User Guide

Lenovo ThinkBook 14 Gen 4 and Lenovo ThinkBook 15 Gen 4

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 (March 2022)

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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 14 G4 IAP	21DH
ThinkBook 14 G4 ABA	21DK
ThinkBook 15 G4 IAP	21DJ
ThinkBook 15 G4 ABA	21DL

- For further compliance information, refer to the *Generic Safety and Compliance Notices* at 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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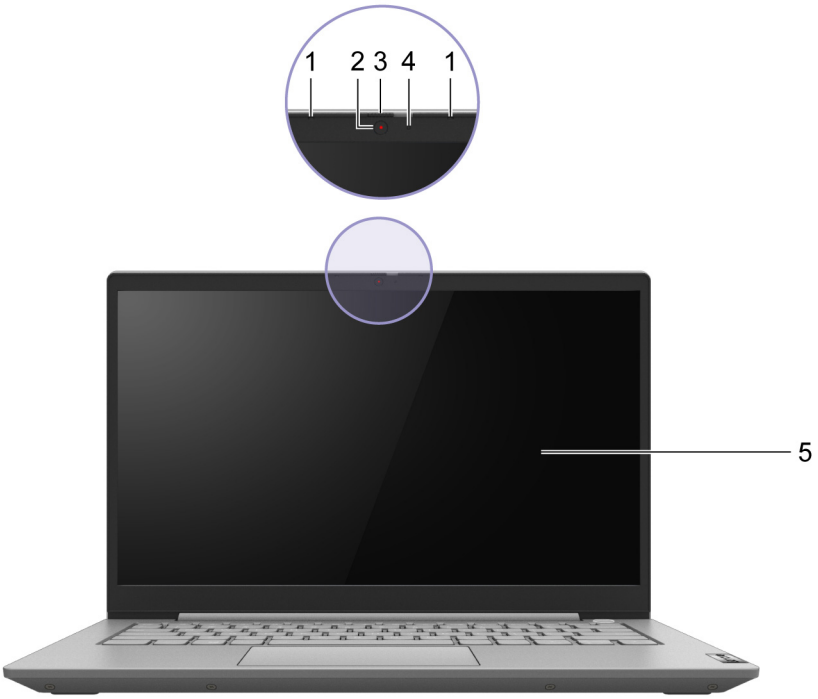
Chapter 1. Meet your computer

Front



1. Microphones	Capture or record sound and voice.
2. Camera	Capture still and moving images for taking photos, recording videos, and video chatting.
3. Camera switch	Turn the camera on or off.
4. Camera light	If the light is on, the camera is in use.
5. Screen	Display text, graphics, and videos. Selected models support multi-touch function.

