ASUS ROG STRIX B460-H GAMING

ASUS ROG Strix B460-H Gaming Motherboard User Manual

Model: ROG STRIX B460-H GAMING

1. Introduction

This manual provides detailed instructions for the installation, operation, and maintenance of your ASUS ROG Strix B460-H Gaming Motherboard. Designed for 10th Generation Intel Core processors, this ATX gaming motherboard offers robust power delivery, optimized cooling, and extensive connectivity options for an enhanced computing experience.



Image 1.1: ASUS ROG Strix B460-H Gaming Motherboard and its retail packaging.

2. Key Features

- **Intel LGA 1200 Socket:** Supports 10th Gen Intel Core processors.
- **Optimized Thermal Design:** Features VRM heatsink, PCH fanless heatsink, M.2 heatsink, hybrid fan headers, and Fan Xpert 4 utility for efficient cooling.
- **Gaming Audio:** High-fidelity audio with SupremeFX S1220A codec, DTS Sound Unbound, and Sonic Studio III.
- **Personalization:** ASUS-exclusive Aura Sync RGB lighting with RGB headers and Gen 2 addressable headers.
- **High-performance Networking:** On-board Intel 1Gb LAN with ASUS LANGuard.
- **Fast Connectivity:** Supports HDMI 1.4 and DisplayPort 1.4 output, dual M.2 slots, and Thunderbolt 3 header.
- **Robust Power Solution:** 6+1+1 Dr. MOS power stages with ProCool power connector, high-quality alloy chokes, and durable capacitors.

