

Lenovo IdeaPad Y550 User Guide v1.0

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ideapad

Note

Before using this information and the product it supports, be sure to read the following:

- Chapter 6, Safety, Use, and Care Information on page 55.
- Appendix D, Notices on page 104.
- *OneKey Rescue System User Guide* included in the package with this publication.

lenovo



**If your product is not working correctly,
DO NOT RETURN IT TO THE STORE.**

For technical assistance, contact a Lenovo support specialist 24 hours a day by calling toll free **1-877-4 LENOVO (1-877-453-6686)**.

Additionally, you can find support information and updates on the Lenovo Web site located at **<http://consumersupport.lenovo.com>**.

* Only for the users from the United States.

First Edition (December 2008)

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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 an ENERGY STAR compliant 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 4.0 program requirements for computers.

- 20017
- 4186

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

For more information about ENERGY STAR, visit

<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 duration:

Table 1. ENERGY STAR power-management features, by operating system

Windows XP	Windows Vista
• Turn off monitor: After 10 minutes • Turn off hard disks: After 30 minutes • System standby: After 20 minutes • System hibernates: After 2 hours	Power plan: Balanced • Turn off the display: After 10 minutes • Put the computer to sleep: After 25 minutes • Advanced power settings: - Turn off hard disks: After 20 minutes - Hibernate: After 1 hour

To awaken your computer from a Sleep or System Standby mode, press any key on your keyboard. For more information about these settings, refer to your Windows Help and Support information system.

Explanation of hard disk capacity

Dear user,

While using your computer, you may discover that the nominal hard disk capacity indicated is somewhat different from the disk capacity displayed by the operating system. For example, a nominal 40GB hard disk will appear as less than 40GB in the operating system. This discrepancy is not an error in hard disk installation nor any other problem, but a normal phenomenon of computers. This phenomenon is primarily due to the following reasons:

I. Different standards used by the manufacturer and operating system when calculating hard disk capacity

Hard disk manufacturers use a radix of 1000, i.e. 1G = 1,000MB, 1MB = 1,000KB, 1KB = 1,000 bytes. However, when identifying hard disk capacity, operating systems use a radix of 1024, i.e. 1GB = 1,024MB, 1MB = 1,024KB, 1KB = 1,024 bytes. The standard adopted by your computer is that of the hard disk manufacturers. Since the standards adopted by the hard disk manufacturer and operating system are different, the hard disk capacity displayed by the operating system will be different from the nominal hard disk capacity.

For example, if the hard disk is nominally X G, even when it is completely empty, the capacity displayed by the operating system will be:

$$X \times 1000 \times 1000 \times 1000 / (1024 \times 1024 \times 1024) = X \times 0.931 \text{ G}$$

If a portion of the hard disk space has been used for some specific purpose, then the capacity indicated by the operating system will be even less than $X \times 0.931$ G.

II. A portion of the hard disk space is used for specific purposes

Lenovo computers come with preinstalled OneKey Rescue System, so the hard disk has a special portion partitioned before delivery, which is used to store hard disk mirror and OneKey Rescue System program files. The size of the reserved space for this partition varies according to the model, operating system and software of the computer. For the sake of safety, this partition is not evident, which is commonly referred to as a "hidden partition".

In addition, after the hard disk is partitioned or formatted, the system will assign a certain amount of hard disk space for the system files.

For the above reasons, the available hard disk space indicated by the operating system is always less than the computer's nominal hard disk capacity.

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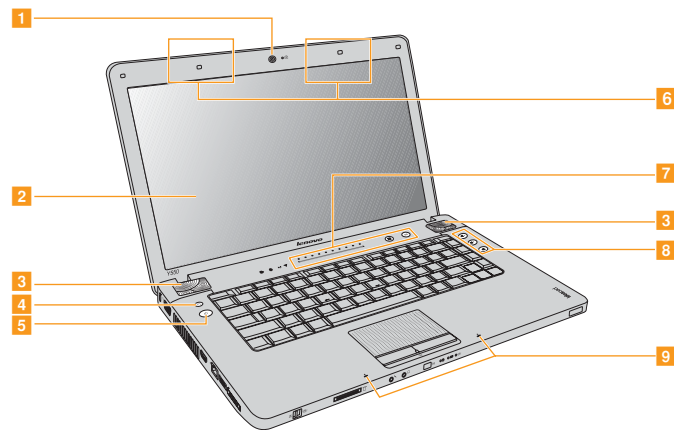
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Chapter 1. Getting to Know Your Computer

■ ■ Top view



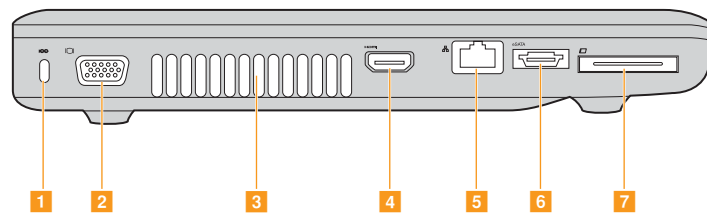
* The illustrations in this manual may differ from the actual product.
Please refer to the actual product.

Chapter 1. Getting to Know Your Computer

- 1 Integrated camera 19**
- 2 Computer display**
The color display provides clear and brilliant text and graphics.
- 3 Speakers**
- 4 OneKey Rescue System button 16**
- 5 Power button**
- 6 Wireless LAN antennas**
An isotropic antenna system is built into the display for optimal reception, enabling wireless communication wherever you are.
- 7 Touch inductive panel..... 14**
- 8 Volume buttons**
Turn up/down or mute the volume with volume buttons.
- 9 Built-in array microphone**
The built-in microphone (with noise reduction) can be used for video conferencing, voice narration, or simple audio recordings.

