



lenovo



3000 H User Guide

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Important Safety Information

Before using this manual, it is important that you read and understand all of the related safety information for this product. Refer to the *Safety and Warranty Guide* that you received with this product for the latest safety information. Reading and understanding this safety information reduces the risk of personal injury or damage to your product.



Danger: Be aware of extremely hazardous or lethal situations.



Attention: Be aware of possible damage to programs, devices, or data.

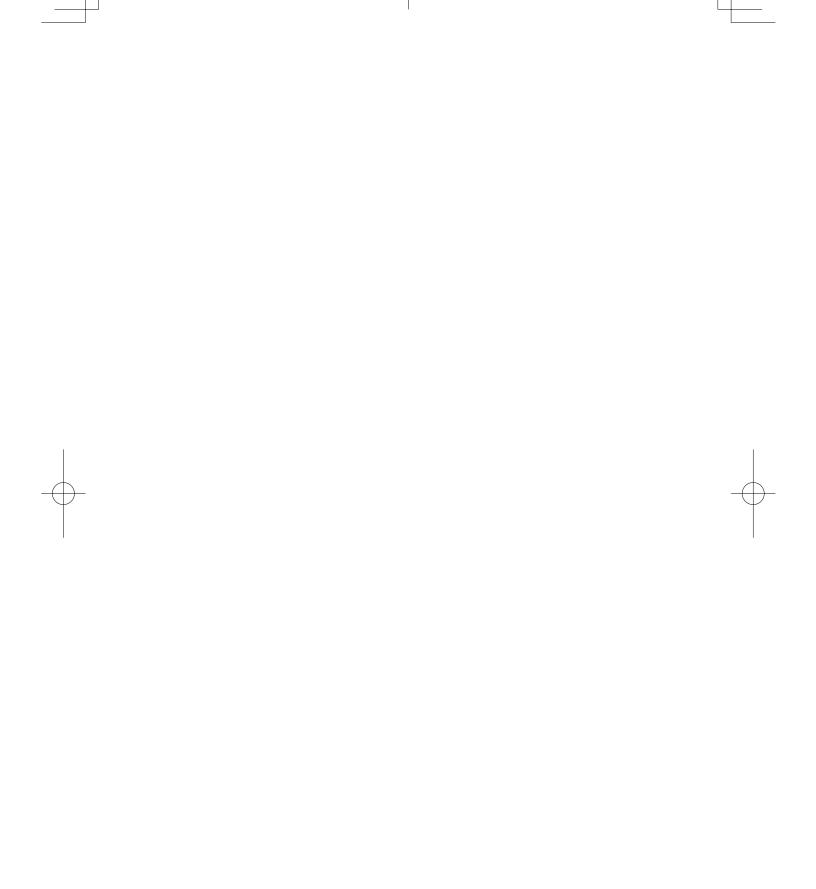


Note: Pay attention to this important information.

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Important Safety Information

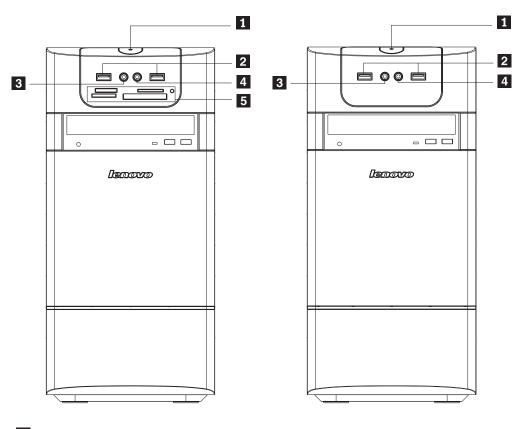
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Instructions for using computer Chapter hardware This chapter contains the following topics: > Computer hardware introduction > Information on computer connection Read the content carefully. Note: If the configuration description in this chapter is different from your actual computer, the configuration of your actual computer should be taken as final and binding. User Guide

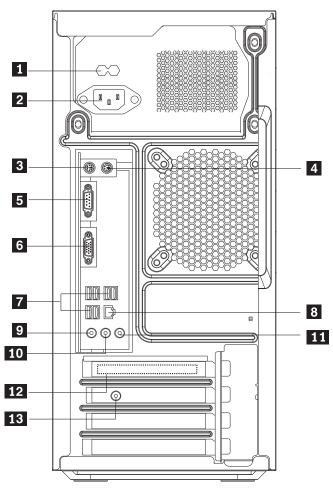
1.1 Front view of the chassis



- 1 Power button
- 2 USB connector
- 3 Headphone connector
- 4 Microphone connector
- 5 Memory Card Reader (some models are equipped with this connector).
- Note: Some models are not equipped with a CD drive.