3. Setup and Installation

3.1. Component Overview

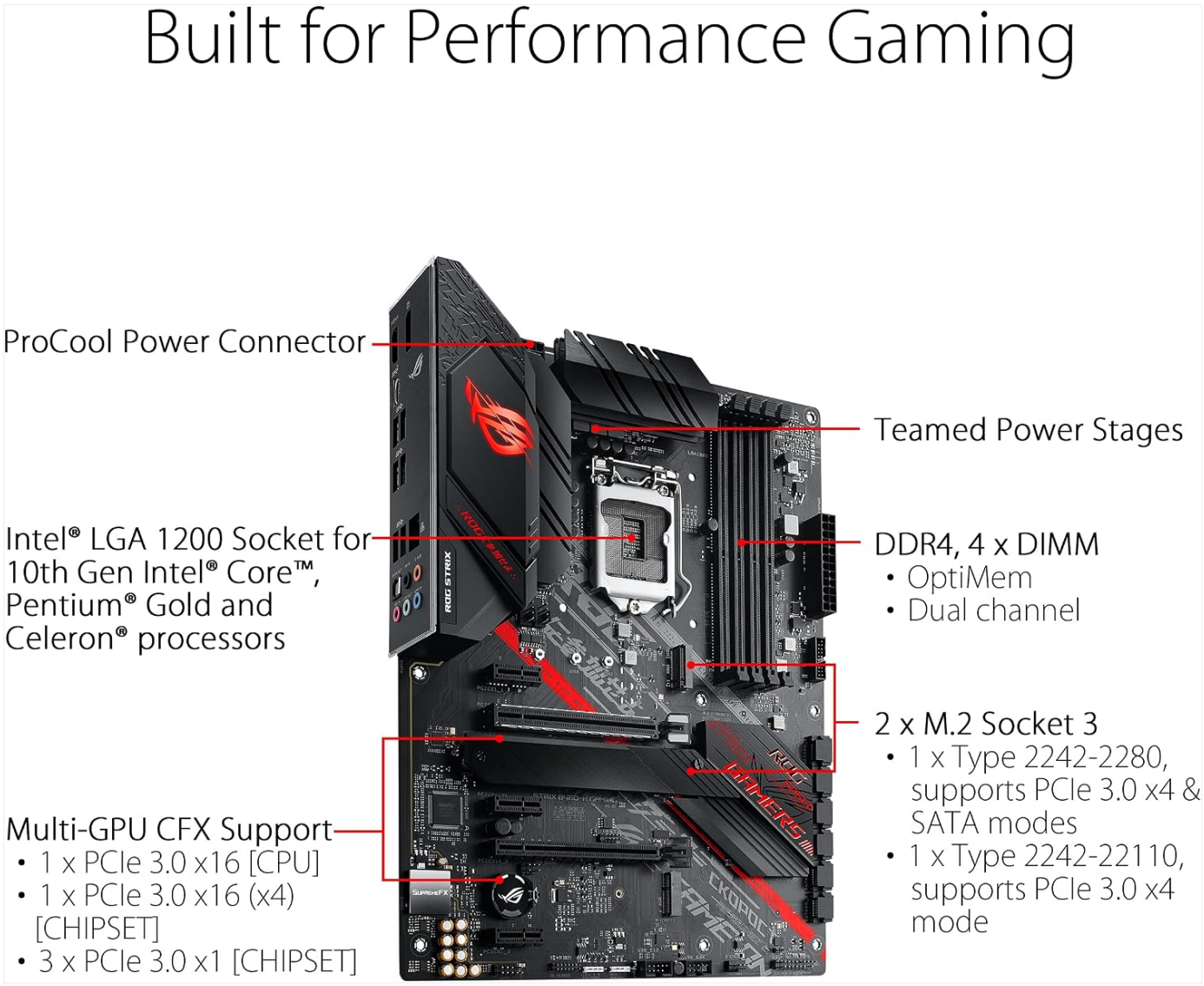


Image 3.1: Key components for performance gaming, including the Intel LGA 1200 socket, DDR4 DIMM slots, and M.2 Socket 3 slots.

The motherboard is designed to support Intel 10th Gen Core, Pentium Gold, and Celeron processors. It features a ProCool Power Connector and Teaming Power Stages for stable power delivery. Four DDR4 DIMM slots support dual-channel memory configurations. Multiple M.2 slots are available for high-speed storage.

