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ASUS PRIME B450M-A II

ASUS Prime B450M-A II Motherboard User Manual

Model: PRIME B450M-A II | Brand: ASUS

INTRODUCTION

Welcome to the user manual for the ASUS Prime B450M-A II motherboard. This document provides essential information for setting up, operating, and maintaining your motherboard. Designed for AMD AM4 processors, this Micro ATX motherboard offers robust performance and features for your personal computer build.



An overview of the ASUS Prime B450M-A II motherboard alongside its retail packaging.

SAFETY INFORMATION

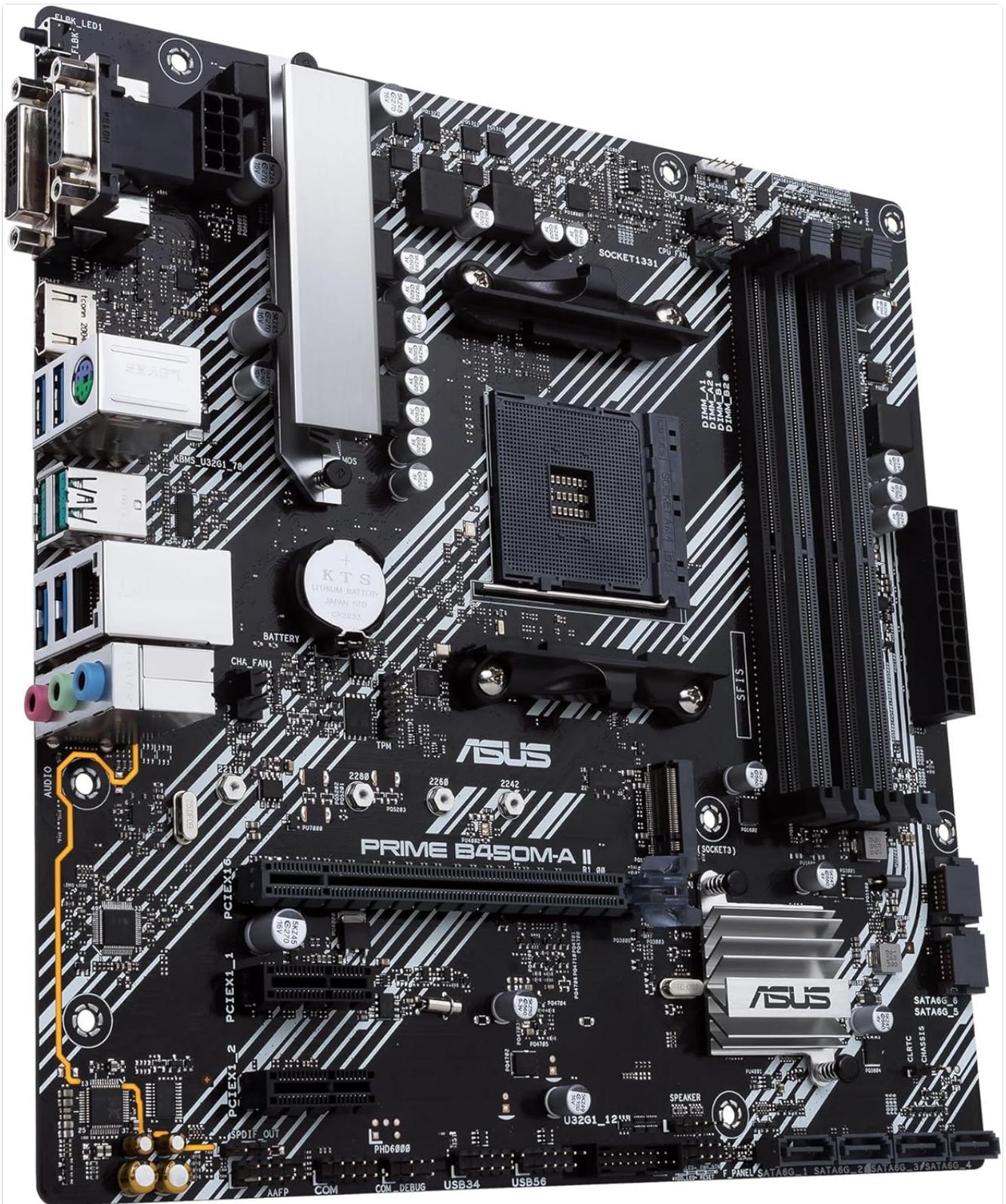
Please read and follow these safety guidelines to ensure proper installation and operation, and to prevent damage to

your components or injury.