Chapter 1. Getting to Know Your Computer

■ ■ Left-side view



Chapter 1. Getting to Know Your Computer

1 Security keyhole

Your computer comes with a security keyhole. You can purchase a security cable and lock to fit this keyhole.

❖ Note:

Before purchasing any security product, verify that it is compatible with this type of security keyhole.

2 VGA port 33

3 Fan louvers

➡ Important:

Make sure that none of the fan louvers are blocked, otherwise, overheating of the computer may occur.

4 HDMI port..... 34

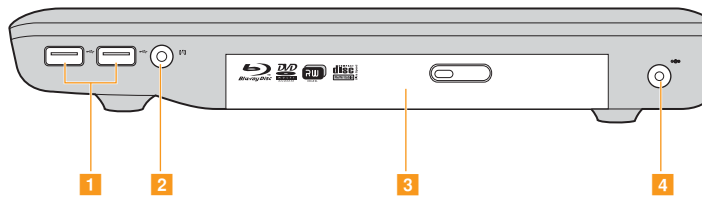
5 RJ-45 port 20

6 eSATA port..... 30

7 ExpressCard® slot..... 31

Chapter 1. Getting to Know Your Computer

■ ■ Right-side view



1 USB port 28

2 TV-in jack (Specific models only)

Use this jack to connect with TV signal cable through the provided TV adapter (Analog/digital input supported).

3 Optical drive 17

4 AC power adapter jack

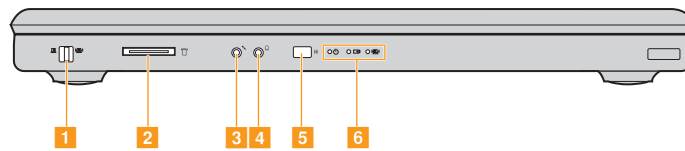
Connect the power adapter here to supply power to the computer and charge the battery pack.

❖ Note:

To prevent damage to the computer and battery pack, use the supplied AC adapter only.

Chapter 1. Getting to Know Your Computer

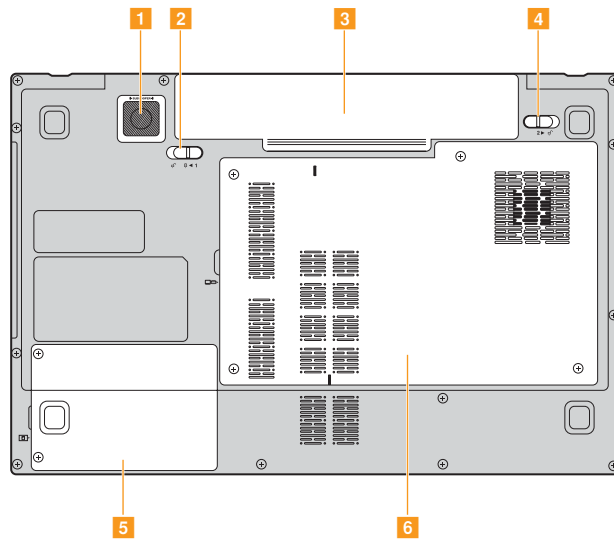
Front view



- 1 Integrated wireless device switch**
Use this switch to disable the wireless radio of all the wireless devices on your computer.
- 2 Card reader socket..... 17**
- 3 Microphone jack (external)..... 37**
- 4 Headphone jack (S/PDIF) (external)..... 35**
- 5 CIR port..... 19**
CIR port, used for lenovo remote control.
- 6 System status indicators**

Chapter 1. Getting to Know Your Computer

■ ■ Bottom view



Chapter 1. Getting to Know Your Computer

1 Subwoofer

The multimedia subwoofer features a super bass effect while you are watching movies or enjoying music.

2 Battery latch - spring loaded

The spring-loaded battery latch keeps the battery pack secured in place. When you insert a battery pack, this latch automatically secures the battery in place. To remove the battery, hold this latch in the unlocked position.

3 Battery pack..... 24

4 Battery latch - manual

The manual battery latch is used to keep the battery pack secured. Move the manual battery latch to the unlocked position to insert or remove the battery pack. Move the manual latch to the locked position after inserting the battery pack.

5 Hard Disk Drive compartment

6 Central Processing Unit (CPU)/ Memory (DDR 3 RAM)/ Wireless LAN Card/ TV card (Specific models only) compartment

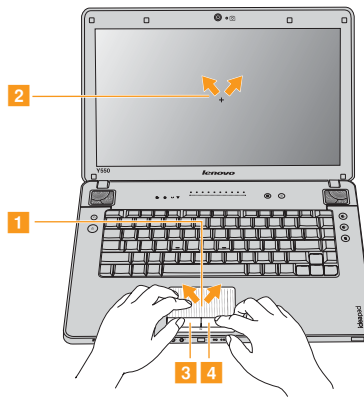
➤ Important:

Do not disassemble or replace any component by yourself! If you do need to, ask a Lenovo authorized service center or dealer to disassemble or replace it.

Chapter 2. Using Your Computer

■ ■ Using the touch pad

The touch pad consists of a pad **1** and two click buttons below the keyboard. To move the cursor **2** on the screen, slide your fingertip over the pad in the direction in which you want the cursor to move. The functions of the left **3** and right **4** click buttons correspond to those of the left and right mouse buttons on a conventional mouse.



❖ **Note:**

You can also attach and use a USB mouse through the USB connector. For details, see "Connecting a Universal Serial Bus (USB) device" on page 28.

Chapter 2. Using Your Computer

■ Gestures

The touch pad can recognize some gestures and make actions like zoom in/out, or scroll up/down easily.

