

**TUF GAMING
B850M-PLUS II**



Motherboard

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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 devices on it, 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 become wet.
- 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 10°C and 35°C.
- When removing motherboard components or installing other devices, be sure to handle with care. We recommend wearing gloves or other protective gear to prevent injuries to yourself.

Button/Coin Batteries Safety Information

1. Remove and immediately recycle or dispose of used batteries according to local regulations and keep out of reach of children. Do not incinerate or dispose of batteries in household trash.
2. If ingested or inserted inside any part of the body, call a local poison control center for treatment information. Even used batteries may cause serious injury or death.
3. This product uses CR2032 type batteries with a nominal voltage of 3V.
4. Do not attempt to recharge non-rechargeable batteries.
5. Do not forcibly discharge, recharge, disassemble, heat above the battery manufacturer's specified temperature rating, or incinerate. Doing so may result in injury or chemical burns caused by venting, leakage, or explosion.
6. This product contains non-replaceable batteries.

 WARNING	
• INGESTION HAZARD: This product contains a button cell or coin battery. • DEATH or serious injury can occur if ingested. • A swallowed button cell or coin battery can cause Internal Chemical Burns in as little as 2 hours. • KEEP new and used batteries OUT OF REACH of CHILDREN. • Seek immediate medical attention if a battery is suspected to be swallowed or inserted inside any part of the body.	

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 includes descriptions for each part of the motherboard.
- **Chapter 2: BIOS and RAID Support**
This chapter tells how to boot into the BIOS, upgrade BIOS using the EZ Flash Utility and support on RAID.

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 (www.asus.com) provides updated information on ASUS hardware and software products.

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.

3. Motherboard Installation Guide

Please visit <https://www.asus.com/support> for more information on the Motherboard Installation Guide.



4. Driver and Utilities FAQ

Please visit <https://www.asus.com/support> for more information on downloading and installing drivers and utilities for your motherboard.



5. **RAID Configuration Guide**

Please visit <https://www.asus.com/support> for more information on the RAID Configuration Guide.



6. **BIOS FlashBack™ Feature**

Please visit <https://www.asus.com/support> for more information on the BIOS FlashBack™ Feature.



Conventions used in this guide

To ensure that you perform certain tasks properly, take note of the following notes used throughout this user guide.

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 B850M-PLUS II motherboard
Cables	2 x SATA 6Gb/s cables
Miscellaneous	1 x TUF GAMING sticker
	1 x M.2 rubber package
	1 x Screw package for M.2 SSD
Documentation	1 x Quick start guide

NOTE:

- If any of the above items is damaged or missing, contact your retailer.
 - Items not listed in the Package contents list above are purchased separately and do not come bundled with your motherboard package.
-

TUF GAMING B850M-PLUS II specifications summary

CPU	AMD Socket AM5 for AMD Ryzen™ 9000 & 8000 & 7000 Series Desktop Processors* * Refer to https://www.asus.com/support/download-center/ for CPU support list.
Chipset	AMD B850 Chipset
Memory	4 x DIMM slots, max. 256GB, DDR5 Supports up to 8000+MT/s (OC) with Ryzen™ 9000 & 8000 & 7000 Series Processors, ECC and Non-ECC Un-buffered DIMM* Dual Channel Memory Architecture Supports AMD Extended Profiles for Overclocking (EXPO™) ASUS Enhanced Memory Profile (AEMP) * Supported memory types, data rate (speed), and number of DRAM modules vary depending on the CPU and memory configuration, for more information please refer to CPU/Memory Support list under the Support tab of product information site or visit https://www.asus.com/support/download-center/. Adjustments will be made based on the specifications of mass-produced memory products available on the market. ** Non-ECC, un-buffered DDR5 memory supports On-Die ECC function.
Graphics	1 x DisplayPort** 1 x HDMI™ port*** * Graphics specifications may vary between CPU types. Please refer to AMD CPU specifications. ** Supports max. 8K@30Hz as specified in DisplayPort 1.4. *** Supports 4K@60Hz as specified in HDMI 2.1.
Expansion Slots	AMD Ryzen™ 9000 & 7000 Series Desktop Processors* - 1 x PCIe 5.0 x16 slot (supports x16 mode) AMD Ryzen™ 8000 Series Desktop Processors - 1 x PCIe 4.0 x16 slot (supports x8/x4 mode)** AMD B850 Chipset - 1 x PCIe 4.0 x1 slot * Please check the PCIe bifurcation table on the support site (https://www.asus.com/support/FAQ/1037507/). ** Specifications vary by CPU types. *** To ensure compatibility of the device installed, please refer to https://www.asus.com/support/download-center/ for the list of supported peripherals.
Storage	Total supports 3 x M.2 slots and 4 x SATA 6Gb/s ports* AMD Ryzen™ 9000 & 7000 Series Desktop Processors - M.2_1 slot (Key M), type 2280 (supports PCIe 5.0 x4 mode) - M.2_2 slot (Key M), type 2242/2260/2280 (supports PCIe 4.0 x4 mode) AMD Ryzen™ 8000 Series Desktop Processors - M.2_1 slot (Key M), type 2280 (supports PCIe 4.0 x4 mode) - M.2_2 slot (Key M), type 2242/2260/2280 (supports PCIe 4.0 x4/x2 mode)* AMD B850 Chipset - M.2_3 slot (Key M), type 2280 (supports PCIe 4.0 x4 mode) - 4 x SATA 6Gb/s ports * Specifications vary by CPU types.

(continued on the next page)

