



# User Guide

**Lenovo N22-20 Chromebook**





# User Guide

**Lenovo N22-20 Chromebook**

**First Edition (January 2016)**

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## Read this first

Be sure to follow the important tips given here to continue to get the most use and enjoyment out of your computer. Failure to do so might lead to discomfort or injury, or cause your computer to fail.

### Protect yourself from the heat that your computer generates.



When your computer is turned on or the battery is charging, the base, the palm rest, and some other parts may become hot. The temperature they reach depends on the amount of system activity and the level of charge in the battery.

Extended contact with your body, even through clothing, could cause discomfort or even a skin burn.

- Avoid keeping your hands, your lap, or any other part of your body in contact with a hot section of the computer for any extended time.
- Periodically take hands from using the keyboard by lifting your hands from the palm rest.

### Protect yourself from the heat generated by the ac power adapter.



When the ac power adapter is connected to an electrical outlet and your computer, it generates heat.

Extended contact with your body, even through clothing, may cause a skin burn.

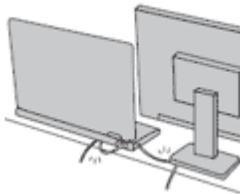
- Do not place the ac power adapter in contact with any part of your body while it is in use.
- Never use it to warm your body.

### Prevent your computer from getting wet.



To avoid spills and the danger of electrical shock, keep liquids away from your computer.

### Protect the cables from being damaged.



Applying strong force to cables may damage or break them.

Route communication lines, or the cables of an ac power adapter, a mouse, a keyboard, a printer, or any other electronic device, so that they cannot be walked on, tripped over, pinched by your computer or other objects, or in any way subjected to treatment that could interfere with the operation of your computer.

### Handle your computer gently.



Do not drop, bump, scratch, twist, hit, vibrate, push, or place heavy objects on your computer, display, or external devices.

### Carry your computer carefully.



- Use a quality carrying case that provides adequate cushioning and protection.
- Do not pack your computer in a tightly packed suitcase or bag.
- Before putting your computer in a carrying case, make sure that it is off, in sleep mode, or in hibernation mode. Do not put a computer in a carrying case while it is turned on.

## Important safety information

This information can help you safely use your notebook personal computer. Follow and retain all information included with your computer. The information in this document does not alter the terms of your purchase agreement or the Lenovo® Limited Warranty.

Customer safety is important. Our products are developed to be safe and effective. However, personal computers 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 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 computer work environment.

### 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. Or you might hear sounds like popping, cracking or hissing. These conditions might merely mean that an internal electronic component has failed in a safe and controlled manner. Or, they might indicate a potential safety issue. However, 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, go to the following Web site:  
<http://www.lenovo.com/support/phone>**

**Frequently inspect your computer and its components for damage or 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 computer product, the power cord or power adapter.
- The computer 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.

## Safety guidelines

Always observe the following precautions to reduce the risk of injury and property damage.

### 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 computer 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 make sure 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.

#### CAUTION:



**Before replacing any CRUs, turn off the computer and wait three to five minutes to let the computer cool before opening the cover.**

## 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 H05VV-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.

## 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



**DANGER**

If a receptacle (power outlet) that you intend to use with your computer 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 computer, 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

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

## General battery notice



Personal computers manufactured by Lenovo contain a coin cell battery to provide power to the system clock. In addition, many mobile products, such as notebook computers, utilize a rechargeable battery pack to provide system power when in portable mode. Batteries supplied by Lenovo for use with your product have been tested for compatibility and should only be replaced with approved parts.

Never attempt to open or service any battery. Do not crush, puncture, or incinerate batteries or short circuit the metal contacts. Do not expose the battery to water or other liquids. Only recharge the battery pack strictly according to instructions included in the product documentation.

Battery abuse or mishandling can cause the battery to overheat, which can cause gasses or flame to “vent” from the battery pack or coin cell. If your battery is damaged, or if you notice any discharge from your battery or the buildup of foreign materials on the battery leads, stop using the battery and obtain a replacement from the battery manufacturer.

Batteries can degrade when they are left unused for long periods of time. For some rechargeable batteries (particularly Lithium Ion batteries), leaving a battery unused in a discharged state could increase the risk of a battery short circuit, which could shorten the life of the battery and also can pose a safety hazard. Do not let rechargeable Lithium-Ion batteries completely discharge or store these batteries in a discharged state.

## Rechargeable battery notice



Do not attempt to disassemble or modify the battery pack. Attempting to do so can cause an explosion, or liquid leakage from the battery pack. A battery pack other than the one specified by Lenovo, or a disassembled or modified battery pack is not covered by the warranty.

