



# Asus PRIME H470-PLUS Manual



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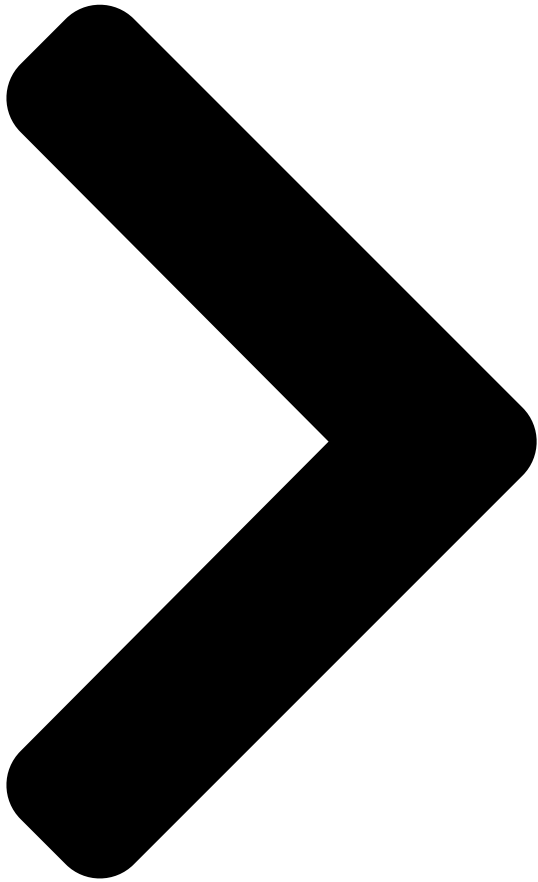
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PRIME H470-PLUS



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[Motherboard Asus PRIME H470-PLUS Quick Start Manual](#)

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(62 pages)

[Motherboard Asus TUF GAMING H470-PRO \(WI-FI\) Manual](#)

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## Summary of Contents for Asus PRIME H470-PLUS

[Page 1](#) PRIME H470-PLUS...

[Page 2](#) Product warranty or service will not be extended if: (1) the product is repaired, modified or altered, unless such repair, modification or alteration is authorized in writing by ASUS; or (2) the serial number of the product is defaced or missing.

### [Page 3: Table Of Contents](#)

Contents Safety information ..... iv About this guide .....v Package contents ..... vi PRIME H470-PLUS specifications summary.....vi Connectors with shared bandwidth .....x Chapter 1 Product introduction Before you proceed .....1-1

Motherboard overview ..... 1-1 Central Processing Unit (CPU) .....1-8 System memory .....

## [Page 4: Safety Information](#)

Safety information Electrical safety • To prevent electrical shock hazard, disconnect the power cable from the electrical outlet before relocating the system. • When adding or removing devices to or from the system, ensure that the power cables for the devices are unplugged before the signal cables are connected. If possible, disconnect all power cables from the existing system before you add a device.

## [Page 5: About This Guide](#)

Refer to the following sources for additional information and for product and software updates. ASUS website The ASUS website provides updated information on ASUS hardware and software products. Refer to the ASUS contact information. Optional documentation Your product package may include optional documentation, such as warranty flyers, that may have been added by your dealer.

## [Page 6: Package Contents](#)

Core™ i9/i7 CPUs support 2933/2800/2666/® 2400/2133 natively, others will run at the maximum transfer rate of DDR4 2666MHz. \* Refer to www.asus.com for the Memory QVL (Qualified Vendors Lists). 1 x DisplayPort 1.4\*\* 1 x HDMI 1.4b Graphics \* Graphics specifications may vary between CPU types.

[Page 7](#) PRIME H470-PLUS specifications summary Total supports 2 x M.2 slots and 6 x SATA 6Gb/s ports Intel H470 Chipset ® M.2\_1 slot (Key M), type 2242/2260/2280/22110 (supports PCIe 3.0 x4 mode) M.2\_2 slot (Key M), type 2242/2260/2280 (supports SATA & PCIe 3.0 x2...

