ASRock B860M Steel Legend WiFi

ASRock B860M Steel Legend WiFi 6E Micro ATX Motherboard Instruction Manual

Model: B860M Steel Legend WiFi

1. INTRODUCTION

The ASRock B860M Steel Legend WiFi 6E Micro ATX Motherboard is engineered for robust durability and appealing aesthetics. Designed for daily users and mainstream enthusiasts, this motherboard integrates demanding specifications and features, utilizing a strong array of materials and components to ensure stable and reliable performance for your computing needs.

Video: Overview of Intel B860 Series Motherboards, highlighting key features and design elements relevant to the ASRock B860M Steel Legend WiFi 6E.

2. KEY FEATURES

- **Power Delivery:** 12+1+1+1+1 Power Phase design with 80A SPS for VCore+GT+SA, ensuring stable power delivery.
- **Memory Support:** 4 x DDR5 DIMM slots supporting Dual Channel memory, with speeds up to 8666+ MHz (OC).
- **Graphics Output:** Multiple display options including 1 HDMI, 1 DisplayPort, and 1 Thunderbolt 4 Type-C port.
- **Audio Quality:** Realtek ALC1220 7.1 CH HD Audio Codec with Nahimic Audio for immersive sound.
- **Enhanced Durability:** Exclusive 20K Capacitors with 1000uF Capacitance for extended lifespan and stability.

3. PRODUCT OVERVIEW

Image: Front view of the ASRock B860M Steel Legend WiFi 6E Motherboard, showcasing the CPU socket, RAM slots, and heatsinks.
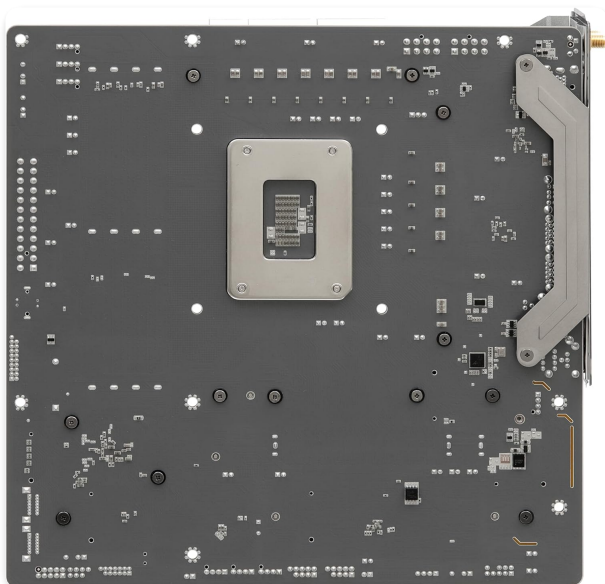

Image: Rear I/O panel of the ASRock B860M Steel Legend WiFi 6E Motherboard, displaying various ports including USB, HDMI, DisplayPort, and Ethernet.

Image: Angled view of the ASRock B860M Steel Legend WiFi 6E Motherboard, highlighting the M.2 slots with heatsinks.

Image: The retail box and included accessories for the ASRock B860M Steel Legend WiFi 6E Motherboard.

4. SETUP AND INSTALLATION

4.1 CPU Installation (LGA 1851)

1. Carefully open the CPU socket retention arm.
2. Align the Intel Core Ultra processor with the LGA 1851 socket, ensuring the triangular markers on the CPU and socket match.
3. Gently place the CPU into the socket without forcing it.
4. Close the retention arm to secure the CPU.

4.2 Memory (RAM) Installation

1. Open the clips on both ends of the DDR5 DIMM slots.
2. Align the memory module's notch with the slot's key.
3. Press down firmly on both ends of the memory module until the clips snap into place.

4.3 Storage Device Installation

- **M.2 SSDs:** Locate the M.2 slots on the motherboard. Remove the heatsink and screw. Insert the M.2 SSD at an angle, then push it down and secure it with the screw. Reattach the heatsink.
- **SATA Drives:** Connect SATA data cables from your storage drives to the SATA3 6.0 Gb/s ports on the motherboard. Connect power cables from your power supply to the drives.

4.4 Graphics Card Installation

1. Open the retention clip on the PCIe 5.0 x16 slot.
2. Align your graphics card with the slot and press down firmly until it clicks into place.
3. Secure the graphics card to your chassis with screws.
4. Connect the necessary PCIe power cables from your power supply to the graphics card.

4.5 Connecting Peripherals

Connect your monitor to one of the available graphics output options (HDMI, DisplayPort, Thunderbolt 4 Type-C). Connect USB devices, Ethernet cable, and audio devices to the rear I/O panel ports as needed.

5. OPERATING INSTRUCTIONS

5.1 Initial Boot-up and BIOS Access

1. After assembling all components, connect the power supply and turn on your system.
2. During the Power-On Self-Test (POST), repeatedly press the `Delete` or `F2` key to enter the BIOS setup utility.
3. Navigate through the BIOS using your keyboard to configure boot order, system time, and other settings.

5.2 Operating System Installation

Insert your operating system installation media (USB drive or DVD) and set it as the primary boot device in the BIOS. Follow the on-screen instructions to install your preferred operating system (e.g., Windows 11).

6. MAINTENANCE

6.1 Driver Installation and Updates

After OS installation, install all necessary drivers from the ASRock support website or the included driver CD/USB. Regularly check the ASRock website for updated drivers and BIOS versions to ensure optimal performance and stability.

6.2 BIOS Update Procedure

Updating your BIOS can improve compatibility, stability, and performance. ASRock provides tools like USB BIOS Flashback and Instant Flash for this purpose. Refer to the video below for a detailed tutorial.

Video: ASRock Motherboard BIOS Update Tutorial, demonstrating the steps for updating the BIOS using various methods.

6.3 Cleaning and Dust Removal

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

7. TROUBLESHOOTING

- **No Power/No POST:** Double-check all power connections (24-pin ATX, 8-pin CPU, PCIe power). Ensure RAM modules are seated correctly. Verify CPU installation.
- **System Instability/Crashes:** Update drivers and BIOS. Check memory for errors using diagnostic tools. Monitor CPU and GPU temperatures.
- **No Display:** Ensure monitor is connected to the graphics card (or motherboard if using integrated graphics). Try a different display cable or monitor.
- **Network Connectivity Issues:** Verify Ethernet cable connection. Reinstall network drivers. Check WiFi antenna connections.
- **Audio Problems:** Ensure audio cables are correctly plugged into the appropriate jacks. Reinstall audio drivers.

8. SPECIFICATIONS

Feature	Specification
Product Dimensions	12 x 10 x 2 inches
Item Weight	3 pounds
Manufacturer	ASRock
Item model number	B860M Steel Legend WiFi
Batteries	1 CR2032 batteries required.
Date First Available	January 10, 2025
Brand	ASRock
CPU Socket	LGA 1851
Compatible Devices	Desktop
RAM Memory Technology	DDR5
Compatible Processors	Intel Core Ultra
Chipset Type	Intel B860
Memory Clock Speed	8666 MHz
Platform	Windows 11
Model Name	B860M STEEL LEGEND WIFI
Memory Storage Capacity	256 GB

9. Warranty and Support

This ASRock motherboard comes with a manufacturer's warranty. Please refer to the warranty card included in your product packaging for specific terms and conditions. For technical support, driver downloads, and further assistance, please visit the official ASRock website or contact their customer service.

Visit the ASRock Store for more products and support information.