- Always disconnect the power cord from the wall outlet before touching any components.
- Wear an anti-static wrist strap or frequently touch a grounded metal object to discharge static electricity before handling the motherboard or other components.
- Handle the motherboard by its edges to avoid touching sensitive components.
- Ensure proper ventilation within your PC case to prevent overheating.
- Keep the motherboard and components away from moisture and extreme temperatures.

PACKAGE CONTENTS

Verify that all items are present in your package. If any item is damaged or missing, contact your retailer.



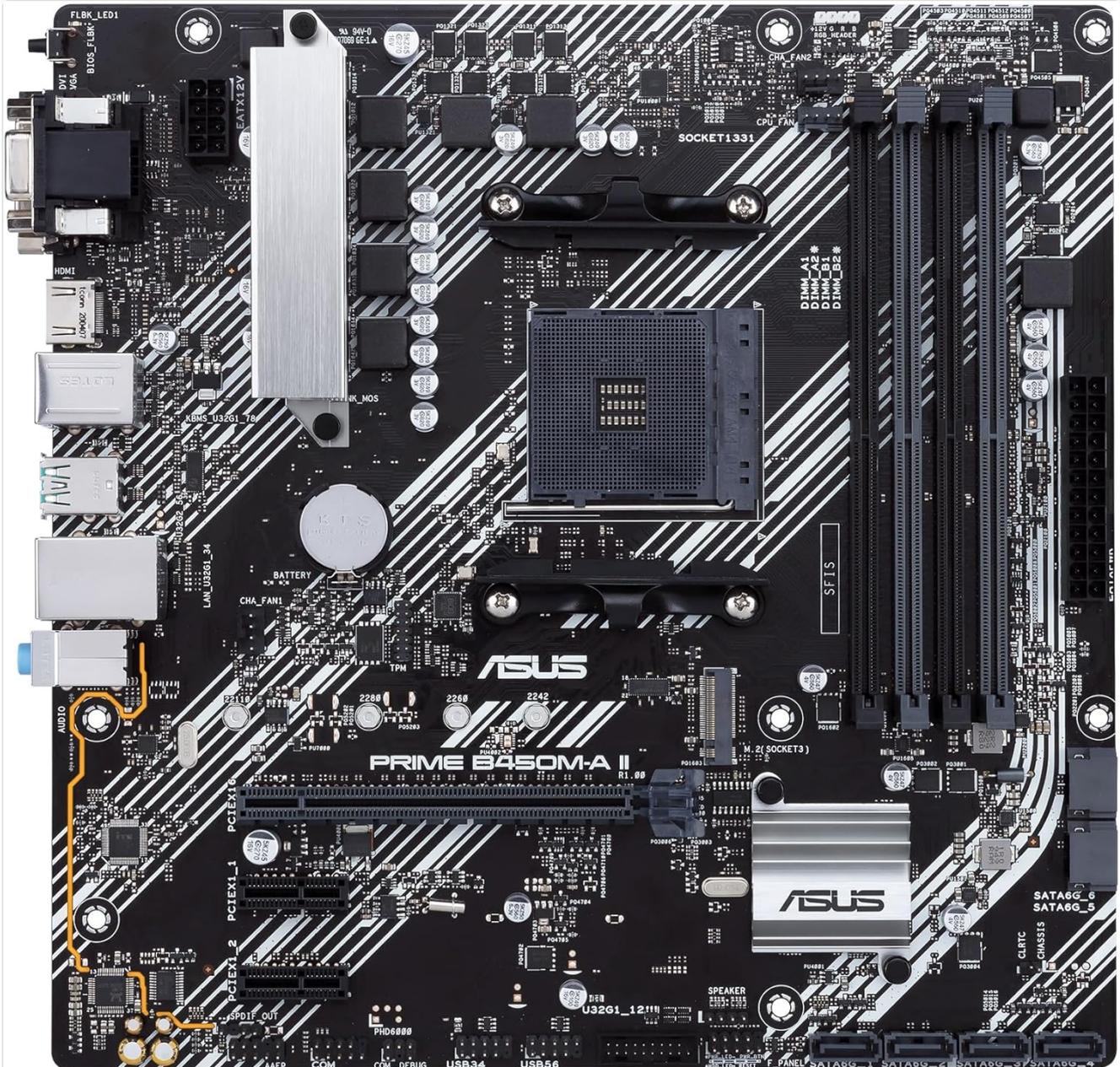
The contents typically found in the ASUS Prime B450M-A II motherboard retail box, including the motherboard, I/O shield, user guide, support DVD, SATA cables, and M.2 screw package.