TUF GAMING B850M-PLUS II specifications summary

RAID Support	AMD RAIDXpert2 Technology* Ryzen™ 9000 Series Processors: RAID 0/1/5/10 Ryzen™ 8000 Series Processors: RAID 0/1 Ryzen™ 7000 Series Processors: RAID 0/1/10 * Specifications vary by CPU types.
Ethernet	1 x Realtek 2.5Gb Ethernet TUF LANGuard
USB	Rear USB (Total 12 ports) 1 x USB 20Gbps port (1 x USB Type-C®) 3 x USB 10Gbps ports (3 x Type-A) 4 x USB 5Gbps ports (4 x Type-A) 4 x USB 2.0 ports (4 x Type-A) Front USB (Total 7 ports) 1 x USB 10Gbps connector (supports USB Type-C®) 1 x USB 5Gbps header supports 2 additional USB 5Gbps ports 2 x USB 2.0 headers support 4 additional USB 2.0 ports * USB Type-C® power delivery output: max. 5V/3A.
Audio	Realtek ALC1220P 7.1 Surround Sound High Definition Audio CODEC* - Impedance sense for front and rear headphone outputs - Internal audio Amplifier to enhance the highest quality sound for headphone and speakers - Supports: Jack-detection, Multi-streaming, Front Panel Jack-retasking - High quality 120 dB SNR stereo playback output and 113 dB SNR recording input (Line-in) - Supports up to 32-Bit/192 kHz playback** Audio Features - Audio Shielding - Premium audio capacitors - Dedicated audio PCB layers - Audio cover - Unique de-pop circuit * A chassis with an HD audio module in the front panel is required to support 7.1 Surround Sound audio output. ** Due to limitations in HDA bandwidth, 32-Bit/192 kHz is not supported for 7.1 Surround Sound audio.
Back Panel I/O Ports	1 x USB 20Gbps port (1 x USB Type-C®) 3 x USB 10Gbps ports (3 x Type-A) 4 x USB 5Gbps ports (4 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 3 x Audio jacks 1 x BIOS FlashBack™ button 1 x Clear CMOS button

(continued on the next page)

TUF GAMING B850M-PLUS II specifications summary

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 2 x 8-pin +12V Power connectors Storage Related 3 x M.2 slots (Key M) 4 x SATA 6Gb/s ports USB 1 x USB 10Gbps connector (supports USB Type-C®) 1 x USB 5Gbps header supports 2 additional USB 5Gbps ports 2 x USB 2.0 headers support 4 additional USB 2.0 ports Miscellaneous 3 x Addressable RGB Gen 2 headers 1 x Chassis Intrusion header 1 x COM Port header 1 x Front Panel Audio header (F_AUDIO) 1 x 10-1 pin Front Panel System header
Special Features	ASUS TUF PROTECTION - DIGI+ VRM (- Digital power design with DrMOS) - ESD Guards - TUF LANGuard - Overvoltage protection - SafeSlot - Stainless-steel back I/O ASUS Q-Design - M.2 Q-Latch - PCIe Slot Q-Release - Q-Dashboard - Q-DIMM - Q-LED (CPU [red], DRAM [yellow], VGA [white], Boot Device [yellow green]) ASUS Thermal Solution - M.2 heatsink - VRM heatsink design

(continued on the next page)

TUF GAMING B850M-PLUS II specifications summary

Special Features	ASUS EZ DIY - BIOS FlashBack™ button - BIOS FlashBack™ LED - ProCool - Clear CMOS button - Pre-mounted I/O shield - SafeDIMM Aura Sync - Addressable RGB Gen 2 headers
Software Features	ASUS Exclusive Software - Armoury Crate - Aura Creator - Aura Sync - Fan Xpert 2+ ASUS AI Advisor ASUS DriverHub - TUF GAMING CPU-Z TurboV Core DTS Audio Processing Adobe Creative Cloud (Free Trial)** Norton 360 for Gamers (60 Days Free Trial) WinRAR (40 Days Free Trial)
BIOS	UEFI BIOS - AI Cache Boost - ASUS EZ DIY - ASUS CrashFree BIOS 3 - ASUS EZ Flash 3 - ASUS UEFI BIOS EZ Mode - ASUS MyHotkey * For more software features, please visit the ASUS support site or refer to www.asus.com/support for additional information. ** For detailed information on the supported models and restricted regions for this redemption offer, please refer to https://www.asus.com/content/asus-offers-adobe-creative-cloud/.
BIOS CAP Filename	TUF GAMING B850M-PLUS II: A5714.CAP
Manageability	WOL by PME, PXE
Operating System	Windows 11, Windows 10 64-bit
Form Factor	mATX Form Factor 9.6 inch x 9.6 inch (24.4 cm x 24.4 cm)

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

Product Introduction

1.1 Before you proceed

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

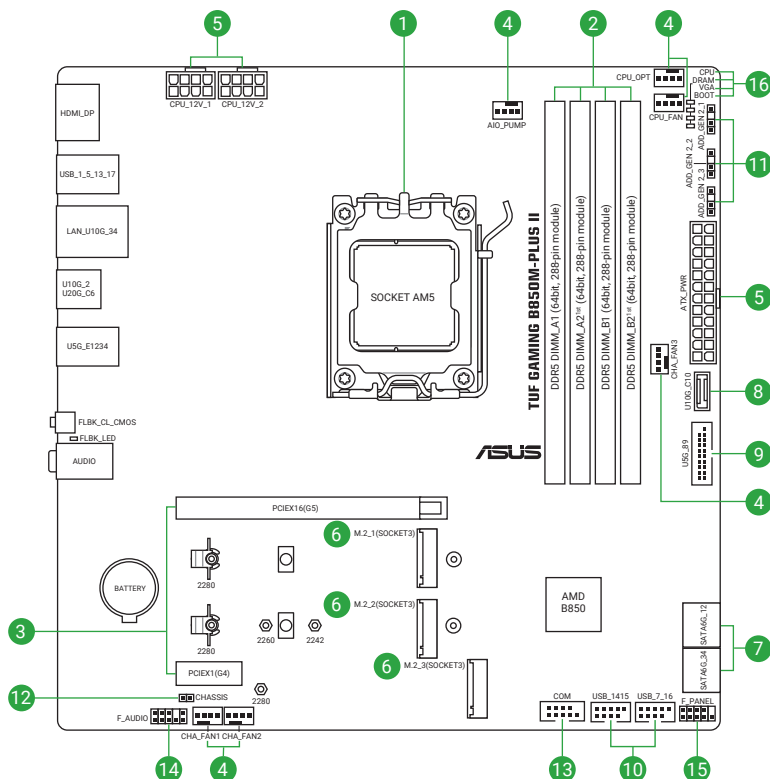
CAUTION!

- 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.
- Hold components by the edges to avoid touching the ICs on them.
- Whenever you uninstall any component, place it on a grounded antistatic pad or in the bag that came with the component.
- 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.

NOTE:

- The pin definitions in this chapter are for reference only. The pin names depend on the location of the header/jumper/connector.
 - The illustrations for this chapter are for reference only.
-

1.2 Motherboard layout



1.2.1 Layout contents

1. CPU socket

The motherboard comes with a Socket AM5 designed for AMD Ryzen™ 9000 & 8000 & 7000 Series Desktop Processors.

NOTE: For more details, refer to **CPU installation**.

2. DIMM slots

The motherboard comes with Dual Inline Memory Modules (DIMM) slots designed for DDR5 (Double Data Rate 5) memory modules.

NOTE: For more details, refer to DIMM installation.