Chiralmotion

Slide your finger to the right side/bottom of the touch pad until you see the scroll mark, then draw on the touch pad in a twisting motion. Draw clockwise or counterclockwise to scroll the page down/left or up/right.

Pinch

Use two fingers and make a pinch gesture on the touch pad to zoom out; reverse the gesture to zoom in.

■ Palm Check

To prevent mis-touch, the touch pad ignores big active area motions, like any movement at the touch pad with your palm, you may set the area size by "Synaptics Pointing Device" in the lower right corner of the desktop.

Chapter 2. Using Your Computer

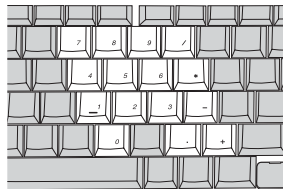
■ Using the keyboard

Your computer has a numeric keypad and function keys incorporated in the standard keyboard.

■ Numeric keypad

The keyboard has keys that, when enabled, work as a 10-key numeric keypad.

To enable or disable the numeric keypad, press **Fn+F8**.

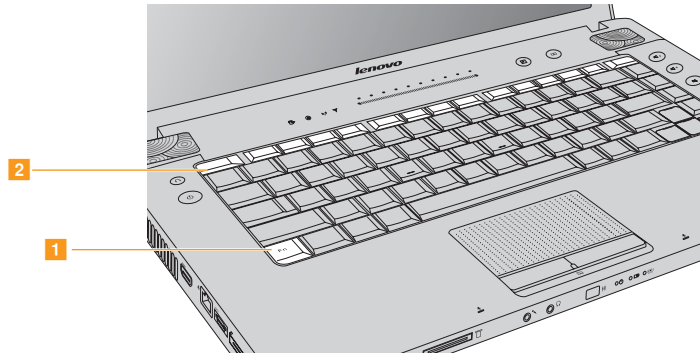


* The illustrations in this manual may differ from the actual product. Please refer to the actual product.

Chapter 2. Using Your Computer

■ Function key combinations

Through the use of the function keys, you can change operational features instantly. To use this function, press and hold the **Fn** key **1**; then press one of the function keys **2**.



Chapter 2. Using Your Computer

The following describes the features of each function key.

Fn + Esc: Turn on/off the integrated camera.

Fn + F1: Put your computer in sleep mode.

Fn + F2: Turn on/off the LCD screen.

Fn + F3: Shift to other connected display devices.

Fn + F4: Open the interface for display resolution settings.

Fn + F5: Open the interface for integrated wireless devices settings (enable/disable).

Fn + F6: Enable/disable the touch pad.

Fn + F8: Enable/disable the numeric keypad.

Fn + F9: Activate the pause function.

Fn + F10: Activate the break function.

Fn + F11: Enable/disable Scroll Lock.

Fn + F12: Turn on/off the insert input.

Fn + PrtSc: System request.

Fn + up/down arrow: Increase/decrease display brightness.

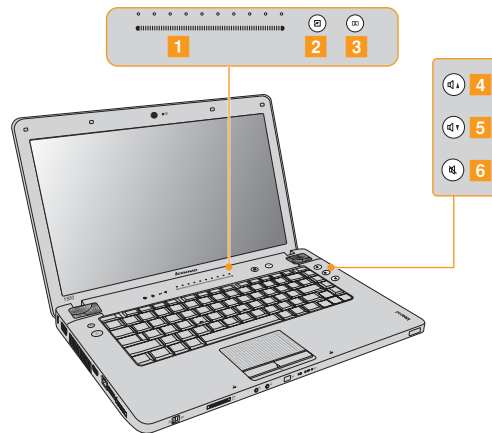
Fn + right/left arrow: Increase/decrease sound volume.

Chapter 2. Using Your Computer

■ ■ Special keys and buttons

Your computer has several special keys and buttons.

■ Touch inductive panel and volume buttons



Chapter 2. Using Your Computer

Touch inductive panel (1 ~ 3)

- 1** Slidebar:
Quick launch customized applications by the slide and release at the Slidebar when "Lenovo Desktop Navigator" is installed.
- 2** OneKey Theater:
Open OneKey Theater to select Normal mode or Movie mode as preferred.
- 3** Open Dolby function setup screen.

Volume buttons (4 ~ 6)

- 4** Volume up
- 5** Volume down
- 6** Mute

Chapter 2. Using Your Computer

■ OneKey Rescue System button

Press the **OneKey Rescue System** button to enter the main interface of OneKey Rescue System while the power is off.

ⓘ Attention:

When you press the **OneKey Rescue System** button to turn on the computer, ensure that your computer is not connected to other peripherals (such as USB storage device, etc.), otherwise the system may not operate properly.

For details, see *OneKey Rescue System User Guide*.

❖ Note:

When your computer is running Windows Vista®, and if you have the OneKey Recovery application installed, you can start the application by pressing the **OneKey Rescue System** button.

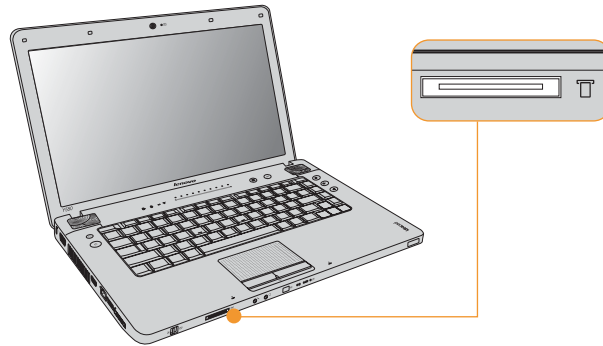
Chapter 2. Using Your Computer

■ ■ Using the optical drive

Your computer comes with an optical drive, such as a CD/DVD drive.

