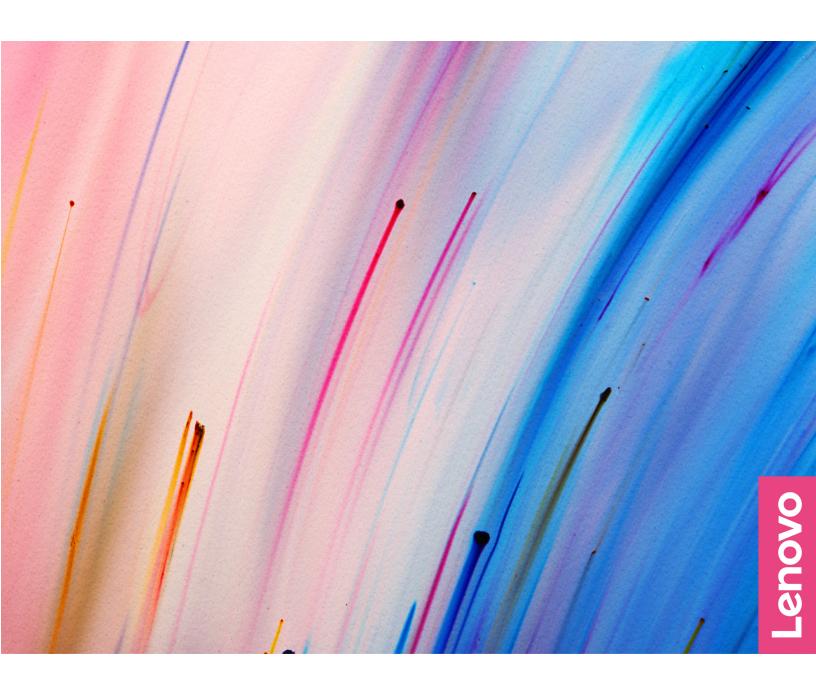
# User Guide



Yoga Pro 9i (16", 9)

#### Read this first

Before using this documentation and the product it supports, ensure that you read and understand the following:

- Generic Safety and Compliance Notices
- Safety and Warranty Guide
- Setup Guide

#### First Edition (January 2024)

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## **About this guide**

• This guide applies to Lenovo product model(s) listed below. Illustrations in this guide may look slightly different from your product model.

Model name	Machine type (MT)
<ul><li>Yoga Pro 9 16IMH9</li><li>Yoga Pro 9 16IMH9 D1</li></ul>	83DN

- For further compliance information, refer to the *Generic Safety and Compliance Notices* at <a href="https://pcsupport.lenovo.com/docs/generic\_notices">https://pcsupport.lenovo.com/docs/generic\_notices</a>.
- This guide may contain information about accessories, features, and software that are not available on all models.
- This guide contains instructions that are based on the Windows operating system. These instructions are not applicable if you install and use other operating systems.
- Microsoft® makes periodic feature changes to the Windows® operating system through Windows Update. As a result, the operating system related instructions may become outdated. Refer to Microsoft resources for the latest information.
- The content of the guide is subject to change without notice. To obtain the latest version, go to <a href="https://support.lenovo.com">https://support.lenovo.com</a>.

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## Chapter 1. Meet your computer

#### Front view

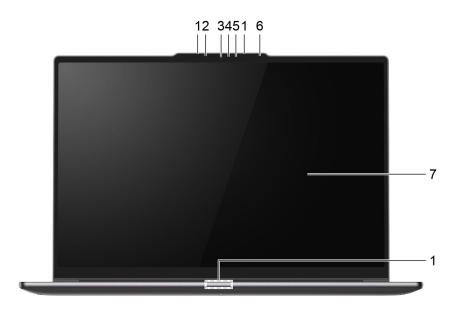


Figure 1. front view

No.	Description
1	Microphones
2	Infrared LED
3	Infrared camera
4	Camera
5	Camera light
6	Time-of-flight sensor
7	Screen

## **Microphones**

The microphones are the PC's built-in sound input devices. They capture your voice and ambient sound and convert them into digital form. Microphones are essential components when you use your PC for video conferencing or voice recording.

#### **Infrared LED**

The infrared LED generates and emits near-infrared waves that are received and used by a camera (or a dedicated infrared camera) for facial recognition.

#### Infrared camera

The infrared camera receives near-infrared waves emitted by an infrared LED and reflected by a human face. It is used for facial recognition.

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#### Camera

The built-in camera captures visible light and converts it to digital signals. It is used for video recordings and video conferencing.

## Camera light

The camera light indicates whether the camera is activated.

Table 1. Camera light status and description

Camera light status	Description
On	The camera is activated.
Off	The camera is not activated.

## Time-of-flight sensor

The time-of-flight sensor (also referred to as a ToF sensor) emits an infrared laser and uses the reflected infrared energy to measure the distance and depth of objects in front of it. The data collected by the sensor can be used to detect human presence or recognize gestures.

Note: The infrared laser emitted by the ToF sensor is invisible to the human eye.

#### Laser safety information

This device is classified as a Class 1 consumer laser product per IEC 60825-1:2014, EN 60825-1:2014 +A11:2021, and EN 50689:2021. This device complies with FDA performance standards for laser products except for conformance with IEC 60825-1 Ed. 3, as described in Laser Notice No. 56, dated May 8, 2019.

**CLASS 1 CONSUMER LASER PRODUCT** IEC 60825-1:2014 / EN 60825-1:2014+A11:2021 EN 50689:2021

#### CAUTION:

This device contains a laser that could be damaged during repair or disassembly, which could result in hazardous exposure to infrared laser emissions. There are no user serviceable parts within the device. Do not attempt to disassemble or service the device.

#### Screen

The screen of the built-in display is where text, graphics, and videos are displayed.

Some models offer touch-enabled screens, which allow you to interact with your PC by intuitively touching buttons, icons, and menu items displayed on the screen. Touch-enabled screens also support multi-finger gestures.

#### **Related topics**

"Touch operations supported by Windows" on page 17

## **Top view**



Figure 2. top view

No.	Description
1	Antennas (cannot be seen from the outside)
2	Speakers
3	Touchpad
4	Keyboard
5	Microphones

#### **Antennas**

The antennas transmit and receive radio waves to allow data to be transferred between your PC and a Wi-Fi network device or a Bluetooth device.

