

GAMING NOTEBOOK PC





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About this manual

This manual provides information about the hardware and software features of your Notebook PC, organized through the following chapters:

Chapter 1: Hardware Setup

This chapter details the hardware components of your Notebook PC.

Chapter 2: Using your Notebook PC

This chapter shows you how to use the different parts of your Notebook PC.

Chapter 3: Working with Windows® 10

This chapter provides an overview of using Windows® 10 in your Notebook PC.

Chapter 4: Power-On Self-Test (POST)

This chapter shows you how to use POST to change the settings of your Notebook PC.

Chapter 5: Upgrading your Notebook PC

This chapter guides you through the process of replacing and upgrading parts of your Notebook PC.

Tips and FAQs

This section presents some recommended tips, hardware FAQs, and software FAQs you can refer to for maintaining and fixing common issues with your Notebook PC.

Appendices

This section includes notices and safety statements for your Notebook PC.

Conventions used in this manual

To highlight key information in this manual, some text are presented as follows:

IMPORTANT! This message contains vital information that must be followed to complete a task.

NOTE: This message contains additional information and tips that can help complete tasks.

WARNING! This message contains important information that must be followed to keep you safe while performing tasks and prevent damage to your Notebook PC's data and components.

Icons

The icons below indicate the devices you can use for completing a series of tasks or procedures on your Notebook PC.



= Use the touchpad.



= Use the keyboard.

Typography

Bold = This indicates a menu or an item that must be selected.

Italic = This indicates sections that you can refer to in this manual.

Safety precautions

Using your Notebook PC



This Notebook PC should only be used in environments with ambient temperatures between 5°C (41°F) and 35°C (95°F).



Refer to the rating label on the bottom of your Notebook PC and ensure that your power adapter complies with this rating.



Do not leave your Notebook PC on your lap or near any part of your body to prevent discomfort or injury from heat exposure.



Do not use damaged power cords, accessories, and other peripherals with your Notebook PC.



While powered on, ensure that you do not carry or cover your Notebook PC with any materials that can reduce air circulation.



Do not place your Notebook PC on uneven or unstable work surfaces.



You can send your Notebook PC through x-ray machines (used on items placed on conveyor belts), but do not expose them to magnetic detectors and wands.



Contact your airline provider to learn about related in-flight services that can be used and restrictions that must be followed when using your Notebook PC in-flight.

Caring for your Notebook PC



Disconnect the AC power and remove the battery pack (if applicable) before cleaning your Notebook PC. Use a clean cellulose sponge or chamois cloth dampened with a solution of nonabrasive detergent and a few drops of warm water. Remove any extra moisture from your Notebook PC using a dry cloth.



Do not use strong solvents such as thinners, benzene, or other chemicals on or near your Notebook PC.



Do not place objects on top of your Notebook PC.



Do not expose your Notebook PC to strong magnetic or electrical fields.



Do not use or expose your Notebook PC near liquids, rain, or moisture.



Do not expose your Notebook PC to dusty environments.



Do not use your Notebook PC near gas leaks.

Proper disposal



Do not throw your Notebook PC in municipal waste. This product has been designed to enable proper reuse of parts and recycling. The symbol of the crossed out wheeled bin indicates that the product (electrical, electronic equipment and mercury-containing button cell battery) should not be placed in municipal waste. Check local regulations for disposal of electronic products.



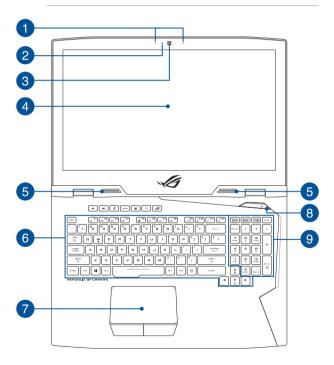
Do not throw the battery in municipal waste. The symbol of the crossed out wheeled bin indicates that the battery should not be placed in municipal waste.

Chapter 1: Hardware Setup

Getting to know your Notebook PC

Top View

NOTE: The keyboard's layout may vary per region or country. The Notebook view may also vary in appearance depending on the Notebook PC model



Array microphones

The array microphones feature echo canceling, noise suppression, and beam forming functions for better voice recognition and audio recording.

