

ASRock H110M-HDV 3.0

# ASRock H110M-HDV 3.0 Motherboard User Manual

Model: H110M-HDV 3.0 | Brand: ASRock

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## 1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your ASRock H110M-HDV 3.0 motherboard. The ASRock H110M-HDV R3.0 is an Intel 1151 Micro ATX motherboard designed for DDR4-SDRAM. It supports Intel Celeron and Intel Pentium processors and features an Intel H110 chipset.

## 2. SAFETY INFORMATION

Always observe the following safety precautions when handling computer components:

- Disconnect the power cord from the wall outlet before installing or removing any components.
- Wear an anti-static wrist strap to prevent electrostatic discharge (ESD) damage to components.
- Handle components by their edges, avoiding contact with pins or circuitry.
- Ensure proper ventilation within your computer case to prevent overheating.
- Refer to the specific component manuals for additional safety guidelines.

## 3. PACKAGE CONTENTS

Verify that your package contains the following items:

- ASRock H110M-HDV 3.0 Motherboard
- I/O Shield
- SATA Data Cables
- Support CD/DVD (for drivers and utilities)
- Quick Installation Guide



Figure 1: ASRock H110M-HDV 3.0 Motherboard and its retail packaging.

#### 4. MOTHERBOARD LAYOUT AND COMPONENTS

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









Figure 3: Close-up view of the rear I/O panel, showing PS/2, D-Sub, DVI-D, HDMI, USB 2.0, USB 3.1 Gen1, LAN, and audio ports.

- **PS/2 Keyboard/Mouse Port:** For connecting legacy keyboard or mouse.
- **D-Sub (VGA) Port:** For connecting a monitor with a VGA cable.
- **DVI-D Port:** For connecting a digital display.
- **HDMI Port:** For connecting a high-definition display.
- **USB 2.0 Ports:** For connecting USB 2.0 devices.
- **USB 3.1 Gen1 Ports:** For connecting USB 3.1 Gen1 (formerly USB 3.0) devices.
- **RJ-45 LAN Port:** For network connection.
- **Audio Jacks:** For connecting speakers, headphones, and microphones.

## 5. SYSTEM SETUP AND INSTALLATION

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### 5.1. CPU Installation

1. Open the CPU socket lever.
2. Carefully align the CPU (LGA 1151) with the socket, ensuring the notches match.
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 the CPU cooler according to its instructions.

### 5.2. Memory (RAM) Installation

The motherboard supports DDR4-SDRAM. Install memory modules into the DIMM slots.

1. Open the clips at both ends of the DIMM slot.
2. Align the notch on the DDR4 memory module with the notch in the DIMM slot.
3. Press down firmly on both ends of the memory module until the clips snap into place.

### 5.3. Storage Device Installation

Connect SATA storage devices (HDDs/SSDs) to the SATA 6Gb/s ports on the motherboard using SATA data cables.

### 5.4. Expansion Card Installation (PCIe)

Install graphics cards or other expansion cards into the PCI Express 3.0 x16 or x1 slots.

1. Align the card with the chosen PCIe slot.
2. Press down firmly until the card is fully seated in the slot.
3. Secure the card with a screw to the chassis.

### 5.5. Power Connections

Connect the 24-pin ATX power connector and the 8-pin (or 4-pin) CPU power connector from your power supply to the

corresponding ports on the motherboard.

### 5.6. Front Panel Connections

Connect the front panel headers (power button, reset button, HDD LED, power LED, front USB, front audio) to the corresponding pins on the motherboard. Refer to the motherboard diagram for pin assignments.

## 6. OPERATING INSTRUCTIONS

### 6.1. Initial Boot-Up

After assembling all components and connecting peripherals, power on your system. The system should display the ASRock logo and enter the BIOS/UEFI setup or proceed to boot from an installed operating system.

### 6.2. BIOS/UEFI Setup

To enter the BIOS/UEFI setup utility, press the **Del** or **F2** key during the initial boot-up sequence. Here you can configure system settings, boot order, and monitor hardware status.

### 6.3. Driver Installation

After installing your operating system, install the necessary drivers from the provided support CD/DVD or download the latest versions from the ASRock website. Essential drivers include chipset, audio, LAN, and graphics drivers (if using integrated graphics).

