

# Lenovo ThinkBook Plus Gen 6 Rollable / User Guide



## 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 (June 2025)**

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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)
ThinkBook Plus G6 Rollable	21TR

- For further compliance information, refer to the *Generic Safety and Compliance Notices* at [https://pcsupport.lenovo.com/docs/generic\\_notices](https://pcsupport.lenovo.com/docs/generic_notices).
- 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 <https://support.lenovo.com>.



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## Chapter 1. Meet your computer

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### Front view



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

## Buzzer

The buzzer is an electrical component that generates sound through the transmission of electrical signals to provide an audible alarm or notification. It is used on your computer to alert you to the incorrect operation during the screen rolling process. If you adjust the opening angle of the computer to less than 90 degrees during the screen rolling process, the screen will stop rolling and the buzzer will produce an audible alarm simultaneously.

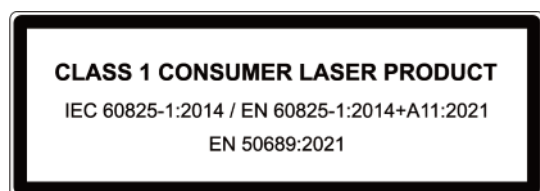
## Time-of-flight sensor

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.



### 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.**

## 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.

## 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.

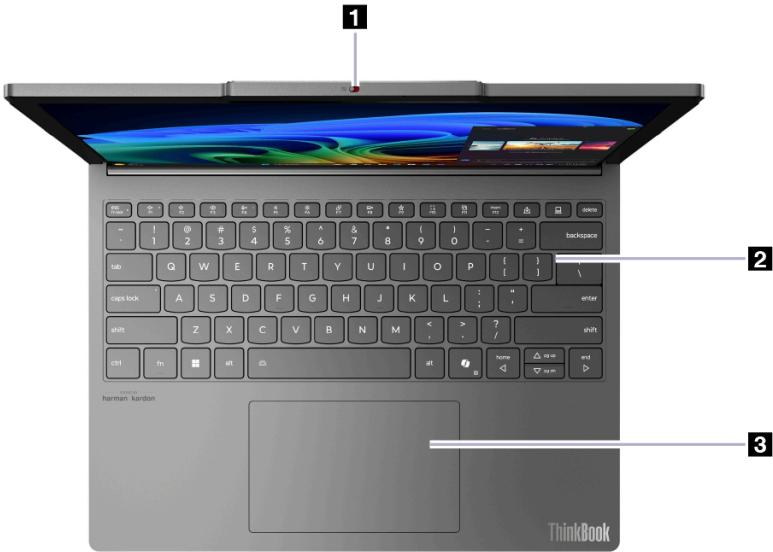
## Ambient light sensor

The ambient light sensor detects and measures the intensity of light in the user's environment. The data collected by this sensor can be used to enable adaptive brightness for the PC's built-in display.

## Screen

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

# Top view



No.	Description
1	Camera switch
2	Keyboard
3	Touchpad

## Camera switch

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

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

## 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.

**Note:** Keyboard layouts vary by language and geographical location. The keyboard on your PC may look slightly different from those depicted in the product illustrations in this publication.

## Touchpad

The touchpad is the PC's built-in pointing device. 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, providing a convenient alternative for switching between app windows and the desktop, activating the search box, or adjusting volumes.

## Left view



No.	Description
1	Multi-purpose USB Type-C® connector (Thunderbolt™ 4 enabled)
2	Charging light
3	Combo audio jack

## Multi-purpose USB Type-C connector

You can use the included power adapter and this USB Type-C® connector to supply power to the PC.

When this connector is not used by the included 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.

- Thunderbolt™-enabled docks or devices

## 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 2. Charging light statuses and descriptions

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

## Combo audio jack

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

# Right view



No.	Description
1	Power button
2	Power light

## 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.

## 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 3. 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	/



## Bottom view



No.	Description
1	Air vents (inlet)
2	Novo button hole
3	Wireless Antennas
4	Speakers

### Air vents (inlet)

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.

### 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.

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## Rear view



No.	Description
1	Air vents (outlet)

### Air vents (outlet)

The air vents allow hot air to be discharged out of the PC.

**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.

## Specifications

### Dimensions

Item	Value or specification
Width	303.5 mm
Depth	230.6 mm
Thickness	19.98–20.38 mm

### ac power adapter

Item	Value or specification
Plug type	USB Type-C
Input	100–240 V ac, 50–60 Hz
Output voltage	20 V
Maximum current	3.25 A
Maximum power	65 W

### Rechargeable battery pack

Item	Value or specification
Capacity	66 Wh <b>Note:</b> 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).
Cell type	Rechargeable Li-ion Battery
Number of cells	3

### Microprocessor

To view the microprocessor information of your computer, type system information in the Windows search box and then press Enter.

### Memory

Item	Value or specification
Type	LPDDR5X
Installation	Memory on package (MOP)
Number of DIMM slots	0

### Mass storage device

Item	Value or specification
Type	SSD
Slot	M.2 (2242)
Interface	PCIe Gen4

## Display

Item	Value or specification
Size	<ul style="list-style-type: none"><li>• Roll in: 14 inches</li><li>• Roll out: 16.7 inches</li></ul>
Type	POLED
Resolution	<ul style="list-style-type: none"><li>• Roll in: 2000 x 1600</li><li>• Roll out: 2000 x 2350</li></ul>
Maximum refresh rate	120 Hz

## Connectors

Item	Value or specification
Multi-purpose USB Type-C connector	<ul style="list-style-type: none"><li>• Quantity: 2</li><li>• Maximum power output: 5 V, 3 A</li><li>• Maximum power input: 20 V, 3.25 A</li><li>• Supported signaling protocols:<ul style="list-style-type: none"><li>– USB 2.0 480 Mbps</li><li>– SuperSpeed USB 5 Gbps</li><li>– SuperSpeed USB 10 Gbps</li><li>– SuperSpeed USB 20 Gbps</li><li>– SuperSpeed USB 40 Gbps</li><li>– Thunderbolt 4 41.25 Gbps</li><li>– DisplayPort™ Alt Mode (DisplayPort 2.1 compliant)</li></ul></li></ul> <p>Maximum output resolution: 8K @ 60 Hz</p> <ul style="list-style-type: none"><li>– USB Power Delivery</li></ul> <p><b>Note:</b> Data rates and performance ratings are dependent on connected devices and cables if they are used. For DisplayPort connection through a USB Type-C connector, the listed maximum output capacity is only available on external displays with a DisplayPort, a Mini DisplayPort, or a USB Type-C connector that supports DisplayPort Alternate Mode. For connections using a converter or an adapter, the actual output resolution may be lower.</p>

## Networking

Item	Value or specification
Wi-Fi®	Wi-Fi 7 <b>Note:</b> Different Wi-Fi standards may operate on different frequency bands. In some countries or regions, certain frequency bands may be prohibited for unlicensed use or may require specific conditions. Wi-Fi 7 on this PC are disabled in some countries or regions in accordance with local regulations.
Bluetooth®	Bluetooth 5.4

## 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)
USB 3.2 Gen 1	5
USB 3.2 Gen 2	10
USB4 Gen 2 × 2	20
USB4 Gen 3 × 2	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)

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## Chapter 2. Maximize the productivity with your ThinkBook Plus Gen 6 Rollable

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### Roll up and down the screen


The ThinkBook Plus Gen 6 Rollable is designed to redefine productivity and multitasking with its unique rollable screen technology. To vertically extend the screen from 14 inches to 16.7 inches, you can choose either to press a dedicated hotkey or use the rolling gestures.

**Attention:** Before rolling up and down the screen, please ensure that:

- The screen's opening angle is greater than 90 degrees. If you adjust the opening angle of the computer to less than 90 degrees during the screen rolling process, the screen will stop rolling and the buzzer will produce an audible alarm simultaneously.
- No obstacles are blocking the rolling process. If there are obstacles preventing the screen from rolling up or down, the screen will automatically return to its initial state after hitting the obstacles. If there are obstacles preventing the screen from both rolling up and rolling down, the screen will roll up and down three times and then hover in the middle.




### Roll up and down the screen through the dedicated hotkey

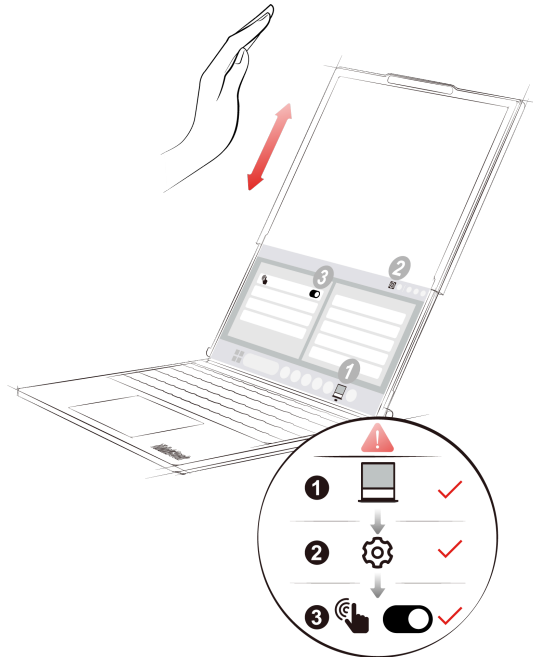
There is a dedicated hotkey located on the upper right of the keyboard that can be used to roll up and down the screen. Press this hotkey marked with  to adapt the screen size.