Camera indicator

The camera indicator lights up when the built-in camera is in use.

Camera

The built-in camera allows you to take pictures or record videos using your Notebook PC.

Display panel

The high-definition display panel provides excellent viewing features for photos, videos, and other multimedia files on your Notebook PC.

Audio speakers

The built-in audio speakers allow you to hear audio straight from the Notebook PC. Audio features are software-controlled.

6 Keyboard

The keyboard provides full-sized QWERTY keys with a comfortable travel depth for typing. It also enables you to use the function keys, allows quick access to Windows®, and controls other multimedia functions.

NOTE: The keyboard layout differs by model or territory.

Touchpad

The touchpad allows the use of multi-gestures to navigate onscreen, providing an intuitive user experience. It also simulates the functions of a regular mouse.

NOTE: For more details, refer to the *Using the touchpad* section in this manual

Power button

Press the power button to turn your Notebook PC on or off. You can also use the power button to put your Notebook PC to sleep or hibernate mode and wake it up from sleep or hibernate mode.

In the event that your Notebook PC becomes unresponsive, press and hold the power button for at least four (4) seconds until your Notebook PC shuts down.

Numeric keypad

The numeric keypad toggles between these two functions: for numeric input and as pointer direction keys.

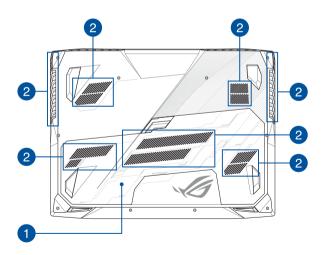
NOTE: For more details, refer to the *Using the numeric keypad* section in this manual.

Bottom

NOTE: The bottom side may vary in appearance depending on model.

WARNING! The bottom of the Notebook PC can get warm to hot while in use or while charging the battery pack. When working on your Notebook PC, do not place it on surfaces that can block the vents.

IMPORTANT! Battery time varies by usage and by the specifications for this Notebook PC. The battery pack cannot be disassembled.



Compartment cover

This cover protects the reserved spaces in your Notebook PC for the removable SSD (M.2 2280 slot), HDD (Hard Disk Drive) and RAM (Random Access Memory) modules.

NOTE:

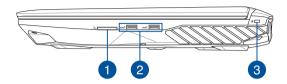
- For more details, refer to the Chapter 5: Upgrading your
 Notebook PC section in this manual
- The M.2 2280 slots do not support M.2 SATA SSD. For more details, refer to the *Installing an M.2 card* section in this manual.

Air vents

The air vents allow cool air to enter and warm air to exit the Notebook PC.

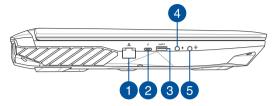
WARNING! Ensure that paper, books, clothing, cables, or other objects do not block any of the air vents or else overheating may occur.

Right Side



- Memory card reader
 This built-in memory card reader supports SD card formats.
- USB 3.1 Gen 2 port
 The USB 3.1 (Universal Serial Bus 3.1) Gen 2 port provides a transfer rate of up to 10 Gbit/s and is backward compatible to USB 2.0.
- 3 Kensington® security slot
 The Kensington® security slot allows you to secure your
 Notebook PC using Kensington® compatible Notebook PC
 security products.

Left Side



- 1 LAN port
 Insert the network cable into this port to connect to a local area network.
- USB 3.1 Gen 2 Type-CTM/Thunderbolt 3 combo port

 The USB 3.1 (Universal Serial Bus 3.1) Gen 2 Type-CTM port
 provides a transfer rate of up to 10 Gbit/s and is backward
 compatible to USB 2.0. Use a Thunderbolt 3 adapter to connect
 your Notebook PC to a DisplayPort, VGA, DVI, or HDMI external
 display and experience high-resolution display features via
 Intel® Thunderbolt™ technology.

NOTE: Transfer rate of this port may vary per model.

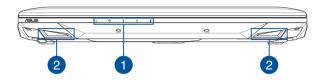
Microphone input jack port

The microphone input jack port is used to connect your Notebook PC to an external microphone.