## 7. MAINTENANCE

### 7.1. Cleaning

Regularly clean your computer's interior to prevent dust buildup, which can lead to overheating. Use compressed air to remove dust from fans, heatsinks, and other components. Ensure the system is powered off and unplugged before cleaning.

### 7.2. BIOS/UEFI Updates

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

## 8. TROUBLESHOOTING

- **No Power:** Ensure all power cables (24-pin ATX, 8-pin CPU) are securely connected. Check power supply functionality.
- **No Display:** Verify monitor connection and input source. Reseat the graphics card (if applicable) and RAM modules. Try using integrated graphics if a dedicated GPU is installed.
- **System Instability/Crashes:** Check RAM seating. Ensure CPU cooler is properly installed and making good contact. Update drivers and BIOS.
- **Operating System Not Booting:** Check boot order in BIOS/UEFI. Verify storage device connections. Reinstall operating system if necessary.
- **Peripheral Not Detected:** Ensure the device is properly connected. Install necessary drivers. Try a different port.

## 9. SPECIFICATIONS

| Feature | Detail |
|---------|--------|
| Brand   | ASRock |

|                         |                                |
|-------------------------|--------------------------------|
| Model Name              | H110M-HDV R3.0                 |
| Item Model Number       | 90-MXB4W0-AOUAYZ               |
| CPU Socket              | LGA 1151                       |
| Chipset Type            | Intel H110                     |
| Compatible Processors   | Intel Celeron, Intel Pentium   |
| RAM Memory Technology   | DDR4                           |
| RAM Memory Maximum Size | 32 GB                          |
| Number of USB 2.0 Ports | 4 (rear)                       |
| USB 3.1 Gen1 Ports      | 2 (rear)                       |
| Video Output Ports      | 1 x D-Sub, 1 x DVI-D, 1 x HDMI |
| LAN                     | 1 x RJ-45 LAN Port             |
| Form Factor             | Micro ATX                      |
| Product Dimensions      | 10.83 x 8.35 x 2.28 inches     |
| Item Weight             | 14.3 ounces                    |
| Platform                | Windows                        |

## 10. WARRANTY AND SUPPORT

### 10.1. Warranty Information

The ASRock H110M-HDV 3.0 motherboard is backed by a 3-year manufacturer's warranty. Please retain your proof of purchase for warranty claims. For detailed warranty terms and conditions, refer to the documentation included with your product or visit the official ASRock website.

### 10.2. Technical Support






For technical assistance, driver downloads, or further information, please visit the official ASRock support website:

[ASRock Support Website](#)

You may also contact ASRock customer service directly through their website for specific inquiries.



### Related Documents - H110M-HDV 3.0

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|---|--|
|     | <p><a href="#">ASRock H510M-HDV/M.2 SE Motherboard User Manual</a></p> <p>Comprehensive user manual for the ASRock H510M-HDV/M.2 SE motherboard, detailing specifications, installation procedures, component layout, I/O panel functions, and connectivity options for Intel 10th and 11th Gen processors.</p>                              |
|    | <p><a href="#">B560M Pro4/ac</a></p> <p>B560M Pro4/ac                      CPU                      I/O      BIOS</p>  |
|   | <p><a href="#">ASRock B450M-HDV User Manual: Installation, Specifications, and UEFI Guide</a></p> <p>This user manual provides comprehensive guidance for the ASRock B450M-HDV motherboard, covering installation, detailed specifications, software utilities, and UEFI setup for optimal system configuration.</p>                         |
|  | <p><a href="#">ASRock B365 PRO4 Motherboard User Manual: Installation, Specs &amp; UEFI Guide</a></p> <p>Comprehensive user manual for the ASRock B365 PRO4 motherboard. Get detailed installation instructions, hardware specifications, software utility guides, and UEFI BIOS configuration tips for building and optimizing your PC.</p> |
|  | <p><a href="#">ASRock B560M-HDV-A Motherboard: Installation Guide and Specifications</a></p> <p>Comprehensive guide for the ASRock B560M-HDV-A motherboard, detailing installation, specifications, component layout, and features for Intel 10th and 11th Gen Core processors.</p>  |



### [ASRock H310CM-HDV / H310CM-DVS User Manual](#)

Comprehensive user manual for ASRock H310CM-HDV and H310CM-DVS motherboards, covering installation, specifications, software utilities, and UEFI setup.