1.2 Rear view of the chassis

(If the rear view configuration in this chapter is different from your actual computer, the rear view configuration of your actual computer should be taken as final and binding)



- Voltage selection switch (Some models are equipped with this switch)
- 2 Power connector
- 3 PS/2 keyboard connector
- 4 PS/2 mouse connector
- 5 Serial connector
- On-board VGA connector (Some models are equipped with this connector)
- 7 USB connectors
- 8 Ethernet connector
- 9 Microphone connector
- 10 Audio line-out connector

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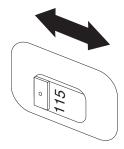
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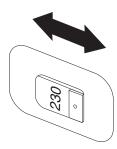
- 11 Audio line-in connector
- PCI Express x16 graphics adapter connector (Some models are equipped with this connector. For more information about the graphics adapter, see the description below).
- WiFi antenna connector (This connector only equipped on the model with WiFi card. For more information about this connector, see WM600-B-LO Wireless 802. 11b/g Wireless PCI-E Adapter Card User Manual.)

1.3 Connecting your computer

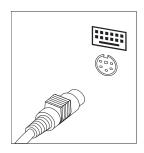
Use the following information when connecting your computer.

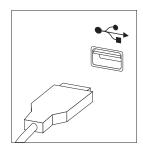
- Look for the small connector icons on the back of your computer. Match the connectors to the icons.
- If your computer cables and connector panel have color-coded connectors, match the color of the cable end with the color of the connector.
- Note: Your computer might not have all of the connectors that are described in this section.
- 1.3.1 Check the position of the voltage-selection switch on the rear of the computer. Use a ballpoint pen to slide the switch if necessary.
- Note: Some computers do not have the voltage switch. These computers automatically control the voltage.
- If the voltage supply range is 100-127 V ac, set the switch to 115 V.
- If the voltage supply range is 200-240 V ac, set the switch to 230 V.





1.3.2 Connect the keyboard cable to the appropriate keyboard connector. (PS/2 connector or USB connector)



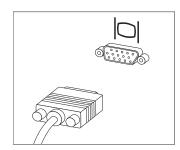


1.3.3 Connect the mouse cable to the appropriate mouse connector. (PS/2 connector or USB connector)





- Note: If your computer is equipped with a wireless keyboard or mouse, connect according to the relevant description.
- 1.3.4 Connect the monitor cable to the monitor connector on the computer.
- If you have a Video Graphics Array (VGA) Standard monitor, connect the cable to the connector as shown.
- Note: If your model has two monitor connectors, be sure to use the connector on the graphics adapter.



• If you have a Digital Video Interface (DVI) monitor, your computer must have an adapter installed that supports the DVI monitor. Connect the cable to the

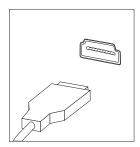
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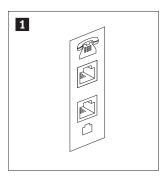
connector as shown.

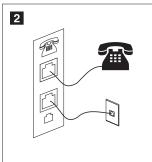


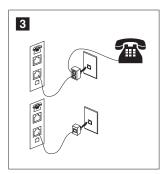
- If you only have a DVI connector on the graphics card and the monitor only has a VGA connector, these two connectors can be connected with a DVI-VGA converter.
- If you have an HDMI monitor, connect the cable to the port as shown.