Headphone/Headset/Microphone jack

This port allows you to connect amplified speakers or headphones. You can also use this port to connect your headset or an external microphone.

Front Side



Status indicators

The status indicators help identify the current hardware status of your Notebook PC.



O Power indicator

The power indicator lights up when the Notebook PC is turned on and blinks slowly when the Notebook PC is in sleep mode.

Two-color battery charge indicator

The two-color LED provides a visual indication of the battery's charge status. Refer to the following table for details:

Color	Status
Solid White	The Notebook PC is plugged to a power source and the battery power is between 95% and 100%.
Solid Orange	The Notebook PC is plugged to a power source, charging its battery, and the battery power is less than 95%.
Blinking Orange	The Notebook PC is running on battery mode and the battery power is less than 10%.
Lights off	The Notebook PC is running on battery mode and the battery power is between 10% to 100%.

Drive activity indicator

This indicator lights up when your Notebook PC is accessing the internal storage drives.

Airplane mode indicator

This indicator lights up when the Airplane mode in your Notebook PC is enabled.

NOTE: When enabled, the **Airplane mode** disables all wireless connectivity.

Number lock indicator

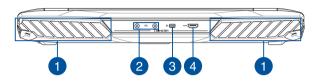
This indicator lights up when the number lock function is activated. This allows you to use some of the keys on your keyboard for numeric input.

Audio speakers

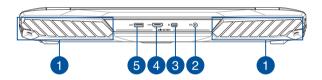
The built-in audio speakers allow you to hear audio straight from your Notebook PC. Audio features are software-controlled.

Rear View

Dual power input model



Standard model



Air vents

The air vents allow cool air to enter and warm air to exit the Notebook PC.

WARNING! Ensure that paper, books, clothing, cables, or other objects do not block any of the air vents or else overheating may occur.

Power (DC) input port

Insert the bundled power adapter into this port to charge the battery pack and supply power to your Notebook PC.

WARNING! The adapter may become warm to hot while in use. Ensure not to cover the adapter and keep it away from your body while it is connected to a power source.

IMPORTANT! Use only the bundled power adapter to charge the battery pack and supply power to your Notebook PC.

3 Dual-Mode Mini DisplayPort

This port allows you to connect your Notebook PC to an external display.

4 HDMI port

This port is for the HDMI (High-Definition Multimedia Interface) connector and is HDCP compliant for HD DVD, Blu-ray, and other protected content playback.

USB 3.1 Gen 2 port

The USB 3.1 (Universal Serial Bus 3.1) Gen 2 port provides a transfer rate of up to 10 Gbit/s and is backward compatible to USB 2.0.

Chapter 2: Using your Notebook PC

Getting started

Charge your Notebook PC

- A. Connect the AC power cord to the AC/DC adapter.
- Connect the DC power connector into your Notebook PC's power (DC) input port.
- C. Plug the AC power adapter into a 100V~240V power source.

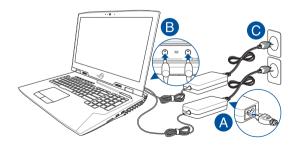


Charge the Notebook PC for **3 hours** before using it in battery mode for the first time.

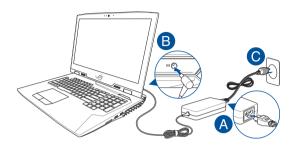
NOTE: The power adapter may vary in appearance, depending on models and your region.

Dual power input model

NOTE: If you plan on using the system under high load, repeat the steps above to connect the second power adapter.



Standard model



IMPORTANT!

Power adapter information:

• Input voltage: 100-240Vac

Input frequency: 50-60Hz

Rating output current: 14A (280W)

Rating output voltage: 20V

IMPORTANT!