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Base

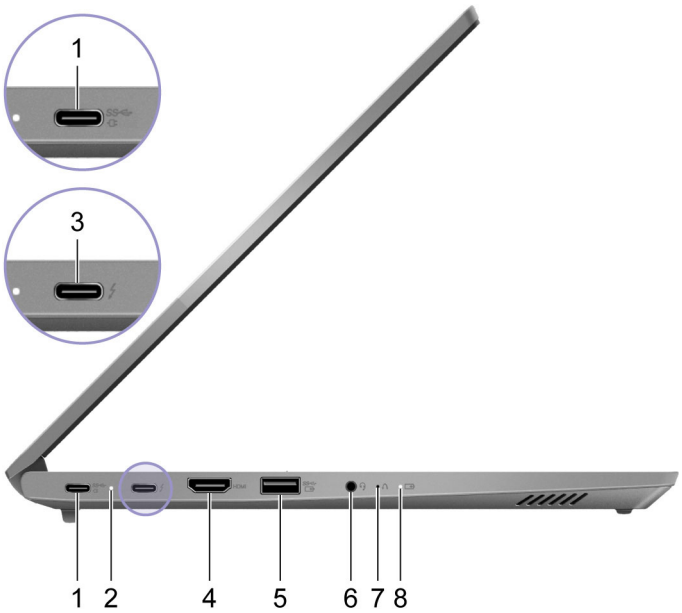
Figure 1. Base view—14-inch models

Figure 2. Base view—15-inch models

1. Wireless antennas	Send and receive radio waves for the built-in wireless LAN (local area network) and Bluetooth module. **Notes:** • The antennas are not visible from the outside of the computer. • If the location of the antennas is close to the user's body (< 20 cm), you can find the Specific Absorption Rate (SAR) values in the *Setup Guide* that comes with your computer.
2. Power button (with power light) / Fingerprint reader (with Fingerprint reader light) *	• Press the button to turn on the computer or put the computer into sleep mode. **Note:** You can turn on the computer by flipping open the LCD screen if Flip to Boot is enabled. • Enroll and read your fingerprint for user authentication. • The light shows the power status of the computer. If the computer includes a fingerprint reader, it can also show the status of the reader. – Power light – On: The computer is turned on. – Off: The computer is turned off or in hibernation mode. – Blinking: The computer is in sleep mode. – Fingerprint reader light – Blinking and then solid green: The fingerprint reader is working.
3. Numeric keypad	To enable or disable the numeric keypad, press the Num Lock key.
4. Touchpad	Perform finger touch and all the functions of a traditional mouse. **Note:** The touchpad also supports multi-touch function.
5. Keyboard	Enter characters and interact with programs. **Note:** The keyboard also includes hotkeys and function keys for changing settings and performing tasks quickly.

* for selected models

Left



1. USB-C® connector/Power connector	• Connect to power with the included power cord and ac power adapter. • Connect to an external display, storage, or data devices. **Note:** An appropriate adapter may be needed for connecting external devices.
2. Charging light	Indicate whether the computer is connected to ac power. • Solid white: Connected to ac power; battery capacity 91%–100% • Solid amber: Connected to ac power; battery capacity 1%–90% • Off: Not connected to ac power
3. Thunderbolt™ 4 connector *	Connect to an external display, storage, or data devices. **Note:** An appropriate adapter may be needed for connecting to external devices.
4. HDMI™ connector	Connect to a compatible digital audio device or video monitor, such as an HDTV.
5. USB (3.2 Gen 1) Type-A connector (always-on)	The always-on connector can charge external devices when the computer is turned off, in sleep or hibernation mode. The always-on function can be turned on or off in the UEFI/BIOS setup utility. **Note:** If Lenovo Vantage is pre-installed on your computer, you can also set always-on function within that software.
6. Combo audio jack	Connect to headphones or headsets with a 3.5 mm (0.14 inch), 4-pole plug. **Note:** This jack does not support standalone external microphones. If you use headsets, choose one with a single plug.

7. Novo button hole	Press the Novo button to open the **Novo Button** menu. From the menu, you can choose to open the UEFI/BIOS setup utility, the Boot menu, or the Windows startup options screen.
8. Battery light	Indicate the battery capacity of the computer. • Connected to ac power – Solid white: Battery capacity 80%–100% – Blinking white: Battery capacity 20%–80% – Blinking amber: Battery capacity 1%–20% • Not connected to ac power – Off: Battery capacity 20%–100% – Solid amber: Battery capacity 5%–20% – Blinking amber: Battery capacity 1%–5%

* for ThinkBook 14 G4 IAP and ThinkBook 15 G4 IAP only

Right

1. SD card slot	Insert an SD card or a MultiMediaCard (MMC) into the slot for data transfer or storage.
2. USB (3.2 Gen 1) Type-A connector	Connect to a USB-compatible device, such as a USB keyboard, a USB mouse, a USB storage device, or a USB printer.
3. Ethernet connector	Connect to a local area network (LAN).
4. Nano security-lock slot	Lock your computer to a desk, table, or other fixtures through a compatible security cable lock.

