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› GIGABYTE B760M C V2 Motherboard User Manual

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GIGABYTE B760M C V2 Motherboard User Manual

Model: B760M C V2

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, maintenance, and troubleshooting of your GIGABYTE B760M C V2 Motherboard. Please read this manual thoroughly before beginning installation to ensure proper setup and optimal performance.

The GIGABYTE B760M C V2 is an M-ATX motherboard designed for Intel LGA 1700 socket processors (14th, 13th, and 12th Gen Intel Core Series). It features DDR5 memory support, multiple M.2 slots, PCIe 4.0 connectivity, USB 3.2 Gen 2x2 Type-C, Wi-Fi 6, and 1GbE LAN.

2. PACKAGE CONTENTS

Verify that all items are present in your motherboard package:

- GIGABYTE B760M C V2 Motherboard
- SATA Cables
- Wi-Fi Antenna
- I/O Shield (if not pre-mounted)
- User Manual / Quick Start Guide
- Driver CD/USB (or download instructions)
- M.2 Screws/Standoffs

3. MOTHERBOARD LAYOUT

Familiarize yourself with the various components and connectors on your motherboard.

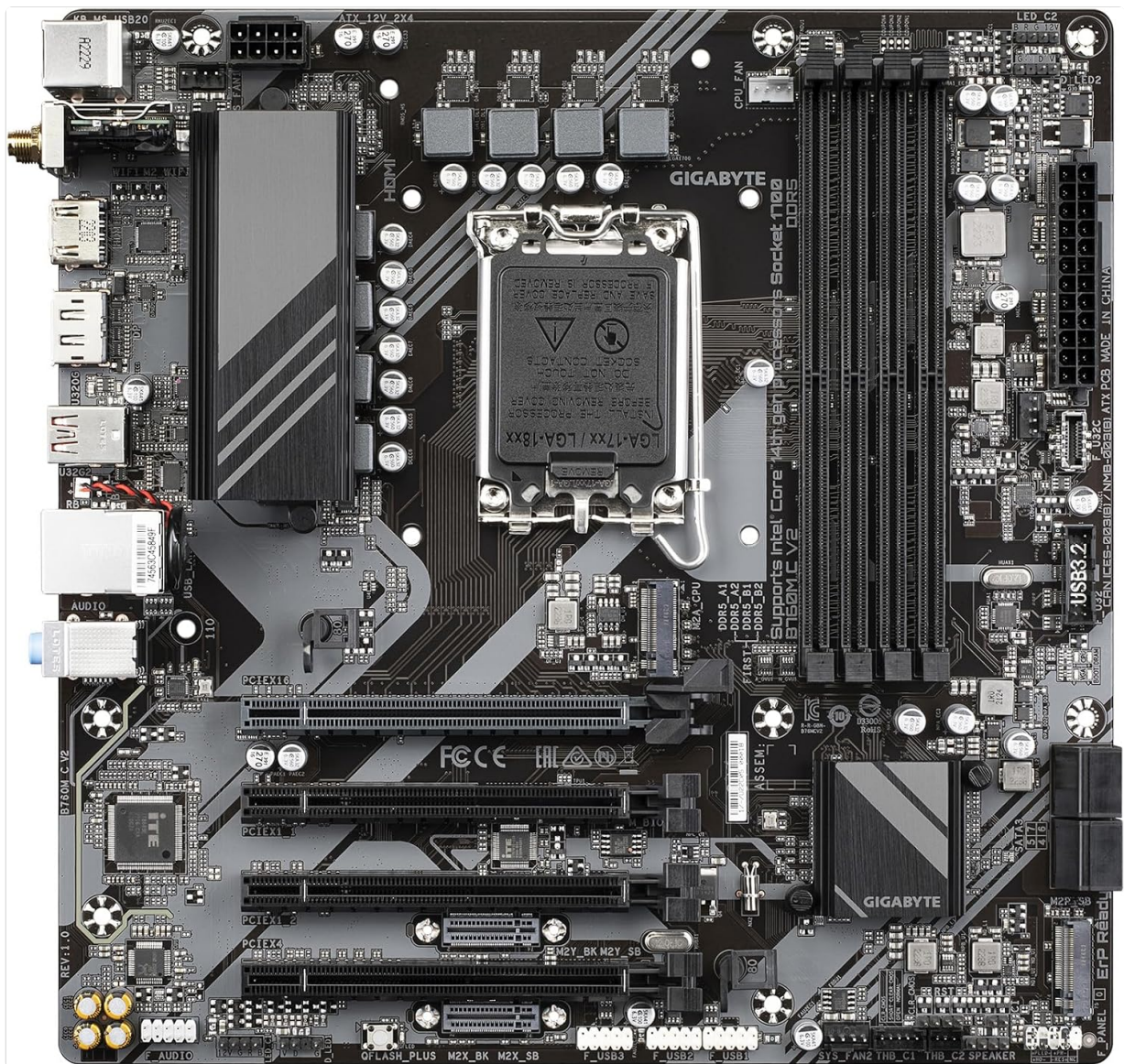


Figure 3.1: Top-down view of the GIGABYTE B760M C V2 Motherboard, showing CPU socket, DIMM slots, PCIe slots, and M.2 slots.