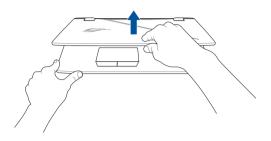
- Locate the input/output rating label on your Notebook PC and ensure that it matches the input/output rating information on your power adapter. Some Notebook PC models may have multiple rating output currents based on the available SKU.
- Ensure that your Notebook PC is connected to the power adapter before turning it on for the first time. We strongly recommend that you use a grounded wall socket while using your Notebook PC on power adapter mode.
- The socket outlet must be easily accessible and near your Notebook PC
- To disconnect your Notebook PC from its main power supply, unplug your Notebook PC from the power socket.

WARNING!

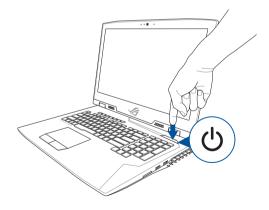
Read the following precautions for your Notebook PC's battery:

- Only ASUS-authorized technicians should remove the battery inside the device (for non-removable battery only).
- The battery used in this device may present a risk of fire or chemical burn if removed or disassembled.
- · Follow the warning labels for your personal safety.
- · Risk of explosion if battery is replaced by an incorrect type.
- Do not dispose of in fire.
- Never attempt to short-circuit your Notebook PC's battery.
- Never attempt to disassemble and reassemble the battery (for non-removable battery only).
- · Discontinue usage if leakage is found.
- The battery and its components must be recycled or disposed of properly.
- Keep the battery and other small components away from children.

Lift to open the display panel



Press the power button



Using the touchpad

Moving the pointer

You can tap anywhere on the touchpad to activate its pointer, then slide your finger on the touchpad to move the pointer onscreen.

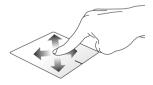
Slide horizontally



Slide vertically

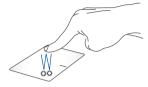


Slide diagonally



One-finger gestures

Tap/Double-tap



- Tap an app to select it.
- Double-tap an app to launch it.

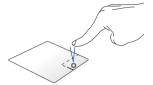
Drag and drop



Double-tap an item, then slide the same finger without lifting it off the touchpad. To drop the item to its new location, lift your finger from the touchpad.

Left-click

Right-click



- Click an app to select it.
- Double-click an app to launch it.

Click this button to open the rightclick menu.

NOTE: The areas inside the dotted line represent the locations of the left mouse button and the right mouse button on the touchpad.

Two-finger gestures

Tap



Tap two fingers on the touchpad to simulate the right-click function.

Two-finger scroll (up/down)



Slide two fingers to scroll up or down.

Two-finger scroll (left/right)



Slide two fingers to scroll left or right.

Zoom out



Bring together your two fingers on the touchpad.

Zoom in



Spread apart your two fingers on the touchpad.

Drag and drop



Select an item then press and hold the left button. Using your other finger, slide on the touchpad to drag the item, lift your finger off the button to drop the item.

Three-finger gestures

Tap



Tap three fingers on the touchpad to invoke Cortana.

Swipe left/Swipe right



If you opened multiple apps, swipe three fingers left or right to switch between these apps.

Swipe up



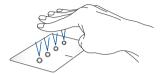




Swipe up to see an overview of all Swipe down to show the desktop. the apps currently opened.

Four-finger gestures

Тар



Tap four fingers on the touchpad to invoke Action Center.

Customizing your touchpad

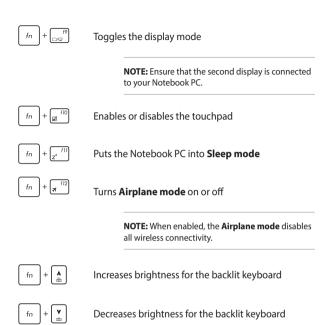
- 1. Launch **All settings** from the Action Center.
- 2. Select **Devices**, then select **Mouse & touchpad**.
- 3. Adjust the settings to your preference.