If the rechargeable battery pack is incorrectly replaced, there is danger of an explosion. The battery pack contains a small amount of harmful substances. To avoid possible injury:

- Replace only with a battery of the type recommended by Lenovo.
- Keep the battery pack away from fire.
- Do not expose it to water or rain.
- Do not attempt to disassemble it.
- Do not short-circuit it.
- Keep it away from children.
- Do not drop the battery pack.

Do not put the battery pack in trash that is disposed of in landfills. When disposing of the battery, comply with local ordinances or regulations.

The battery pack should be stored at room temperature, charged to approximately 30 to 50% of capacity. We recommend that battery pack be charged about once per year to prevent overdischarge.

## Lithium coin cell battery notice



**Danger of explosion if battery is incorrectly replaced.**

When replacing the lithium coin cell battery, use only the same or an equivalent type that is recommended by the manufacturer. The battery contains lithium and can explode if not properly used, handled, or disposed of.

**Do not:**

- Throw or immerse into water
- Heat to more than 100°C (212°F)
- Repair or disassemble

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 [www.dtsc.ca.gov/hazardouswaste/perchlorate](http://www.dtsc.ca.gov/hazardouswaste/perchlorate)

**Heat and product ventilation**



Computers, ac power adapters, and many accessories can generate heat when turned on and when batteries are charging. Notebook computers can generate a significant amount of heat due to their compact size. Always follow these basic precautions:

- When your computer is turned on or the battery is charging, the base, the palm rest, and some other parts may become hot. Avoid keeping your hands, your lap, or any other part of your body in contact with a hot section of the computer for any extended length of time. When you use the keyboard, avoid keeping your palms on the palm rest for a prolonged period of time. Your computer generates some heat during normal operation. The amount of heat depends on the amount of system activity and the battery charge level. Extended contact with your body, even through clothing, could cause discomfort or even a skin burn. Periodically take breaks from using the keyboard by lifting your hands from the palm rest; and be careful not to use the keyboard for any extended length of time.
- Do not operate your computer or charge the battery near flammable materials or in explosive environments.
- Ventilation slots, fans and/or 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.
- When the ac power adapter is connected to an electrical outlet and your computer, it generates heat. Do not place the adapter in contact with any part of your body while using it. Never use the ac power adapter to warm your body. Extended contact with your body, even through clothing, may cause a skin burn.

For your safety, always follow these basic precautions with your computer:

- Keep the cover closed whenever the computer is plugged in.
- Regularly inspect the outside of the computer for dust accumulation.
- Do not operate your computer inside furniture, as this might increase the risk of overheating.

- Airflow temperatures into the computer should not exceed 35°C (95°F).

## Electrical current safety information



**DANGER**

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

To avoid a shock hazard:

- Do not use your computer 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 to properly wired outlets 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 pack, and all the cables before you open the device covers, unless instructed otherwise in the installation and configuration procedures.
- Do not use your computer until all internal parts enclosures are fastened into place. Never use the computer 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 computer.

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

## Liquid crystal display (LCD) notice

### CAUTION:

For products with mercury-containing fluorescent lamps (for example, non-LED)

- The fluorescent lamp in the liquid crystal display contains mercury; dispose of according to local, state, or federal laws.
- The LCD is made of glass, and rough handling or dropping the computer can cause the LCD to break. If the LCD breaks and the internal fluid gets into your eyes or on your hands, immediately

wash the affected areas with water for at least 15 minutes; if any symptoms are present after washing, get medical care.

## Using headphones or earphones

### CAUTION:

**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 computer complies with EN 50332-2 Sub clause 7. This specification limits the computer'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) for 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 computer came with headphones or earphones in the package, as a set, the combination of the headphones or earphones and the computer 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.

## Additional safety information



### DANGER

**Plastic bags can be dangerous. Keep plastic bags away from babies and children to avoid danger of suffocation.**

## Safety instructions for teachers, parents and adult supervisors

This Chromebook computer is intended for use as a child development tool primarily by children, 6 years of age or above. There must be supervision by an adult. It is a must to have a thorough explanation to children on safe and proper handling of the computer, battery pack, and ac power adapter.