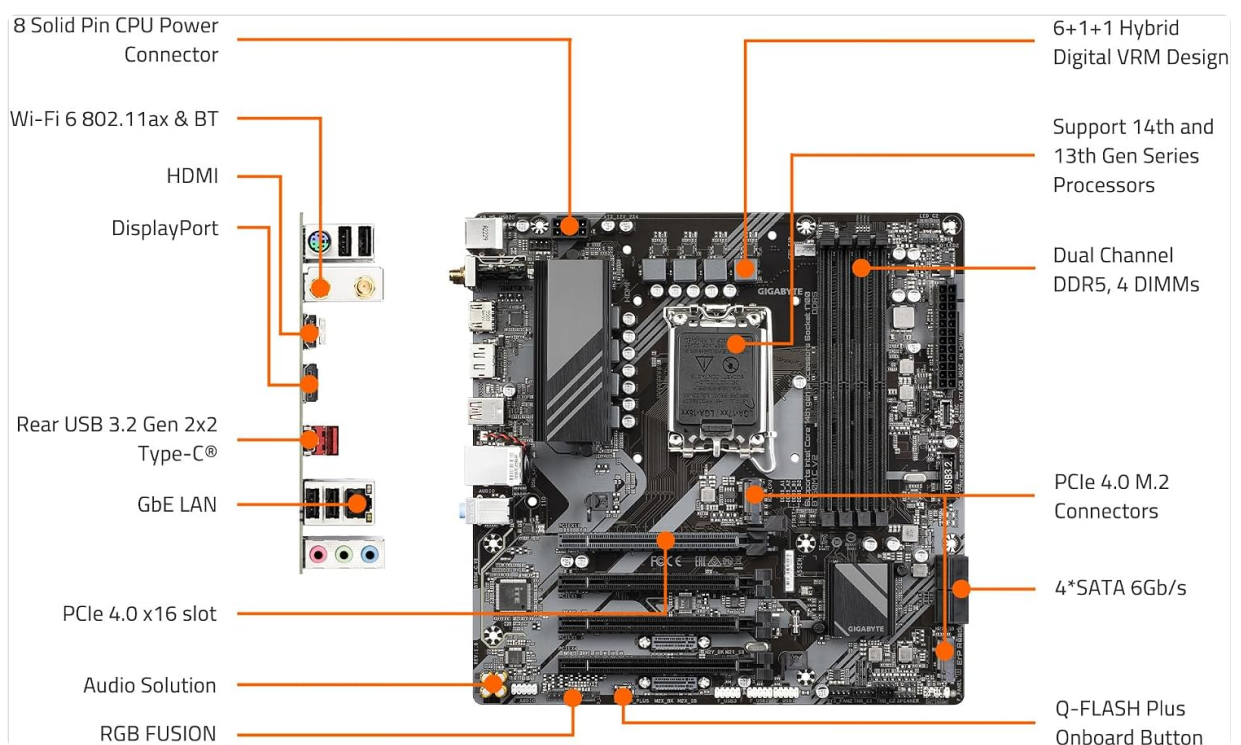


Figure 3.2: Labeled diagram highlighting key components such as the 8-pin CPU power connector, Wi-Fi 6 antenna

connectors, HDMI, DisplayPort, Rear USB 3.2 Gen 2x2 Type-C, GbE LAN, PCIe 4.0 x16 slot, Audio Solution, RGB FUSION header, Q-FLASH Plus Onboard Button, PCIe 4.0 M.2 Connectors, 4*SATA 6Gb/s ports, Dual Channel DDR5 DIMMs, and 6+1+1 Hybrid Digital VRM Design.



Figure 3.3: Rear I/O panel showing various ports including USB, Wi-Fi antenna connectors, HDMI, DisplayPort, USB 3.2 Gen 2x2 Type-C, Ethernet, and audio jacks.

4. SETUP AND INSTALLATION

Before installation, ensure your power supply is disconnected from the wall outlet. Wear an anti-static wrist strap to prevent electrostatic discharge (ESD) damage to components.

4.1. CPU Installation

1. Open the CPU socket lever and remove the protective cover.
2. Carefully align the notches on your Intel LGA 1700 processor with the socket.
3. Gently place the CPU into the socket without forcing it.
4. Close the socket lever to secure the CPU.
5. Apply thermal paste and install your CPU cooler according to its instructions.

