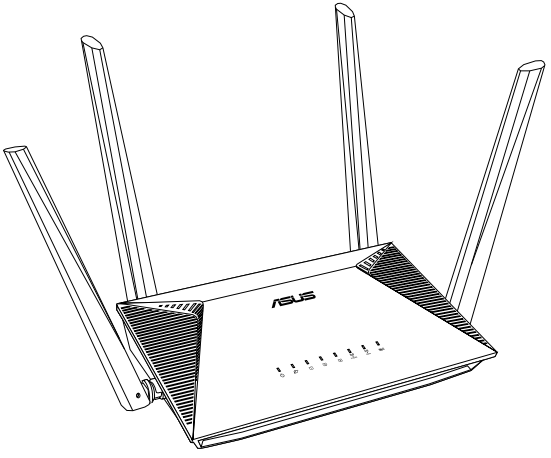
User Guide

RT-AX52

Wireless-AX Dual Band Wi-Fi 6 Router



IN SEARCH OF INCREDIBLE

E27194
Revised Edition v2
September 2025

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ACCESSIBILITY STATEMENT

ASUS is committed to making our documentation accessible, in accordance with Directive (EU) 2019/882 of the European Parliament and of the Council. This document is designed to meet requirements for WCAG 2.1 (level AA)/EN 301 549 and be accessible to screen readers such as NVDA Screen Reader or Microsoft Narrator.

For more product information, please refer to the product webpage:

https://qr.asus.com/networking/rt-ax52

Service and Support

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

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1 Getting to know your wireless router

1.1 Welcome!

Thank you for purchasing an ASUS RT-AX52 Wireless Router!

The ultra-thin and stylish RT-AX52 features 2.4GHz and 5GHz dual bands for an unmatched concurrent wireless HD streaming and the ASUS Green Network Technology, which provides up to 70% power-saving solution.

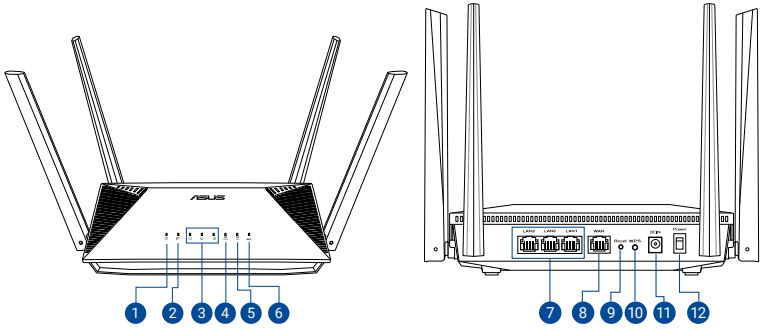
1.2 Package contents

- RT-AX52 Wireless Router
- Network cable (RJ-45)
- Power adapter
- Quick Start Guide

NOTES:

- If any of the items are damaged or missing, contact ASUS for technical inquiries and support. Refer to **Service and Support** in this user manual.
- Keep the original packaging material in case you would need future warranty services such as repair or replacement.

1.3 Your wireless router



1. **Power LED**

   Off: No power

   On: Device is ready

   Flashing slow: Rescue mode

2. **WAN (Internet) LED**

   Red: No IP or no physical connection.

   On: Has physical connection to a wide area network (WAN).

3. **LAN 1 ~ 3 LEDs**

   Off: No power or no physical connection.

   On: Has physical connection to a local area network (LAN).

4. **2.4GHz LED**

   Off: No 2.4GHz signal.

   On: Wireless system is ready.

   Flashing: Transmitting or receiving data via wireless connection.

5. **5GHz LED**

   Off: No 5GHz signal.

   On: Wireless system is ready.

   Flashing: Transmitting or receiving data via wireless connection.

6. **WPS LED**

   Off: WPS is not processing.

   On: WPS is processing.

NOTE: You can check the router's working status in the router app.

7. **LAN 1 ~ 3 ports**

   Connect network cables into these ports to establish LAN connection.

8. **WAN (Internet) port**

   Connect a network cable into this port to establish WAN connection.

9. **Reset button**

   This button resets or restores the system to its factory default settings.

10. **WPS button**

    This button launches the WPS Wizard.