## Roll up and down the screen through rolling gestures

Your computer supports rolling up and down the screen by recognizing gesture movements through the ToF sensor. The rolling gesture feature is turned off by default. Follow the steps below to turn on this feature and roll up and down your screen:



1. Open the ThinkBook Workspace app.
2. Click settings  on the upper right.
3. Click the rolling gesture switch to turn it on.
4. Stretch out your palm and face the ToF sensor. Wait for the on-screen reminder to show that your palm has been successfully recognized and then move your palm up or down to roll up or down the screen.



**Note:** Please ensure that the distance between your palm and the ToF sensor is between 20 cm to 40 cm.

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## ThinkBook Workspace

The ThinkBook Workspace app is specifically developed for your ThinkBook Plus Gen 6 Rollable to help maximize the productivity and make the best of the extended screen space. To open this app, you can click  in the task bar or press the hotkey marked with . In this app, you can:

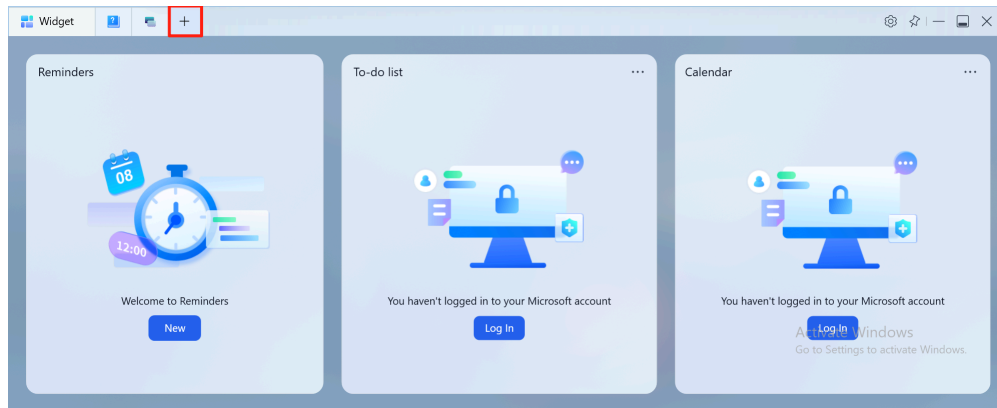
- View your reminders, to-do tasks, and Outlook calendar simultaneously in the Widget section.
- Add apps into ThinkBook Workspace to simply switch and use them in the area at the bottom of the screen.
- Create a virtual display alongside your main screen.
- Turn on or off the feature of rolling the screen up and down with air gestures.
- Set the combo theme for the desktop wallpaper and rolling animations.

**Note:** Periodic improvements to the ThinkBook Workspace app may be available through online updates. Features may be added or modified after updates are installed. The description of functionality may differ from the actual user interface.

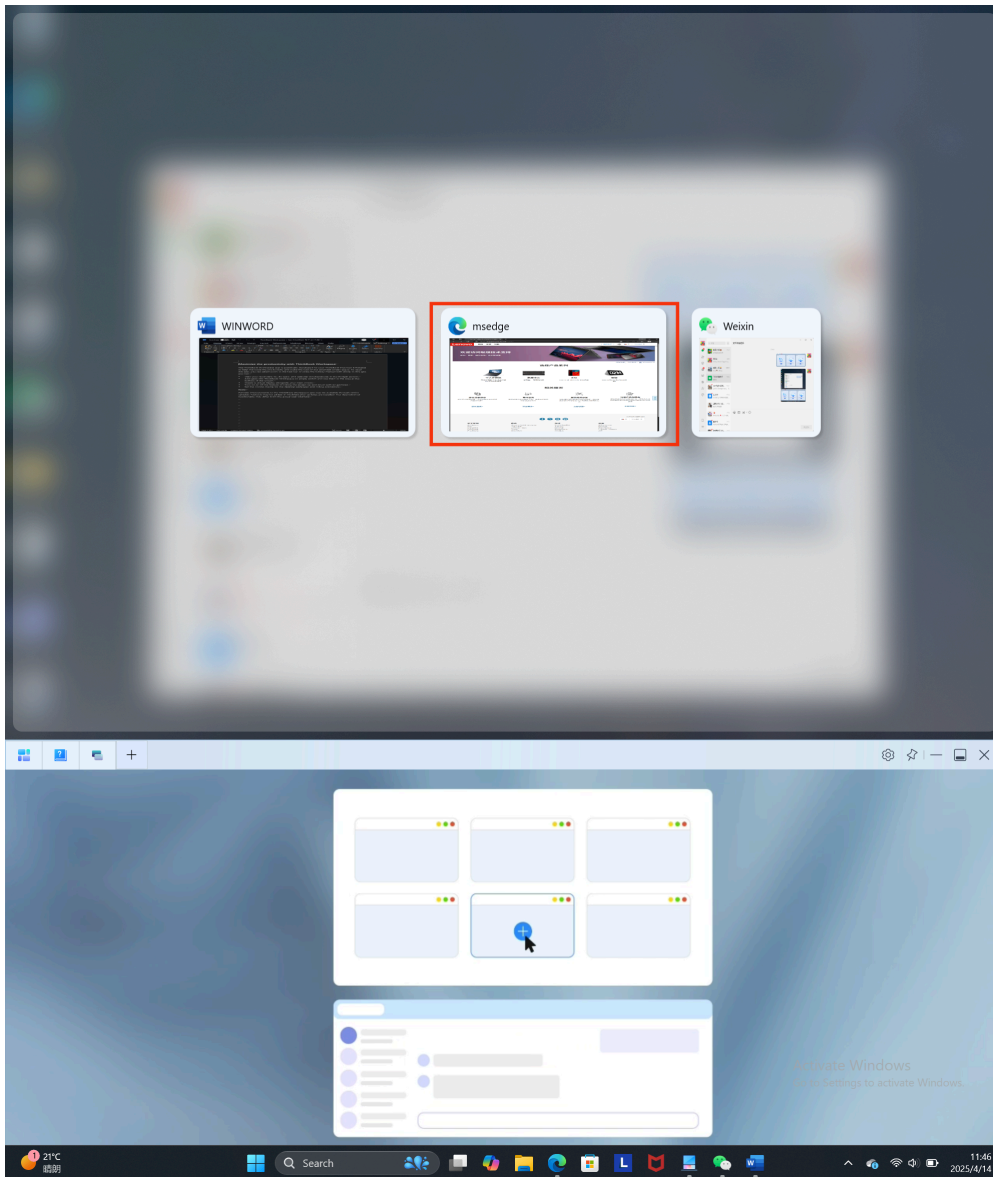


## Add apps into ThinkBook Workspace



Step 1. Open ThinkBook Workspace and click + to create a new tab.



Step 2. Click the app to add it into the ThinkBook Workspace.

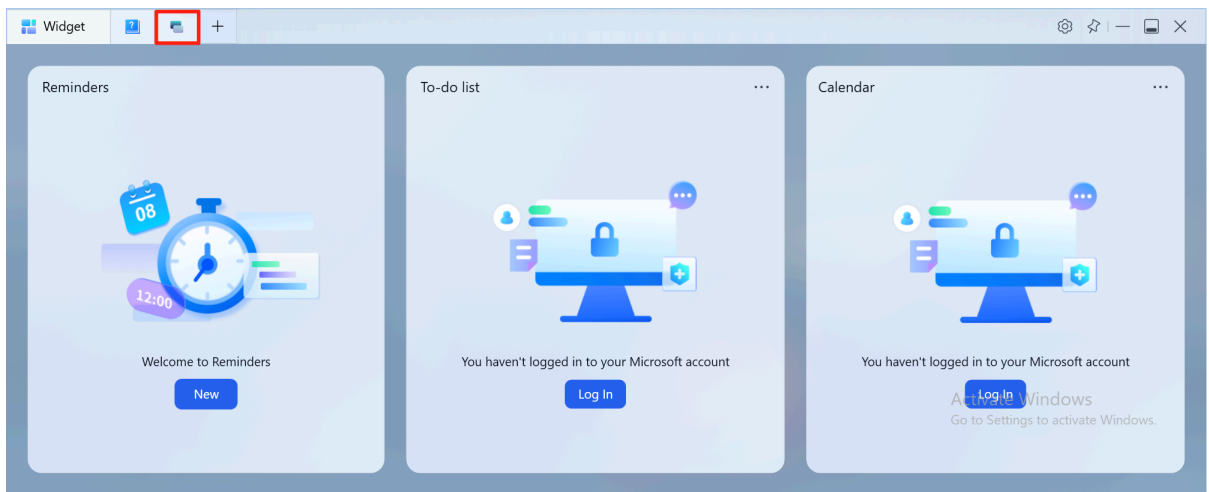


#### Notes:

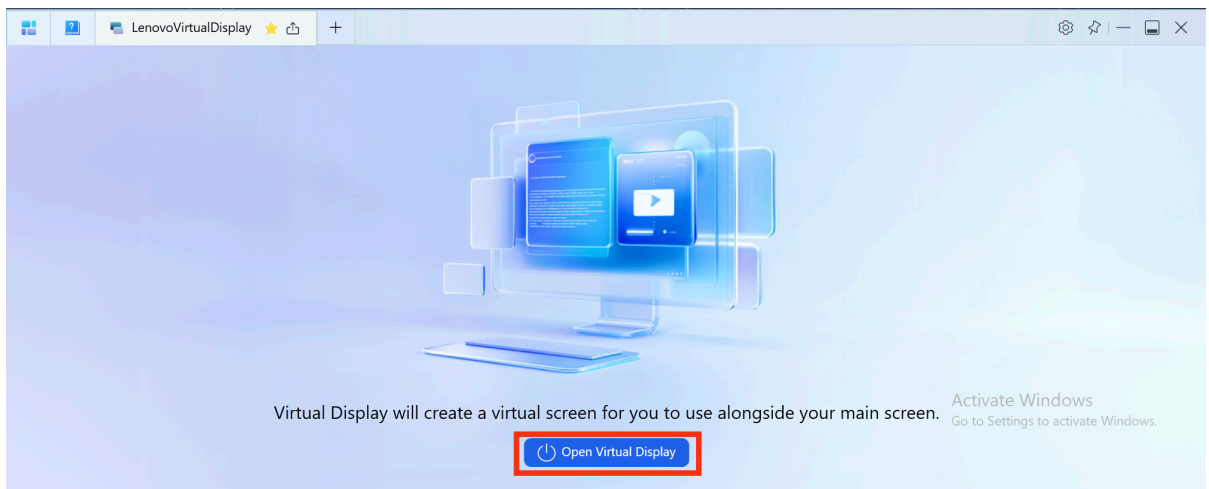
- Alternatively, you can also drag the app window into the ThinkBook Workspace area.
- Click  to pin your frequently used app into ThinkBook Workspace.
- Click  to pop out the app from ThinkBook Workspace to the main screen.

