ADATA ASU630SS-1T92Q-R

ADATA Ultimate SU630 1.92TB SSD User Manual

Model: ASU630SS-1T92Q-R

1. Introduction

The ADATA Ultimate SU630 is a 2.5-inch SATA III (6Gb/s) Solid State Drive designed for upgrading traditional hard disk drives (HDDs) in desktop computers and laptops. It utilizes QLC 3D NAND Flash technology, offering improved performance and reliability compared to HDDs. Key features include LDPC (Low-Density Parity-Check) error correcting code technology for data integrity and dynamic SLC caching for enhanced read/write speeds.

2. Safety Information

- Handle the SSD with care to avoid physical damage.
- Avoid exposing the SSD to extreme temperatures, moisture, or strong magnetic fields.
- Always ground yourself before handling internal computer components to prevent electrostatic discharge (ESD).
- Do not attempt to disassemble the SSD, as this will void the warranty and may cause damage.

3. Package Contents

Verify that your package contains the following items:

- ADATA Ultimate SU630 SSD (1.92TB model)
- Quick Start Guide (if included)



Image: Retail packaging of the ADATA Ultimate SU630 SSD, showing the drive and its capacity.

4. Setup and Installation

This section outlines the general steps for installing the ADATA Ultimate SU630 SSD into a desktop or laptop computer. Specific steps may vary depending on your computer model.

4.1. Preparation

- **Backup Data:** Before beginning, back up all important data from your existing storage drive.
- **Gather Tools:** You may need a Phillips head screwdriver, an anti-static wrist strap, and potentially a 2.5-inch to 3.5-inch drive bay adapter for desktop installations.
- **Power Off:** Completely shut down your computer and disconnect it from the power source.

4.2. Physical Installation (Desktop)

1. Open your computer case.
2. Locate an available 2.5-inch drive bay or use a 2.5-inch to 3.5-inch adapter to mount the SSD in a 3.5-inch bay.
3. Secure the SSD with screws.
4. Connect one end of a 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.

4.3. Physical Installation (Laptop)

1. Refer to your laptop's manual for instructions on how to access the storage drive bay.
2. Carefully remove the existing hard drive (if replacing).
3. Insert the ADATA SU630 SSD into the drive bay, ensuring it is securely seated.
4. Reassemble your laptop.



Image: Front view of the ADATA Ultimate SU630 SSD, showing the ADATA logo and model name.



Image: Back view of the ADATA Ultimate SU630 SSD, displaying the SATA data and power connectors, along with regulatory markings.

4.4. Software Setup

1. Power on your computer.
2. Access Disk Management (Windows) or Disk Utility (macOS).
3. **Initialize Disk:** The SSD may need to be initialized. Select MBR (Master Boot Record) for older systems or GPT (GUID Partition Table) for newer UEFI-based systems.
4. **Create Partition and Format:** Create a new simple volume and format it (NTFS for Windows, APFS/HFS+ for macOS).
5. **Operating System Installation or Data Migration:** You can now install a new operating system on the SSD or migrate your existing OS and data using cloning software. ADATA offers an SSD Toolbox and Migration Utility for this purpose.

5. Operating the SSD

Once installed, initialized, and formatted, the ADATA Ultimate SU630 SSD functions as a standard storage device. It can be used for operating system installation, application storage, and general data storage. Its high read/write speeds contribute to faster boot times, quicker application loading, and efficient file transfers. The drive is designed for continuous operation within specified temperature ranges.

6. Maintenance

Solid State Drives have no moving parts, reducing the need for mechanical maintenance. However, software-based maintenance is beneficial for optimal performance and longevity.

- **TRIM Command:** Ensure your operating system has TRIM enabled. Modern operating systems (Windows 7 and later, macOS, Linux) typically enable TRIM automatically for SSDs, which helps maintain performance over time.
- **Firmware Updates:** Periodically check the official ADATA website for firmware updates for your SU630 SSD. Firmware updates can improve performance, stability, and compatibility.
- **SSD Toolbox:** Utilize the ADATA SSD Toolbox software (available for download from the ADATA website) to monitor drive health, optimize performance, and manage features like TRIM.
- **Avoid Full Capacity:** While not strictly necessary, it is generally recommended to avoid filling an SSD to its absolute maximum capacity to allow for optimal wear leveling and performance.

7. Troubleshooting

If you encounter issues with your ADATA Ultimate SU630 SSD, refer to the following common troubleshooting steps:

- **SSD Not Detected:**
  - Check SATA data and power cable connections. Ensure they are securely attached to both the SSD and the motherboard/PSU.
  - Verify that the SSD is properly seated in its drive bay.
  - Check your computer's BIOS/UEFI settings to ensure the SATA port is enabled and the drive is recognized.
  - Try connecting the SSD to a different SATA port or using different SATA data and power cables.
- **Slow Performance:**
  - Ensure TRIM is enabled in your operating system.
  - Check for sufficient free space on the SSD. Performance can degrade if the drive is nearly full.
  - Verify that the SSD is connected to a SATA III (6Gb/s) port on your motherboard for optimal speed.
  - Run the ADATA SSD Toolbox for optimization and health checks.
- **Data Corruption or Errors:**
  - Run disk error checking utilities (e.g., `chkdsk` on Windows).
  - Ensure proper shutdown procedures for your computer to prevent data loss.
  - Check for and install any available firmware updates for the SSD.

8. Specifications

The following are the technical specifications for the ADATA Ultimate SU630 1.92TB SSD (Model: ASU630SS-1T92Q-R):

Form Factor	2.5 Inch
Interface	SATA III 6Gb/s

NAND Flash	3D QLC
Capacity	1.92TB (1920 GB)
Sequential Read (Max)	Up to 520 MB/s
Sequential Write (Max)	Up to 450 MB/s
MTBF (Mean Time Between Failures)	1,500,000 hours
Dimensions (L x W x H)	10 x 7 x 0.7 cm
Weight	40 g
Operating Temperature	0°C to 70°C
Shock Resistance	1500G/0.5ms
Error Correction	LDPC ECC



Image: The ADATA Ultimate SU630 SSD with its physical dimensions (length, width, height) clearly labeled in centimeters.

9. Warranty and Support

9.1. Warranty Information

The ADATA Ultimate SU630 SSD is covered by an ADATA 3-Year Limited Warranty. This warranty covers defects in materials and workmanship under normal use. For full details regarding warranty terms, conditions, and limitations, please refer to the official ADATA website or the warranty card included with your product.

9.2. Technical Support

For technical assistance, product inquiries, or troubleshooting beyond the scope of this manual, please visit the official ADATA support website:

ADATA Official Support Website

Here you can find FAQs, driver downloads, firmware updates, and contact information for customer service.