ASRock B460M PRO4

ASRock B460M PRO4 Motherboard Instruction Manual

Model: B460M PRO4

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, maintenance, and troubleshooting of your ASRock B460M PRO4 Motherboard. Designed to support 10th Generation Intel Core Processors (Socket 1200), this motherboard offers a robust platform for personal computing with features like DDR4 2933MHz memory support, multiple PCIe 3.0 slots, and M.2 connectivity.

Image 1.1: ASRock B460M PRO4 Motherboard and its retail packaging.

2. PACKAGE CONTENTS

Verify that all items listed below are included in your motherboard package. If any item is missing or damaged,

contact your retailer.

- ASRock B460M PRO4 Motherboard
- Quick Installation Guide
- Support CD (containing drivers and utilities)
- I/O Shield
- 2 x SATA Data Cables
- 3 x Screws for M.2 Sockets
- 1 x Standoff for M.2 Socket

3. SETUP

3.1. CPU Installation

The ASRock B460M PRO4 motherboard features an LGA 1200 socket, compatible with 10th Generation Intel Core Processors. Carefully align the CPU with the socket, ensuring the gold triangle on the CPU matches the triangle on the socket. Gently lower the CPU into place without forcing it, then secure the retention arm.
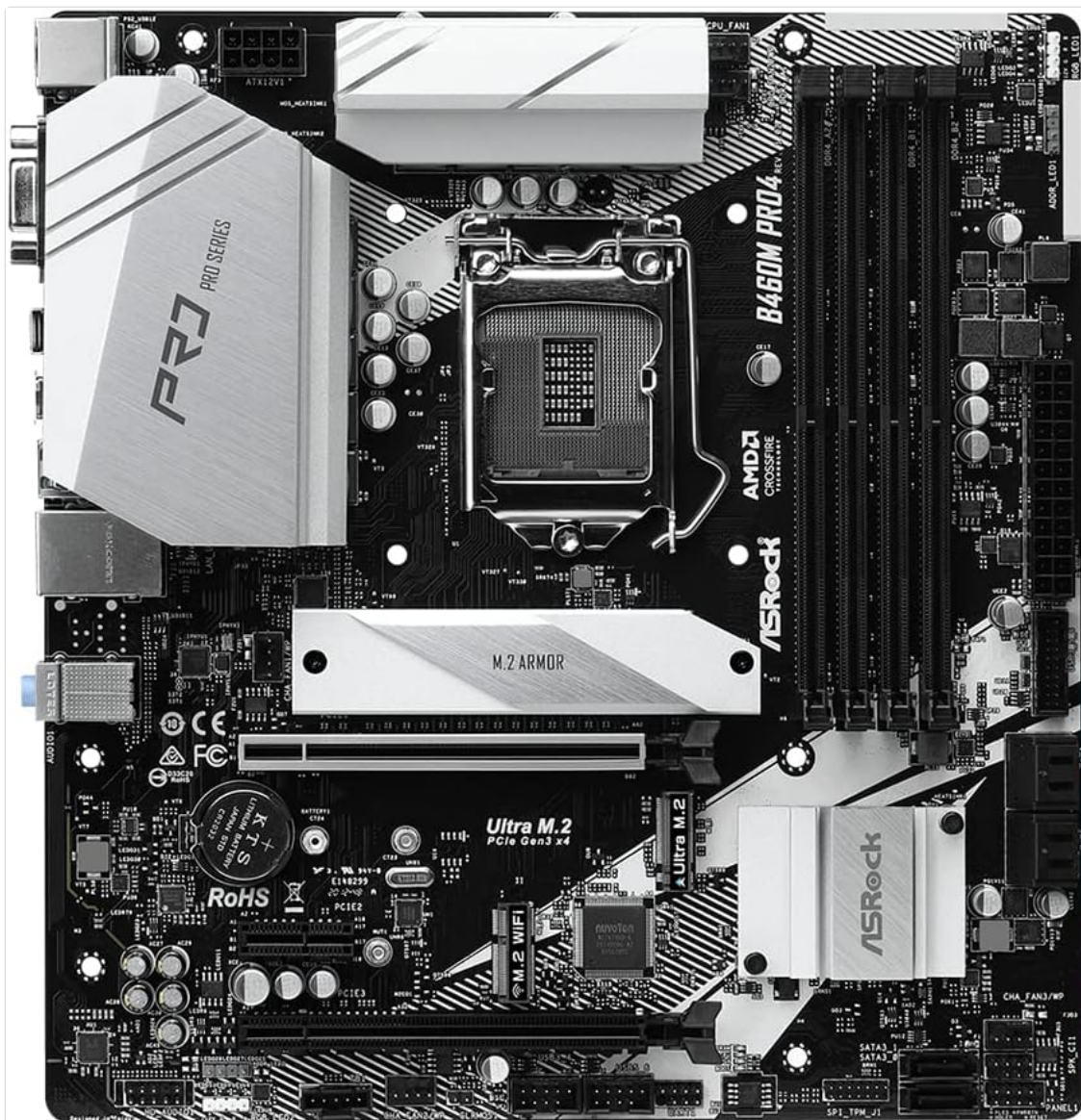