11. **Power (DCIN) port**

    Insert the bundled AC adapter into this port and connect your router to a power source.

12. **Power switch**

    Press this switch to power on or off the system.

NOTES:

- Use only the adapter that came with your package. Using other adapters may damage the device.
- **Specifications:**

  DC Power adapter (DC Output): +12V with 1A current

  Operating Temperature: 0 to 40℃

  Storage Temperature: 0 to 70℃

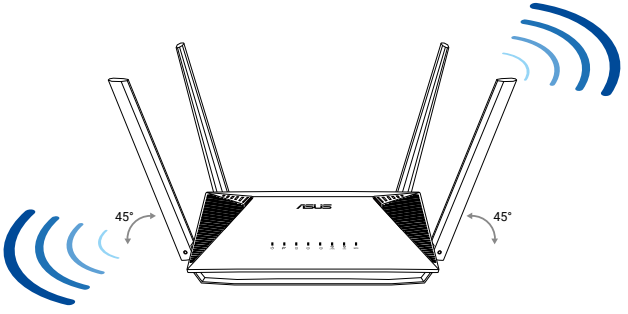
  Operating Humidity: 50 to 90%

  Storage Humidity: 20 to 90%

1.4 Positioning your wireless router

For optimal wireless transmission between the wireless router and connected wireless devices, ensure that you:

- Place the wireless router in a centralized area for a maximum wireless coverage for the network devices.
- Keep the wireless router away from metal obstructions and away from direct sunlight.
- Keep the wireless router away from 802.11g or 20MHz only Wi-Fi devices, 2.4GHz computer peripherals, Bluetooth devices, cordless phones, transformers, heavy-duty motors, fluorescent lights, microwave ovens, refrigerators, and other industrial equipment to prevent signal interference or loss.
- Always update to the latest firmware. Visit the ASUS website at **https://www.asus.com** to get the latest firmware updates.
- Orient the antennas as shown in the drawings below.



1.5 Setup Requirements

To set up your wireless network, you need a computer that meets the following system requirements:

- Ethernet RJ-45 (LAN) port (10Base-T/100Base-TX/1000BaseTX)
- IEEE 802.11a/b/g/n/ac/ax wireless capability
- An installed TCP/IP service
- Web browser such as Internet Explorer, Firefox, Safari, or Google Chrome

NOTES:

- If your computer does not have built-in wireless capabilities, you may install an IEEE 802.11a/b/g/n/ac/ax WLAN adapter to your computer to connect to the network.
- With its dual band technology, your wireless router supports 2.4GHz and 5GHz wireless signals simultaneously. This allows you to do Internet-related activities such as Internet surfing or reading/writing e-mail messages using the 2.4GHz band while simultaneously streaming high-definition audio/video files such as movies or music using the 5GHz band.
- Some IEEE 802.11n devices that you want to connect to your network may or may not support 5GHz band. Refer to the device's manual for specifications.
- The Ethernet RJ-45 cables that will be used to connect the network devices should not exceed 100 meters.

IMPORTANT!

- Some wireless adapters might have connectivity issues to 802.11ax WiFi APs.
- If you're experiencing such issue, please ensure you update the driver to the latest version. Check your manufacturer's official support site where software drivers, updates, and other related information can be obtained.

  Realtek: https://www.realtek.com

  Mediatek: https://www.mediatek.com

  Intel: https://www.intel.com/

2 Getting started

2.1 Router Setup

IMPORTANT!

- Use a wired connection when setting up your wireless router to avoid possible setup problems.
- Before setting up your ASUS wireless router, do the following:
- If you are replacing an existing router, disconnect it from your network.
- Disconnect the cables/wires from your existing modem setup. If your modem has a backup battery, remove it as well.
- Reboot your cable modem and computer (recommended).

WARNING!

- The power supply cord(s) must be plugged into socket-outlet(s) that is /are provided with a suitable earth ground. Connect the equipment only to a nearby socket outlet that is easily accessible.
- If the Adapter is broken, Do NOT try to fix it by yourself. Contact a qualified service technician or your retailer.
- Do NOT use damaged power cords, accessories, or other peripherals.
- Do NOT mount this equipment higher than 2 meters.
- Use this product in environments with ambient temperatures between 0℃ (32˚F) and 40℃ (104˚F).

