ASUS ROG STRIX B850-I GAMING WIFI

ASUS ROG Strix B850-I Gaming WiFi Motherboard User Manual

Model: ROG STRIX B850-I GAMING WIFI

INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your ASUS ROG Strix B850-I Gaming WiFi AMD AM5 Mini-ITX Motherboard. Designed for compact builds, this motherboard offers robust performance and advanced features for AMD Ryzen 9000, 8000, and 7000 series desktop processors.

Image: ASUS ROG Strix B850-I Gaming WiFi Motherboard banner, highlighting the product name and key features.

SETUP AND INSTALLATION

Follow these steps for proper installation of your motherboard and its components.

Package Contents

Before beginning installation, verify that all items are present in the package:

What's in the box

Wi-Fi Q-ANTENNA   QUICK START GUIDE

ROG STRIX
STICKERS

SATA CABLES

ROG STRIX B850-I GAMING WIFI

Image: The contents of the product box, including the motherboard, Wi-Fi Q-Antenna, Quick Start Guide, ROG Strix stickers, and SATA cables.

- ASUS ROG Strix B850-I Gaming WiFi Motherboard
- Wi-Fi Q-Antenna
- Quick Start Guide
- ROG Strix Stickers
- SATA Cables
- Other accessories (screws, standoffs, etc.)

Motherboard Overview

Familiarize yourself with the layout of the motherboard before installation.

Image: A top-down view of the ASUS ROG Strix B850-I Gaming WiFi Motherboard, showing the CPU socket, RAM slots, and various headers.

Image: A close-up view of the rear input/output (I/O) ports on the motherboard, including USB, HDMI, LAN, and audio jacks.

Component Installation

The ROG Strix B850-I Gaming WiFi motherboard supports AMD Ryzen 9000, 8000, and 7000 series desktop processors with an AM5 socket. It features 10+2+1 power stages for stable power delivery.

Image: A diagram illustrating the motherboard's extreme power and performance features, including the AMD AM5 socket, power stages, DDR5 support, and M.2 slots.

CPU Installation

Carefully align your AMD Ryzen processor with the AM5 socket and gently lower it into place. Ensure the CPU is seated correctly before securing the retention arm.

Memory (RAM) Installation

This motherboard supports DDR5 memory. Insert DDR5 modules into the DIMM slots, ensuring they click into place. The board supports dual-channel memory configurations.
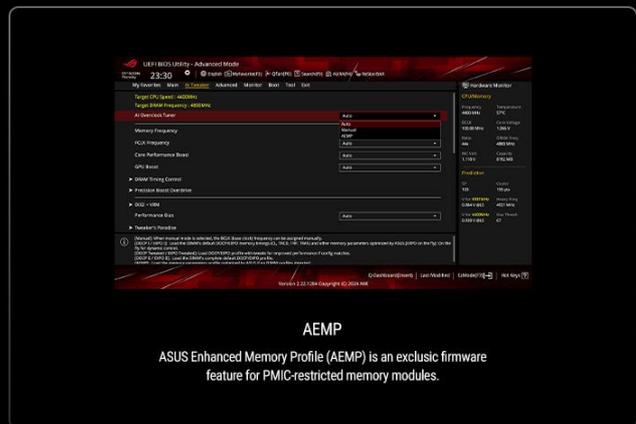

Image: A diagram detailing the motherboard's memory features, including DDR5 domination and ASUS Enhanced Memory Profile (AEMP) for optimized performance.

Storage (M.2 SSD) Installation

The motherboard features two onboard PCIe 5.0 M.2 slots. Utilize the M.2 Q-Latch design for tool-free installation or removal of M.2 SSDs. One M.2 slot is cooled by a large heatsink for optimal performance.

EZ PC DIY

PCIE® SLOT Q-RELEASE SLIM
Simply tilt the card to your right to automatically unlock it from the PCIe slot

Q-Antenna
Just snap two fasteners into place. Less hassle, and more consistent performance.

M.2 Q-Slide
This new sliding M.2 latch design supports sizes 2242, 2260 and 2280 for easy device installation.

NEW M.2 Q-LATCH
The new Q-Latch design allows for tool-free installation or removal of M.2 SSDs with just one press

Image: A collage demonstrating EZ PC DIY features, including PCIe Slot Q-Release Slim, Q-Antenna, M.2 Q-Slide, and New M.2 Q-Latch for easy component installation.

Graphics Card Installation

Insert your PCIe 5.0 x16 graphics card into the SafeSlot. The PCIe Slot Q-Release Slim feature allows for easy removal by simply tilting the card.

Connectivity

Connect your peripherals and network cables. The motherboard includes 2.5G LAN and WiFi 7 with a Q-Antenna for robust network connectivity. It also features USB 20Gbps Type-C ports.

Image: A diagram illustrating the motherboard's leading connectivity features, including WiFi 7, PCIe 5.0, USB 20Gbps ports, and integrated gaming audio.