**Note:** The antennas are hidden inside the PC.

## **Speakers**

The speakers are the PC's built-in sound output devices.

## **Touchpad**

The touchpad is the PC's built-in pointing device, which provides the basic functionality of an external mouse. Slide your finger on the touchpad to move the pointer on the screen and tap or double-tap to select or execute a screen item.

The touchpad also supports Windows multi-finger gestures, which provide shortcuts to frequently used apps and functions.

## **Keyboard**

The keyboard is the PC's built-in input device for typing characters. It also includes keys that can make you more productive when interacting with the PC, apps, and the Windows operating system.

Table 2. Productivity keys

Key	Location on the keyboard	Function
Function keys (F1 through F12)	In the top row	Executing predefined commands or functions for selected apps
Hotkeys	In the top row	<ul> <li>Changing some of the PC's frequently used settings</li> <li>Opening an app or a Windows gadget</li> </ul>
Fn key	In the lower-left corner	<ul> <li>Toggling the functions of dual-function keys</li> <li>Used with several letter keys to change some of the PC's frequently used settings</li> </ul>
Windows key	In the lower-left corner	Used with certain keys to change some frequently used Windows settings

Hotkeys share keys with function keys. To toggle the functions for these keys, hold down the Fn key or turn on the FnLock switch.

**Note:** Keyboard layout varies by language and geographical location. The keyboard on your PC may look slightly different from the product illustrations of this publication.

#### **Related topics**

"Hotkeys" on page 15

"The FnLock switch" on page 15

Appendix A "Function descriptions for Lenovo hotkeys" on page 35

## **Microphones**

The microphones are the PC's built-in sound input devices. They capture your voice and ambient sound and convert them into digital form. Microphones are essential components when you use your PC for video conferencing or voice recording.

## Left view



Figure 3. left-side view

No.	Description
1	Power connector
2	Charging light
3	HDMI <sup>™</sup> connector
4	Multi-purpose USB Type-C® connector
5	Combo audio jack

#### Power connector

Check the plug type of the included ac power adapter to determine which power connector to use to supply power to your PC.

Use this power connector if the included ac power adapter comes with a rectangular plug (...).

## **Charging light**

The charging light indicates whether the PC is plugged into an electrical outlet. When the PC is plugged into an electrical outlet, the color of the light indicates whether the battery is fully charged (or will shortly be fully charged).

Table 3. Charging light status and description

Light status	Plugged in?	Battery charge level
Off	No	/
On, amber	Yes	1%–90%
On, white	Yes	91%–100%

#### **HDMI** connector

The HDMI connector is used to connect an external display device, such as a television, a projector, or a monitor.

## **Multi-purpose USB Type-C connector**

Check the plug type of the included ac power adapter to determine which power connector to use to supply power to your PC.

Use this USB Type-C connector if the included ac power adapter comes with a USB Type-C plug (\_\_\_\_\_).

When this connector is not used by a power adapter, it can also be used to connect:

- Storage or peripheral devices that follow the universal serial bus (USB) specification for data transfer and device interconnection
- · Display devices

**Note:** When connecting display devices, you need to use appropriate cables and adapters (if needed) according to the connection capabilities of the display device.

- USB4<sup>™</sup>-enabled docks or devices
- Thunderbolt<sup>™</sup>-enabled docks or devices (supported only on the connector marked with <sup>1</sup>/<sub>2</sub>)

## Combo audio jack

The combo audio jack is used to connect single-plug headsets, headphones, or external speakers.

## **Right view**



Figure 4. right-side view

No.	Description
1	Camera switch
2	SD card slot
3,4	USB Standard-A connector
5	Power light
6	Power button

#### Camera switch

This toggle switch is used to enable or disable the built-in camera.

Note: This switch is designed for privacy protection. If you don't need to use the camera, slide the switch to the off position to prevent any apps from using the camera.

#### SD card slot

The SD card slot is used to insert an SD, SDHC, or SDXC memory card to transfer data between the memory card and your PC.

#### **USB Standard-A connector**

The USB Standard-A connector is used to connect storage or peripheral devices that follow the universal serial bus (USB) specification for data transfer and device interconnection.

## Always-on connector

The USB connector (4) supports the always-on function. The PC can supply power to a USB device connected to this type of connector even when the PC is powered off, in sleep mode, or in hibernation mode. The always-on function can be turned on and off in:

- The PC's firmware setup utility, or
- Lenovo Vantage or Lenovo PC Manager

## **Power light**

The power light indicates the current power state of the PC: whether it is powered on, powered off, in sleep mode, or in hibernation mode.

When the PC is powered on, this light can also indicate low battery by blinking rapidly.

Table 4. Power light status and description

Light status	Power state	Battery charge level
White (solid on)	Powered on	21%–100%
White (blinking rapidly)	Powered on	1%–20%
White (blinking slowly)	In sleep mode	/
Off	Powered off or in hibernation mode	1

#### **Power button**

Press the power button to turn on your PC.

Note: By default, on a Windows PC, pressing the power button when the PC is turned on will put the PC into sleep mode.

#### **Bottom view**

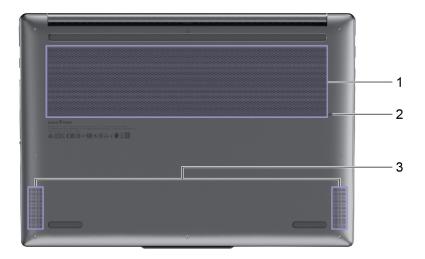


Figure 5. bottom view

No.	Description
1	Air vents (intake)
2	Novo button hole
3	Speakers

## Air vents (intake)

The air vents allow air to be sucked inside of the PC to cool the internal components.

**Important:** When the PC is operating, do not place it on a bed, sofa, carpet, or other flexible surfaces. Otherwise, the air vents will be blocked and the PC may overheat, reducing performance or causing the PC to be unresponsive or even shut down.

#### Novo button hole

When the PC is powered off, you can press the Novo button to display the Novo button menu. From the menu, you can then choose to:

- Open the firmware setup utility
- Display the boot device selection menu
- Display the Windows advanced startup options page

**Note:** The Novo button is rarely used during normal PC operations. To prevent users from accidentally pressing it, the Novo button is placed in a recessed hole. You can use a straightened paper clip to press this button.