## Open a virtual display

Step 1. Open ThinkBook Workspace and then click .




Step 2. Click **Open Virtual Display** and start using the virtual display alongside your main screen.



**Note:** Please do not create a virtual display when connected to an external monitor, as this may cause conflicts.

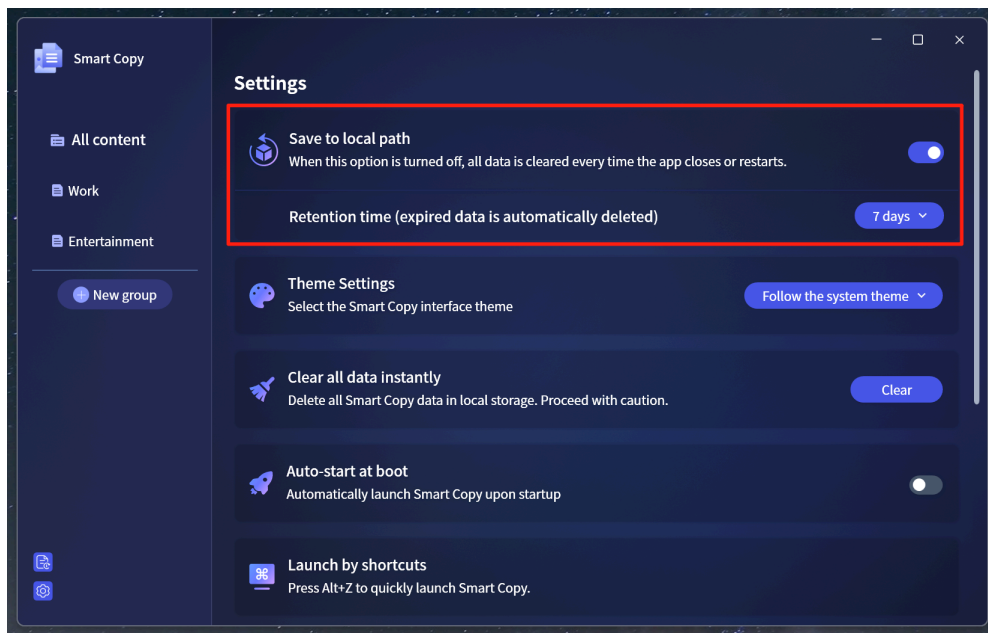
## Smart Copy

Smart Copy is a clipboard app developed specifically for your ThinkBook Plus Gen 6 Rollable. After enabling the data recording function by clicking the button  at the lower left corner, the content you copy will be automatically recorded in this app for you to edit and paste. In addition, it also provides advanced features such as grouping copied content and fast filtering by keywords, content categories, and copy time.

Smart Copy is added into ThinkBook Workspace by default. To open Smart Copy separately on your main screen, you can type Smart Copy in Windows search box and then press enter. When Smart Copy is running backstage, you can press alt + Z to quickly launch it.

### Notes:

- By default, all data is cleared every time the app closes or restarts. If you want to retain clipboard data for an extended period, you can choose to save the data to local path and set the retention time in app settings.



- Periodic improvements to the Smart Copy app may be available through online updates. Features may be added or modified after updates are installed. The description of functionality may differ from the actual user interface.

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## Chapter 3. Get started with your computer

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### Your PC and its operating system

The operating system is the most important software installed on a PC. The operating system manages the PC's hardware devices, provides utility apps and user interfaces, and allows various apps to be installed so that a PC can be used for different purposes.

Your PC is pre-installed with the Windows 11 operating system.

### Initial setup of the Windows operating system

When you turn on your PC for the first time, the Windows operating system will guide you through the initial setup process. Most importantly, you will:

- Create a user account
- Connect to a wireless network that has Internet access
- Select language-related settings

**Note:** If you choose to set up Windows for personal use, you are required to either use an existing Microsoft account or create a new one as your user account. After the initial setup, you have the option to switch to a local account.

### Enroll your fingerprints

You can use the biometric fingerprint option to sign in to Windows quickly if your computer includes a fingerprint sensor. This sign-in option provides a reliable and secure way of identity verification.

- Step 1. Select **Start → Settings → Accounts → Sign-in options**.
- Step 2. Under **Ways to sign in**, select **Fingerprint recognition (Windows Hello)** to set up sign-in with a fingerprint sensor.
- Step 3. Follow the on-screen instructions to enroll your fingerprints.

**Notes:**

- You need to set up a PIN code before you are allowed to use this sign-in option.
- It is recommended that you enroll multiple fingerprints in case of any injuries to your fingers.

### Set up facial recognition

Apart from text-based passwords, Windows 11 supports additional user authentication methods for PCs with the required hardware devices. For PCs equipped with a built-in infrared LED and an infrared camera, you can enable facial recognition to sign into Windows using your face.

- Step 1. Select **Start → Settings → Accounts → Sign-in options → Facial recognition**.
- Step 2. Select **Set up → Get started** and follow on-screen instructions to enroll your face.

**Note:** If you are using a local account to sign into Windows, you must set a password for the account before you can enable facial recognition.

## Windows Update

From time to time, your PC receives update notifications. These may include new features, security updates, and new device drivers. While security-related updates are typically downloaded and installed automatically, you can manually control the installation of other available updates.

In Windows Update, you can view available updates, manually check for updates, and configure update-related settings. To navigate to Windows Update, select **Settings → Windows Update**.

## Windows recovery options

When using your PC and the operating system, you may encounter problems. Windows provides several recovery options for you to restore it back to normal. The following table will help you decide which option to use for various circumstances.

Table 4. Windows recovery options

Circumstances	Recovery options
Windows runs much slower after you install an app.	Restore Windows from a system restore point.
Windows hasn't been functioning properly for some time.	Reset your PC while keeping your personal files.
Your PC won't start.	Utilize Windows startup repair function.
Your PC won't start and cannot be repaired using Windows startup repair function.	Use a recovery drive to restore Windows.

## Reset Windows

Resetting Windows allows you to reinstall the operating system while retaining your personal files. This gives the operating system a fresh start and, in some cases, restores the PC's original performance.

**Note:** It is strongly recommended to restore Windows with the screen rolled out.

- Step 1. Select **Settings → System → Recovery**.
- Step 2. Under recovery options, select **Reset PC**.  
When prompted, choose between **Keep my files** and **Remove everything**.
- Step 3. Follow the on-screen instructions to complete the reset process.

## Create a recovery drive

It is a good idea to create a recovery drive when you have finished setting up Windows for the first time. If you experience a major issue and your Windows cannot start, you can use the recovery drive to restore Windows onto your PC.

- Step 1. Prepare an empty USB drive with a storage capacity of 16 GB or more.
- Step 2. In the search box on the taskbar, type Create a recovery drive and select the matched app.
- Step 3. Make sure **Back up system files to the recovery drive** checkbox is selected and select **Next**.
- Step 4. When prompted, connect the USB drive to your PC, select it, and then select **Next**.
- Step 5. Select **Create**.

## Restore Windows using a recovery drive

If your Windows won't start, you can use a previously created recovery drive to restore Windows onto your PC.


- Step 1. Shut down your PC.
- Step 2. Connect the recovery drive to your PC.
- Step 3. Press the Novo button or the hotkey marked with ☆ to open the Novo button menu.
- Step 4. Select **Boot Menu**.
- Step 5. Select the USB drive as the boot device.  
The PC will start to the Windows Recovery Environment.
- Step 6. Follow the on-screen instructions to restore Windows on your PC.

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## Connect to a network

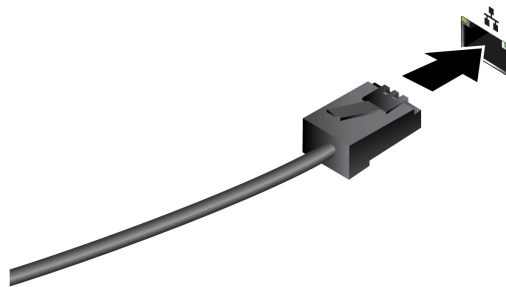
### Connect to a Wi-Fi network

Ensure that you have a secure Wi-Fi network account and the required credentials.

