

**TUF GAMING
H570-PRO**

ASUS
Motherboard

E17649
First Edition
January 2021

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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.
- Before connecting or removing signal cables from the motherboard, ensure that all power cables are unplugged.
- Seek professional assistance before using an adapter or extension cord. These devices could interrupt the grounding circuit.
- Ensure that your power supply is set to the correct voltage in your area. If you are not sure about the voltage of the electrical outlet you are using, contact your local power company.
- If the power supply is broken, do not try to fix it by yourself. Contact a qualified service technician or your retailer.

Operation safety

- Before installing the motherboard and adding components, carefully read all the manuals that came with the package.
- Before using the product, ensure all cables are correctly connected and the power cables are not damaged. If you detect any damage, contact your dealer immediately.
- To avoid short circuits, keep paper clips, screws, and staples away from connectors, slots, sockets and circuitry.
- Avoid dust, humidity, and temperature extremes. Do not place the product in any area where it may be exposed to moisture.
- Place the product on a stable surface.
- If you encounter technical problems with the product, contact a qualified service technician or your retailer.
- Your motherboard should only be used in environments with ambient temperatures between 0°C and 40°C.

About this guide

This user guide contains the information you need when installing and configuring the motherboard.

How this guide is organized

This guide contains the following parts:

- **Chapter 1: Product Introduction**

This chapter describes the features of the motherboard and the new technology it supports. It includes descriptions of the switches, jumpers, and connectors on the motherboard.

- **Chapter 2: BIOS Information**

This chapter tells how to boot into the BIOS, and upgrade BIOS using the EZ Flash Utility.

Where to find more information

Refer to the following sources for additional information and for product and software updates.

1. **ASUS website**

The ASUS website provides updated information on ASUS hardware and software products. Refer to the ASUS contact information.

2. **Optional documentation**

Your product package may include optional documentation, such as warranty flyers, that may have been added by your dealer. These documents are not part of the standard package.

Conventions used in this guide

To ensure that you perform certain tasks properly, take note of the following symbols used throughout this manual.



CAUTION: Information to prevent damage to the components and injuries to yourself when trying to complete a task.



IMPORTANT: Instructions that you **MUST** follow to complete a task.



NOTE: Tips and additional information to help you complete a task.

Package contents

Check your motherboard package for the following items.

Motherboard	1 x TUF GAMING H570-PRO motherboard
Cables	2 x SATA 6Gb/s cables
Miscellaneous	2 x M.2 Rubber Packages
	2 x M.2 SSD screw packages
	1 x TUF Gaming sticker
Application DVD	1 x Support DVD
Documentation	1 x TUF Certification card
	1 x User manual



If any of the above items is damaged or missing, contact your retailer.

TUF GAMING H570-PRO specifications summary

CPU	Intel® Socket LGA1200 for 11th Gen Intel® Core™ processors & 10th Gen Intel® Core™, Pentium® Gold and Celeron® Processors* Supports Intel® 14nm CPU Supports Intel® Turbo Boost Technology 2.0 and Intel® Turbo Boost Max Technology 3.0** * Refer to www.asus.com for CPU support list. ** Intel® Turbo Boost Max Technology 3.0 support depends on the CPU types.
Chipset	Intel® H570 Chipset
Memory	4 x DIMM, Max. 128GB, DDR4 5000(OC)/4800(OC)/4600(OC)/4400(OC)/4266(OC)/4000(OC)/3733(OC)/3600(OC)/3466(OC)/3333(OC)/3200/2933/2800/2666/2400/2133 MHz Non-ECC, Un-buffered Memory* Dual Channel Memory Architecture Supports Intel® Extreme Memory Profile (XMP) OptiMem II * 11th Gen Intel® processors support 3200/2933/2800/2666/2400/2133 natively. * 10th Gen Intel® Core™ i7/ i9 processors 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), and memory frequency support depends on the CPU types.
Graphics	1 x DisplayPort 1.4** 1 x HDMI™ 2.0*** ** Graphics specifications may vary between CPU types. ** Intel® 11th & 10th Gen processors support DisplayPort 1.4 with max. resolution of 4096 x 2304 @60Hz. Please refer to www.intel.com for any updates. *** Only Intel® 11th Gen processors, support HDMI™ 2.0 with max. resolution of 4K@60Hz, others would only support HDMI™ 1.4 with max. resolution of 4K@30Hz. Please refer to www.intel.com for any update. ****VGA resolution support depends on processors' or graphic cards' resolution.
Expansion Slots	Intel® 11th & 10th Gen Processors 1 x PCIe 4.0/3.0 x16 slot* - Intel® 11th Gen processors support PCIe 4.0 x16 - Intel® 10th Gen processors support PCIe 3.0 x16 Intel® H570 Chipset 1 x PCIe 3.0 x16 slot (supports x4 mode)

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TUF GAMING H570-PRO specifications summary

Expansion Slots	3 x PCIe 3.0 x1 slots * Enable RST PCIe Storage Remapping for PCH attached PCIe slots to activate Intel® Optane Memory.
Storage	Total supports 3 x M.2 slots and 6 x SATA 6Gb/s ports Intel® 11th Gen Processors M.2_1 slot (Key M), type 2242/2260/2280 - Only Intel® 11th Gen processors support PCIe 4.0 x4 mode, this slot will be disabled for other CPUs Intel® H570 Chipset M.2_2 slot (Key M), type 2242/2260/2280/22110 (supports PCIe 3.0 x4 & SATA modes)*** M.2_3 slot (Key M), type 2242/2260/2280 (supports PCIe 3.0 x4 mode) 6 x SATA 6Gb/s ports * Raid function for PCIe mode SSD in Intel® Rapid Storage Technology is available with either 1. Intel® SSDs installed in both CPU-attached and PCH-attached slots, or 2. any other 3rd party SSDs installed in PCH-attached slots. ** To enable Intel® Optane™ Memory (Hybrid Storage device), it must be installed in PCH-attached slots with Intel® Rapid Storage Technology. ***M.2_2 shares bandwidth with SATA6G_2. When M.2_2 runs SATA mode, SATA6G_2 will be disabled.
Ethernet	1 x Realtek 2.5Gb Ethernet TUF LANGuard
USB	Rear USB (Total 8 ports) 1 x USB 3.2 Gen 2x2 port (1 x USB Type-C®) 2 x USB 3.2 Gen 2 ports (2 x Type-A) 1 x USB 3.2 Gen 1 port (1 x Type-A) 4 x USB 2.0 ports (4 x Type-A) Front USB (Total 7 ports) 1 x USB 3.2 Gen 1 connector (supports USB Type-C®) 1 x USB 3.2 Gen 1 header supports additional 2 USB 3.2 Gen 1 ports 2 x USB 2.0 headers support additional 4 USB 2.0 ports
Audio	Realtek ALC S1200A 7.1 Surround Sound High Definition Audio CODEC - Supports: Jack detection, Multi-streaming, Front Panel Jack-retasking - Supports up to 24-Bit/192 kHz playback Audio Features - Audio Shielding - Rear optical S/PDIF out port - Premium Japanese audio capacitors - Dedicated audio PCB layers - Audio cover
Back Panel I/O Ports	1 x USB 3.2 Gen 2x2 port (1 x USB Type-C®) 2 x USB 3.2 Gen 2 ports (2 x Type-A) 1 x USB 3.2 Gen 1 port (1 x Type-A) 4 x USB 2.0 ports (4 x Type-A) 1 x DisplayPort 1 x HDMI™ port 1 x Realtek 2.5Gb Ethernet port

(continued on the next page)