3. Expansion slots

This motherboard supports one PCIe x16 graphics card and one PCIe x1 network card, SCSI card and other card that complies with the PCI Express specification.

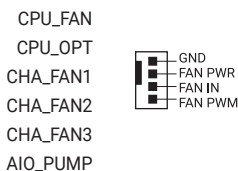
Slot Description	PCIe bifurcation settings in PCIe x16 slots with different Ryzen™ CPUs
	AMD Ryzen™ 9000 & 7000 Series Desktop Processors
PCIEX16(G5)	4(x4+x4+x4+x4)

NOTE:

- Hyper M.2 X16 series card sold separately.
- Additional PCIe bifurcation and M.2 settings for RAID function are also supported when a Hyper M.2 X16 series card is installed.
- For more details on the PCIe bifurcation, you may visit the support site at <https://www.asus.com/support/FAQ/1037507/>.
- Adjust the PCIe bifurcation under BIOS settings.
- Enable the Hyper M.2 X16 series card under BIOS settings.
- Creating RAID with the Hyper M.2 X16 series card is limited to a maximum of 10 SSDs.

4. Fan and Pump headers

The Fan and Pump headers allow you to connect fans or pumps to cool the system.



CAUTION!

- DO NOT forget to connect the fan cables to the fan headers. Insufficient air flow inside the system may damage the motherboard components. These are not jumpers! Do not place jumper caps on the fan headers!
- Ensure the cable is fully inserted into the header.

IMPORTANT! For water cooling kits, connect the pump connector to the **AIO_PUMP** header.

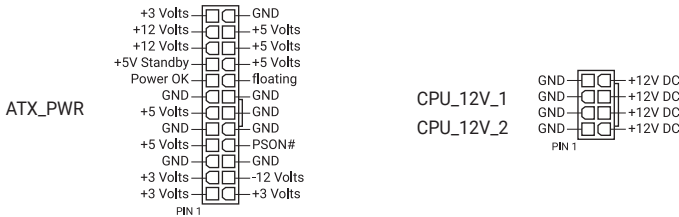
NOTE:

- When connecting a single CPU fan, you may connect it to either the **CPU_FAN** or **CPU_OPT** header.
- When connecting two CPU fans, ensure to connect the fans to the **CPU_FAN** and the **CPU_OPT** header, and make sure both fans are the same brand and model.

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
CHA_FAN1	1A	12W	Q-Fan Controlled	-
CHA_FAN2	1A	12W	Q-Fan Controlled	-
CHA_FAN3	1A	12W	Q-Fan Controlled	-
AIO_PUMP	1A	12W	Full-Speed	-

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.



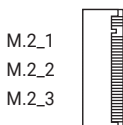
CAUTION! Ensure to connect the 8-pin power plug, or connect both the 8-pin plugs.

NOTE:

- 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.
 - PSU input: AC 100~240V, 6A/3A, 50/60Hz.
-

6. M.2 slot

The M.2 slot allows you to install M.2 devices such as M.2 SSD modules.



NOTE:

- **For AMD Ryzen™ 9000 & 7000 Series Desktop Processors:**
 - M.2_1 slot (Key M), type 2280 (supports PCIe 5.0 x4 mode)
 - M.2_2 slot (Key M), type 2242/2260/2280 (supports PCIe 4.0 x4 mode)
- **For AMD Ryzen™ 8000 Series Desktop Processors:**
 - M.2_1 slot (Key M), type 2280 (supports PCIe 4.0 x4 mode)
 - M.2_2 slot (Key M), type 2242/2260/2280 (supports PCIe 4.0 x4/x2 mode)*
- **For AMD B850 Chipset:**
 - M.2_3 slot (Key M), type 2280 (supports PCIe 4.0 x4 mode)
- *** Specifications vary by CPU types.**
- **AMD RAIDXpert2 Technology:**
 - Ryzen™ 9000 Series Processors: RAID 0/1/5/10
 - Ryzen™ 8000 Series Processors: RAID 0/1
 - Ryzen™ 7000 Series Processors: RAID 0/1/10

7. SATA 6Gb/s connector

The SATA 6Gb/s connector allows you to connect SATA devices such as optical disc drives and hard disk drives via a SATA cable.

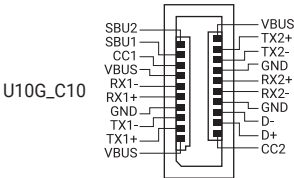


NOTE:

- If you installed SATA storage devices to the **SATA6G_1-4** ports, you can create RAID configurations through the onboard AMD B850 chipset.
- To install a SATA device, please refer to the **Motherboard Installation Guide** on the ASUS support site.
- Before creating a RAID set, refer to the **RAID Configuration Guide**. You can download the **RAID Configuration Guide** from the ASUS support site.

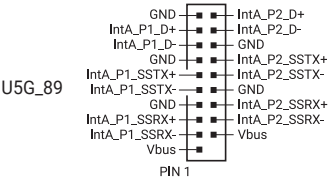
8. USB 10Gbps Type-C® Front Panel connector

The USB 10Gbps Type-C® connector allows you to connect a USB 10Gbps Type-C® module for an additional USB 10Gbps Type-C® port on the front panel. The USB 10Gbps Type-C® connector provides data transfer speeds of up to 10 Gb/s.



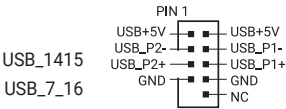
9. USB 5Gbps header

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



10. USB 2.0 header

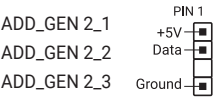
The USB 2.0 header allows you to connect a USB module for additional USB 2.0 ports. The USB 2.0 header provides data transfer speeds of up to 480 Mb/s.



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

11. Addressable RGB Gen 2 header

The Addressable RGB Gen 2 header allows you to connect individually addressable RGB (ARGB) WS2812B LED strips or WS2812B based LED strips.



CAUTION! 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.

NOTE:

- The Addressable RGB Gen 2 header supports addressable RGB LED strips (5V/Data/Ground), with a maximum power rating of 3A (5V). Additionally, the addressable header on this board can support up to 120 LEDs per header in Gen1 mode, or a combined maximum of 500 LEDs in Gen2 mode.
 - 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.
-

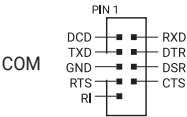
12. Chassis Intrusion header

The Chassis Intrusion header allows you to connect a intrusion sensor or microswitch for the chassis intrusion detection feature. When you remove any chassis component, the sensor or microswitch triggers and sends a high level signal and records a chassis intrusion event.