## **Speakers**

The speakers are the PC's built-in sound output devices.

## **Specifications**

#### **Dimensions**

Width	362.72 mm	
Depth	253.69 mm	
Thickness (models with an LED-backlit display)	<ul><li>17.9 mm (thinnest part)</li><li>18.9 mm (thickest part)</li></ul>	
Thickness (models with a mini- LED-backlit display)	18.3 mm (thinnest part)     20.6 mm (thickest part)	

#### ac power adapter

#### Option 1

Connector	USB Type-C connector	
Input	100 V ac-240 V ac, 50 Hz-60 Hz	
Maximum output voltage	20 V	
Maximum output current	5 A	
Maximum power	100 W	

#### Option 2

Connector	Lenovo rectangular power connector	
Input	00 V ac-240 V ac, 50 Hz-60 Hz	
Output voltage	20 V	
Maximum output current	8.5 A	
Maximum power	170 W	

Note: Only one of the ac power adapters listed above is supplied with your PC. The type of ac power adapter supplied with your PC is dependent on the hardware configuration of your PC. For PCs with an integrated graphics processing unit, the power adapter option 1 is supplied with your PC; for PCs with a discrete graphics processing unit, the power adapter option 2 is supplied with your PC.

#### Rechargeable battery pack

Capacity	84 Wh
Cell type	Lithium-polymer
Number of cells	4

**Note:** The battery capacity is the typical or average capacity as measured in a specific test environment. Capacities measured in other environments may differ but are no lower than the rated capacity (see product label).

#### Memory

Туре	LPDDR5X
Installation	On board
Number of DIMM slots	0

## Mass storage device

Туре	Solid-state drive (SSD)
Slot type	M.2 (2280)
Number of slots	2
Interface	PCIe Gen4

## Display

Screen size (diagonal)	16 inches
Resolution	• 3200 × 2000, or • 2560 × 1600
Supported refresh rates	<ul><li>60 Hz/120 Hz, or</li><li>60 Hz/165 Hz</li></ul>

#### **Connectors and slots**

USB Standard-A connector	Quantity: 2
	Maximum output power: 5 V, 0.9 A
	Supported signaling protocols:
	- USB 2.0 480Mbps
	- SuperSpeed USB 5Gbps
	<b>Note:</b> The always-on connector supports maximum output power of 5 V and 1.5 A.
Multi-purpose USB Type-C connector 1	Maximum output power: 5 V, 3 A
	Maximum input power: 20 V, 7 A
	Supported signaling protocols:
	- USB 2.0 480Mbps
	- SuperSpeed USB 5Gbps
	- SuperSpeed USB 10Gbps
	<ul> <li>SuperSpeed USB 20Gbps (USB 3.2 Gen 2 × 2)</li> </ul>
	- USB4 20Gbps
	- DisplayPort 1.4

Multi-purpose USB Type-C connector 2	<ul> <li>Maximum output power: 5 V, 3 A</li> <li>Maximum input power: 20 V, 7 A</li> <li>Supported signaling protocols: <ul> <li>USB 2.0 480Mbps</li> <li>SuperSpeed USB 5Gbps</li> <li>SuperSpeed USB 10Gbps</li> <li>SuperSpeed USB 20Gbps (USB 3.2 Gen 2 × 2)</li> <li>USB4 40Gbps</li> <li>Thunderbolt 41.25Gbps</li> <li>DisplayPort 2.1</li> </ul> </li> </ul>
HDMI connector	<ul> <li>Supported signaling protocol: transition minimized differential signaling (TMDS)</li> <li>Bandwidth: 18 Gbps (6 Gbps per lane)</li> <li>Maximum output resolution: 4096 x 2160 @ 60 Hz, 8-bit color depth</li> </ul>
Combo audio jack	<ul> <li>Diameter: 3.5 mm</li> <li>Supported plug: <ul> <li>3-pole, TRS</li> <li>4-pole, TRRS (CTIA and OMTP)</li> </ul> </li> </ul>
SD slot	Supported card types:  • SD <sup>™</sup> • SD High Capacity (SDHC <sup>™</sup> )  • SD Extended Capacity (SDXC <sup>™</sup> )

Note: Data transmission rates are provided as maximum theoretical values in accordance with relevant specifications. The actual data transmission rates depend on various factors, including the performance of the connected devices and the cables being used. These rates are typically slower than the maximum theoretical values listed.

#### Networking

Wi-Fi <sup>®</sup>	Wi-Fi 6E
Bluetooth®	Bluetooth 5.2

#### Statement on USB transfer rate

Depending on many factors such as the processing capability of the host and peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and will be slower than the data rate listed below for each corresponding device.

USB device	Data rate (Gbit/s)
3.2 Gen 1	5
3.2 Gen 2	10
3.2 Gen 2 × 2	20

USB device	Data rate (Gbit/s)
USB4 20Gbps	20
USB4 40Gbps	40

## **Operating environment**

#### Maximum altitude (without pressurization)

3048 m (10 000 ft)

#### **Temperature**

- At altitudes up to 2438 m (8000 ft)
  - Operating: 5°C to 35°C (41°F to 95°F)
  - Storage: 5°C to 43°C (41°F to 109°F)
- At altitudes above 2438 m (8000 ft)
  - Maximum temperature when operating under the unpressurized condition: 31.3°C (88°F)

**Note:** When you charge the battery, its temperature must be no lower than 10°C (50°F).

#### **Relative humidity**

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage: 5% to 95% at wet-bulb temperature 27°C (81°F)

## **Chapter 2. Explore your computer**

## Interact with your computer

## **Hotkeys**

Look at the top row of the keyboard of your Lenovo computer and you'll find keys with printed icons. These keys are called hotkeys and they provide shortcuts to functions that you'll use frequently. The function that each hotkey provides is denoted by the icon printed on the key.

Hotkeys share keys with function keys (F1–F12) and other keys. Depending on the FnLock setting, you use hotkey functions by pressing the key directly or in combination with the Fn key.

**Note:** The FnLock switch does not apply to hotkeys not found in the first row of the keyboard. To use these hotkeys, always hold down the Fn key while pressing the key.



