MSI B650 GAMING PLUS WIFI (7E26-001R)

MSI B650 Gaming Plus WiFi Motherboard User Manual

Model: B650 GAMING PLUS WIFI (7E26-001R)

Brand: MSI

Introduction

This manual provides detailed instructions for the installation, operation, maintenance, and troubleshooting of your MSI B650 Gaming Plus WiFi Motherboard. Designed for AMD Ryzen processors with Socket AM5, this ATX motherboard offers robust performance with DDR5 memory support and PCIe 4.0 connectivity. Please read this manual thoroughly before proceeding with installation to ensure proper setup and optimal performance.



Figure 1: MSI B650 Gaming Plus WiFi Motherboard and its retail packaging.

Setup and Installation

Before beginning installation, ensure your workspace is clean and static-free. Handle the motherboard by its edges to avoid damaging components.

1. Unboxing and Components

Verify all components are present as shown in Figure 2. The package typically includes the motherboard, I/O shield, SATA cables, and M.2 clips.



Figure 2: Motherboard and included accessories: I/O Shield, SATA Cable, 2x EZ M.2 Clips, and Wi-Fi Antenna.

2. Motherboard Layout Overview

Familiarize yourself with the key areas of the motherboard, including the CPU socket (Socket AM5), DDR5 memory slots, and PCIe slots for graphics cards and other expansion cards.



Figure 3: Top-down view of the motherboard, showing the AMD Socket AM5 for Ryzen processors and B650 chipset area.

