Transcend MTS400S

Transcend MTS400S M.2 2242 SATA III SSD User Manual

Model: MTS400S Series

1. INTRODUCTION

This manual provides essential information for the installation, operation, and maintenance of your Transcend MTS400S M.2 2242 SATA III Solid State Drive. The MTS400S is designed for high-performance computing in compact form factors, such as Ultrabooks and thin notebooks.

Package Contents:

- Transcend MTS400S M.2 SSD
- Warranty Card

Key Features:

- Space-saving M.2 Type 2242 form factor
- SATA III 6Gb/s interface
- MLC NAND flash memory for enhanced durability
- DDR3 DRAM cache for improved performance
- Supports DevSleep ultra-low power state
- Supports S.M.A.R.T., TRIM, and NCQ commands

2. SETUP AND INSTALLATION

The Transcend MTS400S SSD is an internal component. Installation requires opening your computer case or laptop. If you are unfamiliar with hardware installation, it is recommended to seek assistance from a qualified technician.

Compatibility Check:

Ensure your device has an available M.2 slot that supports the 2242 form factor and SATA III interface. Refer to your device's motherboard or laptop manual for specific M.2 slot details.

Installation Steps:

1. **Preparation:** Power off your computer and disconnect all cables. Open the computer case or laptop cover. It is advisable to wear an anti-static wrist strap to prevent electrostatic discharge (ESD) damage.

2. **Locate M.2 Slot:** Identify the M.2 slot on your motherboard. It typically has a small screw stand-off nearby.

3. **Insert SSD:** Gently insert the Transcend MTS400S SSD into the M.2 slot at a slight angle. The gold contacts should slide fully into the slot.

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 device.

5. **Reassemble:** Close your computer case or laptop cover and reconnect all cables.
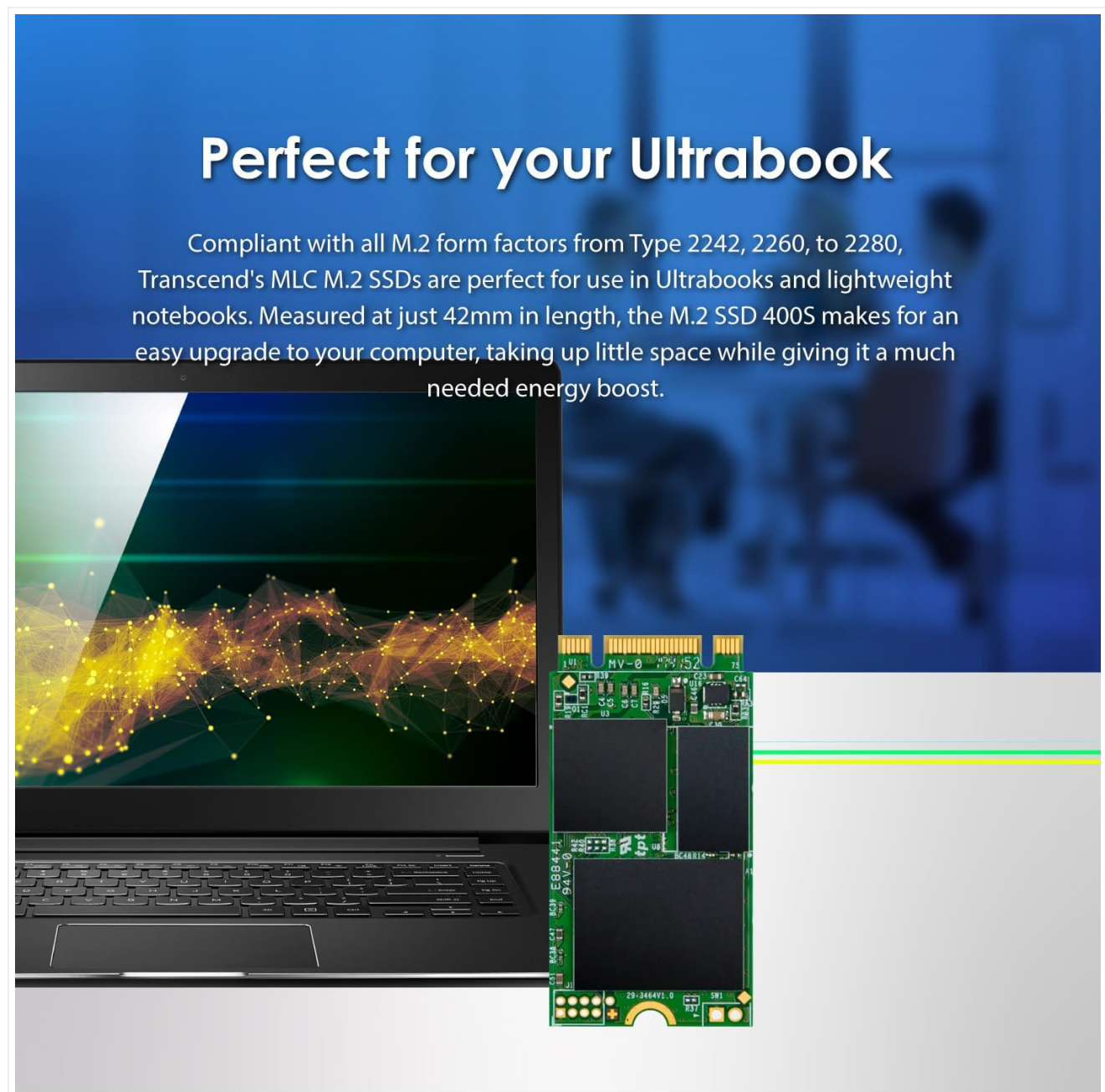

