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## ASUS ROG STRIX X670E-F GAMING WIFI

# ASUS ROG STRIX X670E-F GAMING WIFI Motherboard Instruction Manual

Model: ROG STRIX X670E-F GAMING WIFI | Brand: ASUS

## 1. INTRODUCTION

The ASUS ROG STRIX X670E-F GAMING WIFI motherboard is designed for high-performance computing, offering robust power delivery and advanced features for AMD Ryzen™ 9000, 8000, and 7000 Series processors. This manual provides essential information for setting up, operating, and maintaining your motherboard to ensure optimal performance and longevity.



Figure 1: ASUS ROG STRIX X670E-F GAMING WIFI Motherboard.

## 2. KEY FEATURES

- **AM5 Socket:** Ready for AMD Ryzen™ Desktop 9000\*, 8000\*, and 7000 Series Processors. (\*BIOS Update may be required when used with AMD Ryzen™ Desktop 9000 and 8000 Series CPU Processors).
- **Robust Power Solution:** Features 18 + 2 teamed power stages with 8+8 pin ProCool II power connectors, high-quality alloy chokes, and durable capacitors for multi-core processor support.
- **Optimized Thermal Design:** Includes massive VRM heatsinks, integrated aluminum I/O cover, high-conductivity thermal pad, L-shaped heatpipe, M.2 Combo-sink, M.2 backplate for the PCIe 5.0 M.2\_1 slot, three onboard M.2 heatsinks, plus an accessory M.2 heatsink.
- **Overclocking Technologies:** Dynamic OC Switcher, Core Flex, Asynchronous Clock, and PBO Enhancement for advanced performance tuning.
- **Next-Gen Connectivity:** PCIe® 5.0 support for graphics cards and M.2 SSDs, USB 3.2 Gen 2x2, and WiFi 6E.



Figure 2: Built for Speed and Expansion - Highlighting key component locations.



Figure 3: Optimized Thermal Control - Illustrating cooling solutions.



Figure 4: Full Connectivity - Detailing available ports and headers.

### 3. PACKAGE CONTENTS

Verify that all items listed below are present in your product package:

- ASUS ROG STRIX X670E-F GAMING WIFI Motherboard

- User Manual
- WiFi 6E Antenna
- ROG STRIX Stickers & Thank You Card
- ROG Keychain
- Cable Ties
- SATA Cables
- Spare M.2 Thermal Pad



Figure 5: What's in the Box - Visual representation of included accessories.

## 4. SETUP AND INSTALLATION

### 4.1. CPU Installation (AM5 Socket)

Carefully open the CPU socket retention arm. Align the triangular marker on your AMD Ryzen™ processor with the corresponding marker on the socket. Gently place the CPU into the socket without applying force. Close the retention arm to secure the CPU.

### 4.2. RAM (DDR5) Installation

Locate the DDR5 DIMM slots. Open the clips on both ends of the slot. Align the notch on the DDR5 memory module with the key in the DIMM slot. Insert the memory module firmly until the clips snap into place, securing the module.

### 4.3. M.2 SSD Installation

The motherboard features multiple M.2 slots, including PCIe 5.0 and PCIe 4.0 compatible slots, each with dedicated heatsinks for optimal thermal performance. To install an M.2 SSD:

1. Unscrew and remove the M.2 heatsink from the desired slot.
2. Carefully insert the M.2 SSD into the slot at an angle.
3. Gently push down the SSD and secure it with the provided M.2 Q-Latch mechanism or screw.
4. Reattach the M.2 heatsink, ensuring proper contact with the thermal pad.