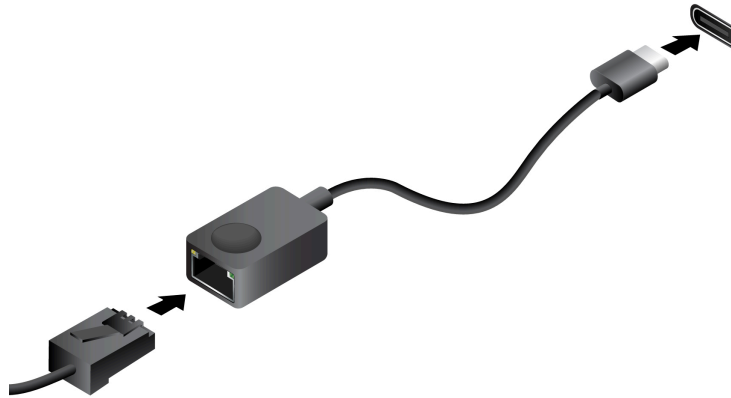
- Step 1. Select the network icon  on the bottom right of your display.
- Step 2. Select an available network, and then select **Connect**. If you want to be automatically connected to this Wi-Fi network the next time you start your computer, select **Connect automatically** before selecting **Connect**.
- Step 3. Input your credentials if necessary, and then follow the on-screen instructions to connect to the desired Wi-Fi network.

### Establish a wired connection

- Step 1. Plug an Ethernet cable into the Ethernet connector on your computer.
- Step 2. Plug the other end of the Ethernet cable into a network wall jack or a router.



**Note:** If your computer does not include an Ethernet connector, you can purchase a USB-C to Ethernet adapter from Lenovo at <https://www.lenovo.com/accessories>.



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## Use power efficiently

Use the power management features 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. The following table lists the typical time needed for batteries in rapid charge mode to be charged to 80% and 100% respectively.

*Table 5. Reference charge time for batteries in rapid charge mode*

Mode	Time needed to charge from 0% to 80%	Time needed to charge from 0% to 100%
Rapid charge	Less than 1 hour	Less than 2 hours



## 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%.

## Shut down your PC

When you have finished using your PC and do not plan to resume using it in a short while, shut it down.

- Step 1. Select **Start → Power**.
- Step 2. Select **Shut down**.

## 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 **Power Options → Choose what the power buttons do** and then set the power button behavior.

## Put your PC into sleep mode

If you need to stop using your PC but plan to resume using it shortly, you can put it into sleep mode. Your PC resumes faster from sleep mode and you can return to where you left off with your work.

Step 1. Select **Start → Power**.

Step 2. Select **Sleep**.

## Adjust timeouts for sleep and the built-in screen

Setting appropriate timeouts for sleep and the built-in screen is an effective way to save energy. This feature enables the screen and other devices to enter power-saving mode when the PC is left inactive for a specified period of time. The Windows operating system has default timeout settings enabled. You can adjust the settings to suit your preference.

Step 1. Select **Settings → System → Power & battery → Screen, sleep, & hibernation timeouts**.

Step 2. Adjust the settings.

For notebook PCs, you can set separate timeouts for two usage scenarios: when the PC is plugged in and when it is running on battery.

## The default timeouts for sleep and the built-in screen

The operating system of your PC has the following timeouts enabled by default. You can adjust them to suit your preference.

**Note:** Setting appropriate timeouts is an effective way to save energy. Avoid setting excessively long timeouts to effectively disable this power-saving feature.

Table 6. Default timeouts

Power saving action	Power state	Timeout
Turn off the screen	Plugged in	5 minutes
	On battery	3 minutes
Put the PC into sleep mode	Plugged in	5 minutes
	On battery	3 minutes

**Note:** To wake the PC from sleep mode, press the power button or any key on the keyboard.

## 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 among the different 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 7. Operation modes and their recommended usage conditions

Operation mode	Recommended conditions
High Performance	<ul style="list-style-type: none"><li>• Your computer is plugged into an electrical outlet.</li><li>• You want the best performance, and</li><li>• You don't care if the fan makes a little noise.</li></ul>
Auto (Balance)	You plan to frequently switch between different computer tasks over a period of time.
Power Saving (Quiet)	<ul style="list-style-type: none"><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 (Balance) mode, the computer dynamically switches between High Performance mode and Power Saving (Quiet) mode depending on the tasks running on the computer.



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## Chapter 4. Explore your computer

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### The display device

The built-in display is your PC's primary visual output device. Your PC is equipped with two USB Type-C connectors, all of which support visual output. You can connect up to two external display devices to your PC to enhance productivity.

The built-in display of your PC is touch-enabled. You can tap and swipe directly on the screen. You can also use multi-touch gestures on the screen to navigate within Windows more efficiently.

### Enable adaptive brightness

For PCs equipped with an ambient light sensor, you can enable adaptive brightness in the Windows operating system so that they adjust according to ambient lighting conditions.

Step 1. Select **Settings → System → Display**.

Step 2. Under **Brightness**, select the switch for adaptive brightness to turn it on.

### 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.

### Turn on night light

The night light feature in Windows 11 enables users to switch to warmer color tones, reducing blue light emission to alleviate eye strain or fatigue.

Step 1. Open the quick settings menu by selecting the network, sound, or battery icons (  ) on the far right of the taskbar or by using the keyboard shortcut **Win + A**.

Step 2. Select the button for night light to turn it on or off.

**Note:** Some Windows 11 versions allow users to customize their quick settings. If the night light button is not visible, you can add it to the quick settings menu by selecting the edit button (.

For more tips on reducing eye strain or fatigue, visit <https://www.lenovo.com/us/en/compliance/visual-fatigue>.

### Adjust color temperature

If Windows 11 night light mode is turned on, you can adjust the color temperature of the screen.

- Step 1. Select **Start → Settings**.
- Step 2. Select **System → Display → Night light settings**.
- Step 3. Move the slider to adjust the color temperature.

**Note:** Selected Lenovo PCs are low blue-light certified. These PCs undergo testing with the night light turned on and the color temperature value set at 48 or above.

## Connecting external displays

You can use both the USB Type-C connectors on your PC to connect external display devices. Depending on the connection capability of the display device, you have several options for connecting displays.

### Direct connection

If the external display is equipped with a USB Type-C connector that is Thunderbolt-enabled or supports DisplayPort™ Alt Mode, you can use a double-sided USB Type-C cable to connect the display to any of the USB Type-C connectors on your PC.

### Connection using an adapter

If the display is equipped with a DisplayPort or an HDMI connector, you can use an adapter to connect the display to your PC. The adapter features a USB Type-C connector (plug) on one end and a DisplayPort or an HDMI connector (socket) on the other. Connect the adapter to your PC and then connect the display to the adapter.



### Connection using a docking station

A USB4 or Thunderbolt certified docking station can be connected to expand your PC's connectivity capabilities. Use a double-sided USB Type-C cable to connect the PC to the downstream USB Type-C connector on the docking station. You can then connect the display to the DisplayPort or HDMI connector on the docking station.

## Change display settings

- Step 1. Right-click on a blank area on the desktop, and then select **Display settings**.  
Your computer shows the **Display** window.
- Step 2. Select the display for which you want to change the settings.
- Step 3. Change the display settings as necessary.

## Set the display mode

- Step 1. Press  or fn + .  
Your computer shows a list of display modes, with the current mode highlighted.
- Step 2. Select a display mode from the list.

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## Camera


## Change camera settings

- Step 1. Select **Settings → Bluetooth & devices → Cameras**.
- Step 2. Under **Connected cameras**, select the camera in use.
- Step 3. Use the controls to adjust various settings and apply effects. You'll see the changes immediately in the displayed camera preview.



**Note:** Changes will be saved as the new default settings. If you want to reset the settings and effects, select **Reset settings**.

## Protect your privacy using the camera switch

The camera switch is a mechanical button that prevents any attempt from capturing your image, thus protecting your privacy. To disable the camera, slide the camera switch to the direction with . When you want to use the camera again, slide the camera switch to the other direction.

If you slide the camera switch to  during a video call, people on the video call will not be able to see you. If you slide the camera switch back to the opposite position, they will be able to see you again.



**Note:** After you slide the camera switch,  or  is displayed on the screen to indicate that the setting is successful.

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## Shortcut keys

A Lenovo keyboard usually includes the following shortcut keys that you can use to quickly access apps or adjust settings.

- Functions keys (F1–F12)
- Hotkeys
- Combination keys using the fn key
- Combination keys using the Windows logo key
- The Copilot key

## The fn lock switch

The fn lock 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 fn lock switch.

