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Model: H310M PRO-M2

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your MSI H310M PRO-M2 Motherboard. The MSI H310M PRO-M2 is designed to support 8th and 9th Generation Intel Core, Pentium Gold, and Celeron processors with an LGA 1151 socket. It features DDR4 memory support, a Turbo M.2 slot for high-speed storage, and essential connectivity options for a reliable computing experience.

Key Features:

- **Intel H310 Chipset:** Provides stable and reliable performance for everyday computing.
- **DDR4 Memory Support:** Dual DDR4 slots supporting up to 32GB of memory for efficient multitasking.
- **Enhanced Storage:** Includes a Turbo M.2 slot for faster SSD performance.
- **Micro-ATX Design:** Compact form factor suitable for smaller PC cases.
- **Essential Connectivity:** Features USB 3.1 Gen1 ports, PCIe slots, HDMI, and VGA outputs.

2. SETUP AND INSTALLATION

Before beginning installation, ensure your workspace is clean and static-free. Always handle the motherboard by its edges and use an anti-static wrist strap if available.

2.1 Motherboard Layout

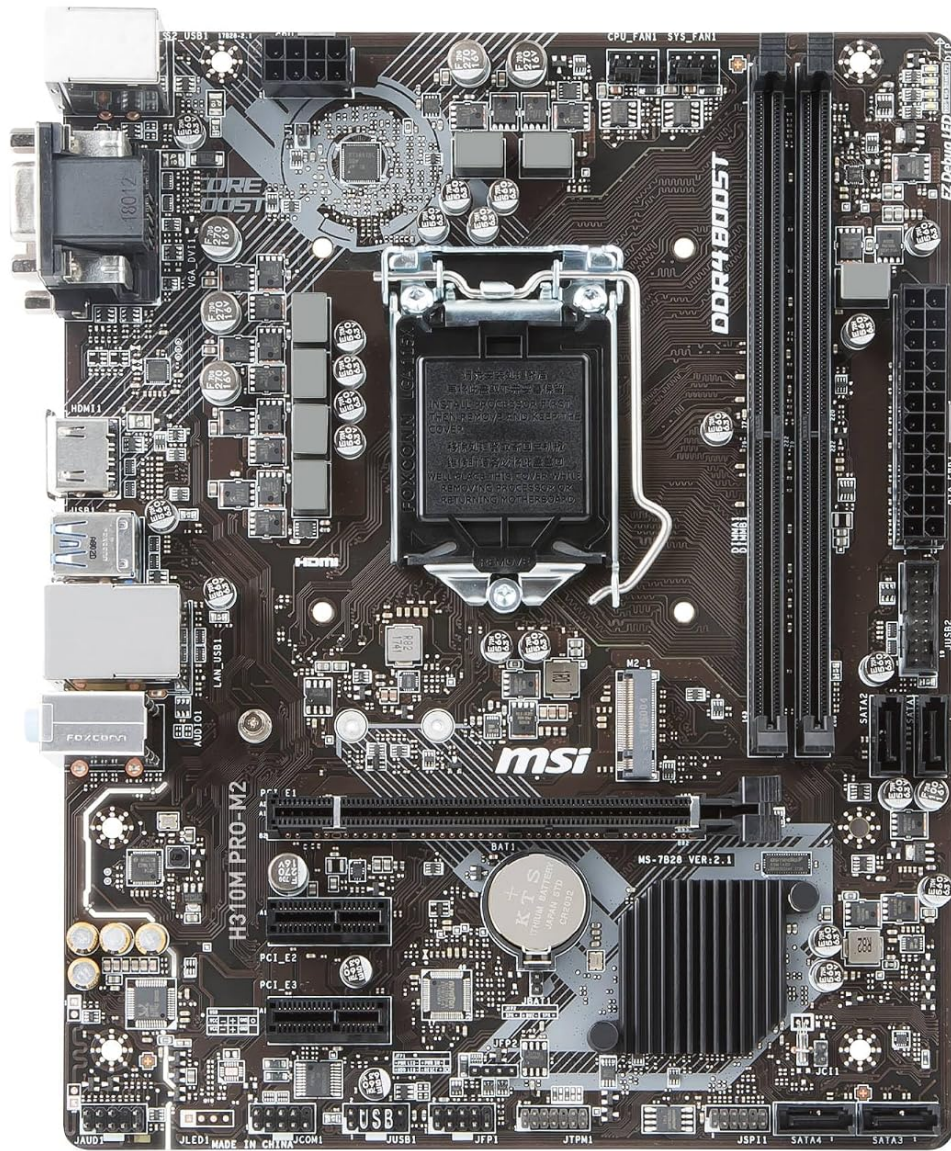


Figure 2.1: Top-down view of the MSI H310M PRO-M2 Motherboard, showing CPU socket, RAM slots, PCIe slots, and various connectors.



Figure 2.2: Rear I/O panel of the MSI H310M PRO-M2 Motherboard, displaying ports such as PS/2, USB, VGA, HDMI, LAN, and audio jacks.

2.2 CPU Installation

1. Locate the LGA 1151 CPU socket on the motherboard.
2. Open the CPU socket lever.
3. Carefully align the CPU with the socket, ensuring the gold triangle on the CPU matches the triangle on the socket. Do not force the CPU into place.
4. Close the socket lever to secure the CPU.
5. Apply thermal paste and install the CPU cooler according to its manufacturer's instructions.