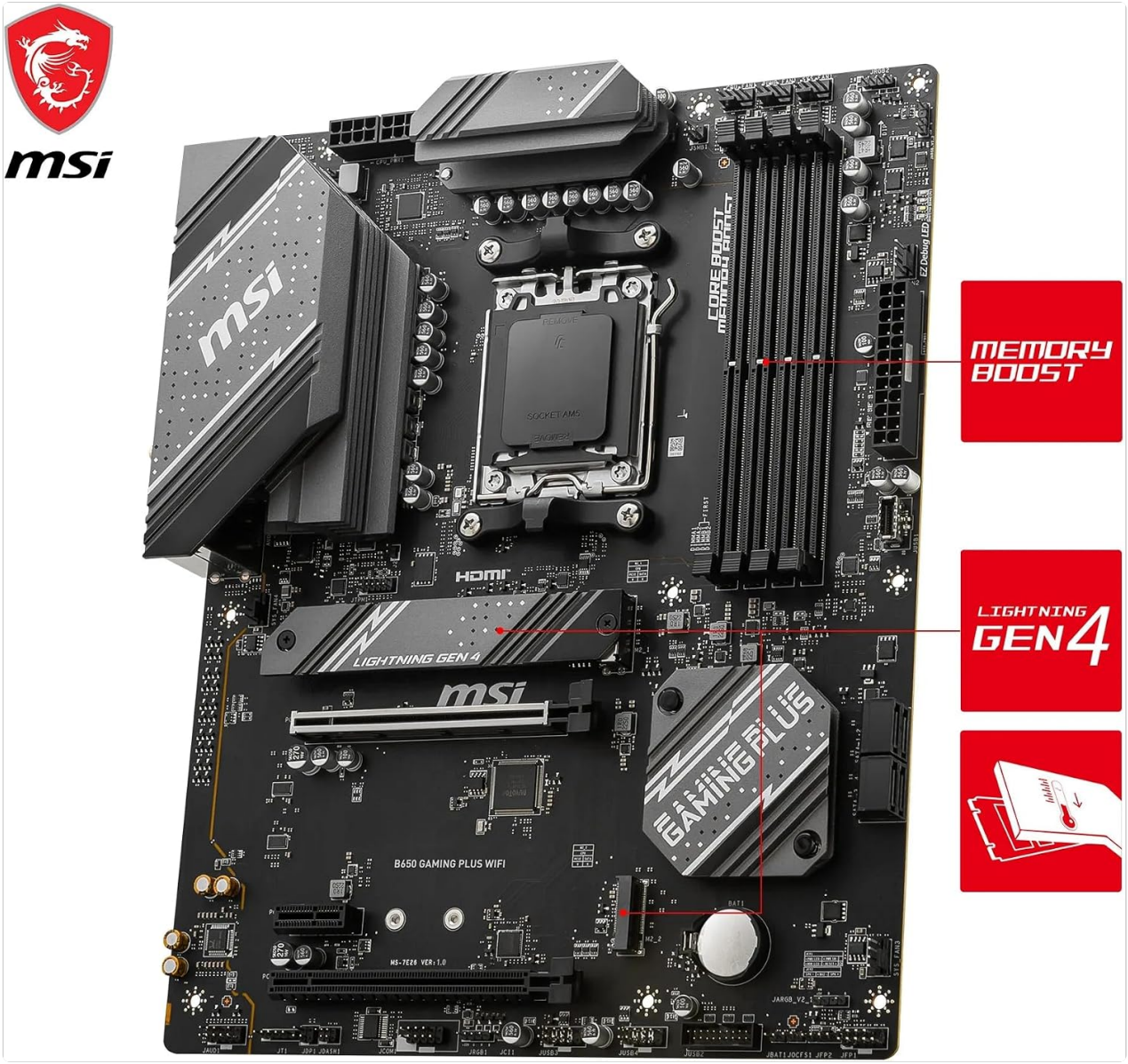


Figure 4: Key features highlighted, including Memory Boost for DDR5 RAM and Lightning Gen 4 for PCIe slots.

3. Component Installation

1. **CPU Installation:** Carefully align your AMD Ryzen processor with Socket AM5 and gently place it into the socket. Secure the retention arm.
2. **RAM Installation:** Insert DDR5 memory modules into the designated DIMM slots. Ensure they are fully seated by pressing down until the clips on both ends snap into place. The motherboard supports up to four DDR5 memory modules.
3. **Storage Installation:** Install M.2 NVMe SSDs into the M.2 slots. Use the provided M.2 clips to secure them. Connect SATA drives to the SATA 6Gb/s ports using the SATA cables.
4. **Graphics Card Installation:** Insert your PCIe 4.0 graphics card into the primary PCIe x16 slot. Ensure it is firmly seated and secured with the case latch or screw.
5. **Power Connections:** Connect the 24-pin ATX power connector and the 8-pin CPU power connector from your power supply to the motherboard.

4. Rear I/O Panel Connections

Connect your peripherals to the appropriate ports on the rear I/O panel.