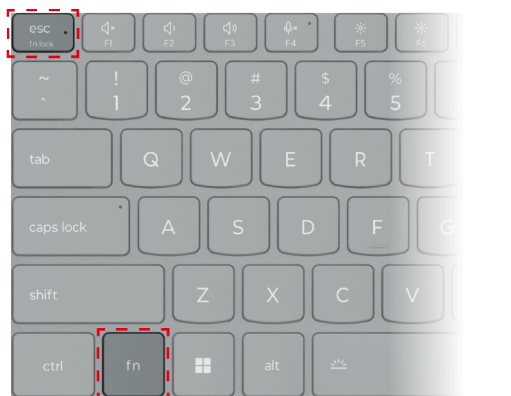


Figure 1. Locations of the fn lock key and the fn key

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

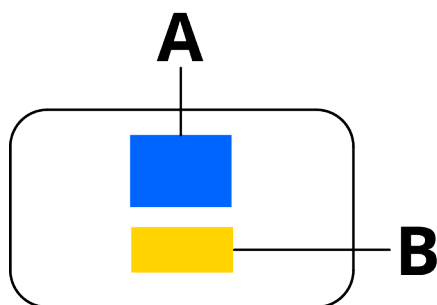


Figure 2. The layout of a dual-function key

Table 8. **fn lock** and dual-function keys














fn lock (esc) <b>LED</b>	fn lock <b>status</b>	<b>Pressing the hotkey alone</b>		<b>Pressing the hotkey while holding down the fn key</b>
Off	Disabled	Primary function		Secondary function
On	Enabled	Secondary function		Primary function

## Hotkeys

Hotkeys provide quick access to settings and apps that you may frequently use. They are located in the top row of the keyboard and usually share keys with function keys (F1–F12) and other keys. The function that each hotkey provides is denoted by the icon printed on the key.



Table 9. Hotkey functions

Hotkey icon	Function description
	Mutes/Unmutes sound.
	Decreases volume.
	Increases volume.
	Enables/Disables the microphone.
	Decreases screen brightness.
	Increases screen brightness.
	Selects and sets up display devices.
	Disables/enables the touchpad
	Opens Lenovo Smart Connect app.
	Opens Lenovo AI Now app, Lenovo Vantage app, or an application launch panel.
	Opens the Snipping tool.
insert	Toggles between typing mode and overtype mode. <b>Note:</b> In typing mode, characters that you type will be inserted after the cursor on the screen. While in overtype mode, characters that you type will replace the existing characters after the cursor.
	Rolls up/down the screen.
	Opens/hides the ThinkBook Workspace app.

**Note:** To use the function keys, hold down the fn key and press the corresponding hotkeys. If you need to use function keys regularly, you may consider turning on the fn lock to set the function keys as the primary function of these dual-function keys.

## Combination keys using the fn key

The fn key can be used in combination with certain keys to adjust device settings or activate additional functions.

Table 10. fn-based key combinations

Key combination	Function
fn + Q	Switches the PC's active power mode
fn + R	Switches the refresh rates of the built-in display
fn + M	Enables/disables the touchpad
fn + N	Shows key device information
fn + Space	Adjusts keyboard backlight
fn + Copilot key	Performs the right-click function on the current window
fn + T	PrtScr
fn + left arrow	Home
fn + right arrow	End


Table 10. fn-based key combinations (continued)

Key combination	Function
fn + up arrow	PgUp
fn + down arrow	PgDn


## Combination keys using the Windows logo key

The Windows logo key is located in the lower-left corner of the keyboard. It can be used alone or in combination with certain keys to quickly change settings and access utilities of the Windows operating system. The following table lists frequently used combination keys. For the complete list of all Windows logo key-based key combinations, please refer to Microsoft online documentation.

Table 11. Windows logo key-based key combinations

Key or key combination	Function
Windows logo key 	Opens or closes the Start menu
+ A	Opens or closes Quick Settings
+ D	Returns to the desktop
+ E	Opens File Explorer
+ I	Opens Settings
+ L	Locks the screen
+ M	Minimizes all open windows
+ N	Opens or closes the Notification Area
+ P	Switches multi-screen modes
+ W	Opens or closes Widgets
+ ; (semicolon)	Opens the emoji panel
+ Tab	Opens or closes Task View

## 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.

### Notes:

- 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.
- Pressing fn + The Copilot key simultaneously will perform the right-click function.

## Touchpad gestures

The touchpad is your PC's built-in pointing device. You can tap and swipe on the touchpad to navigate within the operating system and within apps. In addition, the Windows operating system also supports multi-finger gestures on the touchpad to enhance productivity while interacting with the operating system.

Table 12. Multi-finger touchpad gestures

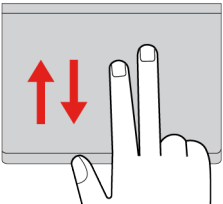
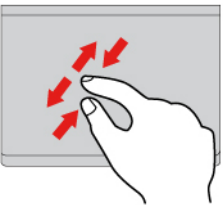
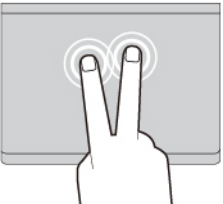
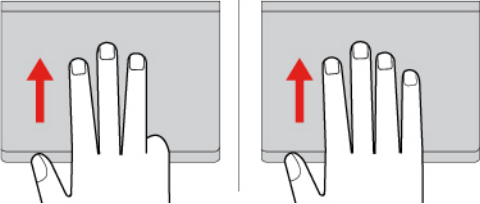
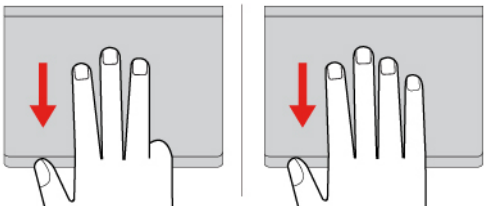
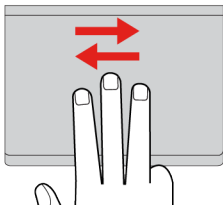
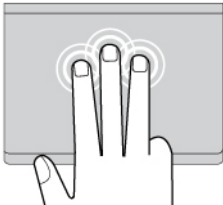
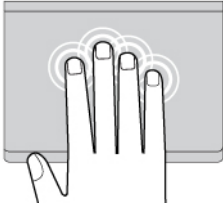
Gesture	Function
Swipe vertically with two fingers 	Scrolls pages
Place two fingers on the touchpad and pinch in or stretch out 	Zooms out / zooms in
Tap two fingers on the touchpad 	Displays the context menu (right-clicking)
Swipe up with three fingers or four fingers 	Shows all open windows

Table 12. Multi-finger touchpad gestures (continued)

Gesture	Function
Swipe down with three fingers or four fingers 	Returns to the desktop
Swipe left or right with three fingers 	Switches between open apps
Tap three fingers on the touchpad 	Opens Windows Search
Tap four fingers on the touchpad 	Opens Notification Center

## Modify the default functions for touchpad gestures

The functions for three-finger and four-finger touchpad gestures can be modified in Windows Settings.

- Step 1. Select **Settings** → **Bluetooth & devices** → **Touchpad**.
- Step 2. Under **Three-finger gestures** and **Four-finger gestures**, use the drop-down lists to modify the functions for the swipe or tap gestures.

## Bluetooth connectivity

Bluetooth is a short-range wireless technology commonly used for connections between nearby devices. Your PC is equipped with a built-in Bluetooth adapter. You can connect other Bluetooth-enabled devices to

your PC. Bluetooth-enabled headphones, earbuds, loudspeakers, keyboards, and mice are among the devices you may consider connecting to your PC.

## Connect a Bluetooth-enabled device to your PC

Establishing a Bluetooth connection requires actions on both the device and your PC. Turn on the device and make it discoverable before performing any actions on your PC.

- Step 1. Select **Settings → Bluetooth & devices → Add device → Bluetooth**.
- Step 2. Select the device you want to connect, and then select **Connect**.
- Step 3. Depending on the type of device, you may need to either confirm the connection on the device side or enter a pairing code on your PC.

When a Bluetooth-enabled device is connected to your PC, its name and status are displayed under **Bluetooth & devices** on your PC .

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## Unique Lenovo apps

### Lenovo Vantage

Lenovo Vantage is a one-stop solution to help you update your computer, configure hardware settings, and access personalized support.

If your computer is pre-installed with Lenovo Vantage, type *Vantage* in the Windows search box to launch this app.


#### Notes:

- Available features may vary depending on your computer model.
- You can download the latest version of this app from Microsoft Store.

### Smart Connect

Smart Connect is an app that can easily pair your PC with your Motorola smartphone and Lenovo tablet. With Smart Connect, you can:

- Access mobile apps on your PC
- Quickly share content between connected devices
- Mirror your phone display or create a virtual phone screen on your PC
- Copy and paste across connected devices
- Use your phone or tablet camera as the PC webcam
- Control your phone or tablet using your PC keyboard and mouse
- Extend or mirror your PC display on the tablet

To open Smart Connect, you can type *Smart Connect* in the Windows search box and then select the matched result. Alternatively, you can also press the hotkey marked with  (F11) as a shortcut.

**Note:** Smart Connect makes periodic updates to keep improving your experience. Features may be added or modified after updates are installed.

## Lenovo AI Now

Lenovo AI Now is your personal and private AI assistant. It enables you to boost your productivity by building your personal knowledge library, helps you with inspiration, writing and summarizing, and provides troubleshooting and quick settings for your PC.

To open Lenovo AI Now, type **Lenovo AI Now** in the Windows search box and select the matched result. Alternatively, you can also press the hotkey marked with ☆ as a shortcut.

### Notes:

- Lenovo AI Now is not available on all product models. For those models not pre-installed with this app, pressing the hotkey ☆ will open Lenovo Vantage app or a quick launch panel.
- Lenovo AI Now makes periodic updates to keep improving your experience. Features may be added or modified after updates are installed.

## Lenovo Smart Meeting

Lenovo Smart Meeting is a video conferencing app with multiple features for enhancing your professional image and protecting your privacy.

If you want your settings in this app to also take effect on other mainstream video conferencing apps, such as Microsoft Teams and Zoom, ensure that you select **Lenovo Virtual Camera** in the app.

### Access the app

If your computer is pre-installed with Lenovo Smart Meeting, type **Lenovo Smart Meeting** in the Windows search box and then press **Enter** to open this app.