TUF GAMING H570-PRO specifications summary

Back Panel I/O Ports	5 x Audio jacks 1 x Optical S/PDIF out port
Internal I/O Connectors	Fan and cooling related 1 x 4-pin CPU Fan header 1 x 4-pin CPU OPT 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 3 x M.2 slots (Key M) 6 x SATA 6Gb/s ports USB 1 x USB 3.2 Gen 1 connector (supports USB Type-C®) 1 x USB 3.2 Gen 1 header supports additional 2 USB 3.2 Gen 1 ports 2 x USB 2.0 headers support additional 4 USB 2.0 ports Miscellaneous 2 x AURA Addressable Gen 2 headers 2 x AURA RGB headers 1 x Clear CMOS header 1 x COM Port header 1 x Front Panel Audio header (AAFP) 1 x 20-3 pin System Panel header with Chassis intrude function 1 x Thunderbolt™ header
Special Features	ASUS TUF PROTECTION - DIGI+ VRM (- Digital power design with DrMOS) - Enhanced DRAM Overcurrent Protection - TUF LANGuard - Overvoltage Protection ASUS Q-Design - M.2 Q-Latch - Q-DIMM - Q-LED (CPU [red], DRAM [yellow], VGA [white], Boot Device [yellow green]) - Q-Slot ASUS Thermal Solution - M.2 heatsink - VRM heatsink design ASUS EZ DIY - ProCool - Pre-mounted I/O shield - SafeSlot AURA Sync - AURA RGB headers - AURA Addressable Gen 2 RGB headers

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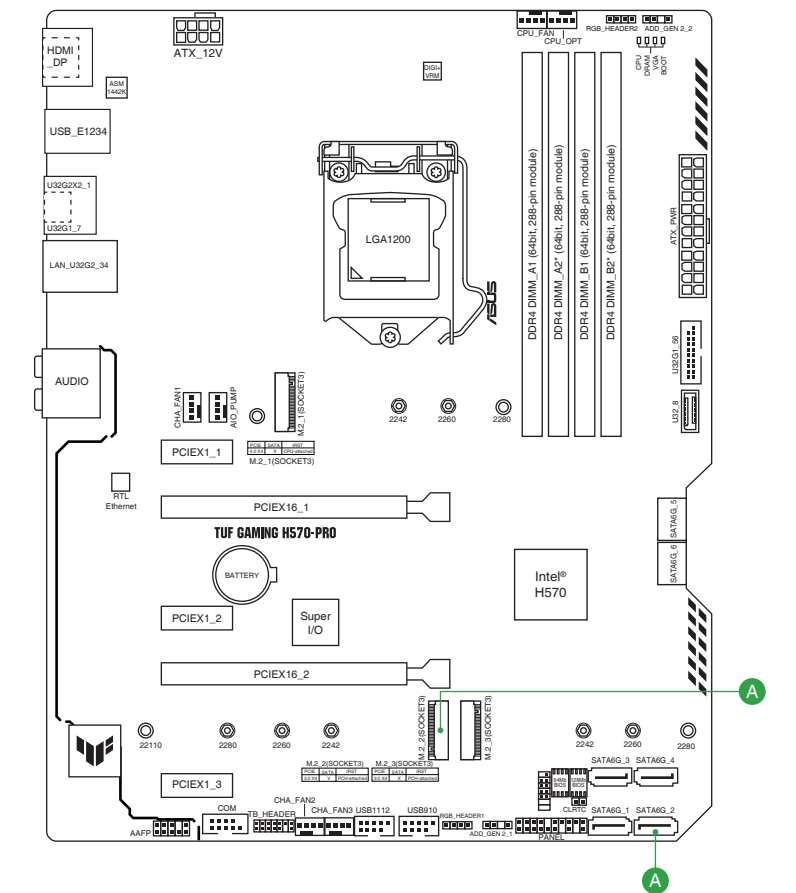
TUF GAMING H570-PRO specifications summary

Software Features	ASUS Exclusive Software Armoury Crate - AURA Creator - AURA Sync - Two-Way AI Noise Cancellation AI Suite 3 - Performance And Power Saving Utility TurboV EVO EPU DIGI+ VRM Fan Xpert 4 - EZ update
	TUF GAMING CPU-Z
	AI Charger
	ASUS Turbo LAN
	DAEMON Tools
	DTS Custom for GAMING Headsets
	Norton Anti-virus software (Free Trial version)
	WinRAR
	UEFI BIOS
	ASUS EZ DIY - ASUS CrashFree BIOS 3 - ASUS EZ Flash 3 - ASUS UEFI BIOS EZ Mode
BIOS	192 (128+64) Mb Flash ROM, UEFI AMI BIOS
Manageability	WOL by PME, PXE
Operating System	Windows® 10 64-bit
Form Factor	ATX Form Factor 12 inch x 9.6 inch (30.5 cm x 24.4 cm)



Specifications are subject to change without notice. Please refer to the ASUS website for the latest specifications.

Connectors with shared bandwidth



Configuration		1	2
A	M.2_2	PCIe x4 mode	SATA
	SATA6G_2	V	-



M.2_2 shares bandwidth with SATA6G_2. When M.2_2 runs SATA mode, SATA6G_2 will be disabled.

Product Introduction

1

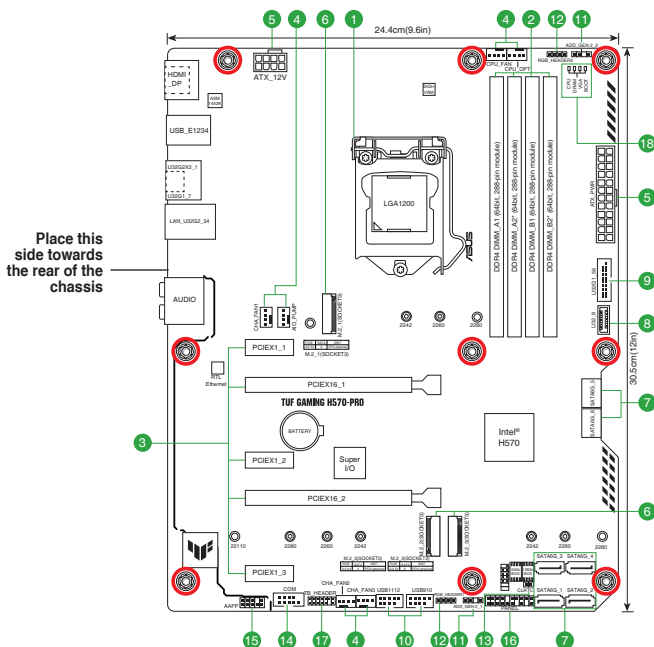
1.1 Before you proceed

Take note of the following precautions before you install motherboard components or change any motherboard settings.



- Unplug the power cord from the wall socket before touching any component.
- Before handling components, use a grounded wrist strap or touch a safely grounded object or a metal object, such as the power supply case, to avoid damaging them due to static electricity.
- Before you install or remove any component, ensure that the ATX 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.

1.2 Motherboard overview



Unplug the power cord before installing or removing the motherboard. Failure to do so can cause you physical injury and damage motherboard components.

1.2.1 Layout contents

1. CPU socket

The motherboard comes with a LGA1200 socket designed for 11th Gen Intel® Core™ processors & 10th Gen Intel® Core™, Pentium® Gold and Celeron® Processors.



For more details, refer to **Central Processing Unit (CPU)**.

2. DDR4 DIMM slots

The motherboard comes with Dual Inline Memory Modules (DIMM) slots designed for DDR4 (Double Data Rate 4) memory modules.



For more details, refer to **System memory**.

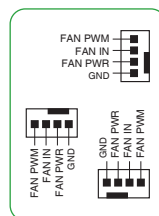
3. Expansion slots

This motherboard supports two PCIe x16 graphics cards and three PCIe 3.0 x1 network cards, SCSI cards and other cards that comply with the PCI Express specification.

4. Fan headers

The Fan headers allow you to connect fans to cool the system.

Header	Max. Current	Max. Power	Default Speed	Shared Control
CPU_FAN	1A	12W	Q-Fan Controlled	A
CPU_OPT	1A	12W	Q-Fan Controlled	A
AIO_PUMP	1A	12W	Full-Speed	-
CHA_FAN1	1A	12W	Q-Fan Controlled	-
CHA_FAN2	1A	12W	Q-Fan Controlled	-
CHA_FAN3	1A	12W	Q-Fan Controlled	-



5. Power connectors

These Power connectors allow you to connect your motherboard to a power supply. The power supply plugs are designed to fit in only one orientation. Find the proper orientation and push down firmly until the power supply plugs are fully inserted.