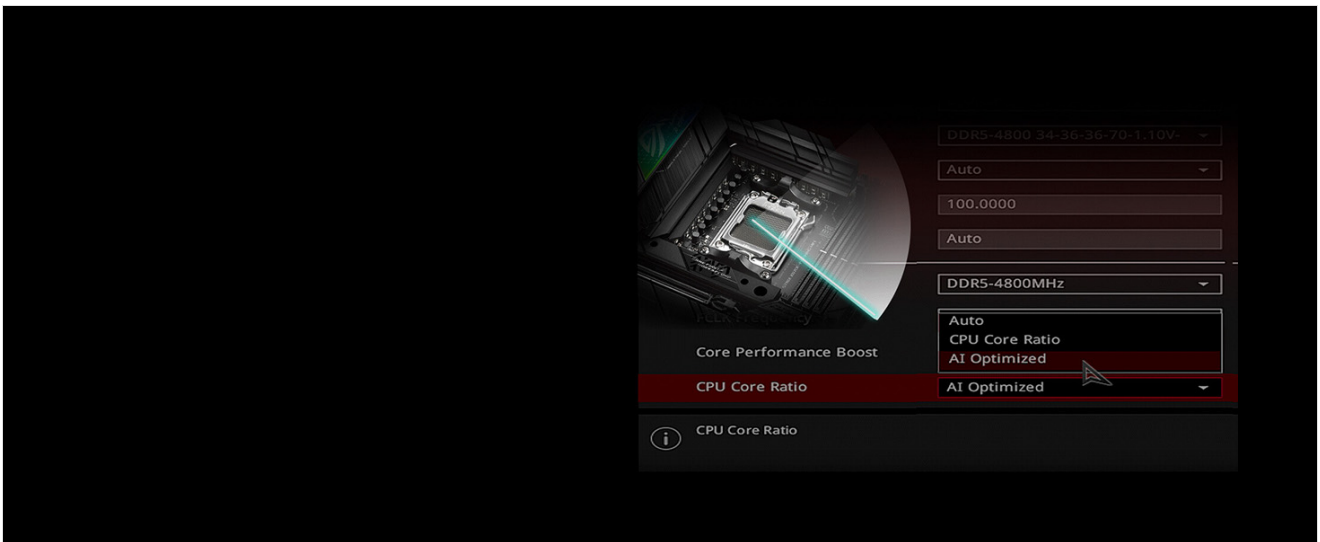


Figure 6: M.2 Drive Installation - Demonstrating the Q-Latch for easy setup.

#### 4.4. Graphics Card (GPU) Installation

Insert your PCIe 5.0 compatible graphics card into the primary PCIe x16 slot. Ensure it is seated firmly. The motherboard features a PCIe Slot Q-Release button for easy removal of the graphics card.



Figure 7: PCIe Slot Q-Release - For convenient graphics card removal.

#### 4.5. Connecting Peripherals

Connect your peripherals to the appropriate ports on the rear I/O panel. This includes USB devices, display cables (HDMI/DisplayPort), Ethernet, and audio devices. For wireless connectivity, attach the included WiFi 6E antenna to the designated ports.

# THERMAL CONTROL

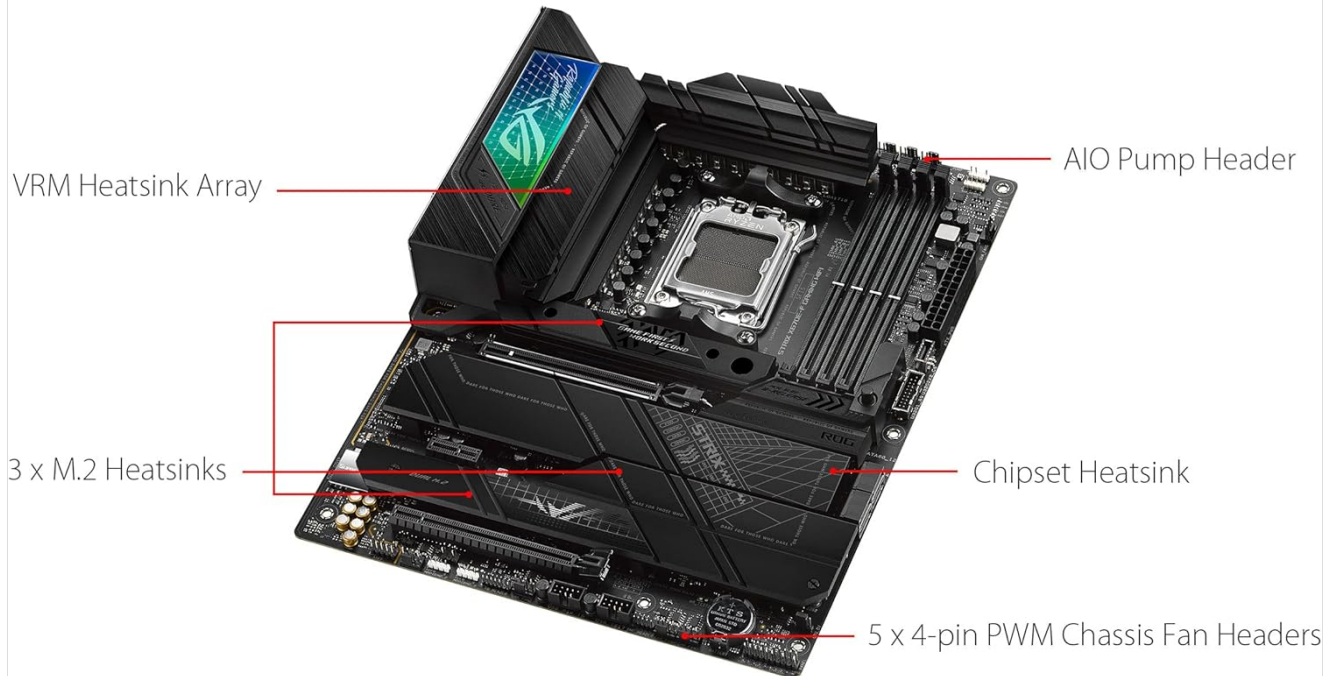


Figure 8: Rear I/O Panel - Showing various connectivity options.