1.3.5 If you have a modem, connect the modem using the following instructions:



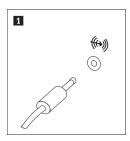




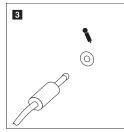
- 1 This illustration shows two different ways of connecting the back of your computer to the modem. Which one to use depends on the type of telephone outlet.
- In the United States and other countries or regions that use RJ-11 telephone outlets, attach one end of the telephone cable to the telephone and the other end to the telephone connector on the back of the computer. Attach one end of the modem cable to the modem connector on the back of the computer and the other end to the telephone outlet.
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3 In countries or regions that do not use RJ-11 telephone outlets, a splitter or converter is required to attach the cables to the telephone outlet as shown at the top of the illustration. You can also use the splitter or converter without the telephone as shown at the bottom of the illustration.

1.3.6 If you have audio devices, attach them using the following instructions:







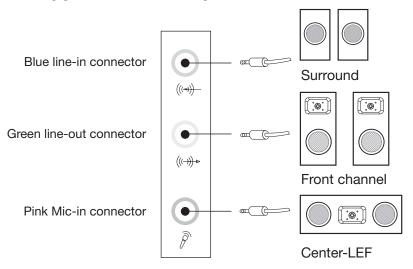


- 1 Audio line-in
- This connector receives audio signals from an external audio device, such as a stereo system.
- 2 Audio line-out This connector sends audio signals from the computer to external devices, such as powered stereo speakers.
- 3 Microphone
- Use this connector to attach a microphone to your computer when you want to record sound or if you use speechrecognition software.
- 4 Headphone
- Use this connector to attach headphones to your computer when you want to listen to music or other sounds without disturbing anyone. This connector might be located on the front of the computer.

1.3.7 Audio configuration instruction: (This instruction is only for PC models whose mainboard supports audio transforming from 2.0 stereo to 5.1 surround.)

This model of computer supports transforming stereo sound into 5.1 surround sound.

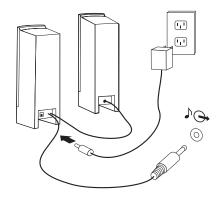
Use the following guides when connecting to the 5.1 surround audio device:



The configurations are as follows:

- 1. Right click the sound icon in system property bar and select the sounds option to setup the sounds in the pop-up dialog box.
- 2. Select a playback device from the playback dialog box, and then click the configure button to configure it.
- 3. Select 5.1 surround from audio channels in the pop-up speaker setup dialog box to proceed with the speaker setup by following as prompted.
- 4. After the configuration, 5.1 surround can be used.
- Note: If the audio configuration interfaces in above differ from your actual computer, you may use the above steps as reference to configure the 5.1 surround audio device in your actual audio configuration interface and read the electronic help information for further assistance.

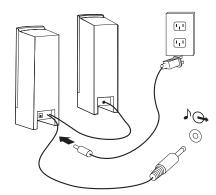
1.3.8 If you have *powered* speakers with an adapter:



(This picture is only a sketch print, it does not show the actual figure of the speaker)

- a. Connect the cable that runs between the speakers if necessary. On some speakers, this cable is permanently attached.
- b. Connect the adapter cable to the speaker if necessary. On some speakers, this cable is permanently attached.
- c. Connect the speakers to the audio line-out port on the computer.
- d. Connect the adapter to the power source.

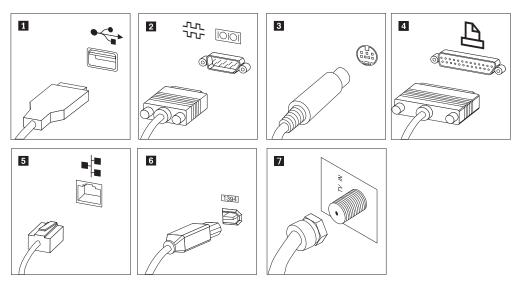
1.3.9 If you have *powered* speakers without an adapter:



(This picture is only a sketch print, it does not show the actual figure of the speaker)

- a. Connect the cable that runs between the speakers if necessary. On some speakers, this cable is permanently attached.
- b. Connect the cable to the speaker if necessary. On some speakers, this cable is permanently attached.
- c. Connect the speakers to the audio line-out port on the computer.
- d. Connect the plug to the power source.
- Note: Some models are not equipped with external speakers.

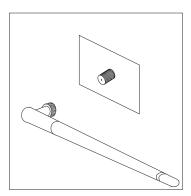
1.3.10 Connect any additional devices that you have. Your computer might not have all connectors shown.