Ensure to connect the 8-pin power plug.



- For a fully configured system, we recommend that you use a power supply unit (PSU) that complies with ATX 12V Specification 2.0 (or later version) and provides a minimum power of 350 W.
- We recommend that you use a PSU with a higher power output when configuring a system with more power-consuming devices. The system may become unstable or may not boot up if the power is inadequate.
- If you are uncertain about the minimum power supply requirement for your system, we recommend you to refer to online resources for Power Supply Wattage Calculator.
- If you want to use two or more high-end PCI Express x16 cards, use a PSU with 1000W power or above to ensure the system stability.

6. M.2 slots (Key M)

The M.2 slots allow you to install M.2 devices such as M.2 SSD modules.



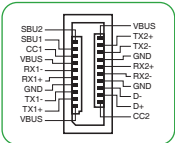
- M.2_1 slot (Key M), type 2242/2260/2280 (Only Intel® 11th Gen processors support PCIe 4.0 x4 mode, this slot will be disabled for other CPUs)
- M.2_2 slot (Key M), type 2242/2260/2280/22110 (supports PCIe 3.0 x4 & SATA modes)
- M.2_3 slot (Key M), type 2242/2260/2280 (supports PCIe 3.0 x4 mode)
- Raid function for PCIe mode SSD in Intel® Rapid Storage Technology is available with either
 1. Intel® SSDs installed in both CPU-attached and PCH-attached slots, or
 2. any other 3rd party SSDs installed in PCH-attached slots.
- To enable Intel® Optane™ Memory (Hybrid Storage device), it must be installed in PCH-attached slots with Intel® Rapid Storage Technology.
- M.2_2 shares bandwidth with SATA6G_2. When M.2_2 runs SATA mode, SATA6G_2 will be disabled.

7. SATA 6Gb/s ports

The SATA 6Gb/s ports allow you to connect SATA devices such as optical disc drives and hard disk drives via SATA cables.

8. USB 3.2 Gen 1 header (USB Type-C®)

The USB 3.2 Gen 1 header (USB Type-C®) allows you to connect a USB 3.2 Gen 1 module for an additional USB 3.2 Gen 1 Type-C® port. The header provides a data transfer speed of up to 5 Gb/s.

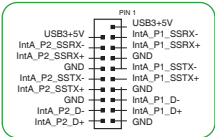


9. USB 3.2 Gen 1 header

The USB 3.2 Gen 1 header allows you to connect a USB 3.2 Gen 1 module for additional USB 3.2 Gen 1 ports. The USB 3.2 Gen 1 header provides data transfer speeds of up to 5 Gb/s.



The USB 3.2 Gen 1 module is purchased separately.



10. USB 2.0 headers

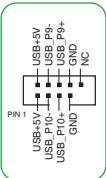
The USB 2.0 headers allow you to connect a USB module for additional USB 2.0 ports. The USB 2.0 headers provide data transfer speeds of up to 480 Mb/s.



DO NOT connect a 1394 cable to the USB connectors. Doing so will damage the motherboard!



The USB 2.0 module is purchased separately.

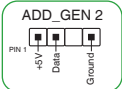


11. AURA Addressable Gen 2 headers

The Addressable Gen 2 headers allow you to connect individually addressable RGB WS2812B LED strips or WS2812B based LED strips.



The Addressable Gen 2 headers support WS2812B addressable RGB LED strips (5V/Data/Ground), with a maximum power rating of 3A (5V), and the addressable headers on this board can handle a combined maximum of 500 LEDs.





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.



- 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.
- The addressable RGB LED strip will only light up when the system is powered on.
- The addressable RGB LED strip is purchased separately.

12. AURA RGB headers

The RGB headers allow you to connect RGB LED strips.



The RGB headers support 5050 RGB multi-color LED strips (12V/G/R/B), with a maximum power rating of 3A (12V), and no longer than 3m.



Before you install or remove any component, ensure that the ATX 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.

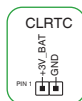


- Actual lighting and color will vary with LED strip.
- If your LED strip does not light up, check if the RGB LED extension cable and the RGB LED strip are connected in the correct orientation, and the 12V connector is aligned with the 12V header on the motherboard.
- The LED strip will only light up when the system is powered on.
- The LED strip is purchased separately.

13. Clear CMOS header

This header allows you to clear the CMOS RTC RAM data of the system setup information such as date, time, and system passwords.

To erase the RTC RAM:



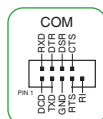
1. Turn OFF the computer and unplug the power cord.
2. Use a metal object such as a screwdriver to short the two pins.
3. Plug the power cord and turn ON the computer.
4. Hold down the key during the boot process and enter BIOS Setup to re-enter data.



If the steps above do not help, remove the onboard battery and short the two pins again to clear the CMOS RTC RAM data. After clearing the CMOS, reinstall the battery.

14. COM Port header

This header is for a serial (COM) port. Connect the serial port module cable to this header, then install the module to a slot opening at the back of the system chassis.

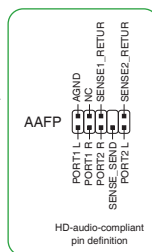


15. Front panel audio header

This header is for a chassis-mounted front panel audio I/O module that supports HD audio standard. Connect one end of the front panel audio I/O module cable to this header.



- We recommend that you connect a high-definition front panel audio module to this header to avail of the motherboard's high-definition audio capability.
- If you want to connect a high-definition front panel audio module to this header, set the Front Panel Type item in the BIOS Setup to [HD Audio]. By default, this header is set to [HD Audio].



16. System Panel header

This header supports several chassis-mounted functions.

- **System power LED (4-pin PLED)**

This 4-pin header is for the system power LED. Connect the chassis power LED cable to this header. The system power LED lights up when you turn on the system power, and blinks when the system is in sleep mode.

- **Hard disk drive activity LED (2-pin HDD_LED)**

This 2-pin header is for the HDD Activity LED. Connect the HDD Activity LED cable to this header. The HDD LED lights up or flashes when data is read from or written to the HDD.

- **System warning speaker (4-pin SPEAKER)**

This 4-pin header is for the chassis-mounted system warning speaker. The speaker allows you to hear system beeps and warnings.

- **ATX power button/soft-off button (2-pin PWRSW)**

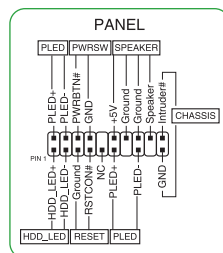
This header is for the system power button. Pressing the power button turns the system on or puts the system in sleep or soft-off mode depending on the operating system settings. Pressing the power switch for more than four seconds while the system is ON turns the system OFF.

- **Reset button (2-pin RESET)**

This 2-pin header is for the chassis-mounted reset button for system reboot without turning off the system power.

- **Chassis intrusion header (2-pin CHASSIS)**

This header is for a chassis-mounted intrusion detection sensor or switch. Connect one end of the chassis intrusion sensor or switch cable to this header. 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.

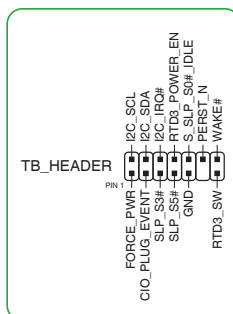


17. Thunderbolt™ header

The Thunderbolt™ header allows you to connect an add-on Thunderbolt™ I/O card that supports Intel®'s Thunderbolt™ Technology, allowing you to connect Thunderbolt™-enabled devices to form a daisy chain-configuration.



- The add-on Thunderbolt™ I/O card and Thunderbolt™ cables are purchased separately.
- Please visit the official website of your purchased Thunderbolt card for more details on compatibility.