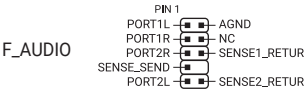
13. COM Port connector

The COM (Serial) Port connector allows you to connect a COM port module. Connect the COM port module cable to this connector, then install the module to a slot opening on the system chassis.



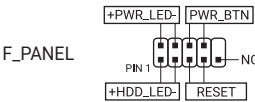
14. Front Panel Audio header

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



15. Front Panel System header

The Front Panel System header supports several chassis-mounted functions.



- **System Power LED header (+PWR_LED-)**

The 2-pin header allows you to connect the System Power LED. The System Power LED lights up when the system is connected to a power source, or when you turn on the system power, and blinks when the system is in sleep mode.

- **Storage Device Activity LED header (+HDD_LED-)**

The 2-pin header allows you to connect the Storage Device Activity LED. The Storage Device Activity LED lights up or blinks when data is read from or written to the storage device or storage device add-on card.

- **Power Button/Soft-off Button header (PWR_BTN)**

The 3-1 pin header allows you to connect the system power button. Press the power button to power up the system, or put the system into sleep or soft-off mode (depending on the operating system settings).

- **Reset button header (RESET)**

The 2-pin header allows you to connect the chassis-mounted reset button. Press the reset button to reboot the system.

16. Q-LEDs

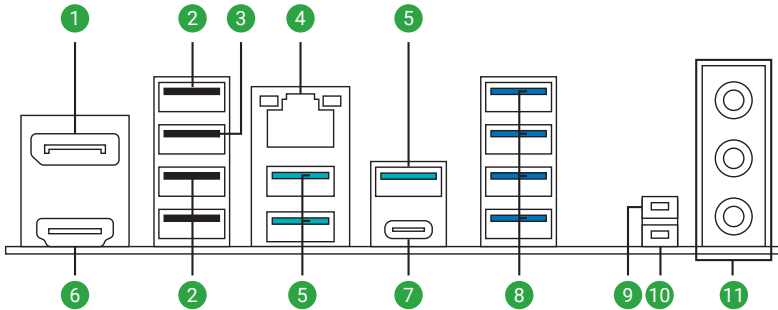
The Q-LEDs check key components (CPU, DRAM, VGA, and booting devices) during the motherboard booting process. If an error is found, the critical component's LED stays lit up until the problem is solved.

CPU (RED)	
DRAM (YELLOW)	
VGA (WHITE)	
BOOT (YELLOW GREEN)	

NOTE:

- 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.
 - *DRAM installation detection function:* The DRAM LED will detect if the memory modules have been installed in the recommended memory configuration slots as well as if the memory modules have been properly installed and seated in the memory slots once the motherboard is connected to a power supply. After the motherboard has been powered on, the DRAM LED will return to the original error checking procedure, regardless of the LED status prior to powering on.
-

1.2.2 Rear I/O connection



Rear panel connectors

- | | |
|-----|---|
| 1. | DisplayPort |
| 2. | USB 2.0 ports 1, 13, and 17 |
| 3. | USB 2.0 port 5 with BIOS FlashBack™ feature |
| 4. | Realtek 2.5Gb Ethernet port* |
| 5. | USB 10Gbps (Teal blue) Type-A ports 3, 4, and 2 |
| 6. | HDMI™ port |
| 7. | USB 20Gbps Type-C® port C6 |
| 8. | USB 5Gbps Type-A ports E1, E2, E3, and E4 |
| 9. | Clear CMOS button |
| 10. | BIOS FlashBack™ button |
| 11. | Audio jacks** |

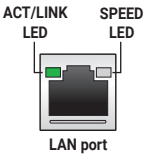
* and **: Refer to the tables under LAN port LEDs, and Audio I/O connections sections.

NOTE: We strongly recommend that you connect your devices to ports with matching data transfer rate. For example connecting your USB 5Gbps devices to USB 5Gbps ports for faster and better performance for your devices.

1.2.3 LAN port LEDs

Realtek 2.5Gb 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



1.2.4 Audio I/O connections

Audio 2, 4, 5.1 or 7.1-channel configuration

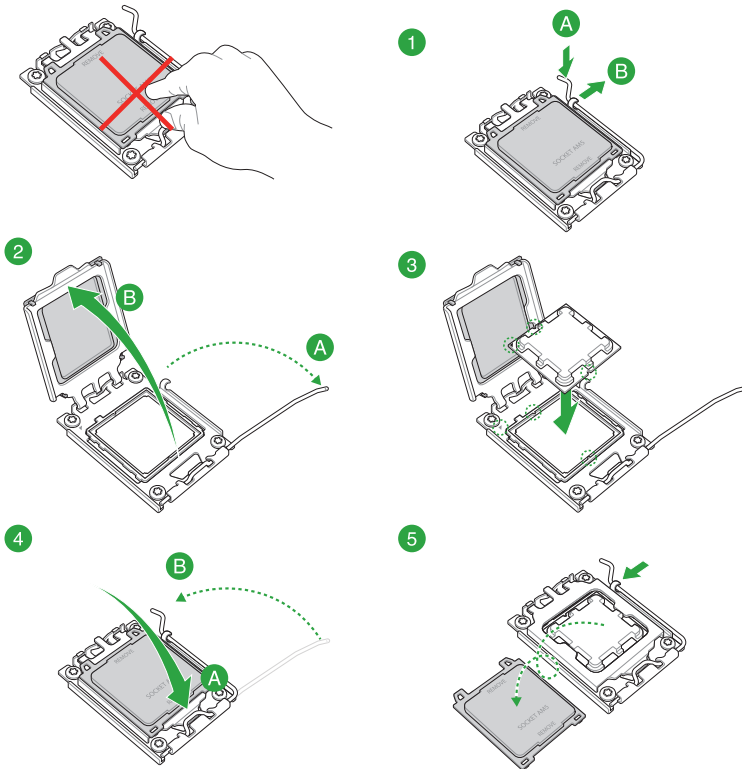
Port	2-channel	4-channel	5.1-channel	7.1-channel
Rear panel				
LINE IN	-	-	-	Side Speaker Out
LINE OUT	Front Speaker Out	Front Speaker Out	Front Speaker Out	Front Speaker Out
MIC IN	-	-	Center/ Subwoofer	Center/ Subwoofer
Front panel				
HEADPHONE (Lime)	-	-	-	-
MIC IN (Pink)	-	Rear Speaker Out	Rear Speaker Out	Rear Speaker Out

1.3 CPU installation

CAUTION!

