MSI A520M-A PRO V1

MSI A520M-A PRO V1 Gaming Motherboard

User Manual

1. Introduction

This user manual provides comprehensive instructions for the installation, operation, and maintenance of your MSI A520M-A PRO V1 Gaming Motherboard. Please read this manual thoroughly before beginning the installation process to ensure proper setup and to maximize the performance and longevity of your system.



Image: The MSI A520M-A PRO V1 motherboard alongside its retail packaging, showcasing the product's design and branding.

2. Setup

2.1 Before You Begin

Ensure you have a static-free environment. Wear an anti-static wrist strap or frequently touch a grounded metal object before handling components. Gather necessary tools such as a Phillips head screwdriver, thermal paste, and cable ties.

2.2 Package Contents

Verify that all items listed below are present in your motherboard package:

- MSI A520M-A PRO V1 Motherboard
- Quick Installation Guide
- Driver DVD
- 2 x SATA Cables
- I/O Shielding
- MSI Case Badge
- Product Registration Card



Image: A visual representation of the accessories included with the MSI A520M-A PRO V1 motherboard, such as SATA cables, I/O shield, and documentation.

2.3 Motherboard Layout

Familiarize yourself with the key components and connectors on the motherboard.

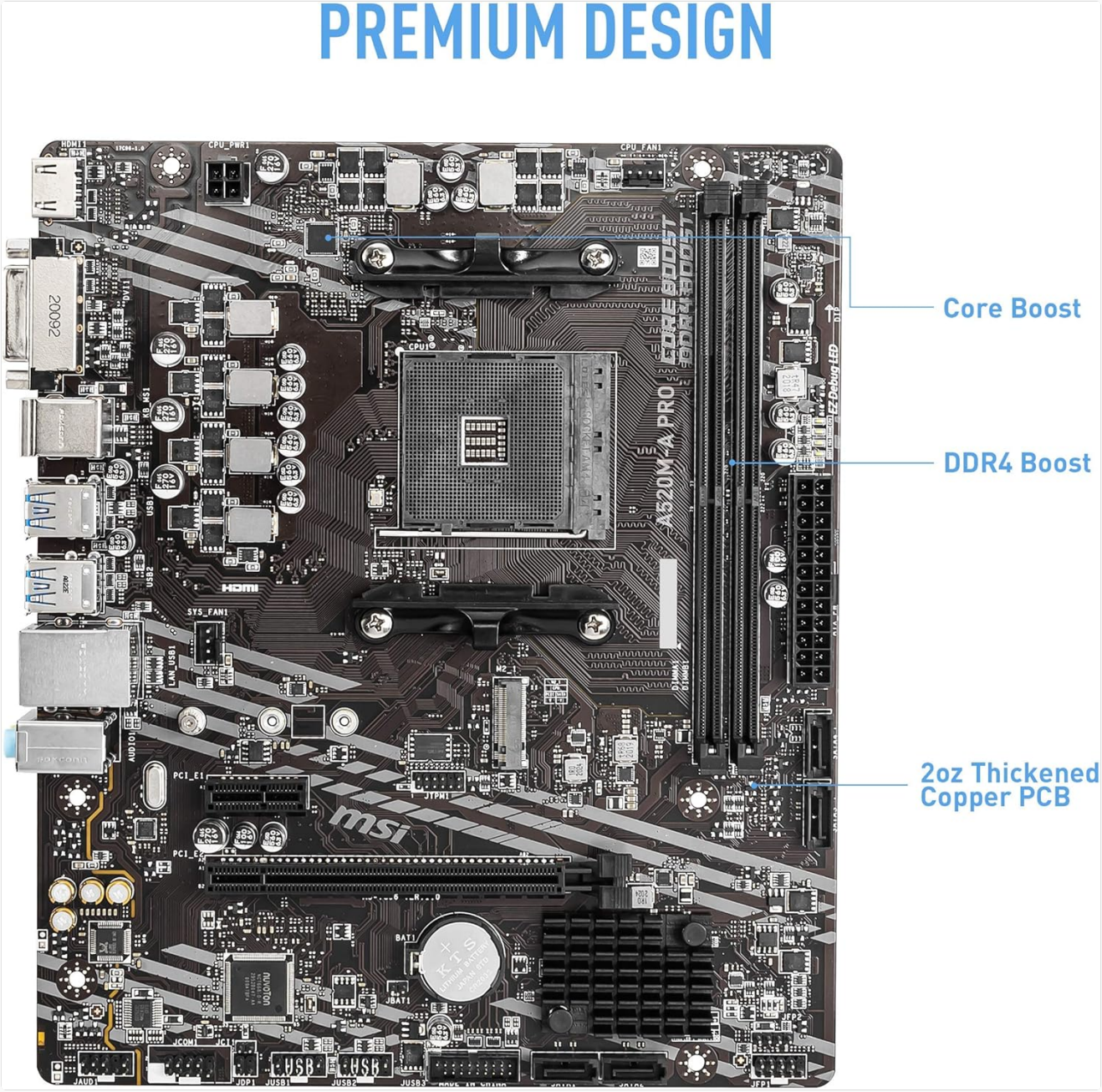


Image: An overhead view of the motherboard highlighting premium design features such as Core Boost for optimized power delivery, DDR4 Boost for stable memory signals, and the 2oz Thickened Copper PCB for improved thermal performance and reliability.