4.2. Memory (RAM) Installation

This motherboard supports Dual Channel DDR5 memory across 4 DIMM slots.

1. Open the clips at both ends of the DIMM slot.
2. Align the notch on the DDR5 memory module with the key in the DIMM slot.
3. Insert the memory module firmly into the slot until the clips snap into place.
4. For dual-channel configuration, refer to your motherboard's specific manual for recommended slot pairing (usually alternating slots).

4.3. M.2 SSD Installation

The motherboard features Triple M.2 connectors supporting PCIe 4.0 NVMe SSDs.

1. Locate an available M.2 slot. Some slots may have heatsinks that need to be removed first.
2. Remove the M.2 standoff screw from the motherboard.
3. Insert the M.2 SSD into the slot at a 30-degree angle.
4. Gently push the SSD down and secure it with the standoff screw.
5. If applicable, reattach the M.2 heatsink.

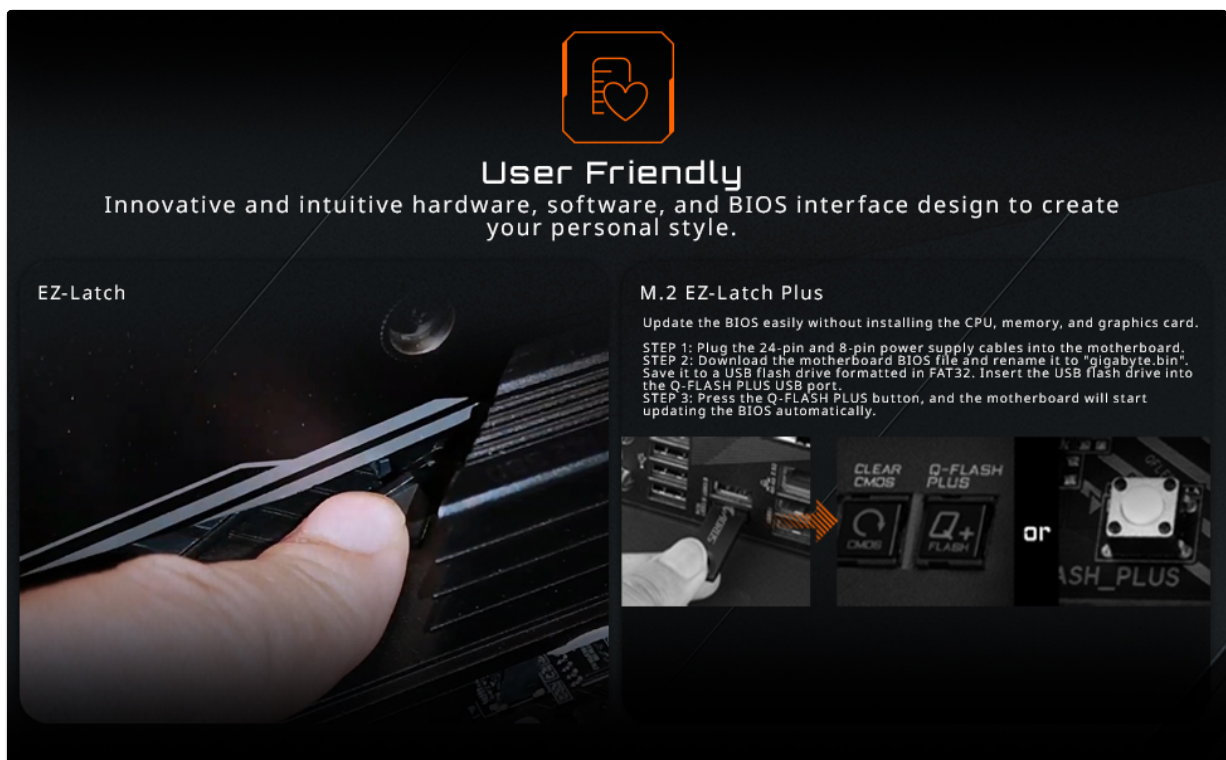


Figure 4.1: Illustration of the EZ-Latch mechanism for M.2 SSD installation and the Q-Flash Plus button for BIOS updates.

4.4. PCIe Card Installation

Install your graphics card or other expansion cards into the appropriate PCIe slots. The primary slot is a PCIe 4.0 x16 expansion slot.

1. Open the retention clip at the end of the PCIe slot.
2. Align your expansion card with the slot and press firmly until it is seated and the retention clip locks.
3. Secure the card to your chassis with a screw.

4.5. Power Connections

- **24-Pin ATX Main Power Connector:** Connect the main power cable from your power supply to this connector.
- **8-Pin ATX 12V CPU Power Connector:** Connect the CPU power cable from your power supply to this connector.