### Explore key features

- **Video enhancer:** Adjust the brightness automatically for better image quality during the video call.



- **Customized background:** Customize your background during the video call to protect your privacy.



- **Temporary Avatar:** Create and display a temporary portrait of you as if you were still in the video conference when you are temporarily away.

**Notes:**

- Lenovo Smart Meeting may not be available on all product models.
- Lenovo does not collect any personal data from this app.
- The available features vary depending on the computer model.
- Lenovo Smart Meeting makes periodic feature updates to keep improving your experience. The description described here might be different from that on your actual user interface.

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## Intelligent features

Your computer may be pre-installed with one of Lenovo Vantage or Lenovo Baiying but not both. Most features described here can be enabled or disabled in one of these apps. Other features may be enabled in a standalone app.

**Notes:**

- Software features are subject to change. Please refer to your actual product.
- You may need to complete online updates to the apps for the features to take effect.

## Dolby Atmos

If your PC is preinstalled with Dolby Atmos, you can set or define Dolby profiles in Lenovo Vantage.

Dolby Atmos includes a set of fine-tuned audio processing parameters. You can select a profile that best suits your needs and adjust the profile settings if applicable.

Available profiles are described in the table below.

Table 13. Available profiles for Dolby Atmos

Profile	Description
Dynamic	Dolby technology identifies the content type and performs automatic adjustments.
Movie	Virtualized surround sound and clearer dialogues help you attend to every detail of the story.
Music	Rich, detailed audio optimized for music.
Game	Distinct sound placement makes it easier to locate sounds from any angle.
Voice	Enhances clear and consistent voice quality for virtual meetings and calls.
Custom	More flexibility is available with the audio processing settings. <b>Note:</b> You can create multiple custom profiles to best suit your needs for different scenarios.

## 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
Microphone noise cancelling	<b>Voice Recognition:</b> Your computer captures multiple voices in a way that reflects their original spatial positions.	<ul style="list-style-type: none"><li>This function takes effect only when built-in microphones/arrays or 3.5 mm jack wired microphones are used as the input media.</li><li>To disable this function, select <b>Off</b>.</li></ul>
	<b>Only My Voice:</b> This option requires you to record your voice so that your computer captures this voice only and tries to eliminate other voices. <b>Note:</b> To remove your voice record, select <b>REMOVE MY VOICE</b> .	
	<b>Normal:</b> Your computer focuses on the voice of the person facing it and reduces ambient sounds.	
	<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.
Meeting noise cancelling	When this function is selected, your computer uses special algorithms for noise reduction when you are using conferencing applications.	

### Notes:

- Depending on its hardware, your computer may not support all the functions and options described above.
- You can view and customize this feature under **Device Settings** in Lenovo Vantage or Lenovo Baiying.

## 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 poor resolution.

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

## 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.



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## The firmware of your PC

When you turn on the power, a series of instructions are executed inside your PC to initiate devices, locate a boot device, and look for a program called bootloader. The bootloader will then find the operating system installed on your PC and hand over control to it. When the operating system is started, your PC is ready for use.

These instructions are stored on a Flash chip on the PC's system board. The Flash chip and the instructions stored on it are referred to as the PC's firmware (UEFI/BIOS).

### Firmware setup utility

Lenovo PCs typically include a setup utility in the firmware that allows you to:

- View information about your PC and its devices
- Change device settings
- Change the order of boot devices
- Set passwords for the firmware or the mass storage device

**Note:** You should rarely need to use the setup utility for your daily PC usage. To view device information, you can use the utilities provided by the operating system or apps provided by Lenovo (Lenovo Vantage or Lenovo PC Manager). You can use the Novo button menu to temporarily change the order of boot devices.

### Open the firmware setup utility

There are several ways to open the setup utility:

- Utilize the Advanced startup feature of the Windows operating system
- Use the Novo button menu
- Start or restart your PC, and then press the interrupt key F1 repeatedly when the Lenovo logo appears on the screen

**Note:** For computers with hotkey mode enabled, press fn + F1.

### Change settings in the firmware setup utility

This section introduces the operations you can perform in the firmware setup utility.

#### Select boot devices

Normally, the computer starts with a boot manager loaded from the secondary storage device of the computer. Occasionally, you may need to start the computer with 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 firmware 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 firmware 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 Flip to Start

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

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

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

## Set passwords in the firmware setup utility

You can set passwords in the firmware setup utility to secure access to the utility program or the mass storage device.

### Password types

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

Password type	Pre-requisite	Usage
Supervisor password	No	You must enter it to start the setup utility.
User password	The supervisor 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 supervisor password

You set the supervisor password to prevent unauthorized access to the firmware setup utility.

**Attention:** If you forget the supervisor 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 → Password → Set Supervisor 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 **Restart → Exit Saving Changes**.

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

## Change or remove supervisor password

Only the administrator can change or remove the supervisor password.

Step 1. Open the UEFI/BIOS setup utility using the supervisor password.

Step 2. Select **Security → Password → Set Supervisor 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 **Restart → Exit Saving Changes**.

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

## Set user password

You must set the supervisor 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 supervisor password.

Step 2. Select **Security → Password → 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 supervisor password.

Step 4. Enter the password again and press Enter.

Step 5. Select **Restart → Exit Saving Changes**.

## Enable power-on password

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

Step 1. Open the UEFI/BIOS setup utility.

Step 2. Select **Security → Password → Power on Password** and press Enter.

**Note:** The supervisor password must be set in advance.

Step 3. Change the setting to **Enabled**.

Step 4. Select **Restart → Exit Saving Changes**.

If the 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 using the supervisor password.

Step 2. Select **Security → Password → Set Hard Disk Password** and press Enter.

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

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

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

Step 4. Select **Restart → 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 → Password**.

Step 3. Change or remove the hard disk password.

To change or remove the 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 the user hard disk password, select **Change User Password** and press Enter.

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

Step 4. Select **Restart → Exit Saving Changes**.

### Set strong password

You can set a strong password to strengthen the password security.

Step 1. Open the firmware setup utility.

Step 2. Select **Security → Password → Set Strong Password** and press Enter.

Step 3. Change the setting to **Disable** or **Enabled**.

Step 4. Select **Restart → Exit Saving Changes**.

If the strong password is enabled, supervisor password, user password, and hard disk password lengths must range between eight and 128 characters. Each password must include at least one uppercase character, one lowercase character, and one number.

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## Chapter 5. Help and support

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### Frequently asked questions

#### 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>.
- Windows Update

#### 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.**

#### 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 or disabled in the setup utility program for the PC's firmware or the Lenovo Vantage app.

#### Why does my screen brightness change constantly

Your computer may include an ambient light sensor and the adaptive brightness feature is enabled. The light sensor can detect the intensity of the surrounding light. Using data provided by the sensor, the operating system can dynamically adjust the screen brightness.

The adaptive brightness feature of the operating system can be disabled. For Windows operating systems, adaptive brightness settings are usually found in **Settings → System → Display**.

#### What should I do if I cannot connect to the network

1. Right-click on the network icon  on the right side of the task bar.
2. Select **Diagnose network problems** and then follow the on-screen instructions.

## What should I do with blue screen errors

Blue screen errors can occur if a serious problem causes Windows to shut down or restart unexpectedly. To fix the errors, you can take the following steps to use the Blue Screen Troubleshooter in the Get Help app:

- Step 1. Type **Get Help** in the Windows search box and then press Enter.
- Step 2. In the search box of the Get Help app, type **Troubleshoot BSOD error** and then press Enter.
- Step 3. Follow the guided walkthrough.

## What should I do if the screen flickers

Screen flickering in Windows is usually caused by a display driver issue or incompatible app. You can first determine whether the problem is caused by a display driver issue or an incompatible app by checking if Task Manager flickers. To open Task Manager, press Ctrl+Alt+Delete or Ctrl+Shift+Esc.

1. If Task Manager also flickers, the display driver is probably causing the problem. In this scenario, roll back your display driver:
  - a. Type **device manager** in the Windows search box and then press Enter.
  - b. Under **Display adapters**, select a display adapter.
  - c. Select the **Driver** tab and then select **Roll Back Driver**.
  - d. Click **Yes** to roll back your display driver and restart your computer.

**Note:** If the **Roll Back Driver** option is unavailable, Windows does not have a previous driver to roll back to. In this scenario, you can try updating or uninstalling your display driver in the **Driver** tab.

2. If Task Manager does not flicker, an incompatible app is probably causing the problem. In this scenario, update or uninstall an incompatible app:
  - a. Check if any app needs to be updated from the Microsoft Store or the manufacturer's site. If yes, update the app.
  - b. If step a does not work, uninstall the app:
    - 1) Select the Start menu on the taskbar and then select **Settings**.
    - 2) Select **Apps → Installed apps**.
    - 3) Scroll down the list, find the app you want to uninstall, and then select **Uninstall**.
    - 4) In the popup window, select **Uninstall**.
    - 5) If you're asked to confirm your choice, select **Yes**.

**Note:** Check in the recently used app if screen flickering usually occurs in a specific app. If yes, prioritize uninstalling that app.

After uninstalling an app, restart your computer and check if the screen flickering issue is resolved. If the issue retains, uninstall each app one by one until the issue is resolved.

## What should I do if my touchpad does not respond

If your touchpad does not respond, it might be because you have disabled the touchpad or your touchpad driver is out-of-date or malfunctioning. To solve the problem, you can try the following solutions.