FAQ (Frequently Asked Questions)

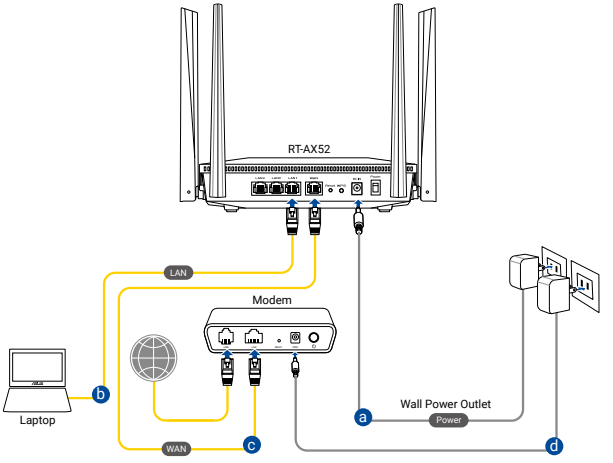
- Setting up via ASUS Router app
- Setting up via Web GUI (ASUSWRT)
- Setting up via QIS (Quick Internet Setup)

A. Wired connection

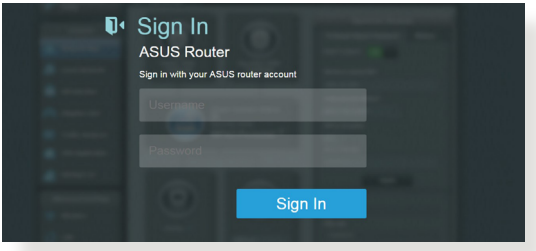
NOTE: You can use either a straight-through cable or a crossover cable for wired connection.

To set up your wireless router via wired connection:

1. Plug your router into a power outlet and power it on. Connect the network cable from your computer to a LAN port on your router.



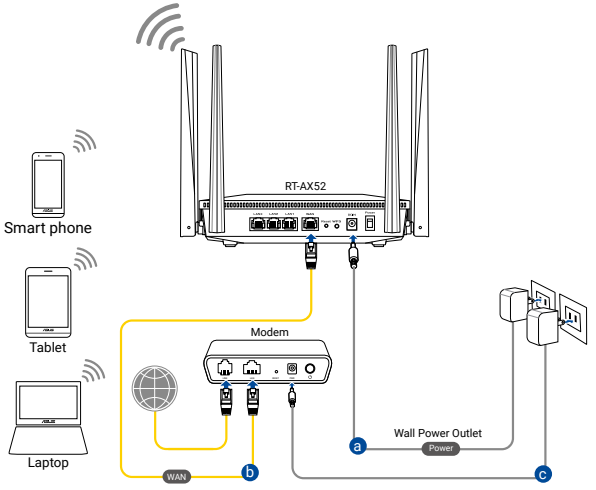
2. The Web GUI launches automatically when you open a web browser. If it does not auto-launch, enter http://www.asusrouter.com.
3. Set up a password for your router to prevent unauthorized access.



B. Wireless connection

To set up your wireless router via wireless connection:

1. Plug your router into a power outlet and power it on.



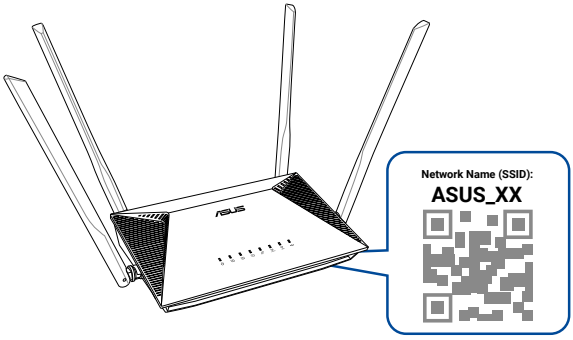
2. *[via web browser]* Connect to the network name (SSID) shown on the product label on the bottom side of the router. For better network security, change to a unique SSID and assign a password.