Figure 6. Location of the Fn key

#### **Related topics**

"The FnLock switch" on page 15

Appendix A "Function descriptions for Lenovo hotkeys" on page 35

#### The FnLock switch

The FnLock is an electronic switch that affects how you use hotkey functions. To turn it on and off, press Fn + Esc.

**Note:** The Esc key is in the upper left corner of the keyboard. It has an LED that indicates the status of the FnLock switch.

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Figure 7. Locations of the FnLock key and the Fn key

A Lenovo keyboard usually contains hotkeys in the top row. These hotkeys share keys with the function keys (F1–F12) and other keys. For these dual-function keys, the icons or characters denoting the primary functions are printed on top of the icons and characters denoting the secondary functions.

- A: an icon or character denoting the primary function
- B: an icon or character denoting the secondary function

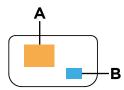


Figure 8. The layout of a dual-function key

Table 5. FnLock and dual-function keys

FnLock (Esc) <b>LED</b>	FnLock status	Pressing the hotkey alone	Pressing the hotkey while holding down the Fn key
Off	Disabled	Primary function	Secondary function
On	Enabled	Secondary function	Primary function

#### **Related topics**

"Hotkeys" on page 15

Appendix A "Function descriptions for Lenovo hotkeys" on page 35

## The Copilot key

The era of AI has arrived, and many Lenovo PCs now include a Copilot key on the keyboard. It is located either in the bottom or the top row of the keyboard and is marked with .

For Windows PCs with Copilot in Windows available and enabled, pressing the Copilot key opens Copilot in Windows. Otherwise, pressing the Copilot key opens Windows Search.

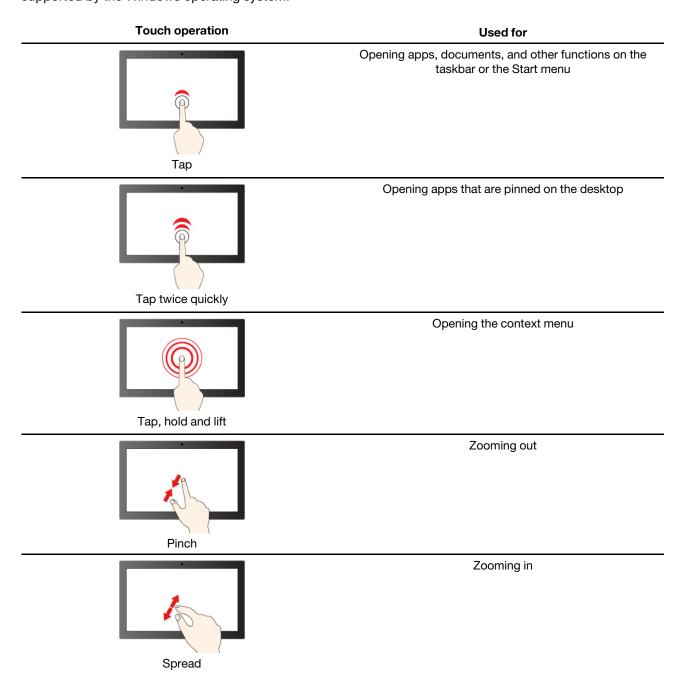
**Note:** Copilot in Windows may not be available in all geographical locations. In regions where Copilot in Windows is available, you may need to update your Windows operating system to version 23H2 or later through Windows Update for Copilot in Windows to become available.

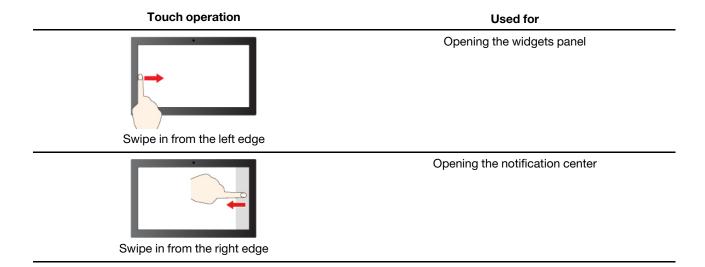
#### **Related topics**

"I pressed the Copilot key on my keyboard, but neither Copilot in Windows nor Windows Search opened. What could be the potential cause?" on page 29

## **Touch operations supported by Windows**

For computers with a touch-enabled screen, you can touch the screen directly with your fingers and interact with your computer in a more natural way. The following table lists frequently used touch operations that are supported by the Windows operating system.





The Windows operating system also supports 3- and 4-finger gestures on the screen and the touchpad. You can set them up in **Settings** → **Bluetooth & devices**.

#### The Novo Button menu

The Novo Button menu can be displayed before the operating system starts. From the menu, you can choose to

- Open the BIOS/UEFI setup utility
- Open the boot device selection menu
- Open the Windows startup options screen

Note: From the Windows startup options screen, you can then choose to

Start your computer using a recovery drive

Reset your computer

Open advanced options screen

#### **Open the Novo Button menu**

For Lenovo computers with a Novo button, you can press the button to open the Novo Button menu.

Step 1. Turn off the PC but do not close the LCD screen.

**Note:** Flip to Start is enabled by default on many Lenovo PCs. When the PC is turned off, opening the LCD screen will turn it on.

Step 2. Press the Novo button. The PC will turn on and the Novo button menu will be displayed.

Note: Alternatively, turn off the computer. Press Fn and the power button to open the Novo Button menu.

#### Convenient features

As the device manufacturer, Lenovo develops apps such as Lenovo Vantage and Lenovo PC Manager that can be installed to enhance your PC usage experience, making it easier and more productive. This section lists convenient features that can be enabled and/or configured within these apps.

**Note:** Depending on the geographical location where your PC is purchased, either Lenovo Vantage or Lenovo PC Manager may have been pre-installed on your PC. Features and configuration details are subject to change through online updates. Features may vary depending on the model and may not be available on all product models.

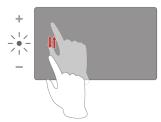
## **Eye Care Mode**

Eye Care Mode intelligently adjusts the color temperature of the screen and can reduce the chances of developing eye fatigue or eye strain.

#### **Gesture controls**

In addition to touch gestures supported by the Windows operating system, some Lenovo computers may support additional touch gestures. You can perform these gestures on the touchpad of your computer.

