation, the SSD needs to be prepared for use by the operating system.

- **New Installation:** If installing a new operating system, boot from your OS installation media and follow the on-screen prompts to install the OS onto the new SSD.
- **Drive Migration:** If migrating an existing operating system from an old drive, use disk cloning software (often available from Kingston or third-party vendors) to transfer the contents of your old drive to the new SSD.
- **Secondary Drive:** If using the SSD as a secondary storage drive, boot into your operating system. Open Disk Management (Windows) or Disk Utility (macOS), initialize the new SSD, create a partition, and format it.

6. OPERATION

Once installed and configured, the Kingston A400 SSD operates as a standard storage device. Users will experience significantly faster system responsiveness, including quicker boot times, faster application loading, and improved file transfer speeds. No special operational steps are required beyond normal computer usage.

7. MAINTENANCE

To ensure optimal performance and longevity of your Kingston A400 SSD:

- **TRIM Command:** Ensure your operating system has TRIM enabled. TRIM helps the SSD manage its storage space efficiently, maintaining performance over time. Most modern operating systems enable TRIM by default for SSDs.
- **Firmware Updates:** Periodically check the Kingston website for any available firmware updates for your A400 SSD. Firmware updates can improve performance, stability, and compatibility.
- **SSD Health Monitoring:** Utilize Kingston's SSD Manager software (available for download from the Kingston website) or other third-party tools to monitor the health, temperature, and lifespan of your SSD.
- **Avoid Defragmentation:** Do not defragment your SSD. Defragmentation is designed for traditional hard drives and can reduce the lifespan of an SSD without providing any performance benefits.

8. TROUBLESHOOTING

8.1 SSD Not Detected

- **Check Connections:** Ensure both the SATA data and power cables are securely connected to the SSD and the motherboard/power supply.
- **BIOS/UEFI Settings:** Enter your computer's BIOS/UEFI setup and verify that the SATA port to which the SSD is connected is enabled. Also, check the SATA mode (AHCI mode is recommended for SSDs).
- **Try Different Port/Cable:** Test the SSD with a different SATA data cable, power cable, or SATA port on the motherboard.
- **Power Supply:** Confirm your power supply is adequate. Insufficient power can prevent the SSD from being detected or operating correctly.

8.2 Slow Performance

- **AHCI Mode:** Verify that AHCI mode is enabled in your BIOS/UEFI settings. Running in IDE mode can severely limit SSD performance.
- **TRIM Status:** Confirm that TRIM is enabled in your operating system.
- **Driver Updates:** Ensure your motherboard's SATA controller drivers are up to date.
- **Over-provisioning:** While not strictly necessary for all users, leaving a small percentage of the drive unallocated can sometimes improve long-term performance and endurance.

8.3 Operating System Issues

- **Fresh Installation:** If experiencing persistent issues after migration, a clean installation of the operating system on the SSD can often resolve underlying software conflicts.
- **System Updates:** Ensure your operating system is fully updated, as updates often include performance improvements and bug fixes for storage devices.

9. SPECIFICATIONS

Feature	Detail
Model Number	SA400S37/960G
Capacity	960 GB
Interface	SATA Rev. 3.0 (6Gb/s) – backward compatible with SATA Rev. 2.0 (3Gb/s)
Form Factor	2.5-inch
Dimensions (LxWxH)	3.94 x 2.75 x 0.28 inches (100mm x 69.9mm x 7mm)
Item Weight	1.44 ounces (approx. 41g)
Read Speed	Up to 500MB/s
Write Speed	Up to 450MB/s
Operating Temperature	0°C to 70°C
Storage Temperature	-40°C to 85°C
Vibration Operating	2.17G Peak (7-800Hz)
Vibration Non-operating	20G Peak (10-2000Hz)
Life Expectancy	1 million hours MTBF (Mean Time Between Failures)

10. WARRANTY AND SUPPORT

Kingston products are designed and manufactured to the highest quality standards. The Kingston A400 SSD is backed by a limited warranty, the duration of which can be found on the official Kingston website or product packaging. This warranty covers defects in materials and workmanship under normal use.

For technical support, warranty claims, or additional product information, please visit the official Kingston website or contact Kingston customer service directly. Detailed contact information and support resources are available on their website.

Note: The provided JSON data did not include specific video URLs with creator_type information, therefore no videos could be embedded in this manual.