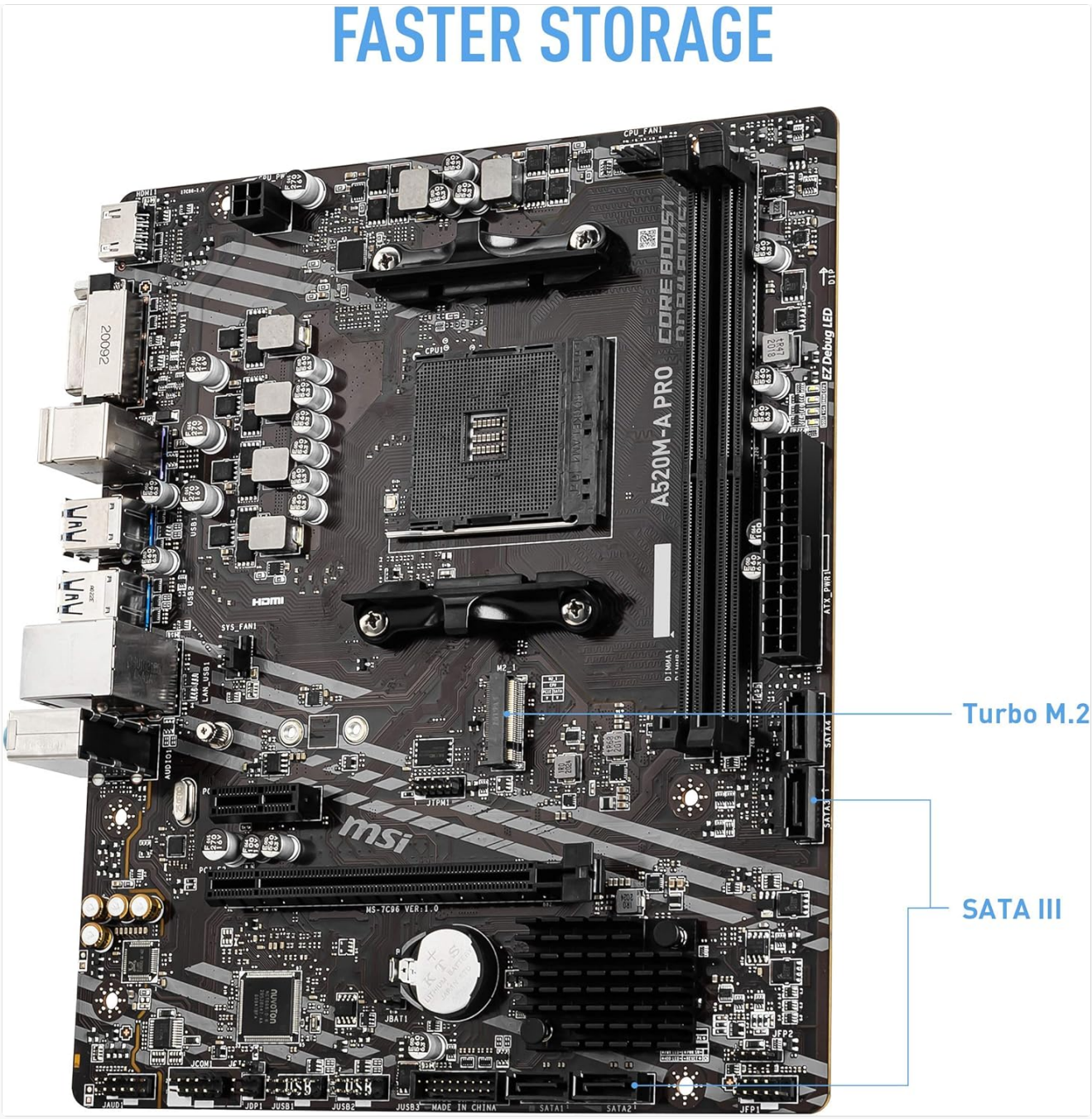


Image: A detailed view of the motherboard's storage options, including the Turbo M.2 slot for high-speed NVMe SSDs and multiple SATA III ports for traditional storage devices.

