MSI MPG Z390 Gaming Edge AC

MSI MPG Z390 Gaming Edge AC Motherboard Instruction Manual

Model: MPG Z390 Gaming Edge AC

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your MSI MPG Z390 Gaming Edge AC Motherboard. Designed for high-performance gaming and demanding applications, this motherboard supports 8th and 9th Generation Intel Core, Pentium Gold, and Celeron processors for the LGA 1151 socket. It features dual-channel DDR4 memory support up to 4400(OC) MHz, dual Turbo M.2 slots, Intel Optane Memory Ready technology, and USB 3.1 Gen2 connectivity. The integrated Mystic Light offers extensive RGB customization, while an extended heatsink design ensures stable performance.

Image 1: MSI MPG Z390 Gaming Edge AC Motherboard and packaging.

2. PACKAGE CONTENTS

Verify that all items are present in the package:

- MSI MPG Z390 Gaming Edge AC Motherboard
- Cables and Connectors
- Quick Setup Guide
- Driver CD (Note: Latest drivers are recommended from MSI's official website)

3. SETUP GUIDE

3.1. Before You Begin

Before installing any components, ensure your workspace is clean and static-free. Use an anti-static wrist strap or touch a grounded metal object to discharge static electricity, which can damage sensitive electronic components.

3.2. Component Installation

1. **CPU Installation:** Carefully open the LGA 1151 socket lever. Align the notches on your Intel 8th or 9th Gen processor with the socket, then gently place the CPU into the socket. Close the lever to secure the CPU.

2. **RAM Installation:** Insert DDR4 memory modules into the DIMM slots. Ensure the modules are aligned correctly and press down firmly on both ends until the clips snap into place. This motherboard supports dual-channel DDR4 memory up to 4400(OC) MHz.

3. **M.2 SSD Installation:** Locate the two Turbo M.2 slots. Insert your M.2 SSD at an angle, then gently push it down and secure it with the provided screw. This motherboard is Intel Optane Memory Ready.

4. **Graphics Card Installation:** Insert your graphics card into the primary PCIe x16 slot. Ensure it is seated firmly and secure it with the case screw. This motherboard supports multi-GPU configurations (SLI/CFX).

5. **Power Supply Connection:** Connect the 24-pin ATX power connector and the 8-pin CPU power connector from your power supply to the motherboard. Connect power to other components like the graphics card and storage drives.

Video 1: Product Overview Video. This video provides a general overview of the product, which may include visual guidance on component placement.

4. OPERATING INSTRUCTIONS

4.1. Initial Boot-up and BIOS/UEFI Setup

Upon first boot, press the 'Del' key during startup to enter the BIOS/UEFI interface. Here, you can configure system settings, boot order, and enable features like Memory Boost (XMP profiles) for optimized RAM performance. The BIOS is designed to be user-friendly for easy navigation.

4.2. Software and Drivers

Install the necessary drivers for your motherboard components from the provided CD or, preferably, download the latest versions from the official MSI website. MSI offers utilities like Mystic Light for RGB control and Dragon Center for system monitoring and optimization. Note that some users have reported potential conflicts with anti-cheat software when using certain MSI utilities; if you encounter issues, consider updating the software or temporarily disabling it.

5. FEATURES OVERVIEW

5.1. Connectivity

- **USB:** Features Turbo USB 3.1 Gen2 ports for high-speed data transfer and multiple USB 2.0 ports.
- **Networking:** Integrated Wi-Fi (802.11a/b/g/n/ac) for wireless connectivity.
- **Display Outputs:** HDMI and DisplayPort (DP) for video output.

5.2. Cooling and Performance

The motherboard is equipped with an extended heatsink design to ensure efficient heat dissipation, crucial for maintaining stable performance during intensive tasks. Its ATX form factor is ready for multi-GPU setups, providing flexibility for high-performance builds.

5.3. Customization

Mystic Light: Personalize your system with MSI Mystic Light, offering 16.8 million colors and 29 effects. Connect RGB or RAINBOW LED strips to addressable headers to create a synchronized RGB gaming PC. Control Mystic Light SYNC enabled products for a unified aesthetic.

6. MAINTENANCE

6.1. Cleaning

Regularly clean your PC to prevent dust buildup, which can lead to overheating and reduced performance. Use compressed air to clear dust from fans, heatsinks, and other components. Ensure the system is powered off and unplugged before cleaning.

6.2. Software Updates

Keep your motherboard's BIOS and drivers updated to ensure optimal performance, stability, and compatibility with new hardware and software. Visit the MSI support website for the latest updates.

7. TROUBLESHOOTING

7.1. Common Issues

- **No Display:** Ensure all power cables are securely connected, especially the 24-pin ATX and 8-pin CPU power. Verify that the graphics card is properly seated and connected to the monitor.
- **System Instability/Crashes:** Check RAM modules for proper seating. If overclocking, revert to default settings. Ensure adequate cooling.
- **Mystic Light/Software Conflicts:** If experiencing issues with games or other applications, try updating MSI's Dragon Center and Mystic Light software. In some cases, temporary uninstallation or disabling of these utilities might resolve conflicts with anti-cheat software.
- **Audio Driver Issues:** If onboard audio is not detected or functioning incorrectly, ensure you have the latest audio drivers installed from the MSI website. Some users have reported issues with specific Windows versions or audio software integrations (e.g., Nahimic); check MSI's support for known solutions.

8. SPECIFICATIONS

Feature	Specification
Brand	MSI
Model Name	MPG Z390 GAMING EDGE AC
CPU Socket	LGA 1151
Compatible Processors	8th Generation Intel Core, 9th Celeron, Pentium Gold
Chipset Type	Intel Z390
RAM Memory Technology	DDR4
Memory Clock Speed	4400 MHz (OC)
Number of DIMM Slots	4
M.2 Slots	2x Turbo M.2, Intel Optane Memory Ready
USB Ports	Turbo USB 3.1 Gen2, USB 2.0 (Front: 4)
Wireless Type	802.11a/b/g/n/ac
Product Dimensions	9.6 x 12 x 9.5 inches
Item Weight	3.3 pounds
Platform	Windows 10 (64-bit)

9. WARRANTY AND SUPPORT

This MSI motherboard comes with a manufacturer's warranty. For specific warranty terms, duration, and registration details, please refer to the warranty card included in your product packaging or visit the official MSI website. For technical support, driver downloads, and further assistance, please visit the MSI support portal at www.msi.com/support.