- **1 USB connector** Use this connector to attach a device that requires a USB connection.
- 2 Serial Use this connector to attach an external modem, serial connector printer, or other device that uses a 9-pin serial connector.
- 3 S-Video Use this connector to attach a television set that has an
 - S-Video connector.
- 4 Parallel Use this connector to attach a parallel printer or any other
 - device that requires a 25-pin parallel connection.
- 5 Ethernet Use this connector to attach the computer to an ethernet
 - type local area network.
- 6 IEEE 1394 This connector provides connection to several types of
 - consumer electronics including digital audio devices and
 - scanners
- **TV Antenna** To connect the signal input cable for CATV (Some models
 - **Connector** are equipped with this connector).

1.3.11 Connect the WiFi antenna to WiFi card connector.

(This connector only equipped on the model with WiFi card. For more information about this connector, see *WM600-B-LO Wireless 802. 11b/g Wireless PCI-E Adapter Card User Manual.*)

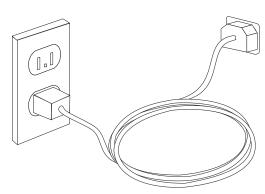


WiFi antenna connector — To connect the computer to a wireless network.

Screw the WiFi antenna on the WiFi card connector if the model you purchased is equipped with the WiFi card.

Note: Wifi card can not be used to connect to network in Lenovo Rescue System. Please update virus package via Onekey Antivirus in Lenovo Rescue System with cable network.

1.3.12 Connect the power cords properly to grounded electrical outlets.



1.3.13 If your computer is equipped with a Memory Card Reader Connector, it is able to read/write data from:

Memory Stick/Memory Stick Pro/ Memory Stick Duo /Memory Stick Pro Duo

xD

SD/Mini SD/SD High Capacity / Mini SD High Capacity / MMC/ RS-MMC/ MMC

plus/MMC mobile

CF I/CF II/ MD.

1.3.14 Keyboard

F2: Available for models with the **Rescue System** feature. Press this key to launch **Rescue System** when the Lenovo screen appears during booting.



1.4 Using the Remote Control

The remote control (only shipped with some types of computers) works with the remote control receiver on the chassis. Adjust the angle of the remote control properly.



Buttons on the remote control:

Button	Description
	Up
_	Down
◀	Left
•	Right
OK	Confirm
•	Back
i	Details
Ħ	Guide (This function is not available in Microsoft Windows operating systems.)
Ď	Shows live TV on the currently selected channel.
Ŏ	Displays the Recorded TV page in Windows Media Center.
	Play
II	Pause
	Stop
	Record
>>	Fast Forward
44	Rewind
SKIP	Skip
REPLAY	Replay

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	Starts Windows Media Center.
	Turns volume up/down
CH PG	Previous/next channel
①	Mute
•	DVD menu
Ů	Power supply (standby)
0~9	Number (or Letter) buttons
#	# key
*	* key
CLEAR	Clear
ENTER	Enter
T	Teletex ON/OFF (Selected models only)
	Red, Green, Yellow, Blue (Selected models only)



Using the Rescue System

This chapter contains the following topics:

- OneKey Recovery
- > Driver and Application Installation
- System Setup
- System Backup
- System Recovery
- > Create Recovery Disc



Attention: Using this program will result in a loss of data.

- You can recover the C drive of the computer
 to the factory default settings or to the
 last system backup status using OneKey
 Recovery. With this operation, all of the
 existing data on drive C will be lost, whereas
 the content and format of the other partitions
 of the hard disk drive will remain unchanged.
- If you want to install an operating system
 with the Windows Recovery DVD and back it
 up with OneKey Recovery, you must format
 the C partition in NTFS format and install
 the operating system on the C partition.
 Otherwise, the OneKey Recovery system
 cannot run.

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Note about the service partition:

The files and relevant data used by the rescue system are saved in the service partition. Deleting this partition will make the rescue system unusable. For more detailed information, see the following instructions:

By selecting Control Panel \rightarrow Administrative Tools \rightarrow Computer Management \rightarrow Disk Management, you can see the service partition, which must not be deleted.

Note: The recovery files and relevant data used by the rescue system are saved in the service partition. If the service partition is deleted or damaged by someone other than authorized Lenovo servicers, Lenovo will not be liable for any losses arising there from in any way.