■ ■ Using memory cards

Your computer comes with one Multi-media Card reader socket used to insert a memory card, such as an SD Card, a MultiMediaCard, a Memory Stick, an xD-Picture Card, an SD pro card or a Memory Stick Pro.



Chapter 2. Using Your Computer

❖ **Note:**

Only use the memory card types listed above; for more information on usage, read the instructions shipped with the memory card.
This card reader does not support SDIO devices (e.g. SDIO *Bluetooth*, etc.).

Chapter 2. Using Your Computer

■ ■ Using lenovo remote control (specific models only)

You can use the remote control with Windows Media Center for convenient media enjoyment.
For details of the remote control operation, see the instructions shipped with it.

❖ **Note:**

The Windows Media Center function mentioned in the instructions of the remote control is supported only by Windows Vista Home Premium and Windows Vista Ultimate operating systems from Microsoft at present, but not supported by other operating systems. If necessary, please install the operating system that supports the function.

■ ■ Using the integrated camera

With the built-in camera, you can take photos or movies and use with various applications, such as EasyCapture, Windows Live Messenger or Yahoo! Messenger, and so on.

❖ **Note:**

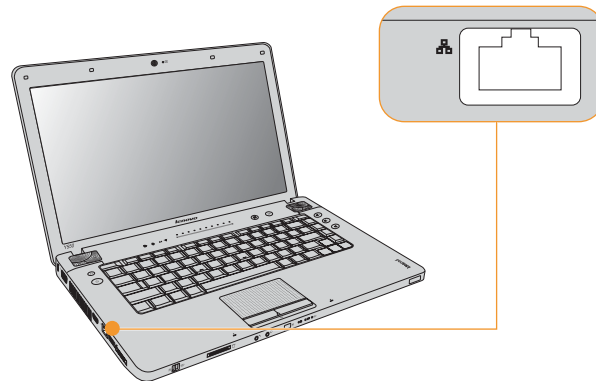
- If you use Windows Vista, you need to install a separate third party dedicated application, because Windows Vista does not include a program for taking pictures or movies with the integrated camera.
- The camera status indicator turns on when the camera is in use. When you do not need to use the camera, you may turn off it with **Fn+Esc** to save power.

Chapter 2. Using Your Computer

■ Using the internet

■ Using RJ-45 port

The LAN port supports a standard RJ-45 connector, and allows you to connect the computer to a high-speed DSL/cable modem connection and local area network (LAN).



ⓘ Attention:

As the voltage of a telephone connection is higher than that of a network, do not attempt to connect a telephone cable to the RJ-45 port or else a short circuit of the computer might occur.

Chapter 2. Using Your Computer

■ Using wireless LAN

An isotropic antenna system is built into the display for optimal reception, enabling wireless communication wherever you are.

To enable wireless communications, do the following;

- ❶ Slide the integrated wireless device switch to the right.
- ❷ Press **Fn + F5** to make configure.

Chapter 2. Using Your Computer

■ ■ Securing your computer

This section provides information about how to help protect your computer from theft and unauthorized use.

■ Attaching a security lock (optional)

You can attach a security lock to your computer to help prevent it from being removed without your permission.

Attach a security lock to the keyhole of the computer; then secure the chain on the lock to a stationary object. Refer to the instructions shipped with the security lock.

Refer to the "Left-side view" on page 3 for the location of the security keyhole.

❖ Note:

You are responsible for evaluating, selecting, and implementing the locking devices and security features. Lenovo makes no comments, judgements, or warranties about the function, quality, or performance of locking devices and security features.

Chapter 2. Using Your Computer

■ Using VeriFace™

VeriFace is a face recognition software which takes a digital snapshot, extracts key features of your face, and creates a digital map that becomes the system's "password".

❖ Note:

The face registration and verification works best in a environment with steady and even light.

For more instructions on VeriFace, see the help file on your software.

■ Using passwords

Using passwords helps prevent your computer from being used by others. Once you set a password and enable it, a prompt appears on the screen each time you power on the computer. Enter your password at the prompt. The computer cannot be used unless you enter the correct password.

Make sure that only authorized individuals access your computer. Establishing different kinds of passwords requires that other possible users know the proper passwords in order to access your computer or your data. This password can be from two to eight alphanumeric characters in any combination.

For details about how to set the password, see the Help to the right of the screen in BIOS Setup Utility.

❖ Note:

To enter BIOS Setup Utility, press F2 when starting up your computer.

Chapter 2. Using Your Computer

■ Installing device drivers

A compatible device driver is a requirement to ensure correct operation and performance of each component in your computer. If your computer is pre-installed with an operating system, Lenovo provides all drivers that you need in your hard disk.

■ Using battery and AC adapter

When you cannot use the AC adapter to power your computer, you may depend on battery power to keep your computer running.

❖ Note:

The operating system may run slower when using the battery mode.

■ Checking battery status

You can determine the percentage of battery power remaining by using Windows Power options.

As each computer user has different habits and needs, it is difficult to predict how long a battery charge will last. There are two main factors:

- The amount of energy stored in the battery when you commence work.
- The way you use your computer: for example, how often you access the hard disk drive and how bright you make the computer display.

Chapter 2. Using Your Computer

■ Using the AC adapter

The power to run your computer can come either from the battery pack or from AC power through the AC adapter.

ⓘ Attention:

Using an improper power cord could cause severe damage to your computer.

To use the AC adapter, do the following. Be sure to take these steps in the order in which they are given here.

- ❶ Connect the power cord to the transformer pack.
- ❷ Plug the power cord into an electrical outlet.
- ❸ Connect the AC adapter to the AC power adapter jack of the computer.