   Wi-Fi Name (SSID): ASUS_XX

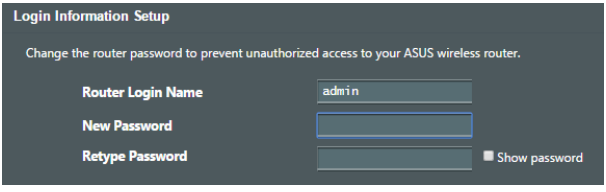
   * **XX** refers to the last two digits of 2.4GHz MAC address. You can find it on the label on the bottom side of your router.

   or

   [via app] On your iOS or Android mobile device, tap **Settings** > **Wi-Fi**, connect to the default network SSID shown on the product label on the bottom side of the router. Or scan the code (within a tactile rectangle) on the product label to connect the default network SSID.



3. Once connected, the Web GUI launches automatically when you open a web browser. If it does not auto-launch, enter http://www.asusrouter.com.
4. Set up a password for your router to prevent unauthorized access.



NOTES:

- For details on connecting to a wireless network, refer to the WLAN adapter's user manual.
- Your password must be at least 10 characters long, including at least one letter, one number, and one special character. It shall not contain consecutive identical characters (e.g., 'aa' is not allowed) and be different from your username.
- If you're in a region where http://www.asusrouter.com redirects, use https://www.asusrouter.com to access the GUI and log in.
- HTTPS provides a more secure web access protocl. For secure access, we recommend using HTTPS to access your ASUS router's configuration page. Download and install the certificate in the Trusted Root Certification Authorities store.

2.2 Quick Internet Setup (QIS) with Auto-detection

FAQ (Frequently Asked Questions)

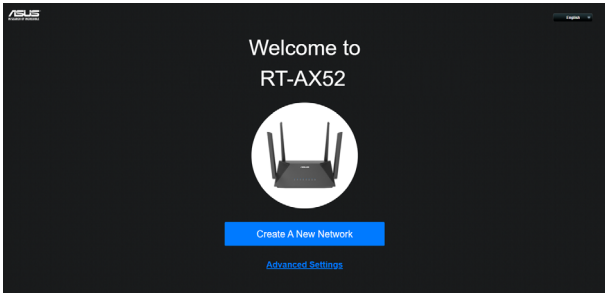
- Setting up via ASUS Router app
- Setting up via Web GUI (ASUSWRT)
- Setting up via QIS (Quick Internet Setup)

The Quick Internet Setup (QIS) function guides you in quickly setting up your Internet connection.

NOTE: When setting the Internet connection for the first time, press the Reset button on your wireless router to reset it to its factory default settings.

To use QIS with auto-detection:

1. Launch a web browser. You will be redirected to the ASUS Setup Wizard (Quick Internet Setup). If not, key in http://www.asusrouter.com manually.

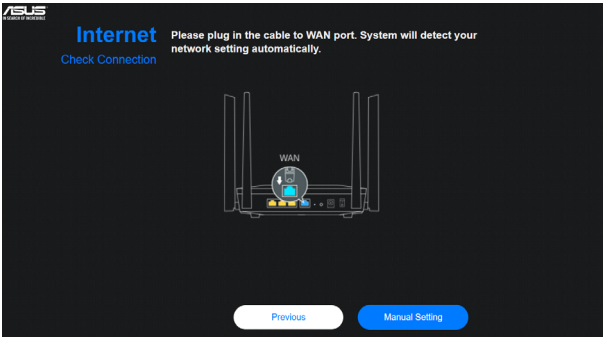


2. The wireless router automatically detects if your ISP connection type is **Dynamic IP**, **PPPoE**, **PPTP** and **L2TP**. Key in the necessary information for your ISP connection type.

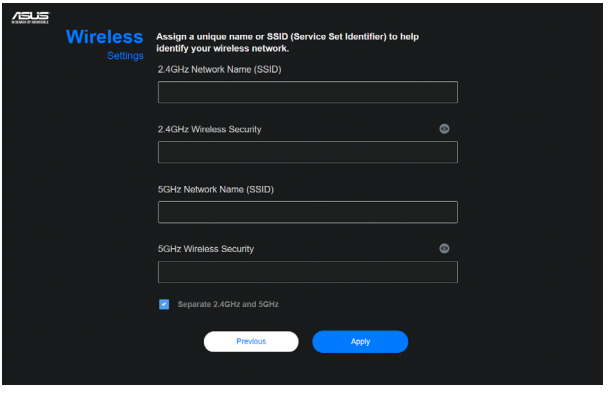
IMPORTANT! Obtain the necessary information from your ISP about the Internet connection type.