## 5. OPERATING YOUR MOTHERBOARD

### 5.1. First Boot and BIOS Setup

Upon the first boot, your system will enter the BIOS (Basic Input/Output System) setup. Here, you can configure system settings, boot order, and enable features like AI Cooling II and overclocking profiles. Refer to the detailed user manual for comprehensive BIOS navigation and settings.

### 5.2. BIOS Flashback and Clear CMOS

The motherboard includes a BIOS Flashback button, allowing you to update the BIOS without a CPU or RAM installed. The Clear CMOS button helps reset BIOS settings to default in case of configuration issues.

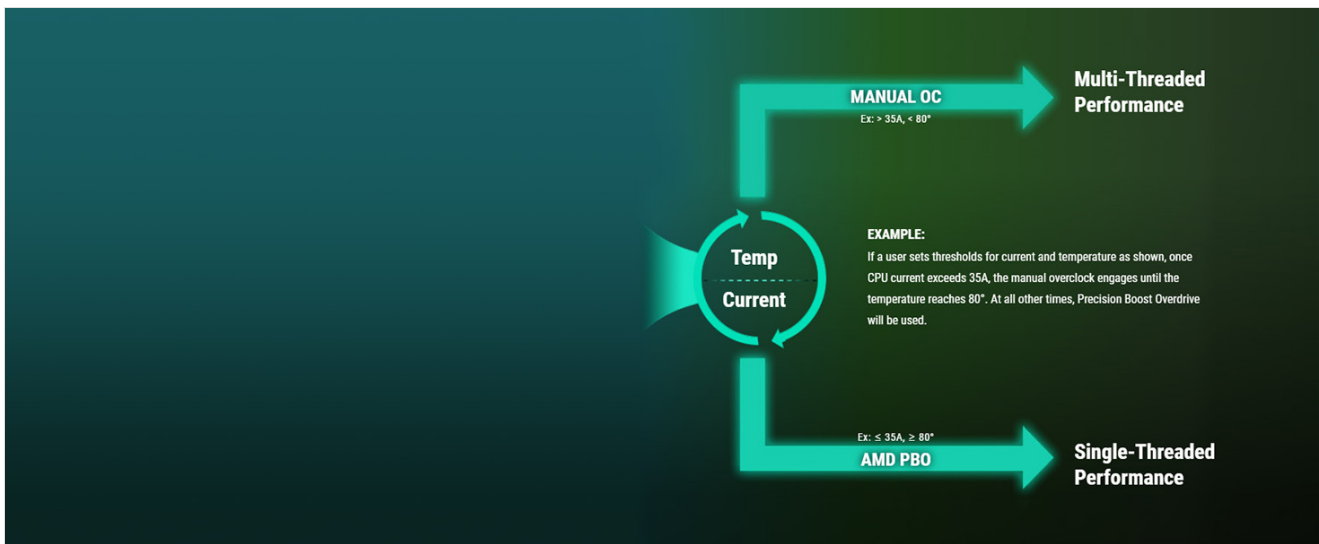


Figure 9: Clear CMOS Button - For resetting BIOS settings.