OPERATING THE MOTHERBOARD

The ASUS ROG Strix B850-I Gaming WiFi motherboard incorporates intelligent control features to enhance your computing experience.

Intelligent Control Features

Image: A graphic highlighting the motherboard's exclusive AI Intelligence features: AI Overclocking, AI Networking II, and ASUS AI Advisor.

- **AI Overclocking:** This feature profiles your CPU and cooling system to predict optimal configurations, allowing for enhanced performance with minimal manual tuning.
- **AI Networking II:** Provides trustworthy and seamless connectivity, optimizing network performance and unleashing the full speed of WiFi 7.
- **ASUS AI Advisor:** Utilizes AI technology to understand natural-language questions, helping users explore the functionality of ASUS motherboards in a straightforward manner.
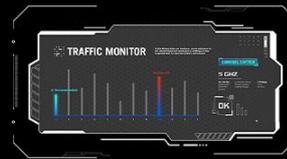
Image: A diagram illustrating the three main ASUS AI Intelligence features: ASUS AI Advisor, AI Overclocking, and AI Networking II.

Aura Sync RGB

Customize the lighting effects of your motherboard and compatible components using ASUS Aura Sync software. This allows for synchronized RGB lighting across your system.

MAINTENANCE

Proper maintenance ensures the longevity and optimal performance of your motherboard.

- **Dust Removal:** Regularly clean dust from the motherboard and heatsinks using compressed air. Ensure the system is powered off and unplugged before cleaning.
- **BIOS/UEFI Updates:** Keep your BIOS/UEFI firmware updated to the latest version available on the ASUS support website. This can improve compatibility, stability, and performance.
- **Driver Updates:** Ensure all device drivers (chipset, LAN, Wi-Fi, audio, etc.) are up-to-date. Download drivers only from the official ASUS support page for your model.
- **Thermal Management:** Ensure adequate airflow within your PC case to prevent overheating. Verify that CPU and M.2 heatsinks are properly seated and free of obstructions.

TROUBLESHOOTING

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

Common Issues and Solutions

- **No Display/Boot:**

  - Verify all power cables (24-pin ATX, 8-pin CPU) are securely connected.
  - Reseat RAM modules. Try booting with only one RAM stick.
  - Reseat the graphics card.
  - Clear CMOS using the dedicated button on the rear I/O or by removing the CMOS battery for a few

- **Long Boot Times:**
    - Ensure the latest BIOS/UEFI firmware is installed.
    - In BIOS/UEFI settings, enable 'Memory Context Restore' and 'Memory Power Down' if available.
    - Enable 'Fast Boot' in BIOS/UEFI.

  - **No Internet Connection (LAN/Wi-Fi):**
    - Ensure LAN cable is properly connected or Wi-Fi antenna is securely attached.
    - Install the latest LAN and Wi-Fi drivers from the ASUS support website. You may need to download these on another device and transfer via USB.
    - Check network adapter status in Device Manager.

  - **Audio Issues (Distortion, Low Volume):**
    - Install the latest audio drivers from the ASUS support website.
    - Adjust audio levels in Windows Sound settings and the Realtek Audio Console (if installed).
    - Ensure speakers/headphones are correctly plugged into the appropriate jacks.

  - **Coil Whine:**
    - While often harmless, ensure all power connections are secure.
    - Ensure the power supply unit (PSU) is sufficient for your system's components.

SPECIFICATIONS

Detailed technical specifications for the ASUS ROG Strix B850-I Gaming WiFi Motherboard.

Feature	Specification
Brand	ASUS
Model Name	ROG STRIX B850-I GAMING WIFI
CPU Socket	Socket AM5
Compatible Processors	AMD Ryzen 9000, 8000, 7000 series desktop processors
Chipset Type	AMD B850
RAM Memory Technology	DDR5
Memory Speed	Up to 8400+ MHz (OC)
M.2 Slots	2 x M.2 slots (PCIe 5.0 x4)
PCIe Slot	1 x PCIe 5.0 x16 SafeSlot
USB Ports	USB 20Gbps Type-C, USB 10Gbps, USB 5Gbps, USB 2.0

Feature	Specification
LAN	Intel 2.5Gb Ethernet
Wireless Connectivity	WiFi 7
Audio	ROG SupremeFX 7.1 Surround Sound High Definition Audio CODEC ALC4080
Form Factor	Mini-ITX
Dimensions (LxWxH)	6.69 x 1.97 x 6.69 inches
Item Weight	2.82 pounds
Operating System	Windows 11 Home (Compatible)
Date First Available	September 18, 2024

WARRANTY AND SUPPORT

For detailed warranty information and technical support, please refer to the official ASUS website or the warranty card included with your product. ASUS provides comprehensive support resources, including driver downloads, FAQs, and customer service contact information.

You can visit the official ASUS support page for your product model to access the latest drivers, BIOS updates, and troubleshooting guides.

For additional assistance, please contact ASUS customer support through their official channels.