4.6. Front Panel and Peripheral Connections

- **Front Panel Headers:** Connect your case's power button, reset button, HDD LED, and power LED to the corresponding pins. Refer to the motherboard manual for exact pin assignments.
- **USB Headers:** Connect front panel USB ports to the motherboard's USB headers (USB 2.0, USB 3.2 Gen 1).
- **Audio Header:** Connect your case's front panel audio to the F_AUDIO header.
- **SATA Ports:** Connect SATA storage devices (HDDs, SSDs) to the SATA 6Gb/s ports.
- **Wi-Fi Antenna:** Screw the included Wi-Fi antennas onto the connectors on the rear I/O panel.

5. OPERATING INSTRUCTIONS

5.1. Initial Boot-Up

1. After all components are installed and connected, connect your monitor, keyboard, and mouse.

2. Connect the power supply to the wall outlet and turn on the power supply switch.
3. Press the power button on your computer case.
4. The system should boot up and display the GIGABYTE splash screen.

5.2. BIOS/UEFI Setup

To enter the BIOS/UEFI setup, press the **DEL** key repeatedly during the initial boot-up sequence. The BIOS allows you to configure system settings, boot order, and monitor hardware status.

5.3. Driver Installation

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

5.4. Smart Fan 6

The motherboard features Smart Fan 6, which includes multiple temperature sensors and hybrid fan headers with FAN STOP functionality. This allows for precise control over system cooling, optimizing performance and noise levels. Configure these settings within the BIOS/UEFI.

6. MAINTENANCE

Regular maintenance helps ensure the longevity and stable operation of your motherboard and PC system.

- **Dust Removal:** Periodically clean dust from inside your PC case, especially from heatsinks and fans, using compressed air. Ensure the system is powered off and unplugged before cleaning.
- **BIOS Updates:** GIGABYTE regularly releases BIOS updates to improve compatibility, stability, and performance. Use the Q-Flash Plus feature for convenient BIOS updates without needing a CPU, memory, or graphics card installed.
- **Driver Updates:** Keep your motherboard drivers updated by downloading the latest versions from the GIGABYTE official website.

7. TROUBLESHOOTING

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

- **No Display / No POST:**
 - Check all power connections (24-pin ATX, 8-pin CPU, GPU PCIe power).
 - Ensure RAM modules are fully seated in their slots. Try booting with one RAM stick.
 - Verify the CPU is correctly installed and the cooler is making proper contact.
 - Check if the graphics card is properly seated in the PCIe slot and connected to the monitor.
 - Observe the debug LEDs (VGA, CPU, BOOT, DRAM) on the motherboard, if present, to identify the component causing the issue.
- **System Instability / Crashes:**
 - Ensure all drivers are installed and up to date.
 - Check for overheating issues using monitoring software.
 - Run memory diagnostic tools to check RAM integrity.
 - Verify power supply stability.

- **Q-Flash Plus Issues:**
 - Ensure the USB drive is formatted to FAT32.
 - Rename the BIOS file to "GIGABYTE.bin" (or as specified in the official Q-Flash Plus guide).
 - Ensure the USB drive is inserted into the designated Q-Flash Plus USB port.

For further assistance, consult the GIGABYTE support website or contact their technical support.

8. SPECIFICATIONS

Below are the key technical specifications for the GIGABYTE B760M C V2 Motherboard:

Feature	Specification
Brand	GIGABYTE
Model Name	B760M C V2
CPU Socket	LGA 1700
Compatible Processors	Intel 12th, 13th, and 14th Gen Core
Chipset Type	B760 D5
RAM Memory Technology	DDR5
Memory Clock Speed	5600 MHz (Supports higher via XMP)
Memory Slots Available	4
Maximum Memory Capacity	192 GB
Graphics Card Interface	PCI Express 4.0
Total PCIe Ports	4 (including 1x PCIe 4.0 x16)
M.2 Slots	Triple M.2 (PCIe 4.0)
Total SATA Ports	2
USB Ports	11 (including USB 3.2 Gen 2x2 Type-C)
Ethernet	1GbE LAN
Wireless Connectivity	Wi-Fi 6
Video Output	HDMI, DisplayPort
Form Factor	M-ATX
Main Power Connector	24-Pin
CPU Power Connector	8-Pin

9. WARRANTY AND SUPPORT

The GIGABYTE B760M C V2 Motherboard comes with a **3 Years Manufacturer Warranty**. Please retain

your proof of purchase for warranty claims.

For technical support, driver downloads, BIOS updates, and further product information, please visit the official GIGABYTE website:

www.gigabyte.com

You can also refer to the GIGABYTE support page for your specific model by searching for "B760M C V2" on their website.