

## ASRock Z370 EXTREME4

# ASRock Z370 EXTREME4 Motherboard User Manual

Model: Z370 EXTREME4

## 1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, maintenance, and troubleshooting of the ASRock Z370 EXTREME4 motherboard. Designed to support 8th Generation Intel Core processors, this motherboard offers robust performance and a range of features for building a high-performance personal computer system.

## 2. PRODUCT OVERVIEW

The ASRock Z370 EXTREME4 is a high-performance motherboard built on the Intel Z370 chipset, offering advanced connectivity and features. Key highlights include:

- Support for 8th Generation Intel Core processors (LGA 1151 socket).
- 4 x DDR4 DIMM slots for high-speed memory.
- ASRock USB 3.1 Gen2 Type-A and Type-C ports (10 GB/s) for fast data transfer.
- ASRock Ultra M.2 (PCIe Gen3 X4 & SATA3) for high-speed storage solutions.
- ASRock Steel Slots for enhanced PCIe slot durability.
- Integrated graphics support with HDMI (up to 4K x 2K @ 30Hz), DVI-D (up to 1920x1200 @ 60Hz), and D-Sub (up to 1920x1200 @ 60Hz) outputs.
- ASRock Full Spike Protection for all USB, audio, and LAN ports.
- Purity Sound audio solution for high-quality audio output.



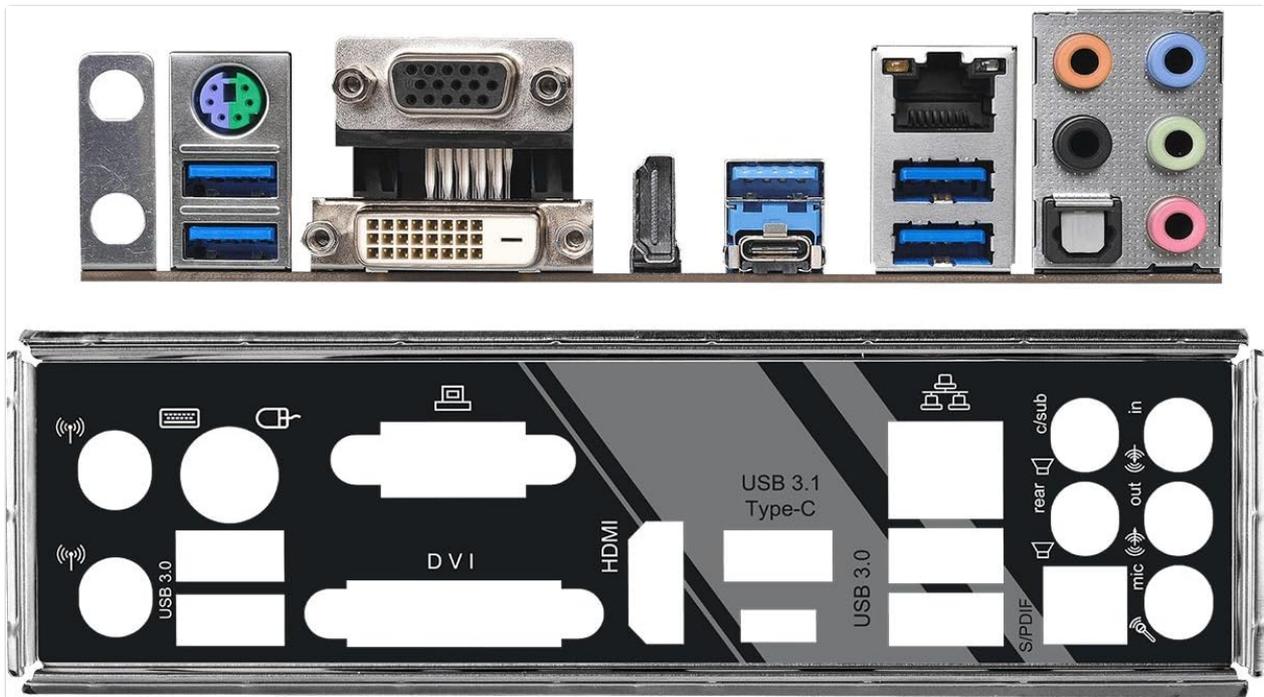
This image displays the ASRock Z370 EXTREME4 motherboard from a top-down perspective, highlighting the LGA 1151 CPU socket, four DDR4 DIMM slots, PCIe slots, and various headers. The Z370 chipset heatsink is also visible.