You can check the status of your battery at any time by looking at the battery meter at the bottom of your display.

❖ Note:

- When you do not use the AC adapter, disconnect it from the electrical outlet.
- Do not wrap the power cord tightly around the AC power transformer pack when it is connected to the transformer.
- You can charge the battery when the AC adapter is connected to the computer and the battery is installed. You need to charge it in any of the following conditions:
 - When you purchase a new battery
 - If the battery status indicator starts blinking
 - If the battery has not been used for a long time

Chapter 2. Using Your Computer

Before you charge the battery, make sure that its temperature is at least 10°C (50°F).

■ Charging the battery

When you check the battery status and find that the battery is low, you need to charge the battery or replace it with a charged battery.

If an AC outlet is convenient, first, connect the power cord to the transformer pack, second, plug the power cord into the electrical outlet, and then connect the AC adapter to the power jack of the computer.

Charging time will depend on the usage environment.

■ Handling the battery

✱ **Danger:**

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.

Chapter 2. Using Your Computer

Danger:

If the rechargeable battery pack is incorrectly replaced, there may be 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 the battery pack to water or rain.
- Do not attempt to disassemble the battery pack.
- Do not short-circuit the battery pack.
- Keep the battery pack away from children.

Danger:

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 and your company's safety standards.

Chapter 3. Using External Devices

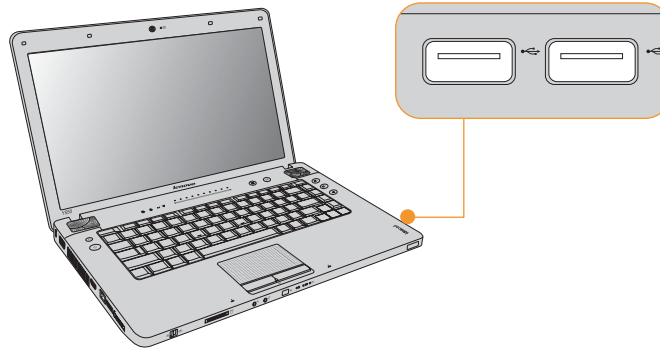
Your computer has many built-in features and connection capabilities.

● **Attention:**

Do not connect or disconnect any external device cables other than USB 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.

■ Connecting a Universal Serial Bus (USB) device —

Your computer comes with USB ports compatible with USB devices such as a keyboard, mouse, camera, hard disk drive, printer and scanner.



Chapter 3. Using External Devices

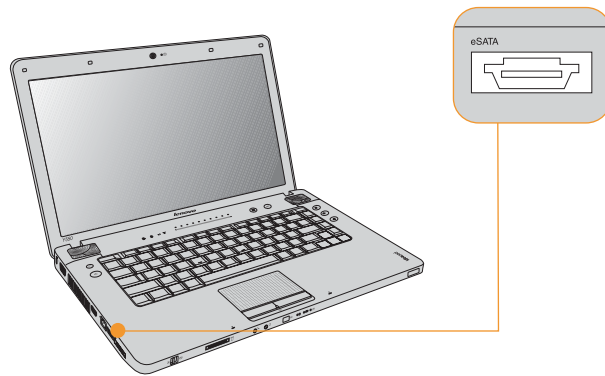
● **Attention:**

When using a high power consumption USB device such as USB ODD, use external device power adapter. Otherwise, the device may not be recognized, or system shut down may result.

Chapter 3. Using External Devices

■ ■ Connecting an eSATA port device

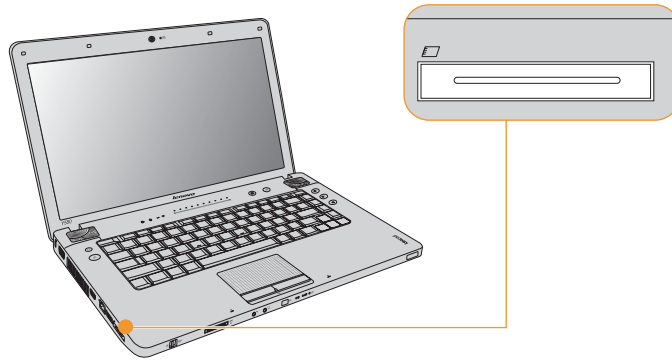
Your computer comes with an eSATA port used for connecting high-speed storage device (e.g. eSATA HDD) that are compatible with the eSATA port.



Chapter 3. Using External Devices

■ ■ Connecting a PC card device

Your computer comes with an ExpressCard/34"* slot used for connecting PC card devices that are compatible with the ExpressCard/34"* interface.



* Only use the ExpressCard/34 module.

Chapter 3. Using External Devices

■ Inserting an ExpressCard/34 module

Gently slide the ExpressCard/34 module with the front label facing upward. Slide until it clicks into place.

■ Removing an ExpressCard/34 module

- ❶ Push the ExpressCard/34 module until you hear a click.
- ❷ Gently pull the ExpressCard/34 module out of the ExpressCard/34" slot.

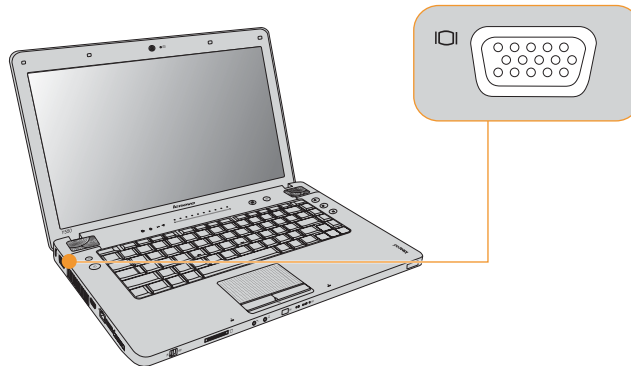
Chapter 3. Using External Devices

■ Connecting an external display

You can connect an external display to your computer.