[Page 8](#) PRIME H470-PLUS specifications summary Fan and cooling related 1 x 4-pin CPU Fan header 1 x 4-pin AIO Pump header 3 x 4-pin Chassis Fan headers Power related 1 x 24-pin Main Power connector 1 x 8-pin +12V Power connector Storage related 2 x M.2 slots (Key M)

[Page 9](#) AI Charger WinRAR UEFI BIOS ASUS EZ DIY - ASUS CrashFree BIOS 3 - ASUS EZ Flash 3 - ASUS UEFI BIOS EZ Mode 128 Mb Flash ROM, UEFI AMI BIOS BIOS WOL by PME, PXE Manageability Operating System Windows 10 - 64 bit ®...

## [Page 10: Connectors With Shared Bandwidth](#)

Connectors with shared bandwidth KBMS\_USB CPU\_FAN EATX12V\_E12 DIGI +VRM AIO\_PUMP HDMI U32G2\_1 U32G2\_C2 LGA1200 U32G1\_34 LAN\_USB\_E34 CHA\_FAN3 AUDIO 2280 2260 2242 M.2\_2(SOCKET3) PCIEX1\_1 PCIE SATA IRST M.2\_2(SOCKET3) PCIEX16\_1 8111H BATTERY Intel® H470 Super PCIEX1\_2 M.2(WIFI) PCIEX16\_2 22110 2280 2260 2242...

## [Page 11: Before You Proceed](#)

SATA6G\_3 SATA6G\_4 COM\_DEBUG SPDIF\_OUT CLRTC CHA\_FAN1 SATA6G\_1 SATA6G\_2 USB1112 ADD\_GEN2 AAFP RGB\_HEADER USB9 PANEL\_TB\_HEADER Unplug the power cord before installing or removing the motherboard. Failure to do so can cause you physical injury and damage motherboard components. ASUS PRIME H470-PLUS...

[Page 12](#) 1.2.1 Layout contents 1. CPU socket The motherboard comes with a surface mount Intel Socket LGA1200 designed for 10® Intel Core®, Pentium Gold and Celeron Processors. ® ® ® For more details, refer to Central Processing Unit (CPU). 2.

[Page 13](#) Before you install or remove any component, ensure that the power supply is switched off or the power cord is detached from the power supply. Failure to do so may cause severe damage to the motherboard, peripherals, or components. ASUS PRIME H470-PLUS...

[Page 14](#) • Actual lighting and color will vary with LED strip. • If your LED strip does not light up, check if the addressable RGB LED strip is connected in the correct orientation, and the 5V connector is aligned with the 5V header on the motherboard.

[Page 15](#) The chassis intrusion sensor or switch sends a high-level signal to this connector when a chassis component is removed or replaced. The signal is then generated as a chassis

intrusion event. ASUS PRIME H470-PLUS...

[Page 16](#) 19. Thunderbolt header TB\_HEADER This header is for the add-on Thunderbolt I/O card that supports Intel's Thunderbolt Technology, allowing you to connect up to six Thunderbolt-enabled devices and a DisplayPort-enabled display in a daisy-chain configuration. PIN 1 1.2.2 Rear panel connectors PS/2 keyboard/mouse combo port.

[Page 17](#) Mic In Mic In Bass/Center Bass/Center Lime (Front panel) — — — Side Speaker Out To configure a 7.1-channel audio output: Use a chassis with HD audio module in the front panel to support a 7.1-channel audio output. ASUS PRIME H470-PLUS...

### [Page 18: Central Processing Unit \(Cpu\)](#)

PnP cap/socket contacts/motherboard components. • Keep the cap after installing the motherboard. ASUS will process Return Merchandise Authorization (RMA) requests only if the motherboard comes with the cap on the LGA1200 socket.

### [Page 19: System Memory](#)

• For system stability, use a more efficient memory cooling system to support a full memory load (4 DIMMs). • Refer to [www.asus.com](http://www.asus.com) for the latest Memory QVL (Qualified Vendors List). Recommended memory configurations DIMM\_B1 DIMM\_B2\* DIMM\_B2\*...