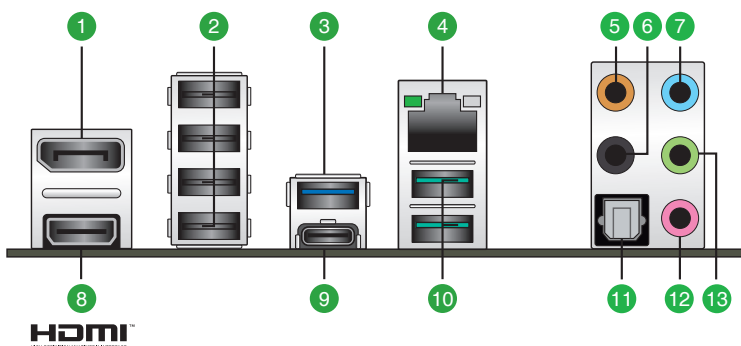
18. Q-LEDs

The Q-LEDs check key components (CPU, DRAM, VGA, and booting devices) during the motherboard booting process. If an error is found, the critical component's LED stays lit up until the problem is solved.



The Q-LEDs provide the most probable cause of an error code as a starting point for troubleshooting. The actual cause may vary from case to case.

1.2.2 Rear panel connectors

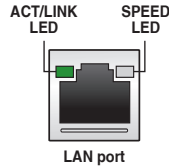


1. **DisplayPort.** This port is for a DisplayPort-compatible device.
2. **USB 2.0 ports.** These Universal Serial Bus (USB) ports are for USB 2.0 devices.
3. **USB 3.2 Gen 1 (up to 5Gbps) port.** This Universal Serial Bus (USB) port connects to a USB 3.2 Gen 1 device.

- Ethernet port.** This port allows Gigabit connection to a Local Area Network (LAN) through a network hub. Refer to the table below for the Ethernet port LED indications.

Realtek 2.5G Ethernet port LED indications

Activity Link LED		Speed LED	
Status	Description	Status	Description
OFF	No link	OFF	No link
GREEN	Linked	GREEN	2.5 Gbps connection
BLINKING	Data activity	ORANGE	1 Gbps / 100 Mbps / 10 Mbps connection



- Center / Subwoofer port (orange).** This port connects the center/subwoofer speakers.
- Rear Speaker Out port (black).** This port connects the rear speakers in a 4 channel, 5.1 channel, or 7.1 channel audio configuration.
- Line In port (light blue).** This port connects the tape, CD, DVD player, or other audio sources.
- HDMI™ port.** This port is for a High-Definition Multimedia Interface (HDMI™) connector, and is HDCP compliant allowing playback of HD DVD, Blu-ray, and other protected content.
- USB 3.2 Gen 2x2 (up to 20Gbps) port (USB Type-C®).** This Universal Serial Bus 3.2 (USB 3.2) port is for USB 3.2 Gen 2x2 Type-C® devices.
- USB 3.2 Gen 2 (up to 10Gbps) ports (teal blue, Type A).** These Universal Serial Bus 3.2 (USB 3.2) ports are for USB 3.2 Gen 2 devices.
- Optical S/PDIF out port.** This port allows you to connect your PC to amplified speakers, headphones, or Sony/Phillips Digital Interconnect Format (S/PDIF) compliant devices.
- Microphone port (pink).** This port connects a microphone.



Refer to the audio configuration table below for the function of the audio ports in 2, 4, 5.1, or 7.1-channel configuration.

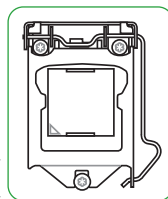
Audio 2, 4, 5.1 or 7.1-channel configuration

Port	Headset 2-channel	4-channel	5.1-channel	7.1-channel
Light Blue	Line In	Line In	Line In	Side Speaker Out
Lime	Line Out	Front Speaker Out	Front Speaker Out	Front Speaker Out
Pink	Mic In	Mic In	Mic In	Mic In
Orange	—	—	Center/Subwoofer	Center/Subwoofer
Black	—	Rear Speaker Out	Rear Speaker Out	Rear Speaker Out

- Line Out port (lime).** This port connects a headphone or a speaker. In 4-channel, 5.1-channel, and 7.1-channel configurations, the function of this port becomes Front Speaker Out.

1.3 Central Processing Unit (CPU)

This motherboard comes with a LGA1200 socket designed for 11th Gen Intel® Core™ processors & 10th Gen Intel® Core™, Pentium® Gold and Celeron® Processors.

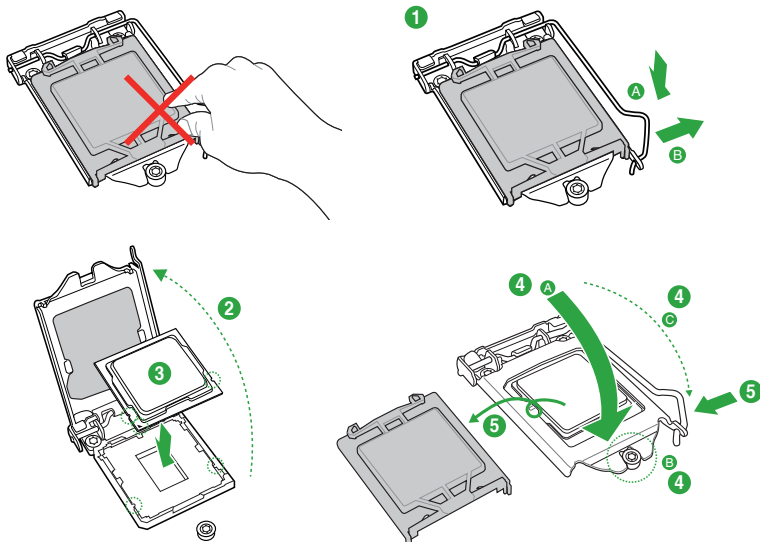


Unplug all power cables before installing the CPU.



- Ensure that you install the correct CPU designed for the LGA1200 socket only. DO NOT install a CPU designed for LGA1150, LGA1151, LGA1155 and LGA1156 sockets on the LGA1200 socket.
- Upon purchase of the motherboard, ensure that the PnP cap is on the socket and the socket contacts are not bent. Contact your retailer immediately if the PnP cap is missing, or if you see any damage to the 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.
- The product warranty does not cover damage to the socket contacts resulting from incorrect CPU installation/removal, or misplacement/loss/incorrect removal of the PnP cap.
- The CPU fits in only one correct orientation. DO NOT force the CPU into the socket to prevent bending the connectors on the socket and damaging the CPU.

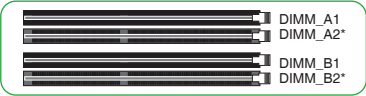
Installing the CPU



Apply the Thermal Interface Material to the CPU heatsink and CPU before you install the heatsink and fan if necessary.

1.4 System memory

This motherboard comes with four Double Data Rate 4 (DDR4) Dual Inline Memory Module (DIMM) sockets. The figure illustrates the location of the DDR4 DIMM sockets:

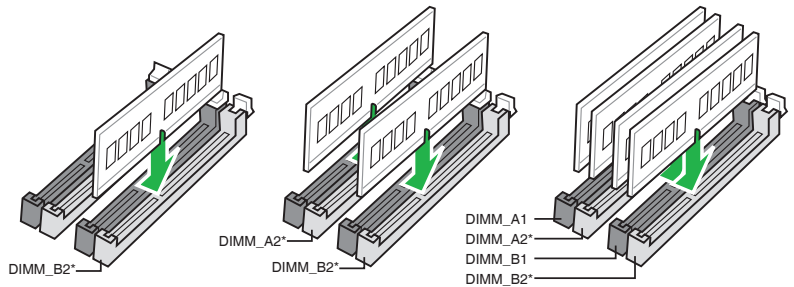


Channel	Sockets
Channel A	DIMM_A1 & DIMM_A2*
Channel B	DIMM_B1 & DIMM_B2*

- 
- You may install varying memory sizes in Channel A and Channel B. The system maps the total size of the lower-sized channel for the dual-channel configuration. Any excess memory from the higher-sized channel is then mapped for single-channel operation.
 - Always install DIMMs with the same CAS latency. For optimal compatibility, we recommend that you install memory modules of the same version or date code (D/C) from the same vendor. Check with the retailer to get the correct memory modules.
 - 11th Gen Intel® processors support 3200/2933/2800/2666/2400/2133 natively.
 - 10th Gen Intel® Core™ i7/i9 processors support 2933/2800/2666/2400/2133 natively, others will run at the maximum transfer rate of DDR4 2666MHz.
 - A DDR4 memory module is notched differently from a DDR, DDR2, or DDR3 module. DO NOT install a DDR, DDR2, or DDR3 memory module to the DDR4 slot.