■ Connecting a VGA monitor

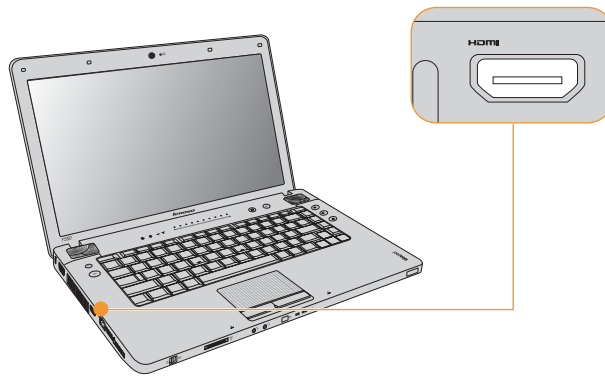
You can connect a VGA monitor by using a VGA port. To connect a VGA monitor, plug the display cable to the VGA port of your computer. To shift to other connected display devices, press **Fn + F3** to set up.



Chapter 3. Using External Devices

■ Connecting an HDMI monitor

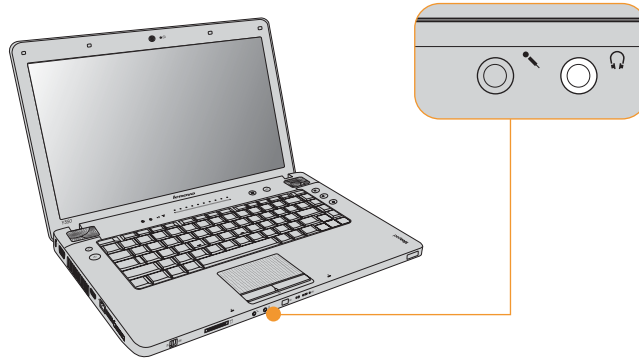
You can connect an HDMI monitor by using an HDMI port. To shift to other connected display devices, press **Fn + F3** to set up.



Chapter 3. Using External Devices

■ ■ Connecting a headphone and audio device

Your computer comes with one headphone jack (S/PDIF) used for connecting headphones, speakers, and audio devices that are compatible with the S/PDIF interface.



Chapter 3. Using External Devices

➤ **Warning:**

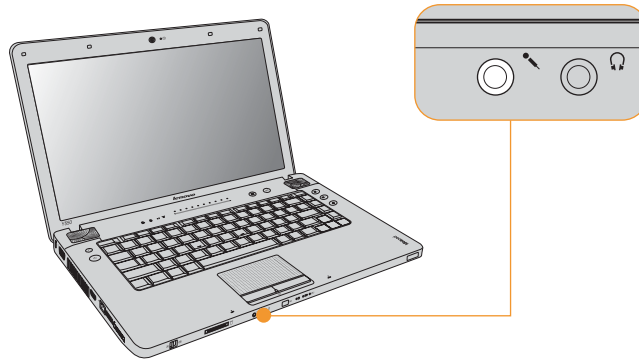
Listening to music at high volume over extended periods of time may damage your hearing.

Excessive use of headphones or earphones for a long period of time at high volume can be dangerous if the output of the headphones 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.

Chapter 3. Using External Devices

■ ■ Connecting an external microphone

Your computer comes with one external microphone jack for connecting an external microphone.



Chapter 3. Using External Devices

■ Connecting a *Bluetooth* device (specific models only)

If your computer has an integrated *Bluetooth* adapter card, it can connect to and transfer data wirelessly to other *Bluetooth*-enabled devices, such as laptop computers, PDAs and cell phones.

■ Enabling *Bluetooth* communications

- ❶ Slide the integrated wireless device switch to the right.
- ❷ Press **Fn + F5** to make configuration.

◆ **Note:**

When you do not need to use the *Bluetooth* function, turn it off to save battery power.

For details on connecting other *Bluetooth*-enabled devices (market available), please refer to the instructions shipped with the devices that you have purchased separately.

Chapter 4. Troubleshooting

■ Frequently Asked Questions

This section lists frequently asked questions and tells where you can find detailed answers. For details about each publication included in the package with your computer, see Lenovo IdeaPad Y550 Setup Poster.

What safety precautions should I follow when using my computer?

See "Chapter 6. Safety, Use, and Care Information" for detailed information about safety.

How can I prevent problems with my computer?

See "Chapter 6. Safety, Use, and Care Information" on page 55 of this guide. More tips can be found in Chapter 1 and 2.

What are the main hardware features of my new computer?

More information can be found in Chapter 1 and 2.

Where can I find the detailed specifications for my computer?

See <http://consumersupport.lenovo.com>.

I need to upgrade a device or I need to replace one of the following: the hard disk drive, memory, or the keyboard.

See "Appendix B. Customer Replaceable Units (CRUs)" on page 101 of this guide.

My computer is not operating properly.

Study the relevant information in Chapter 2.

Chapter 4. Troubleshooting

Where are the recovery discs?

Your computer did not come with a recovery disc. For an explanation of the alternative recovery methods offered by Lenovo, see OneKey Rescue System User Guide.

How can I contact the Customer Support Center?

See "Chapter 5. Getting Help and Service" on page 50 of this Guide. For the phone numbers of the Customer Support Center nearest to you, see "Lenovo warranty service telephone numbers" on page 99.

Where can I find warranty information?