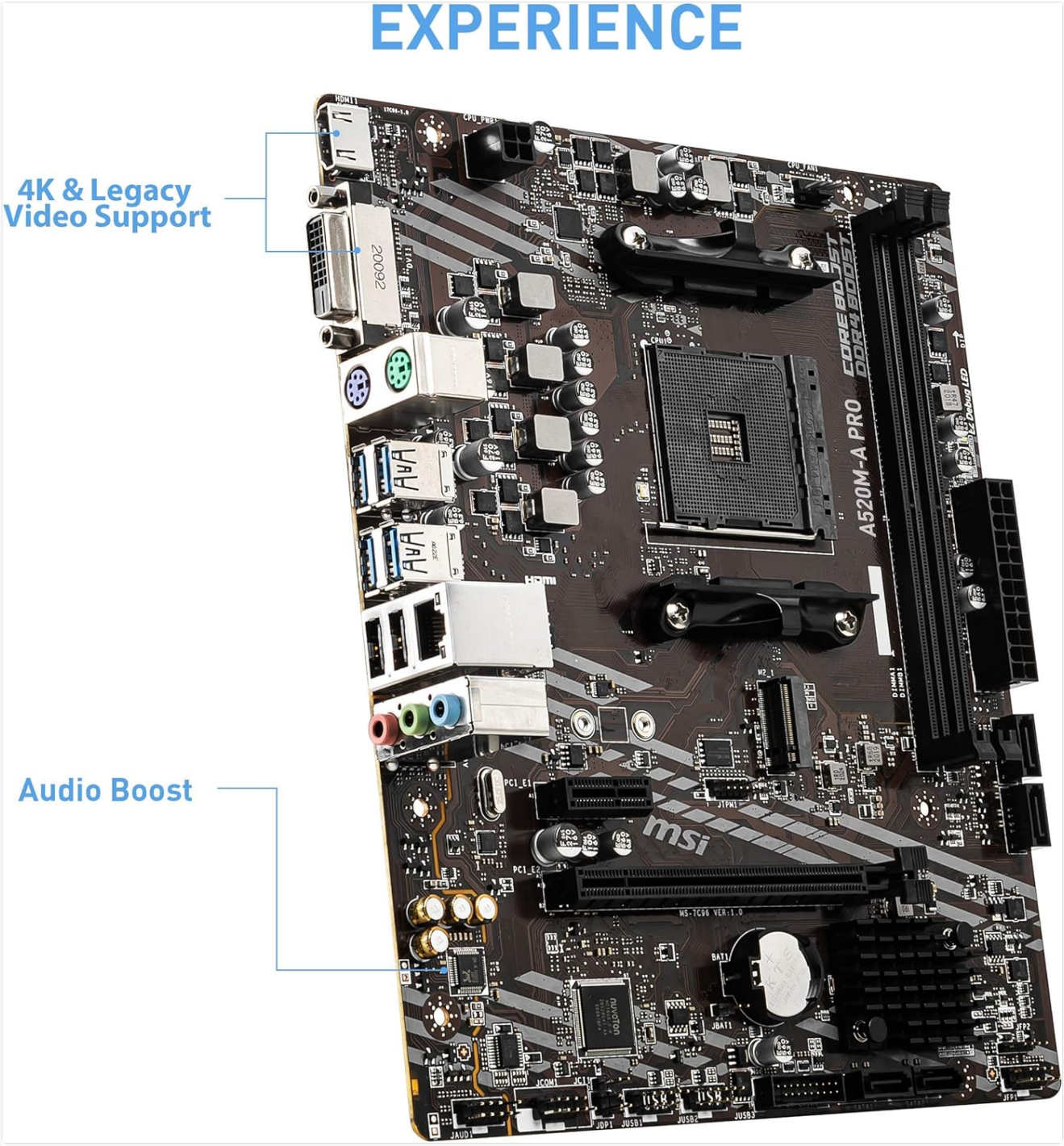


Image: A perspective shot of the motherboard showcasing its connectivity features, such as 4K & Legacy Video Support for display outputs and Audio Boost for enhanced sound quality.