An angled view of the ASRock Z370 EXTREME4 motherboard, emphasizing the design of the VRM heatsinks, chipset heatsink with integrated lighting, and the overall layout of components.



This image provides a side view of the ASRock Z370 EXTREME4 motherboard, focusing on the rear I/O panel connectors, multiple PCIe expansion slots, and the Purity Sound audio solution area.



A close-up view of the ASRock Z370 EXTREME4 motherboard's rear I/O panel, showing the various ports including USB 3.0, USB 3.1 Type-A and Type-C, HDMI, DVI-D, D-Sub, LAN, and audio jacks.

### 3. SETUP

This section guides you through the initial setup and installation of your ASRock Z370 EXTREME4 motherboard.

#### 3.1. Unpacking

Carefully remove the motherboard from its packaging. The box should contain the motherboard and essential accessories. The primary component included is the motherboard itself.

#### 3.2. CPU Installation

1. Open the CPU socket lever on the LGA 1151 socket.
2. Align the notches on your 8th Generation Intel Core 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. Install the CPU cooler according to its manufacturer's instructions.

#### 3.3. RAM Installation

1. Open the clips on both ends of the DDR4 DIMM slots.
2. Align the notch on the DDR4 memory module with the key in the DIMM slot.
3. Insert the memory module firmly until the clips snap into place. For dual-channel operation, refer to the motherboard manual for recommended slot pairings (e.g., A2 and B2).

#### 3.4. Storage Device Installation

- **SATA Drives:** Connect SATA data cables from your storage devices (HDDs/SSDs) to the SATA ports on the motherboard. Connect power cables from your power supply to the drives.
- **M.2 Drives:** Insert M.2 SSDs into the Ultra M.2 slots and secure them with the provided screw. Note that M.2 slot usage may share bandwidth with certain SATA ports; consult the full manual for specific configurations.

### 3.5. Power Connections

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

### 3.6. Front Panel & Peripheral Connections

- Connect front panel headers (power button, reset button, HDD LED, power LED) to the corresponding pins on the motherboard.
- Connect USB and audio headers from your case to the motherboard.
- Install your graphics card(s) into the PCIe x16 slots and secure them.

## 4. OPERATING INSTRUCTIONS

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Once the hardware is assembled, follow these steps for initial system operation.

### 4.1. Initial Boot-Up

1. Ensure all power cables are securely connected and the power supply is switched on.
2. Press the power button on your computer case.
3. The system should power on, and you should see the ASRock splash screen.

### 4.2. BIOS/UEFI Setup

- During boot-up, press **DEL** or **F2** to enter the UEFI Setup Utility.
- Configure boot order, enable XMP profiles for RAM, and adjust other system settings as needed.
- Save changes and exit the UEFI.

### 4.3. Operating System Installation

Insert your operating system installation media (USB drive or DVD) and follow the on-screen prompts to install your preferred operating system.

### 4.4. Driver Installation

After OS installation, install the necessary drivers for your motherboard components. These can typically be found on the ASRock support website or the included driver CD/USB drive. Utilize the ASRock Live Update & App Shop for convenient driver and utility management.

