## MSI B850 Gaming Plus WiFi

# MSI B850 Gaming Plus WiFi Motherboard User Manual

Model: B850 Gaming Plus WiFi
Brand: MSI

## 1. Introduction

The MSI B850 Gaming Plus WiFi motherboard is designed to provide a robust and efficient platform for AMD Ryzen 9000, 8000, and 7000 series processors on the AM5 socket. This motherboard integrates advanced features such as PCIe 5.0 x16, DDR5 memory support, and extensive M.2 Gen5 storage options, making it suitable for high-performance computing and gaming systems. This manual provides detailed instructions for the installation, operation, maintenance, and troubleshooting of your motherboard.




Figure 1.1: MSI B850 Gaming Plus WiFi Motherboard with its retail packaging and included accessories.

## 2. Setup and Installation

Before beginning installation, ensure your system is powered off and disconnected from the power source. Handle the motherboard by its edges to avoid static discharge.

### 2.1 Motherboard Layout




Figure 2.1: Overview of the MSI B850 Gaming Plus WiFi Motherboard layout, highlighting key components and slots.

## 2.2 CPU Installation

The MSI B850 Gaming Plus WiFi motherboard utilizes the AM5 socket. Carefully align your AMD Ryzen processor with the socket, ensuring the triangular markers on the CPU and socket match. Gently lower the CPU into the socket without applying force. Once seated, close the retention arm to secure the CPU.

## 2.3 Memory (RAM) Installation

This motherboard supports DDR5 memory. It features four DDR5 DIMM SMT slots. Open the clips on both ends of the DIMM slot. Align the memory module with the slot, ensuring the notch on the module matches the key in the slot. Press down firmly on both ends of the memory module until the clips snap into place.

## 2.4 M.2 SSD Installation

The motherboard includes multiple M.2 connectors, including a Gen5 x4 128Gbps slot with EZ M.2 Shield Frozr II. To install an M.2 SSD, remove the M.2 Shield Frozr II heatsink. Insert the M.2 SSD into the slot at an angle, then gently push

it down. Secure it using the EZ M.2 latch mechanism or a screw, then reattach the Shield Frozr II heatsink.

