

# ThinkSmart Hub User Guide

**ThinkSmart**



**Lenovo**

## **Read this first**

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

- Appendix A “Important safety information” on page 33
- Documentation in the box

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## About this documentation

- Illustrations in this documentation might look different from your product.
- Documentation content is subject to change without notice. Lenovo makes constant improvements on the documentation of your product, including this *User Guide*. To get the latest documentation, go to:  
<https://smartsupport.lenovo.com/>
- Microsoft® makes periodic feature changes to the Windows® operating system through Windows Update. As a result, some information in this documentation might become outdated. Refer to Microsoft resources for the latest information.



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## Chapter 1. Product description

ThinkSmart Hub is a Lenovo designed conference room device with all-in-one design and collaboration-focused features. Enhanced scalability across room sizes and flexibility over Microsoft Teams Rooms and Zoom Rooms System make the Hub a complete solution for smart conferencing.

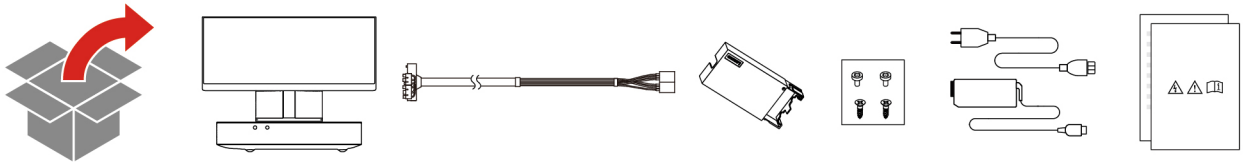
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### Main features

- 360° rotatable touch screen
- Auto-on with human proximity motion sensor
- Integrated speaker with surround sound
- Cable management with one cable
- RGB LED for system status

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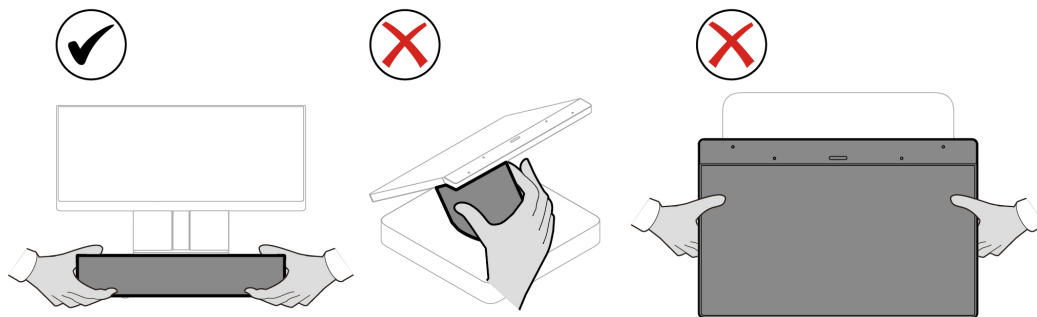
### In the box



Contact your place of purchase if any item is missing or damaged. Ensure that you retain your proof of purchase and packing material. They might be required to receive warranty service.

#### CAUTION:

**Hold the base when moving the Hub.**





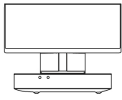



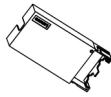
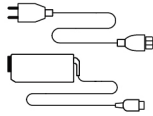
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## Chapter 2. Set up the Hub

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### Hardware requirements

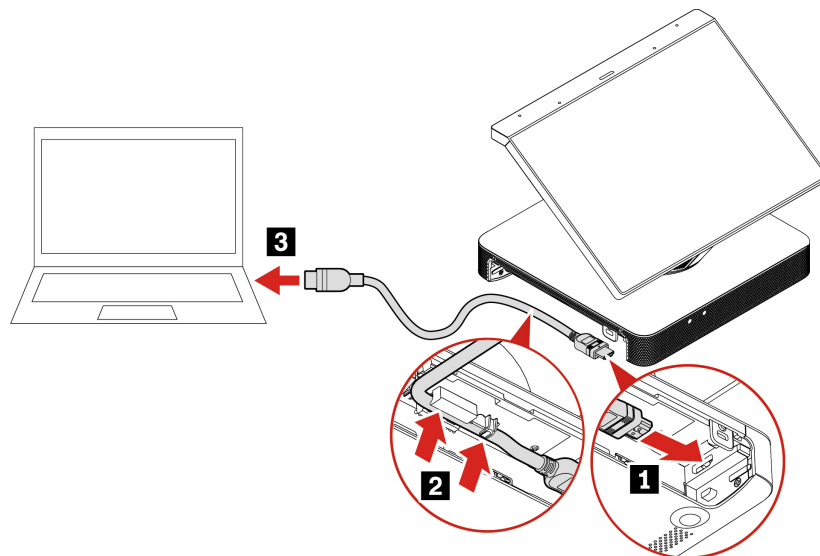
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ThinkSmart Hub	
One cable	
Screw for securing the one cable	
Screws for securing the cable lock box	
Cable lock box	
Power adapter and power cord	
Three USB-A cables	Not included in the package
One USB-C cable	Not included in the package
Three HDMI cables	Not included in the package
One RJ45 Ethernet cable	Not included in the package

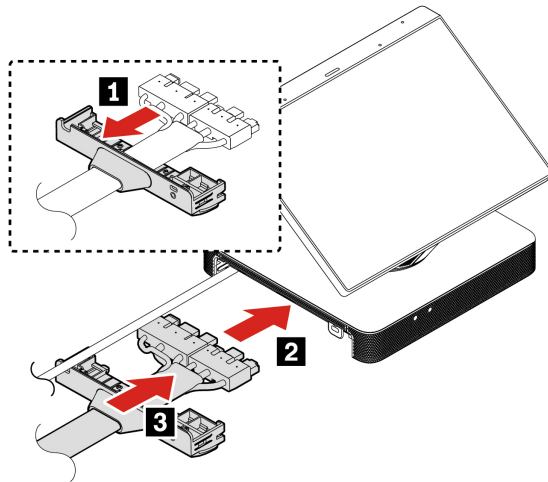
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### Set up procedure

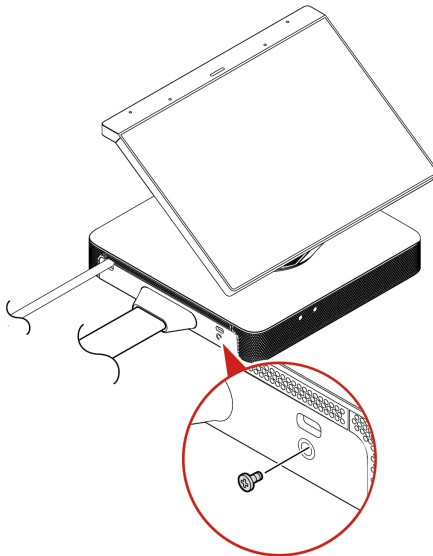
1. Use an HDMI cable to connect your computer to the Hub.



2. Connect the one cable to the Hub.

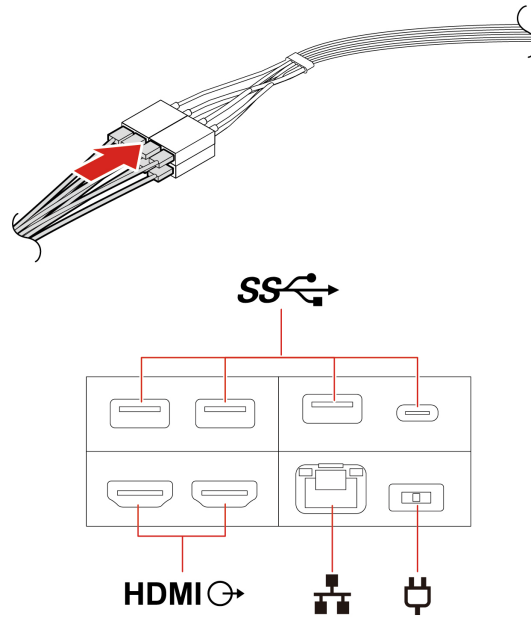


3. Secure the one cable.

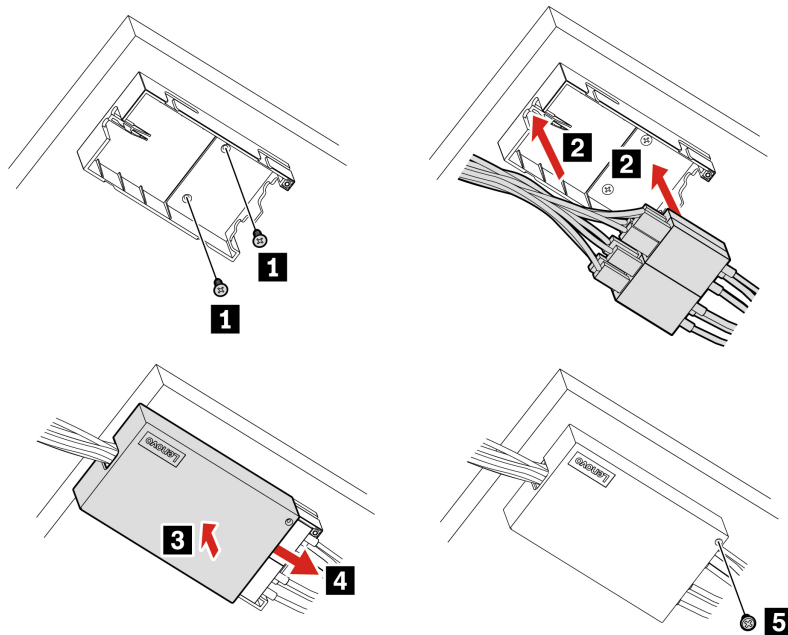


4. Connect desired external devices to the following connectors on the one cable:

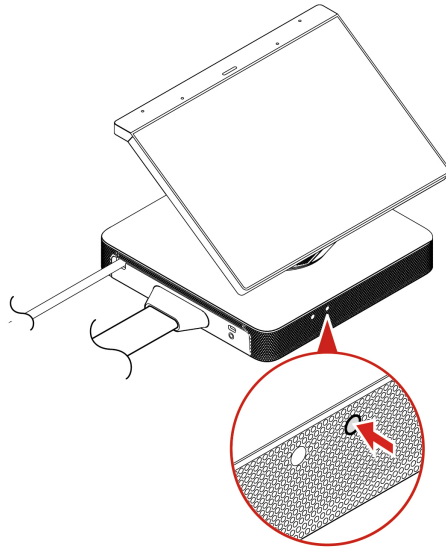
- USB 3.2 connectors Gen 1
- USB-C (3.2 Gen 1) connector
- HDMI connectors
- Ethernet connector
- Power connector



5. Secure the one cable to the bottom surface of a wooden table with the cable lock box.



6. Press the power button to turn on the Hub.



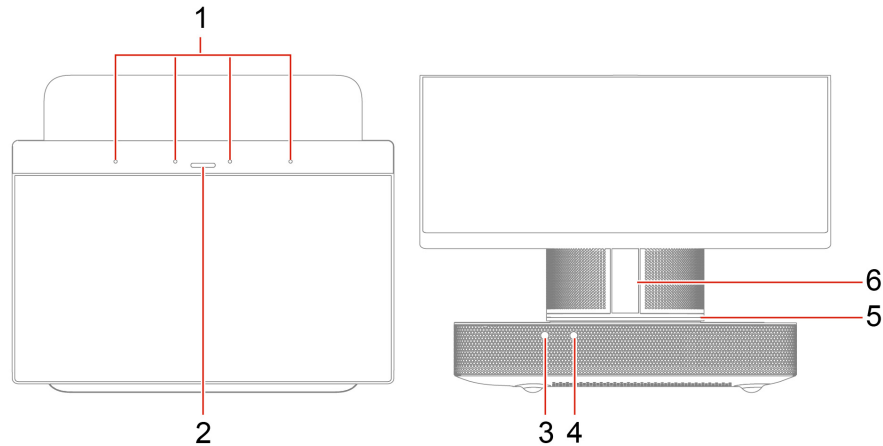


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## Chapter 3. Get to know the Hub

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### Overview



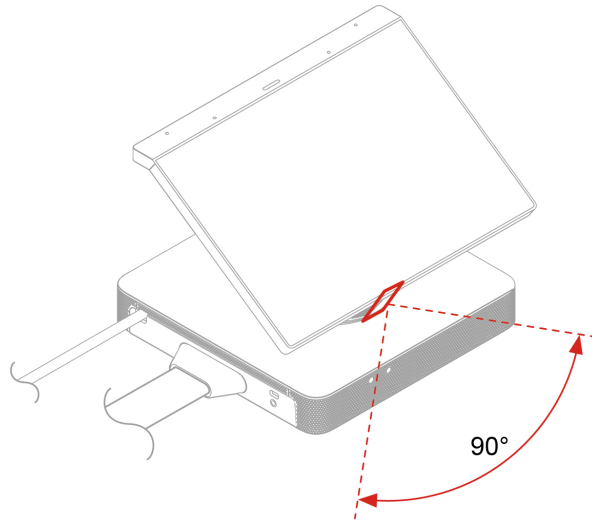
1. Integrated microphones array	2. LED bar
3. Headset connector	4. Power button
5. LED ring	6. Motion sensor

### LED bar & LED ring

LED bar status	LED ring status	Description
Solid white	Solid white	Power on
Solid red	Solid red	Mute
Solid green	Solid green	Start a call / meeting
Solid white	Spinning white for one cycle, then solid	End a call / meeting
Breathing green	Spinning green	Receive a call
Breathing green	Blinking green	Hold a call
NA	White ring growing	Volume up
NA	White ring shrinking	Volume down
Breathing blue	Blinking blue	Claiming mode*
Breathing red for three times	Blinking red for three times	Wrong PIN / password
Breathing red	Blinking red	Claiming error

\* Add your Hub to ThinkSmart Manager. For more information, see *ThinkSmart Manager User Guide* at <https://smartsupport.lenovo.com/us/en/downloads/DS542392>.