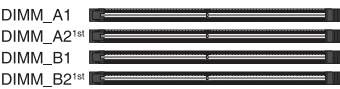
- The AM5 socket has a different pinout design. Ensure that you use a CPU designed for the AM5 socket.
- The CPU fits in only one correct orientation. DO NOT force the CPU into the socket to prevent bending the connectors on the socket and damaging the CPU.
- Ensure that all power cables are unplugged before installing the CPU.
- 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. ASUS will shoulder the cost of repair only if the damage is shipment/transit-related.
- 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 AM5 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.

IMPORTANT! Install a heatsink or AIO cooler after installing the CPU. Please refer to the **Motherboard Installation Guide** on the ASUS support site, or to the user manual of the heatsink/AIO cooler for steps on installing the heatsink/AIO cooler.



1.4 DIMM installation

The figure illustrates the location of the DDR5 DIMM sockets.



CAUTION! A DDR5 memory module is notched differently from a DDR, DDR2, DDR3, or DDR4 module. DO NOT install a DDR, DDR2, DDR3, or DDR4 memory module to the DDR5 slot.

Recommended memory configurations

Memory configurations				
	DIMM			
	A1	A2 ^{1st}	B1	B2 ^{1st}
1 DIMM		✓		
2 DIMMs		✓		✓
4 DIMMs	✓	✓	✓	✓

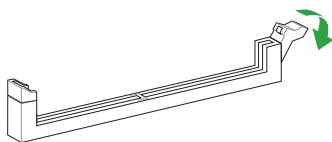
You may install ECC and Non-ECC DDR5 DIMMs into the DIMM sockets.

NOTE:

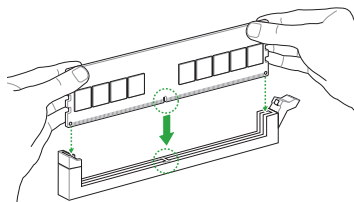
- The default memory operation frequency is dependent on its Serial Presence Detect (SPD), which is the standard way of accessing information from a memory module. Under the default state, some memory modules for overclocking may operate at a lower frequency than the vendor-marked value.
- For system stability, use a more efficient memory cooling system to support a full memory load or overclocking condition.
- Always install the DIMMs with the same CAS Latency. For an optimum compatibility, we recommend that you install memory modules of the same version or data code (D/C) from the same vendor. Check with the vendor to get the correct memory modules.
- Visit the ASUS website for the latest QVL.

Installing a DIMM

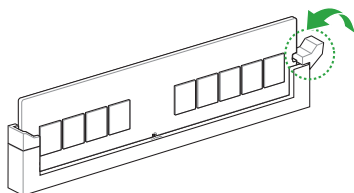
1



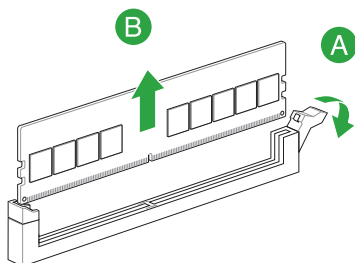
2



3



Removing a DIMM



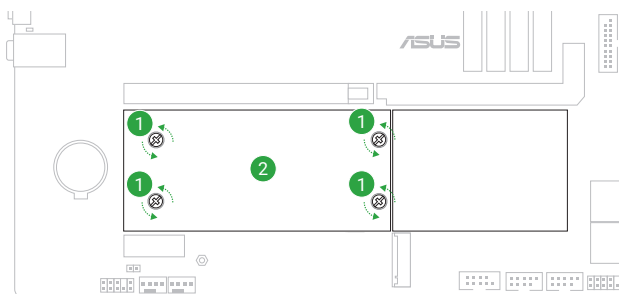
1.5 M.2 module installation

NOTE:

- The illustrations only show the installation steps for selected M.2 slots, the steps are the same for the other M.2 slots.
 - Use a Phillips screwdriver when removing or installing the screws or screw stands mentioned in this section.
 - If the thermal pad on the M.2 heatsink becomes damaged, we recommend replacing it with a thermal pad with a thickness of 1.25mm.
 - Supported M.2 type varies per motherboard.
-

1. (optional) Loosen the screws from the M.2 heatsink.
 2. (optional) Lift and remove the heatsink.
-

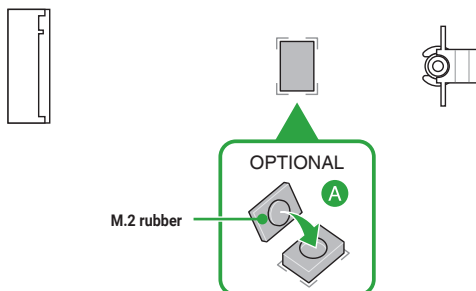
NOTE: Only follow the steps above if the slot comes with a heatsink.



3. Install your M.2 module to the M.2 slot. The steps may differ between the different M.2 slots, please refer to the different installation steps below:

M.2_1 slot / M.2_2 slot (2280 length)

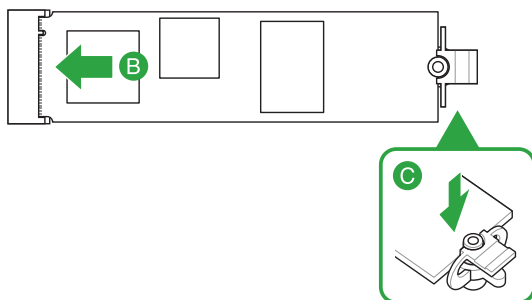
- A. (optional) Install the bundled M.2 rubber if you are installing a single sided M.2 module. DO NOT install the bundled M.2 rubber when installing a double-sided M.2 module. The rubber installed by default is compatible with double sided M.2 modules.



- B. Install your M.2 module to the M.2 slot.

IMPORTANT! Ensure that there is nothing obstructing your M.2 module when installing the M.2 module to the M.2 slot.

- C. Push the M.2 module down until it is secured by the M.2 Q-Latch.

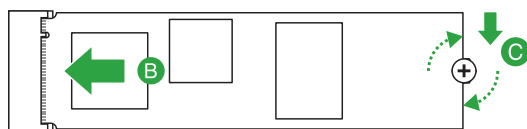


M.2_2 slot (2242/2260 length) / M.2_3 slot

- A. Install the bundled screw stand to the M.2 length screw hole you wish to install your M.2 module to.