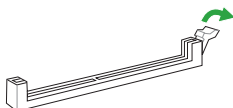
- 
- The default memory operation frequency is dependent on its Serial Presence Detect (SPD), which is the standard way of accessing information from a memory module. Under the default state, some memory modules for overclocking may operate at a lower frequency than the vendor-marked value.
 - For system stability, use a more efficient memory cooling system to support a full memory load.
 - Refer to www.asus.com for the Memory QVL (Qualified Vendors Lists), and memory frequency support depends on the CPU types.

Recommended memory configurations

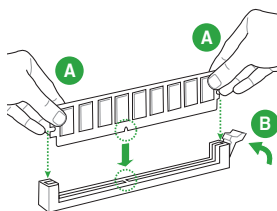


Installing a DIMM

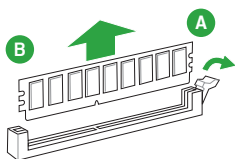
1



2



To remove a DIMM



1.5 M.2 installation



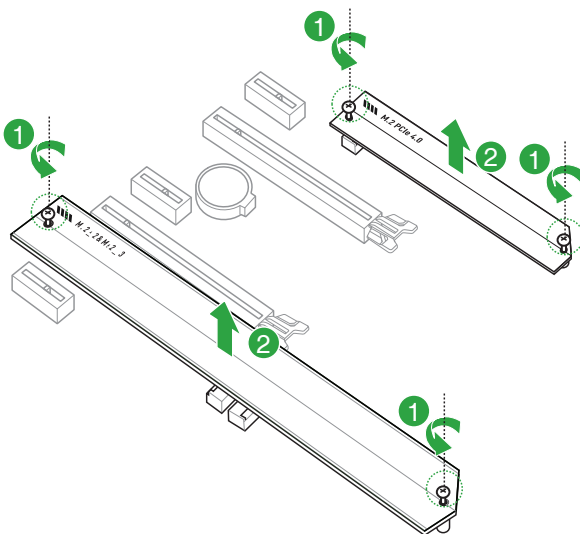
Supported M.2 type varies per motherboard.



- The illustrations only show the installation steps for a single M.2 slot, the steps are the same for the other M.2 slots if you wish to install an M.2 to another M.2 slot.
- Use a Phillips screwdriver when removing or installing the screws or screw stands mentioned in this section.
- The M.2 is purchased separately.

When installing an M.2 to the M.2 slot, you may need to use the removable screw stand.

1. Remove the screws from the heatsink.
2. Remove the heatsink.



3. Install your M.2 to your M.2 slot.

The steps may differ between installing M.2 of different lengths, please refer to the different types and their installation steps below:

- **To install an M.2 to the maximum length the M.2 slot supports**

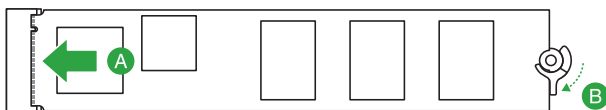


For M.2_1: Type 2280 M.2

For M.2_2: Type 22110 M.2

For M.2_3: Type 2280 M.2

- A. Install your M.2 to the M.2 slot.
- B. Rotate the M.2 Q-Latch clockwise to secure the M.2 in place.



- **To install an M.2 using the removable screw stand**

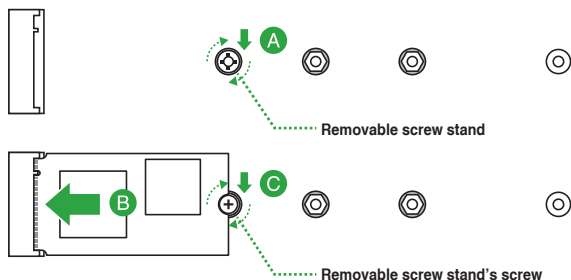


For M.2_1: Type 2242, 2260 M.2

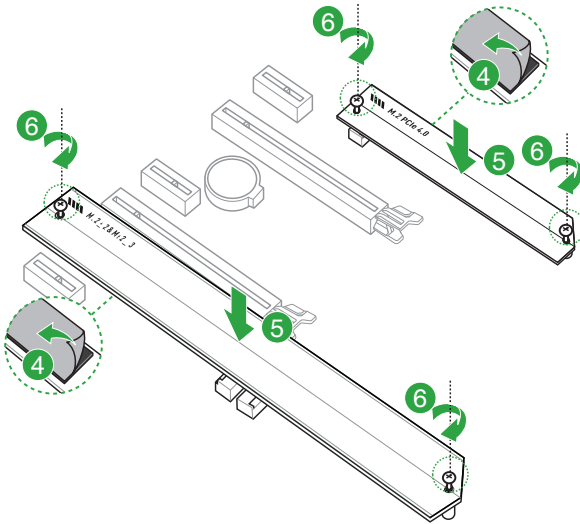
For M.2_2: Type 2242, 2260, 2280 M.2

For M.2_3: Type 2242, 2260 M.2

- A. Install the bundled removable screw stand to the M.2 length screw hole you wish to install your M.2 to.
- B. Install your M.2 to the M.2 slot.
- C. Secure your M.2 using the bundled removable screw stand's screw.



4. Remove the plastic film from the thermal pads on the bottom of the heatsink.
5. Replace the heatsink.
6. Secure the heatsink using the screws removed previously.



[illegible]

BIOS Information

2

2.1 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. The term "BIOS" in this user manual refers to "UEFI BIOS" unless otherwise specified.

BIOS (Basic Input and Output System) stores system hardware settings such as storage device configuration, overclocking settings, advanced power management, and boot device configuration that are needed for system startup in the motherboard CMOS. In normal circumstances, the default BIOS settings apply to most conditions to ensure optimal performance. **DO NOT change the default BIOS settings** except in the following circumstances:

- An error message appears on the screen during the system bootup and requests you to run the BIOS Setup.
- You have installed a new system component that requires further BIOS settings or update.



Inappropriate BIOS settings may result to instability or boot failure. **We strongly recommend that you change the BIOS settings only with the help of a trained service personnel.**



BIOS settings and options may vary due to different BIOS release versions. Please refer to the latest BIOS version for settings and options.



For more information on BIOS configurations, please refer to <https://www.asus.com/support>, or download the BIOS manual by scanning the QR code.



2.2 BIOS Setup program

Use the BIOS Setup to update the BIOS or configure its parameters. The BIOS screens include 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). If you do not press <Delete> or <F2>, POST continues with its routines.

Entering BIOS Setup after POST

To enter BIOS Setup after POST:

- Press <Ctrl>+<Alt>+<Delete> simultaneously.
- Press the reset button on the system chassis.
- Press the power button to turn the system off then back on. Do this option only if you failed to enter BIOS Setup using the first two options.

After doing either of the three options, press <Delete> key to enter BIOS.



-
- Ensure that a USB mouse is connected to your motherboard if you want to use the mouse to control the BIOS Setup program.
 - If the system becomes unstable after changing any BIOS setting, load the default settings to ensure system compatibility and stability. Select the **Load Optimized Defaults** item under the **Exit** menu or press hotkey <F5>.
 - If the system fails to boot after changing any BIOS setting, try to clear the CMOS and reset the motherboard to the default value.
 - The BIOS Setup program does not support Bluetooth devices.
-

BIOS menu screen

The BIOS Setup program can be used under two modes: **EZ Mode** and **Advanced Mode**. You can change modes from **Setup Mode** in **Boot menu** or by pressing the <F7> hotkey.

2.3 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>**.