## Motion sensor



Detect human presence (only supported by Microsoft Teams Rooms).

- When the Hub is not in a meeting and no one is in the room, the Hub will go into standby mode automatically after 10 minutes by default.
- When someone comes in front of the sensor within 3 meters, the Hub will automatically wake up from standby mode.

**Attention:** Do not change the default screen-off setting to protect the touch screen.

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## Features and specifications

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<b>Dimensions</b>	<ul style="list-style-type: none"><li>• Width: 240 mm (9.45 inches)</li><li>• Height: 185.3 mm (7.30 inches)</li><li>• Depth: 200 mm (7.87 inches)</li></ul>
<b>Weight</b>	2.47 kg (5.45 lb)
<b>Hardware configuration</b>	<ol style="list-style-type: none"><li>1. Right-click <b>Start</b> to open the Start context menu.</li><li>2. Click <b>Device Manager</b>.</li></ol>
<b>Power supply</b>	90-watt automatic voltage-sensing power supply
<b>Electrical input</b>	<ul style="list-style-type: none"><li>• Input voltage: From 100 V ac to 240 V ac</li><li>• Input frequency: 50/60 Hz</li></ul>
<b>Microprocessor</b>	To view the microprocessor information of your Hub, right-click <b>Start</b> and then click <b>System</b> .
<b>Storage device</b>	M.2 solid-state drive
<b>Video features</b>	<ul style="list-style-type: none"><li>• Color display with Thin Film Transistor (TFT) and In-Plane Switching (IPS) technology</li><li>• Display size: 256.54 mm (10.1 inches)</li><li>• Display resolution: 1200 x 1920 pixels</li><li>• Multi-touch technology</li></ul>
<b>Audio features</b>	<ul style="list-style-type: none"><li>• Headset connector</li><li>• Integrated speaker with surround sound</li><li>• Four-microphone array with advanced noise cancellation and acoustic echo cancellation</li></ul>
<b>Network features</b>	<ul style="list-style-type: none"><li>• Ethernet LAN</li><li>• Wireless LAN</li></ul>

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## Statement on USB transfer rate

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

USB device	Data rate (Gbit/s)
3.2 Gen 1	5
3.2 Gen 2	10
3.2 Gen 2 × 2	20
Thunderbolt 3	40
Thunderbolt 4	40

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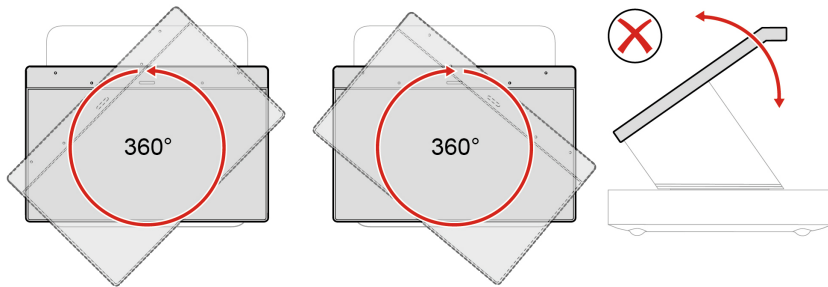


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## Chapter 4. Get started with the Hub

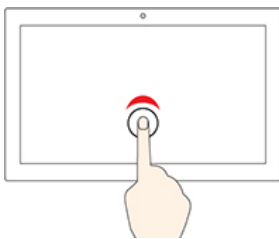
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### Adjust the screen

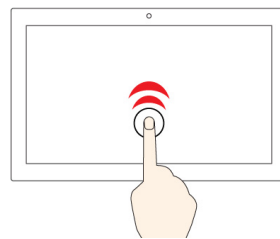


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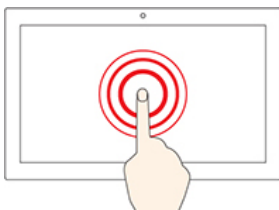
### Use the multi-touch screen



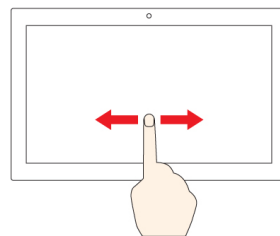
Tap once to single click.



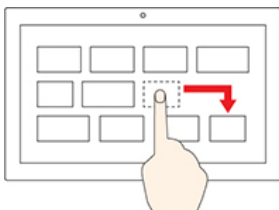
Tap twice quickly to double-click.



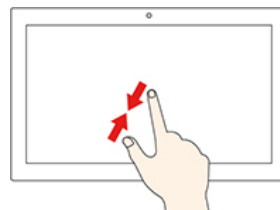
Tap and hold to right-click.



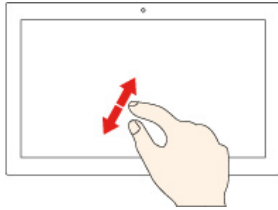
Slide to scroll through items.



Drag.



Zoom out.



Zoom in.

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## Register the Hub

To register the Hub with Lenovo, ensure that the Hub is connected to the Internet. Then, go to <http://www.lenovo.com/register> and follow the instructions on the screen to enter the required information into Lenovo database.

The information enables Lenovo to contact you when there is a recall or other severe problem and provide quicker service when you call Lenovo for help. In addition, some locations offer extended privileges and services to registered users.

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## Use conference room system

Depending on the model, your Hub is preinstalled with Microsoft Teams Rooms or Zoom Rooms System.

### Microsoft Teams Rooms

Microsoft Teams Rooms brings high-definition video, audio, and content sharing to Teams or Skype for Business calls and meetings. It is intended for use with Microsoft Teams, Skype for Business Online, Skype for Business Server 2019, or Skype for Business Server 2015.

For more information, go to <https://docs.microsoft.com/en-us/microsoftteams/rooms/>.

### Zoom Rooms System

Zoom Rooms System provides an integrated experience for audio conferencing, wireless screen sharing and video conferencing. It allows you to easily share multiple desktops simultaneously in the room and provides a variety of simple, wireless sharing options for guests and people on your network.

For more information, go to <https://support.zoom.us>.

**Note:** Please make configurations to conserve energy and enhance performance. For detailed instructions, go to <https://smartsupport.lenovo.com/solutions/ht515805>.

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## Use ThinkSmart Manager

ThinkSmart Manager is the official management console for your Hub. Administrators can remotely configure, protect, and manage each device.

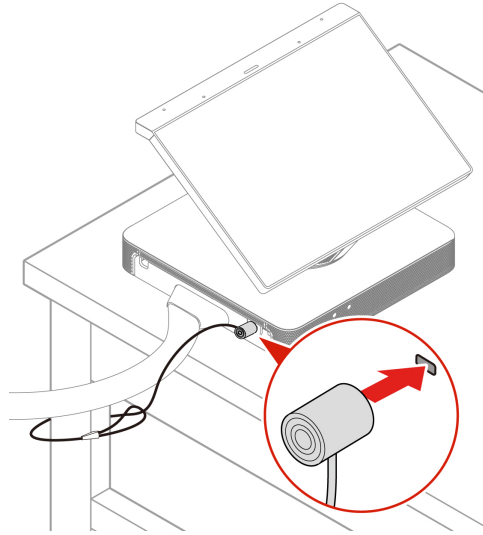
For more information, see *ThinkSmart Manager User Guide* at <https://smartsupport.lenovo.com/us/en/downloads/DS542392>.

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## Chapter 5. Security

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### Lock the Hub



Lock your Hub to a desk, table, or other fixtures through a Kensington-style cable lock.

You are responsible for evaluating, selecting, and implementing the locking device and security feature. Lenovo makes no comments, judgments, or warranties about the function, quality, or performance of the locking device and security feature. You can purchase locks from Lenovo.

---

### Use passwords

#### Password types

You can set the following passwords in UEFI (Unified Extensible Firmware Interface) BIOS (Basic Input/Output System) to prevent unauthorized access to your Hub. However, you are not prompted to enter any UEFI BIOS password when your Hub resumes from sleep mode.

- Supervisor password

Setting a supervisor password deters unauthorized users from changing configuration settings. If you are responsible for maintaining the configuration settings of several Hubs, you might want to set a supervisor password.

When a supervisor password is set, you are prompted to enter a valid password each time you try to enter the BIOS menu.

- System management password

You can enable the system management password to have the same authority as the supervisor password to control security related features. To customize the authority of the system management password through the UEFI BIOS menu:

1. Restart the Hub. When the logo screen is displayed, press F1 or Fn+F1.
2. Select **Security** → **Set System Management Password**.
3. Follow the on-screen instructions.

If you have set both the supervisor password and the system management password, the supervisor password overrides the system management password.

### **Password considerations**

A password can be any combination of up to 128 alphabetic and numeric characters. For security reasons, it is recommended to use a strong password that cannot be easily compromised.

**Note:** The BIOS passwords are not case sensitive.

To set a strong password, consider the following guidelines:

- Have at least eight characters in length
- Contain at least one alphabetic character and one numeric character
- Not be your name or your user name
- Not be a common word or a common name
- Be significantly different from your previous passwords

### **Set, change, and remove a password**

Before you start, print these instructions.

1. Restart the Hub. When the logo screen is displayed, press F1 or Fn+F1.
2. Select **Security**.
3. Depending on the password type, select **Set Supervisor Password** or **Set System Management Password** and press Enter.
4. Follow the on-screen instructions to set, change, or remove a password.

**Note:** A password can be any combination of up to 128 alphabetic and numeric characters. For more information, see “Password considerations” on page 14.

5. Press F10 or Fn+F10 to save the changes and exit.



---

## Chapter 6. UEFI BIOS

This chapter provides information about configuring and updating UEFI BIOS, and clearing CMOS.

---

### What is UEFI BIOS

**Note:** The operating system settings might override any similar settings in UEFI BIOS.

UEFI BIOS is the first program that the Hub runs when the Hub is turned on. UEFI BIOS initializes the hardware components and loads the operating system and other programs. Your Hub comes with a setup program with which you can change UEFI BIOS settings.

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### Enter the BIOS menu

Restart the Hub. When the logo screen is displayed, press F1 or Fn+F1 to enter the BIOS menu.

**Note:** If you have set BIOS passwords, enter the correct passwords when prompted. You also can select **No** or press Esc to skip the password prompt and enter the BIOS menu. However, you cannot change the system configurations that are protected by passwords.

---

### Change the display language of UEFI BIOS

UEFI BIOS supports three or four display languages: English, French, simplified Chinese, and Russian (for selected models).

To change the display language of UEFI BIOS:

1. Select **Main → Language** and press Enter.
2. Set the display language as desired.

---

### Change the display mode of UEFI BIOS

You can use UEFI BIOS in the graphic mode or the text mode according to your needs.

The keys on the keyboard used to perform various tasks are displayed at the bottom of the screen. In addition to the keyboard, you also can use the mouse to make selections.

To change the display mode of UEFI BIOS:

1. Restart the Hub. When the logo screen is displayed, press F1 or Fn+F1.
2. Select **Main → Setup Mode Select** and press Enter.
3. Set the display mode as desired.

---

### Change the startup sequence

If the Hub does not start up from a device as expected, you can change the startup device sequence permanently or select a temporary startup device.

#### Change the startup device sequence permanently

1. Depending on the type of the storage device, do one of the following:

- If the storage device is internal, go to step 2.
  - If the storage device is a disc, ensure that the Hub is on or turn on the Hub. Then, insert the disc into the optical drive.
  - If the storage device is an external device other than a disc, connect the storage device to the Hub.
2. Restart the Hub. When the logo screen is displayed, press F1 or Fn+F1.
  3. Select **Startup**, and then follow the on-screen instructions to change the startup sequence.
  4. Press F10 or Fn+F10 to save the changes and exit.

### Select a temporary startup device

**Note:** Not all discs and storage drives are bootable.

1. Depending on the type of the storage device, do one of the following:
  - If the storage device is internal, go to step 2.
  - If the storage device is a disc, ensure that the Hub is on or turn on the Hub. Then, insert the disc into the optical drive.
  - If the storage device is an external device other than a disc, connect the storage device to the Hub.
2. Restart the Hub. When the logo screen is displayed, press F1 or Fn+F1.
3. Select the storage device as desired and press Enter.

If you want to change the startup device sequence permanently, select **Enter Setup** on Startup Device Menu and press Enter to enter the BIOS menu.

---

## Enable or disable a device

This section provides information about how to enable or disable user access to hardware devices (such as USB connectors or storage drives).

To enable or disable a device, do the following:

1. Restart the Hub. When the logo screen is displayed, press F1 or Fn+F1.
2. Select **Devices**.
3. Select the device you want to enable or disable and press Enter.
4. Select the desired setting and press Enter.
5. Press F10 or Fn+F10 to save the changes and exit.

---

## Enable or disable the configuration change detection feature

If you enable configuration change detection, when the POST detects configuration changes of some hardware devices (such as storage drives or memory modules), an error message will be displayed when you turn on the Hub.

