msi B460M PRO-VDH WiFi

MSI B460M PRO-VDH WiFi Motherboard User Manual

ProSeries Motherboard for 10th Gen Intel Core Processors

1. Introduction

This manual provides detailed instructions for the installation, operation, and maintenance of your MSI B460M PRO-VDH WiFi ProSeries Motherboard. Designed for efficiency and productivity, this motherboard offers stable functionality and high-quality assembly, ensuring optimized professional workflows and reduced troubleshooting. It supports 10th Gen Intel Core / Pentium Celeron processors for LGA 1200 socket and DDR4 Memory up to 2933MHz.

2. Features

- **Processor Support:** Supports 10th Gen Intel Core / Pentium Celeron processors for LGA 1200 socket.
- **Memory Support:** Supports DDR4 Memory, up to 2933MHz.
- **Core Boost:** Features premium layout and digital power design to support more cores and provide enhanced performance.
- **DDR4 Boost:** Advanced technology to deliver pure data signals for optimal performance and stability.
- **Twin Turbo M.2:** Running at PCI-E Gen3 x4, this maximizes performance for NVMe based SSDs.
- **2.5G LAN:** Provides stable and faster network connectivity.
- **Wi-Fi Connectivity:** Integrated Wi-Fi for wireless networking.
- **USB 3.2 Gen 1:** Offers fast USB transfer speeds.

3. Package Contents

Verify that all items listed below are included in your motherboard package:

- MSI B460M PRO-VDH WiFi Motherboard
- Quick Installation Guide

- MSI Case Badge
- 2 x SATA Cables
- Driver DVD
- Wi-Fi Antennas
- I/O Shielding
- Product Registration Card



Figure 3.1: MSI B460M PRO-VDH WiFi Motherboard and included accessories.