### DANGER

**Warning: Chocking Hazard – Small parts. Not suitable for children under age 3.**

- For ITE with power supplies not intended to be handled by children: As with all electrical products, precautions should be observed handling and use to prevent electric shock. The ac power adapter should not be handled by children.
- The computer should not be placed on the bare skin (lap) of the child for long periods. The computer should be placed on a flat surface, like desktop, if your child intends to use it for more than a few minutes.
- The computer (including the ac power adapter and the battery pack, as applicable) should not be left in the rain or subjected to exposure to water. If cleaning is necessary do not immerse it in water; wipe clean with damp cloth.
- The computer (including the ac power adapter and the battery pack, as applicable) should not be dropped, crushed (stepped on) or otherwise abused.
- An adult should caution his or her child about the potential trip hazard as posed by the cable between a power source and the computer.

An adult should inspect the computer (including the ac power adapter and the battery pack, as applicable) periodically for damage. Similarly, if a child notices damaged/broken parts, this should be reported to the teacher/parents/adult supervisors immediately. Damaged parts may be replaced through service provided by Lenovo.



**DANGER**

**ELECTRICALLY OPERATED PRODUCT. Not recommended for children under 3 years of age (or other intended age range). As with all electrical products, precautions should be observed during handling and use of electrical products to reduce the risk of electric shock.**

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## Chapter 1. Account, login, and logout

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### Types of user account for logging into Chrome

There are three types of user accounts you may use to log into Chrome.

Types of user account	Description
Google Account	<p>a user account that has access to a variety of Google Web services, including Gmail™, Google Drive, and Google Docs. Typically a Google Account is created when you apply for a Gmail account. A Google Account can be used to log into any Chrome-based device unless the account is restricted by the device's owner. For details, refer to "Control who can use your Chromebook" on page 3.</p> <p>The first Google Account logged into a Chrome-based device becomes the device's owner.</p> <p><b>Note:</b> If you don't have a Google Account, you can create one at <a href="http://www.google.com/accounts/NewAccount">http://www.google.com/accounts/NewAccount</a>.</p>
Guest account	<p>a special account for logging into Chrome. A Guest user has limited privilege and may only be used for temporary sharing of a Chrome-based device.</p> <p><b>Note:</b> Guest login may be disabled by a device's owner. For details, refer to "Disable guest login" on page 3.</p>
Supervised account	<p>a special account created by a Google Account (manager) logged into a Chrome-based device. A supervised account is device-specific and cannot be used to log into other Chrome-based device.</p> <p>The manager of a supervised user can review and control a supervised user's use of the Internet.</p>

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### Become your Chromebook's owner

When starting your Chromebook™ for the first time, you need to set the operating system language and keyboard, the Internet connection, and sign in with your Google® Account. The user of the first Google Account signed into a Chromebook becomes the device's owner.

**Note:** The owner of a Chromebook has permissions to enable (or disable) Guest account login and restrict login of certain Google Accounts.

Step 1. Start your Chromebook by lifting up the LCD cover.

Step 2. Select your local language and keyboard when prompted.

Step 3. Set up connection to your wireless router (or a wireless LAN) that has Internet access.

**Note:** This step cannot be skipped. You must have an Internet connection when starting your Chromebook for the first time.

Step 4. Sign in with your Google Account. If you don't have a Google Account, select **Create a Google Account** and follow the on-screen instructions to create one.

You're now your Chromebook's owner. To verify this, refer to "Check a Chromebook's owner" on page 3.

---

## Sign in with a Google Account other than the owner's

As the device owner, you may share your Chromebook with other people. They can use their Google Accounts to sign in and use your Chromebook.

Step 1. Start the Chromebook by lifting up the LCD cover.

Step 2. On the login screen, click **Add Users**.

Step 3. Type the Google Account user name and password to sign in.

**Note:** An Internet connection is required when signing in for the first time.

If you cannot sign in with your Google Account, your account may be restricted by the Chromebook owner. For details, refer to "Control who can use your Chromebook" on page 3.

---

## Browse as a guest

You may share your Chromebook with people who do not have a Google Account. They can use your Chromebook with a special guest account.

**Note:** Some operations such as installing apps are disabled if you log in as a guest.

Step 1. Start the Chromebook by lifting up the LCD cover.

Step 2. On the login screen, click **Browse as Guest**.

**Note:** If you cannot sign in, guest browsing may be disabled by the Chromebook owner.

---

## Create a supervised account

You may need to create a supervised account for your child to use your Chromebook. As the manager of a supervised account, you have the ability to review and control their use of the Internet.

Step 1. Start the Chromebook by lifting up the LCD cover.

Step 2. On the login screen, click the ... icon and then click **Add supervised user**.

**Note:** You can only create a supervised account when your Chromebook is connected to the Internet.

Step 3. Select the manager of the supervised user and provide your password.