Gesture Function

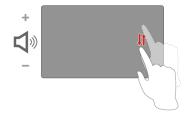


Slide up/down on the left side of the touchpad

Note: For computers with a touch-enabled screen, you
can also perform this gesture on the left side of the
screen.

Increases/Decreases display brightness when you watch videos in full screen mode.

**Note:** This gesture is not supported by all video players and may conflict with similar third-party gesture functions.



Slide up/down on the right side of the touchpad **Note:** For computers with a touch-enabled screen, you can also perform this gesture on the right side of the screen.

Increases/Decreases system volume when you watch videos in full screen mode.

**Note:** This gesture is not supported by all video players and may conflict with similar third-party gesture functions.

#### **Presence Detection**

Presence Detection enables you to improve work efficiency by automatically waking up and logging into your computer, or dimming the display and locking the computer depending on user detection.



For selected video players, this feature will pause any video playing when you leave the computer and resume upon your return.



## **Super Resolution**

By utilizing the capabilities and potentials of Intel processors, Super Resolution helps you play videos with a higher resolution than the original. It works especially well in cases where the source video has a poor resolution.

For most players, Super Resolution can be enabled or disabled in Lenovo Vantage or Lenovo PC Manager, but for some specific players, you might need to enable this feature manually.

## **Smart Noise Cancelling**

Smart Noise Cancelling is a noise reduction feature available on some Lenovo product models. By filtering out input and output noises, Smart Noise Cancelling enhances your audio experience.



Function	Description	Remarks
	Voice Recognition: Your computer captures multiple voices in a way that reflects their original spatial positions.	
Microphone noise cancelling	Only My Voice: This option requires you to record your voice so that your computer captures this voice only and tries to eliminate other voices.  Note: To remove your voice record, select REMOVE MY VOICE.	This function takes effect only when built-in microphones/arrays or 3.5 mm jack wired microphones are used as the input media.
	<b>Normal</b> : Your computer focuses on the voice of the person facing it and reduces ambient sounds.	To disable this function, select <b>Off</b> .
	<b>Multiple Voices</b> : Your computer captures multiple voices from an expanded range in front of the computer.	
Speaker noise cancelling	Your computer filters out other sounds to play only human voices.	These functions are not applicable to scenarios like listening to music and watching videos.

Function	Description	Remarks
Meeting noise cancelling	When this function is selected, your computer uses special algorithms for noise reduction when you are using conferencing applications.	

#### Manage power

Use the information in this section to achieve the best balance between performance and power efficiency.

## Rechargeable battery pack

Your computer includes a built-in, rechargeable battery pack that makes mobile computing a reality. When the computer is plugged into an electrical outlet, the battery charges. If you use the computer when you don't have access to an electrical outlet, the battery discharges to supply electricity that the computer system requires for operation.

You can charge the battery any time you want. The battery packs of Lenovo computers support multiple charging modes that are suitable for different power usage habits. You can switch the battery's active charging mode in Lenovo Vantage or Lenovo PC Manager.

Battery charging is also affected by its temperature. The recommended temperature range for charging the battery is between 10°C (50°F) and 35°C (95°F).

#### Note:

You can check the battery temperature in Lenovo Vantage.

To maximize the life of the battery, once the battery is fully charged, it must discharge to 94% or lower before it will be allowed to recharge again.

#### Normal mode

Normal mode is the most basic charging mode. In normal mode, it typically takes 2 to 4 hours for the battery to charge from 0% to 100%.

#### Rapid charge mode

If you want the battery to be charged faster than in normal mode, switch the battery charging to rapid charge mode.

#### **Conservation mode**

If your computer is constantly plugged into an electrical outlet, consider switching the battery charging to conservation mode. In conservation mode, the battery will not be fully charged. Instead, the battery's charge will be kept within 75%–80%. This is beneficial to the long-term health of the battery.

Note: If you want the battery to be fully charged before bringing the computer to work, disable conservation mode by switching the battery charging to normal or rapid charge mode.

#### Overnight charge optimization

Some people follow a regular pattern when using their computers. They finish their workday with the computer at a low battery charge level. They plug in their computers at night and need the battery to be fully charged the next morning so they can unplug the computer and bring it to work. These activities happen at approximately the same time each day. If this sounds like you, consider enabling overnight charge optimization for the battery.

Overnight charge optimization affects battery charging during the night hours, the time when you're usually asleep. When it is enabled, the computer regularly adapts its charging behavior based on observation of when you plug in the computer at night and unplug it in the morning. During the nighttime, the battery is charged to a particular range and is kept within that range for an extended period, before being further charged to 100%. Overnight charge optimization ensures safe charging during the night and is beneficial to the long-term health of the battery.

Note: With overnight charge optimization enabled, if you break your routine one day by unplugging the computer much earlier than usual in the morning, you may find that the battery is not fully charged.

If the battery pack of your computer supports overnight charge optimization, it can be enabled in Lenovo Vantage or Lenovo PC Manager.

#### Recover full battery capacity

If your computer is constantly plugged in to an electrical outlet and the battery rarely discharges, the battery may not be charged to its full capacity even if the battery meter reports 100% charge. You can recover the battery's full charging potential simply by discharging and re-charging the battery.

- Step 1. Unplug the computer and use it until the battery charge drops below 20%.
- Step 2. Plug in the computer and charge the battery to 100%.

## Set power button behavior

By default, pressing the power button puts the computer to sleep mode. However, you can change the power button behavior in Windows Control Panel.

- Step 1. Type Control Panel in the Windows search box and then press Enter. Open the control panel and view by large or small icons.
- Step 2. Select the power options and then click choose what the power button does.

## A power plan

A power plan is a collection of power-saving settings made available by an operating system. With a power plan, you can set idle time-outs for different hardware components to enter a low-power state. The default power plan and some of its idle time-out settings are listed below for computer models pre-installed with Windows.

The listed settings are active when the computer is connected to an electrical outlet. If your computer include a built-in battery pack, a different collection of time-out settings is set to take effect when the computer is operating on battery power.

- Default power plan: Balanced
- Turn off the display: after 5 minutes
- Put the computer to sleep: after 5 minutes

Note: To wake the computer from the sleep state, press the power button or any key on the keyboard.