2.1 OneKey Recovery

OneKey Recovery is an easy-to use application. You can use it to restore your computer to the system default or a previously backed up state.

Detailed Operation Procedure

- 1. Turn on the computer. When the *Lenovo* logo appears, press the **F2** key on the keyboard to start the **Rescue System**, then you can select **OneKey Recovery**.
- Note: System Recovery will overwrite all of the data on drive C. To prevent loss of data, be sure to back up relevant data before performing system recovery.
- Follow the onscreen instructions to select the backup task you want to restore from and disk you want to install operation system, and press Next to start restoration.
- 3. Please wait during the process of system recovery. Do not interrupt the operation during the recovery process.
- 4. After the system is recovered successfully, the software prompts to restart the computer. Restart the computer and enter the system.

2.2 Driver and Application Installation

The Driver and Application Installation function in the rescue system provides a way for the user to conveniently re-install all of the Lenovo applications and drivers that were shipped with your Lenovo hardware.

Method 1: Automatic Installation

Turn on the computer. When the Lenovo logo appears, press the F2 key on the keyboard to start the Rescue System, then select Drivers and Application Installation.

Follow the screen prompts to install the Lenovo Drivers and Application Installation. Click **Install** to start installing the Lenovo Drivers and Application Installation.

The system will restart. After the system has restarted, the installation process will continue until completion.

Method 2: Manual Installation

In the Windows system, Click Start \rightarrow All Programs \rightarrow Lenovo Drivers and Application Installation.

After starting the procedure, install all the drivers and software manually according to the prompts.



- 1. It is recommended not to install the software which is already on the computer.
- 2. Before accessing the operating system, make sure that the Drivers and Application installation has been installed automatically. After that, the manual installation function can be used.

2.3 System Setup

System Setup configures the network configuration for the Lenovo Rescue System to ensure your Rescue System can connect to internet. In addition, System Setup sets and manages all passwords for the Lenovo Rescue system.

2.3.1 Launch

Turn on the computer. When the *Lenovo* logo appears, press the **F2** key to launch **Rescue System**. Then select **System Setup**.

2.3.2 Network Settings

Depending on the network access mode of the computer, select "ADSL" or "LAN Connection" in the network connection modes.

1. If you select "ADSL," input the username and password of the ADSL connection.

2. If you select "LAN connection," configure the IP address and proxy server of the LAN.

2.3.3 Password Management

Password Management allows you to set the password for Lenovo Rescue System and manage it.

The default password is blank.

Set a password when you access the **Password Management** for the first time. If you don't want to set a password, access the system directly and operate accordingly.

2.4 System Backup

Back up your system partition to an image file. In case of a system failure, you can restore your system from this image file.

In the Windows system, click $Start \rightarrow All \ Programs \rightarrow Lenovo \rightarrow Lenovo \ Rescue \ System.$

After starting the procedure, click **System Backup** to back up your system partition according to the prompts.

2.5 System Recovery

Reboot your computer into the system recovery environment. You can choose to restore to a system backup point or the initial state.

2.6 Create Recovery Disc

Create a bootable recovery disc from current system. These recovery discs are used to boot your computer and will guide you through the entire restoration process.

In the Windows system, click $\textbf{Start} \to \textbf{All Programs} \to \textbf{Lenovo} \to \textbf{Lenovo}$ Rescue System.

After starting the procedure, click **Create Recovery Disc** to create a bootable recovery disc from current system.

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Follow the screen prompts to create recovery discs.



Using the Computer Software

This chapter contains the following topics:

To learn more about Using the Computer Software, Refer to the Lenovo Software Instruction on the desktop of your computer.