Step 4. Create the name and password for the supervised user.

To change restriction settings for the supervised user, go to [www.chrome.com/manage](http://www.chrome.com/manage).

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## Lock your Chromebook

If you need to temporarily leave your Chromebook, lock it so others cannot tamper with your settings or files.

- Step 1. Click the status bar.
- Step 2. Click the lock icon.

---

## Sign out

If you or others need to sign in with another account, sign out of current login session.

- Step 1. Click the status area.
- Step 2. Click **Sign out**.

---

## Control who can use your Chromebook

By default, anyone with a valid Google Account can sign in to a Chromebook. However, as a Chromebook owner, you can set up permissions to only allow people with certain accounts to sign in.

- Step 1. Start the Chromebook by lifting up the LCD cover.
- Step 2. Sign in with the owner's Google Account.

**Note:** If you're not sure who is the Chromebook's owner, refer to "Check a Chromebook's owner" on page 3.

- Step 3. Click the status area in the lower-right corner and then click **Settings**.
- Step 4. Under **People**, click **Manage other users**.
- Step 5. Check **Restrict sign-in to the following users** and add the Google Accounts that you want to give permission.

---

## Check a Chromebook's owner

Typically, the user of the first Google Account signed in is set as a Chromebook's owner. However, if you're not sure whether you're the owner, you can follow the steps below to check a Chromebook's owner.

- Step 1. Sign in with your Google Account.
- Step 2. Click the status bar in the lower-right corner and then click **Settings**.
- Step 3. Under **People**, click **Manage other users**.

If you're not the owner of the Chromebook, you will get a warning message that the settings may only be modified by the device owner. The user name of the owner is also displayed.

---

## Disable guest login

As a Chromebook's owner, you can disable guest login for security concerns.

- Step 1. Start the Chromebook by lifting up the LCD cover.
- Step 2. Click the status area in the lower-right corner and then click **Settings**.
- Step 3. Under **People**, click **Manage other users**.
- Step 4. De-select **Enable Guest browsing**.

---

## Reset your Chromebook

If you need to transfer ownership of your Chromebook or if you experienced problems with the operating system, you might need to reset your Chromebook.

**Important:** After resetting your Chromebook, user data for all accounts stored locally will be deleted. Back up important data to Google Drive or external storage devices before resetting your Chromebook.

- Step 1. Click the status bar in the lower-right corner.
- Step 2. Click **Settings** and then click **Show advanced settings**.
- Step 3. Under **Powerwash**, click **Powerwash** and then click **Restart**.

---

## Shut down your Chromebook

When you finish working with your Chromebook, shut it down to save power.

- Step 1. Click the status area.
- Step 2. Click the shutdown button.

**Note:** As a shortcut, press and hold the Power button (located on the far upper-right of your Chromebook keyboard) for more than three seconds and then release the button.

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## Get help from Google

After signing in to your Chromebook, click **Get Help** from the Apps launcher. The **Get Help** app provides comprehensive instructions on using a Chromebook.

In addition, Google provides an online community for Chromebook users. If you're interested, go to <http://chromebook.com/community>.

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## Chapter 2. Manage files and folders

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### What is Google Drive

Google Drive is a server-based file storage and sharing service provided by Google. By creating a Google Account, you get an initial free storage space where you can save files of various formats. From your Chromebook, you can use the Google Drive app or the Files app to create and manage files on your online storage space.

**Note:** The Google Drive client software is available for Windows®, Android™, OSX and iOS. If you have devices running those operating systems, you can download and install Google Drive on these devices. Google Drive provides a convenient way of sharing files between devices. You can also find your files online by visiting: <http://drive.google.com>.

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### Your local storage space

Each Google Account signed in to a Chromebook is assigned a local storage space, in a folder named Downloads. Each Google Account has its own Downloads. You can only view and edit files in your own Downloads folder.

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### The Files app

Your Chromebook has a Files app for you to manage files and folders on your local storage device, a connected external storage device, or Google Drive. The Files app can be started from the Apps Launcher.

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### Create folders using the Files app

You can create folders and sub-folders for better management of files.

- Step 1. Start the Files app from the Apps launcher.
- Step 2. On the left pane, select a storage space where you want to save files.

**Note:** A storage space may reside on your local storage device, a connected external storage device, or Google Drive.

- Step 3. Click the settings button in the upper right corner and then click **New folder**.

---

### Delete unused files

In some cases, you may need to delete unused files to free storage space.