4. Component Overview

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

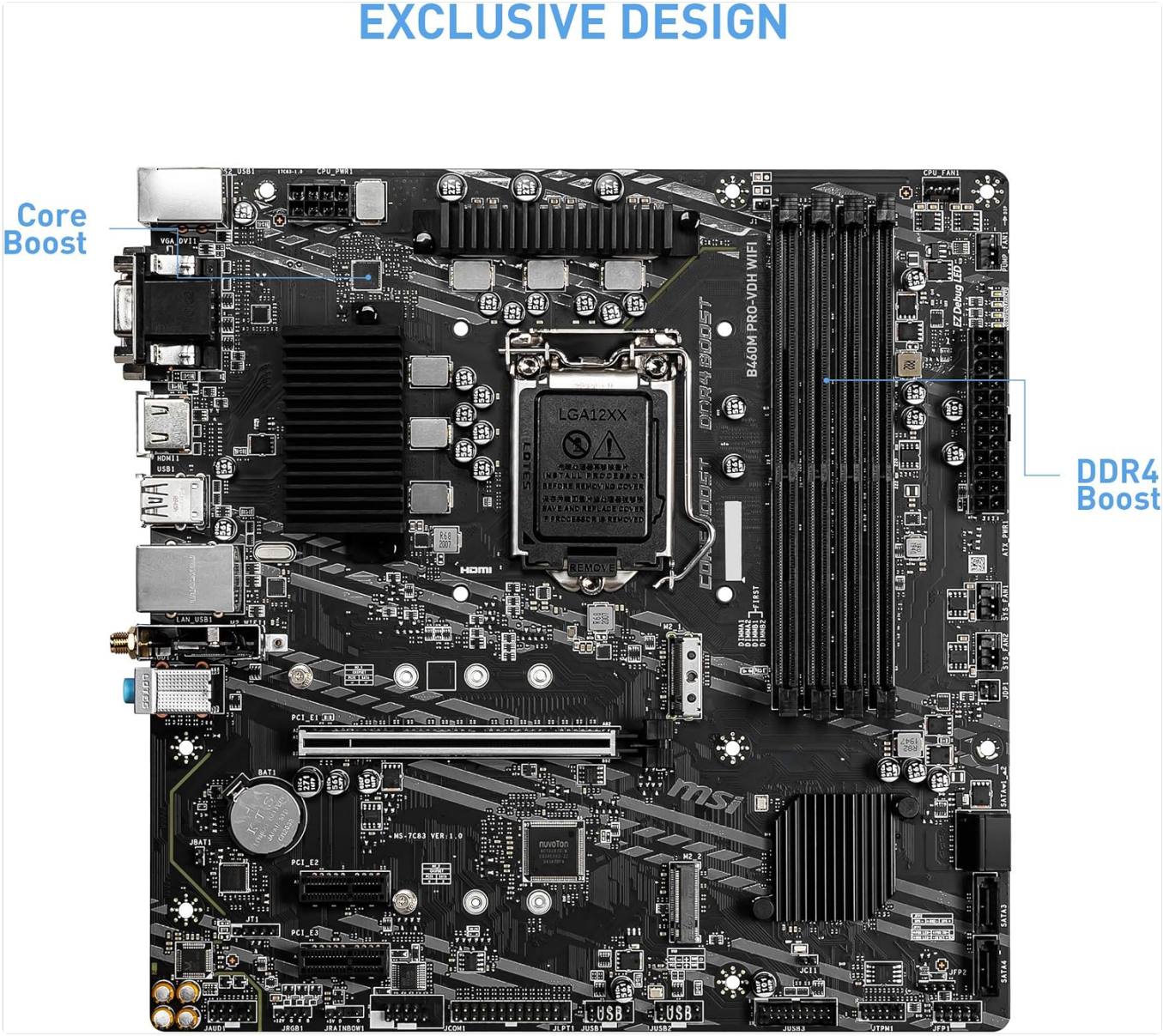


Figure 4.1: Motherboard highlighting Core Boost and DDR4 Boost.