NOTES:

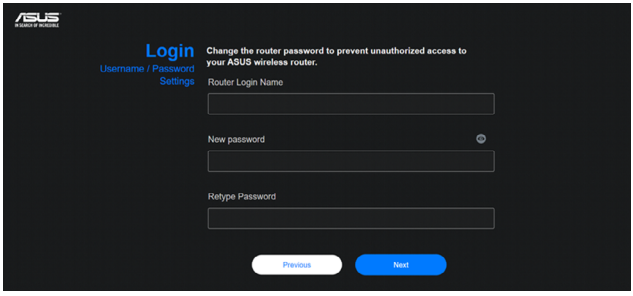
- The auto-detection of your ISP connection type takes place when you configure the wireless router for the first time or when your wireless router is reset to its default settings.
- If QIS failed to detect your Internet connection type, click **Manual Setting** and manually configure your connection settings.



3. Assign the wireless network name (SSID) and security key for your 2.4GHz and 5GHz wireless connection. Click **Apply** when done.



4. On the **Login Information Setup** page, change the router's login password to prevent unauthorized access to your wireless router.



NOTE: The wireless router's login username and password is different from the 2.4GHz/5GHz network name (SSID) and security key. The wireless router's login username and password allows you to log into your wireless router's Web GUI to configure your wireless router's settings. The 2.4GHz/5GHz network name (SSID) and security key allows Wi-Fi devices to log in and connect to your 2.4GHz/5GHz network.

2.3 Connecting to your wireless network

After setting up your wireless router via QIS, you can connect your computer or other smart devices to your wireless network.

To connect to your network:

1. On your computer, click the network icon in the notification area to display the available wireless networks.
2. Select the wireless network that you want to connect to, then click **Connect**.
3. You may need to key in the network security key for a secured wireless network, then click **OK**.
4. Wait while your computer establishes connection to the wireless network successfully. The connection status is displayed and the network icon displays the connected status.

NOTES:

- Refer to the next chapters for more details on configuring your wireless network's settings.
- Refer to your device's user manual for more details on connecting it to your wireless network.
- The system log and app alerts both record the following events:

  Login activities to the management interface

  Changes to wireless network settings

  Changes to MAC filter settings

  Changes to system log settings

  Enabling/disabling of remote management

3 Tutorial

AiMesh

What is ASUS AiMesh?

How to set up AiMesh system via Web GUI?

AiMesh 2.0 Web GUI - Introduction

How to improve the signal quality between your AiMesh router and AiMesh node?

Wired connection between AiMesh routers (Ethernet backhaul).

Why doesn't AiMesh automatically switch to Ethernet backhaul mode?

What is Roaming Block List? How does it work?

How to upgrade the firmware of my AiMesh node?

DDNS

DDNS introduction and setup

Firmware upgrade/reset/restore

ASUS router's Hard Factory Reset

How to use Rescue Mode (Firmware Restoration)?

How to upgrade the firmware of my ASUS router to the latest version (Web GUI)?

Firmware upgrade failed.

How to upload the configuration files of my ASUS router?

How to save System Log in my ASUS router?

Why can't I sometimes download or update the operating system on my iPhone or Mac?

Guest network

How to set up a Guest Network?

IPv6

How to set up IPv6 on your ASUS router?

LAN

How to set up IPTV on ASUS router?

How to set up LAN IP?

How to set up static routes?

How to set up a DHCP server?

LED

My ASUS router's WAN LED light is abnormal.

My ASUS router's Wi-Fi LED light is not ON.

My ASUS router's Power LED is flashing.

Parental Controls

What is parental control?

How to set up Parental Controls via WebGUI?

How to set up Family (Parental Controls) via ASUS Router app?

QoS / Adaptive QoS

How to set up QoS - Traditional type?

How to set up Adaptive QoS - Bandwidth Limiter?

Setup / Login

Easy QR code scan setup (ASUS RT series router)

Why am I unable to access my ASUS router's settings

page?

How to access my ASUS router's Web GUI setting page via HTTPS?

I cannot log into the Web GUI of ASUS router with my username and password.

How do I access the setup page of my ASUS router via Web GUI?

Troubleshooting of Internet and Wi-Fi

How to fix the "Your connection is not private" problem while opening the ASUS router's Web GUI?