Bottom

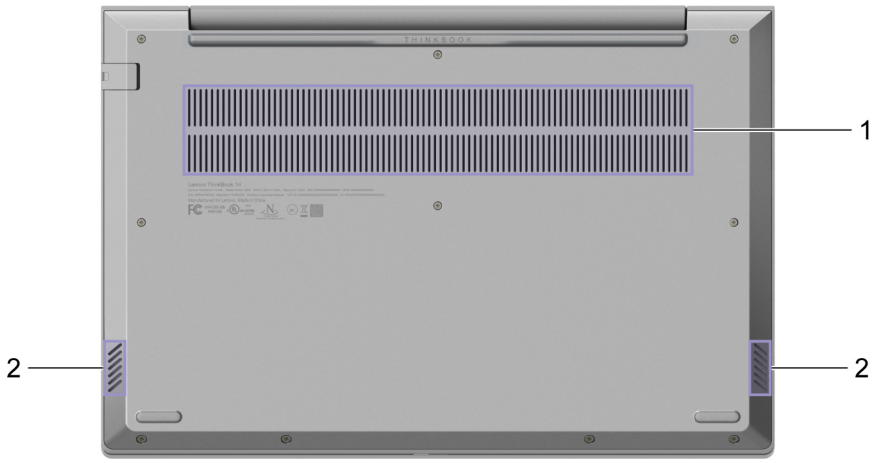


Figure 3. Bottom view—14-inch models

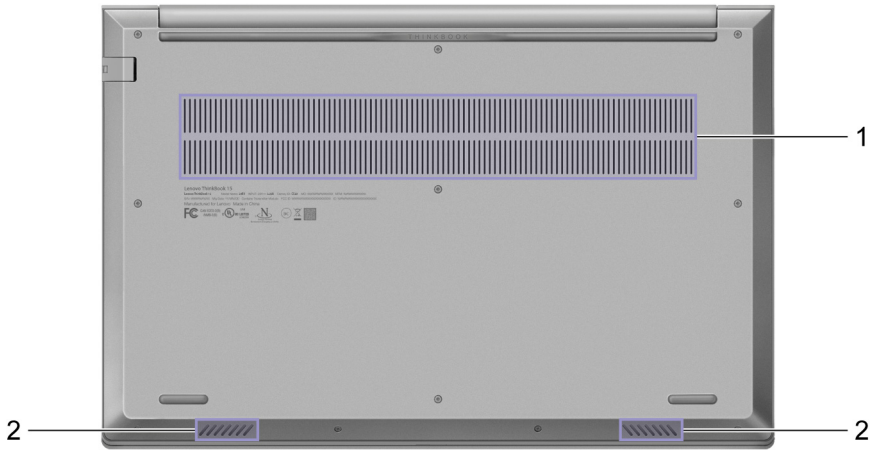


Figure 4. Bottom view—15-inch models

1. Ventilation slots (inlet)	Maintain the incoming airflow to dissipate internal heat. **Note:** Do not block the ventilation slots. Otherwise, the computer might overheat.
2. Speakers	Produce sound.

Features and specifications

Dimensions	• ThinkBook 14 G4 IAP and ThinkBook 14 G4 ABA – Width: 323.9 mm (12.75 inches) – Depth: 218 mm (8.58 inches) – Thickness: 17.9 mm (0.70 inches) • ThinkBook 15 G4 IAP and ThinkBook 15 G4 ABA – Width: 357 mm (14.06 inches) – Depth: 235 mm (9.25 inches) – Thickness: – With metal D cover: 17.9 mm (0.70 inches) – With plastic D cover: 18.9 mm (0.74 inches)
ac power adapter	• Input: 100 V ac–240 V ac, 50 Hz–60 Hz • Maximum output: 20 V dc, 3.25 A/20 V dc, 5 A • Maximum power: 65 W/100 W
Battery pack	• Capacity: 45 Wh/60 Wh • Number of cells: 3/4 **Note:** The battery capacity is the typical or average capacity as measured in a specific test environment. Capacities measured in other environments may differ but are no lower than the rated capacity (see product label).
Microprocessor	To view the microprocessor information of your computer, type system information in the Windows search box and then press Enter.
Memory	• Type: DDR4 • Number of physical slots: 1
Storage device	• Type: solid-state drive • Form factor: M.2 (2242/2280) • Bus: – PCIe Gen4x4 – PCIe Gen3x4
Screen	• Size: – ThinkBook 14 G4 IAP and ThinkBook 14 G4 ABA: 355.60 mm (14 inches) – ThinkBook 15 G4 IAP and ThinkBook 15 G4 ABA: 396.24 mm (15.6 inches) • Display resolution: 1920 × 1080 pixels (FHD model)
Keyboard	• Function keys • Hotkeys • Numeric keypad • Keyboard backlight *