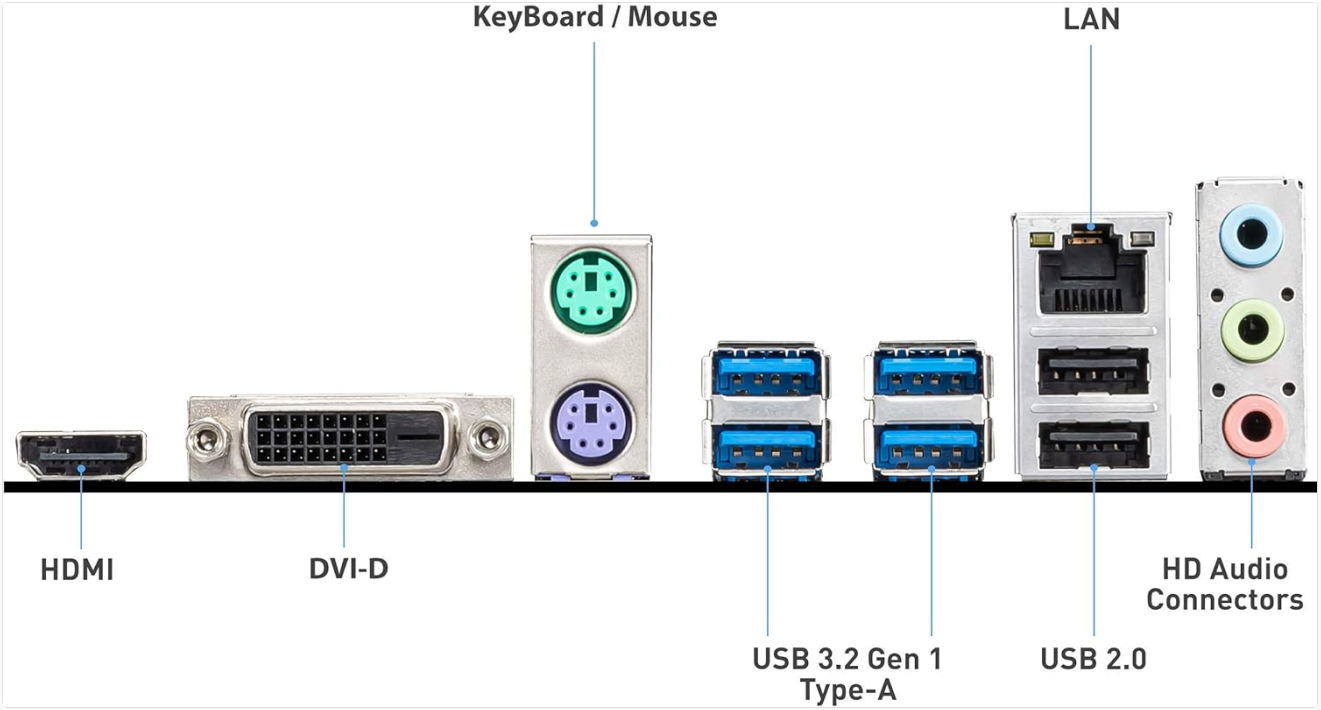


Image: A clear diagram of the rear input/output (I/O) panel of the MSI A520M-A PRO V1 motherboard, detailing ports such as HDMI, DVI-D, USB 3.2 Gen 1 Type-A, USB 2.0, LAN, and HD Audio Connectors.

