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› [SAMSUNG 850 EVO 250GB 2.5-Inch SATA III Internal SSD \(MZ-75E250B/AM\) Instruction Manual](#)

Samsung MZ-75E250B/AM

SAMSUNG 850 EVO 250GB 2.5-Inch SATA III Internal SSD (MZ-75E250B/AM) Instruction Manual

Model: MZ-75E250B/AM

INTRODUCTION

The Samsung 850 EVO 250GB 2.5-inch SATA III Internal SSD is designed to enhance your computer's performance with optimized speed and endurance. Utilizing Samsung's V-NAND technology, this solid-state drive is suitable for a wide range of devices including desktop PCs, laptops, and ultrabooks. This manual provides essential information for installation, operation, maintenance, and troubleshooting to ensure optimal use of your SSD.



Figure 1: Front view of the Samsung 850 EVO 250GB 2.5-inch SATA III Internal SSD.

SETUP AND INSTALLATION

Before beginning installation, ensure your computer is powered off and unplugged from the power source. The Samsung 850 EVO SSD uses a standard 2.5-inch form factor and SATA III interface, making it compatible with most modern desktop PCs and laptops.

Required Components (Not Included):

- SATA data cable
- SATA power cable (from your power supply unit)
- Mounting screws or clips (if your drive bay requires them)

Installation Steps for Desktop PCs:

1. Open your computer case.
2. 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).

3. Mount the SSD into the drive bay and secure it with screws or clips.
4. Connect one end of the SATA data cable to the SSD and the other end to an available SATA port on your motherboard.
5. Connect a SATA power cable from your power supply unit (PSU) to the SSD.
6. Close your computer case.

Installation Steps for Laptops:

1. Open the back panel of your laptop.
2. Locate the existing hard drive bay.
3. Carefully remove the old hard drive.
4. Insert the Samsung 850 EVO SSD into the drive bay.
5. Secure the SSD with any necessary screws or brackets.
6. Reattach the back panel of your laptop.

Software Installation and Management:

Samsung provides free Data Migration and Magician software for easy installation and SSD management. These tools can be downloaded from the official Samsung website.

- **Samsung Data Migration:** Use this software to clone your existing operating system and data from your old drive to the new Samsung SSD.
- **Samsung Magician:** This utility allows you to monitor the SSD's health, optimize performance, update firmware, and enable features like RAPID mode.



Figure 2: Rear view of the Samsung 850 EVO SSD, showing the SATA data and power connectors.

OPERATING THE SSD

Once installed, the Samsung 850 EVO SSD will significantly improve your system's responsiveness.

Performance:

- **Sequential Read/Write:** Up to 540MB/s read and 520MB/s write speeds, enhanced by TurboWrite technology.
- **Random Read/Write IOPS:** Up to 97K read and 88K write IOPS.
- **RAPID Mode:** Utilize unused PC memory as cache storage for up to 2x faster data processing speeds. This feature is managed via Samsung Magician software.

Operating System Compatibility:

The SSD is compatible with:

- Windows 10/8/7/Vista SP1 and above (32/64 bit)
- Windows Server 2008 (32/64 bit)

- Linux Compatible

Disk Initialization and Formatting:

For new installations, the SSD may need to be initialized and formatted before it can be used. This process is typically done through your operating system's Disk Management utility (e.g., in Windows, right-click 'This PC' > 'Manage' > 'Disk Management').

MAINTENANCE

Proper maintenance ensures the longevity and optimal performance of your Samsung 850 EVO SSD.

Samsung Magician Software:

Regularly use the Samsung Magician software for:

- **Firmware Updates:** Keep your SSD's firmware up-to-date for the latest performance enhancements and bug fixes.
- **Performance Optimization:** Utilize features like TRIM management and over-provisioning to maintain peak performance.
- **Drive Health Monitoring:** Check the drive's condition and estimated remaining lifespan.
- **Secure Erase:** Safely and permanently delete all data from the SSD when needed.

General Tips:

- **Avoid Defragmentation:** Unlike traditional hard drives, SSDs do not benefit from defragmentation and it can reduce their lifespan.
- **Maintain Free Space:** Keep a portion of the SSD's capacity free (e.g., 10-15%) to allow for optimal wear leveling and performance.
- **Regular Backups:** While SSDs are reliable, regular backups of important data are always recommended.

TROUBLESHOOTING

If you encounter issues with your Samsung 850 EVO SSD, try the following steps:

Drive Not Detected:

1. **Check All Connections:** Ensure both the SATA data cable and SATA power cable are securely connected to the SSD and the motherboard/PSU.
2. **Try a Different Port or Slot:** Connect the SSD to a different SATA port on your motherboard and use a different SATA power cable if possible.
3. **Check BIOS/UEFI Settings:**
 - Power on your computer and enter the BIOS/UEFI setup (usually by pressing Del, F2, F10, or F12 during startup).
 - Navigate to the 'Storage' or 'SATA Configuration' section.
 - Ensure the SATA port to which the SSD is connected is enabled and set to AHCI mode.
 - Confirm the new drive is listed in the BIOS/UEFI.
4. **Rescan Disks in Disk Management:** If the drive is detected in BIOS but not in your operating system, open Disk Management (Windows) and click 'Action' > 'Rescan Disks'.
5. **Initialize Drive:** If the drive appears as 'Unallocated' or 'Offline' in Disk Management, right-click the disk and select 'Online', then 'Initialize Disk' (choose GPT for modern systems) and create a new simple volume.

Performance Issues:

- Ensure AHCI mode is enabled in BIOS/UEFI.
- Run Samsung Magician software to check drive health, optimize performance, and ensure RAPID mode is enabled (if desired).
- Verify that your operating system is up-to-date.

If issues persist after following these steps, consult the Samsung support website or contact customer service.

SPECIFICATIONS

Feature	Detail
Brand	Samsung
Series	850 EVO
Model Number	MZ-75E250B/AM
Digital Storage Capacity	250 GB
Hard Disk Interface	SATA 6 GB/s (SATA III)
Hard Disk Form Factor	2.5 Inches
Product Dimensions (LxWxH)	3.94 x 0.27 x 2.75 inches
Item Weight	2.33 ounces
Voltage	5 Volts
Compatible Devices	Compatible with SATA 3Gb/s & SATA 1.5Gb/s interface
Operating System	Windows 7 and above, Windows Server 2008, Linux

WARRANTY AND SUPPORT

Warranty Information:

The Samsung 850 EVO 250GB SSD comes with a **5-Year Limited Warranty**. Please retain your proof of purchase for warranty claims. For detailed terms and conditions, refer to the warranty documentation included with your product or visit the official Samsung website.

Customer Support:

For technical assistance, product registration, or further information, please visit the official Samsung support website. You can also find FAQs, driver downloads, and contact options there.