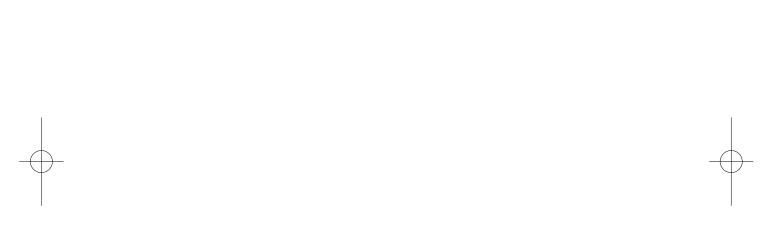
Power2Go - Burning Discs

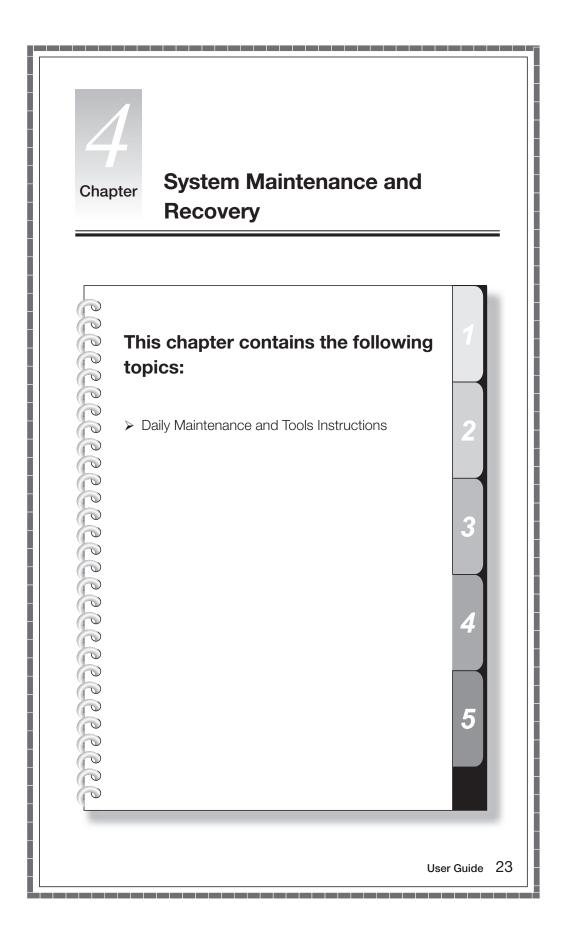
This software only can be used on model with a rewritable optical drive and Blu-ray Burning Disc software is only equipped on the model with Blu-ray Disc rewritable optical drive.

> WinDVD

Some models are equipped with WinDVD software and the WinDVD Blu-ray software is only equipped on the model with the Blu-ray optical drive.

McAfee Security Center





4.1 Restoring the System

The system can develop problems due to erroneous operation or the installation of additional software. If software problems develop in the originally installed software, you can restore the system by using system backup and restoration features.

Note: The existing system settings will change after restoration. Check the settings of the restored system to ensure they match settings that may be critical to your needs.

Use the following procedure to restore the software to a known functional level:

- Click Start → All Programs → Accessories → System Tools → System Restore.
- Choose either the recommended restore point, or select a different recovery time from the pop-up box. Choose the latest date when the system was running properly.

Click Next to continue.

The system will start restoration. When all processes run to completion, the system displays a message informing you that the restore operation has completed successfully.

4.2 Backup and Restore

For security purposes, you can back up the system status before you install additional software, or otherwise modify system settings. To back up the system status, do the following:

- 1. Click Start → All Programs → Maintenance → Backup and Restore.
- 2. Select the location for your backup. Click **Next** and follow the instructions to continue.

4.3 Cleaning Up the Disk

Do the following periodically to clean up the disks and possibly enhance your computer's performance:

- Click Start → All Programs → Accessories → System Tools → Disk Cleanup.
- 2. Choose the disk you want to clean up.
- 3. Click the **OK** button to start the cleanup process.

4.4 Checking For, and Correcting Disk Errors

To properly maintain your system, you should periodically check for and fix hard disk errors by doing the following:

- 1. Right-click the icon for the hard disk drive (HDD) that you want to reorganize, then select Properties from the pop-up menu.
- 2. Select the **Tools** tab, and then click **Check Now**.
- 3. Check your inspection items for the disk and click **Start**.
- Note: You cannot start error checking until the computer is restarted and initialized.