To update the BIOS by USB:



- This function can support devices such as a USB flash disk with FAT 32/16 format and single partition only.
 - DO NOT shut down or reset the system while updating the BIOS to prevent system boot failure!
-

1. Insert the USB flash disk that contains the latest BIOS file to the USB port.
2. Enter the Advanced Mode of the BIOS Setup program. Go to the **Tool** menu to select **ASUS EZ Flash 3 Utility** and press **<Enter>**.
3. Press the Left/Right arrow keys to switch to the **Drive** field.
4. Press the Up/Down arrow keys to find the USB flash disk that contains the latest BIOS, and then press **<Enter>**.
5. Press the Left/Right arrow keys to switch to the **Folder** field.
6. Press the Up/Down arrow keys to find the BIOS file, and then press **<Enter>** to perform the BIOS update process. Reboot the system when the update process is done.

2.4 ASUS CrashFree BIOS 3

The ASUS CrashFree BIOS 3 utility is an auto recovery tool that allows you to restore the BIOS file when it fails or gets corrupted during the updating process. You can restore a corrupted BIOS file using a USB flash drive that contains the BIOS file.

Recovering the BIOS

1. Download the latest BIOS version for this motherboard from <https://www.asus.com/support/>.
2. Rename the BIOS file as **ASUS.CAP** or **TGH570P.CAP** and copy the renamed BIOS file to a USB flash drive.
3. Turn on the system.
4. Insert the USB flash drive containing the BIOS file to a USB port.
5. The utility automatically checks the devices for the BIOS file. When found, the utility reads the BIOS file and enters ASUS EZ Flash 3 automatically.
6. The system requires you to enter BIOS Setup to recover the BIOS setting. To ensure system compatibility and stability, we recommend that you press <F5> to load default BIOS values.



DO NOT shut down or reset the system while updating the BIOS! Doing so can cause system boot failure!

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.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

HDMI Compliance Statement

The terms HDMI, HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing Administrator, Inc.

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.

CAN ICES-003(B)/NMB-003(B)

Déclaration de conformité de Innovation, Sciences et Développement économique Canada (ISED)

Le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

CAN ICES-003(B)/NMB-003(B)

VCCI: Japan Compliance Statement

Class B ITE

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取扱説明書に従って正しい取り扱いをして下さい。

VCCI-B

Japan JATE

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KC: Korea Warning Statement

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Declaration of compliance for product environmental regulation

ASUS follows the green design concept to design and manufacture our products, and makes sure that each stage of the product life cycle of ASUS product is in line with global environmental regulations. In addition, ASUS disclose the relevant information based on regulation requirements.

Please refer to <http://csr.asus.com/Compliance.htm> for information disclosure based on regulation requirements ASUS is complied with:

EU REACH and Article 33

Complying with the REACH (Registration, Evaluation, Authorisation, and Restriction of Chemicals) regulatory framework, we published the chemical substances in our products at ASUS REACH website at <http://csr.asus.com/english/REACH.htm>.

EU RoHS

This product complies with the EU RoHS Directive. For more details, see <http://csr.asus.com/english/article.aspx?id=35>

India RoHS

This product complies with the “India E-Waste (Management) Rules, 2016” and prohibits use of lead, mercury, hexavalent chromium, polybrominated biphenyls (PBBs) and polybrominated diphenyl ethers (PBDEs) in concentrations exceeding 0.1% by weight in homogenous materials and 0.01% by weight in homogenous materials for cadmium, except for the exemptions listed in Schedule II of the Rule.

Vietnam RoHS

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.

Turkey RoHS

AEEE Yönetmeliğine Uygundur

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. Please go to <http://csr.asus.com/english/Takeback.htm> for detailed recycling information in different regions.



DO NOT throw the motherboard in municipal waste. This product has been designed to enable proper reuse of parts and recycling. This symbol of the crossed out wheeled bin indicates that the product (electrical and electronic equipment) should not be placed in municipal waste. Check local regulations for disposal of electronic products.



DO NOT throw the mercury-containing button cell battery in municipal waste. This symbol of the crossed out wheeled bin indicates that the battery should not be placed in municipal waste.

Regional notice for California



WARNING

Cancer and Reproductive Harm -
www.P65Warnings.ca.gov

English ASUSTeK Computer Inc. hereby declares that this device is in compliance with the essential requirements and other relevant provisions of related Directives. Full text of EU declaration of conformity is available at: www.asus.com/support

Français ASUSTeK Computer Inc. déclare par la présente que cet appareil est conforme aux critères essentiels et autres clauses pertinentes des directives concernées. La déclaration de conformité de l'UE peut être téléchargée à partir du site Internet suivant : www.asus.com/support

Deutsch ASUSTeK Computer Inc. erklärt hiermit, dass dieses Gerät mit den wesentlichen Anforderungen und anderen relevanten Bestimmungen der zugehörigen Richtlinien übereinstimmt. Der gesamte Text der EU-Konformitätserklärung ist verfügbar unter: www.asus.com/support

Italiano ASUSTeK Computer Inc. con la presente dichiara che questo dispositivo è conforme ai requisiti essenziali e alle altre disposizioni pertinenti con le direttive correlate. Il testo completo della dichiarazione di conformità UE è disponibile all'indirizzo: www.asus.com/support

Русский Компания ASUS заявляет, что это устройство соответствует основным требованиям и другим соответствующим условиям соответствующих директив. Подробную информацию, пожалуйста, смотрите на www.asus.com/support

Български С настоящото ASUSTeK Computer Inc. декларира, че това устройство е в съответствие със съществениите изисквания и другите приложими постановления на свързаните директиви. Пълният текст на декларацията за съответствие на ЕС е достъпен на адрес: www.asus.com/support

Hrvatski ASUSTeK Computer Inc. ovim izjavljuje da je ovaj uređaj sukladan s bitnim zahtjevima i ostalim odgovarajućim odredbama vezanih direktiva. Cijeli tekst EU izjave o sukladnosti dostupan je na: www.asus.com/support

Čeština Společnost ASUSTeK Computer Inc. tímto prohlašuje, že toto zařízení splňuje základní požadavky a další příslušná ustanovení souvisejících směrnic. Plné znění prohlášení o shodě EU je k dispozici na adrese: www.asus.com/support

Dansk ASUSTeK Computer Inc. erklærer hermed, at denne enhed er i overensstemmelse med hovedkravene og andre relevante bestemmelser i de relaterede direktiver. Hele EU-overensstemmelseserklæringen kan findes på: www.asus.com/support

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Eesti Käesolevaga kinnitab ASUSTeK Computer Inc, et see seade vastab asjakohaste direktiivide oluliste nõuetele ja teisteles asjaspeutuvatele sätetele. EL vastavusdeklaratsiooni täielik tekst on saadaval järgmisel aadressil: www.asus.com/support

Suomi ASUSTeK Computer Inc. ilmoittaa täten, että tämä laite on asiaankuuluvien direktiivien olennaisten vaatimusten ja muiden tätä koskevien säästösten mukainen. EU-yhdenmukaisuusilmoituksen koko teksti on luettavissa osoitteessa: www.asus.com/support

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Magyar Az ASUSTeK Computer Inc. ezennel kijelenti, hogy ez az eszköz megfelel a kapcsolódó irányelvek lényeges követelményeinek és egyéb vonatkozó rendelkezéseinek. Az EU megfelelőiségi nyilatkozat teljes szövege innen letölthető: www.asus.com/support

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Português A ASUSTeK Computer Inc. declara que este dispositivo está em conformidade com os requisitos essenciais e outras disposições relevantes das Diretivas relacionadas. Texto integral da declaração da UE disponível em: www.asus.com/support

Română ASUSTeK Computer Inc. declară că acest dispozitiv se conformează cerințelor esențiale și altor prevederi relevante ale directivelor conexe. Textul complet al declarației de conformitate a Uniunii Europene se găsește la: www.asus.com/support

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Warranty

EN: ASUS Guarantee Information

- ASUS offers a voluntary manufacturer's Commercial Guarantee.
- ASUS reserves the right to interpret the provisions of the ASUS Commercial Guarantee.
- This ASUS Commercial Guarantee is provided independently and in addition to the statutory Legal Guarantee and in no way affects or limits the rights under the Legal Guarantee.

For all the guarantee information, please visit
<https://www.asus.com/support>.