Image 3.1: Top-down view of the ASRock B460M PRO4 Motherboard, highlighting the LGA 1200 CPU socket.

3.2. Memory (RAM) Installation

This motherboard supports DDR4 memory modules up to 2933MHz. It features four DIMM slots. For optimal performance, install memory modules in matched pairs into the designated primary slots as indicated in the motherboard's detailed manual. Open the retention clips, align the memory module notch with the slot key, and press firmly until the clips snap into place.

3.3. Storage Device Installation

The B460M PRO4 includes M.2 slots for high-speed NVMe SSDs and SATA ports for traditional hard drives or SSDs. Use the provided M.2 screws and standoffs for M.2 drive installation. Connect SATA data cables (included) from your storage devices to the SATA ports on the motherboard.

Image 3.2: Angled view of the ASRock B460M PRO4 Motherboard, illustrating the M.2 slots and SATA ports for storage devices.

3.4. Expansion Card Installation

The motherboard provides 2 PCIe 3.0 x16 slots for graphics cards and 1 PCIe 3.0 x1 slot for other expansion cards. Additionally, it includes 1 M.2 (Key E) slot specifically for a WiFi module. Ensure expansion cards are properly seated in their respective slots and secured with chassis screws.

Image 3.3: ASRock B460M PRO4 Motherboard, showcasing the various PCIe expansion slots.

3.5. Power Connections

Connect the 24-pin ATX power connector and the 8-pin CPU power connector from your power supply unit (PSU) to the corresponding ports on the motherboard. The 9 Power Phase Design ensures stable power delivery to critical components.

4. OPERATING

4.1. BIOS/UEFI Setup

Upon initial boot, press the designated key (usually DEL or F2) to enter the BIOS/UEFI setup utility. Here, you can configure system settings, boot order, and monitor hardware status. Refer to the ASRock website for a detailed BIOS/UEFI user manual specific to your model.

4.2. Driver Installation

After installing your operating system (Microsoft Windows 10 64-bit / 11 64-bit), install the necessary drivers from the included Support CD or download the latest versions from the official ASRock website. This ensures optimal performance and compatibility for all motherboard components.

4.3. Software Utilities

ASRock provides various software utilities to enhance your system's functionality, including monitoring tools, fan control, and system tuning options. These can be found on the Support CD or ASRock's official website.

5. MAINTENANCE

5.1. Cleaning

Regularly clean your computer's interior to prevent dust buildup, which can lead to overheating and reduced performance. Use compressed air to remove dust from fans, heatsinks, and other components. Ensure the system is powered off and unplugged before cleaning.