- Step 1. Start the Files app from the Apps launcher.
- Step 2. On the left pane, select the storage space and then navigate to the folder where unused files are stored.
- Step 3. Select unused files and then click the delete button (  ) in the lower right corner.

---

### Check the amount of available storage

If you have failed saving a large-size file, you may need to check the amount of available storage and then decide if you need to delete unused files to free more storage.

- Step 1. Start the Files app from the Apps launcher.
- Step 2. On the left pane, select a storage space.
- Step 3. Click the settings button in the upper right corner. The amount of available storage is displayed.

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## Chapter 3. Language settings

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### Change display language

When starting your Chromebook for the first time, you're prompted to select the display language. This setting can be changed at a later time if you need to use a different language.

- Step 1. Sign in to your Chromebook with your Google Account.
- Step 2. Click the status area in the lower-right corner and then click **Settings**.
- Step 3. Click **Show advanced settings** and then click **Language and input settings**.
- Step 4. Select the language you want to use and then click **Display Google Chrome in this language**.

**Note:** If the language you want to use isn't shown in the list, click **Add**.

You need to sign out and then sign in for the changes to take effect.

**Note:** Each signed-in user may set their own display language.

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### Add an input method

You may need to add an input method to type text in a particular language.

- Step 1. Sign in to your Chromebook with your Google Account.
- Step 2. Click the status area in the lower-right corner and then click **Settings**.
- Step 3. Click **Show advanced settings** and then click **Language and input settings**.
- Step 4. From the **Languages** list, select the language for which you want to add an input method. Available input methods are displayed to the right.

**Note:** If the language you want to use isn't shown in the list, click **Add**.

- Step 5. Select the check box preceding the input method you want to add.
- 

### Switch among input methods

If you have added input methods, you may need to switch among them.

- Step 1. Click the status area in the lower-right corner and then click the name of the current input method. The list of available input methods is displayed. If you don't find your desired input method in the list, refer to "Add an input method" on page 7.
- Step 2. Click the name of your desired input method.

**Notes:** As a shortcut, use key combinations to switch among input methods.

- Alt + Shift to switch among available input methods.
- Ctrl + Space to switch to your previous input method.



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## Chapter 4. Add and manage apps

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### What is Chrome Web Store

Chrome™ Web Store is a Web resource that provides apps and extensions dedicated for your Chromebook and the Chrome browser.

**Note:** Extensions are add-on features for the Chrome browser. Most of the apps and extension available on the Chrome Web Store are free but some may require payment.

You can access the Chrome Web Store by either of the following ways:

- Click the Web Store icon from the Apps launcher.
- Visit <http://chrome.google.com/webstore> directly using the Chrome browser.

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### Add apps or extensions

Step 1. Click the Apps launcher in the lower left corner and then click **Web Store**.

Step 2. Within the store, find your app or extension by typing keywords or searching the list by category.

Step 3. Click the add icon and then click **Add**.

Most of the apps for your Chromebook are Web based and do not require installation. After adding apps, shortcuts to the apps are pinned to the Apps launcher.

**Note:** If you sign in to different Chromebooks with the same Google Account, apps you added on one Chromebook are synchronized on other Chromebooks.



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## Chapter 5. CRU service

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### What is CRU and CRU service

A CRU (customer replaceable unit) is a service part that can be replaced by the customer in order to fix a computer problem. There are two types of CRUs:

**Self-service CRUs**

Customers are responsible for removing and replacing CRUs.

**Optional-service CRUs**

Customers may either replace CRUs on their own or request Lenovo or its Service Provider to do it for them.

CRU service is a service provided by Lenovo or its Service Provider. Under CRU service, Lenovo or its Service Provider ships CRUs to the customer. The customer is responsible for removing and then installing CRUs according to instructions provided here or the instructions accompanying the CRUs. The customer may be required to return the defective part that is replaced by the replacement. When return is required:

- return instructions, a prepaid return shipping label, and a container will be included with the replacement CRU.
- the customer may be charged for the replacement CRU if the Service Provider does not receive the defective CRU within thirty days of the customer's receipt of the replacement CRU.

**Note:** CRU service is not available for all countries or regions.

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### CRUs for Lenovo N22–20 Chromebook

This section lists CRUs for Lenovo N21 Chromebook and where you can find instructions for replacing the CRUs.

CRUs	Types	Publication containing instructions
ac power adapter	Self-service	<i>Safety, warranty, and setup guide</i>

**Note:** *Safety, warranty, and setup guide* is a printed publication accompanying your Chromebook.



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## Appendix A. Features and specifications

Features and specifications are subject to change without notice.