#### Change or customize a power plan

This operation is applicable to computers with pre-installed Windows.

- Step 1. Type power plan in the Windows search box and then press Enter.
- Step 2. Customize a power plan of your preference.

## **System operation modes**

Lenovo has preset several modes in which your computer can operate. The maximum attainable performance, power consumption, and speed limit for the heat sink fan vary between the operation modes. Consider the following conditions when you want to switch operation modes.

- The environment where you use your computer, and
- The tasks running on your computer

You can switch the operation mode in the pre-installed app Lenovo Vantage or Lenovo PC Manager. As a shortcut, you can also use the key combination Fn + Q. Three modes are usually available for most Lenovo computers. The following table lists the operation modes and the recommended conditions for each mode.

Note: The operation modes listed in the table are descriptive and may not be the same as those displayed by the app.

Table 6. Operation modes and their recommended usage conditions

Operation mode	Recommended conditions
High Performance	Your computer is plugged into an electrical outlet.
	You want the best performance, and
	You don't care if the fan makes a little noise.
Auto (Balance)	You plan to frequently switch between different computer tasks over a period time.
Power Saving (Quiet)	<ul> <li>Your computer is operating on battery power, or</li> <li>You want the computer to be as quiet as possible.</li> </ul>

Note: In Auto (Balanced) mode, the computer dynamically switches between High Performance mode and Power Saving (Quiet) mode depending on the tasks running on the computer.

## Adjustable display refresh rate

Your eyes might not notice it but the content displayed on the computer screen refreshes constantly. Display refresh rate refers to the number of times per second the screen content refreshes itself and is measured in hertz (Hz).

A refresh rate of 60 Hz is adequate for most situations and is energy efficient. However, when viewing videos or playing video games, a higher refresh rate usually provides a smoother viewing experience.

The displays of some Lenovo computers support dual refresh rates. For such a computer, you can manually switch its display to work at either the higher or lower refresh rate. For Windows operation systems, the manual settings are usually found in **Settings** → **System** → **Display**. As a shortcut, you can also use the key combination Fn + R to switch the display refresh rate.

Note: Not all displays support dual refresh rates. If you cannot find settings to change the display refresh rate, the refresh rate of the display might be fixed or cannot be manually changed.

## Change settings in UEFI/BIOS setup utility

This section introduces what is UEFI/BIOS and the operations you can perform in its setup utility.

## What is UEFI/BIOS setup utility

UEFI/BIOS is the first program that runs when a computer starts. UEFI/BIOS initializes hardware components and loads the operating system and other programs. Your computer may include a setup program (setup utility) with which you can change certain UEFI/BIOS settings.

## Open the UEFI/BIOS setup utility

- Step 1. Turn on or restart the computer.
- Step 2. When the Lenovo logo appears on the screen, press F2 repeatedly.

**Note:** For computers with hotkey mode enabled, press Fn + F2.

#### Select boot devices

Normally, the computer starts to a boot manager loaded from the secondary storage device of the computer. Occasionally, you may need to start the computer to a program or boot manager loaded from another device or a network location. After the system firmware initializes all devices, you can press an interruption key to display the boot menu and select a desired boot device.

- Step 1. Turn on or restart the computer.
- Step 2. Press F12.
- Step 3. From the boot device menu, select a boot device to start the computer.

You can make a permanent change on boot devices in the UEFI/BIOS setup utility. Select the **Boot** menu; in the EFI section, select the desired boot device and move it to the top of the device list. Save changes and exit the setup utility for the change to take effect.

## Change hotkey mode

- Step 1. Open the UEFI/BIOS setup utility.
- Step 2. Select Configuration → Hotkey Mode and press Enter.
- Step 3. Change the setting to **Disabled** or **Enabled**.
- Step 4. Select Exit → Exit Saving Changes.

## **Enable or disable always-on**

For some Lenovo computers with always-on connectors, the always-on function can be enabled or disabled in the UEFI/BIOS setup utility.

- Step 1. Open the UEFI/BIOS setup utility.
- Step 2. Select Configuration → Always On USB and press Enter.
- Step 3. Change the setting to **Disabled** or **Enabled**.
- Step 4. Select Exit → Exit Saving Changes.

## Enable or disable Flip to Start

When Flip to Start is enabled, you can turn on the computer by flipping open the screen.

- Step 1. Open the UEFI/BIOS setup utility.
- Step 2. Select Configuration.
- Step 3. Change the setting for **Flip to Start**.

Note: You may also set Flip to Start in Lenovo Vantage or Lenovo PC Manager.

## Set passwords in UEFI/BIOS setup utility

This section introduces the types of passwords that you can set in the UEFI (Unified Extensible Firmware Interface) or BIOS (Basic Input/Output System) setup utility.

## **Password types**

You can set various types of passwords in the UEFI/BIOS setup utility.

Password type	Pre-requisite	Usage
Administrator password	No	You must enter it to start the setup utility.
User password	The administrator password must be set.	You can use the user password to start the setup utility.
Master hard disk password	No	You must enter it to start the operating system.
User hard disk password	The master hard disk password must be set.	You can use the user hard disk password to start the operating system.

#### Notes:

- All passwords set in the setup utility consist of alphanumeric characters only.
- If you start the setup utility using the user password, you can only change a few settings.

## Set administrator password

You set the administrator password to prevent unauthorized access to the UEFI/BIOS setup utility.

**Attention:** If you forget the administrator password, a Lenovo authorized service personnel cannot reset your password. You must take your computer to a Lenovo authorized service personnel to have the system board replaced. Proof of purchase is required and a fee will be charged for parts and service.

- Step 1. Open the UEFI/BIOS setup utility.
- Step 2. Select **Security → Set Administrator Password** and press Enter.
- Step 3. Enter a password string that contains only letters and numbers and then press Enter
- Step 4. Enter the password again and press Enter.
- Step 5. Select Exit → Exit Saving Changes.

Next time you start the computer, you must enter the administrator password to open the setup utility. If **Power on Password** is enabled, you must enter the administrator password or the user password to start the computer.

## Change or remove administrator password

Only the administrator can change or remove the administrator password.

- Step 1. Open the UEFI/BIOS setup utility using the administrator password.
- Step 2. Select **Security** → **Set Administrator Password** and press Enter.