5.2. BIOS Updates

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

6. TROUBLESHOOTING

If you encounter issues with your ASRock B460M PRO4 Motherboard, consider the following basic troubleshooting steps:

- **No Power/No Boot:** Double-check all power connections (24-pin ATX, 8-pin CPU, GPU). Ensure the power supply is functioning correctly.
- **No Display:** Verify that your monitor is connected to the correct graphics output (either integrated graphics or a dedicated graphics card). Reseat your graphics card and RAM modules.
- **System Instability/Crashes:** Check RAM seating and compatibility. Ensure all drivers are up-to-date. Monitor CPU and GPU temperatures to rule out overheating.
- **Peripheral Issues:** Test peripherals in different USB ports. Ensure relevant drivers are installed.

For more advanced troubleshooting or persistent issues, consult the detailed troubleshooting section in the full user manual available on the ASRock support website or contact ASRock technical support.

7. SPECIFICATIONS

Below are the key technical specifications for the ASRock B460M PRO4 Motherboard:

Feature	Specification
Brand	ASRock
Model Name	B460M PRO4
CPU Socket	LGA 1200

Compatible Processors	10th Generation Intel Core
Chipset Type	Intel B460
RAM Memory Technology	DDR4 SDRAM
Memory Clock Speed	2933 MHz
Number of USB 2.0 Ports	2
Operating System Support	Microsoft Windows 10 64-bit / 11 64-bit
Product Dimensions (LxWxH)	10.9 x 10.3 x 2.5 inches
Item Weight	2.2 pounds

Image 7.1: Rear I/O panel of the ASRock B460M PRO4 Motherboard, showing various connectivity ports.

8. SUPPORT AND WARRANTY

For technical assistance, driver downloads, BIOS updates, and detailed product information, please visit the official ASRock support website. You can find comprehensive FAQs and contact information for customer service there.

For specific warranty terms and conditions applicable to your ASRock B460M PRO4 Motherboard, please refer to the warranty card included in your product packaging or visit the ASRock official website. Warranty policies may vary by region and retailer.

Note: The product overview video provided in the source data is for a different motherboard (MSI B760M-P) and is not relevant to the ASRock B460M PRO4. Therefore, no video content has been embedded in this manual.

9. IMPORTANT SAFETY INFORMATION

Always observe the following safety precautions when handling or operating your motherboard:

- Disconnect the power cord from the wall outlet before touching any components inside the computer.
- Wear an anti-static wrist strap or frequently touch a grounded metal object to discharge static electricity before handling components.
- Keep the motherboard away from moisture and extreme temperatures.
- Do not attempt to repair the motherboard yourself. Refer to qualified service personnel.

Related Documents - B460M PRO4

[ASRock B560M Pro4 Motherboard Specifications and Manual](#)

Detailed specifications, package contents, and connection guide for the ASRock B560M Pro4 motherboard, featuring Intel B560 chipset and support for 10th/11th Gen Intel Core processors.

[ASRock B560M Pro4/ac Motherboard User Manual: Installation, Specifications, and BIOS Guide](#)

Comprehensive user manual for the ASRock B560M Pro4/ac motherboard, covering specifications, installation guides, software utilities, and BIOS setup. Learn about features, components, and troubleshooting.

[ASRock B560 Steel Legend Motherboard Manual - Specifications & Installation Guide](#)

Comprehensive user manual and installation guide for the ASRock B560 Steel Legend motherboard. Covers specifications, layout, component installation, and features for Intel 10th/11th Gen Core processors.

[ASRock B560M PRO4/ac Motherboard User Manual - Installation and Setup Guide](#)

Detailed user manual for the ASRock B560M PRO4/ac motherboard, covering installation, specifications, software utilities, and UEFI BIOS configuration for Intel 10th and 11th Gen Core processors. Includes guides on CPU, RAM, storage, and connectivity.

[ASRock B365 PRO4 Motherboard User Manual: Installation, Specs & UEFI Guide](#)

Comprehensive user manual for the ASRock B365 PRO4 motherboard. Get detailed installation instructions, hardware specifications, software utility guides, and UEFI BIOS configuration tips for building and optimizing your PC.

[ASRock B560M-HDV/M.2 Motherboard User Manual and Specifications](#)

Comprehensive guide to the ASRock B560M-HDV/M.2 motherboard, covering specifications, layout, installation, and features. Learn about Intel B560 chipset, DDR4 support, and expansion options.