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### Specifications

	Lenovo N22-20 Chromebook
MTM	80SF
Dimensions	300.4 mm x 212 mm x 21.8 mm
Weights	1.25 Kg
CPU	Intel Braswell
Swivel camera	1280 x 720 pixels
<b>LCD</b>	
Size	11.6 inch
Resolutions	1366 x 768 pixels
Backlight type	LED
<b>Memory</b>	
Type/speed	DDR3L
Capacity	2 GB/4 GB
Expandable	No
<b>Storage</b>	
Type	eMMC
Form factor	eMMC
Capacity	16/32 GB
<b>Battery pack</b>	
Type	Lithium-ion
Cells and capacity	3 cells, 45 Wh*
* The capacity given here is the typical or average capacity as measured in a specific test environment. Capacities measured in other environments may differ but are no lower than the rated capacity (see product label).	
<b>ac adapter</b>	
Input	100 – 240 V ac, 50 – 60 Hz
Output	20V dc
Power	45 W
<b>I/O ports</b>	
Video/audio	HDMI—out x 1
Audio	Combo audio jack x 1, speakers x 2, microphone hole x 1
USB	USB 3.0 x 2 (capable of charging connected device when the Chromebook is in sleep or powered-off state)
Memory card	SD/MMC reader x 1



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## Appendix B. Regulatory information

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### Electronic emission notices

The following information applies to Lenovo N22-20 Chromebook with machine type 80SF.

### Federal Communications Commission (FCC) Declaration of Conformity

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 specified or 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  
1009 Think Place - Building One  
Morrisville, NC 27560  
Phone Number: 919-294-5900



### Industry Canada Class B emission compliance statement

CAN ICES-3(B)/NMB-3(B)

### European Union - compliance to the Electromagnetic Compatibility Directive

This product is in conformity with the protection requirements of EU Council Directive 2004/108/EC on the approximation of the laws of the Member States relating to electromagnetic compatibility. 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 Information Technology Equipment according to European Standard EN 55022. The limits for Class B equipment were derived for typical residential environments to provide reasonable protection against interference with licensed communication devices.

EU contact: Lenovo, Einsteinova 21, 851 01 Bratislava, Slovakia



## German Class B compliance statement

### Deutschsprachiger EU Hinweis:

#### Hinweis für Geräte der Klasse B EU-Richtlinie zur Elektromagnetischen Verträglichkeit

Dieses Produkt entspricht den Schutzanforderungen der EU-Richtlinie 2004/108/EG (früher 89/336/EWG) zur Angleichung der Rechtsvorschriften über die elektromagnetische Verträglichkeit in den EU-Mitgliedsstaaten und hält die Grenzwerte der EN 55022 Klasse B ein.

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.

#### Deutschland:

#### Einhaltung des Gesetzes über die elektromagnetische Verträglichkeit von Betriebsmitteln

Dieses Produkt entspricht dem „Gesetz über die elektromagnetische Verträglichkeit von Betriebsmitteln“ EMVG (früher „Gesetz über die elektromagnetische Verträglichkeit von Geräten“). Dies ist die Umsetzung der EU-Richtlinie 2004/108/EG (früher 89/336/EWG) in der Bundesrepublik Deutschland.

#### 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 EMV EG Richtlinie 2004/108/EC (früher 89/336/EWG), 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.

Informationen in Hinsicht EMVG Paragraf 4 Abs. (1) 4:

**Das Gerät erfüllt die Schutzanforderungen nach EN 55024 und EN 55022 Klasse B.**

## Korea Class B compliance statement

이 기기는 가정용(B급) 전자파적합기기로서 주로 가정에서 사용하는 것을 목적으로 하며, 모든 지역에서 사용할 수 있습니다.

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## Wireless related information

### Wireless interoperability

The Wireless LAN PCI Express Mini Card is designed to be interoperable with any wireless LAN product that is based on DSSS, CCK, and/or OFDM radio technology, and is compliant to:

- The 802.11b/g Standard, 802.11a/b/g or 802.11n draft 2.0 on Wireless LANs, as defined and approved by the Institute of Electrical and Electronics Engineers.
- The WiFi certification as defined by the Wi-Fi Alliance.