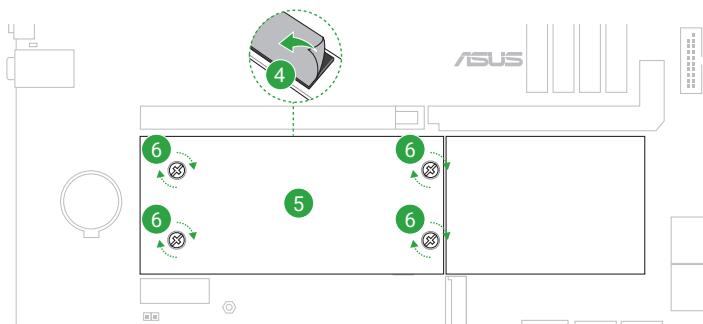
- B. Install your M.2 module to the M.2 slot.
- C. Secure your M.2 module using the bundled screw stand's screw.



4. (optional) Remove the plastic film from the thermal pad on the bottom of the heatsink.

NOTE: If the thermal pad on the M.2 heatsink becomes damaged, we recommend replacing it with a thermal pad with a thickness of 1.25mm.

5. (optional) Replace the heatsink.
6. (optional) Secure the heatsink using the screws on the heatsink.



NOTE: Only follow steps 4-6 if the slot comes with a heatsink.

1.6 BIOS FlashBack™

NOTE: The illustrations in this section are for reference only. The WiFi module is only available on selected models.

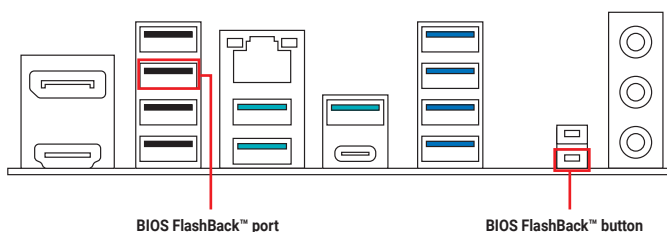
BIOS FlashBack™ allows you to easily update the BIOS without entering the existing BIOS or operating system.

To use BIOS FlashBack™:

1. Visit <https://www.asus.com/support/> and download the latest BIOS version for this motherboard.
2. Launch the **BIOSRenamer.exe** application to automatically rename the file or manually rename the file to the BIOS CAP filename specified in the **Specifications summary** section, then copy it to your USB storage device.

NOTE: The **BIOSRenamer.exe** application is zipped together with your BIOS file when you download a BIOS file for a BIOS FlashBack™ compatible motherboard.

3. Plug the 24-pin power connector to the motherboard and turn on the power supply (no need to power on the system). Insert the USB storage device to the USB port with BIOS FlashBack™ function.
4. Press the BIOS FlashBack™ button for three (3) seconds until the BIOS FlashBack™ LED blinks three times, indicating that the BIOS FlashBack™ function is enabled.



5. Wait until the light goes out, indicating that the BIOS updating process is completed.

NOTE: For more BIOS update utilities in BIOS setup, refer to **BIOS and RAID Support** section.

CAUTION!

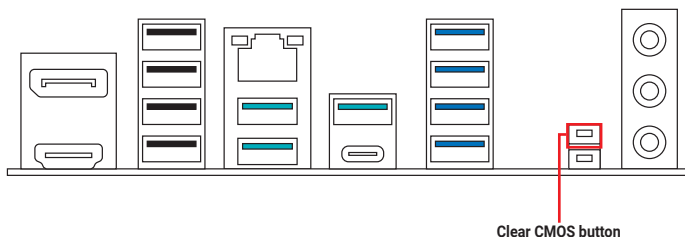
- Do not unplug portable disk, power system, press the Clear CMOS button, or short the CLRRTC header while BIOS update is ongoing, otherwise update will be interrupted. In case of interruption, please follow the steps again.
- If the light flashes for five seconds and turns into a solid light, this means that the BIOS FlashBack™ is not operating properly. This may be caused by improper installation of the USB storage device and filename/file format error. If this scenario happens, please restart the system to turn off the light.
- Updating BIOS may have risks. If the BIOS program is damaged during the process and results to the system's failure to boot up, please contact your local ASUS Service Center.

1.7 Clear CMOS button

The Clear CMOS button located on the rear I/O allows you to clear the Real Time Clock (RTC) RAM in the CMOS, which contains the date, time, system passwords, and system setup parameters.

To erase the RTC RAM:

1. Turn OFF the computer and unplug the power cord.
2. Press the Clear CMOS button.



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.

CAUTION! DO NOT press the Clear CMOS button except when clearing the RTC RAM, doing so will cause system boot failure!

NOTE: If the steps above do not help, remove the onboard button cell battery and press the Clear CMOS button again to clear the CMOS RTC RAM data. After clearing the CMOS, reinstall the button cell battery.

BIOS and RAID Support

NOTE: For more details on BIOS and RAID configurations, please refer to Manual & Document under the Support tab of the product information site, or visit <https://www.asus.com/support>.

2.1 Knowing UEFI BIOS

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.

CAUTION! 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.**

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

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.

IMPORTANT!

- 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 the <F5> hotkey.
 - 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.

2.2 ASUS EZ Flash 3

The ASUS EZ Flash 3 feature allows you to update the BIOS without using an OS-based utility.

IMPORTANT! 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 the <F5> hotkey.

To update the BIOS:

CAUTION!

- 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 arrow key 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 Right arrow key 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.

2.3 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 file using one of the following methods:
 - Launch the **BIOSRenamer.exe** application to automatically rename the file.
 - Manually rename the file to the BIOS CAP filename specified in the **Specifications summary** section.
 - Manually rename the file to **ASUS.CAP**.
3. Copy the renamed file to your USB storage device.
4. Insert the USB flash drive containing the BIOS file to a USB port.
5. Turn on the system.
6. 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.
7. The system requires you to enter BIOS Setup to recover the BIOS setting. To ensure system compatibility and stability, we recommend that you press the <F5> hotkey to load default BIOS values.

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

2.4 RAID configurations

The motherboard supports RAID configurations.

RAID definitions

Volume provides the ability to link-together storage from one or several disks, regardless of the size of the space on those disks. This configuration is useful in scavenging space on disks unused by other disks in the array. This configuration does not provide performance benefits or data redundancy, disk failure will result in data loss.

RAIDABLE arrays (also known as RAID Ready) are a special type of Volume (JBOD) that allows the user to add more storage space or create a redundant array after a system is installed.

NOTE: The ability to create RAIDABLE arrays may vary per system.