3.2. Cooling System

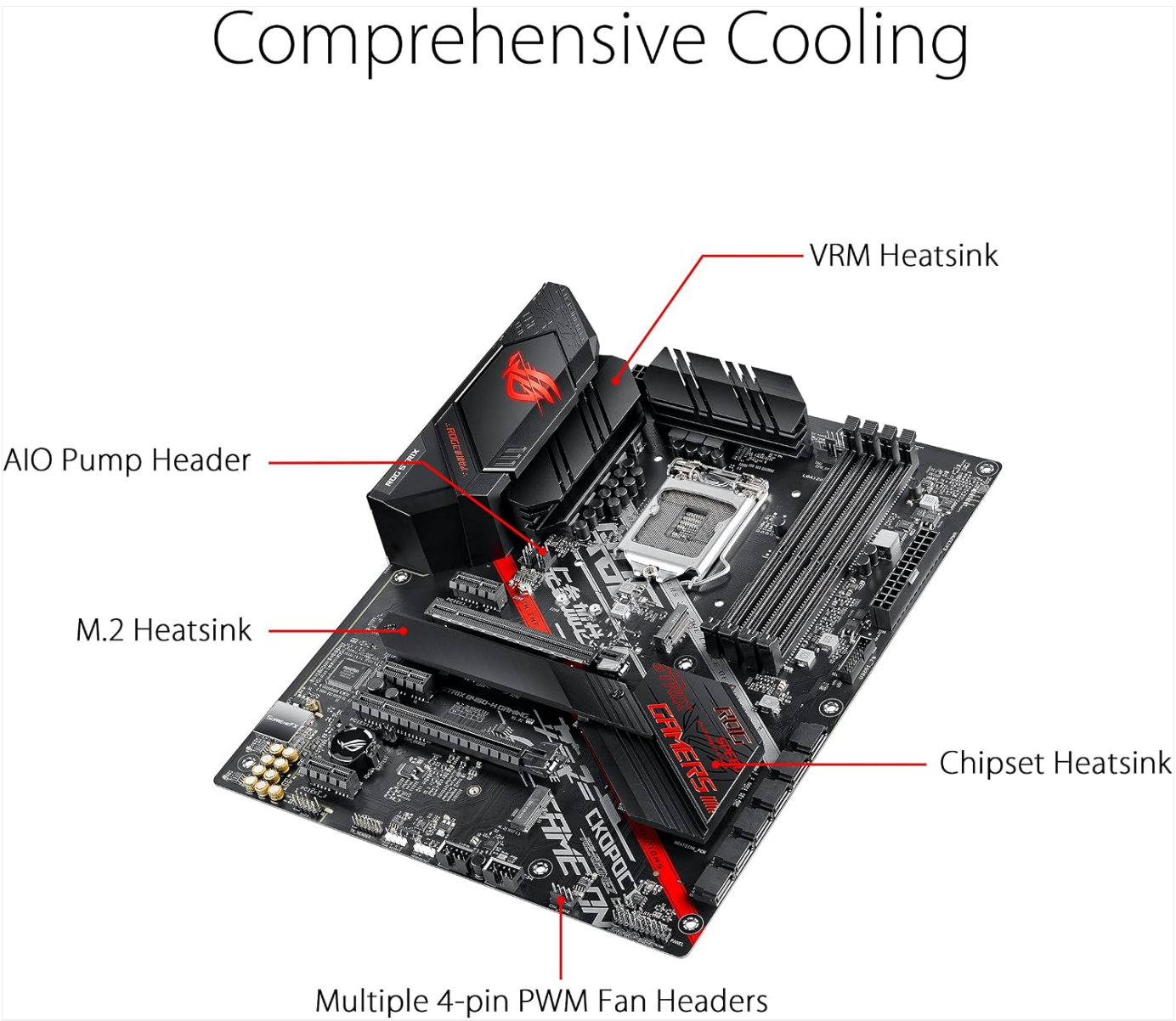


Image 3.2: Comprehensive cooling solutions, highlighting the VRM Heatsink, M.2 Heatsink, Chipset Heatsink, and AIO Pump Header.

Ensure proper cooling by utilizing the VRM heatsink, M.2 heatsink, and chipset heatsink. Connect your CPU cooler (including AIO pumps) to the designated headers. The motherboard includes multiple 4-pin PWM fan headers for flexible fan control.

3.3. Audio and RGB



Image 3.3: Features for total gaming immersion, showing the I/O Zone Red LED Lighting, SupremeFX S1220A CODEC, and 3-pin Addressable Gen 2 RGB Header and 4-pin AURA RGB Header.

The SupremeFX S1220A CODEC provides high-quality audio with impedance sensing, SupremeFX shielding, and dual OP amplifiers. Utilize the Aura Sync RGB headers to customize your system's lighting effects.