2.4 Installation Steps

1. **CPU Installation:** Carefully open the CPU socket lever, align the CPU's golden triangle with the triangle on the socket, gently place the CPU, and close the lever.
2. **CPU Cooler Installation:** Apply thermal paste (if not pre-applied) and install the CPU cooler according to its specific instructions.
3. **Memory (RAM) Installation:** Open the clips on the DDR4 DIMM slots. Align the notch on the RAM module with the key in the slot and press firmly until the clips snap into place. The motherboard supports DDR4 Memory, up to 4600(OC) MHz.
4. **Storage Device Installation:**
    - **M.2 SSD:** Insert the M.2 SSD into the Turbo M.2 slot (PCI-E Gen3 x4) at an angle and secure it with the provided screw. This slot maximizes performance for NVMe based SSDs.



Image: A close-up view of the Turbo M.2 Gen 3 x4 slot on the motherboard, designed for high-speed solid-state drives.

    - **SATA Drives:** Connect SATA data cables from your SSDs/HDDs to the SATA 6Gb/s ports on the motherboard.
5. **Graphics Card (PCIe) Installation:** Open the PCIe slot latch, align your graphics card with the slot, and press firmly until it clicks into place. Secure it with a screw to your PC case.
6. **Power Connections:** Connect the 24-pin ATX power connector and the 8-pin CPU power connector from

your power supply to the motherboard.

7. **Front Panel Connections:** Connect the power button, reset button, USB ports, audio jacks, and LED indicators from your PC case to the corresponding headers on the motherboard. Refer to the motherboard manual for exact pin layouts.

3. Operating

3.1 First Boot

After completing all hardware installations, connect your monitor, keyboard, and mouse. Power on your system. The system should display the MSI logo and enter the BIOS/UEFI setup or begin the operating system installation process.

3.2 BIOS/UEFI Setup

To enter the BIOS/UEFI setup, press the **DEL** key repeatedly during the initial boot sequence. Here you can configure system settings, boot order, and monitor hardware status.

3.3 Driver Installation

After installing your operating system, install the necessary drivers for your motherboard components. You can use the included Driver DVD or download the latest drivers from the official MSI website. The Dragon Center software integrates all MSI exclusive tools with a user-friendly interface for easy driver management and system optimization.

4. Maintenance

4.1 Cleaning and Care

Regularly clean your PC case and motherboard to prevent dust buildup, which can lead to overheating. Use compressed air to remove dust from fans and heatsinks. Ensure the system is powered off and unplugged before cleaning.

4.2 BIOS/UEFI Updates

Periodically check the MSI website for BIOS/UEFI updates. Updates can improve system stability, add support for new hardware, or fix bugs. Follow the instructions provided by MSI carefully when performing a BIOS update.

5. Troubleshooting

5.1 Common Issues

- **No Display:** Check monitor connections, ensure graphics card is properly seated, and verify power connections.
- **System Not Booting:** Verify all power cables are connected, RAM modules are seated correctly, and CPU is properly installed.
- **Overheating:** Ensure CPU cooler is properly installed, case fans are functioning, and there is adequate airflow within the case.

5.2 EZ Debug LED

The motherboard features EZ Debug LEDs that indicate the status of key components (CPU, DRAM, VGA, BOOT) during startup. If a component fails, the corresponding LED will remain lit, helping you identify the source of the problem.



Image: A close-up of the EZ Debug LED indicators on the motherboard, which illuminate to diagnose issues with the CPU, DRAM, VGA, or Boot device during system startup.

6. Specifications

6.1 Technical Specifications

Feature	Specification
Brand	MSI
Model	A520M-A PRO V1
CPU Socket	Socket AM4
Compatible Processors	Ryzen 5000 Series, 3rd Gen AMD Ryzen Desktop Processors and AMD Ryzen 4000 G-Series Desktop Processors
Chipset Type	AMD A520
RAM Memory Technology	DDR4
Memory Clock Speed	4600 MHz (OC)
Memory Slots Available	2
Storage Interface	Turbo M.2 (PCI-E Gen3 x4), SATA 6Gb/s
Platform	Windows 10
Item Weight	1.55 pounds
Package Dimensions	10.25 x 10.25 x 2.25 inches

7. Warranty and Support

7.1 Warranty Information

MSI provides a limited warranty for its products. Please refer to the warranty card included in your package or visit the official MSI website for detailed warranty terms and conditions specific to your region.

7.2 Technical Support

For technical assistance, driver downloads, or BIOS updates, please visit the official MSI support website. You can also contact MSI customer service for further help with product-related inquiries.
*MSI Official Website:*www.msi.com

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Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

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Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question