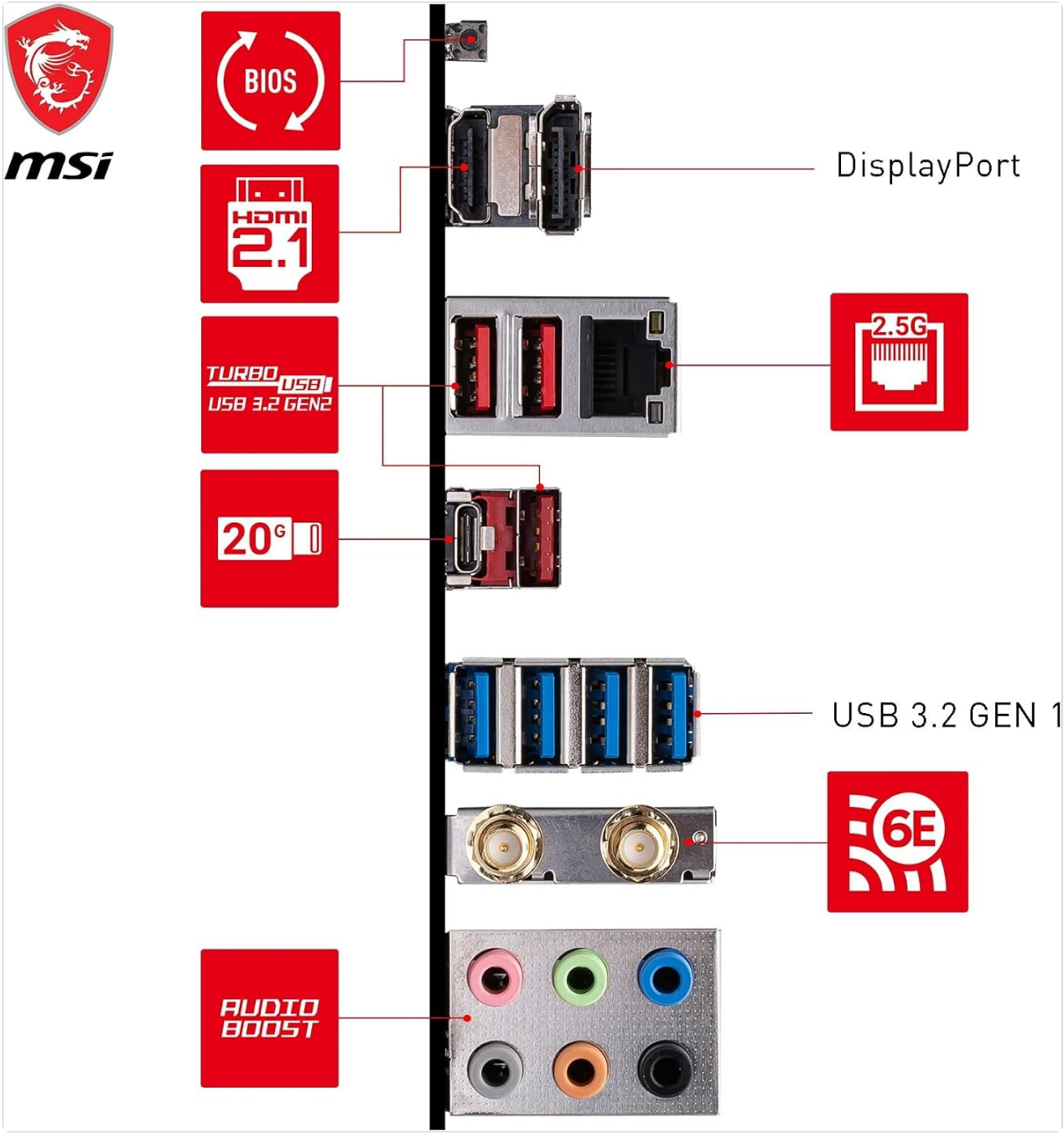


Figure 5: Rear I/O Panel detailing ports: BIOS Flashback button, DisplayPort, HDMI, 2.5G Ethernet, USB 3.2 Gen 2 (red), USB 3.2 Gen 1 (blue), USB 2.0 (black), Wi-Fi 6E antenna connectors, and Audio Boost jacks.

The rear I/O panel includes:

- **BIOS Flashback Button:** For updating BIOS without a CPU or RAM installed.
- **DisplayPort & HDMI:** For video output (requires compatible CPU with integrated graphics).
- **USB Ports:** Multiple USB 3.2 Gen 2 (red), USB 3.2 Gen 1 (blue), and USB 2.0 (black) ports for various peripherals.
- **2.5G Ethernet Port:** For high-speed wired network connectivity.
- **Wi-Fi 6E Antenna Connectors:** For wireless network and Bluetooth connectivity.
- **Audio Boost Jacks:** For high-quality audio output and input.

Operating Your Motherboard

Once all components are installed and connected, you can power on your system. The motherboard supports Windows 11 64-bit and Windows 10 64-bit operating systems.

BIOS/UEFI Setup

Upon initial boot, you may need to enter the BIOS/UEFI setup to configure settings such as boot order, memory profiles (XMP/EXPO), and fan curves. Press the designated key (usually DEL or F2) during startup to enter the BIOS.

Driver Installation

After installing your operating system, install the necessary drivers for the motherboard's chipset, audio, LAN, and Wi-Fi components. These can typically be found on the included driver CD or downloaded from the MSI official website.

Maintenance

Regular maintenance helps ensure the longevity and stable performance of your motherboard.

- **Dust Removal:** Periodically clean dust from the motherboard and components using compressed air. Ensure the system is powered off and unplugged before cleaning.
- **BIOS Updates:** Keep your BIOS updated to the latest version. MSI provides easy-to-use tools for BIOS flashing, including the BIOS Flashback feature for convenient updates.
- **Component Checks:** Ensure all cables and components are securely seated.

Troubleshooting

If you encounter issues, refer to the following common troubleshooting steps:

- **No Power/No Boot:** Double-check all power connections (24-pin ATX, 8-pin CPU). Ensure the power supply is functioning correctly.
- **No Display:** Verify the graphics card is properly seated and connected to the monitor. If using integrated graphics, ensure your CPU supports it and the monitor is connected to the motherboard's video output.
- **EZ Debug LED:** The motherboard features EZ Debug LEDs (CPU, DRAM, VGA, BOOT) that light up to indicate the source of a problem during startup. Consult the motherboard's physical LEDs for diagnostic information.
- **Component Not Recognized:** Reseat the component (RAM, SSD, GPU). Check for bent pins on the CPU socket if applicable.
- **BIOS Reset:** If system instability occurs after changing BIOS settings, clear the CMOS by either removing the CMOS battery for a few minutes or using the dedicated JBAT1 jumper (refer to the motherboard diagram for location).

Specifications

Feature	Detail
Brand	MSI
Series	MSI B650 GAMING PLUS WIFI
Model Number	7E26-001R
CPU Socket	Socket AM5
Chipset Type	AMD B650
Compatible Processors	AMD Ryzen 7th Gen (Ryzen 7, Ryzen 9)
RAM Memory Technology	DDR5
Memory Speed	Up to 6000 MHz (Overclocking Support)
Number of USB 2.0 Ports	2 (rear I/O)
Wireless Type	Wi-Fi 6E, Bluetooth
Operating System Support	Windows 11 64-bit, Windows 10 64-bit
Item Weight	0.042 ounces
Product Dimensions	10.59 x 2.56 x 13.62 inches
Color	Black
Date First Available	July 5, 2023

Warranty and Support

For warranty information, technical support, driver downloads, and further assistance, please visit the official MSI website or contact MSI customer service. Keep your proof of purchase for warranty claims.
Official MSI Support: www.msi.com/support

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