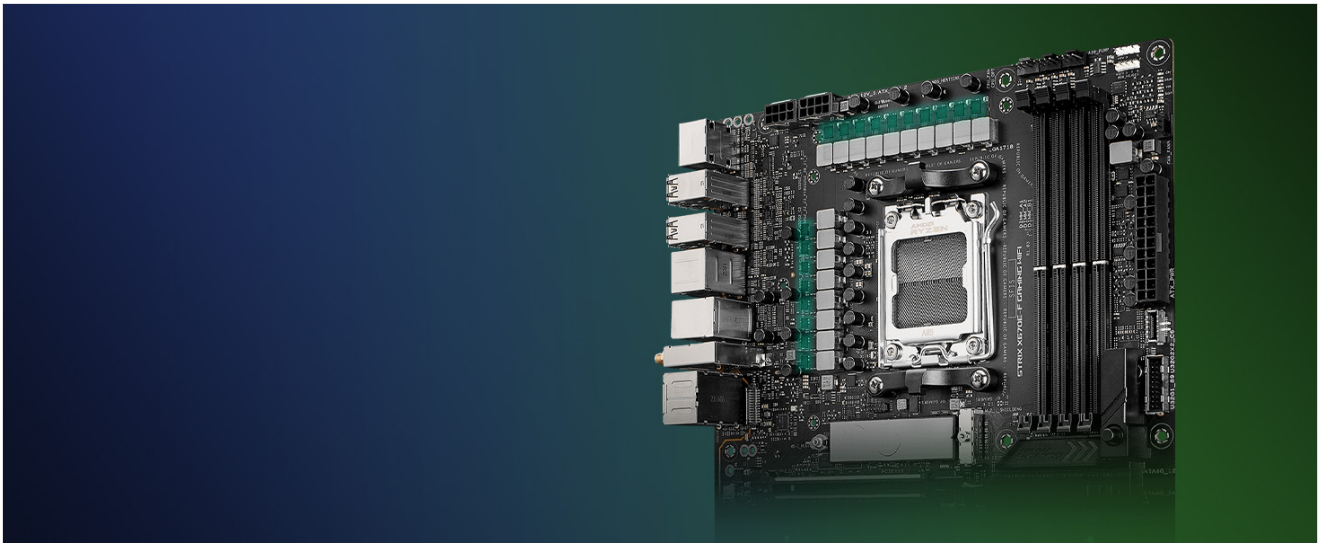


Figure 10: BIOS Flashback Button - For convenient BIOS updates.

## 6. MAINTENANCE

To ensure the longevity and stable operation of your motherboard:

- **Keep it Clean:** Regularly clean dust from your PC case and motherboard components using compressed air. Ensure proper airflow within your system.
- **BIOS Updates:** Periodically check the ASUS support website for the latest BIOS updates. Updating your BIOS can improve stability, performance, and compatibility with new hardware.
- **Driver Updates:** Keep all device drivers (chipset, audio, LAN, graphics) updated to their latest versions for optimal performance and security.
- **Environmental Control:** Operate your PC in a well-ventilated area with stable temperature and humidity to prevent overheating and component degradation.

## 7. TROUBLESHOOTING

If you encounter issues with your motherboard, consider the following troubleshooting steps:

- **No Power/No Boot:** Double-check all power connections (24-pin ATX, 8-pin CPU, PCIe power). Ensure the power supply is switched on.

- **No Display:** Verify that your monitor is connected to the graphics card (or integrated graphics if applicable) and powered on. Reseat the graphics card and RAM modules.
- **POST Code/Q-LED Indicators:** The motherboard features Q-LED indicators (CPU, DRAM, VGA, BOOT) that light up to indicate the status of key components during POST (Power-On Self-Test). Consult the user manual for specific Q-LED meanings.
- **System Instability/Crashes:** Ensure all drivers are up-to-date. Check RAM compatibility and seating. Monitor temperatures to prevent overheating. Reset BIOS settings using the Clear CMOS button if necessary.
- **BIOS Update Issues:** Use the BIOS Flashback feature with a correctly formatted USB drive and the appropriate BIOS file from the ASUS support website.



Figure 11: Q-LED Indicators - For quick system status diagnosis.

## 8. SPECIFICATIONS

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Feature	Specification
Brand	ASUS
Series	ROG STRIX X670E-F GAMING WIFI
Item Model Number	ROG STRIX X670E-F GAMING WIFI
CPU Socket	Socket AM5
Compatible Processors	AMD Ryzen™ Desktop 9000, 8000, and 7000 Series
Chipset Type	AMD X670
RAM Memory Technology	DDR5
Memory Speed	Up to 6400 MHz (OC)
Wireless Type	WiFi 6E (802.11a/b/g/n/ac, 802.11ax)
Number of USB 2.0 Ports	2
Product Dimensions (LxWxH)	10.75 x 2.68 x 13.31 inches
Item Weight	5.14 pounds
Color	BLACK
Voltage	12 Volts
Hardware Platform	PC
Platform	Windows 10

## 9. WARRANTY AND SUPPORT

Your ASUS ROG STRIX X670E-F GAMING WIFI motherboard is covered by a manufacturer's warranty. For detailed warranty terms, conditions, and duration, please refer to the warranty card included in your product package or visit the official ASUS support website. For technical assistance, driver downloads, and further information, please visit [www.asus.com/support/](http://www.asus.com/support/).