- Enable the touchpad:
  1. Go to **Start → Settings → Bluetooth & devices → Touchpad**.
  2. Turn on the **Touchpad** toggle.

**Note:** Alternatively, you can also press the key combination fn + M to enable or disable the touchpad.

- Update the touchpad driver:

1. Type **Device Manager** in the Windows search box and then press Enter.
  2. Click the arrow icon > next to **Human Interface Devices** to expand the section.
  3. Right-click the touchpad, select **Update driver**, and follow the on-screen instructions.
- If a touchpad problem occurs after a recent driver update, follow the instructions below to roll back to the previously installed driver:
    1. Type **Device Manager** in the Windows search box and then press Enter.
    2. Click the arrow icon > next to **Human Interface Devices** to expand the section.
    3. Right-click the touchpad, and select **Properties**.
    4. Under **Driver**, select **Roll Back Driver** and follow the on-screen instructions.

## What should I do if the audio does not work

If you encounter any audio problems, such as no audio or malfunctioning audio, try the following solutions to troubleshoot and fix the issue:

1. Verify your audio settings:
  - a. Go to **Start → Settings → System → Sound**.
  - b. Verify that the sound output and input devices are selected correctly.

**Note:** If you are using an external audio device, ensure that the device is properly connected to your computer.
  - c. Verify that the volume is properly set and your computer is not muted.
2. Run the audio troubleshooter:
  - a. Go to **Start → Settings → System → Sound**.
  - b. Under **Advanced**, find **Troubleshoot common sound problems**, and click **Output devices** or **Input devices** to troubleshoot and fix the problem.

For more solutions to audio problems, go to <https://support.lenovo.com/solutions/ht501860>.

## What should I do if my camera can't be launched or found

If your camera can't be launched or found, try the following solutions one by one to troubleshoot and fix the issue:

1. Ensure that your camera is not disconnected or covered:
  - If you are using an external camera, ensure that you have connected it to a working USB connector on your computer.
  - If you are using an integrated camera, slide the camera shutter or camera switch to the on position.
2. If you are using an integrated camera, it might be disabled. To enable your camera:
  - a. Open the **Start** menu, and click **Settings → Bluetooth & devices → Camera**.
  - b. Check if the camera is connected or disabled. If it is disabled, enable the camera.
3. The apps you are using might not have access to your camera. To authorize access to your camera:
  - a. Open the **Start** menu, and select **Settings → Privacy & security → Camera**.
  - b. Turn on **Camera access** switch and **Let apps access your camera** switch.
4. Your antivirus software settings might block access to your camera. Go to your antivirus software settings and unblock the access.
5. Your camera driver might be uninstalled or out-of-date. To update the camera driver:
  - a. Type **device manager** in the Windows search box and then press Enter.

- b. Click **Device Manager** from the list of results. The Device Manager window opens.
- c. Click arrow icon > next to **Camera** to expand the section.
- d. Right-click the camera that you would like to update.
- e. Select **Update driver** and follow the on-screen instructions.
6. If your camera still does not work, run the automated camera troubleshooter in the Get Help app. To open the Get help app:
  - a. Open the **Start** menu, and click **Settings → Privacy & security → Camera**.
  - b. Scroll down to the bottom. Click **Get help** and follow the on-screen instructions.

## What should I do if my keyboard does not work

If your keyboard does not work or types wrong characters, try the following solutions to troubleshoot and fix the issue:

1. Ensure that the keyboard is well connected.
  - If you are using a wired keyboard, check if it is connected to your computer correctly or try to connect the keyboard to another compatible connector on your computer.
  - If you are using a wireless keyboard, ensure that your keyboard is powered on. Check if the dongle is connected to your computer correctly or the Bluetooth connection with your computer is established.
2. Ensure that the keyboard layout settings are correct. Take the following steps:
  - a. Go to **Settings → Time & language → Language & region**.
  - b. Under **Preferred languages**, click on the three horizontal dots next to your primary language preference and select **Language options**.
  - c. Under **Installed keyboards**, check the keyboard layout and add the corresponding keyboard if you're not using the right one.
3. Ensure that the keyboard is in good status. Take the following steps:
  - a. Type **device manager** in the Windows search box and then press Enter.
  - b. Click **Device Manager** from the list of results. The Device Manager window opens.
  - c. Click arrow icon > next to **Keyboard** to expand the section.
  - d. Double-click the keyboard that is not working and check the status.
  - e. If it is not working properly, select **Driver** from the tabs on the top and click **Uninstall device** to uninstall the device.
  - f. Apply Windows Update to install the latest driver automatically.
4. Ensure that the sticky keys and filter keys are disabled. Take the following steps:
  - a. Open the **Start** menu, and click **Settings → Accessibility → Keyboard**.
  - b. Disable **Sticky keys** switch and **Filter keys** switch.
5. Restart your computer.

## What should I do if my keyboard backlight does not work

If your keyboard backlight does not work, try the following solutions to troubleshoot and fix the issue:

1. Adjust the keyboard backlight by pressing the key combination fn + Space.
2. Open the firmware setup utility and press the key combination fn + Space to check if the keyboard backlight works. If the backlight works in the firmware setup utility, update the UEFI/BIOS to the latest version.
3. Update the keyboard driver:



- a. Type **Device Manager** in the Windows search box and then press Enter.
- b. Click the arrow icon next to **Keyboards** to expand the section.
- c. Right-click the keyboard you would like to update.
- d. Select **Update driver** and follow the on-screen instructions.

## How to reset my Windows password

If you forget your Windows password and want to reset one, you can take the following actions.

- Do the following if you have set security questions.
  1. Click **Reset password** on the sign-in screen after you have entered an incorrect password.
 

**Note:** Contact your administrator if you do not see an option to reset your password.
  2. Follow on-screen instructions to reset a new password.
- Do the following if you have created a password reset disk.
  1. Connect a password reset disk to a USB-compatible connector on your computer.
  2. Follow on-screen instructions to reset your password.
- Do the following if you have an administrator account.
  1. Sign in to your computer with the local administrator account.
  2. Follow on-screen instructions to reset your password.

## What should I do if the built-in battery cannot be charged

1. Ensure that you use the correct power adapter with the proper wattage. Low-wattage power adapters might cause battery charging problem.
2. Exit the heavy-loading programs and charge the computer again. To check the loads of programs in process, press **ctrl + alt + delete** and then select **Task Manager → Processes**.
3. Move your computer to a cool and well-ventilated spot. Battery charging may also be affected by its temperature.
4. Update the battery driver or UEFI/BIOS to the latest version. To proceed with a driver update or a BIOS update, select **System Update** in the Lenovo Vantage app. It will automatically check for any updates you may need.

## 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 style="list-style-type: none"> <li>• <a href="https://www.lenovo.com/tips">https://www.lenovo.com/tips</a></li> <li>• <a href="https://forums.lenovo.com">https://forums.lenovo.com</a></li> </ul>
Accessibility information	<a href="https://www.lenovo.com/accessibility">https://www.lenovo.com/accessibility</a>
Product documentation:	
<ul style="list-style-type: none"> <li>• <a href="#">Generic Safety and Compliance Notices</a></li> <li>• <a href="#">Safety and Warranty Guide</a></li> <li>• <a href="#">Setup Guide</a></li> <li>• <a href="#">This User Guide</a></li> <li>• <a href="#">Regulatory Notice</a></li> </ul>	<ol style="list-style-type: none"> <li>1. Go to <a href="https://support.lenovo.com">https://support.lenovo.com</a>.</li> <li>2. Detect your computer or select computer model manually.</li> <li>3. Select <b>Guides &amp; Manuals</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 style="list-style-type: none"> <li>Product and service warranty</li> <li>Product and parts details</li> <li>Knowledge base and frequently asked questions</li> </ul>	Visit <a href="https://support.lenovo.com">https://support.lenovo.com</a>
Windows help information	<ul style="list-style-type: none"> <li>Use <b>Get Help</b> or <b>Tips</b>.</li> <li>Use Windows Search.</li> <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:

CRU type	Description
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](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	X	

### 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, should be done by a qualified repair technician or by ensuring that you carefully follow all instructions provided by Lenovo. You can also find Lenovo-authorized repair facilities by going to <https://support.lenovo.com/partnerlocator> for more information.

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## 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
<ul style="list-style-type: none"><li>• Product name</li><li>• Machine type and serial number</li></ul>	<ul style="list-style-type: none"><li>• What is the problem? Is it continuous or intermittent?</li><li>• Any error message or error code?</li><li>• What operating system are you using? Which version?</li><li>• Which software applications were running at the time of the problem?</li><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/supportphonenumberlist>.

**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.

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## **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.

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## Chapter 6. PC and accessibility

PCs are powerful general-purpose computing devices that many individuals rely on for accessing information, connecting with friends, pursuing education, conducting research, and completing work tasks. This reliance extends to individuals with vision, hearing, cognitive, or mobility impairments, as well as to those whose abilities may decline due to illness or aging.

This chapter explores the accessibility features available on your Lenovo PC, including both hardware components and those offered by the pre-installed operating system. By gaining a comprehensive understanding of the available accessibility features and how to activate and configure them, you can enhance your PC's usability for individuals with disabilities.

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### Accessibility features of the PC hardware

Lenovo PCs are designed with accessibility in mind. Throughout the design process, special considerations are prioritized for individuals with disabilities and best industry practices are implemented in hardware design.