To enable or disable the configuration change detection feature:

1. Restart the Hub. When the logo screen is displayed, press F1 or Fn+F1.
2. Select **Security → Configuration Change Detection**.
3. Enable or disable the feature as desired.
4. Press F10 or Fn+F10 to save the changes and exit.

To bypass the error message and log in to the operating system, press F2 or Fn+F2. To clear the error message, enter the BIOS menu, save and then exit.

---

## Enable or disable the automatic power-on feature

The Automatic Power On item in UEFI BIOS provides various options for you to make your Hub start up automatically.

To enable or disable the automatic power-on feature:

1. Restart the Hub. When the logo screen is displayed, press F1 or Fn+F1.
2. Select **Power → Automatic Power On** and press Enter.
3. Select the feature as desired and press Enter.
4. Enable or disable the feature as desired.
5. Press F10 or Fn+F10 to save the changes and exit.

---

## Enable or disable the ErP LPS compliance mode

The Hub meets the eco-design requirements of the ErP Lot 26 regulation. For more information, go to: <https://www.lenovo.com/us/en/compliance/eco-declaration>

You can enable the ErP LPS compliance mode to reduce the consumption of electricity when the Hub is off or in sleep mode.

To enable or disable the ErP LPS compliance mode:

1. Restart the Hub. When the logo screen is displayed, press F1 or Fn+F1.
2. Select **Power → Enhanced Power Saving Mode** and press Enter.
3. Depending on whether you select **Enabled** or **Disabled**, do one of the following:
  - If you select **Enabled**, press Enter. Then, select **Power → Automatic Power On** and press Enter. Check whether the Wake on LAN feature is disabled automatically. If no, disable it.
  - If you select **Disabled**, press Enter. Then, go to the next step.
4. Press F10 or Fn+F10 to save the changes and exit.

When the ErP LPS compliance mode is enabled, you can wake up the Hub by doing one of the following:

- Press the power button.
- Enable the Wake Up on Alarm feature to make the Hub wake up at a set time.

---

## Change the ICE performance mode

You can adjust the acoustic and thermal performance of your Hub by changing the ICE performance mode.

To change the ICE performance mode:

1. Restart the Hub. When the logo screen is displayed, press F1 or Fn+F1.
2. Select **Power → Intelligent Cooling Engine (ICE)** and press Enter.
3. Select **ICE Performance Mode** and press Enter.
4. Set the ICE performance mode as desired.
5. Press F10 or Fn+F10 to save the changes and exit.

---

## Exit the BIOS menu

To exit the BIOS menu, do one of the following:

- If you want to save the new settings, press the F10 key. Then, select **Yes** in the window displayed and press Enter.

**Note:** For some keyboards, you might need to press Fn+F10 to exit the BIOS menu.

- If you do not want to save the new settings, select **Exit → Discard Changes and Exit** and press Enter. Then, select **Yes** in the window displayed and press Enter.

---

## Update UEFI BIOS

When you install a new program, device driver, or hardware component, you might need to update UEFI BIOS. You can update the BIOS from your operating system or a flash update disc (supported only on selected models).

Download and install the latest UEFI BIOS update package:

1. Go to <https://smartsupport.lenovo.com/>.
2. Download the flash BIOS update driver for the operating system version or the ISO image version (used to create a flash update disc). Then, download the installation instructions for the flash BIOS update driver you have downloaded.
3. Print the installation instructions and follow the instructions to update the BIOS.

---

## Recover from a BIOS update failure

1. Remove all media from the drives and turn off all connected devices.
2. Insert the BIOS update disc into the optical drive, and then turn off the Hub.
3. Disconnect the power cord from electrical outlet. Then, remove any parts that impede access to the Clear CMOS /Recovery jumper.
4. Move the jumper from the standard position to the maintenance position.
5. Reconnect the power cord for the Hub to electrical outlet.
6. Turn on the Hub. Wait a few minutes. The recovery process begins.
7. After the recovery process is completed, the Hub will be turned off automatically.

**Note:** The recovery process will take two to three minutes.

8. Disconnect the power cord from electrical outlet.
9. Move the jumper back to the standard position.
10. Reinstall all the parts that have been removed. Then, reconnect the power cord for the Hub to electrical outlet.
11. Turn on the Hub. When the logo screen is displayed, press F1 or Fn+F1.
12. To prevent data loss, ensure that BIOS settings are restored to an earlier point. For BIOS configurations, see Chapter 6 “UEFI BIOS” on page 15.

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## Chapter 7. Troubleshooting, diagnostics, and recovery

This chapter provides solutions to resolve Hub problems. Use the basic procedure as a starting point for resolving Hub problems.

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### Basic procedure for resolving Hub problems

#### Prerequisite

Before you start, read Appendix A “Important safety information” on page 33 and print the following instructions.

1. Check that:
  - a. The cables for all connected devices are connected correctly and securely.
  - b. All components have been reassembled correctly.
  - c. All connected devices that require ac power are connected to properly grounded and working electrical outlets.
  - d. All connected devices are enabled in UEFI BIOS.
2. See Chapter 7 “Troubleshooting, diagnostics, and recovery” on page 19 to resolve the problem you are experiencing, run the diagnostic program, and recover your operating system.
3. If the problem persists, contact Lenovo. See Chapter 8 “Help and support” on page 29.

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### Frequently asked questions


#### How to use dual-display, content camera, or any other features in Microsoft Teams Rooms?

Go to <https://docs.microsoft.com/en-us/MicrosoftTeams/rooms/rooms-deploy> and then locate the section you need.

#### How to fix system config out of date, virtual keyboard missing, or any other issues in Microsoft Teams Rooms?

Go to <https://docs.microsoft.com/en-us/MicrosoftTeams/rooms/known-issues> and then locate the section you need.

#### How to go back to Windows administrator account from Microsoft Teams Rooms?

1. From the main menu, click the Settings icon  and type your password.
2. Click **Windows Settings → Administrator**, then follow the on-screen instructions to enter the Windows administrator password.

#### How to go back to Windows administrator account from Zoom Rooms System?

1. From the main menu, click **Settings → Room → Windows Settings**.
2. Type your password and click **Continue**. Select **ZoomRoomsAdmin**, then follow the on-screen instructions to enter the Windows administrator password.

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### Troubleshooting

Use the troubleshooting information to find solutions to problems that have definite symptoms.

## Startup and shutdown problems

Problem	Solution
The Hub does not start up when you press the power button.	<ul style="list-style-type: none"><li>• Ensure that the Hub is correctly connected to power through power adapter and power cord.</li><li>• The Hub voltage matches the voltage available at the electrical outlet for your country or region.</li></ul>
The Hub cannot be shut down from the operating system.	Press and hold the power button for at least four seconds to turn it off.

## Microsoft Teams Rooms problems

Problem	Solution
Microsoft Teams Rooms cannot be logged in.	<ul style="list-style-type: none"><li>• Ensure that the account and password are correct and valid.</li><li>• Ensure that the Hub is connected to a wired network and is connected to your Office 365 account or your Skype for Business server (depends on your company's deployment).</li><li>• If the Hub is connected to the Office 365 account, ensure that the account is not running in China.</li></ul>
The camera cannot be turned on in a meeting.	<ul style="list-style-type: none"><li>• Ensure that the account has been granted the authority to use the camera.</li><li>• Ensure that the camera can work in administrator account with "Camera" application.</li><li>• Ensure that the camera is not configured as content camera.</li></ul>
The calendar is not displayed.	<ul style="list-style-type: none"><li>• Ensure that the account has been granted the authority to receive meeting invitations automatically.</li><li>• Check the calendar with Outlook or Office 365 Web site.</li></ul>

## Zoom Rooms System problems

Problem	Solution
Zoom Rooms System cannot be logged in.	Ensure that the Hub is connected to a wired network.
Initial signing in is not successful.	<ul style="list-style-type: none"><li>• Reset your password at <a href="https://zoom.us/forgot_password">zoom.us/forgot_password</a>.</li><li>• Contact the administrator of your company to gain access.</li></ul>
After signing in, no room names are available to select.	Only dedicated users for managing Zoom Rooms can see the list of room names. Contact the administrator of your company to gain access.
Wrong room name is displayed.	<ol style="list-style-type: none"><li>1. Click <b>Settings → Sign Out</b>.</li><li>2. Enter the password (default password is 00000).</li><li>3. Sign in again and select the correct room name.</li></ol>

## Screen problems

Problem	Solution
The screen goes blank while the Hub is on.	<ul style="list-style-type: none"><li>• The Hub voltage matches the voltage available at the electrical outlet for your country or region.</li><li>• Tap the screen to wake the Hub.</li><li>• The brightness and contrast is set correctly.</li></ul>
The Hub touch screen is blurry.	<ul style="list-style-type: none"><li>• For Hub with Microsoft Teams Rooms:<ol style="list-style-type: none"><li>1. Check the screen-off setting: Go to <b>Start → Settings → System → Power</b>, and ensure the setting is the default <b>10 minutes</b>.</li><li>2. If the problem persists, call Lenovo Customer Support Center for help. For a list of the latest Lenovo Support phone numbers for your country or region, go to <a href="https://pcsupport.lenovo.com/supportphonenumber">https://pcsupport.lenovo.com/supportphonenumber</a>.</li></ol></li><li>• For Hub with Zoom Rooms System:<ol style="list-style-type: none"><li>1. Follow the instructions at <a href="https://smartsupport.lenovo.com/solutions/ht515805">https://smartsupport.lenovo.com/solutions/ht515805</a>.</li><li>2. If the problem persists, call Lenovo Customer Support Center for help. For a list of the latest Lenovo Support phone numbers for your country or region, go to <a href="https://pcsupport.lenovo.com/supportphonenumber">https://pcsupport.lenovo.com/supportphonenumber</a>.</li></ol></li></ul>
The image appears to be flickering.	<ul style="list-style-type: none"><li>• The screen might be affected by interference from nearby equipment. Magnetic fields around other devices, such as transformers, appliances, fluorescent lights, and other monitors, might be causing the problem. Move fluorescent desk lighting or any equipment that produces magnetic fields farther away from the screen. If the problem persists, turn off the Hub. Then, adjust the placement of the Hub and other devices so that they are at least 305 mm (12 inches) apart. Turn on the Hub.</li><li>• Reset the refresh rate.<ol style="list-style-type: none"><li>1. Right-click a blank area on the desktop.</li><li>2. Click <b>Display settings</b>. On the <b>Display</b> tab, click <b>Advanced display settings → Display adapter properties for Display 1</b>.</li><li>3. Click the <b>Monitor</b> tab, and then reset the refresh rate to be the highest and noninterlaced.</li></ol></li></ul>
The image is discolored.	<ul style="list-style-type: none"><li>• The screen might be affected by interference from nearby equipment. Move fluorescent desk lighting or any equipment that produces magnetic fields farther away from the screen.</li><li>• Turn off the Hub. Then, adjust the placement of the Hub and other devices so that they are at least 305 mm (12 inches) apart. Turn on the Hub.</li></ul>

## Audio problems

Problem	Solution
The audio cannot be heard on the Windows operating system.	<ul style="list-style-type: none"><li>• If you are using powered external speakers that have an On/Off control, ensure that:<ul style="list-style-type: none"><li>– The On/Off control is set to the <b>On</b> position.</li><li>– The speaker power cable is connected to a properly grounded, functional ac electrical outlet.</li></ul></li><li>• If your external speakers have a volume control, ensure that the volume is not set too low.</li><li>• Click the volume icon in the Windows notification area on the taskbar. Check the speaker and volume settings. Do not mute the speaker or set the volume at a very low level.</li><li>• Ensure that your external speakers (and headphones, if used) are connected to the correct audio connector on the Hub. Most speaker cables are color-coded to match the audio connector.</li></ul> <p><b>Note:</b> When external-speaker or headphone cables are connected to the audio connector, the internal speaker, if present, is disabled. In most cases, if an audio adapter is installed in one of the expansion slots, the audio function built into the system board is disabled. Therefore, you must use the audio connectors on the audio adapter.</p> <ul style="list-style-type: none"><li>• Ensure that the audio device is configured as default speaker.</li><li>• Ensure that the audio device drivers are correctly installed.</li></ul>
The sound does not come from the headset or headphones.	Select the headset or headphones as the default audio output device in settings.