2.3 Memory (RAM) Installation

1. Locate the two DDR4 DIMM slots.
2. Open the clips at both ends of the DIMM slot.
3. Align the notch on the DDR4 memory module with the key in the DIMM slot.

4. Insert the memory module firmly into the slot until the clips snap into place.

2.4 Storage Device Installation

M.2 SSD Installation:

1. Locate the M.2 slot on the motherboard.
2. Remove the M.2 screw and standoff.
3. Insert the M.2 SSD into the slot at an angle.
4. Gently push down the M.2 SSD and secure it with the screw and standoff.

SATA Drive Installation:

1. Connect one end of a SATA data cable to a SATA port on the motherboard.
2. Connect the other end of the SATA data cable to your SATA hard drive or SSD.
3. Connect a SATA power cable from your power supply unit (PSU) to the SATA drive.

2.5 Power Connections

- Connect the 24-pin ATX main power connector from your PSU to the corresponding port on the motherboard.
- Connect the 8-pin (or 4-pin) ATX 12V CPU power connector from your PSU to the CPU power port.

2.6 Front Panel and Peripheral Connections

- Connect front panel headers (power button, reset button, HDD LED, power LED) to the JFP1 header. Refer to the motherboard manual for exact pin assignments.
- Connect USB 2.0 and USB 3.1 Gen1 front panel connectors.
- Connect audio front panel connector.
- Install any expansion cards (e.g., graphics card) into the appropriate PCIe slots and secure them.

3. OPERATING INSTRUCTIONS

3.1 First Boot

1. Ensure all components are correctly installed and power cables are connected.
2. Connect your monitor, keyboard, and mouse.
3. Power on your system. The system should display the MSI logo and enter the BIOS/UEFI setup or begin booting from your installed operating system.

3.2 BIOS/UEFI Setup

- To enter the BIOS/UEFI setup, press the **Delete** key repeatedly during the initial boot sequence.
- The BIOS/UEFI interface allows you to configure system settings, boot order, and monitor hardware status.
- Save changes before exiting the BIOS/UEFI.

3.3 Driver Installation

After installing your operating system, install the necessary drivers for the motherboard chipset, LAN, audio, and any other integrated components. These drivers are typically provided on a support DVD or can be downloaded from the official MSI website.

4. MAINTENANCE

4.1 General Cleaning

- Regularly clean dust from inside your PC case using compressed air.
- Ensure fans (CPU cooler, case fans) are free from obstructions to maintain optimal airflow.
- Always power off and unplug the system before cleaning.

4.2 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 to avoid system damage.

5. TROUBLESHOOTING

5.1 No Power / No Boot

- Verify all power cables (24-pin ATX, 8-pin CPU) are securely connected to the motherboard and PSU.
- Ensure the PSU is switched on and connected to a working power outlet.
- Check front panel power switch connection to the motherboard.
- Try booting with minimal components (CPU, one RAM stick, PSU) to isolate the issue.

5.2 No Display Output

- Ensure the monitor is connected to the correct video output (motherboard integrated graphics or discrete graphics card).
- Check that the graphics card (if installed) is properly seated in its PCIe slot and has adequate power.
- Reseat RAM modules. Faulty or improperly seated RAM can prevent display output.
- If using integrated graphics, ensure your CPU supports integrated graphics.

5.3 System Instability / Crashes

- Check CPU and GPU temperatures. Overheating can cause instability.
- Run memory diagnostic tools to check for RAM errors.
- Ensure all drivers are up to date.
- Verify PSU wattage is sufficient for all components.

6. SPECIFICATIONS

Feature	Detail
Brand	MSI
Model Name	H310M PRO-M2
CPU Socket	LGA 1151
Compatible Processors	8th/9th Gen Intel Core, Pentium Gold, Celeron
Chipset Type	Intel H310
RAM Memory Technology	DDR4
Memory Slots Available	2

Feature	Detail
Max RAM Memory Size	32 GB
Memory Clock Speed	2666 MHz
Graphics Card Interface	PCI Express
Total PCIe Ports	1 x PCIe 3.0 x16
Storage Interfaces	1 x M.2 slot, SATA 3 (multiple ports)
USB Ports	Total 5 (4 x USB 2.0, 1 x USB 3.1 Gen1)
LAN	Intel I219-V Gigabit LAN
Video Outputs	HDMI, VGA
Form Factor	Micro-ATX
Dimensions (L x W x H)	23L x 18.5W x 5H Centimeters
Item Weight	700 Grams

7. WARRANTY AND SUPPORT

7.1 Warranty Information

The MSI H310M PRO-M2 Motherboard comes with a **3-year manufacturer warranty**. Please retain your proof of purchase for warranty claims.

7.2 Technical Support

For technical assistance, driver downloads, or further product information, please visit the official MSI website: www.msi.com.
Manufacturer Contact Information: MSI, Micro-Star INT'L CO., LTD. No.69, Lide St., Zhonghe Dist., New Taipei City 235, Taiwan.
Importer Contact Information (India): Acro Engineering Company, C-87 DDA Sheds, Okhla Industrial Area, Phase-1, New Delhi 110020.

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Question

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