### USB connectors for connecting assistive technology devices

Several types of assistive technology devices are available on the market that can be connected to a PC to enhance its accessibility. For example, a refreshable braille display is an assistive technology device that enables individuals who are both deaf and blind to use a PC. When connected to a PC, a refreshable braille display can work in conjunction with a compatible screen reader to provide tactile output in braille characters. Blind individuals who have been trained to read braille can run their fingers over the display to comprehend the information presented on the PC.

Many assistive technology devices utilize USB technology for connectivity. Most Lenovo PCs are equipped with at least one USB connector that adheres to the relevant USB specifications and is backward compatible. A Lenovo PC may feature a USB Standard-A connector, a USB Type-C connector, or both. If the plug type of the assistive technology device does not match the USB connector on your PC, you can easily purchase and use a USB adapter to resolve the issue.

### Keyboard accessibility

The keyboard serves as the primary input device for many PC users. Lenovo keyboards, whether integrated or supplied separately with the PC, are designed and manufactured with accessibility in mind. This section highlights the accessibility features of Lenovo keyboards that benefit all users, including those with disabilities.

#### keyboard layout

The alphabetic keys on a Lenovo keyboard are arranged in a QWERTY layout, which is standard for input devices featuring alphabetic keys. The F and J keys have bumps that make them tactilely distinguishable from other keys. This feature serves as an orientation aid for skilled typists, allowing them to rest their index fingers without looking at the keys. Some Lenovo keyboards include a separate numeric keypad. The numeric keys are organized in four rows and three columns, arranging in ascending order from left to right and bottom to top. Additionally, the 5 key features a bump to make it tactilely distinguishable.

#### Standard modifier keys

Lenovo keyboards are equipped with standard modifier keys for PCs, including:

- the alt key

the ctrl key  
the shift key  
the Windows logo key

These keys are extensively used as the modifier key for shortcuts by the operating system and other applications.

### **The tab key**

The tab key is located in the leftmost column of the keyboard. For operating systems, applications, and web documents that are designed with accessibility in mind, users can press the tab key and alt + tab (in reverse order) to cycle through the interactive elements.

### **Hotkeys**

Many Lenovo keyboards feature hotkeys in the top row, offering convenient access to frequently used settings.

### **The fn key and the fnlock**

The fn key is a Lenovo-defined modifier key. It can be used with the top-row dual-function keys to switch their functionalities. It can also be used with several other keys to access Lenovo defined settings.

The fnlock is a switch that can be turned on and off by pressing fn + esc. Instead of holding down the fn key to switch the functionality of dual-functionkeys, you can turn on fnlock. This feature allows users to access both hotkey and function key functionalities without the need to press two keys simultaneously.

### **Keyboard backlight**

Many Lenovo keyboards are equipped with backlights to help you use the keyboard in dark lighting conditions. The backlights can be controlled by pressing fn + Space.

## **Biometric devices**

Some Lenovo PCs are equipped with biometric devices that facilitate easy and secure identity authentication. If your PC includes an IR LED and an IR camera, you can enable facial recognition in Windows 11. Additionally, you can use your fingerprint for authentication on PCs with a fingerprint reader. Biometric identity authentication can be particularly beneficial for users who find it difficult typing passwords.

**Note:** When biometric devices are used for device authentication, they are not the only available method for this purpose. If biometric authentication fails, you can use a password or PIN to sign in to Windows.

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## **Accessibility features of Windows 11**

An operating system is a crucial piece of software installed on a PC. It plays a vital role in the PC's basic functionality by providing a user interface, various tools for system management, and a foundation upon which additional specialized applications can be installed.

Microsoft's Windows 11 is a modern operating system that comes preinstalled on many Lenovo PCs. It offers a rich set of accessibility features designed for individuals with diverse disabilities. This section outlines the accessibility features available in Windows 11, explains how to activate them, and discusses the benefits they provide.

**Notes:** The following accessibility features of Windows have been tested and confirmed to deliver their essential functionalities on Lenovo PCs that come pre-installed with Windows 11.

- Narrator

- Magnifier

## Configuring accessibility features in the Settings app

Windows 11 provides a centralized location within the Settings app for activating and configuring all accessibility features. You can access this section by selecting **Start → Settings → Accessibility**. Additionally, the keyboard shortcut Windows logo key + U provides quick access to this interface.

### Narrator

Narrator is Windows 11's built-in screen-reading application. It can read screen content aloud to users and also accept input from the keyboard, enabling individuals with visual impairments to navigate effectively within Windows 11, use applications, and browse the web.

#### Start and stop Narrator

You can start and stop Narrator by selecting the toggle button for Narrator in the centralized Accessibility section of the Settings app. Additionally, the keyboard shortcut Windows logo key + ctrl + enter provides quick access to both the start and stop functions.

#### Customize Narrator

Narrator offers a variety of controls that allow you to customize it to suit your preferences. For example, you can install additional text-to-speech voices and select your preferred voice for Narrator. You also have the option to adjust the verbosity level to choose the type of content to be read. All Narrator settings are conveniently located in the centralized Accessibility section of the Settings app. Additionally, the keyboard shortcut Windows logo key + ctrl + N offers quick access to these settings.

## Adjusting text sizes, applying a high-contrast theme, and using Magnifier

For individuals who find it difficult to see text clearly on the screen, Windows offers the options of adjusting text sizes, applying a high-contrast theme, and using Magnifier.

### Adjust text sizes

If you find the text on the screen is too small to read, you can scale up the size of text displayed by Windows and other applications.

Step 1. Select **Start → Settings → Accessibility → Text size**.

Step 2. Use the slider and the preview pane to select a size that fits your need and then select **Apply**.

### Apply a high-contrast theme

For individuals with low vision, Windows 11 offers contrast themes that enhance text readability by using a background color that sharply contrasts with the text.

Step 1. Select **Start → Settings → Accessibility → Contrast themes**.

Step 2. In the dropdown list for **Contrast themes**, select one option and then select **Apply**.

To exit a contrast theme, select **None** from the dropdown list. The keyboard shortcut for turning on and off contrast theme is left alt + left shift + prt sc.

### Enable Magnifier

You can enable Windows 11 Magnifier to enlarge specific areas or the entire screen, making text and images easier to see.

Step 1. Select **Start → Settings → Accessibility → Magnifier**.

Step 2. Select the toggle to enable or disable Magnifier.

The keyboard shortcuts for enabling and disabling Magnifier are Windows logo key + Plus sign (+) and Windows logo key + esc, respectively. When Magnifier is enabled, you can use Windows logo key + plus sign (+) and minus sign (-) to zoom in and zoom out.

## Sticky Keys

Microsoft Windows offers numerous keyboard shortcuts that require users to hold down a modifier key (such as shift, ctrl, alt, or the Windows logo key) before pressing one or more additional keys. While these shortcuts provide significant convenience for many users, they can pose accessibility challenges for individuals who have difficulty holding down multiple keys at the same time.

Sticky Keys is an accessibility feature in Windows that, when enabled, allows users to press keys in sequence to activate shortcut functions. For example, instead of holding down the ctrl key and the C key simultaneously, users can press each key individually to copy text to the clipboard.

To enable Sticky Keys, press the shift key five times in quick succession. When the confirmation dialog box appears, select **Yes**. To disable Sticky Keys, press the shift key five times again and choose **No** when prompted.

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## Accessible user documentation

Documentation containing instructions for the use of the product, including its accessibility features, is available in accessible formats (such as HTML and PDF) on the Lenovo Support Website. When creating documentation, a series of industry standards and best practices are followed to ensure that the content is useful to as broad an audience as possible. Additionally, automated testing tools are employed to identify issues that may hinder the accessibility of information. These issues are addressed to the extent permitted by commonly available technologies.

## Accessibility features of user documentation

By adhering to industry standards and best practices, Lenovo documentation offers numerous features that facilitate the perception and understanding of the content. Additionally, several of these features are specifically designed to ensure that users of assistive technology devices can access information comparable to that available to those who do not rely on such devices.

### Perceivable content

Text content is presented using popular and easy-to-read fonts. Text colors are in high contrast with the background. Non-text elements, such as graphics and videos that convey important information, are accompanied by alternative text descriptions. Users with visual impairments can utilize screen readers to access information comparable to that available to sighted users.

### Understandable content

The documentation is presented visually in a well-structured and simple layout. It also includes hidden tags or other markup information that store the content's structure, which can be utilized programmatically by assistive technologies to convey this structure to users.

### Operable content

Documentation includes industry-standard tags for sectioning and interactive elements, such as titles, headings, various structural components, links, buttons, and input fields. Screen reader users can utilize standard modifier keys on the keyboard to effectively navigate and interact with the documentation.



## Testing documentation accessibility

Before being officially released, Lenovo documentation undergoes testing with automated tools to evaluate its accessibility. HTML documents are assessed for compliance with the success criteria outlined in the *Web Content Accessibility Guidelines* (WCAG), a widely accepted set of standards designed to enhance web document accessibility. PDF documents are evaluated for accessibility using the accessibility checker in Adobe Acrobat for the same purpose. Automated testing tools help identify elements within a document that may present challenges when rendered by screen readers and other assistive technology devices. Accessibility issues identified by these automated tools are subsequently analyzed manually and corrected as needed.



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## Appendix A. Notices and trademarks

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## Appendix B. Compliance statements

This appendix provides compliance statements that are applicable to your product and contains model-specific information, such as the model name and values determined as part of the conformity assessment procedures. Compliance statements relevant to your product that do not include model-specific information are available in a separate publication titled *General Safety and Compliance Notices*. The PDF version of this publication can be found on the Lenovo Support website.