Failed Internet access through router

Why does the internet status show as connected while there is no internet before setting up the ASUS router?

The computer cannot access to Internet via wireless connection to the router.

How to check the wired connection speed and network cable specifications for my ASUS wireless router?

Unable to use smartphone to share Internet through ASUS router.

How to improve IoT device compatibility with ASUS WiFi 6 (802.11 ax) router?

How to fix a laptop's wireless card driver that can't find the router's wireless SSID (for 802.11ax routers)?

My ASUS router disconnects at 0:00 every night.

VPN

Unlock the power of VPN with ASUS router: Secure, Private, and Seamless Connectivity

VPN Client / VPN Fusion

How to set up VPN Client in ASUS router (Web GUI)?

VPN server

How to set up a VPN server on ASUS router - OpenVPN?

How to set up a VPN server on ASUS router - PPTP?

VPN setup on Windows / MacOS / iOS / Android

How to set up On-demand WireGuard® VPN on a mobile device?

How to connect to an OpenVPN server with my device (For Windows)?

How to connect to an OpenVPN server with my device (For Android)?

How to connect to an OpenVPN server with my device (For iPhone)?

How to connect to an OpenVPN server with my device (For Mac)?

How to set up IPsec VPN connection in Windows 10? (Firmware support is available for 3.0.0.4.386_4xxxx)?

IPSec VPN set up on Android

IPSec VPN set up on iOS

IPSec VPN set up on Mac

WAN / Dual WAN

How to manually assign a WAN DNS server to an ASUS router?

How to find a best DNS server?

Wi-Fi

What can I do if I forgot my ASUS router's WiFi password?

What's the difference between 2.4GHz and 5GHz?

How to disable my ASUS router's WiFi signal?

WiFi connection often disconnects.

How to configure Smart Connect in ASUS Router?

How to forget WiFi connection password on Windows/ MacOS/Android/iOS?

How to enable Roaming Assistant?

How to change my ASUS router's WiFi password?

Appendices

Safety Notices

When using this product, always follow the fundamental safety precautions, including, but not limited to the following:

WARNING!

- The power supply cord(s) must be plugged into socket-outlet(s) that is /are provided with a suitable earth ground. Connect the equipment only to a nearby socket outlet that is easily accessible.
- If the Adapter is broken, Do NOT try to fix it by yourself. Contact a qualified service technician or your retailer.
- Do NOT use damaged power cords, accessories, or other peripherals.
- Do NOT mount this equipment higher than 2 meters.
- Use this product in environments with ambient temperatures between 0℃ (32˚F) and 40℃ (104˚F).
- Read the operational guidelines and the temperature range provided before using the product.
- Pay particular attention to the personal safety when using this device in airports, hospitals, gas stations and professional garages.
- Medical device interference: Maintain a minimum distance of at least 15 cm (6 inches) between implanted medical devices and ASUS products to reduce the risk of interference.
- Kindly use ASUS products in good reception conditions to minimize the radiation's level.
- Keep the device away from pregnant women and the lower abdomen of the teenager.
- Do NOT use this product if visible defects can be observed or it has been wet or damaged or modified. Seek servicing for assistance.

WARNING!

- Do NOT place on uneven or unstable work surfaces.
- Do NOT place or drop objects on the top of the product. Avoid exposing the product to mechanical shock such as crushing, bending, puncturing or shredding.
- Do NOT disassemble, open, microwave, incinerate, paint, or shove any foreign objects into this product.
- Refer to the rating label on the bottom of your product and ensure your power adapter complies with this rating.
- Keep the product away from fire and heat sources.
- Do NOT expose to or use near liquids, rain, or moisture. Do NOT use the product during electrical storms.
- Connect the PoE output circuits of this product exclusively to PoE networks, without routing to external facilities.
- To prevent electrical shock hazard, disconnect the power cable from the electrical outlet before relocating the system.
- Only use accessories that have been approved by the device manufacturer to work with this model. The use of other types of accessories may invalidate the warranty or violate local regulations and laws, and may pose safety risks. Contact your local retailer for the availability of authorized accessories.
- Use of this product in a way not recommended in the provided instructions may result in a risk of fire or personal injury.
- The product is for indoor use only.

WEEE Notice



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).