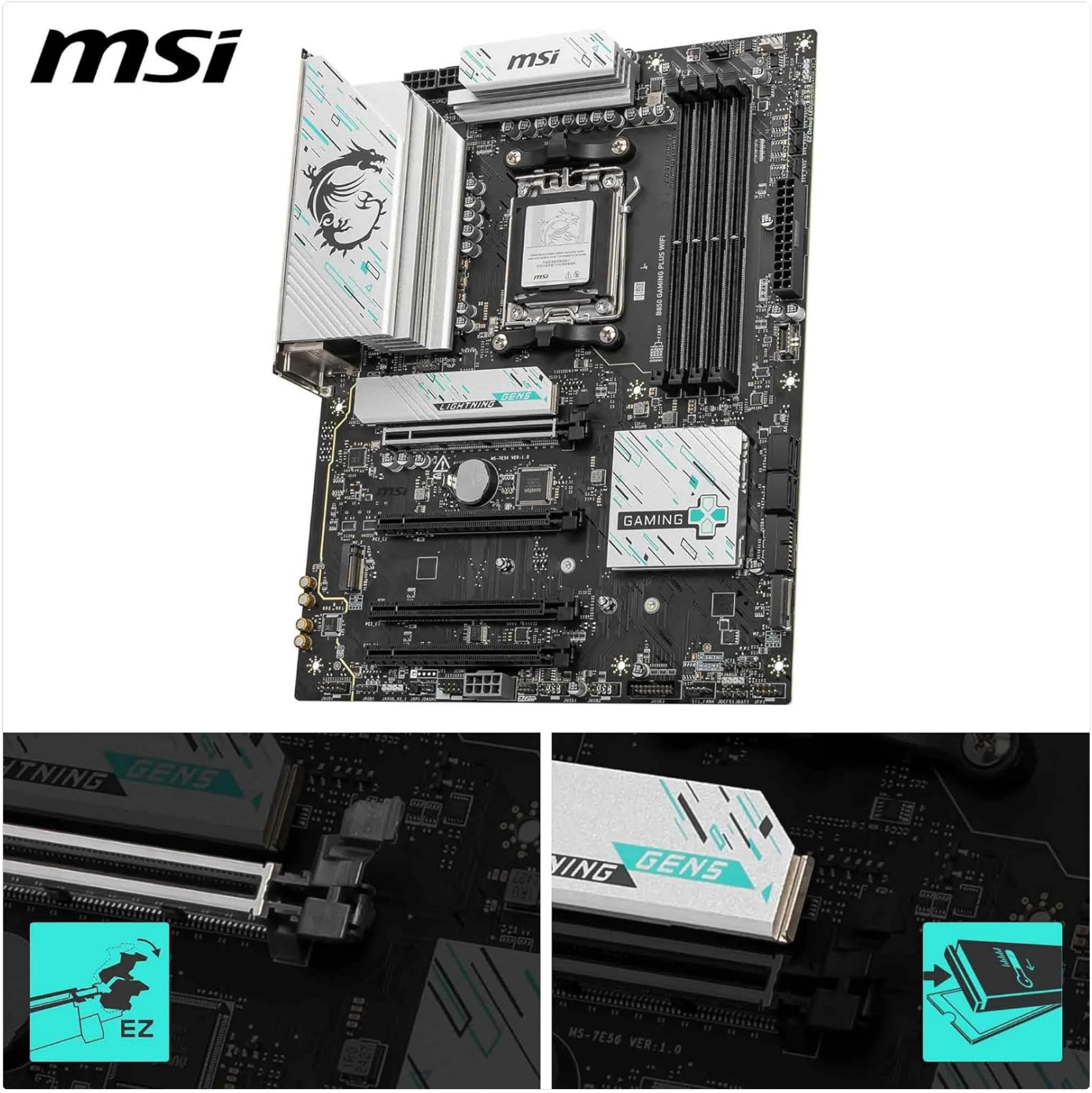



Figure 2.2: Detail of the M.2 slot featuring the EZ M.2 Shield Frozr II for thermal management.

## 2.5 Graphics Card (GPU) Installation

Insert your graphics card into the PCIe 5.0 x16 SMT slot with Steel Armor. Ensure the card is fully seated and secured with the retention clip and any case screws.

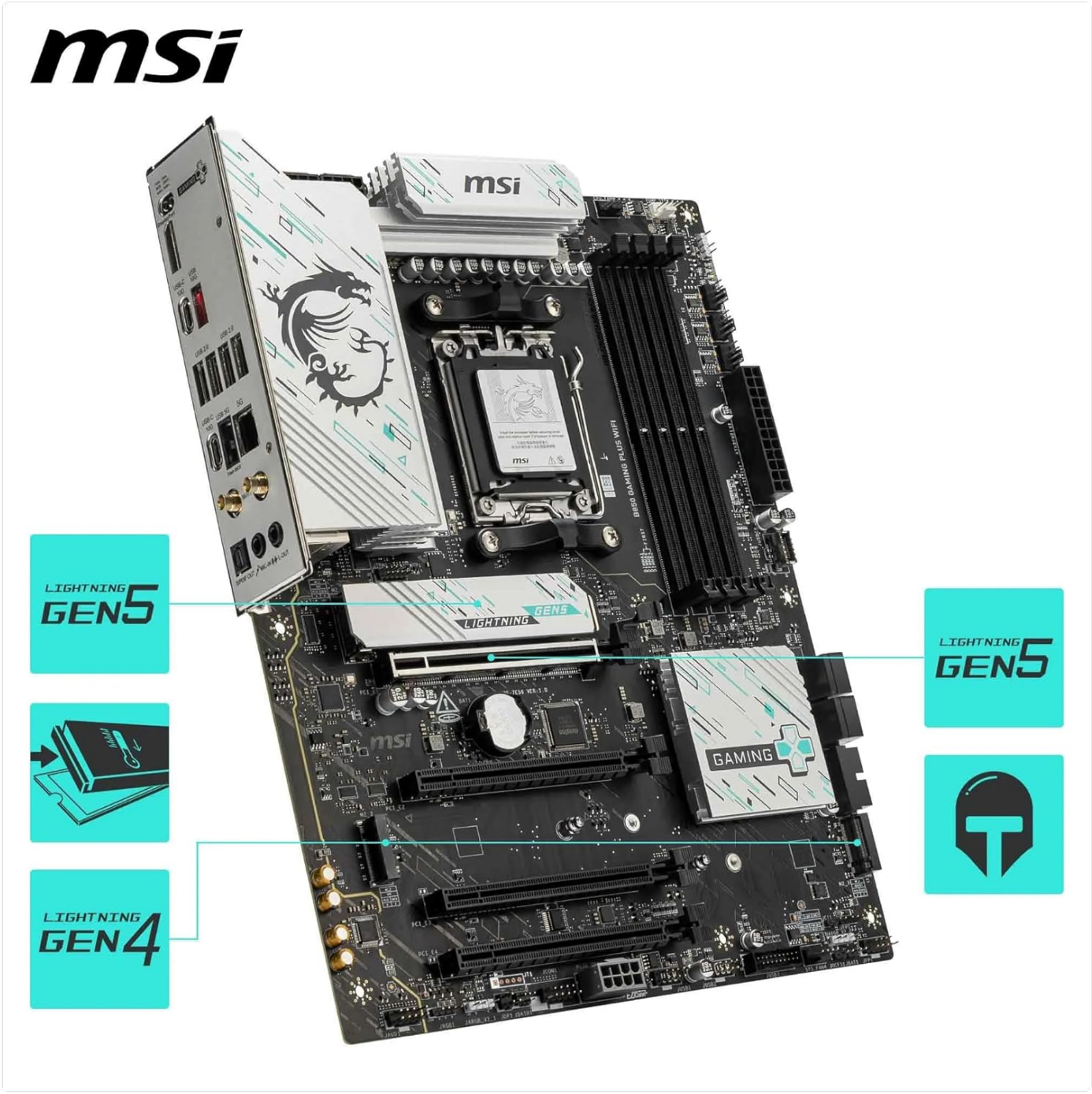



Figure 2.3: The motherboard's expansion slots, including the PCIe 5.0 x16 slot and multiple M.2 slots.

