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> ASUS Prime X570-P Ryzen 3 AM4 with PCIe Gen4, Dual M.2 HDMI, SATA 6GB/s USB 3.2 Gen 2 ATX Motherboard User Manual

ASUS PRIME X570-P

ASUS Prime X570-P Ryzen 3 AM4 ATX Motherboard User Manual

Model: PRIME X570-P

1. INTRODUCTION

This user manual provides comprehensive instructions for the installation, operation, and maintenance of your ASUS Prime X570-P ATX Motherboard. Please read this manual thoroughly before beginning installation to ensure proper setup and optimal performance. Keep this manual for future reference.

2. PRODUCT OVERVIEW

The ASUS Prime X570-P is a high-performance ATX motherboard designed to support AMD Ryzen 2nd and 3rd generation AM4 processors. It offers robust features for custom PC builds, focusing on performance, cooling, and connectivity.



Key Features:

- **AMD AM4 Socket and PCIe 4.0:** Perfect pairing for Zen 3 Ryzen 5000 & 3rd Gen AMD Ryzen CPUs.
- **Industry-leading cooling options:** Comprehensive controls for fans and AIO pump, via Fan Xpert 4 or the acclaimed UEFI.
- **Asus Optic-MEM:** Careful routing of traces and vias to preserve signal integrity for improved Memory overclocking.
- **Next-gen connectivity:** Supreme flexibility with PCIe Gen 4 support, Dual M.2 support, USB 3.2 Gen 2 ports.
- **Aura Sync RGB header:** Synchronize RGB header with a vast portfolio of compatible PC gear, including next-gen addressable RGB strips.

3. SETUP

Proper installation is crucial for the stability and performance of your system. Always ensure your system is powered off and unplugged before handling internal components.



Figure 3.1: Top-down view of the ASUS Prime X570-P Motherboard layout

Installation Steps:

1. **Prepare the Chassis:** Ensure your PC case is ready for motherboard installation, with standoffs correctly aligned.

2. **Install CPU:** Carefully place your AMD AM4 processor into the CPU socket, aligning the triangle markers.
3. **Install CPU Cooler:** Attach the CPU cooler according to its manufacturer's instructions.
4. **Install RAM:** Insert DDR4 memory modules into the DIMM slots until they click into place. Refer to the motherboard manual for preferred slot configurations for dual-channel operation.
5. **Mount Motherboard:** Secure the motherboard into the chassis using screws, ensuring it aligns with the standoffs.
6. **Connect Power:** Connect the 24-pin ATX power connector and the 8-pin CPU power connector from your power supply to the motherboard.
7. **Install Storage Devices:** Connect SATA drives to the SATA 6GB/s ports. For M.2 SSDs, install them into the M.2 slots and secure them.
8. **Install Graphics Card:** Insert your graphics card into the primary PCIe 4.0 x16 slot and secure it. Connect any necessary PCIe power cables.
9. **Connect Front Panel Cables:** Connect the power switch, reset switch, USB, and audio headers from your case to the corresponding pins on the motherboard.
10. **Connect Peripherals:** Connect your monitor, keyboard, mouse, and other peripherals to the rear I/O ports.

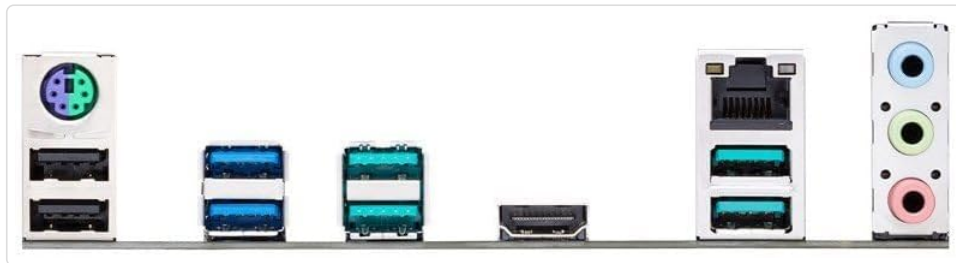


Figure 3.2: Rear I/O Ports for connecting peripherals

For detailed, step-by-step installation instructions, please refer to the official [Installation Manual \(PDF\)](#).

4. OPERATING

Once all components are installed and connected, you can power on your system. The motherboard will initiate the Power-On Self-Test (POST) process, checking all connected hardware. If POST is successful, the system will proceed to boot from your designated storage device.

BIOS/UEFI Access:

To access the BIOS/UEFI setup utility, press the **DEL** key or **F2** key during the POST process. The BIOS/UEFI allows you to configure system settings, boot order, overlocking parameters, and monitor hardware status.

Driver Installation:

After installing your operating system, install the latest drivers for the motherboard chipset, audio, LAN, and other integrated components. These drivers are typically provided on a support DVD or can be downloaded from the ASUS support website.

5. MAINTENANCE

Regular maintenance helps ensure the longevity and stable operation of your motherboard and overall PC system.

- **Dust Removal:** Periodically clean dust from inside your PC case, especially from fans and heatsinks, using compressed air. Dust buildup can impede airflow and lead to overheating.
- **Cable Management:** Ensure cables are neatly routed to improve airflow and prevent interference.

- **BIOS/UEFI Updates:** Keep your BIOS/UEFI firmware updated to the latest version. Updates often include performance improvements, bug fixes, and support for new hardware. Visit the ASUS site, search by motherboard model name, click on “Support” tab, Drivers and Tools, then BIOS & Firmware to download the latest BIOS.
- **Driver Updates:** Regularly check for and install updated drivers for your motherboard and other components.

6. 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, PCIe power). Ensure the power supply is functional. Try reseating RAM modules and the graphics card.
- **Display Issues (e.g.,**