- ASUS Prime B450M-A II Motherboard
- I/O Shield
- User Guide
- Support DVD (with drivers and utilities)
- SATA 6Gb/s Cables (2x)
- M.2 Screw Package

MOTHERBOARD LAYOUT

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

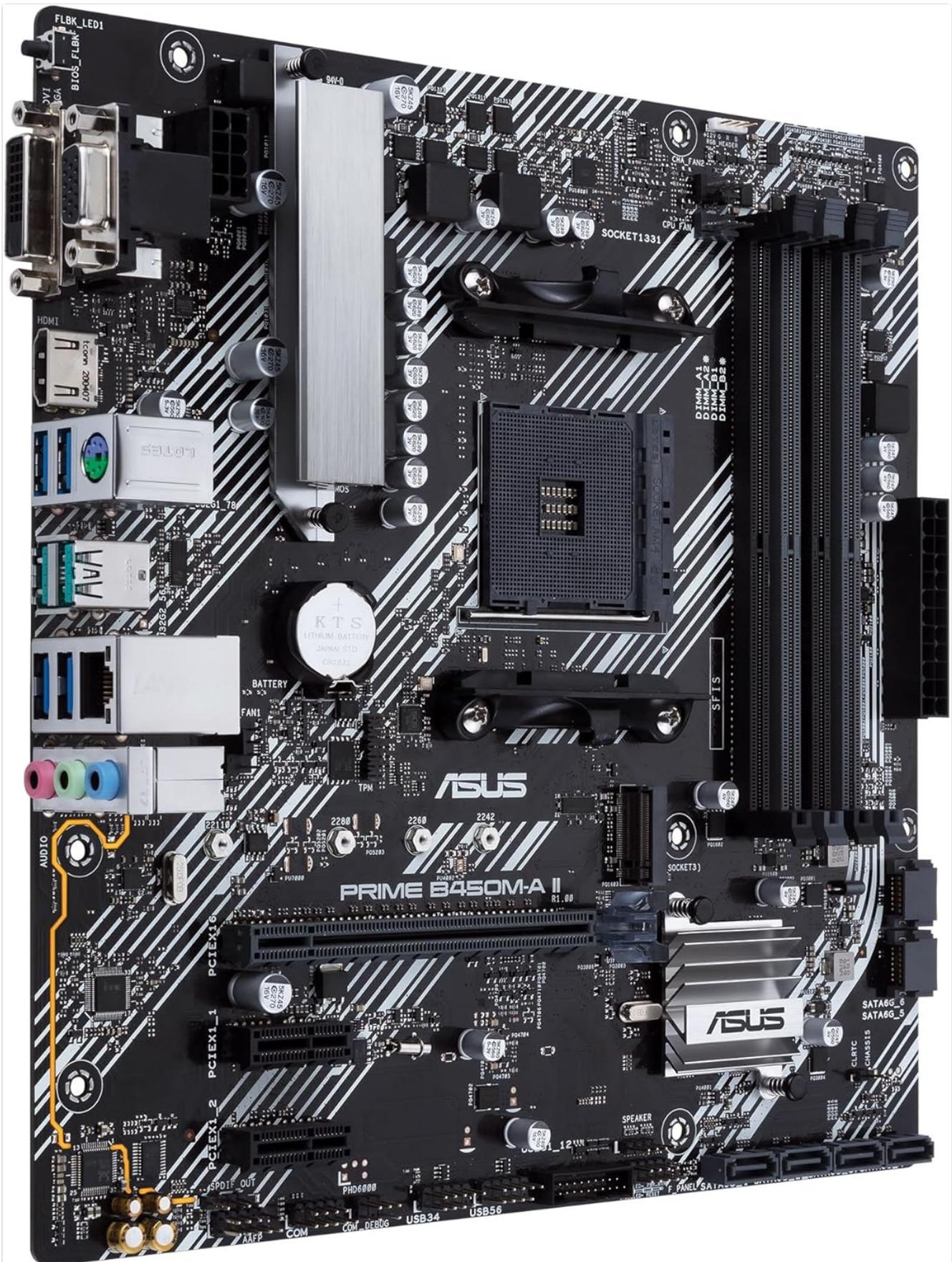
Top-Down View



A comprehensive top-down view of the ASUS Prime B450M-A II motherboard, clearly showing the CPU socket, four DDR4 DIMM slots, PCIe x16 and x1 slots, M.2 slot, and various headers and connectors.