### 4.5. Utilizing Connectivity

- **USB 3.1 Gen2 Ports:** Connect compatible devices to the Type-A and Type-C ports on the rear I/O panel for high-speed data transfer up to 10 Gb/s.
- **Display Outputs:** Connect your monitor(s) to the HDMI, DVI-D, or D-Sub ports for video output, supporting resolutions up to 4K x 2K (HDMI) or 1920x1200 (DVI-D/D-Sub).
- **Audio:** Connect speakers or headphones to the audio jacks on the rear I/O panel. The Purity Sound feature enhances audio quality.

## 5. MAINTENANCE

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Proper maintenance ensures the longevity and stable operation of your motherboard.

- **Dust Removal:** Regularly clean dust from inside your computer case, especially from heatsinks and fans, using compressed air. Ensure the system is powered off and unplugged before cleaning.

- **BIOS/UEFI Updates:** Periodically check the ASRock website for updated BIOS/UEFI versions. Updates can improve stability, compatibility, and performance. Follow ASRock's instructions carefully when performing updates.
- **Connection Checks:** Occasionally verify that all cables (power, data, peripheral) are securely connected to the motherboard and components.

## 6. TROUBLESHOOTING

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This section addresses common issues you might encounter with your ASRock Z370 EXTREME4 motherboard.

### 6.1. No Power / No Boot

- Verify all power supply connections to the motherboard (24-pin ATX and 8-pin CPU) are firm.
- Ensure the power supply switch is in the 'ON' position.
- Check front panel power button connection to the motherboard.
- Test with a different power supply if possible.

### 6.2. No Display Output

- Ensure your monitor is connected to the correct display output (either integrated graphics on the motherboard or your dedicated graphics card).
- Verify the graphics card is properly seated in its PCIe slot and has adequate power connections.
- Try a different display cable or monitor.

### 6.3. Storage Device Not Detected

- Check SATA data and power cable connections.
- Confirm M.2 SSDs are correctly installed and secured.
- Be aware that using certain M.2 slots may disable specific SATA ports due to shared bandwidth. Refer to the motherboard's detailed manual for port configurations.
- Ensure the drive is properly formatted and initialized in the operating system's Disk Management.

### 6.4. USB Port Malfunction

- Ensure all necessary drivers are installed.
- Test the USB device in a different port or on another computer to rule out device issues.
- Check BIOS/UEFI settings for USB controller enablement.

### 6.5. CMOS Reset

If system instability or incorrect BIOS settings occur, a CMOS reset may be necessary. Locate the CMOS clear jumper on the motherboard (refer to the full manual for exact location). Power off the system, unplug the power cord, move the jumper to the 'clear' position for a few seconds, then return it to the 'normal' position. Note that the CMOS battery location may be obstructed by large graphics cards, making physical access challenging.

## 7. SPECIFICATIONS

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Feature	Detail
Brand	ASRock

Feature	Detail
Model Name	EXTREME4 (Z370 EXTREME4)
CPU Socket	LGA 1151
Compatible Processors	8th Generation Intel Core Processors
Chipset Type	Intel Z370
RAM Memory Technology	DDR4
Number of DIMM Slots	4
Memory Speed	2400 MHz (Supports higher via OC)
USB 3.1 Gen2 Ports	1x Type-A, 1x Type-C (10 GB/s)
USB 2.0 Ports	3 (internal headers)
Display Outputs	HDMI, DVI-D, D-Sub
M.2 Slots	Ultra M.2 (PCIe Gen3 X4 & SATA3)
Item Weight	3.3 pounds
Product Dimensions	12.2 x 13.7 x 3.6 inches
Platform	Windows

## 8. WARRANTY INFORMATION

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For detailed warranty terms and conditions, please refer to the warranty card included with your product or visit the official ASRock website. Warranty coverage typically includes manufacturing defects for a specified period from the date of purchase.

## 9. SUPPORT

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Should you require further assistance or encounter issues not covered in this manual, please contact ASRock customer support through their official website. The ASRock Live Update & App Shop can also provide access to the latest drivers and utilities.

**ASRock Official Website:** [www.asrock.com](http://www.asrock.com)