Connectors and slots	• Combo audio jack • Ethernet connector • USB Type-A connector × 2 (one connector with Always-On function) • ThinkBook 14 G4 ABA and ThinkBook 15 G4 ABA – USB-C connector × 2 – Power input up to 100 W using the included power adapter – Power output up to 5 V and 3 A – USB data transfer rate up to 10 Gbps for USB 3.2 Gen 2 – DisplayPort 1.4. Supports maximum output resolution of 5120 × 3200, at 60 Hz frame rate and color depth of 24 bpp (bits per pixel). • ThinkBook 14 G4 IAP and ThinkBook 15 G4 IAP – Thunderbolt 4 connector – Power output up to 5 V and 3 A – DisplayPort 1.4. Supports maximum output resolution of 5120 × 3200, at 60 Hz frame rate and color depth of 24 bpp (bits per pixel). – Up to 40 Gbps bi-directional data transfer rate in Thunderbolt mode. – USB-C connector – Power input up to 100 W using the included power adapter – Power output up to 5 V and 3 A – USB data transfer rate up to 10 Gbps for USB 3.2 Gen 2 – DisplayPort 1.4. Supports maximum output resolution of 5120 × 3200, at 60 Hz frame rate and color depth of 24 bpp (bits per pixel). • HDMI 2.0 connector • SD card slot **Note:** Data rates and performance ratings are dependent on connected devices and cables if they are used. For DisplayPort connection through a USB-C port, the listed maximum output capacity is only available on external displays with a DisplayPort, a Mini DisplayPort, or a USB-C port that supports DisplayPort Alternate Mode. For connections using a converter or an adapter, the actual output resolution may be lower.
Security	• Fingerprint reader * • Nano security-lock slot • UEFI/BIOS passwords – Administrator password – User password – Master hard disk password – User hard disk password
Network	• Ethernet (10/100/1000 Mbps) network adapter • Bluetooth and Wi-Fi combo adapter

* for selected models

Statement on USB transfer rate

Depending on many factors such as the processing capability of the host and peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer

rate using the various USB connectors on this device will vary and will be slower than the data rate listed below for each corresponding device.

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

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)

Avoid constant body contact with specific hot sections

CAUTION:
When the computer is operating, it should be placed on a hard and flat surface with its bottom area not in contact with user's bare skin. Under normal operating conditions, the temperature of the bottom surface will remain within an acceptable range as defined in *IEC 62368-1***, but such temperatures can still be high enough to cause discomfort or harm to the user if directly touched for over one minute at a time. As such, it is recommended that users avoid prolonged direct contact with the bottom of the computer.**

Chapter 2. Get started with your computer

Work with Windows

The following table contains Windows frequently used settings. You can learn the basics and start working with Windows right away.

To configure settings, type the corresponding keywords in the Windows search box and select the best match. Follow the on-screen instructions to customize settings.

Table 1. Basic settings

Functions	Descriptions	Search by keywords
Control Panel	View or change Windows settings, including hardware and software setup and configuration.	Control Panel
Connect to Wi-Fi networks	For models with a wireless LAN module, you can connect your computer to a Wi-Fi® network. Click the network icon in the Windows notification area, and then select a network for connection. **Note:** The wireless LAN module on your computer may support different standards. For some countries or regions, use of 802.11ax may be disabled according to local regulations.	Wi-Fi
Connect to wired networks	For models with an Ethernet (RJ-45) connector, you can use an Ethernet cable to connect your computer to a wired network.	—
Airplane mode	Airplane mode is a convenient setting to turn all wireless communications of your computer on and off. You may need to turn it on when boarding an airplane.	Airplane mode
Night light mode	Night light is a switch in Windows that you can turn on and off. When it is turned on, your screen shows warmer colors and the amount of emitted blue light is reduced. Enabling night light reduces the chances of developing eye fatigue or eye strain. **Note:** For more guidance on reducing eye fatigue or eye strain, go to https://www.lenovo.com/us/en/compliance/visual-fatigue.	Night light
Adjust color temperature	If night light mode is turned on, you can adjust the color temperature of the screen. **Note:** Selected Lenovo computers are low blue light certified. These computers are tested with night light turned on and color temperature set to the default value of 48.	Night light
Windows Updates	Microsoft periodically releases feature and security updates to the Windows operating system. Updates that are applicable to your Windows version are downloaded automatically when your computer is connected to the Internet. When updates are downloaded, you are prompted to restart the computer to install these updates. You can also manually check if there are available updates for the installed version of Windows. **Attention:** Only use Windows Update to download and install updates. Updates downloaded from other sources may include security risks.	Windows Updates

