ASUS P8Z68 DELUXE/GEN3

ASUS P8Z68 DELUXE/GEN3 Motherboard User Manual

Model: P8Z68 DELUXE/GEN3 | Brand: ASUS

INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your ASUS P8Z68 DELUXE/GEN3 motherboard. The P8Z68 DELUXE/GEN3 is designed to support 2nd Generation Intel Core i7/Core i5/Core i3 Processors, featuring the Intel Z68 chipset. It is engineered for future compatibility with PCIe 3.0 and 22nm next-generation Intel processors, incorporating ASUS's UEFI BIOS for simplified system configuration.

This image displays the ASUS P8Z68 DELUXE/GEN3 motherboard from a top-down perspective. Key components visible include the LGA 1155 CPU socket at the center, four DDR3 DIMM slots to the right, and various blue and black heatsinks

covering the chipset and VRM areas. Multiple PCIe slots and SATA ports are also clearly visible.

SETUP

1. Unpacking and Inspection

Carefully remove the motherboard from its packaging. Inspect for any signs of damage during transit. Ensure all accessories are present, which typically include:

- ASUS P8Z68 DELUXE/GEN3 Motherboard
- User Manual and Support DVD
- I/O Shield
- SATA 6Gb/s and 3Gb/s Cables
- SLI Bridge Connector
- Q-Connectors (optional, for easy front panel connection)

2. Component Installation

Before installing components, ensure your system is powered off and unplugged. Wear an anti-static wrist strap to prevent electrostatic discharge (ESD) damage.

2.1. CPU Installation (LGA 1155)

1. Open the CPU socket lever and lift the load plate.
2. Carefully align the CPU with the socket, matching the golden triangle on the CPU to the triangle on the socket. Ensure the notches on the CPU align with the socket keys.
3. Gently place the CPU into the socket without forcing it.
4. Lower the load plate and secure it with the lever.
5. Install the CPU cooler according to its manufacturer's instructions.

2.2. Memory (RAM) Installation

The motherboard supports DDR3 memory modules. For optimal performance, install memory in dual-channel configuration.

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

2.3. Expansion Card Installation (PCIe)

Install graphics cards or other expansion cards into the appropriate PCIe slots.

1. Remove the metal bracket cover from the desired expansion slot on your chassis.
2. Align the card with the PCIe slot and press down firmly until it is seated correctly.
3. Secure the card with a screw or retention clip.

An angled view of the ASUS P8Z68 DELUXE/GEN3 motherboard, showcasing the rear input/output (I/O) panel on the left, which includes various USB, audio, and network ports. The multiple PCIe expansion slots are prominent, along with the SATA ports and front panel headers.

2.4. Storage Device Connection (SATA)

Connect your SATA hard drives or SSDs to the SATA ports on the motherboard. The P8Z68 DELUXE/GEN3 features both SATA 6Gb/s (blue) and SATA 3Gb/s (gray) ports.

1. Connect one end of the SATA data cable to the storage device and the other end to an available SATA port on the motherboard.
2. Connect the SATA power cable from your power supply to the storage device.

2.5. Power Supply Connection

Connect the 24-pin ATX main power connector and the 8-pin ATX 12V power connector from your power supply to the corresponding sockets on the motherboard.

3. Connecting Peripherals

Connect your keyboard, mouse, monitor, and other peripherals to the rear I/O panel ports. Ensure all connections are secure.

4. First Boot and OS Installation

After all components are installed and connected, power on your system. Access the UEFI BIOS (typically by pressing **DEL** or **F2** during startup) to configure boot options and install your operating system.

OPERATING INSTRUCTIONS

1. UEFI BIOS Overview

The ASUS UEFI BIOS provides a user-friendly graphical interface for system configuration. It offers two main modes:

- **EZ Mode:** Provides a simplified interface for basic system information, boot priority, and fan control.
- **Advanced Mode:** Offers comprehensive control over CPU, memory, power, and peripheral settings.

Utilize features like **EZ Tuning** for automatic system optimization and **Fan Xpert** for precise fan control.

2. Driver Installation

After installing your operating system, install the necessary drivers from the included support DVD or download the latest versions from the official ASUS website. This includes chipset drivers, graphics drivers, audio drivers, and network drivers.

3. ASUS Software Utilities

ASUS provides several utilities to enhance your system's performance and functionality:

- **TPU (TurboV Processing Unit):** Offers precise voltage control and advanced monitoring for overclocking.
- **EPU (Energy Processing Unit):** Provides system-wide energy optimization by intelligently moderating power consumption.
- **BT GO! (Bluetooth Turbo Remote):** Enhances Bluetooth functionality for various applications.
- **LucidLogix Virtu:** Enables dynamic switching between integrated graphics and discrete NVIDIA/AMD graphics cards.
- **Intel Smart Response Technology:** Allows using an SSD as a cache for a traditional hard drive to improve performance.

This image provides another top-down perspective of the ASUS P8Z68 DELUXE/GEN3 motherboard, offering a clear view of the overall component layout. The Intel Z68 chipset heatsink, the CPU power delivery components, and the various headers for front panel connections are distinctly visible.

MAINTENANCE

1. Cleaning

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

2. BIOS Updates

Periodically check the ASUS support website for BIOS updates. BIOS updates can improve system stability, add support for new hardware, and fix bugs. Follow the instructions provided by ASUS carefully when performing a BIOS update to avoid system damage.

TROUBLESHOOTING

If you encounter issues with your motherboard, consider the following common troubleshooting steps:

- **No Power/No POST:** Double-check all power connections (24-pin ATX, 8-pin CPU, GPU). Ensure the CPU and RAM are correctly seated. Try booting with minimal components (CPU, one RAM stick, graphics card).
- **System Instability/Crashes:** Verify RAM compatibility and seating. Check CPU and GPU temperatures. Ensure all drivers are up to date. Reset BIOS settings to default.
- **Peripheral Not Detected:** Ensure the device is properly connected. Check BIOS settings to confirm the port is enabled. Install necessary drivers for the peripheral.
- **BIOS Issues:** If you cannot access or configure the BIOS, try clearing the CMOS (refer to your motherboard's physical manual for jumper location).

For more detailed troubleshooting or persistent issues, refer to the comprehensive troubleshooting section in the full user manual or contact ASUS support.

SPECIFICATIONS

Feature	Detail
Brand	ASUS
Model Name	P8Z68 Deluxe/Gen3
CPU Socket	Intel LGA 1155
Compatible Processors	Intel Core i7-2xxx, Intel Core i5-2xxx, Intel Core i3-2xxx
Chipset Type	Intel Z68
RAM Memory Technology	DDR3 1600; DDR3 1333; DDR3 1066
Memory Speed	1333 MHz
PCIe Slots	2 x PCIe 3.0/2.0 x16 (1x16 or dual x8)
USB Ports	4 x USB 3.0 (2 rear, 1 mid-board), 8 x USB 2.0
LAN	Dual Gb LAN (Intel & Realtek Chipsets)
Wireless Type	Bluetooth v2.1 + EDR
Form Factor	ATX
UEFI BIOS	Yes

WARRANTY INFORMATION

ASUS products are manufactured to the highest quality standards. This product is covered by a limited warranty. For specific warranty terms, conditions, and duration applicable to your region, please refer to the warranty card included with your product or visit the official ASUS support website. Keep your proof of purchase for warranty claims.

SUPPORT

For technical support, driver downloads, BIOS updates, and further assistance, please visit the official ASUS support website:

ASUS Support Website

You may also consult the comprehensive user manual provided on the support DVD for detailed diagrams and advanced configurations.