Your Bluetooth card is compliant to Bluetooth Specification 4.0 as defined by the Bluetooth Special Interest Group SIG, it supports the following profiles:

- Advanced Audio Distribution Profile (A2DP)
- Audio/Video Control Transport Protocol (AVCTP)
- Audio/Video Distribution Transport Protocol (AVDTP)
- A/V Remote Control Profile (AVRCP)
- Basic Imaging Profile (BIP)
- Basic Printing Profile (BPP)
- Dial-Up Networking Profile (DUN)
- File Transfer Profile (FTP)
- Generic Access Profile (GAP)
- Generic A/V Distribution Profile (GAVDP)
- Hardcopy Cable Replacement Profile (HCRP)
- Headset Profile (HSP)
- Hands-Free Profile (HFP)
- Human Interface Device Profile (HID)
- Message Access Profile (MAP)
- Object Exchange Protocol (OBEX)
- Object Push Profile (OPP)
- Personal Area Networking Profile (PAN)
- Phone Book Access Profile (PBAP)
- Service Discovery Protocol (SDP)
- Synchronization Profile (SYNC)
- Video Distribution Profile (VDP)
- Generic Attribute Profile (GATT)
- Proximity Profile
- Find Me Profile
- Immediate Alert Profile
- Battery Status Profile

## Usage environment and your health

Integrated wireless cards emit radio frequency electromagnetic energy like other radio devices. However, the level of energy emitted is far much less than the electromagnetic energy emitted by wireless devices like for example mobile phones.

Due to the fact that integrated wireless cards operate within the guidelines found in radio frequency safety standards and recommendations, Lenovo believes they are safe for use by consumers. These standards and recommendations reflect the consensus of the scientific community and result from deliberations of panels and committees of scientists who continually review and interpret the extensive research literature.

In some situation or environment, the use of integrated wireless cards may be restricted by the proprietor of the building or responsible representatives of the organization. These situations and areas may for example include:

- Using the integrated wireless cards on board of airplanes, in hospitals or near petrol stations, blasting areas (with electro-explosive devices), medical implants or body-worn electronic medical devices, such as pace makers.
- In any other environment where the risk of interference to other devices or services is perceived or identified as harmful.

If you are uncertain of the policy that applies to the use of wireless devices in a specific organization (such as airport or hospital), you are encouraged to ask for authorization to use integrated wireless cards prior to turning on the computer.

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## ENERGY STAR model information



ENERGY STAR® is a joint program of the U.S. Environmental Protection Agency and the U.S. Department of Energy aimed at saving money and protecting the environment through energy efficient products and practices.

Lenovo is proud to offer our customers products with the ENERGY STAR qualified designation. Lenovo computers of the following machine types, if the ENERGY STAR mark is affixed, have been designed and tested to conform to the ENERGY STAR program requirements for computers.

80SF

By using ENERGY STAR qualified products and taking advantage of the power-management features of your computer, you can help reduce the consumption of electricity. Reduced electrical consumption can contribute to potential financial savings, a cleaner environment, and the reduction of greenhouse gas emissions.

For more information about ENERGY STAR, go to:  
<http://www.energystar.gov>

Lenovo encourages you to make efficient use of energy an integral part of your day-to-day operations. To help in this endeavor, Lenovo has preset the following power-management features to take effect when your computer has been inactive for a specified length of time:

Table 1. ENERGY STAR power-management features

Default power saving settings (on ac power)
<ul style="list-style-type: none"><li>• Turn off the display: After 8 minutes</li><li>• Put the computer to sleep: After 30 minutes</li></ul>

To awaken your Chromebook from the sleep mode, press the Power button.

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## **Brazil regulatory notice**

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

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## **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.



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## Appendix C. WEEE and recycling statements

Lenovo encourages owners of information technology 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. Information on product recycling offerings can be found on Lenovo's Internet site at <http://www.lenovo.com/recycling>.

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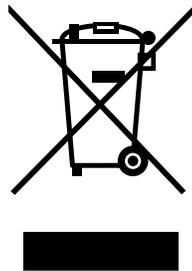
### China WEEE statement

《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>

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### Important WEEE information



The WEEE marking on Lenovo products applies to countries with WEEE and e-waste regulations (for example, European Directive 2002/96/EC, India E-Waste Management & Handling Rules, 2011). Appliances are labeled in accordance with local regulations concerning waste electrical and electronic equipment (WEEE). These regulations determine the framework for the return and recycling of used appliances 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 collective systems for reclaiming these end of life products.

Users of electrical and electronic equipment (EEE) with the WEEE marking must not dispose of end of life EEE as unsorted municipal waste, but use the collection framework available to them for the return, recycle, and recovery of WEEE and to minimize any potential effects of EEE 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.

For additional WEEE information go to: <http://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.