For the warranty applicable to your computer, including the warranty period and type of warranty service, see "Appendix A. Lenovo Limited Warranty" on page 87.

Chapter 4. Troubleshooting

■ Troubleshooting

If you do not find your problem here, see Chapter 2. The following section only describes problems that might prevent you from accessing the comprehensive information in Chapter 2.

■ Display problems

When I turn on the computer, nothing appears on the screen.

◆ Note:

If you are using an external monitor, see “Computer screen problems” on page 45.

- If the screen is blank, make sure that:
 - The battery is installed correctly.
 - The AC adapter is connected to the computer and the power cord is plugged into a working electrical outlet.
 - The computer power is on. (Press the **power** button again for confirmation.)
 - The memory is installed correctly.
- If these items are properly set, and the screen remains blank, have the computer serviced.

Chapter 4. Troubleshooting

When I turn on the computer, only a white cursor appears on a blank screen.

Restore backed-up files to your Windows environment or the entire contents of your hard disk to the original factory contents using OneKey Recovery. If you still see only the cursor on the screen, have the computer serviced.

My screen goes blank while the computer is on.

Your screen saver or power management may be enabled. Do one of the following to exit from the screen saver or to resume from sleep or hibernation mode:

- Touch the touch pad.
- Press any key on the keyboard.
- Press the **power** button.

Chapter 4. Troubleshooting

■ A Password problem

I forgot my password.

- If you forgot your user password, you must take your computer to a Lenovo authorized servicer or a marketing representative to have the password canceled.
- If you forgot your HDD password, a Lenovo authorized servicer cannot reset your password or recover data from the hard disk. You must take your computer to a Lenovo authorized servicer or a marketing representative to have the hard disk drive replaced. Proof of purchase is required, and a fee will be charged for parts and service.
- If you forget your supervisor password, a Lenovo authorized servicer cannot reset your password. You must take your computer to a Lenovo authorized servicer or a marketing representative to have the system board replaced. Proof of purchase is required, and a fee will be charged for parts and service.

■ Keyboard problems

A number appears when you enter a letter.

The numeric lock function is on. To disable it, press **Fn + F8**.

All or some of the keys on the external numeric keypad do not work.

Make sure that the external numeric keypad is correctly connected to the computer.

Chapter 4. Troubleshooting

■ Sleep or hibernation problems

The computer enters sleep mode unexpectedly.

If the processor overheats, the computer automatically enters sleep mode to allow the computer to cool and to protect the processor and other internal components. Check the settings for sleep mode.

The computer enters sleep mode immediately after Power-on self-test (POST).

Make sure that:

- The battery is charged.
- The operating temperature is within the acceptable range. See "Specifications" on page 102.

If the battery is charged and the temperature is within range, have the computer serviced.

The critical low-battery error message appears, and the computer immediately turns off.

The battery power is getting low. Connect the AC adapter to the computer, or replace the battery with a fully charged one.

The computer does not return from sleep mode and the computer does not work.

If the computer does not return from sleep mode, it may have entered hibernation mode automatically because the battery is depleted. Check the sleep indicator.

Chapter 4. Troubleshooting

- If your computer is in sleep mode connect the AC adapter to the computer, then press any key or the **power** button.
- If your computer is in hibernation mode or power-off state. Connect the AC adapter to the computer, then press the **power** button to resume operation.

If the system still does not return from sleep mode, your system has stopped responding, and you cannot turn off the computer; reset the computer. Unsaved data may be lost. To reset the computer, press and hold the **power** button for 4 seconds or more. If the computer is still not reset, remove the AC adapter and the battery.

■ Computer screen problems

The screen is blank.

Do the following:

- If you are using the AC adapter, or using the battery, and the battery status indicator is on, press **Fn** + up arrow to make the screen brighter.
- If the Power indicator is in blinking, press the **power** button to resume from the sleep mode.
- If the problem persists, follow do the Solution in the following problem "The screen is unreadable or distorted."

Chapter 4. Troubleshooting

The screen is unreadable or distorted.

Make sure that:

- The display device driver is installed correctly.
- The screen resolution and color quality are correctly set.
- The monitor type is correct.

Incorrect characters appear on the screen.

Did you install the operating system or application program correctly? If they are installed and configured correctly, have the computer serviced.

A message, “Unable to create overlay window,” appears when you try to start DVD playback.

-or-

You get poor or no playback of video, DVD or game applications.

Do either of the following:

- If you are using 32-bit color mode, change the color depth to 16-bit mode.
- If you are using a desktop resolution over the optimum, reduce the desktop size and the color depth.

Chapter 4. Troubleshooting

■ Sound problems

No sound can be heard from the speaker even when the volume is turned up.

Make sure that:

- The Mute function is off.
- The headphone jack is not used.
- Speakers is selected as a playback device.

■ Battery problems

Your computer shuts down before the battery status indicator shows empty.

-or-

Your computer operates after the battery status indicator shows empty.

Discharge and recharge the battery.

The operating time for a fully charged battery is short.

For details, see "Handling the battery" in Chapter 2.

The computer does not operate with a fully charged battery.

The surge protector in the battery might be active. Turn off the computer for one minute to reset the protector; then turn on the computer again.

Chapter 4. Troubleshooting

The battery does not charge.

For details, see “Handling the battery” in Chapter 2.

■ A hard disk drive problem

The hard disk drive does not work.

In the **Boot** menu in BIOS Setup Utility, make sure that the hard disk drive is included in the “Boot priority order” correctly.

■ A startup problem

The Microsoft® Windows operating system does not start.

Use the OneKey Recovery to help solve or identify your problem. For details about OneKey Recovery, see *OneKey Rescue System User Guide*.

■ Other problems

Your computer does not respond.