4.5 Defragmenting the Disk(s)

Disk fragments are tiny unused storage areas scattered on the disk. The system cannot directly reutilize these "blank" spaces and system performance can decrease as system operations usually cause the number of unused storage gaps to increase. To defragment your disk storage, do the following:

- 1. Right-click the icon for the hard disk drive (HDD) that you want to reorganize, then select **Properties** from the pop-up menu.
- 2. Go to the Tools tab from disk Properties and select **Defragment Now**.
- Select the time and scheme to be used by the defragging program, then start
 the defragmenting program. Depending on the amount of defragmentation on
 the hard disk drive, this procedure can take a long time (sometimes more than
 one hour).

4.6 Performing Daily Maintenance Tasks

Cleaning the computer components

Because many of the computer components consist of sophisticated integrated circuit boards, it is very important to periodically clean around the computer to prevent dust buildup. The cleaning supplies you need in order to clean the components include: a vacuum cleaner, a soft cotton cloth, clear water (pure water preferred) and cotton swabs.



Attention: Before you clean your computer, disconnect the computer from the electrical outlet. Clean your computer with a soft cloth dampened with water. Do not use liquid or aerosol cleaners, which may contain flammable substances.

Note: To avoid damaging the computer or display, do not spray cleaning solution directly onto the display. Only use products specifically designed for cleaning displays, and follow the instructions that are included with the product.

The following are general methods for cleaning the components:

- You can use a soft cloth to remove dust on the surface of the computer, the monitor, the printer, the speakers and the mouse.
- You can use a vacuum cleaner to clean in otherwise inaccessible corners.
- To clean the keyboard thoroughly, shut down the computer and scrub it gently with a wet cloth.
- Do not use the keyboard until it is dry.

Do not do any of the following:

- Allow water to enter the computer
- · Use a heavily dampened cloth
- Spray water directly onto the surface of the monitor or inside of computer.

Daily attention should be given to LCD monitors. Use a dry cloth daily to brush dust from the monitor and keyboard. Keep all surfaces clean and free of grease stains.

Troubleshooting and Confirming Chapter **Setup** This chapter contains the following topics: > Troubleshooting and Problem Resolution Note: The description of the TV-Tuner card in this manual is only used for the machines which have the TV-Tuner card. It does not apply to those machines that do not have a TV-Tuner card. User Guide 27

Solving Problems

Follow these tips when you troubleshoot your computer:

- If you added or removed a part before the problem started, review the installation procedures and ensure that the part is correctly installed.
- If a peripheral device does not work, ensure that the device is properly connected.
- If an error message appears on the screen, write down the exact message.
 This message may help support personnel diagnose and fix the problem(s).
- If an error message occurs in a program, see the program's documentation.
- Note: The procedures in this document were written for the Windows default view, so they may not apply if you set your Lenovo® computer to the Windows Classic view.

5.1 Troubleshooting Display Problems

Problem: Blank screen or no image is displayed on the monitor

Troubleshooting and problem resolution:

- 1. Check that the monitor has been turned on; if not, press the Power button.
- 2. Check to see if the monitor power cord is loose; if so, securely plug the power cord to the monitor.
- 3. Check that the signal cable to the monitor is securely connected to the connector on the computer graphics card; if not, shut down the computer then securely connect the signal cable of the monitor.

Problem: You need to change display property settings.

Setting display background and icon properties:

- 1. Right-click the desktop anywhere except over an icon, then select Personalize from the pop-up menu.
- 2. From here, select the appropriate options to:
 - Change the desktop background
 - Select a screen saver
 - Select colors and appearance options for icons and characters
 - Set resolution and colors by using Display Settings options.

Problem: Ripple on screen

Troubleshooting and problem resolution:

- 1. Check for devices located less than one meter from the computer such as refrigerators, electric fans, electric dryers, UPSs, regulators, fluorescent lamps or other computers that may be generating magnetic interference.
- 2. Move any interfering devices away from the computer.
- 3. If the problem persists, consult with Lenovo Service.

5.2 Troubleshooting Audio Problems

Problem: No sound from integrated speakers

Troubleshooting and problem resolution:

- Adjust the windows volume control Double-click the speaker icon in the lower-right corner of your screen. Ensure that the volume is turned up and that the sound is not muted. Adjust the volume, bass, or treble controls to eliminate distortion.
- Reinstall the audio driver
- Disconnect headphones from the headphone connector Sound from the speakers is automatically disabled when headphones are connected to the computer's side-panel headphone connector.