### 2.6 Power Connections

Connect the 24-pin ATX power connector and the dual 8-pin CPU power connectors from your power supply to the corresponding ports on the motherboard. Ensure all connections are secure.

## 3. Operating Instructions

### 3.1 Initial Boot and BIOS Access

After all components are installed and connected, power on your system. During the boot process, press the **DEL** key repeatedly to enter the BIOS (Basic Input/Output System) setup utility. The BIOS allows you to configure system settings, boot order, and monitor hardware status.

### 3.2 Driver Installation

After installing your operating system, install the necessary drivers for the motherboard components. These include

chipset drivers, LAN drivers, Wi-Fi drivers, Bluetooth drivers, and audio drivers. Drivers can typically be found on the MSI support website for your specific motherboard model.

### 3.3 Connectivity

The motherboard features comprehensive connectivity options, including Wi-Fi 7, Bluetooth 5.4, Realtek 5G LAN, USB 10Gbps Type-C, and 7.1 HD audio. Ensure all external devices are connected to the appropriate ports on the rear I/O panel.




Figure 3.1: The rear input/output panel, showcasing various connectivity ports including USB, LAN, Wi-Fi, and audio jacks.

## 4. Maintenance

### 4.1 Cleaning

Regularly clean your computer case and motherboard to prevent dust buildup, which can lead to overheating and performance issues. Use compressed air to remove dust from heatsinks, fans, and other components. Ensure the system

is powered off and unplugged before cleaning.

### 4.2 BIOS Updates

Periodically check the MSI support website for BIOS updates. BIOS updates can improve system stability, compatibility, and performance. Follow the instructions provided by MSI carefully when performing a BIOS update to avoid potential issues.

## 5. Troubleshooting

This section addresses common issues you might encounter with your motherboard.

- **No Power/No Boot:**
  - Ensure all power cables (24-pin ATX, 8-pin CPU) are securely connected to the motherboard and power supply.
  - Verify the power supply is switched on and functioning correctly.
  - Check front panel header connections (power button, reset button).
- **No Display Output:**
  - Confirm the graphics card is properly seated in the PCIe slot and has adequate power.
  - Ensure the monitor cable is connected to the graphics card (not the motherboard's integrated graphics ports, unless using an APU).
  - Try reseating RAM modules.
- **System Instability/Crashes:**
  - Check CPU and GPU temperatures to ensure they are within safe operating limits.
  - Verify RAM compatibility and stability. Run memory diagnostic tools.
  - Ensure all drivers are up to date.
- **Slow Boot Times:**
  - Check BIOS settings for fast boot options.
  - Ensure your operating system is installed on a fast storage device (e.g., NVMe SSD).

## 6. Technical Specifications

| Feature | Specification |
|---|---|
| Brand | MSI |
| Model Name | B850 Gaming Plus WiFi |
| CPU Socket | Socket AM5 |
| Compatible Processors | Supports AMD Ryzen 9000/8000/7000 Series Desktop Processors |
| Chipset Type | AMD B850 |
| RAM Memory Technology | DDR5 |
| RAM Memory Maximum Size | 256 GB |

| Feature | Specification |
|---|---|
| Memory Clock Speed (OC) | Up to 8200+ MT/s |
| PCIe Slots | 1 x PCIe 5.0 x16 SMT slot, 1 x PCIe 4.0 x16 slot |
| M.2 Connectors | 1 x M.2 Gen5 x4 128Gbps, 1 x M.2 Gen4 x4 64Gbps, 1 x M.2 Gen4 x2 32Gbps |
| LAN | Realtek 5G LAN |
| Wireless Connectivity | Wi-Fi 7, Bluetooth 5.4 |
| USB Ports (Rear I/O) | USB 10Gbps Type-C, USB 10Gbps Type-A, USB 5Gbps Type-A, USB 2.0 |
| Audio | 7.1 HD Audio with Audio Boost |
| Dimensions (LxWxH) | 13.39 x 2.8 x 10.55 inches |
| Item Weight | 3.87 pounds |

## 7. Warranty and Support

For detailed warranty information, please refer to the warranty card included with your product or visit the official MSI website. MSI provides technical support and resources for their products.
**MSI Official Support:** www.msi.com/support
It is recommended to register your product on the MSI website to receive updates and support notifications.

© 2025 MSI. All rights reserved. Information subject to change without notice.

### Ask a question about this manual

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**

Anonymous

**Email**

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. Privacy details.

**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