Perfect for your Ultrabook

Compliant with all M.2 form factors from Type 2242, 2260, to 2280, Transcend's MLC M.2 SSDs are perfect for use in Ultrabooks and lightweight notebooks. Measured at just 42mm in length, the M.2 SSD 400S makes for an easy upgrade to your computer, taking up little space while giving it a much needed energy boost.

Image: The Transcend MTS400S M.2 SSD shown installed in a compatible M.2 slot within a laptop, demonstrating its compact size and proper seating.

Initial Setup (for New SSDs):

After physical installation, you may need to initialize and format the SSD in your operating system before it can be used.

- **Windows:** Open 'Disk Management' (right-click 'This PC' or 'My Computer' > 'Manage' > 'Disk Management'). Locate the new SSD, initialize it (MBR or GPT, typically GPT for modern systems), and then create a new simple volume.
- **macOS:** Use 'Disk Utility' to erase and format the drive.
- **Linux:** Use tools like GParted or fdisk/mkfs to partition and format the drive.

3. OPERATING THE SSD

The Transcend MTS400S SSD functions as a standard storage device. It can be used as a primary boot drive for your operating system or as a secondary drive for data storage.

Optimizing Performance:

- **TRIM Command:** Ensure your operating system has TRIM enabled. TRIM helps maintain the performance and longevity of the SSD by allowing the OS to inform the SSD which data blocks are no longer in use and can be wiped internally. Most modern operating systems (Windows 7+, macOS 10.6.8+, Linux kernel 2.6.33+) enable TRIM by default for SSDs.
- **DevSleep:** The MTS400S supports DevSleep, an ultra-low power state that intelligently shuts down the SATA interface when not in use. This feature helps prolong your device's battery life in portable systems.
- **AHCI Mode:** For optimal performance, ensure your system's BIOS/UEFI is configured to use AHCI (Advanced Host Controller Interface) mode for the SATA controller, not IDE mode.

4. MAINTENANCE

Proper maintenance can help ensure the longevity and optimal performance of your SSD.

- **Regular Backups:** While SSDs are generally reliable, it is crucial to regularly back up important data to another storage device.
- **Firmware Updates:** Periodically check the Transcend website for any available firmware updates for your MTS400S SSD. Firmware updates can improve performance, stability, and compatibility.
- **Transcend SSD Scope Software:** Transcend offers a free software utility called SSD Scope. This tool can help monitor the health of your SSD, enable TRIM, securely erase data, and update firmware. It is recommended to download and utilize this software for comprehensive SSD management.
- **Avoid Defragmentation:** Unlike traditional hard disk drives, SSDs do not benefit from defragmentation. Defragmenting an SSD can reduce its lifespan without improving performance.