## Storage drive problems

Problem	Solution
"No Operating System Found" message or the system not starting up from the correct storage drive.	<ul style="list-style-type: none"><li>• Ensure that all storage drive signal cables and power cables are connected correctly.</li><li>• Ensure that the storage drive the Hub starts up from is listed as the first startup device in the UEFI BIOS. Refer to "Change the startup sequence" on page 15.</li></ul> <p><b>Note:</b> In rare cases, the storage drive with the operating system might get corrupted or damaged. In such cases, you might need to replace the storage drive.</p>



## External monitor problems

Problem	Solution
An external monitor screen is blank while the monitor is connected to the Hub.	<ul style="list-style-type: none"><li>• Ensure that the HDMI cable is connected to the Hub and the monitor correctly and securely.</li><li>• Select HDMI signals in the signal source setting of the monitor.</li><li>• Restart the monitor.</li><li>• Change the HDMI cable.</li></ul>
The image on an external monitor screen is not clear.	<p>Reset the screen resolution.</p> <ul style="list-style-type: none"><li>• Right-click a blank area on the desktop.</li><li>• Click <b>Display settings</b>.</li><li>• Set the screen resolution to be 1920 x 1080 pixels.</li></ul>

## Network problems

Problem	Solution
The Hub cannot connect to an Ethernet LAN.	<ul style="list-style-type: none"><li>• Connect the cable from the Ethernet connector to the RJ45 connector of the Hub.</li><li>• Enable the Ethernet LAN feature in UEFI BIOS.</li><li>• Enable the Ethernet LAN adapter.<ol style="list-style-type: none"><li>1. Go to <b>Control Panel</b> and view by large icons or small icons.</li><li>2. Click <b>Network and Sharing Center</b> → <b>Change adapter settings</b>.</li><li>3. Right-click the Ethernet LAN adapter icon and click <b>Enable</b>.</li></ol></li><li>• Update or reinstall the Ethernet LAN driver.</li><li>• Install all networking software that is necessary for your network environment. Check with your LAN administrator for the necessary networking software.</li><li>• Set the same duplex for the switch port and the adapter. If you configured the adapter for full duplex, ensure that the switch port is also configured for full duplex. Setting a wrong duplex mode might degrade performance, cause data loss, or result in lost connections.</li></ul>
When a Gigabit Ethernet model Hub is used at a speed of 1000 Mbps, the Ethernet LAN connection fails or errors occur.	Connect the network cable to the Ethernet connector using Category 5 wiring and a 100 BASE-T Hub/switch (not 100 BASE-X).
My Hub is a Gigabit Ethernet model, but it cannot be connected to the network at 1000 Mbps, but at only 100 Mbps.	<ul style="list-style-type: none"><li>• Try another cable.</li><li>• Set the link partner to auto-negotiate.</li><li>• Set the switch to be 802.3ab-compliant (gigabit over copper).</li></ul>
The Wi-Fi feature does not work.	<p>It is not recommended that you connect to a Wi-Fi network. If you connect to the Wi-Fi network that needs account authentication, the connection will be lost when you log in the conference room system.</p> <p>Connect your Hub to a local network through the Ethernet connector on your Hub with an Ethernet cable.</p>

Problem	Solution
The Bluetooth feature does not work.	<p><b>Note:</b> It is not recommended that you connect a Bluetooth-enabled device to the Hub.</p> <ul style="list-style-type: none"> <li>• Enable the Bluetooth feature in UEFI BIOS.</li> <li>• Enable all Bluetooth devices. <ol style="list-style-type: none"> <li>1. Right-click the <b>Start</b> button to open the <b>Start</b> context menu.</li> <li>2. Click <b>Device Manager</b>. Type the administrator password or provide confirmation if prompted.</li> <li>3. Expand <b>Bluetooth</b> to display all Bluetooth devices. Right-click each Bluetooth device, and then click <b>Enable device</b>.</li> <li>4. Expand <b>Network adapters</b> to display all network devices. Right-click each Bluetooth device, and then click <b>Enable device</b>.</li> </ol> </li> <li>• Turn on the Bluetooth radio. <ol style="list-style-type: none"> <li>1. Open the <b>Start</b> menu.</li> <li>2. Click <b>Settings</b> → <b>Devices</b> → <b>Bluetooth &amp; other devices</b>.</li> <li>3. Turn on the <b>Bluetooth</b> switch to enable the Bluetooth feature.</li> </ol> </li> <li>• Update or reinstall the Bluetooth driver.</li> </ul>
Sound does not come from the Bluetooth headset or headphones.	Select the Bluetooth headset or headphones as the default audio output device in advanced sound settings.

## Performance problems

Problem	Solution
The free storage drive space is insufficient.	<ul style="list-style-type: none"> <li>• Clean out your Inbox, Sent Items, and Deleted Items folders from your e-mail application.</li> <li>• Clean up your C drive. <ol style="list-style-type: none"> <li>1. Open the <b>Start</b> menu.</li> <li>2. Click <b>Windows System</b> → <b>File Explorer</b> → <b>This PC</b>.</li> <li>3. Right-click your C drive and then click <b>Properties</b>.</li> <li>4. Check the amount of free space, and then click <b>Disk Cleanup</b>.</li> <li>5. A list of unnecessary file categories is displayed. Select the category you want to delete, and then click <b>OK</b>.</li> </ol> </li> </ul>
The free memory space is insufficient.	Install additional memory modules.

## USB device problems

Problem	Solution
A USB device cannot be accessed.	<ul style="list-style-type: none"><li>• Connect the USB cable from the USB connector to the USB device. If the USB device has its own power cord, connect the power cord to a grounded electrical outlet.</li><li>• Turn on the USB device and keep the device online.</li><li>• Install any device drivers or programs supplied with the USB device. Refer to the documentation that comes with the USB device for more information.</li><li>• Disconnect and reconnect the USB connector to reset the USB device.</li><li>• Ensure that the Smart USB Protection function is disabled in UEFI BIOS.</li></ul>

## Diagnostics

Use diagnostic solutions to test hardware components and report operating-system-controlled settings that interfere with the correct operation of your Hub.

To use the Lenovo diagnostic:

1. Turn on or restart the Hub.
2. Before Windows starts, repeatedly press and release the F10 key until the Lenovo diagnostic opens.

**Note:** If a BIOS password has been set, the UEFI BIOS will not open until you enter the correct password. For more information, see “Use passwords” on page 13.

3. Follow the instructions on the screen to use the diagnostic program.

## Recovery

This section introduces the recovery information of the Windows operating system. Ensure that you read and follow the on-screen recovery instructions. The data on your Hub might be deleted during the recovery process. To avoid data loss, make a backup copy of all the data that you want to keep.

### Restore system files and settings to an earlier point

1. Go to **Control Panel** and view by large icons or small icons.
2. Click **Recovery** → **Open System Restore**. Then, follow the on-screen instructions.

### Restore your files from a backup

**Note:** If you use the File History tool to restore your files from a backup, ensure that you backed up your data earlier with the tool.

1. Go to **Control Panel** and view by large icons or small icons.
2. Click **File History** → **Restore personal files**. Then, follow the on-screen instructions.

## Reset your Hub

In the resetting process, you can remove your files when you reinstall the operating system.

**Note:** The items in the graphical user interface (GUI) might change without notice.

1. Open the **Start** menu, and then click **Settings** → **Update & Security** → **Recovery**.

2. In the **Reset this PC** section, click **Get started**.
3. click **Remove everything** to reset your Hub.

## Use advanced options

1. Open the **Start** menu, and then click **Settings → Update & security → Recovery**.
2. In the **Advanced startup** section, click **Restart now → Troubleshoot → Advanced options**.
3. Select a preferred option, and then follow the on-screen instructions.

## Windows automatic recovery

**Note:** Ensure that your Hub is connected to ac power during the recovery process.

The Windows recovery environment on your Hub operates independently from the Windows operating system. It enables you to recover or repair the operating system even if the Windows operating system fails to start.

After two consecutive failed boot attempts, the Windows recovery environment starts automatically. Then, you can choose repair and recovery options by following the on-screen instructions.

## Create and use a recovery USB device

It is recommended that you create a recovery USB drive as early as possible as a backup for the Windows recovery programs. With the recovery USB drive, you can troubleshoot and fix the problems even if the preinstalled Windows recovery programs are damaged. If you did not create a recovery USB drive as a precautionary measure, you can contact Lenovo Customer Support Center and purchase one from Lenovo. For a list of the Lenovo Support phone numbers for your country or region, go to:

<https://smartsupport.lenovo.com/supportphonenumberlist>

### Create a recovery USB drive

**Attention:** The creation process deletes anything stored on the USB drive. To avoid data loss, make a backup copy of all the data that you want to keep.

1. Ensure that your Hub is connected to ac power.
2. Prepare a USB drive with capacity of at least 16 GB. The actual USB capacity required depends on the size of the recovery image.
3. Connect the prepared USB drive to the Hub.
4. Type **recovery** in the search box. Then, click **Create a recovery drive**.
5. Click **Yes** in the User Account Control window to allow the Recovery Media Creator program to start.
6. In the Recovery Drive window, follow the on-screen instructions to create a recovery USB drive.

### Use the recovery USB drive

If your Hub cannot be started, go to Chapter 8 “Help and support” on page 29 first to try to solve the problem by yourself. If the problem persists, use the recovery USB drive to recover your Hub.

1. Ensure that your Hub is connected to ac power.
2. Connect the recovery USB drive to the Hub.
3. Turn on or restart the Hub. When the logo screen is displayed, press F12. The Boot Menu window opens.
4. Select the recovery USB drive as the boot device.
5. Click **Troubleshoot** to display optional recovery solutions.

6. Select a recovery solution as desired. Then, follow the on-screen instructions to complete the process.

## Update the device driver

**Attention:** Reinstalling device drivers will change the current configuration of the Hub.

You should download the latest driver for a component when you notice poor performance from that component or when you added a component. This action might eliminate the driver as the potential cause of a problem. Download and install the latest driver by one of the following methods:

- From the Lenovo Support Web site:

Go to <https://smartsupport.lenovo.com/> and select the entry for your Hub. Then, follow the on-screen instructions to download and install necessary drivers and software.

- From Windows Update:

**Note:** The device drivers provided by Windows Update might not be tested by Lenovo. It is recommended that you get device drivers from Lenovo.

1. Open the **Start** menu.
2. Click **Settings → Update & Security → Windows Update**.
3. Follow the on-screen instructions.



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## Chapter 8. Help and support

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### CRU replacement

Customer Replaceable Units (CRUs) are parts that can be upgraded or replaced by the customer.

Self-service CRUs are parts that can be installed or replaced easily by customer themselves or by trained service technicians at an additional cost.

If you intend on installing the CRU, Lenovo will ship the CRU to you. CRU information and replacement instructions are shipped with your product and are available from Lenovo at any time upon request. 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 documentation at:

[https://www.lenovo.com/warranty/llw\\_02](https://www.lenovo.com/warranty/llw_02)

Refer to the following Self-service CRUs for your Hub.

- Power adapter
- Power cord
- One cable
- Cable lock box

See Chapter 2 “Set up the Hub” on page 3 to replace these CRUs.

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### Self-help resources

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

Resources	How to access?
Product documentation: <ul style="list-style-type: none"> <li>• Documentation in the box</li> <li>• This <i>User Guide</i></li> <li>• <i>Regulatory Notice</i></li> </ul>	Go to <a href="https://smartsupport.lenovo.com/">https://smartsupport.lenovo.com/</a> . Then, follow the on-screen instructions to filter out the documentation you want.
Lenovo Support Web site with the latest support information of the following: <ul style="list-style-type: none"> <li>• Drivers and software</li> <li>• Diagnostic solutions</li> <li>• Product and service warranty</li> <li>• Product and parts details</li> <li>• Knowledge base and frequently asked questions</li> </ul>	<a href="https://smartsupport.lenovo.com/">https://smartsupport.lenovo.com/</a>
Windows help information	<ul style="list-style-type: none"> <li>• Open the <b>Start</b> menu and click <b>Get Help</b> or <b>Tips</b>.</li> <li>• Use Windows Search or the Cortana® personal assistant.</li> <li>• Microsoft support Web site: <a href="https://support.microsoft.com">https://support.microsoft.com</a></li> </ul>

## Call Lenovo

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

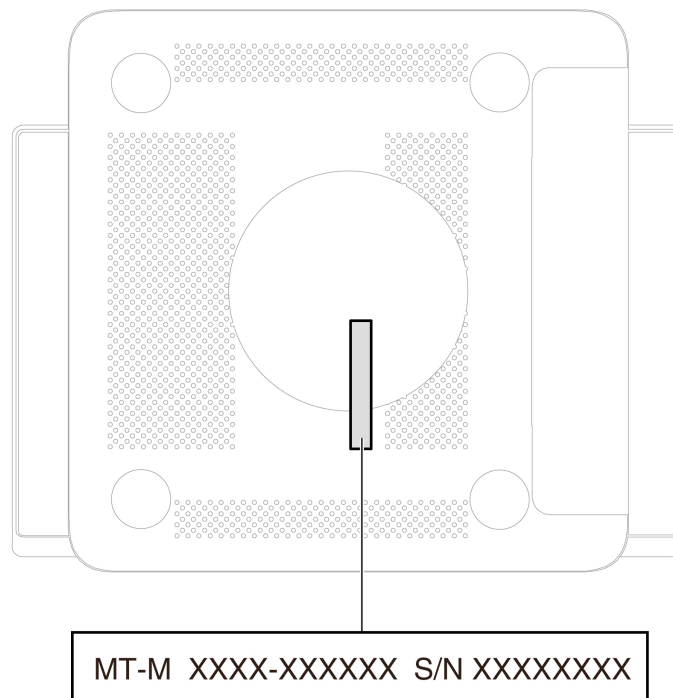
## Before you contact Lenovo

Prepare the following before you contact Lenovo:

1. Record the problem symptoms and details:
  - 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?
2. Record the system information:
  - Product name
  - Machine type and serial number



The following illustration shows where to find the machine type and serial number of your Hub.