- To turn off your computer, press and hold the **power** button for 4 seconds or more. If the computer still does not respond, remove the AC adapter and the battery.
- Your computer might lock when it enters sleep mode during a communication operation. Disable the sleep timer when you are working on the network.

Chapter 4. Troubleshooting

The computer does not start from a device you want.

See the **Boot** menu of the BIOS Setup Utility. Make sure that the “Boot priority order” in the BIOS Setup Utility is set so that the computer starts from the device you want.

Also make sure that the device from which the computer starts is enabled. In the Boot menu in the BIOS Setup Utility, make sure that the device is included in the “Boot priority order” list.

Chapter 5. Getting Help and Service

■ ■ Getting help and service

If you need help, service, technical assistance, or just want more information about Lenovo computers, you will find a wide variety of sources available from Lenovo to assist you. This section contains information about where to go for additional information about Lenovo computers, what to do if you experience a problem with your computer, and whom to call for service should it be necessary.

Microsoft Service Packs are the latest software source for Windows product updates. They are available by means of a Web download (connection charges may apply) or from a disc. For more specific information and links, go to the Microsoft Web site at <http://www.microsoft.com>. Lenovo offers Up and Running technical assistance with installation of, or questions related to, Service Packs for your Lenovo-preinstalled Microsoft Windows product.

Chapter 5. Getting Help and Service

■ ■ Getting help on the Web

The Lenovo Web site on the World Wide Web has up-to-date information about Lenovo computers and support. The address for the Lenovo home page is <http://consumersupport.lenovo.com>.

You can find support information for your Lenovo IdeaPad™ computer at <http://consumersupport.lenovo.com>. Research this Web site to learn how to solve problems, find new ways to use your computer, and learn about options that can make working with your Lenovo computer even easier.

■ ■ Calling the customer support center

If you have tried to correct the problem yourself and still need help, during the warranty period, you can get help and information by telephone through the Customer Support Center. The following services are 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.

Chapter 5. Getting Help and 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) available that apply to your hardware.

The following items are not covered:

- Replacement or use of parts not manufactured for or by Lenovo or non warranted parts
- Identification of software problem sources
- Configuration of 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 application programs

To determine if your Lenovo hardware product is under warranty and when the warranty expires, go to <http://consumersupport.lenovo.com>, and click **Warranty**, then follow the instructions on the screen.

Refer to your Lenovo hardware warranty for a full explanation of Lenovo warranty terms. Be sure to retain your proof of purchase to obtain warranty service.

If possible, be near your computer when you make your call in case the technical assistance representative needs to help you resolve a computer problem. Please ensure that you have downloaded the most current drivers and system updates, and recorded information before you call. When calling for technical assistance, please have the following information available:

Chapter 5. Getting Help and Service

- Machine Type and Model
- Serial numbers of your computer, monitor, and other components, or your proof of purchase
- Description of the problem
- Hardware and software configuration information for your system

The telephone numbers for your Customer Support Center location are located in “Appendix A. Lenovo Limited Warranty” on page 87.

❖ **Note:**

Telephone numbers are subject to change without notice. For the latest list of Customer Support Center telephone numbers and hours of operation, visit the Support Web site at <http://consumersupport.lenovo.com>. If the number for your country or region is not listed, contact your Lenovo reseller or Lenovo marketing representative.

Chapter 5. Getting Help and Service

■ ■ Getting help around the world

If you travel with your computer or relocate it to a country where your Lenovo machine type is sold, your computer might be eligible for International Warranty Service, which automatically entitles you to obtain warranty service throughout the warranty period. Service will be performed by service providers authorized to perform warranty service.

Service methods and procedures vary by country, and some services might not be available in all countries. Service centers in certain countries might not be able to service all models of a particular machine type. In some countries, fees and restrictions might apply at the time of service.

To determine whether your computer is eligible for International Warranty Service and to view a list of the countries where service is available, go to <http://consumersupport.lenovo.com>, click Warranty, and follow the instructions on the screen.

Chapter 6. Safety, Use, and Care Information

■ 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. For more information, see “Appendix A. Lenovo Limited Warranty” on page 87.

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 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 computer work environment.

❖ Note:

This information includes references to power adapters and batteries. In addition to notebook computers, 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, computer products contain a coin-sized internal battery that provides power to the system clock even when the computer is unplugged, so the battery safety information applies to all computer products.

Chapter 6. Safety, Use, and Care Information

■ 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 service center.

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, see <http://consumersupport.lenovo.com>.

Frequently inspect your computer and its components for damage or wear or signs of danger. If you are unsure 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.

Chapter 6. Safety, Use, and Care Information

- 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.

Chapter 6. Safety, Use, and Care Information

■ Service and upgrades

ⓘ Attention:

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 an ac power cord, always make sure that the power is turned off and that the product is unplugged from any power source. For more information on CRUs, see "Appendix B. Customer Replaceable Units (CRUs)" on page 101. If you have any questions or concerns, contact the Customer Support Center.

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

Chapter 6. Safety, Use, and Care Information

Danger:

Hazardous moving parts. Keep fingers and other body parts away.

Attention:

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 cord and power adapter are intended for use with this product only. They should never be used with any other product.

The power cords shall be safety approved. For Germany, it shall be H03VV-F, 3G, 0.75 mm², or better. For other countries, suitable types should 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 or any other cables so that they will not be walked on, tripped over, or pinched by objects.

Chapter 6. Safety, Use, and Care Information

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.

Always connect power cords and signal cables in the correct order and 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 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.

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■ Extension cords and related devices

✱ **Danger:**

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

Chapter 6. Safety, Use, and Care Information

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

⚡ Danger:

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