Using the keyboard

Function keys

The function keys on your Notebook PC's keyboard can trigger the following commands:

fn + [ii]	Turns the speaker on or off
f_n + $\frac{f_2}{f_1}$	Skips to previous track or rewind
fn + [+1]	Plays or pauses
f_n + \int_{PH}^{f4}	Skips to next track or fast forward
fn + (**)	Turns the Turbo Fan on or off
$\boxed{fn} + \boxed{\mathbb{X}}$	Turns the display panel on or off
fn + [7]	Decreases display brightness
fn + (₹8)	Increases display brightness



- Turns the speaker volume down
- Turns the speaker volume up
- Turns the microphone on or off
- Launches the AURA application
- Launches the Xbox LIVE application
- Starts XSplit recording/streaming
- Opens the Gaming Center application

Using the numeric keypad

NOTE: The numeric keypad layout may differ by model or territory but the usage procedures remain the same.

The numeric keypad on your Notebook PC can be used for numeric input or as pointer direction keys.



Press to toggle between using the keypad as number keys or as pointer direction keys.



Chapter 3: Working with Windows® 10

Starting for the first time

When you start your Notebook PC for the first time, a series of screens appear to guide you in configuring your Windows® 10 operating system.

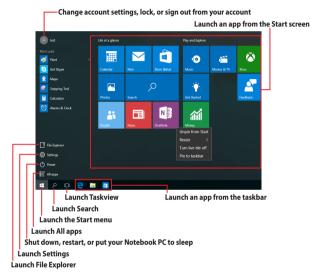
To start your Notebook PC for the first time:

- Press the power button on your Notebook PC. Wait for a few minutes until the setup screen appears.
- From the setup screen, pick your region and a language to use on your Notebook PC.
- 3. Carefully read the License Terms. Select I accept.
- Follow the onscreen instructions to configure the following basic items:
 - Personalize
 - Get online
 - Settings
 - Your account
- After configuring the basic items, Windows® 10 proceeds to install your apps and preferred settings. Ensure that your Notebook PC is kept powered on during the setup process.
- 6. Once the setup process is complete, the Desktop appears.

NOTE: The screenshots in this chapter are for reference only.

Start menu

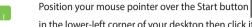
The Start menu is the main gateway to your Notebook PC's programs, Windows $^{\circ}$ apps, folders, and settings.



You can use the Start menu to do these common activities:

- Start programs or Windows® apps
- Open commonly used programs or Windows® apps
- Adjust Notebook PC settings
- Get help with the Windows operating system
- Turn off your Notebook PC
- · Log off from Windows or switch to a different user account

Launching the Start menu





in the lower-left corner of your desktop then click it.



on your keyboard. Press the Windows logo key

Opening programs from the Start menu

One of the most common uses of the Start menu is opening programs installed on your Notebook PC.



Position your mouse pointer over the program then click to launch it.



Use the arrow keys to browse through the programs.

to launch it. Press

NOTE: Select All apps at the bottom of the left pane to display a full list of programs and folders on your Notebook PC in alphabetical order.

Windows® apps

These are apps pinned on the right pane of the Start menu and displayed in tiled-format for easy access.

NOTE: Some Windows® apps require signing in to your Microsoft account before they are fully launched.



Working with Windows® apps

Use your Notebook PC's touchpad or keyboard to launch, customize, and close apps.

Launching Windows® apps from the Start menu



Position your mouse pointer over the app then click to launch it.



Use the arrow keys to browse through the apps. Press enter to launch an app.

Customizing Windows® apps

You can move, resize, unpin, or pin apps to the taskbar from the Start menu using the following steps:

Moving apps



Position your mouse pointer over the app, then drag and drop the app to a new location.

Resizing apps



Position your mouse pointer over the app and right-click it, then click **Resize** and select an app tile size.



Use the arrow keys to navigate to the app.

select **Resize** and select an app tile size.

Unpinning apps



Position your mouse pointer over the app and right-click it, then click **Unpin from Start**.



Use the arrow keys to navigate to the app.

Press \Box or f_n + \Box (on selected models), then select **Unpin from Start**.

Pinning apps to the taskbar



Position your mouse pointer over the app and right-click it, then click **Pin to taskbar**.



Use the arrow keys to navigate to the app.

Pinning more apps to the Start menu



From **All apps**, position your mouse pointer over the app you want to add to the Start menu and right-click it, then click **Pin to Start**.



From **All apps**, press or f_n + f_m (on selected models) on the app that you want to add to the Start menu, then select **Pin to Start**.