## 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://smartsupport.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 the Lenovo Limited Warranty documentation at:

[https://www.lenovo.com/warranty/llw\\_02](https://www.lenovo.com/warranty/llw_02)

The LLW also is preinstalled on the Hub. To access the LLW, go to the following directory:

C:\Windows\System32\oobe\info\default

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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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## Appendix A. Important safety information

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### Safety notices

This information can help you safely use your Hub. Follow and retain all information included with your Hub. The information in this document does not alter the terms of your purchase agreement or the Limited Warranty. For more information, see the Lenovo Limited Warranty documentation at: [https://www.lenovo.com/warranty/llw\\_02](https://www.lenovo.com/warranty/llw_02)

Customer safety is important. Our products are developed to be safe and effective. However, personal Hubs are electronic devices. Power cords, power adapters, and other features can create potential safety risks that can result in physical injury or property damage, especially if misused. To reduce these risks, follow the instructions included with your product, observe all warnings on the product and in the operating instructions, and review the information included in this document carefully. By carefully following the information contained in this document and provided with your product, you can help protect yourself from hazards and create a safer Hub work environment. If the Hub is used in a manner not specified by the manufacturer, the protection provided by the Hub may be impaired.

**Note:** This information includes references to power adapters and batteries. In addition, some products (such as speakers and monitors) ship with external power adapters. If you have such a product, this information applies to your product. In addition, Hub products contain a coin-sized internal battery that provides power to the system clock even when the Hub is unplugged, so the battery safety information applies to all Hub products.

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### Conditions that require immediate action

**Products can become damaged due to misuse or neglect. Some product damage is serious enough that the product should not be used again until it has been inspected and, if necessary, repaired by an authorized servicer.**

**As with any electronic device, pay close attention to the product when it is turned on.**

**On very rare occasions, you might notice an odor or see a puff of smoke or sparks vent from your product. You might also hear sounds like popping, cracking, or hissing. These might merely mean that an internal electronic component has failed in a safe and controlled manner. Or, they might indicate a potential safety issue. Do not take risks or attempt to diagnose the situation yourself. Contact the Customer Support Center for further guidance. For a list of Service and Support phone numbers, see the following Web site:**

<https://smartsupport.lenovo.com/supportphonenumberlist>

**Frequently inspect your Hub and its components for damage, wear, or signs of danger. If you have any question about the condition of a component, do not use the product. Contact the Customer Support Center or the product manufacturer for instructions on how to inspect the product and have it repaired, if necessary.**

**In the unlikely event that you notice any of the following conditions, or if you have any safety concerns with your product, stop using the product and unplug it from the power source and telecommunication lines until you can speak to the Customer Support Center for further guidance.**

- Power cords, plugs, power adapters, extension cords, surge protectors, or power supplies that are cracked, broken, or damaged.

- Signs of overheating, smoke, sparks, or fire.
- Damage to a battery (such as cracks, dents, or creases), discharge from a battery, or a buildup of foreign substances on the battery.
- A cracking, hissing, or popping sound, or strong odor that comes from the product.
- Signs that liquid has been spilled or an object has fallen onto the Hub product, the power cord, or power adapter.
- The Hub product, power cord, or power adapter has been exposed to water.
- The product has been dropped or damaged in any way.
- The product does not operate normally when you follow the operating instructions.

**Note:** If you notice these conditions with a product (such as an extension cord) that is not manufactured for or by Lenovo, stop using that product until you can contact the product manufacturer for further instructions, or until you get a suitable replacement.

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## Service and upgrades

Do not attempt to service a product yourself unless instructed to do so by the Customer Support Center or your documentation. Only use a Service Provider who is approved to repair your particular product.

**Note:** Some Hub parts can be upgraded or replaced by the customer. Upgrades typically are referred to as options. Replacement parts approved for customer installation are referred to as Customer Replaceable Units, or CRUs. Lenovo provides documentation with instructions when it is appropriate for customers to install options or replace CRUs. You must closely follow all instructions when installing or replacing parts. The Off state of a power indicator does not necessarily mean that voltage levels inside a product are zero. Before you remove the covers from a product equipped with a power cord, always ensure that the power is turned off and that the product is unplugged from any power source. If you have any questions or concerns, contact the Customer Support Center.

Although there are no moving parts in the Hub after the power cord has been disconnected, the following warnings are required for your safety.



### Moving Parts:

Keep fingers and other parts of your body away from hazardous, moving parts. If you suffer an injury, seek medical care immediately.



### Hot Surface:

Avoid contact with hot components inside the Hub. During operation, some components become hot enough to burn the skin. Before you open the Hub cover, turn off the Hub, disconnect power, and wait approximately 10 minutes for the components to cool.



After replacing a CRU, reinstall all protective covers, including the Hub cover, before connecting power and operating the Hub. This action is important to help prevent unexpected electrical shock and help ensure the containment of an unexpected fire that could happen under extremely rare conditions.



#### Sharp Edges:

When replacing CRUs, be cautious of sharp edges or corners that might cause injury. If you suffer an injury, seek medical care immediately.

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## Power cords and power adapters



### DANGER

**Use only the power cords and power adapters supplied by the product manufacturer.**

**The power cords shall be safety approved. For Germany, it shall be H03VV-F, 3G, 0.75 mm<sup>2</sup>, or better. For other countries, the suitable types shall be used accordingly.**

**Never wrap a power cord around a power adapter or other object. Doing so can stress the cord in ways that can cause the cord to fray, crack, or crimp. This can present a safety hazard.**

**Always route power cords so that they will not be walked on, tripped over, or pinched by objects.**

**Protect power cords and power adapters from liquids. For instance, do not leave your power cord or power adapter near sinks, tubs, toilets, or on floors that are cleaned with liquid cleansers. Liquids can cause a short circuit, particularly if the power cord or power adapter has been stressed by misuse. Liquids also can cause gradual corrosion of power cord terminals and/or the connector terminals on a power adapter, which can eventually result in overheating.**

**Ensure that all power cord connectors are securely and completely plugged into receptacles.**

**Do not use any power adapter that shows corrosion at the ac input pins or shows signs of overheating (such as deformed plastic) at the ac input pins or anywhere on the power adapter.**

**Do not use any power cords where the electrical contacts on either end show signs of corrosion or overheating or where the power cord appears to have been damaged in any way.**

**To prevent possible overheating, do not cover the power adapter with clothing or other objects when the power adapter is plugged into an electrical outlet.**

---

## Power cord notice

**Note:** The power cord and adapter provided with this product are intended to be used with this product only. Do not use them with any other products.

For your safety, Lenovo provides a power cord with a grounded attachment plug to use with this product. To avoid electrical shock, always use the power cord and plug with a properly grounded outlet.

Power cords provided by Lenovo in the United States and Canada are listed by Underwriter's Laboratories (UL) and certified by the Canadian Standards Association (CSA).

For units intended to be operated at 115 volts: Use a UL-listed and CSA-certified cord set consisting of a minimum 18 AWG, Type SVT or SJT, three-conductor cord, a maximum of 15 feet in length and a parallel blade, grounding-type attachment plug rated 10 amperes, 125 volts.

For units intended to be operated at 230 volts (U.S. use): Use a UL-listed and CSA-certified cord set consisting of a minimum 18 AWG, Type SVT or SJT, three-conductor cord, a maximum of 15 feet in length and a tandem blade, grounding-type attachment plug rated 10 amperes, 250 volts.

For units intended to be operated at 230 volts (outside the U.S.): Use a cord set with a grounding-type attachment plug. The cord set should have the appropriate safety approvals for the country in which the equipment will be installed.

Power cords provided by Lenovo for a specific country or region are usually available only in that country or region.

For units intended to be operated in Germany: The power cords must be safety approved. For Germany, it must be H05VV-F, 3G, 0.75 mm<sup>2</sup>, or better. For other countries, the suitable types must be used accordingly.

For units intended to be operated in Denmark: Use a cord set with a grounding-type attachment plug. The cord set should have the appropriate safety approvals for the country in which the equipment will be installed.

For units intended to be operated in Norway, Sweden, Finland: Use a cord set with a two-prong attachment plug. The cord set should have the appropriate safety approvals for the country in which the equipment will be installed.

If you intend to use your PC in a country or region that is different from your ordering location, please purchase an additional Lenovo power cord for the country or region where the PC will be used. Refer to the power cord guide provided in our Web site, <https://pcsupport.lenovo.com>, for details. Some countries and regions support multiple voltages, so make sure you order the appropriate power cord for the intended voltage.

---

## Extension cords and related devices

Ensure that extension cords, surge protectors, uninterruptible power supplies, and power strips that you use are rated to handle the electrical requirements of the product. Never overload these devices. If power strips are used, the load should not exceed the power strip input rating. Consult an electrician for more information if you have questions about power loads, power requirements, and input ratings.

---

## Plugs and outlets



If a receptacle (power outlet) that you intend to use with your Hub equipment appears to be damaged or corroded, do not use the outlet until it is replaced by a qualified electrician.

Do not bend or modify the plug. If the plug is damaged, contact the manufacturer to obtain a replacement.

Do not share an electrical outlet with other home or commercial appliances that draw large amounts of electricity; otherwise, unstable voltage might damage your Hub, data, or attached devices.

Some products are equipped with a three-pronged plug. This plug fits only into a grounded electrical outlet. This is a safety feature. Do not defeat this safety feature by trying to insert it into a non-grounded outlet. If you cannot insert the plug into the outlet, contact an electrician for an approved outlet adapter or to replace the outlet with one that enables this safety feature. Never overload an electrical outlet. The overall system load should not exceed 80 percent of the branch circuit rating. Consult an electrician for more information if you have questions about power loads and branch circuit ratings.

Be sure that the power outlet you are using is properly wired, easily accessible, and located close to the equipment. Do not fully extend power cords in a way that will stress the cords.

Be sure that the power outlet provides the correct voltage and current for the product you are installing.

Carefully connect and disconnect the equipment from the electrical outlet.

---

## Power supply statement

Never remove the cover on a power supply or any part that has the following label attached.



Hazardous voltage, current, and energy levels are present inside any component that has this label attached. There are no serviceable parts inside these components. If you suspect a problem with one of these parts, contact a service technician.

---

## External devices

### CAUTION:

Do not connect or disconnect any external device cables other than Universal Serial Bus (USB) and 1394 cables while the Hub power is on; otherwise, you might damage your Hub. To avoid possible damage to attached devices, wait at least five seconds after the Hub is shut down to disconnect external devices.

---

## Lithium coin-cell battery notice



<b>Danger of explosion if battery is incorrectly replaced.</b>
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**If the coin-cell battery is not a CRU, do not attempt to replace the coin-cell battery. Replacement of the battery must be done by a Lenovo-authorized repair facility or technician.**

**The Lenovo-authorized repair facilities or technicians recycle Lenovo batteries according to local laws and regulations.**



When replacing the lithium coin-cell battery, use only the same type or equivalent type that is recommended by the manufacturer. The battery contains lithium and can explode if not properly used, handled, or disposed of. Swallowing the lithium coin-cell battery will cause choking or severe internal burns in just two hours and might even result in death.

Keep batteries away from children. If the lithium coin-cell battery is swallowed or placed inside any part of the body, seek medical care immediately.

### **Do not:**

- Throw or immerse into water
- Heat to more than 100 °C (212°F)
- Repair or disassemble
- Leave in an extremely low air pressure environment
- Leave in an extremely high-temperature environment
- Crush, puncture, cut, or incinerate

Dispose of the battery as required by local ordinances or regulations.

The following statement applies to users in the state of California, U.S.A.

California Perchlorate Information:

Products containing manganese dioxide lithium coin-cell batteries may contain perchlorate.

Perchlorate Material - special handling may apply, see <https://www.dtsc.ca.gov/hazardouswaste/perchlorate/>.

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## Heat and product ventilation



Hubs, power adapters, and many accessories can generate heat when turned on and when batteries are charging. Always follow these basic precautions:

- Do not leave your Hub, power adapter, or accessories in contact with your lap or any part of your body for an extended period when the products are functioning or when the battery is charging. Your Hub, power



adapter, and many accessories produce some heat during normal operation. Extended contact with the body could cause discomfort or, potentially, a skin burn.

- Do not charge the battery or operate your Hub, power adapter, or accessories near flammable materials or in explosive environments.
- Ventilation slots, fans, and heat sinks are provided with the product for safety, comfort, and reliable operation. These features might inadvertently become blocked by placing the product on a bed, sofa, carpet, or other flexible surface. Never block, cover, or disable these features.

Inspect your desktop Hub for dust accumulation at least once every three months. Before inspecting your Hub, turn off the power and unplug the Hub's power cord from the electrical outlet; then remove any dust from vents and perforations in the bezel. If you notice external dust accumulation, then examine and remove dust from the inside of the Hub including heat sink inlet fins, power supply vents, and fans. Always turn off and unplug the Hub before opening the cover. If possible, avoid operating your Hub within two feet of high-traffic areas. If you must operate your Hub in or near a high-traffic area, inspect and, if necessary, clean your Hub more frequently.

For your safety and to maintain optimum Hub performance, always follow these basic precautions with your desktop Hub:

- Keep the cover closed whenever the Hub is plugged in.
- Regularly inspect the outside of the Hub for dust accumulation.
- Remove dust from vents and any perforations in the bezel. More frequent cleanings might be required for Hubs in dusty or high-traffic areas.
- Do not restrict or block any ventilation openings.
- Do not store or operate your Hub inside furniture, as this might increase the risk of overheating.
- Airflow temperatures into the Hub should not exceed 35°C (95°F).
- Do not install air filtration devices. They may interfere with proper cooling.