F: Garantie ASUS

- ASUS fournit une garantie commerciale en tant que garantie volontaire du fabricant.
- ASUS se réserve le droit d'interpréter et de clarifier les informations relatives à la garantie commerciale ASUS.
- Cette garantie commerciale ASUS est fournie indépendamment et parallèlement à la garantie légale, elle n'affecte ou ne limite d'aucune façon les droits acquis par la garantie légale.

Pour plus d'informations sur la garantie, consultez le site
<https://www.asus.com/fr/support/>.

G: ASUS Garantieinformationen

- ASUS bietet eine freiwillige Warengarantie des Herstellers an.
- ASUS behält sich das Recht zur Auslegung der Bestimmungen in der ASUS Warengarantie vor.
- Diese ASUS Warengarantie wird unabhängig und zusätzlich zur rechtmäßigen gesetzlichen Garantie gewährt und beeinträchtigt oder beschränkt in keiner Weise die Rechte aus der gesetzlichen Garantie.

Die vollständigen Garantieinformationen finden Sie unter
<https://www.asus.com/de/support/>.

I: Informativa sulla Garanzia ASUS

- ASUS offre una Garanzia Commerciale volontaria del produttore.
- ASUS si riserva il diritto di interpretare le disposizioni della Garanzia Commerciale ASUS.
- La presente Garanzia Commerciale ASUS viene fornita in modo indipendente e in aggiunta alla Garanzia Legale prevista per legge e non pregiudica o limita in alcun modo i diritti previsti dalla Garanzia Legale.

Per tutte le informazioni sulla garanzia, visitare
<https://www.asus.com/it/support>.

R: Информация о гарантии ASUS

- ASUS предлагает добровольную гарантию от производителя.
- ASUS оставляет за собой право интерпретирование положений гарантии ASUS.
- Настоящая гарантия ASUS никоим образом не ограничивает Ваши права, предусмотренные локальным законодательством.

Для получения полной информации о гарантии посетите
<https://www.asus.com/ru/support/>.

DA: ASUS garantioplysninger

- ASUS tilbyder en valgfri handelsmæssig garanti.
- ASUS forbeholder sig retten til at fortolke bestemmelse i ASUS' handelsmæssige garanti.
- Denne handelsmæssige garanti fra ASUS tilbydes uafhængigt, som en tilføjelse til den lovbestemte juridiske garanti og den påvirket eller begrænser på ingen måde rettighederne i den juridiske garanti.

Alle garantioplysninger kan findes på
<https://www.asus.com/dk/support/>.

BG: Информация за гаранцията от ASUS

- ASUS предлага доброволна търговска гаранция от производителя.
- ASUS си запазва правото да тълкува условията на търговската гаранция на ASUS.
- Тази търговска гаранция на ASUS се предлага независимо от и в допълнение на законовата гаранция. Тя по никакъв начин не оказва влияние върху правата на потребителя в законовата гаранция и по никакъв начин не ги ограничава.

За цялостна информация относно гаранцията, моля, посетете
<https://www.asus.com/support>.

CZ: Informace o záruce společnosti ASUS

- Společnost ASUS nabízí dobrovolnou komerční záruku výrobce.
- Společnost ASUS si vyhrazuje právo vykládat ustanovení komerční záruky společnosti ASUS.
- Tato komerční záruka společnosti ASUS je poskytována nezávisle a jako doplněk zákonné záruky a žádným způsobem neovlivňuje ani neomezuje práva vyplývající ze zákonné záruky.

Všechny informace o záruce najdete na adrese
<https://www.asus.com/cz/support/>.

CR: Informacije o ASUS jamstvu

- ASUS dragovoljno nudi komercijalno proizvođačko jamstvo.
- ASUS zadržava prava na tumačenje odredbi ASUS komercijalnog jamstva.
- Ovo ASUS komercijalno jamstvo daje se neovisno i kao dodatak zakonskom jamstvu i ni na koji način ne ograničuje prava iz okvira zakonskog jamstva.

Sve informacije o jamstvu potražite na
<https://www.asus.com/support>.

DU: ASUS-garantie-informatie

- SUS biedt een vrijwillige commerciële garantie van de fabrikant.
- ASUS behoudt zich het recht voor om de bepalingen van de commerciële garantie van ASUS uit te leggen.
- Deze commerciële garantie van ASUS wordt onafhankelijk en als aanvulling op de statutaire Wettelijke garantie geboden en beïnvloedt of beperkt in geen geval de rechten onder de wettelijke garantie.

Voor alle informatie over de garantie, gaat u naar
<https://www.asus.com/nl/support/>.

EE: Teave ASUS-e garantii kohta

- ASUS pakub vabatahtlikku tasulisi tootjagarantii.
- ASUS jätab endale õiguse tõlgendada ASUS-e tasulise garantii tingimusi.
- See ASUS-e tasulise garantii on sõltumatu lisagarantii seadusega kehtestatud garantii ega mõjuta mingil määral seadusega kehtestatud garantii ning seadusega kehtestatud garantii piiranguid.

Vaadake garantii seotud teavet veebisaidil
<https://www.asus.com/ee/>.

GK: Πληροφορίες εγγύησης ASUS

- Η ASUS προσφέρει μια εθελοντική Εμπορική εγγύηση κατασκευαστή.
- Η ASUS διατηρεί το δικαίωμα ερμηνείας των διατάξεων της Εμπορικής εγγύησης ASUS.
- Αυτή η Εμπορική εγγύηση ASUS παρέχεται ανεξάρτητα και επιπροσθέτως της θεσμικής Νομικής εγγύησης και σε καμία περίπτωση δεν επηρεάζει ή περιορίζει τα δικαιώματα βάσει της Νομικής εγγύησης.

Για όλες τις πληροφορίες εγγύησης, επισκεφθείτε τη διεύθυνση
<https://www.asus.com/gr-el/>.

HUG: ASUS garanciális információk

- Az ASUS önkéntes gyártói kereskedelmi garanciát kínál.
- Az ASUS fenntartja magának a jogot, hogy értelmezze az ASUS kereskedelmi garanciára vonatkozó rendelkezéseket.
- Ezt a kereskedelmi garanciát az ASUS függetlenül és a törvényes garancia mellett nyújtja és semmilyen módon nem befolyásolja, vagy korlátozza a jogi garancia nyújtotta jogokat.

A garanciára vonatkozó teljes körű információkért látogasson el a
<https://www.asus.com/hu/support/ oldalra>.

LV: ASUS garantijas informācija

- ASUS piedāvā brīvprātīgu ražotāja komerciālo garantiju.
- ASUS patur tiesības interpretēt ASUS komerciālās garantijas noteikumus.
- Šī ASUS komerciālā garantija tiek piedāvāta neatkarīgi un papildus likumā noteiktajai juridiskajai garantijai, un tā nekādā mērā neietekmē vai neierobežo juridiskajai garantijai noteiktās tiesības.

Lai iegūtu informāciju par garantiju, apmeklējiet vietni
<https://www.asus.com/lv/>.

LT: Informacija apie ASUS garantiją

- ASUS siūlo savanorišką komercinę gamintojo garantiją.
- ASUS pasilieka teisę savo nuostoriu aiškinti šios komercinės ASUS garantijos nuostatas.
- Ši komercinė ASUS garantija suteikiama nepriklausoma, be įstatyminės teisinės garantijos, ir jokiu būdu nepaveikia ar nesiribuoja teisinės garantijos suteikiamų teisių.

Norėdami gauti visą informaciją apie garantiją, apsilankykite
<https://www.asus.com/lt/>.

PL: Informacje o gwarancji firmy ASUS

- Firma ASUS oferuje dobrowolną gwarancję handlową producenta.
- Firma ASUS zastrzega sobie prawo do interpretacji warunków gwarancji handlowej firmy ASUS.
- Niniejsza gwarancja handlowa firmy ASUS jest udzielana niezależnie, jako dodatek do wymaganej ustawowo gwarancji prawnej i w żaden sposób nie wpływa na prawa przysługujące na mocy gwarancji prawnej ani ich nie ogranicza.

Wszelkie informacje na temat gwarancji można znaleźć na stronie
<https://www.asus.com/pl/support>.