RAID 0 (Data striping) optimizes two identical hard disk drives to read and write data in parallel, interleaved stacks. Two hard disks perform the same work as a single drive but at a sustained data transfer rate, double that of a single disk alone, thus improving data access and storage. Use of two new identical hard disk drives is required for this setup.

RAID 1 (Data mirroring) copies and maintains an identical image of data from one drive to a second drive. If one drive fails, the disk array management software directs all applications to the surviving drive as it contains a complete copy of the data in the other drive. This RAID configuration provides data protection and increases fault tolerance to the entire system. Use two new drives or use an existing drive and a new drive for this setup. The new drive must be of the same size or larger than the existing drive.

RAID 5 stripes both data and parity information across three or more hard disk drives. Among the advantages of RAID 5 configuration include better HDD performance, fault tolerance, and higher storage capacity. The RAID 5 configuration is best suited for transaction processing, relational database applications, enterprise resource planning, and other business systems. Use a minimum of three identical hard disk drives for this setup.

RAID 10 is data striping and data mirroring combined without parity (redundancy data) having to be calculated and written. With the RAID 10 configuration you get all the benefits of both RAID 0 and RAID 1 configurations. Use four new hard disk drives or use an existing drive and three new drives for this setup.

Appendix

General 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.

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安全上のご注意

付属品は当該専用品です。他の機器には使用しないでください。機器の破損もしくは、火災や感電の原因となることがあります。

インターネット回線への接続に関するご注意

本製品は電気通信事業者（移动通信会社、固定通信会社、インターネットプロバイダ等）の通信回線（公衆無線LANを含む）に直接接続することができません。本製品をインターネットに接続する場合は、必ずルーター等を経由し接続してください。

Australia statement notice

From 1 January 2012 updated warranties apply to all ASUS products, consistent with the Australian Consumer Law. For the latest product warranty details please visit <https://www.asus.com/support/>. Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

If you require assistance please call ASUS Customer Service 1300 2787 88 or visit us at <https://www.asus.com/support/>.

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 <https://esg.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 <https://esg.asus.com/Compliance.htm>.

EU RoHS

This product complies with the EU RoHS Directive. For more details, see <https://esg.asus.com/Compliance.htm>

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.

Türkiye 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 <https://esg.asus.com/en/Takeback.htm> for detailed recycling information in different regions.



The Waste Electrical and Electronic Equipment (WEEE) Directive (Directive 2012/19/EU) is a European Union law that aims to reduce the environmental impact of electrical and electronic equipment. It mandates producers to take responsibility for the end-of-life management of their products, promoting collection, treatment, and recycling to minimize waste and encourage resource recovery.

Do not throw your electronic and electrical equipment in municipal waste.

The symbol of the crossed-out wheeled bin on the product or packaging indicates that this product (including any batteries it contains) must not be disposed of with your household waste.

To prevent potential harm to the environment and human health, a collection framework should be used to return, recycle, and recover waste electrical and electronic equipment (WEEE), and this product has been designed to enable the reuse of parts and facilitate the recycling of certain materials.

Improper disposal may involve risks due to the presence of hazardous substances within electrical and electronic equipment, such as lead and BFR and other harmful components.

Check your local recycling services for electronic products.

<https://esg.asus.com/en/circular-economy/resource-regeneration/global-take-back-service>



Do not throw the battery in municipal waste. The symbol of the crossed out wheeled bin indicates that the battery should not be placed in municipal waste.

France sorting and recycling information



Points de collecte sur www.quefairedemesdechets.fr
Privilégiez la réparation ou le don de votre appareil !

Notices for non Wi-Fi model

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(B)/NMB(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(B)/NMB(B)

Simplified UKCA Declaration of Conformity

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

Simplified EU Declaration of Conformity

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

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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

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Ελληνικά Με το παρόν, η ASUSTeK Computer Inc. δηλώνει ότι αυτή η συσκευή συμμορφώνεται με τις θεμελιώδεις απαιτήσεις και άλλες σχετικές διατάξεις των Οδηγιών της ΕΕ. Το πλήρες κείμενο της δήλωσης συμπατότητας είναι διαθέσιμο στη διεύθυνση: www.asus.com/support

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

Latviski ASUSTeK Computer Inc. ar šo paziņo, ka šī ierīce atbilst saistošo Direktīvu būtiskajām prasībām un citiem citiem saistošajiem nosacījumiem. Pilns ES atbilstības paziņojuma teksts pieejams šeit: www.asus.com/support

Lietuvių „ASUSTek Computer Inc.“ šiuo tvirtina, kad šis įrenginys atitinka pagrindinius reikalavimus ir kitas svarbias susijusių direktyvų nuostatas. Visą ES atitikties deklaracijos tekstą galima rasti: www.asus.com/support

Norsk ASUSTek Computer Inc. erklærer herved at denne enheten er i samsvar med hovedsaklige krav og andre relevante forskrifter i relaterte direktiver. Fullstendig tekst for EU-samsvarserklæringen finnes på: www.asus.com/support

Polski Firma ASUSTek Computer Inc. niniejszym oświadczam, że urządzenie to jest zgodne z zasadniczymi wymogami i innymi właściwymi postanowieniami powiązanych dyrektyw. Pełny tekst deklaracji zgodności UE jest dostępny pod adresem: www.asus.com/support

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

Srpski ASUSTek Computer Inc. ovim izjavljuje da je ovaj uređaj u saglasnosti sa osnovnim zahtevima i drugim relevantnim odredbama povezanih Direktiva. Pun tekst EU deklaracije o usaglašenosti je dostupan na adresi: www.asus.com/support

Slovensky Spoločnosť ASUSTek Computer Inc. týmto vyhlasuje, že toto zariadenie vyhovuje základným požiadavkám a ostatným príslušným ustanoveniam príslušných smerníc. Celý text vyhlásenia o zhode pre štáty EÚ je dostupný na adrese: www.asus.com/support

Slovenščina ASUSTek Computer Inc. izjavlja, da je ta naprava skladna z bistvenimi zahtevami in drugimi ustreznimi določbami povezanih direktiv. Celotno besedilo EU-izjave o skladnosti je na voljo na spletnem mestu: www.asus.com/support

Español Por la presente, ASUSTek Computer Inc. declara que este dispositivo cumple los requisitos básicos y otras disposiciones pertinentes de las directivas relacionadas. El texto completo de la declaración de la UE de conformidad está disponible en: www.asus.com/support

Svenska ASUSTek Computer Inc. förklarar härmed att denna enhet överensstämmer med de grundläggande kraven och andra relevanta föreskrifter i relaterade direktiv. Fulltext av EU-försäkran om överensstämmelse finns på: www.asus.com/support