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## Electrical current safety information



**Electric current from power, telephone, and communication cables is hazardous.**

**To avoid a shock hazard:**

- **Do not use your Hub during a lightning storm.**
- **Do not connect or disconnect any cables or perform installation, maintenance, or reconfiguration of this product during an electrical storm.**
- **Connect all power cords to a properly wired and grounded electrical outlet.**
- **Connect properly wired outlets to any equipment that will be attached to this product.**
- **Whenever possible, use one hand only to connect or disconnect signal cables.**
- **Never turn on any equipment when there is evidence of fire, water, or structural damage.**
- **Disconnect the attached power cords, battery, and all the cables before you open the device covers, unless instructed otherwise in the installation and configuration procedures.**
- **Do not use your Hub until all internal parts enclosures are fastened into place. Never use the Hub when internal parts and circuits are exposed.**



## DANGER

Connect and disconnect cables as described in the following procedures when installing, moving, or opening covers on this product or attached devices.

### To connect:

1. Turn everything OFF.
2. First, attach all cables to devices.
3. Attach signal cables to connectors.
4. Attach power cords to outlets.
5. Turn devices ON.

### To disconnect:

1. Turn everything OFF.
2. First, remove power cords from outlets.
3. Remove signal cables from connectors.
4. Remove all cables from devices.

The power cord must be disconnected from the wall outlet or receptacle before installing all other electrical cables connected to the Hub.

The power cord may be reconnected to the wall outlet or receptacle only after all other electrical cables have been connected to the Hub.



## DANGER

During electrical storms, do not perform any replacement and do not connect the telephone cable to or disconnect it from the telephone outlet on the wall.

## Liquid crystal display (LCD) notice



## DANGER

### To avoid shock hazards:

- Do not remove the covers.
- Do not operate this product unless the stand is attached.
- Do not connect or disconnect this product during an electrical storm.
- The power cord plug must be connected to a properly wired and grounded power outlet.
- Any equipment to which this product will be attached must also be connected to properly wired and grounded power outlets.
- To isolate the monitor from the electrical supply, you must remove the plug from the power outlet. The power outlet should be easily accessible.

### Handling:

- If your monitor weighs more than 18 kg (39.68 lb), we recommend that it be moved or lifted by two people.

### Product disposal (TFT monitors):

- The fluorescent lamp in the liquid crystal display contains mercury; dispose according to local, state, or federal laws.

Battery warnings:

- Risk of explosion if battery is replaced by an incorrect type.
- Dispose of used batteries according to the instructions.

---

## Use earphones, headphones, or a headset

- If your Hub has both a headphone connector and an audio line-out connector, always use the headphone connector for earphones, headphones, or a headset. However, the headphone connector does not support the microphone of the headset.
- If your Hub has both a headset connector and an audio line-out connector, always use the headset connector for earphones, headphones, or a headset.



Excessive sound pressure from earphones and headphones can cause hearing loss. Adjustment of the equalizer to maximum increases the earphone and headphone output voltage and the sound pressure level. Therefore, to protect your hearing, adjust the equalizer to an appropriate level.

Excessive use of headphones or earphones for a long period of time at high volume can be dangerous if the output of the headphone or earphone connectors do not comply with specifications of EN 50332-2. The headphone output connector of your Hub complies with EN 50332-2 Sub clause 7. This specification limits the Hub's maximum wide band true RMS output voltage to 150 mV. To help protect against hearing loss, ensure that the headphones or earphones you use also comply with EN 50332-2 (Clause 7 Limits) or a wide band characteristic voltage of 75 mV. Using headphones that do not comply with EN 50332-2 can be dangerous due to excessive sound pressure levels.

If your Lenovo Hub came with headphones or earphones in the package, as a set, the combination of the headphones or earphones and the Hub already complies with the specifications of EN 50332-1. If different headphones or earphones are used, ensure that they comply with EN 50332-1 (Clause 6.5 Limitation Values). Using headphones that do not comply with EN 50332-1 can be dangerous due to excessive sound pressure levels.

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## Choking hazard notice



CHOKING HAZARD – Product contains small parts.

Keep away from children under three years.

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## Plastic bag notice



<b>Plastic bags can be dangerous. Keep plastic bags away from babies and children to avoid danger of suffocation.</b>
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## Glass parts notice

### CAUTION:

Some parts of your product may be made of glass. This glass could break if the product is dropped on a hard surface or receives a substantial impact. If glass breaks, do not touch or attempt to remove it. Stop using your product until the glass is replaced by trained service personnel.

---

## Hub placement notices

Inappropriate Hub placement might cause harm to children.

- Place the Hub on a sturdy piece of low-rise furniture or furniture that has been anchored.
- Do not place the Hub at the edge of the furniture.
- Keep the Hub cables out of the reach of children.
- Some items, such as toys, might attract children. Keep such items away from the Hub.

Supervise children in rooms where the above safety instructions cannot be fully implemented.

---

## Hazardous energy statement



**DANGER**

**Disconnect all power cords from electrical outlets before removing the Hub cover or any part that has the above label attached.**

DO NOT disassemble components that have the above label attached. There are no serviceable parts inside these components.

Your product is designed for safe use. However, hazardous voltage, current, and energy levels are present inside any component that has this label attached. Disassembling of these components might cause fire or might even result in death. If you suspect a problem with one of these parts, contact a service technician.

### CAUTION:



**Bright Light, possible skin or eye damage. Disconnect power before servicing.**

### CAUTION:



**Infrared Light, possible skin or eye damage. Disconnect power before servicing.**

---

## Eye comfort

The property of the display in combination with following notes result in reduced eye fatigue and increased comfort.

For tips on how to minimize visual fatigue, please go to <https://www.lenovo.com/us/en/safecom/> to visit “Minimizing Visual Fatigue”.

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## Tip-over hazard prevention notice

The Hub may cause harm to children if it is not located in an appropriate place. Follow the tips below to protect children from harm caused by the Hub tipping over:

- Place the Hubs or monitors on sturdy furniture with a low base or furniture that has been anchored. Push the Hubs or monitors as far from the edge of the furniture as possible..
- Keep remote controls, toys, and other items that might attract children away from the Hubs or monitors
- Keep the Hub or monitor cables out the reach of the children.
- Supervise children in rooms where these safety tips have not been followed.

### CAUTION:

**Some parts of your product may be made of glass. This glass could break if the product is dropped on a hard surface or receives a substantial impact. If glass breaks, do not touch it or attempt to remove it. Stop using your product until the glass is replaced by trained service personnel.**

---

## Static electricity prevention

Static electricity, although harmless to you, can seriously damage Hub components and options. Improper handling of static-sensitive parts can damage the part. When you unpack an option or CRU, do not open the static-protective package containing the part until the instructions direct you to install it.

When you handle options or CRUs, or perform any work inside the Hub, take the following precautions to avoid static-electricity damage:

- Limit your movement. Movement can cause static electricity to build up around you.
- Always handle components carefully. Handle adapters, memory modules, and other circuit boards by the edges. Never touch exposed circuitry.
- Prevent others from touching components.
- When you install a static-sensitive option or CRU, touch the static-protective package containing the part to a metal expansion-slot cover or other unpainted metal surface on the Hub for at least two seconds. This reduces static electricity in the package and your body.
- When possible, remove the static-sensitive part from the static-protective packaging and install the part without setting it down. When this is not possible, place the static-protective packaging on a smooth, level surface and place the part on it.
- Do not place the part on the Hub cover or other metal surface.

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## Operating environment

### Maximum altitude (without pressurization)

- Operating: From -15.2 m (-50 ft) to 3048 m (10 000 ft)
- Storage: From -15.2 m (-50 ft) to 10 668 m (35 000 ft)

### Temperature

- Operating: From 10°C (50°F) to 35°C (95°F)
- Storage in original shipping package: From -40°C (-40°F) to 60°C (140°F)

- Storage without package: From -10°C (14°F) to 60°C (140°F)

**Note:** If your Hub is stored or transported in temperatures less than 10°C (50°F), allow the Hub to rise slowly to an optimal operating temperature before use. This process might take up to two hours. Using the Hub in a lower operating temperature might result in irreparable damage to your Hub.

### **Relative humidity**

- Operating: 20%-80% (non-condensing)
- Storage: 20%–90% (non-condensing)

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## **Cleaning and maintenance**

With appropriate care and maintenance, your Hub will serve you reliably. The following topics offer information to help you keep your Hub working with best performance.

### **Basic maintenance tips**

Here are some basic points about keeping your Hub functioning properly:

- Keep the Hub in a clean, dry environment. Ensure that the Hub rests on a flat, steady surface.
- Do not cover any of air vents. These air vents provide airflow to keep the Hub from overheating.
- Keep electrical appliances such as an electric fan, radio, high-powered speakers, air conditioner, and microwave oven away from your Hub because the strong magnetic fields generated by these appliances can damage the monitor and data on the storage drive.
- Keep food and drinks away from all parts of the Hub. Food particles and spills might make the keyboard and mouse stick and unusable.
- Do not get the power switches or other controls wet. Moisture can damage these parts and cause an electrical hazard.
- Always disconnect a power cord by grasping the plug instead of the cord.
- Keep the Hub software, device drivers, and operating system up-to-date.
- Empty your recycle bin on a regular basis.
- Clean out your Inbox, Sent Items, and Deleted Items folders in your e-mail application on a regular basis.
- Clean up files and free up storage drive space and memory space occasionally to prevent performance problems.
- Keep a log book. Entries might include major software or hardware changes, device-driver updates, intermittent problems and what you did to resolve them, and other issues you might have experienced. The cause of a problem might be change in hardware, change in software, or any other actions that might have taken place. A log book can help you or a Lenovo technician determine the cause of a problem.
- Back up your data on the storage drive regularly. You can restore the storage drive from a backup.
- Create a recovery medium as early as possible. You can use the recovery medium to recover your operating system even if Windows fails to start up.
- Get the most up-to-date operating system update patches, software programs, and device drivers.

### **Maintenance tips about moving the Hub**

Before moving the Hub, take the following precautions:

1. Back up your data on the storage drive.
2. Remove any media from the drives and turn off all connected devices and the Hub. Then, disconnect all power cords from electrical outlets and disconnect all cables that are connected to the Hub.

3. If you saved the original shipping cartons and packing materials, use them to pack the units. If you are using different cartons, cushion the units to avoid damage.

When you move the Hub to another country or region, you must take local electrical standards into consideration. If the local electrical outlet style is different from the type you are currently using, contact the Lenovo Customer Support Center to purchase either an electrical plug adapter or a new power cord.

### **Clean your Hub**

#### **CAUTION:**

**Remove any media from the drives and turn off all connected devices and the Hub. Then, disconnect all power cords from electrical outlets and disconnect all cables that are connected to the Hub.**

It is a good practice to clean your Hub periodically to protect the surfaces and ensure trouble-free operation.

**Clean the Hub surface:** Wipe it with a lint-free cloth dampened in mild soap and water. Avoid applying liquids directly to the surface.

**Clean the keyboard:** Wipe the keys one by one with a lint-free cloth dampened in mild soap and water. If you wipe several keys at a time, the cloth might hook onto an adjacent key and possibly damage it. Avoid spraying cleaner directly onto the keyboard. To remove any crumbs or dust from beneath the keys, you can use a camera blower with a brush or use cool air from a hair dryer.

**Clean the Hub screen:** Scratches, oil, dust, chemicals, and ultraviolet light can affect the performance of your Hub screen. Use a dry, soft lint-free cloth to wipe the screen gently. If you see a scratchlike mark on your screen, it might be a stain. Wipe or dust the stain gently with a soft, dry cloth. If the stain remains, moisten a soft, lint-free cloth with water or eyeglass cleaner, but do not apply liquids directly to your Hub screen. Ensure that the Hub screen is dry before closing it.





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## Appendix B. Accessibility information

Lenovo is committed to providing users who have hearing, vision, and mobility limitations with greater access to information and technology. This section provides information about the ways these users can get the most out of their Hub experience. You also can get the most up-to-date accessibility information from the following Web site:

<https://www.lenovo.com/accessibility>

### Keyboard shortcuts

The following list contains keyboard shortcuts that can help make your Hub easier to use.

**Note:** Depending on your keyboard, some of the following keyboard shortcuts might not be available.

- **Windows logo key + U:** Open Ease of Access Center
- **Right Shift for eight seconds:** Turn on or turn off Filter Keys
- **Shift five times:** Turn on or turn off Sticky Keys
- **Num Lock for five seconds:** Turn on or turn off Toggle Keys
- **Left Alt+Left Shift+Num Lock:** Turn on or turn off Mouse Keys
- **Left Alt+Left Shift+PrtScn (or PrtSc):** Turn on or turn off High Contrast

For more information, go to <https://windows.microsoft.com>, and then search using any of the following keywords: keyboard shortcuts, key combinations, shortcut keys.

### Ease of Access Center

Ease of Access Center on the Windows operating system enables you to configure your Hubs to suit their physical and cognitive needs.

To access Ease of Access Center:

1. Go to **Control Panel** and view by Category.
2. Click **Ease of Access → Ease of Access Center**.
3. Choose the appropriate tool by following the on-screen instructions.

Ease of Access Center mainly includes the following tools:

- **Magnifier**  
Magnifier is a useful utility that enlarges the entire screen or part of the screen so that you can see the items better.
- **Narrator**  
Narrator is a screen reader that reads what is displayed on the screen aloud and describes events such as error messages.
- **On-Screen Keyboard**  
If you prefer to type or enter data into your Hub using a mouse, joystick, or other pointing device instead of a physical keyboard, you can use On-Screen Keyboard. On-Screen Keyboard displays a visual keyboard with all the standard keys. You can select keys using the mouse or another pointing device, or you can tap to select the keys if your Hub supports multi-touch screen.
- **High Contrast**  
High Contrast is a feature that heightens the color contrast of some text and images on your screen. As a result, those items are more distinct and easier to identify.

