GIGABYTE H310M-H 2.0 REV 1.0

GIGABYTE H310M H 2.0

User Manual

1. Introduction

This manual provides essential information for the installation, operation, maintenance, and troubleshooting of your GIGABYTE H310M H 2.0 motherboard. Please read this manual carefully before you begin the installation process to ensure proper setup and optimal performance.

The GIGABYTE H310M H 2.0 is designed to support 8th Generation Intel Core processors, offering a stable and reliable platform for personal computer builds. It features an LGA 1151 socket and supports DDR4 RAM technology.

2. Setup and Installation

Before installing the motherboard, ensure your system components are compatible. Always handle the motherboard by its edges to avoid static discharge damage.

2.1. Package Contents

- GIGABYTE H310M H 2.0 Motherboard
- I/O Shield
- SATA Cables
- Driver CD/DVD (if included)
- Quick Installation Guide

2.2. Motherboard Layout

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



Image: The GIGABYTE H310M H 2.0 motherboard alongside its retail packaging, showcasing the overall design and key features.

2.3. Component Installation Steps

1. **CPU Installation:** Carefully open the CPU socket lever, align the CPU with the triangle marker on the socket, gently place the CPU, and close the lever.
2. **CPU Cooler Installation:** Mount the CPU cooler according to its manufacturer's instructions, ensuring proper thermal paste application and secure attachment.
3. **RAM Installation:** Open the clips on the DDR4 memory slots. Align the RAM module notch with the slot key and press firmly on both ends until the clips snap into place. This motherboard has 2 memory slots.
4. **Motherboard Mounting:** Install standoffs in your PC case, then carefully place the motherboard and secure it with screws.
5. **Power Supply Connection:** Connect the 24-pin ATX main power connector and the 8-pin ATX 12V CPU power connector to the motherboard.
6. **Storage Device Connection:** Connect SATA data cables from your storage drives (HDDs/SSDs) to the SATA ports on the motherboard. Connect power cables from the PSU to the drives.
7. **Expansion Card Installation:** Insert your graphics card into the PCI Express slot. Secure it with the case screw and connect any necessary PCIe power cables from the PSU.
8. **Front Panel Connections:** Connect the front panel headers (power button, reset button, HDD LED, power LED, USB ports, audio jacks) to their respective pins on the motherboard. Refer to the motherboard's silkscreen labels for correct orientation.

3. Operating Instructions

3.1. First Boot and BIOS Setup

After assembling your system, connect a monitor, keyboard, and mouse. Power on the system. Press the designated key (usually DEL or F2) repeatedly during startup to enter the BIOS/UEFI setup utility. In the BIOS, you can configure boot order, system time, and various hardware settings.

3.2. Driver Installation

Once the operating system is installed, install the necessary drivers for the motherboard's chipset, audio, LAN, and any other integrated components. These drivers are typically provided on a support CD/DVD or can be downloaded from the GIGABYTE official website.

4. Maintenance

Regular maintenance helps prolong the life and performance of your motherboard and system.

- **Dust Removal:** Periodically clean dust from inside your PC case, especially from fans and heatsinks, using compressed air. Ensure the system is powered off and unplugged before cleaning.
- **BIOS Updates:** Check the GIGABYTE website for the latest BIOS updates. BIOS updates can improve compatibility, stability, and performance. Follow the update instructions carefully to avoid system damage.
- **Cable Management:** Ensure cables are neatly routed to improve airflow and prevent interference.

5. Troubleshooting

If you encounter issues, refer to these basic troubleshooting steps.

- **No Power:** Check all power connections (24-pin ATX, 8-pin CPU, power button header). Ensure the power supply is switched on.
- **No Display:** Ensure the monitor is connected to the graphics card (or integrated graphics port) and powered on. Reseat the graphics card and RAM modules.
- **System Instability/Crashes:** Check RAM seating. Ensure CPU cooler is properly installed. Verify drivers are

up to date. Run memory diagnostic tools.

- **Component Not Detected:** Check physical connections for the component (e.g., SATA cables for hard drives). Ensure the component is enabled in BIOS.
- **BIOS Reset:** If system settings are incorrect, you can clear the CMOS by removing the CMOS battery for a few minutes or using the CLR_CMOS jumper (refer to the full manual for location).

6. Specifications

Detailed technical specifications for the GIGABYTE H310M H 2.0 motherboard.



Image: A close-up view of the rear input/output (I/O) panel of the GIGABYTE H310M H 2.0 motherboard, showing various ports for connectivity.

Feature	Specification
Brand	GIGABYTE
Model	H310M-H 2.0 REV 1.0
CPU Socket	LGA 1151
Compatible Processors	8th Generation Intel Core, Pentium
Chipset Type	Intel H310
RAM Memory Technology	DDR4
Memory Slots Available	2
RAM Memory Maximum Size	32 GB
Graphics Card Interface	PCI Express
Total USB Ports	8
Number of Ports	10
Wireless Type	802.11a (Note: May require additional adapter)
Supports Bluetooth Technology	No
Voltage	1.5 Volts
Item Weight	100 g
Product Dimensions (LxWxH)	10 x 10 x 10 cm
Date First Available	21 September 2018

7. Warranty and Support

Specific warranty terms and conditions for the GIGABYTE H310M H 2.0 motherboard are not detailed within this manual. For comprehensive warranty information, technical support, and driver downloads, please visit the official GIGABYTE website or contact your local retailer.

Always ensure you are using official GIGABYTE resources for support and downloads to maintain product integrity and security.

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