MSI B760MMOTWIFI

MSI MAG B760M Mortar WiFi Gaming Motherboard User Manual

Model: B760MMOTWIFI

Brand: MSI

1. Introduction

This manual provides detailed instructions for the installation, operation, and maintenance of your MSI MAG B760M Mortar WiFi Gaming Motherboard. Designed for optimal performance, this motherboard supports 12th and 13th Generation Intel Core, Pentium Gold, and Celeron processors, offering a robust foundation for your gaming or professional system.



Figure 1.1: MSI MAG B760M Mortar WiFi Gaming Motherboard and packaging.

2. Key Features

- **Processor Support:** Compatible with 12th and 13th Gen Intel Core, Pentium Gold, and Celeron processors for the LGA 1700 socket.
- **Memory Support:** Supports DDR5 Memory modules, with speeds up to 7000+(OC) MHz for high-speed data processing.
- **Enhanced Power Design:** Features a 12+1+1 Duet Rail Power System, dual 8-pin CPU power connectors, Core Boost, and Memory Boost for stable and efficient power delivery.
- **Lightning Fast Connectivity:** Includes a PCIe 5.0 slot for the latest graphics cards, Lightning Gen 4 x4 M.2 slots for high-speed storage, and USB 3.2 Gen 2x2 ports for rapid data transfer.
- **Premium Thermal Solution:** Equipped with an Extended Heatsink Design and M.2 Shield Frozr to ensure optimal heat dissipation and prevent thermal throttling, maintaining system stability under load.
- **Integrated Networking:** Features 2.5Gbps LAN and Wi-Fi 6E for reliable and high-speed wired and wireless network connections.



Figure 2.1: LGA 1700 CPU Socket and B760 Chipset.



Figure 2.2: PCIe 5.0 and PCIe 4.0 Expansion Slots.

3. 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.

3.1. CPU Installation

1. Open the CPU socket lever on the motherboard.

2. Carefully align the CPU with the socket, ensuring the golden triangle on the CPU matches the indicator on the socket.
3. Gently place the CPU into the socket without forcing it.
4. Close the CPU socket lever to secure the processor.

3.2. RAM (DDR5) Installation

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



Figure 3.1: DDR5 Memory Slots.

3.3. M.2 SSD Installation

1. Locate the M.2 slots and remove the M.2 Shield Frozr heatsink if present.
2. Insert the M.2 SSD into the slot at an angle.
3. Gently push down the SSD and secure it with the provided screw or EZ-Latch mechanism.
4. Reinstall the M.2 Shield Frozr heatsink for optimal cooling.



Figure 3.2: M.2 Slots with Shield Frozr.

3.4. 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 case with screws.

3.5. Power Connections

- Connect the 24-pin ATX power connector from your power supply to the motherboard.
- Connect the dual 8-pin CPU power connectors to the motherboard.

3.6. Case Connections

Connect front panel headers (power button, reset button, USB ports, audio jacks) to their respective pins on the motherboard. Refer to your motherboard's detailed diagram for exact pin locations.

4. Operating Instructions

4.1. First Boot

After assembling your system, connect your monitor, keyboard, and mouse. Power on your system. The system should display the BIOS/UEFI screen or boot into your operating system installer.

4.2. BIOS/UEFI Access

To enter the BIOS/UEFI setup, press the `DEL` key repeatedly during system startup. Here you can configure boot options, memory profiles (XMP), fan curves, and other system settings.

4.3. Driver Installation

After installing your operating system, install the necessary drivers for the motherboard chipset, audio, LAN, and Wi-Fi. These can typically be found on the MSI support website for your specific motherboard model.

5. Maintenance

5.1. Cleaning

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.

5.2. BIOS Updates

Periodically check the MSI website for BIOS/UEFI updates. Updates can improve system stability, add support for new hardware, or fix bugs. Follow the instructions provided by MSI carefully when performing a BIOS update.

5.3. Driver Updates

Keep your motherboard drivers updated to ensure optimal performance and compatibility. Download the latest drivers from the official MSI support page.

6. Troubleshooting

- **No Power/No Boot:**
  - Check all power connections (24-pin ATX, 8-pin CPU, GPU).
  - Ensure the power supply is switched on.
  - Verify front panel power button connection.
- **No Display:**
  - Ensure the monitor is connected to the graphics card (or motherboard if using integrated graphics).
  - Reseat the graphics card and RAM modules.
  - Try booting with only one RAM stick.

- **Network Connectivity Issues (Wi-Fi/LAN):**
  - Install the latest network drivers from the MSI website.
  - Ensure Wi-Fi antennas are securely connected.
  - Check router and modem connections.
- **System Instability/Crashes:**
  - Check CPU and GPU temperatures.
  - Ensure all components are properly seated.
  - Run memory diagnostic tools.
  - Update BIOS/UEFI to the latest version.



Figure 6.1: Rear I/O Panel for Connectivity Troubleshooting.

7. Specifications

Feature	Specification
Brand	MSI
Model Name	MSI MAG B760M Mortar WiFi
Item Model Number	B760MMOTWIFI
CPU Socket	LGA 1700
Compatible Processors	12th/13th Gen Intel Core, Pentium Gold, Celeron
Chipset Type	Intel B760
RAM Memory Technology	DDR5
Memory Speed	Up to 7000+(OC) MHz
PCIe Slots	1x PCIe 5.0 x16, 1x PCIe 4.0 x16
M.2 Slots	2x Lightning Gen 4 x4 M.2
LAN	2.5Gbps LAN
Wireless Connectivity	Wi-Fi 6E

Feature	Specification
USB Ports	USB 3.2 Gen 2x2, USB 3.2 Gen 2, USB 3.2 Gen 1, USB 2.0
Form Factor	mATX
Product Dimensions	9.6 x 9.6 x 2.5 inches
Item Weight	3 pounds

8. Warranty and Support

MSI products come with a standard manufacturer's warranty. For specific warranty terms, registration, and technical support, please visit the official MSI website. You can find drivers, FAQs, and contact information for customer service there.

Official MSI Support Website: www.msi.com

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