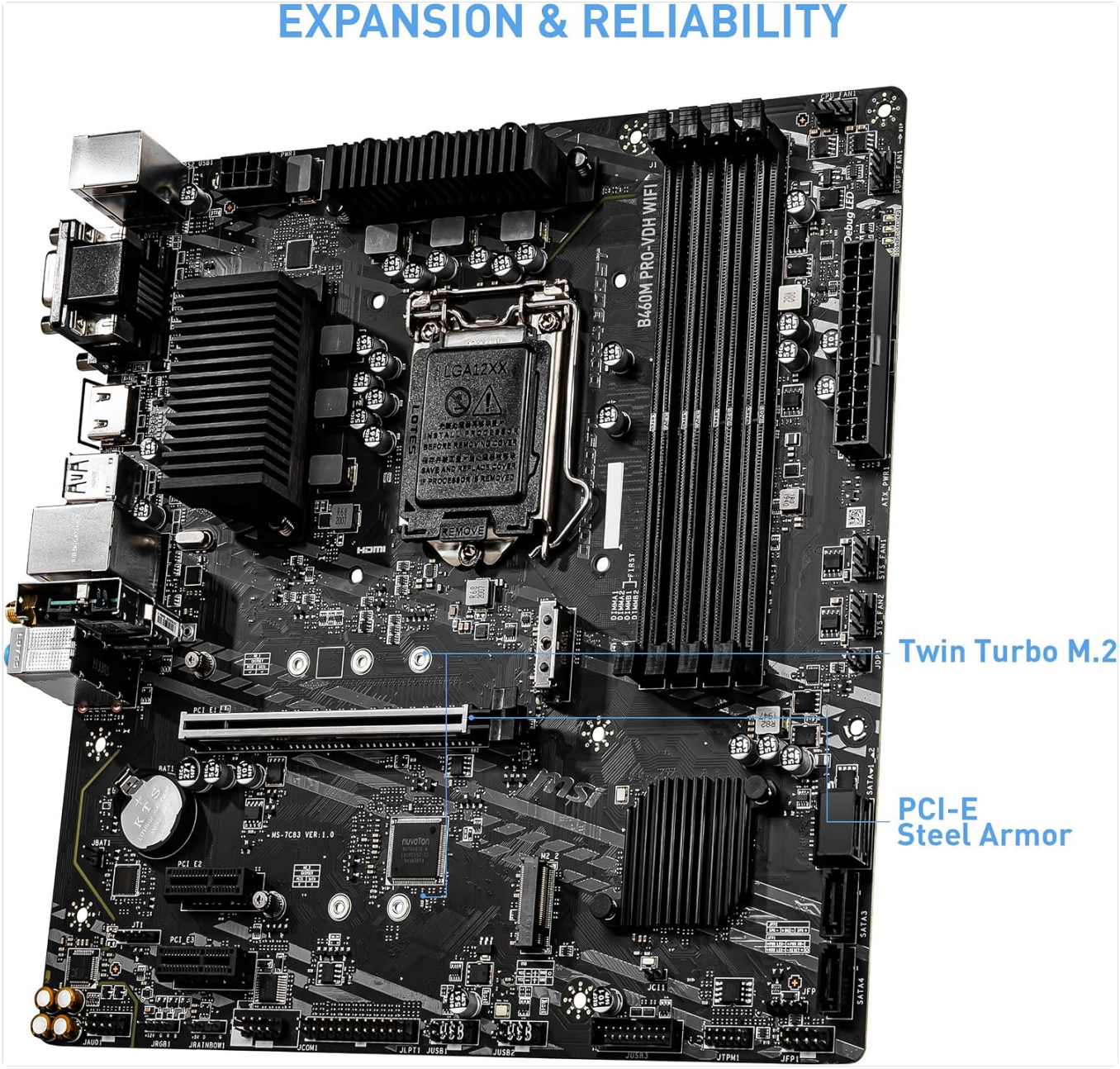


Figure 4.2: Motherboard with Twin Turbo M.2 slots and PCI-E Steel Armor.