Türkçe ASUSTek Computer Inc., bu aygıtın temel gereksinimlerle ve ilişkili Yönergelerin diğer ilgili koşullarıyla uyumlu olduğunu beyan eder. AB uygunluk bildiriminin tam metni şu adreste bulunabilir: www.asus.com/support

Українська ASUSTek Computer Inc. заявляє, що цей пристрій відповідає основним вимогам та іншим відповідним положенням відповідних Директив. Повний текст декларації відповідності стандартам ЄС доступний на: www.asus.com/support

Bosnian ASUSTek Computer Inc. ovim izjavljuje da je ovaj uređaj usklađen sa bitnim zahtjevima i ostalim odgovarajućim odredbama vezanih direktiva. Kompletan tekst EU deklaracije o usklađenosti dostupan je na: www.asus.com/support

עברית ASUSTek Computer Inc. בזאת, מצהירה כי מכשיר זה תואם לדרישות החיוניות ולתנאים הרלוונטיים האחרים של ההנחיות הקשורות. הטקסט המלא של הצהרת התאימות של האיחוד האירופי זמין בכתובת: www.asus.com/support

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 интерпретирования 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/>.

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>.

CR: Informácie 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.

See informacije o jamstvu potražite na <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/>.

DA: ASUS garantioplysninger

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

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

DU: ASUS-garantie-informatie

- ASUS 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 tasulist tootjagarantiid.
- ASUS jätab endale õiguse tõlgendada ASUS-e tasulise garantii tingimusi.
- See ASUS-e tasuline garantii on sõltumatu lisagarantii seadusega kehtestatud garantile ega mõjuta mingil määral seadusega kehtestatud garantiid ning seadusega kehtestatud garantii piiranguid.

Vaadake garantiga seotud teavet veebisaidilt <https://www.asus.com/ee/>.

FI: ASUS-takuutiedot

- ASUS tarjoaa vapaaehtoisien valmistajan kaupallisen takuun.
- ASUS pidättää oikeuden tulkita ASUS-kaupallisen takuun ehdot.
- Tämä ASUS-kaupallinen takuu tarjotaan itsenäisesti lakisäätöiden 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>.

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 információért látogasson el a <https://www.asus.com/hu/support/oldalra>.

LT: Informacija apie ASUS garantiją

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

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

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 veidā neietekmē vai neierobežo juridiskajā garantijā noteiktās tiesības.

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

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 pueden 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

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/>.

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/>.

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>

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>

S: 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/>

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/>.

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 záruky ASUS.

Všetky ďalšie informácie o záruke nájdete na <https://www.asus.com/sk/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/support>.

SW: ASUS garantinformation

- 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 rättsigheterna under den lagstadgade garantin.

För all garantinformation, besök <https://www.asus.com/se/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 sınırlandırmaz.

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

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 Законовою Гарантією і не обмежує їх.

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

Компанія ASUS не несе відповідальності за шкоду, заподіяну життям, здоров'ю чи майну користувача або інших осіб внаслідок використання несправного Виробу або такого Виробу, що не пройшов діагностику після закінчення терміну служби.

З метою перевірки технічного стану Виробу та визначення безпеки його подальшого використання після закінчення терміну служби користувачу необхідно припинити використання Виробу та передати його в авторизований сервісний центр компанії ASUS протягом одного місяця з моменту виявлення пошкоджень та/або закінчення терміну служби Виробу.

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/>.

VN: Thông tin đảm bảo của ASUS

- ASUS cung cấp Bảo hành thương mại tự nguyện của nhà sản xuất.
- ASUS bảo lưu quyền giải thích các điều khoản của Bảo hành thương mại của ASUS.
- Bảo hành thương mại này của ASUS được cung cấp độc lập và ngoài Bảo đảm pháp lý theo luật định và không có cách nào ảnh hưởng đến hoặc giới hạn các quyền theo Bảo lãnh pháp lý. Để biết tất cả các thông tin bảo hành, vui lòng truy cập

<https://www.asus.com/vn/support>

ID: Informasi Garansi ASUS

Periode garansi untuk Mainboard adalah 0 bulan dan Mainboard Workstation adalah 72 bulan Masa ("Garansi") sejak tanggal produk pertama kali dibeli oleh pelanggan akhir ("Tanggal Pembelian"). * Silakan kunjungi situs Dukungan ASUS di <https://www.asus.com/id/support/warranty-status-inquiry/> untuk detail lebih lanjut. Jika bukti pembelian tidak dapat diberikan, tanggal produksi yang dicatat oleh ASUS akan dianggap sebagai awal dari Masa Garansi. Silahkan pindai Kode QR di bagian bawah halaman terakhir untuk Kartu Garansi versi Web dalam format PDF untuk lebih informasi jelas mengenai jaminan garansi Produk ASUS. Layanan Call Center Nomor Telepon: 1500128 (Senin-Jumat 09.30-17.00, Sabtu 09.30-12.00)

No.	Kota	Provinsi	Alamat	Jam Kerja
1	Jakarta Pusat	Jakarta	Ruko Mangga Dua Mall No. RM-22, Jl. Mangga Dua Raya No. 1, RT.1/RW.12, Mangga Dua Sel., Kecamatan Sawah Besar, Kota Jakarta Pusat, Daerah Khusus Ibukota Jakarta 10730	Senin-Jumat 09.30-17.00, Sabtu 09.30-12.00
2	Surabaya	Jawa Timur	Jl. Klampis Jaya No. 39, Surabaya, Jawa Timur, Indonesia, 60117	Senin-Jumat 09.30-17.00, Sabtu 09.30-12.00
3	Denpasar	Bali	Jl. Teuku Umar Barat No.8880, Denpasar, Bali, Indonesia, 80117	Senin-Jumat 09.30-17.00, Sabtu 09.30-12.00



Warranty Card (Online)

:HB מידע על אחריות ASUS

- ASUS מציעה אחריות מסחרית של יצרן מרצון.
- ASUS שומרת לעצמה את הזכות לפרש את הוראות הערבות המסחרית של ASUS.
- אחריות מסחרית זו של ASUS ניתנת באופן עצמאי ובנוסף לערבות המשפטית ההסטוטורית ואינה משפיעה או מגבילה בשום אופן את הזכויות במסגרת הערבות המשפטית.

למידע אודות האחריות, אנא בקר ב

<https://www.asus.com/support>

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Service and support

Visit our multi-language website at <https://www.asus.com/support>.



Product register

Log in and register your device for better product support.