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Table 2. Optional settings

Functions	Descriptions	Search by keywords
Enroll your fingerprint	For models with a fingerprint reader, you can enroll your fingerprint for Windows sign-in.	Sign-in options

Windows help information

If the on-screen instructions cannot solve your problem, refer to the following to get the online Windows help information.

- Type Get Help or Tips in the Windows search box and then press Enter. When the app opens, type the problem description and select the matched result.
- Visit Microsoft support Web site: https://support.microsoft.com. Enter what you are looking for in the search box and get search results.

Lenovo Vantage and Lenovo PC Manager

They are both apps developed by Lenovo. Using either of them, you can:

- View product information and system status
- Manage and change device settings
- Check for and perform system update

  Note: This feature is only available on Lenovo Vantage. In Lenovo PC Manager, you can check for and perform driver update.

Depending on the country or region in which your computer is purchased, one of the apps may be pre-installed on your computer. To open it, type its name in the Windows Search box and select the matched result. If neither of the apps is pre-installed, you may install one on your own. Lenovo Vantage is available for download free of charge from the Microsoft Store.

Note: App features are subject to change with updates and specific features may not be available on all Lenovo products.

The Novo Button menu

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

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

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

  Start your computer using a recovery drive

  Reset your computer

  Open advanced options screen

Open the Novo Button menu

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

Step 1. Turn off the computer.

Step 2. Open the LCD screen and press the Novo button.

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

Interact with your computer

Keyboard hotkeys

Some keys on the keyboard are printed with icons. These keys are called hotkeys and can be pressed alone or in combination with the Fn key to open certain apps or change certain settings quickly. The functions of the hotkeys are symbolized by the icons printed on them.

Hotkey	Function
	Mute/Unmute sound.
	Decrease/Increase system volume.
	Mute/Unmute the microphone.
	Decrease/Increase screen brightness.
	Switch display devices.
	Turn airplane mode on and off.
	Service key.
	Answer the Microsoft Teams calls. **Notes:** • Supported on select versions of Microsoft Teams. • Install Microsoft Teams manually.
	Reject the Microsoft Teams calls. **Notes:** • Supported on select versions of Microsoft Teams. • Install Microsoft Teams manually.
	Open the Windows Calculator app.
	Open Lenovo Vantage, Lenovo PC Manager, or an app launch bar.
	Open the Windows snipping tool.
*	Play or pause playback of media.
*	Stop playback of media.
*	Go the next media file in the playlist or folder.
*	Go to the previous media file in the playlist or folder.
	Turn on/off or adjust the brightness of the keyboard backlight. **Note:** This hotkey must be used with the Fn key.

* for 15-inch models only

Hotkey mode

Some hotkeys share keys with function keys (F1 to F12). The hotkey mode is a UEFI/BIOS setting that changes how hotkeys (or function keys) are used.

Hotkey mode setting	How to use hotkeys	How to use function keys
Disabled	Hold down the Fn key and press one of the hotkeys.	Press the function keys directly.
Enabled	Press the hotkeys directly.	Hold down the Fn key and press one of the function keys.

Note: Hotkeys that do not share keys with function keys are not affected by the hotkey mode setting. They should always be used with the Fn key.

Numeric keypad

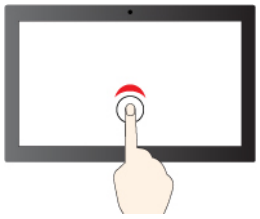
Some Lenovo computers includes a dedicated numeric keypad on the far right of the keyboard. The keypad is used for entering numbers and operators quickly.