### [Page 20: M.2 Heatsink Installation](#)

To remove a DIMM M.2 Heatsink installation • Ensure to install the bundled M.2 rubber pad before installing your single sided M.2 storage device. • DO NOT install the OPTIONAL bundled M.2 rubber pads when installing a double-sided M.2 storage device. The rubber pad installed by default is compatible with double sided M.2...

### [Page 21: Chapter 2 Bios And Raid Support](#)

BIOS and RAID Support Knowing BIOS The new ASUS UEFI BIOS is a Unified Extensible Interface that complies with UEFI architecture, offering a user-friendly interface that goes beyond the traditional keyboard-only BIOS controls to enable a more flexible and convenient mouse input. You can easily navigate the new UEFI BIOS with the same smoothness as your operating system.

### [Page 22: Bios Setup Program](#)

BIOS setup program Use the BIOS Setup to update the BIOS or configure its parameters. The BIOS screen includes navigation keys and brief onscreen help to guide you in using the BIOS Setup program. Entering BIOS at startup To enter BIOS Setup at startup, press <Delete> or <F2> during the Power-On Self Test (POST).

### [Page 23: Asus Ez Flash 3](#)

ASUS EZ Flash 3 The ASUS EZ Flash 3 feature allows you to update the BIOS without using an OS-based utility. Ensure to load the BIOS default settings to ensure system compatibility and stability. Select the Load Optimized Defaults item under the Exit menu or press hotkey <F5>.

### [Page 24: Asus Crashfree Bios 3](#)

The BIOS file in the motherboard support DVD may be older than the BIOS file published on the ASUS official website. If you want to use the newer BIOS file, download the file at <https://www.asus.com/support/> and save it to a USB flash drive.

### [Page 25: Raid Configurations](#)

For more information on configuring your RAID sets, please refer to the RAID Configuration Guide which you can find at <https://www.asus.com/support/>, or by scanning the QR code. RAID definitions RAID 0 (Data striping) optimizes two identical hard disk drives to read and write data in parallel, interleaved stacks.

### [Page 26](#) Chapter 2: BIOS information...

### [Page 27: Appendix](#)

Appendix Notices FCC Compliance Information Responsible Party: Asus Computer International

Address: 48720 Kato Rd., Fremont, CA 94538, USA Phone / Fax No: (510)739-3777 / (510)608-4555 This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

[Page 28](#) Compliance Statement of Innovation, Science and Economic Development Canada (ISED) This device complies with Innovation, Science and Economic Development Canada licence exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

[Page 29](#) ASUS products sold in Vietnam, on or after September 23, 2011, meet the requirements of the Vietnam Circular 30/2011/TT-BCT. Các sản phẩm ASUS bán tại Việt Nam, vào ngày 23 tháng 9 năm 2011 trở về sau, đều phải đáp ứng các yêu cầu của Thông tư 30/2011/TT-BCT của Việt Nam.

[Page 30](#) ASUS Recycling/Takeback Services ASUS recycling and takeback programs come from our commitment to the highest standards for protecting our environment. We believe in providing solutions for you to be able to responsibly recycle our products, batteries, other components as well as the packaging materials.

[Page 31](#) Директив. Повний текст декларації відповідності стандартам ЄС доступний s bitnim zahtjevima i ostalim odgovarajućim odredbama vezanih direktiva. на: [www.asus.com/support](http://www.asus.com/support) Cijeli tekst EU izjave o sukladnosti dostupan je na: [www.asus.com/support](http://www.asus.com/support) Türkçe AsusTek Computer Inc., bu aygıtın temel gereksinimlerle ve ilişkili Čeština Společnost ASUSTeK Computer Inc. tímto prohlašuje, že Yönergelerin diğer ilgili koşullarıyla uyumlu olduğunu beyan eder.

## [Page 32: Asus Contact Information](#)

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