This view provides a complete overview of the motherboard's layout, including the AM4 CPU socket, four DDR4 DIMM slots for memory, PCIe slots for expansion cards, and various onboard headers for front panel connections, USB, and fans.

Angled View (CPU & I/O Area)



An angled perspective of the ASUS Prime B450M-A II motherboard, focusing on the CPU socket area, VRM heatsink, and the rear I/O panel connectors.

This angle highlights the CPU socket, the VRM (Voltage Regulator Module) heatsink for stable power delivery, and the various ports available on the rear I/O panel.

Angled View (RAM & Storage Area)



Another angled view of the ASUS Prime B450M-A II motherboard, showcasing the four DDR4 DIMM slots, the 24-pin ATX power connector, and the SATA 6Gb/s ports.

This view emphasizes the four DDR4 memory slots, the main 24-pin ATX power connector, and the multiple SATA ports for connecting traditional storage drives.

Rear I/O Panel



A detailed close-up of the rear input/output panel of the ASUS Prime B450M-A II motherboard, displaying its various connectivity options including video outputs, USB ports, and audio jacks.

The rear I/O panel provides connectivity for your peripherals, including D-Sub, DVI-D, and HDMI video outputs, USB 3.2 Gen 2 Type-A, USB 3.2 Gen 1, and USB 2.0 ports, a PS/2 combo port, a LAN port, and audio jacks.

SETUP AND INSTALLATION

Follow these steps to properly install your motherboard and its components into your PC case.

1. CPU Installation

1. Open the CPU socket lever and remove the protective cover.
2. Align the triangular mark on the CPU with the mark on the socket.
3. Gently place the CPU into the socket without forcing it.
4. Close the lever to secure the CPU.
5. Install the CPU cooler according to its manufacturer's instructions.

2. Memory (RAM) Installation

1. Open the clips at both ends of the DIMM slots.
2. Align the notch on the DDR4 memory module with the key in the DIMM slot.
3. Press down firmly on both ends of the memory module until the clips snap into place.

3. Storage Device Installation

- **M.2 SSD:** Insert the M.2 SSD into the M.2 slot at an angle, then push it down and secure it with the provided M.2 screw.

- **SATA Drives:** Connect one end of a SATA data cable to a SATA port on the motherboard and the other end to your SATA HDD/SSD. Connect power from your PSU to the drive.

4. Expansion Card Installation

1. Align your PCIe expansion card (e.g., graphics card) with the desired PCIe slot.
2. Press down firmly until the card is seated securely in the slot.
3. Secure the card to your PC case with a screw.

5. Connecting Peripherals and Power

- Connect your PC case's front panel connectors (power button, reset button, USB, audio) to the corresponding headers on the motherboard. Refer to the user guide for header locations.
- Connect the 24-pin ATX power connector and the 8-pin CPU power connector from your power supply unit (PSU) to the motherboard.
- Connect your monitor, keyboard, mouse, and other peripherals to the rear I/O panel.

OPERATING YOUR MOTHERBOARD

Once all components are installed, you can power on your system and begin the operating system installation process.

First Boot and BIOS/UEFI Setup

- Power on your computer.
- Press the **DEL** key or **F2** key during the Power-On Self-Test (POST) to enter the BIOS/UEFI setup utility.
- In the BIOS/UEFI, you can configure boot order, system time, fan speeds, and other advanced settings.
- Save your changes and exit the BIOS/UEFI to continue with operating system installation.

Driver Installation

After installing your operating system (e.g., Windows 10), it is crucial to install the latest drivers for your motherboard's components. You can find these on the included support DVD or, preferably, download the latest versions from the official ASUS support website.