- Personalized keyboard

Adjust keyboard settings to make your keyboard easier to use. For example, you can use your keyboard to control the pointer and make the keyboard easier to type certain key combinations.

- Personalized mouse

Adjust mouse settings to make your mouse easier to use. For example, you can change the pointer appearance and make your mouse easier to manage windows.

## Speech Recognition

Speech Recognition enables you to control your Hub by voice.

You can use verbal instructions to control the keyboard and mouse. With verbal instructions, you can start programs, open menus, click objects on the screen, dictate text into documents, and write and send e-mails.

To use Speech Recognition:

1. Go to **Control Panel** and view by Category.
2. Click **Ease of Access → Speech Recognition**.
3. Follow the on-screen instructions.

## Screen-reader technologies

Screen-reader technologies are primarily focused on software program interfaces, help systems, and various online documents. For additional information about screen readers, see the following:

- Use PDFs with screen readers:  
<https://www.adobe.com/accessibility.html?promoid=DJGVE>
- Use the JAWS screen reader:  
<https://www.freedomscientific.com/Products/Blindness/JAWS>
- Use the NVDA screen reader:  
<https://www.nvaccess.org/>

## Screen resolution

You can make the text and images on your screen easier to read by adjusting the screen resolution of your Hub.

To adjust the screen resolution:

1. Right-click an empty area of the desktop and then click **Display settings → Display**.
2. Follow the on-screen instructions.

**Note:** Setting a resolution too low might prevent some items from fitting on the screen.

## Customizable item size

You can make the items on your screen easier to read by changing the item size.

- To change the item size temporarily, use the Magnifier tool in Ease of Access Center.
- To change the item size permanently:
  - Change the size of all the items on your screen.
    1. Right-click an empty area of the desktop and then click **Display settings → Display**.
    2. Change the item size by following the on-screen instructions. For some applications, your configuration might not take effect until you sign out and then sign in again.

- Change the size of the items on a Web page.

Press and hold Ctrl, and then press the plus-sign key (+) to enlarge or the minus-sign key (–) to reduce the text size.

- Change the size of the items on the desktop or a window.

**Note:** This function might not work on some windows.

If your mouse has a wheel, press and hold Ctrl, and then scroll the wheel to change the item size.

### **Industry-standard connectors**

Your Hub provides industry-standard connectors that enable you to connect assistive devices.

### **Documentation in accessible formats**

Lenovo provides electronic documentation in accessible formats, such as properly tagged PDF files or HyperText Markup Language (HTML) files. Lenovo electronic documentation is developed to ensure that visually impaired users can read the documentation through a screen reader. Each image in the documentation also includes adequate alternative text so that visually impaired users can understand the image when they use a screen reader.



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## Appendix C. Compliance information

This chapter provides regulatory, environmental, and RoHS information about Lenovo products.

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### Radio frequency compliance statements

Hub models equipped with wireless communications comply with the radio frequency and safety standards of any country or region in which it has been approved for wireless use.

Besides this document, ensure that you read the *Regulatory Notice* for your country or region before using the wireless devices contained in your Hub.

### Locate wireless regulatory notices

For more information about the wireless regulatory notices, refer to the *Regulatory Notice* at:  
<https://smartsupport.lenovo.com/>

### European Union (EU) / United Kingdom (UK) — Radio Equipment Compliance



EU Contact: Lenovo (Slovakia), Landererova 12, 811 09 Bratislava, Slovakia



UK contact: Lenovo, 3rd Floor, 25 Templer Avenue, Farnborough, GU14 6FE, UK.

This product is in conformity with all the requirements and essential norms that apply to EU Council Radio Equipment Directive 2014/53/EU on the approximation of the laws of the Member States, as well as the UK Radio Equipment Regulations SI 2017 No. 1206, relating to radio equipment.

The full text of the system EU declaration of conformity is available at:  
<https://www.lenovo.com/us/en/compliance/eu-doc>

The full text of the system UK declaration of conformity is available at:  
<https://www.lenovo.com/us/en/compliance/uk-doc>

Lenovo cannot accept responsibility for any failure to satisfy the protection requirements resulting from a non-recommended modification of the product, including the installation of option cards from other manufacturers. This product has been tested and found to comply with the limits for Class B equipment according to European and UK compliance standards. The limits for Class B equipment were derived for typical residential environments to provide reasonable protection against interference with certified communication devices.

### Brazil

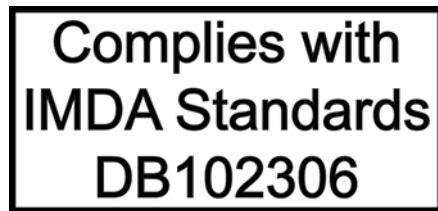
Este equipamento não tem direito à proteção contra interferência prejudicial e não pode causar interferência em sistemas devidamente autorizados.

This equipment is not protected against harmful interference and may not cause interference with duly authorized systems.

## Mexico

**Advertencia:** En Mexico la operación de este equipo está sujeta a las siguientes dos condiciones: (1) es posible que este equipo o dispositivo no cause interferencia perjudicial y (2) este equipo o dispositivo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operación no deseada.

## Singapore



## Korea

무선설비 전파 혼신 (사용주파수 2400 ~ 2483.5 , 5725 ~ 5825 무선제품해당)

해당 무선설비가 전파혼신 가능성이 있으므로 인명안전과 관련된 서비스는 할 수 없음

### SAR 정보

본 장치는 전파 노출에 대한 가이드라인을 충족합니다.

본 장치는 무선 송수신기입니다. 본 장치는 국제 가이드라인으로 권장되는 전파 노출에 대한 제한을 초과하지 않도록 설계되었습니다. 장치 액세서리 및 최신 부품을 사용할 경우 SAR 값이 달라질 수 있습니다. SAR 값은 국가 보고 및 테스트 요구 사항과 네트워크 대역에 따라 다를 수 있습니다. 본 장치는 인체에 접촉하여 사용하는 상황을 가정하여 시험되었습니다.

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## Environmental information of countries and regions

This section provides environmental, recycling, and RoHS information about Lenovo products.

### Recycling and environmental information

Lenovo encourages owners of information technology (IT) equipment to responsibly recycle their equipment when it is no longer needed. Lenovo offers a variety of programs and services to assist equipment owners in recycling their IT products. For information about recycling Lenovo products, go to:

<https://www.lenovo.com/us/en/compliance/recycling>

The latest environmental information about our products is available at:

<https://www.lenovo.com/us/en/compliance/eco-declaration>

### Important battery recycling and WEEE information

Take back and recycling information for WEEE and batteries/accumulators in the European Union and the United Kingdom



The crossed-out wheeled bin marking applies only to countries with WEEE and batteries waste regulations including the European Union (EU), and United Kingdom (UK).

Appliances and batteries/accumulators are labeled in accordance with local regulations concerning waste electrical and electronic equipment (WEEE) and waste batteries and waste accumulators. These regulations determine the framework for the return and recycling of used appliances and used batteries/accumulators as applicable within each geography. This label is applied to various products to indicate that the product is not to be thrown away, but rather put in the established collection systems for reclaiming these end of life products.

The label on the battery may also include a chemical symbol for the metal concerned in the battery (Pb for lead, Hg for mercury, and Cd for cadmium).

Users of electrical and electronic equipment (EEE) and users of batteries/accumulators with the crossed-out wheeled bin marking must not dispose of end of life products as unsorted municipal waste, but use the collection framework available to them for the return, recycle, and recovery of WEEE and waste batteries/accumulators and to minimize any potential effects of EEE and batteries on the environment and human health due to the presence of hazardous substances.

Lenovo electrical and electronic equipment (EEE) may contain parts and components, which at end-of-life might qualify as hazardous waste.

EEE and waste electrical and electronic equipment (WEEE) can be delivered free of charge to the place of sale or any distributor that sells electrical and electronic equipment of the same nature and function as the used EEE or WEEE.

Before placing electrical and electronic equipment (EEE) in the waste collection stream or in waste collection facilities, the end user of equipment containing batteries and/or accumulators must remove those batteries and accumulators for separate collection.

Dispose of lithium batteries and battery packs from Lenovo products:

A coin-cell type lithium battery might be installed inside your Lenovo product. You can find details about the battery in the product documentation. If the battery needs to be replaced, contact your place of purchase or contact Lenovo for service. If you need to dispose of a lithium battery, insulate it with vinyl tape, contact your place of purchase or a waste-disposal operator, and follow their instructions.

Your Lenovo device might contain a lithium-ion battery pack or a nickel metal hydride battery pack. You can find details on the battery pack in the product documentation. If you need to dispose of a battery pack, insulate it with vinyl tape, contact Lenovo sales, service, or your place of purchase, or a waste-disposal operator, and follow their instructions. You also can refer to the instructions provided in the user guide for your product.

For proper collection and treatment, go to:

<https://www.lenovo.com/environment>

For additional WEEE information, go to:

<https://www.lenovo.com/recycling>

## WEEE information for Hungary

Lenovo, as a producer, bears the cost incurred in connection with the fulfillment of Lenovo's obligations under Hungary Law No. 197/2014 (VIII.1.) subsections (1)-(5) of section 12.

## Japan recycling statements

### Collect and recycle a disused Lenovo Hub or monitor

If you are a company employee and need to dispose of a Lenovo Hub or monitor that is the property of the company, you must do so in accordance with the Law for Promotion of Effective Utilization of Resources. Hubs and monitors are categorized as industrial waste and should be properly disposed of by an industrial waste disposal contractor certified by a local government. In accordance with the Law for Promotion of Effective Utilization of Resources, Lenovo Japan provides, through its PC Collecting and Recycling Services, for the collecting, reuse, and recycling of disused Hubs and monitors. For details, visit the Lenovo Web site at:

[https://www.lenovo.com/us/en/social\\_responsibility/sustainability/ptb\\_japan](https://www.lenovo.com/us/en/social_responsibility/sustainability/ptb_japan)

Pursuant to the Law for Promotion of Effective Utilization of Resources, the collecting and recycling of home-used Hubs and monitors by the manufacturer was begun on October 1, 2003. This service is provided free of charge for home-used Hubs sold after October 1, 2003. For details, go to:

[https://www.lenovo.com/us/en/social\\_responsibility/sustainability/ptb\\_japan](https://www.lenovo.com/us/en/social_responsibility/sustainability/ptb_japan)

### Dispose of Lenovo Hub components

Some Lenovo Hub products sold in Japan may have components that contain heavy metals or other environmental sensitive substances. To properly dispose of disused components, such as a printed circuit board or drive, use the methods described above for collecting and recycling a disused Hub or monitor.

### Dispose of disused lithium batteries from Lenovo Hubs

A button-shaped lithium battery is installed inside your Lenovo Hub to provide power to the Hub clock while the Hub is off or disconnected from the main power source. If you need to replace it with a new one, contact your place of purchase or contact Lenovo for service. If you need to dispose of a disused lithium battery, insulate it with vinyl tape, contact your place of purchase or an industrial-waste-disposal operator, and follow their instructions.

Disposal of a lithium battery must comply with local ordinances and regulations.

## Brazil recycling information

### *Declarações de Reciclagem no Brasil*

### *Descarte de um Produto Lenovo Fora de Uso*

Equipamentos elétricos e eletrônicos não devem ser descartados em lixo comum, mas enviados à pontos de coleta, autorizados pelo fabricante do produto para que sejam encaminhados e processados por empresas especializadas no manuseio de resíduos industriais, devidamente certificadas pelos órgãos ambientais, de acordo com a legislação local.

A Lenovo possui um canal específico para auxiliá-lo no descarte desses produtos. Caso você possua um produto Lenovo em situação de descarte, ligue para o nosso SAC ou encaminhe um e-mail para: [reciclar@lenovo.com](mailto:reciclar@lenovo.com), informando o modelo, número de série e cidade, a fim de enviarmos as instruções para o correto descarte do seu produto Lenovo.



## Battery recycling information for the European Union



**Notice:** This mark applies only to countries within the European Union (EU).

Batteries or packaging for batteries are labeled in accordance with European Directive 2006/66/EC concerning batteries and accumulators and waste batteries and accumulators. The Directive determines the framework for the return and recycling of used batteries and accumulators as applicable throughout the European Union. This label is applied to various batteries to indicate that the battery is not to be thrown away, but rather reclaimed upon end of life per this Directive.

In accordance with the European Directive 2006/66/EC, batteries and accumulators are labeled to indicate that they are to be collected separately and recycled at end of life. The label on the battery may also include a chemical symbol for the metal concerned in the battery (Pb for lead, Hg for mercury, and Cd for cadmium). Users of batteries and accumulators must not dispose of batteries and accumulators as unsorted municipal waste, but use the collection framework available to customers for the return, recycling, and treatment of batteries and accumulators. Customer participation is important to minimize any potential effects of batteries and accumulators on the environment and human health due to the potential presence of hazardous substances.

Before placing electrical and electronic equipment (EEE) in the waste collection stream or in waste collection facilities, the end user of equipment containing batteries and/or accumulators must remove those batteries and accumulators for separate collection.

### Disposing of lithium batteries and battery packs from Lenovo products

A coin-cell type lithium battery might be installed inside your Lenovo product. You can find details about the battery in the product documentation. If the battery needs to be replaced, contact your place of purchase or contact Lenovo for service. If you need to dispose of a lithium battery, insulate it with vinyl tape, contact your place of purchase or a waste-disposal operator, and follow their instructions.