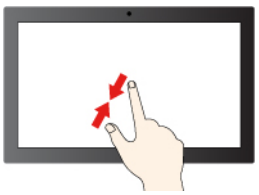
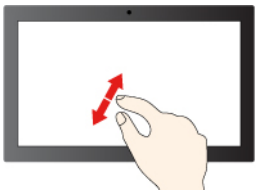
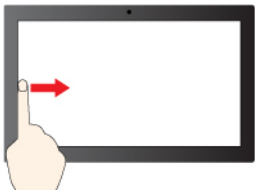
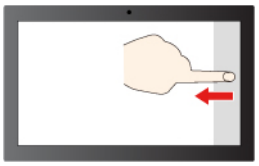
Press the **NumLock** key to enable or disable the numeric keypad.

Multi-touch gestures for touch-enabled screens

Selected Lenovo computers include a touch-enabled screen. For such a computer, you can use your fingers to interact with the operating system and apps that are gesture aware.

Note: Not all gestures are supported by all apps.

Gesture	Function
 Tap	Selecting an item
Tap twice quickly	Double-clicking an item
Tap and hold	Right-clicking an item

Gesture	Function
 Pinch	Zooming out
 Spread	Zooming in
 Tap from the left edge	Viewing all open apps
 Tap and hold	Displaying the Action Center of Windows

Chapter 3. Explore your computer

Manage power

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

Check the battery status

The battery status icon or is in the Windows notification area. You can check the battery status, view the current power plan, and access battery settings quickly.

Click the battery status icon to display the percentage of battery power remaining and change the power mode. A warning message is displayed when the battery is low.

Charge the battery

When the remaining battery power is low, charge your battery by connecting your computer to ac power.

The battery is fully charged in about two to four hours. The actual charging time depends on the battery capacity, the physical environment, and whether you are using the computer.

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 or Lenovo PC Manager.

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.

To extend your battery's lifespan, the battery may optimize its full charge capacity based on your usage. After prolonged periods of limited use, full battery capacity may not be available until you discharge to as low as 20% and recharge completely. For more information, refer to the power section of Lenovo Vantage.

Set power button behavior

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

Step 1. Type Control Panel in the Windows search box and then press Enter. Open the control panel and view by large or small icons.

Step 2. Select the power options and then click choose what the power button does.

A power plan

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

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

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- Default power plan: Balanced
- Turn off the display: after 10 minutes
- Put the computer to sleep: after 20 minutes

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

Change or customize a power plan

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

Step 1. Type power plan in the Windows search box and then press Enter.

Step 2. Customize a power plan of your preference.

Set performance mode

Your computer can work in different performance modes. The performance and power consumption of the computer vary in different performance modes. Press **Fn** + **Q** to cycle through different performance modes.

Change settings in UEFI/BIOS setup utility

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

What is UEFI/BIOS setup utility

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

Open the UEFI/BIOS setup utility

Step 1. Turn on or restart the computer.

Step 2. When the Lenovo logo appears on the screen, press F1 repeatedly.

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

Change the startup sequence

You may need to change the startup sequence to allow the computer to start from another device or a network location.

Step 1. Open the UEFI/BIOS setup utility.

Step 2. Navigate to the Boot menu.

Step 3. Follow on-screen instructions to change the order of devices under Boot Priority Order.

Note: You can also change startup sequence temporarily without opening the setup utility. To do so, start the computer. When the Lenovo logo appears, press F12 (or Fn + F12) repeatedly.

Change hotkey mode

Step 1. Open the UEFI/BIOS setup utility.

Step 2. Select **Configuration → Hotkey Mode** and press Enter.

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

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

Enable or disable always-on

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

Step 1. Open the UEFI/BIOS setup utility.

Step 2. Select **Configuration → Always On USB** and press Enter.

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

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

Set passwords in UEFI/BIOS setup utility

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

Password types

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

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

Notes:

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

Set administrator password

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

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

Step 1. Open the UEFI/BIOS setup utility.

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

Step 3. Enter a password string that contains only letters and numbers and then press Enter

Step 4. Enter the password again and press Enter.

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

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

Change or remove administrator password

Only the administrator can change or remove the administrator password.

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

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

Step 3. Enter the current password.