- Step 3. Enter the current password.
- Step 4. In the **Enter New Password** text box, enter the new password.
- Step 5. In the Confirm New Password text box, enter the new password again.

Note: If you want to remove the password, press Enter in both text boxes without entering any character.

Step 6. Select Exit → Exit Saving Changes.

If you remove the administrator password, the user password is also removed.

## Set user password

You must set the administrator password before you can set the user password.

The administrator of the setup utility might need to set a user password for use by others.

- Step 1. Open the UEFI/BIOS setup utility using the administrator password.
- Step 2. Select Security → Set User Password and press Enter.
- Step 3. Enter a password string that contains only letters and numbers and then press Enter. The user password must be different from the administrator password.
- Step 4. Enter the password again and press Enter.
- Step 5. Select Exit → Exit Saving Changes.

## **Enable power-on password**

If the administrator password has been set, you can enable power-on password to enforce greater security.

- Step 1. Open the UEFI/BIOS setup utility.
- Step 2. Select Security → Power on Password and press Enter.

Note: The administrator password must be set in advance.

- Step 3. Change the setting to **Enabled**.
- Step 4. Select Exit → Exit Saving Changes.

If power-on password is enabled, a prompt appears on the screen every time you turn on the computer. You must enter the administrator or user password to start the computer.

## Set hard disk password

You can set a hard disk password in the setup utility to prevent unauthorized access to your data.

Attention: Be extremely careful when setting a hard disk password. If you forget the hard disk password, a Lenovo authorized service personnel cannot reset your password or recover data from the hard disk. You must take your computer to a Lenovo authorized service personnel to have the hard disk drive replaced. Proof of purchase is required and a fee will be charged for parts and service.

- Step 1. Open the UEFI/BIOS setup utility.
- Step 2. Select Security → Set Hard Disk Password and press Enter.

Note: If you start the setup utility using the user password, you cannot set hard disk password.

Step 3. Follow on-screen instructions to set both master and user passwords.

**Note:** The master and user hard disk passwords must be set at the same time.

Select Exit → Exit Saving Changes.

If the hard disk password is set, you must provide the correct password to start the operating system.

## Change or remove hard disk password

- Step 1. Open the UEFI/BIOS setup utility.
- Step 2. Select Security.
- Step 3. Change or remove the hard disk password.

To change or remove master password, select **Change Master Password** and press Enter.

**Note:** If you remove the master hard disk password, the user hard disk password is also removed.

To change user password, select **Change User Password** and press Enter.

**Note:** The user hard disk password cannot be removed separately.

Step 4. Select Exit → Exit Saving Changes.

## Chapter 3. Help and support

## Frequently asked questions

## How do I partition my storage drive

Refer to https://support.lenovo.com/solutions/ht503851.

## What should I do if my computer stops responding

Press and hold the power button until the computer turns off. Then restart the computer.

## What should I do if I spill liquid on the computer

1. Carefully unplug the ac power adapter and turn off the computer immediately. The more quickly you stop the current from passing through the computer the more likely you will reduce damage from short circuits.

**Attention:** Although you might lose some data or work by turning off the computer immediately, leaving the computer on might make your computer unusable.

2. Wait until you are certain that all the liquid is dry before turning on your computer.

#### **CAUTION:**

Do not try to drain out the liquid by turning over the computer. If your computer has keyboard drainage holes on the bottom, the liquid will be drained out through the holes.

## Where can I get the latest device drivers and UEFI/BIOS

- Lenovo Vantage or Lenovo PC Manager
- Lenovo Support Web site at https://support.lenovo.com

## Why does my computer start automatically when I open the lid

Your computer may have Flip to Start enabled. Many Lenovo notebook computers include a sensor that can detect the angle at which the lid is opened. When you open the lid, the sensor can detect this behavior. If Flip to Start is enabled, the computer will respond by starting up automatically.

If you don't like this feature, you can disable it. Flip to Start can be enabled and disabled in:

- Lenovo Vantage or Lenovo PC Manager
- Firmware Setup Utility

# I pressed the Copilot key on my keyboard, but neither Copilot in Windows nor Windows Search opened. What could be the potential cause?

Your Windows operating system version is not up to date and does not include the necessary software components. Update your Windows operating system to version 23H2 or later using Windows Update and then try again.

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Note: The Version 23H2 update may not be immediately available for your PC. You may need to periodically open Windows Update and manually check for updates to install the 23H2 update when it becomes available for your PC.

## **Self-help resources**

Use the following self-help resources to learn more about the computer and troubleshoot problems.

Resources	How to access?
Troubleshooting and frequently asked questions	<ul><li>https://www.lenovo.com/tips</li><li>https://forums.lenovo.com</li></ul>
Accessibility information	https://www.lenovo.com/accessibility
Reset or restore Windows  Use Lenovo Vantage or Lenovo PC Manager to:  Download and install the latest drivers and firmware.  Configure hardware settings  Diagnose computer hardware problems.  Check the computer warranty status.	<ul> <li>Use Lenovo recovery options.</li> <li>Go to <a href="https://support.lenovo.com/">https://support.lenovo.com/</a> </li> <li>HowToCreateLenovoRecovery.</li> <li>Follow the on-screen instructions.</li> <li>Use Windows recovery options.</li> <li>Go to <a href="https://pcsupport.lenovo.com">https://pcsupport.lenovo.com</a>.</li> <li>Detect your computer or manually select your computer model.</li> <li>Click Diagnostics → Operating System Diagnostics and then follow the on-screen instructions.</li> </ul>
Product documentation:  • Generic Safety and Compliance Notices  • Safety and Warranty Guide  • Setup Guide  • This User Guide  • Regulatory Notice	<ol> <li>Go to <a href="https://support.lenovo.com">https://support.lenovo.com</a>.</li> <li>Detect your computer or select computer model manually.</li> <li>Select <b>Documentation</b> and filter out the documentation you want.</li> </ol>

Resources	How to access?	
Lenovo Support Web site with the latest support information of the following:		
<ul> <li>Drivers and software</li> </ul>		
Diagnostic solutions	Visit https://support.lenovo.com	
<ul> <li>Product and service warranty</li> </ul>		
<ul> <li>Product and parts details</li> </ul>		
Knowledge base and frequently asked questions		
	Use <b>Get Help</b> or <b>Tips</b> .	
Windows help information	Use Windows Search.	
	<ul> <li>Microsoft support Web site: <a href="https://support.microsoft.com">https://support.microsoft.com</a></li> </ul>	

#### What is a CRU?

Customer replaceable units (CRUs) are parts that can be upgraded or replaced by the customer. A Lenovo computer may contain the following types of CRUs:

Self-service CRU	Parts that can be installed or replaced easily by customer themselves or by trained service technicians at an additional cost.
Optional-service CRU	Parts that can be installed or replaced by customers with a greater skill level. Trained service technicians can also provide service to install or replace the parts under the type of warranty designated for the customer's machine.