Problem: No sound from headphones

Troubleshooting and problem resolution:

- Check the headphone cable connection Ensure that the headphone cable is securely inserted into the headphone connector.
- Adjust the windows volume control Click or double-click the speaker icon in the lower-right corner of your screen. Ensure that the volume is turned up and that the sound is not muted.

5.3 Troubleshooting Software Problems

Problem: You are unable exit a running program normally.

Troubleshooting and problem resolution:

- 1. Open the **Task Manager** window by pressing **Ctrl, Alt** and **Delete** at the same time.
- 2. Select the **Application** tab, select the problem program, and then click the **End Task** button.

Problem: You need to install or uninstall a program.

Problem resolution:

During installation never abort the install process by powering the system off or through other drastic means. This can cause system program disorder or even failure during system initialization.

During the uninstall process, never directly delete the files or folders. This is harmful to the system, and might cause a system-wide malfunction. Use the following procedure to properly uninstall programs:

- 1. Back up all documents and system settings related to the program before removing it.
- 2. If the program has its own uninstaller, run it directly to uninstall the program.
- 3. If the program does not have its own uninstaller, then select Control Panel from Start menu.
- 4. From the Control Panel, choose Programs and Functions.
- 5. Find the applicable program from the Programs and Functions dialog box and then select Uninstall/Modify.
- 6. Perform the instructions displayed to uninstall the software.

5.4 Troubleshooting Problems with Optical Drives and Hard Disks

Problem: The Optical drive is unable to read a CD/DVD.

Troubleshooting and problem resolution:

- Check to determine if there is an optical drive icon in the resource manager
 of the operating system. If not, restart your computer. If there is still no icon,
 contact Lenovo Service. Otherwise, continue with the next step of this
 procedure.
- 2. Confirm that the CD/DVD has been properly placed in the drive. If not, reload the CD or DVD. Otherwise, continue with the next step of this procedure.
- 3. Check the specifications that came with your computer to confirm that this optical drive is supposed to be able to read this type of CD or DVD.
- 4. If the CD/DVD cannot be read, replace it with a known good CD/DVD such as one that was shipped with the computer.
- 5. If the known good CD cannot be read, visually check the operating side of the CD/DVD for defects.

Problem: The capacity of the hard disk, as indicated by the system, is less than the nominal capacity.

Troubleshooting and problem resolution: For computers equipped with the OneKey Recovery feature, the system recovery feature needs to occupy some hard disk space. This may account for the apparent hard disk capacity deficit.

Further Technical Explanation: The nominal capacity of the hard disk is expressed in the decimal system, 1000 bytes. But the actual hard disk capacity is expressed in the binary system as 1024 bytes (For example, the nominal capacity 1G is 1000M, while the actual capacity 1G is 1024M).

The capacity of the hard disk shown in Windows can be calculated according to the calculations in the following example:

The nominal capacity of the hard disk is 40G, while its actual capacity should be: $40 \times 1000 \times 1000 \times 1000 / (1024 \times 1024 \times 1024) = 37G$.

If the Service partition of $3G - 3 \times 1000 \times 1000 \times 1000 / (1024 \times 1024 \times 1024) = 2.79G$ is subtracted, the capacity of the hard disk shown in the system can be obtained.

The capacity of the hard disk as calculated using this method may be slightly different from the actual capacity due to the rounding of totals.

5.5 Special considerations for troubleshooting Windows

Record the following information that may later be useful in troubleshooting system problems:

- 1. The serial number of the software. The serial number was shipped with the computer and was provided separately by the manufacturer. The Help Center is unable to retrieve this number.
- 2. The drivers for this computer model only support the Windows Vista system.
- 3. When you use the Windows Media Center to watch TV, be particularly attentive to the following:
 - In the following two situations, you must re-save a channel list:
 - a. When you change your TV signal from digital to analog, your saved channel list for digital TV is deleted. When you want to watch digital TV again, you must create and save a new channel list.
 - b. When you change your TV signal from analog to digital, your saved channel list for analog TV is deleted. When you want to watch analog TV again, you must create and save a new channel list.

• Before you can watch teletext programming, you must set the TV tuner input signal to analog.