Step 4. In the **Enter New Password** text box, enter the new password.

Step 5. In the **Confirm New Password** text box, enter the new password again.

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

Step 6. Select **Exit → Exit Saving Changes**.

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

Set user password

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

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

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

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

Step 3. Enter a password string that contains only letters and numbers and then press Enter. The user password must be different from the administrator password.

Step 4. Enter the password again and press Enter.

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

Enable power-on password

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

Step 1. Open the UEFI/BIOS setup utility.

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

Note: The administrator password must be set in advance.

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

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

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

Set hard disk password

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

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

Step 1. Open the UEFI/BIOS setup utility.

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

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

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

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

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

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

Change or remove hard disk password

Step 1. Open the UEFI/BIOS setup utility.

Step 2. Select **Security**.

Step 3. Change or remove the hard disk password.

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

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

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

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

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

Chapter 4. Help and support

Frequently asked questions

How do I partition my storage drive?	Refer to https://support.lenovo.com/solutions/ht503851
What should I do if my computer stops responding.	Press and hold the power button until the computer turns off. Then restart the computer.
What should I do if I spill liquid on the computer?	1. Carefully unplug the ac power adapter and turn off the computer immediately. The more quickly you stop the current from passing through the computer the more likely you will reduce damage from short circuits. **Attention:** Although you might lose some data or work by turning off the computer immediately, leaving the computer on might make your computer unusable. 2. Wait until you are certain that all the liquid is dry before turning on your computer. **CAUTION:** **Do not try to drain out the liquid by turning over the computer. If your computer has keyboard drainage holes on the bottom, the liquid will be drained out through the holes.**
Where can I get the latest device drivers and UEFI/BIOS?	• Lenovo Vantage or Lenovo PC Manager • Lenovo Support Web site at https://support.lenovo.com

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	• https://www.lenovo.com/tips • https://forums.lenovo.com
Accessibility information	https://www.lenovo.com/accessibility
Reset or restore Windows	• Use Lenovo recovery options. 1. Go to https://support.lenovo.com/HowToCreateLenovoRecovery. 2. Follow the on-screen instructions. • Use Windows recovery options. 1. Go to https://pcsupport.lenovo.com. 2. Detect your computer or manually select your computer model. 3. Click **Diagnostics → Operating System Diagnostics** and then follow the on-screen instructions.

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Resources	How to access?
Use Lenovo Vantage or Lenovo PC Manager to: • Download and install the latest drivers and firmware. • Configure hardware settings • Diagnose computer hardware problems. • Check the computer warranty status.	Use Windows Search.
Product documentation: • *Generic Safety and Compliance Notices* • *Safety and Warranty Guide* • *Setup Guide* • This *User Guide* • *Regulatory Notice*	1. Go to https://support.lenovo.com. 2. Detect your computer or select computer model manually. 3. Select **Documentation** and filter out the documentation you want.
Lenovo Support Web site with the latest support information of the following: • Drivers and software • Diagnostic solutions • Product and service warranty • Product and parts details • Knowledge base and frequently asked questions	Visit https://support.lenovo.com
Windows help information	• Use **Get Help** or **Tips**. • Use Windows Search or the Cortana® personal assistant. • Microsoft support Web site: https://support.microsoft.com

What is a CRU?

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

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

If you intend to install a CRU, Lenovo will ship the CRU to you. You might be required to return the defective part that is replaced by the CRU. When return is required: (1) return instructions, a prepaid shipping label, and a container will be included with the replacement CRU; and (2) you might be charged for the replacement CRU if Lenovo does not receive the defective CRU within thirty (30) days of your receipt of the replacement CRU. For full details, see the *Lenovo Limited Warranty* at https://www.lenovo.com/warranty/llw_02.

CRUs for your product model

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

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

* for selected models

Notes:

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

  the product *User Guide*

  the printed publications that came with the product

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

Call Lenovo

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

Before you contact Lenovo

Record product information and problem details before you contact Lenovo.

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

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

Lenovo Customer Support Center

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

Telephone numbers

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

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

Services available during the warranty period

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

Services not covered

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

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

Purchase additional services

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

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

Appendix A. Notices and trademarks

Notices

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