### Disposing of battery packs from Lenovo products

Your Lenovo device might contain a lithium-ion battery pack or a nickel metal hydride battery pack. You can find details on the battery pack in the product documentation. If you need to dispose of a battery pack, insulate it with vinyl tape, contact Lenovo sales, service, or your place of purchase, or a waste-disposal operator, and follow their instructions. You also can refer to the instructions provided in the user guide for your product.

For proper collection and treatment, go to:

<https://www.lenovo.com/lenovo/environment>

## Recycling information for mainland China

《废弃电器电子产品回收处理管理条例》提示性说明

联想鼓励拥有联想品牌产品的用户当不再需要此类产品时，遵守国家废弃电器电子产品回收处理相关法律法规，将其交给当地具有国家认可的回收处理资质的厂商进行回收处理。更多回收服务信息，请点击进入<http://support.lenovo.com.cn/activity/551.htm>

## Battery recycling information for Taiwan



廢電池請回收

## Restriction of Hazardous Substances (RoHS) Directive of countries and regions

The latest environmental information about Lenovo products is available at:

<https://www.lenovo.com/us/en/compliance/eco-declaration>

### European Union (EU) / United Kingdom (UK) RoHS

This Lenovo product, with included parts (cables, cords, and so on) meets the requirements of EU Directive 2011/65/EU (as amended by Directive 2015/863/EU) and UK SI 2012 No. 3032 on the restriction of the use of certain hazardous substances in electrical and electronic equipment ("RoHS recast" or "RoHS 2").

For more information about Lenovo worldwide compliance on RoHS, go to:

<https://www.lenovo.com/rohs-communication>

### Turkish WEEE / RoHS

#### Turkish WEEE/RoHS

#### Türkiye AEEE yönetmeliğine Uygunluk Beyanı

Bu Lenovo ürünü, T.C. Çevre ve Şehircilik Bakanlığı'nın „Atık Elektrikli ve Elektronik Eşyaların Kontrolü Yönetmeliğine (AEEE)" uygundur.

AEEE yönetmeliğine Uygundur.

### Ukraine RoHS

Цим підтверджуємо, що продукція Леново відповідає вимогам нормативних актів України, які обмежують вміст небезпечних речовин

### India RoHS

RoHS compliant as per E-Waste (Management) Rules.

Mainland China RoHS

产品中有害物质的名称及含量

部件名称	有害物质					
	铅(Pb)	汞(Hg)	镉(Cd)	六价铬 (Cr(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
印刷电路板组件*	X	O	O	O	O	O
硬盘	X	O	O	O	O	O
光驱	X	O	O	O	O	O
内存	X	O	O	O	O	O
电脑I/O 附件	X	O	O	O	O	O
电源	X	O	O	O	O	O
键盘	X	O	O	O	O	O
鼠标	X	O	O	O	O	O
机箱/ 附件	X	O	O	O	O	O
液晶面板	X	O	O	O	O	O
电池	X	O	O	O	O	O
<p>本表格依据 SJ/T 11364 的规定编制。 O：表示该有害物质在该部件所有均质材料中的含量均在 GB/T 26572 规定的限量要求以下。 X：表示该有害物质至少在该部件的某一均质材料中的含量超出 GB/T 26572 规定的限量要求。 注：表中标记“X”的部件，皆因全球技术发展水平限制而无法实现有害物质的替代。 印刷电路板组件*：包括印刷电路板及其零部件、电容和连接器。 根据型号的不同，可能不会含有以上的所有部件，请以实际购买机型为准。</p> <div><p>在中华人民共和国境内销售的电子信息产品必须标识此标志，标志内的数字代表在正常使用状态下的产品的环保使用期限。</p></div>						

中国大陆 RoHS 合格评定制度标识

依照《电器电子产品有害物质限制使用合格评定制度实施安排》，《绿色产品标识使用管理办法》以及市场监管总局关于明确电器电子产品有害物质限制使用合格评定制度“供方符合性标志”的公告中对于合格评定标识的相关要求，联想公司针对纳入《电器电子产品有害物质限制使用达标管理目录》内的产品，使用自我声明的合格评定方式，并使用如下合格评定标识：



## Taiwan RoHS

### 臺灣 RoHS - 個人電腦

單元	限用物質及其化學符號					
	鉛 (Pb)	汞 (Hg)	鎘 (Cd)	六價鉻 (Cr <sup>+6</sup> )	多溴聯苯 (PBB)	多溴二苯醚 (PBDE)
印刷電路板組件	—	○	○	○	○	○
硬碟	—	○	○	○	○	○
光碟機(選配件)	—	○	○	○	○	○
記憶體	—	○	○	○	○	○
電源供應器	—	○	○	○	○	○
鍵盤(選配件)	—	○	○	○	○	○
滑鼠(選配件)	—	○	○	○	○	○
機殼	—	○	○	○	○	○
配件(電源線)	—	○	○	○	○	○
散熱模組	—	○	○	○	○	○

備考1. “超出0.1 wt %”及“超出0.01 wt %”係指限用物質之百分比含量超出百分比含量基準值。

備考2. “○”係指該項限用物質之百分比含量未超出百分比含量基準值。

備考3. “—”係指該項限用物質為排除項目。

### 臺灣 RoHS - 一體機

單元	限用物質及其化學符號					
	鉛 (Pb)	汞 (Hg)	鎘 (Cd)	六價鉻 (Cr <sup>+6</sup> )	多溴聯苯 (PBB)	多溴二苯醚 (PBDE)
印刷電路板組件	—	○	○	○	○	○
硬碟	—	○	○	○	○	○
光碟機(選配件)	—	○	○	○	○	○
記憶體	—	○	○	○	○	○
電腦I/O配件	—	○	○	○	○	○
電源供應器	—	○	○	○	○	○
鍵盤(選配件)	—	○	○	○	○	○
滑鼠(選配件)	—	○	○	○	○	○
機殼	—	○	○	○	○	○
螢幕	—	○	○	○	○	○
配件(電源線)	—	○	○	○	○	○
散熱模組	—	○	○	○	○	○

備考1. “超出0.1 wt %”及“超出0.01 wt %”係指限用物質之百分比含量超出百分比含量基準值。

備考2. “○”係指該項限用物質之百分比含量未超出百分比含量基準值。

備考3. “—”係指該項限用物質為排除項目。

## Electromagnetic emission notices

### Federal Communications Commission (FCC) Supplier's Declaration of Conformity

The following information refers to ThinkSmart Hub, machine types: 11H0, 11H1, 11H2, 11H3, 11HG, and 11HH.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult an authorized dealer or service representative for help.

Lenovo is not responsible for any radio or television interference caused by using other than recommended cables and connectors or by unauthorized changes or modifications to this equipment. Unauthorized changes or modifications could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Responsible Party:

Lenovo (United States) Incorporated  
8001 Development Drive  
Morrisville, NC 27560  
Email: FCC@lenovo.com



## Industry Canada compliance statement

CAN ICES-003(B) / NMB-003(B)

## European Union / United Kingdom (UK) conformity

### European Union (EU) / United Kingdom (UK) — Electromagnetic Compatibility Compliance

This product is in conformity with the protection requirements of EU Council Directive 2014/30/EU on the approximation of the laws of the Member States, as well as UK SI 2016 No. 1091 with amendments, relating to the electromagnetic compatibility limits for Class B equipment. These Class B requirements are intended to offer adequate protection to broadcast services within residential environments.

**EU ErP (EcoDesign) Directive (2009/125/EC) - external power adapters (Regulation (EU) 2019/1782), Ecodesign for Energy-Related Products Regulations 2010 - UK SI 2010 No. 2617 (Ext PSU), SI 2020 No. 485 (Ntwk Standby), SI 2014 No. 1290 as amended**

Lenovo products are compliant with the EU EcoDesign (ErP) Directive and UK EcoDesign for Energy-related Products Regulations. Refer to the following for details. For EU, refer to the system declaration <https://www.lenovo.com/us/en/compliance/eu-doc>, and for UK refer to the system declaration <https://www.lenovo.com/us/en/compliance/uk-doc>.

## German Class B compliance statement

*Hinweis zur Einhaltung der Klasse B zur elektromagnetischen Verträglichkeit*

Dieses Produkt entspricht den Schutzanforderungen der EU-Richtlinie zur elektromagnetischen Verträglichkeit Angleichung der Rechtsvorschriften über die elektromagnetische Verträglichkeit in den EU-Mitgliedsstaaten und hält die Grenzwerte der Klasse B der Norm gemäß Richtlinie.

Um dieses sicherzustellen, sind die Geräte wie in den Handbüchern beschrieben zu installieren und zu betreiben. Des Weiteren dürfen auch nur von der Lenovo empfohlene Kabel angeschlossen werden. Lenovo übernimmt keine Verantwortung für die Einhaltung der Schutzanforderungen, wenn das Produkt ohne Zustimmung der Lenovo verändert bzw. wenn Erweiterungskomponenten von Fremdherstellern ohne Empfehlung der Lenovo gesteckt/eingebaut werden.

Zulassungsbescheinigung laut dem Deutschen Gesetz über die elektromagnetische Verträglichkeit von Betriebsmitteln, EMVG vom 20. Juli 2007 (früher Gesetz über die elektromagnetische Verträglichkeit von Geräten), bzw. der EU Richtlinie 2014/30/EU, der EU Richtlinie 2014/53/EU Artikel 3.1b), für Geräte der Klasse B.

Dieses Gerät ist berechtigt, in Übereinstimmung mit dem Deutschen EMVG das EG-Konformitätszeichen - CE - zu führen. Verantwortlich für die Konformitätserklärung nach Paragraf 5 des EMVG ist die Lenovo (Deutschland) GmbH, Meitnerstr. 9, D-70563 Stuttgart.

## Japan VCCI Class B compliance statement

この装置は、クラスB機器です。この装置は、住宅環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。  
取扱説明書に従って正しい取り扱いをして下さい。

VCCI-B

## Japan compliance statement for products which connect to the power mains with rated current less than or equal to 20 A per phase

日本の定格電流が 20A/相 以下の機器に対する高調波電流規制  
高調波電流規格 JIS C 61000-3-2 適合品

## Japan notice for ac power cord

The ac power cord shipped with your product can be used only for this specific product. Do not use the ac power cord for other devices.

本製品およびオプションに電源コード・セットが付属する場合は、それぞれ専用のものになっていますので他の電気機器には使用しないでください。

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## Other compliance information of countries and regions

This section provides other compliance information about Lenovo products.

## Certification-related information

**Product name:** ThinkSmart Hub

**Machine types:** 11H0, 11H1, 11H2, 11H3, 11HG, and 11HH

The latest compliance information is available at:  
<https://www.lenovo.com/us/en/compliance>

## Export classification notice

This product is subject to the United States Export Administration Regulations (EAR) and has an Export Classification Control Number (ECCN) of 5A992.c. It can be re-exported except to any of the embargoed countries in the EAR E1 country list.

## Lenovo product service information for Taiwan

進口商/委製商：台灣聯想環球科技股份有限公司  
進口商地址：台北市南港區三重路66號8樓  
進口商電話：0800-000-702（代表號）

## Taiwan precautionary vision statement

警語：使用過度恐傷害視力

注意事項：

- 使用30分鐘請休息10分鐘。
- 未滿2歲幼兒不看螢幕，2歲以上每天看螢幕不要超過1小時。

## Keyboard and mouse compliance statement for Taiwan

本產品隨貨附已取得經濟部標準檢驗局認可之PS/2或USB的鍵盤與滑鼠一組

## Eurasian compliance mark



## Brazil audio notice

Ouvir sons com mais de 85 decibéis por longos períodos pode provocar danos ao sistema auditivo.





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## Appendix D. Notices and trademarks

### Notices

Lenovo may not offer the products, services, or features discussed in this document in all countries. Consult your local Lenovo representative for information on the products and services currently available in your area. Any reference to a Lenovo product, program, or service is not intended to state or imply that only that Lenovo product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any Lenovo intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any other product, program, or service.

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*Lenovo (United States), Inc.  
8001 Development Drive  
Morrisville, NC 27560  
U.S.A.  
Attention: Lenovo Director of Licensing*

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Changes are made periodically to the information herein; these changes will be incorporated in new editions of the publication. To provide better service, Lenovo reserves the right to improve and/or modify the products and software programs described in the manuals included with your Hub, and the content of the manual, at any time without additional notice.

The software interface and function and hardware configuration described in the manuals included with your Hub might not match exactly the actual configuration of the Hub that you purchase. For the configuration of the product, refer to the related contract (if any) or product packing list, or consult the distributor for the product sales. Lenovo may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you.

The products described in this document are not intended for use in implantation or other life support applications where malfunction may result in injury or death to persons. The information contained in this document does not affect or change Lenovo product specifications or warranties. Nothing in this document shall operate as an express or implied license or indemnity under the intellectual property rights of Lenovo or third parties. All information contained in this document was obtained in specific environments and is presented as an illustration. The result obtained in other operating environments may vary.

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Any references in this publication to non-Lenovo Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web sites. The materials at those Web sites are not part of the materials for this Lenovo product, and use of those Web sites is at your own risk.

Any performance data contained herein was determined in a controlled environment. Therefore, the result obtained in other operating environments may vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurements may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

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For the latest information or any questions or comments, contact or visit the Lenovo Web site:

<https://smartsupport.lenovo.com/>

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**Lenovo**