5. TROUBLESHOOTING

If you encounter issues with your Transcend MTS400S SSD, refer to the following common problems and solutions:

SSD Not Detected:

- **Check Physical Connection:** Ensure the SSD is correctly seated in the M.2 slot and secured.
- **BIOS/UEFI Settings:** Enter your system's BIOS/UEFI setup and verify that the M.2 slot is enabled and

configured for SATA mode (not PCIe, if applicable).

- **Disk Management (OS):** For new SSDs, ensure it has been initialized and formatted in your operating system's disk management utility.
- **Driver Updates:** Ensure your motherboard's SATA controller drivers are up to date.

Slow Performance:

- **TRIM Status:** Verify that TRIM is enabled in your operating system.
- **AHCI Mode:** Confirm that your system's BIOS/UEFI is set to AHCI mode for the SATA controller.
- **SSD Health:** Use Transcend SSD Scope software to check the health and wear-leveling status of your SSD.
- **System Resources:** Ensure your system has sufficient RAM and CPU resources, as these can impact overall storage performance.

6. SPECIFICATIONS

Detailed technical specifications for the Transcend MTS400S M.2 2242 SATA III SSD (Model: TS128GMTS400S).

Image: A table summarizing the technical specifications of the Transcend MTS400S SSD, including dimensions, weight, storage media, and performance metrics.

Feature	Specification
Model Number	TS128GMTS400S
Form Factor	M.2 2242
Interface	SATA III 6Gb/s
Capacity	128GB (Other capacities available: 32GB, 64GB, 256GB, 512GB)
Storage Media	MLC NAND Flash
DRAM Cache	DDR3
Sequential Read Speed (Max)	Up to 500 MB/s
Sequential Write Speed (Max)	Up to 450 MB/s
4K Random Read (IOPS)	Up to 70,000 IOPS
4K Random Write (IOPS)	Up to 40,000 IOPS
Mean Time Between Failures (MTBF)	1,500,000 hours
Terabytes Written (TBW)	300 TBW (for 128GB model)

Feature	Specification
Operating Temperature	0°C (32°F) ~ 70°C (158°F)
Operating Voltage	3.3V ±5%
Dimensions (L x W x H)	42.0 mm x 22.0 mm x 3.58 mm (1.65" x 0.87" x 0.14")
Weight	5 g (0.18 oz)
Certificates	CE, FCC, UKCA, BSMI, KC, RCM

Note: Speed may vary due to host hardware, software, usage, and storage capacity.

7. WARRANTY AND SUPPORT

Warranty Information:

The Transcend MTS400S SSD comes with a **Three-year Limited Warranty**. This warranty covers defects in materials and workmanship under normal use. Please refer to the included warranty card for full terms and conditions. The warranty does not apply if SSD Scope's wear-out indicator displays 0% within the warranty coverage period.

Technical Support:

For technical assistance, troubleshooting, or warranty claims, please visit the official Transcend website or contact Transcend customer support. You can find contact information and support resources on their website.

Related Documents - MTS400S

Manual de Usuario **JetFlash® Vault 100**	[Transcend JetFlash Vault 100 User Manual - Secure USB Flash Drive](#) Official user manual for the Transcend JetFlash Vault 100, detailing how to set up passwords, use the device on Windows and Mac, access settings, and find support. Learn about secure portable storage.
User Manual StoreJet Cloud Transcend®	[Transcend StoreJet Cloud User Manual: Portable Wireless Storage Guide](#) Comprehensive user manual for the Transcend StoreJet Cloud portable wireless storage device. Learn setup, connection, content streaming, and management for Android and iOS devices.

	Transcend Micro Software User Guide User guide for the Transcend Micro CPAP device software, detailing configuration, compliance management, data reporting, and contact information for Transcend Inc.
	Transcend Micro CPAP Machine Quick Guide A quick guide to setting up and using the Transcend Micro Continuous Positive Airway Pressure (CPAP) device, including information on its features, operation, and maintenance.
	Transcend Micro CPAP User Manual User manual for the Transcend Micro CPAP device, covering setup, operation, maintenance, troubleshooting, and technical specifications.
	Transcend 40W Sun-Watt Solar Charger User Manual - Portable Power Solution Comprehensive user manual for the Transcend 40W Sun-Watt™ Solar Charger. Learn about its features, intended use with the PowerAway™ Battery for CPAP devices, charging procedures, maintenance, technical specifications, and warranty information.