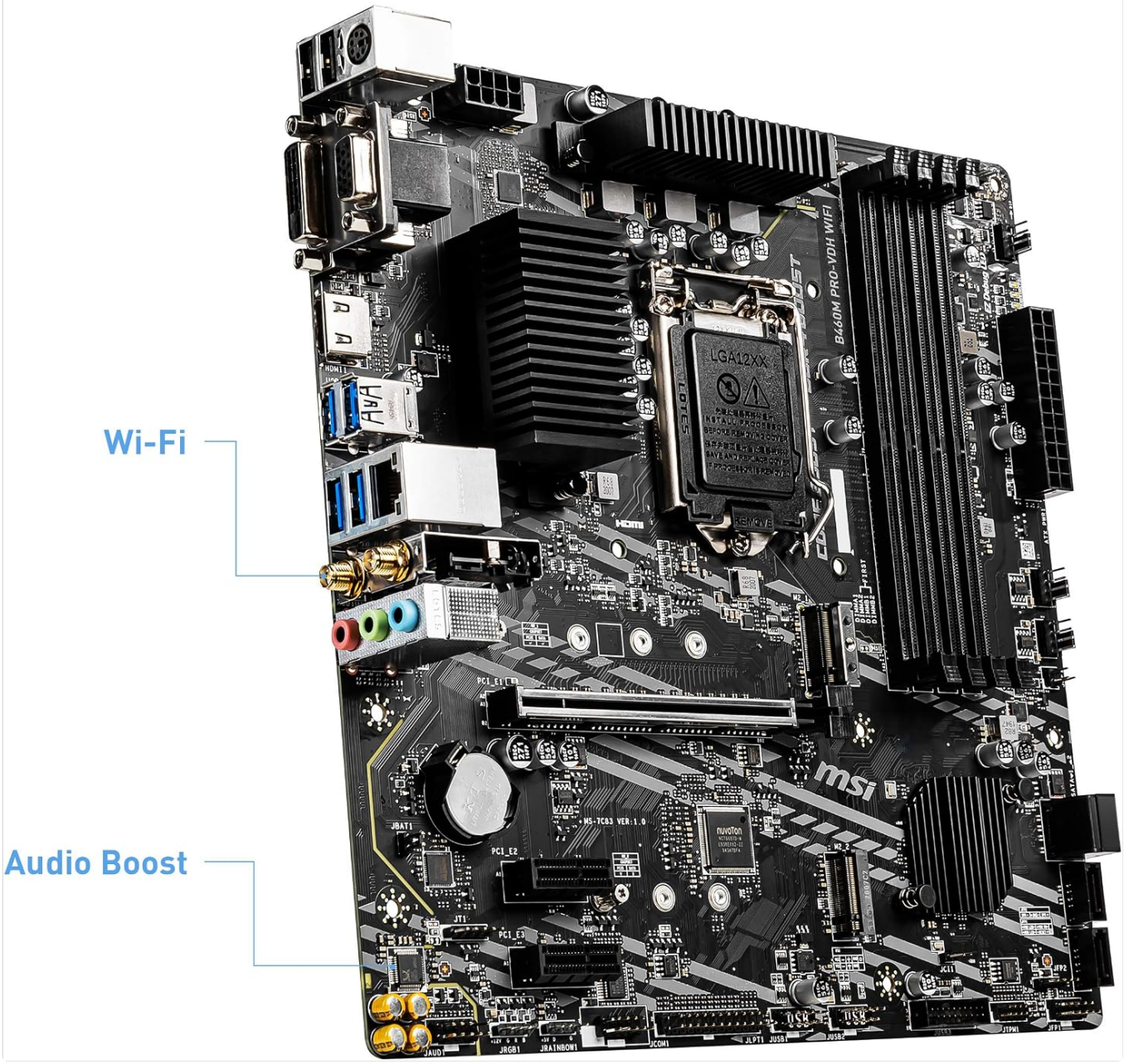


Figure 4.3: Motherboard with Wi-Fi module and Audio Boost.