PG: Informações de Garantia ASUS

- A ASUS oferece uma Garantia Comercial voluntária do fabricante.
- A ASUS reserva o direito de interpretar as disposições da Garantia Comercial da ASUS.
- Esta Garantia Comercial da ASUS é fornecida de forma independente além da Garantia Legal estatutária e não afeta nem limita de qualquer forma os direitos estabelecidos na Garantia Legal.

Para consultar todas as informações sobre a garantia, visite <https://www.asus.com/pt/support/>.

RO: Informații despre garanția ASUS

- ASUS oferă o garanție comercială voluntară a producătorului.
- ASUS își rezervă dreptul de a interpreta prevederile garanției comerciale ASUS.
- Această garanție comercială ASUS este oferită independent și în plus față de garanția obligatorie legală și nu afectează sau limitează în niciun fel drepturile acordate conform garanției legale.

Pentru toate informațiile legate de garanție, vizitați <https://www.asus.com/ro/support/>.

SL: Informacije o garanciji ASUS

- ASUS ponuja prostovoljno tržno garancijo proizvajalca.
- ASUS si pridržuje pravico do razlage določb tržne garancije družbe ASUS.
- Ta tržna garancija družbe ASUS je na voljo neodvisno in kot dodatek zakonsko predpisani pravni garanciji ter na noben način ne vpliva na pravice, ki jih zagotavlja pravna garancija, oziroma jih omejuje.

Vse informacije o garanciji najdete na spletnem mestu <https://www.asus.com/sk/support/>.

SK: Informácie o záruke ASUS

- ASUS ponúka dobrovoľnú obchodnú záruku výrobcu.
- ASUS si vyhradzuje právo interpretovať ustanovenia obchodnej záruky ASUS.
- Táto obchodná záruka ASUS je poskytnutá nezávisle a navyše k zákonnej záruke a v žiadnom prípade neovplyvňuje ani neobmedzuje tieto práva podľa tejto zákonnej záruky.

Všetky další informace o záruce najdete na <https://www.asus.com/sk/support/>.

ES: Información de garantía de ASUS

- ASUS ofrece una garantía comercial voluntaria del fabricante.
- ASUS se reserva el derecho de interpretar las disposiciones de esta garantía comercial de ASUS.
- Esta garantía comercial de ASUS se proporciona de forma independiente y adicional a la garantía estatutaria y de ninguna manera afecta a los derechos bajo la garantía legal ni los limita.

Para obtener toda la información sobre la garantía, visite <https://www.asus.com/ES/support/>.

TR: ASUS Garanti Bilgileri

- ASUS, gönüllü olarak üretici Ticari Garantisini sunar.
- ASUS, ASUS Ticari Garantisinin hükümlerini yorumlama hakkını saklı tutar.
- Bu ASUS Ticari Garantisini, bağımsız olarak ve hukuki Yasal Garanti'ye ek olarak sağlanır ve hiçbir şekilde Yasal Garanti kapsamındaki hakları etkilemez veya sınırlamaz.

Tüm garanti bilgileri için lütfen <https://www.asus.com/tr/support/> adresini ziyaret edin.

FI: ASUS-takuutiedot

- ASUS tarjoaa vapaaehtoisien valmistajan kauppallisen takuun.
- ASUS pidättää oikeuden tulkita ASUS-kauppallisen takuun ehdot.
- Tämä ASUS-kauppallinen takuu tarjotaan itsenäisesti lakisääteisen oikeudellisen takuun lisäksi eikä se vaikuta millään tavoin laillisen takuun oikeuksiin tai rajoita niitä.

Saadaksesi kaikki takuutiedot, siirry osoitteeseen <https://www.asus.com/fi/support/>.

NW: Informasjon om ASUS-garanti

- ASUS tilbyr som produsent en frivillig kommersiell garanti.
- ASUS forbeholder seg retten til å tolke bestemmelsene i ASUS sin kommersielle garanti.
- ASUS sin kommersielle garanti gir uavhengig og i tillegg til den lovbestemte juridiske garantien, og verken påvirker eller begrenser rettighetene under den juridiske garantien på noen måte.

Du finner fullstendig informasjon om garanti på <https://www.asus.com/no/support/>.

SB: Informacije o ASUS garanciji

- ASUS nudi dobrovoljnu proizvođačku komercijalnu garanciju.
- ASUS zadržava pravo da tumači odredbe svoje ASUS komercijalne garancije.
- Ova ASUS komercijalna garancija daje se nezavisno, kao dodatak zakonskoj pravnoj garanciji, i ni na koji način ne utiče na i ne ograničava prava data pravnom garancijom.

Za sve informacije o garanciji, posetite <https://www.asus.com/support/>.

SW: ASUS garantiinformation

- ASUS erbjuder en frivillig kommersiell tillverkningsgaranti.
- ASUS förbehåller sig rätten att tolka bestämmelserna i ASUS kommersiella garanti.
- Denna kommersiella garanti från ASUS tillhandahålls separat och som tillägg till den lagstadgade garantin, och påverkar eller begränsar på intet sätt rättigheterna under den lagstadgade garantin.

För all garantiinformation, besök <https://www.asus.com/se/support/>.

UA: Інформація про Гарантію ASUS

- ASUS пропонує добровільну Комерційну Гарантію виробника.
- ASUS застерігає за собою право тлумачити положення Комерційної Гарантії ASUS.
- Цю Комерційну Гарантію надано незалежно і на додаток до обов'язкової Законної Гарантії; вона жодним чином не впливає на права за Законною Гарантією і не обмежує їх.

Всю інформацію про гарантію подано тут: <https://www.asus.com/ua/support/>.

MX: Garantía y Soporte

Esta Garantía aplica en el país de compra. Usted acepta que en esta garantía:

- Los procedimientos de servicio pueden variar en función del país.
- Algunos servicios y/o piezas de reemplazo pudieran no estar disponibles en todos los países.
- Algunos países pueden tener tarifas y restricciones que se apliquen en el momento de realizar el servicio, visite el sitio de soporte de ASUS en <https://www.asus.com/mx/support/> para ver más detalles.
- Si tiene alguna queja o necesidad de un centro de reparación local o el periodo de garantía del producto ASUS, por favor visite el sitio de Soporte de ASUS en <https://www.asus.com/mx/support/> para mayores detalles.

Información de contacto ASUS

Esta garantía está respaldada por:
ASUSTeK Computer Inc.
Centro de Atención ASUS +52 (55) 1946-3663

BP: Informações de garantia ASUS

Esta garantia aplica-se ao período definido pela garantia legal (90 dias) mais o período de garantia comercial oferecido pela ASUS. Por exemplo: 12M significa 12 meses de garantia no total (3 meses de garantia legal mais 9 meses de garantia contratual), 24 meses significa 24 meses de garantia no total (3 meses de garantia legal mais 21 meses de garantia contratual) e 36 meses significa 36 meses de garantia no total (3 meses de garantia legal e 33 de garantia contratual) a contar da data da garantia declarada (Data de Início da Garantia).

Para todas as informações de garantia, visite <https://www.asus.com/br/support/>.



ASUS contact information

ASUSTeK COMPUTER INC.

Address	1F., No. 15, Lide Rd., Beitou Dist., Taipei City 112, Taiwan
Telephone	+886-2-2894-3447
Fax	+886-2-2890-7798
Web site	https://www.asus.com

Technical Support

Telephone	+86-21-38429911
Online support	https://qr.asus.com/techserv

ASUS COMPUTER INTERNATIONAL (America)

Address	48720 Kato Rd., Fremont, CA 94538, USA
Telephone	+1-510-739-3777
Fax	+1-510-608-4555
Web site	https://www.asus.com/us/

Technical Support

Support fax	+1-812-284-0883
Telephone	+1-812-282-2787
Online support	https://qr.asus.com/techserv

ASUS COMPUTER GmbH (Germany and Austria)

Address	Harkortstrasse 21-23, 40880 Ratingen, Germany
Web site	https://www.asus.com/de
Online contact	https://www.asus.com/support/Product/ContactUs/Services/questionform/?lang=de-de

Technical Support

Telephone (DE)	+49-2102-5789557
Telephone (AT)	+43-1360-2775461
Online support	https://www.asus.com/de/support