- Chipset Drivers
- LAN Drivers
- Audio Drivers
- Graphics Drivers (for integrated graphics or discrete GPU)

ASUS Aura Sync

The ASUS Prime B450M-A II supports Aura Sync RGB lighting. You can connect compatible RGB LED strips to the onboard header and synchronize lighting effects with other Aura Sync-compatible hardware using the ASUS Aura Sync software.

MAINTENANCE

Regular maintenance helps ensure the longevity and optimal performance of your motherboard.

- **Cleaning:** Periodically clean dust from the motherboard and components using compressed air. Ensure the

system is powered off and unplugged.

- **BIOS Updates:** Check the ASUS support website for BIOS/UEFI updates. Updates can improve compatibility, stability, and performance. Follow the update instructions carefully.
- **Cable Management:** Ensure cables are neatly routed to improve airflow and prevent interference.

TROUBLESHOOTING COMMON ISSUES

If you encounter problems, refer to these common troubleshooting steps.

- **No Power:** Ensure all power cables (24-pin ATX, 8-pin CPU) are securely connected. Check PSU functionality.
- **No Display:** Verify that the monitor is connected to the correct video output (motherboard or discrete GPU). Reseat the graphics card and RAM modules.
- **System Not Booting:** Check all component connections. Try booting with only essential components (CPU, one RAM stick, GPU if no integrated graphics). Clear CMOS by removing the battery or using the clear CMOS jumper.
- **Overheating:** Ensure CPU cooler is properly installed and fans are spinning. Check thermal paste application. Verify case airflow.
- **Peripheral Not Detected:** Try different USB ports. Reinstall drivers for the peripheral.

TECHNICAL SPECIFICATIONS

Key specifications for the ASUS Prime B450M-A II motherboard:

Feature	Specification
Brand	ASUS
Model Name	PRIME B450M-A II
CPU Socket	Socket AM4
Compatible Processors	AMD Ryzen 5000, AMD Ryzen 3000, AMD Ryzen 2000, AMD Ryzen 1000
Chipset Type	AMD B450
RAM Memory Technology	DDR4
Memory Clock Speed	4400 MHz (O.C.)
Form Factor	Micro ATX
Product Dimensions	9.61 x 1.77 x 9.45 inches
Item Weight	1.32 pounds

WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the official ASUS website or contact ASUS customer service directly. Keep your proof of purchase for warranty claims.

You can find the latest drivers, BIOS updates, and troubleshooting guides on the ASUS support page for your

specific model.

For additional protection, consider the available protection plans offered by retailers, which may extend coverage beyond the manufacturer's warranty.

For further assistance, visit the [ASUS Store on Amazon](#).

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Related Documents - PRIME B450M-A II

 PRIME B450M-A 	<p>ASUS PRIME B450M-A Motherboard User Manual</p> <p>This manual provides detailed information on the installation, configuration, and features of the ASUS PRIME B450M-A motherboard, supporting AMD Ryzen processors.</p>
 PRIME B450M-A 	<p>ASUS PRIME B450M-A Motherboard User Manual</p> <p>Comprehensive user manual for the ASUS PRIME B450M-A motherboard, detailing package contents, specifications, installation guides for CPU, RAM, and M.2 SSDs, as well as BIOS setup instructions.</p>
 PRIME B450M-A 	<p>ASUS PRIME B450M-A Motherboard User Manual: Installation, Specifications, and BIOS Guide</p> <p>Comprehensive user manual for the ASUS PRIME B450M-A motherboard. Includes installation instructions, component specifications, BIOS setup guide, safety precautions, and regulatory compliance information.</p>
 PRIME B550M-A 	<p>ASUS PRIME B550M-A Motherboard User Manual and Specifications</p> <p>Comprehensive guide to the ASUS PRIME B550M-A motherboard, covering installation, BIOS setup, specifications, safety, and compliance information for AMD Ryzen processors.</p>

<p>PRIME A320M-R</p>  <p>Motherboard</p>	<p>ASUS PRIME A320M-R Motherboard User Manual</p> <p>User manual for the ASUS PRIME A320M-R motherboard, detailing specifications, installation, BIOS setup, and safety information.</p>
<p>PRIME B550M-A AC</p>  <p>Motherboard</p>	<p>ASUS PRIME B550M-A AC Motherboard User Manual</p> <p>User manual for the ASUS PRIME B550M-A AC motherboard, covering product introduction, BIOS and RAID support, safety information, package contents, and specifications.</p>