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## Battery recycling information for Taiwan

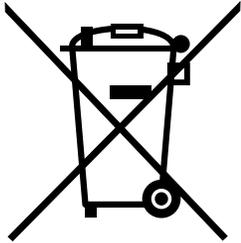


廢電池請回收

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## Battery recycling information for the European Union

EU



**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. For proper collection and treatment, go to:  
<http://www.lenovo.com/lenovo/environment>

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## Japan recycling statements

### Collecting and recycling a disused Lenovo computer or monitor

If you are a company employee and need to dispose of a Lenovo computer 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. Computers 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 computers and monitors. For details, visit the Lenovo Web site at: [http://www.lenovo.com/services\\_warranty/jp/ja/recycle/pcrecycle/](http://www.lenovo.com/services_warranty/jp/ja/recycle/pcrecycle/).

Pursuant to the Law for Promotion of Effective Utilization of Resources, the collecting and recycling of home-used computers and monitors by the manufacturer was begun on October 1, 2003. This service is provided free of charge for home-used computers sold after October 1, 2003. For details, go to [http://www.lenovo.com/services\\_warranty/jp/ja/recycle/personal/](http://www.lenovo.com/services_warranty/jp/ja/recycle/personal/).

### **Disposing of Lenovo computer components**

Some Lenovo computer 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 computer or monitor.

### **Disposing of disused lithium batteries from Lenovo computers**

A button-shaped lithium battery is installed on the system board of your Lenovo computer to provide power to the computer clock while the computer is off or disconnected from the main power source. If you want to replace it with a new one, contact your place of purchase or ask for a repair service provided by Lenovo. If you have replaced it by yourself and want to dispose of the disused lithium battery, insulate it with vinyl tape, contact your place of purchase, and follow their instructions. If you use a Lenovo computer at home and need to dispose of a lithium battery, you must comply with local ordinances and regulations.

### **Disposing of a disused battery pack from Lenovo notebook computers**

Your Lenovo notebook computer has a lithium ion battery pack or a nickel metal hydride battery pack. If you are a company employee who uses a Lenovo notebook computer and need to dispose of a battery pack, contact the proper person in Lenovo sales, service, or marketing, and follow that person's instructions. You also can refer to the instructions at <http://www.lenovo.com/jp/ja/environment/recycle/battery/>. If you use a Lenovo notebook computer at home and need to dispose of a battery pack, you must comply with local ordinances and regulations. You also can refer to the instructions at <http://www.lenovo.com/jp/ja/environment/recycle/battery/>.



## Appendix D. Restriction of Hazardous Substances Directive (RoHS)

### India RoHS

RoHS compliant as per E-Waste (Management & Handling) Rules, 2011.

### China RoHS

#### 中国有害物质声明

为满足中国电子电气产品有害物质限制相关的法律法规和其他要求，联想公司对本产品中有害物质，按部件分类，声明如下。

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*	×	○	○	○	○	○
硬盘	×	○	○	○	○	○
光驱	×	○	○	○	○	○
液晶面板	×	○	○	○	○	○
键盘	×	○	○	○	○	○
内存	×	○	○	○	○	○
电池	×	○	○	○	○	○
电源适配器	×	○	○	○	○	○
底壳、顶盖和扬声器	×	○	○	○	○	○

本表格依据 SJ/T 11364 的规定编制。某些型号的产品可能不包含表中的部分部件。

○：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。

×：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。标记“×”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，电容和连接器等。



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。圆圈内的数字表示正常使用状态下产品的环保使用期限。

---

## Turkish RoHS

The Lenovo product meets the requirements of the Republic of Turkey Directive on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (EEE).

### Türkiye AEEE Yönetmeliğine Uygunluk Beyanı

Bu Lenovo ürünü, T.C. Çevre ve Orman Bakanlığı'nın "Atık Elektrik ve Elektronik Eşyalarda Bazı Zararlı Maddelerin Kullanımının Sınırlanmasına Dair Yönetmelik (AEEE)" direktiflerine uygundur.

AEEE Yönetmeliğine Uygundur.

---

## Ukraine RoHS

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

---

## European Union RoHS

This Lenovo product, which included parts (cables, cords, and so on) meets the requirements of Directive 2011/65/EU 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:  
[http://www.lenovo.com/social\\_responsibility/us/en/RoHS\\_Communication.pdf](http://www.lenovo.com/social_responsibility/us/en/RoHS_Communication.pdf)

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## Appendix E. 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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Morrisville, NC 27560  
U.S.A.  
Attention: Lenovo Director of Licensing*

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