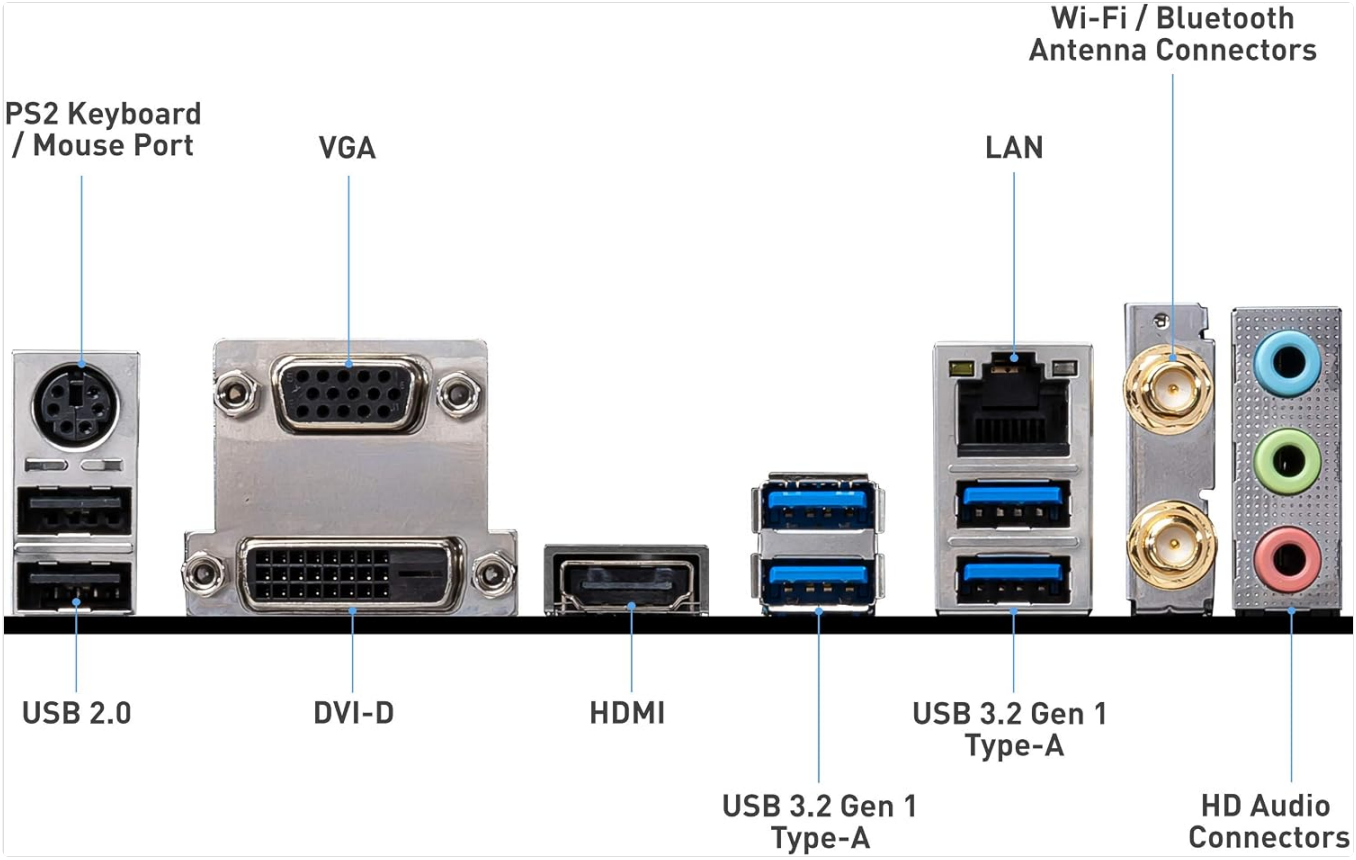


Figure 4.4: Rear I/O Ports.

5. Setup and Installation

Follow these general steps for installing your motherboard and its components. Always refer to the detailed instructions provided with each component for specific installation procedures.

1. **Prepare the Case:** Ensure your PC case is ready for motherboard installation. Install the I/O shield into the case's rear opening.
2. **Install the CPU:** Carefully open the CPU socket lever, align the CPU with the socket (matching the golden triangle on the CPU to the indicator on the socket), and gently place it into the socket. Close the lever to secure the CPU.
3. **Install the CPU Cooler:** Attach your CPU cooler according to its manufacturer's instructions.
4. **Install RAM:** Open the clips on the DDR4 memory slots. Align the RAM modules with the slots and press firmly until the clips lock into place.
5. **Mount the Motherboard:** Carefully place the motherboard into the PC case, aligning it with the standoffs. Secure it with screws.
6. **Install Storage Devices:** Install M.2 SSDs into the Twin Turbo M.2 slots and SATA drives to the SATA ports using SATA cables.
7. **Install Graphics Card:** Insert your graphics card into the primary PCI-E x16 slot and secure it.
8. **Connect Power Supply:** 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 as needed.
9. **Connect Front Panel Cables:** Connect the front panel USB, audio, power, and reset switch cables to the corresponding headers on the motherboard.
10. **Install Wi-Fi Antennas:** Screw the included Wi-Fi antennas onto the connectors on the rear I/O panel.

For a visual guide on general motherboard component installation, you may refer to the following video. Please note that this video features an MSI B560M PRO-E motherboard, but the general installation principles for CPU and RAM are

similar.

Video 5.1: Product Overview Video (MSI B560M PRO-E). This video provides a general overview of an MSI motherboard, demonstrating the installation of components like the CPU and RAM. While the model differs slightly, the general installation principles apply.