3.4. Connectivity

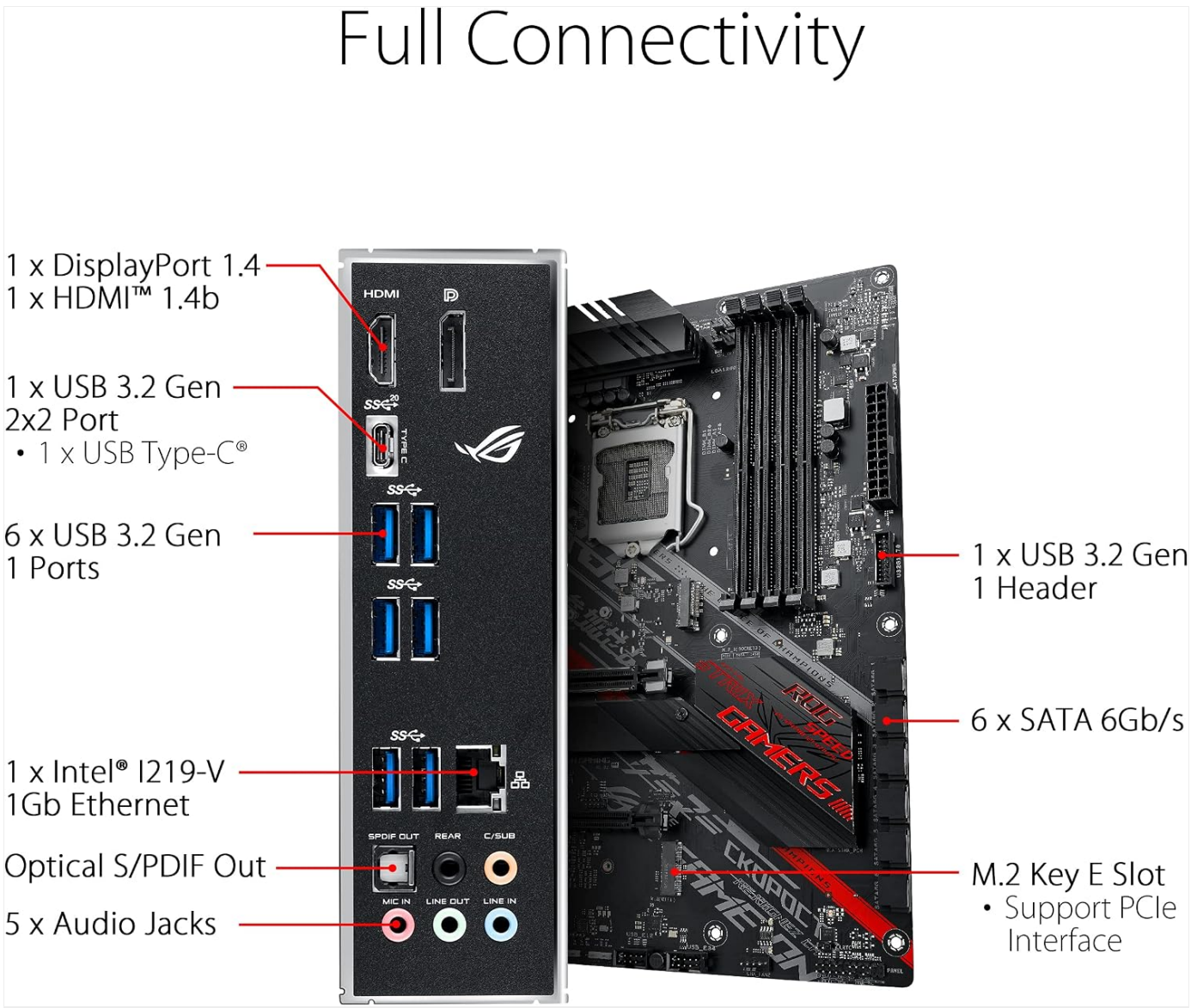


Image 3.4: Full connectivity options, including DisplayPort 1.4, HDMI 1.4b, USB 3.2 Gen 2x2 Type-C, USB 3.2 Gen 1 ports, Intel I219-V 1Gb Ethernet, Optical S/PDIF Out, 5 Audio Jacks, and M.2 Key E Slot.

The rear I/O panel offers a variety of ports including DisplayPort, HDMI, multiple USB 3.2 ports (including Gen 2x2 Type-C), Intel 1Gb Ethernet, and audio jacks. Internal headers provide additional USB and M.2 Key E connectivity.

3.5. Box Contents



Image 3.5: What's in the Box: ROG Strix B460-H Gaming Motherboard, Manual, Support DVD, ROG Stickers, Cable Ties, SATA Cables, M.2 Rubber Package, M.2 SSD Screw Package, M.2 Key E Screw Package, and Addressable RGB Extension Cable.

Before beginning installation, verify all components listed in the box contents are present. Refer to the included manual for detailed step-by-step assembly instructions.

4. Operating Your Motherboard

4.1. Initial Boot and BIOS/UEFI Setup

Upon first power-on, enter the BIOS/UEFI setup utility by pressing the DEL key during POST. Configure boot order, system time, and enable XMP profiles for optimal memory performance. Save changes and exit to boot into your operating system installation media.

4.2. Driver and Software Installation

After installing your operating system, install all necessary drivers from the included Support DVD or the ASUS official website. This includes chipset drivers, LAN drivers, audio drivers, and graphics drivers. Install ASUS utilities like Aura Sync for RGB control and Fan Xpert 4 for fan management.

5. Maintenance

5.1. Cleaning

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

5.2. BIOS Updates

Periodically check the ASUS support website for BIOS updates. BIOS updates can improve system stability, compatibility, and performance. Follow the instructions provided by ASUS carefully when updating the BIOS to avoid system damage.

5.3. Driver Updates

Keep your drivers updated to ensure optimal performance and compatibility with new software and hardware. Download the latest drivers from the ASUS support website or your component manufacturers' websites.

6. Troubleshooting

- **No Power/No Boot:** Check all power connections, including the 24-pin ATX power and 8-pin CPU power. Ensure the power supply is switched on.
- **No Display:** Verify that your monitor is connected to the graphics card (or integrated graphics if applicable) and powered on. Reseat the graphics card and RAM modules.
- **System Instability/Crashes:** This can be caused by outdated drivers, overheating, or faulty components. Check temperatures, update drivers, and test components individually.
- **Peripheral Detection Issues:** Ensure USB devices are properly connected. Try different USB ports. Update chipset drivers.
- **Network Connectivity Problems:** Check LAN cable connection. Update LAN drivers. Verify router/modem functionality.

For more detailed troubleshooting steps, refer to the comprehensive manual available on the ASUS support website or contact ASUS customer support.

7. Specifications

Feature	Specification
Brand	ASUS
Series	ROG STRIX B460-H GAMING
Item Model Number	ROG STRIX B460-H GAMING
CPU Socket	LGA 1200
Compatible Processors	10th Generation Intel Core
Chipset Type	Intel B460
RAM Memory Technology	DDR4
Memory Speed	2933 MHz
Memory Storage Capacity	128 GB (Max)
Platform	Windows 10

Feature	Specification
Item Weight	2.39 pounds
Product Dimensions	10.74 x 13.3 x 2.67 inches
Voltage	12 Volts
Date First Available	May 27, 2020

8. Product Videos

8.1. Product Overview

Your browser does not support the video tag.

Video 8.1: An official product overview video from Amazon Product Imaging, showcasing the ASUS ROG Strix B460-H Gaming Motherboard's design and features. This video provides a visual guide to the motherboard's various components and connectivity options.

9. Warranty and Support

For warranty information and technical support, please visit the official ASUS support website or contact their customer service. Keep your proof of purchase for warranty claims.
ASUS Support Website: www.asus.com/support/

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. Privacy details.

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question