If you intend to install a CRU, Lenovo will ship the CRU to you. You might be required to return the defective part that is replaced by the CRU. When return is required: (1) return instructions, a prepaid shipping label, and a container will be included with the replacement CRU; and (2) you might be charged for the replacement CRU if Lenovo does not receive the defective CRU within thirty (30) days of your receipt of the replacement CRU. For full details, see the Lenovo Limited Warranty at https://www.lenovo.com/warranty/llw\_02.

## CRUs for your product model

The table below lists the CRUs and CRU types that are defined for your product model.

Part	Self-service CRU	Optional-service CRU
Power cord	X	
ac power adapter	Х	

#### Notes:

· CRU replacement instruction is provided in one or more of the following publications and are available from Lenovo at any time upon your request.

the product User Guide

the printed publications that came with the product

· Replacement of any parts not listed above, including the built-in rechargeable battery, must be done by a Lenovo-authorized repair facility or technician. Go to https://support.lenovo.com/partnerlocation for more information.

#### **Call Lenovo**

If you have tried to correct the problem yourself and still need help, you can call Lenovo Customer Support Center.

## Before you contact Lenovo

Record product information and problem details before you contact Lenovo.

Product information	Problem symptoms and details
Product name	What is the problem? Is it continuous or intermittent?
Machine type and serial number	<ul> <li>Any error message or error code?</li> </ul>
	<ul><li>What operating system are you using? Which version?</li></ul>
	<ul> <li>Which software applications were running at the time of the problem?</li> </ul>
	<ul><li>Can the problem be reproduced? If so, how?</li></ul>

Note: The product name and serial number can usually be found on the bottom of the computer, either printed on a label or etched on the cover.

## **Lenovo Customer Support Center**

During the warranty period, you can call Lenovo Customer Support Center for help.

#### **Telephone numbers**

For a list of the Lenovo Support phone numbers for your country or region, go to https://pcsupport.lenovo.com/supportphonelist.

Note: Phone numbers are subject to change without notice. If the number for your country or region is not provided, contact your Lenovo reseller or Lenovo marketing representative.

#### Services available during the warranty period

- Problem determination Trained personnel are available to assist you with determining if you have a hardware problem and deciding what action is necessary to fix the problem.
- Lenovo hardware repair If the problem is determined to be caused by Lenovo hardware under warranty, trained service personnel are available to provide the applicable level of service.
- Engineering change management Occasionally, there might be changes that are required after a product has been sold. Lenovo or your reseller, if authorized by Lenovo, will make selected Engineering Changes (ECs) that apply to your hardware available.

#### Services not covered

- · Replacement or use of parts not manufactured for or by Lenovo or nonwarranted parts
- Identification of software problem sources
- Configuration of UEFI/BIOS as part of an installation or upgrade
- Changes, modifications, or upgrades to device drivers
- Installation and maintenance of network operating systems (NOS)
- Installation and maintenance of programs

For the terms and conditions of the Lenovo Limited Warranty that apply to your Lenovo hardware product, see "Warranty information" in the Safety and Warranty Guide that comes with your computer.

#### **Purchase additional services**

During and after the warranty period, you can purchase additional services from Lenovo at https://pcsupport.lenovo.com/warrantyupgrade.

Service availability and service name might vary by country or region.

# Appendix A. Function descriptions for Lenovo hotkeys

Hotkey functions are denoted by the icons printed on the keys. The following table describes the functions for all Lenovo hotkeys. The keyboard of your Lenovo computer should only support a subset of the listed hotkeys.

Table 7. Hotkey icons and denoted functions

Hotkey icon	Function description
M	Mutes/Unmutes sound.
₫+	Increases volume.
₫-	Decreases volume.
×	Enables/Disables the microphone.
<b>;</b> ;;+	Increases screen brightness.
ф-	Decreases screen brightness.
	Selects and sets up display devices.
<del>}</del>	Enables/Disables airplane mode. (Windows operating systems)
ζţ;	Displays the Lenovo Smart Key quick launch panel.
<u> </u>	Enables/Disables the touchpad.
	Displays all open apps as thumbnails. (Windows operating systems)
 	Opens the Calculator app. (Windows operating systems)
<b>%</b>	Opens the Snipping tool. (Windows operating systems)
<b>\$</b>	Opens the Settings app. (Windows operating systems)
Δ	Locks the screen. (Windows operating systems)
	Opens the clipboard history. (Windows operating systems)
(	Puts the computer to sleep.
■	Opens the context menu of the current active app.
(hti	Opens an associated voice app or voice service.
<u> </u>	Adjusts the keyboard backlight.
<u>√</u> +	Increases the brightness of the keyboard backlight.
71/c-	Decreases the brightness of the keyboard backlight.
6	Answers an incoming Microsoft Teams call.
8	Rejects an incoming Microsoft Teams call.
•	Accesses Lenovo Support resources.
<b>►/II</b>	Starts/Pauses audio or video playback.
	Stops audio or video playback.
<b>I</b> ←	Plays the previous audio or video in the playlist.

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Table 7. Hotkey icons and denoted functions (continued)

Hotkey icon	Function description
<b>▶</b> ►	Plays the next audio or video in the playlist.
0	Switches the computer's active operation mode.
	Blurs the background for videoconferencing.
ď <sub>∳</sub>	Switches the computer's active audio mode.
<b>*</b>	Turns on/off night light mode. (Windows operating systems)

**Note:** Hotkey functions may change if the associated app or the Windows operating system is updated.

## Appendix B. Notices and trademarks

#### **Notices**

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