6. Operating Instructions

After successful installation, follow these steps to begin using your system:

1. **Power On:** Connect your monitor, keyboard, and mouse. Press the power button on your PC case.
2. **BIOS/UEFI Setup:** During startup, repeatedly press the `DEL` key to enter the BIOS/UEFI setup utility. Here you can configure boot order, system time, and other advanced settings.
3. **Operating System Installation:** Insert your operating system installation media (USB drive or DVD) and follow the on-screen prompts to install the OS.
4. **Driver Installation:** After OS installation, install all necessary drivers from the included Driver DVD or download the latest versions from the MSI official website. This includes chipset, LAN, audio, and Wi-Fi drivers.
5. **Network Connection:** Connect to your network via the 2.5G LAN port or configure the integrated Wi-Fi using the installed drivers.

7. Maintenance

Regular maintenance helps ensure the longevity and optimal performance of your motherboard:

- **Keep Clean:** Periodically clean dust from inside your PC case, especially around fans and heatsinks, using compressed air. Ensure the system is powered off and unplugged before cleaning.
- **BIOS/UEFI Updates:** Check the MSI website for the latest BIOS/UEFI updates. Updating the BIOS can improve system stability, compatibility, and performance. Follow MSI's specific instructions for BIOS updates carefully to avoid system damage.
- **Driver Updates:** Keep your drivers updated to ensure compatibility and optimal performance with your operating system and hardware.
- **Cable Management:** Ensure internal cables are neatly managed to improve airflow and prevent interference.

8. Troubleshooting

If you encounter issues, refer to the following common troubleshooting tips:

- **No Power/No Boot:**
  - Check all power connections (24-pin ATX, 8-pin CPU, GPU).
  - Ensure the power supply is switched on.
  - Verify that the front panel power button cable is correctly connected to the motherboard.
  - Try booting with only essential components (CPU, one RAM stick, graphics card if no integrated graphics).
- **No Display:**
  - Ensure your monitor is connected to the correct video output (either motherboard's integrated graphics or dedicated graphics card).
  - Check if the graphics card is properly seated in its PCI-E slot and has adequate power.
  - Test with a different monitor or cable if possible.

- **System Instability/Crashes:**
  - Check RAM seating and test individual RAM sticks.
  - Ensure CPU cooler is properly installed and making good contact. Monitor CPU temperatures.
  - Update BIOS/UEFI and all drivers to the latest versions.
- **Network Connectivity Issues:**
  - For wired LAN, check the Ethernet cable and router/modem connection. Reinstall LAN drivers.
  - For Wi-Fi, ensure antennas are securely attached. Reinstall Wi-Fi drivers. Check Wi-Fi settings in the operating system.

9. Specifications

Detailed technical specifications for the MSI B460M PRO-VDH WiFi Motherboard:

Category	Specification
Brand	MSI
Series	B460M PRO-VDH WiFi
Item Model Number	B460M PRO-VDH WiFi
CPU Socket	LGA 1200
Compatible Processors	10th Gen Intel Core / Pentium Celeron
Chipset Type	Intel B460
RAM Memory Technology	DDR4
Memory Speed	Up to 2933 MHz
Storage Interface	Dual M.2 Slots (PCI-E Gen3 x4), SATA 6Gb/s
USB Ports	USB 3.2 Gen 1, USB 2.0
LAN	2.5G LAN
Wireless Type	Wi-Fi, Bluetooth
Video Output	D-SUB, DVI, HDMI
Form Factor	mATX
Item Weight	2.23 pounds
Product Dimensions	9.6 x 9.6 x 1.5 inches

10. Warranty and Support

MSI provides a limited warranty for its motherboards. Please refer to the Product Registration Card included in your package or visit the official MSI website for detailed warranty terms and conditions specific to your region.
For technical support, driver downloads, and further assistance, please visit the MSI support website:

- **MSI Support Website:** www.msi.com/support

It is recommended to register your product online to receive the latest updates and support information.

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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.

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