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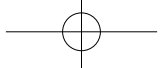
Version 3.0 2008.11



31035995

## IdeaCentre K User Guide





## Key to signs used in this manual



Prohibition: Dangerous operations



Danger: Watch out for high risks



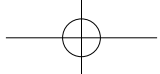
Caution: Watch out for medium risks



Attention: Pay attention to low risks

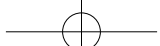


Recommendation: Helpful tips



## Notes

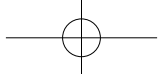
- Before using this information and the product it supports, be sure to read the *Safety and Warranty Guide* that came with this product.
- The software, include in this computer, do not support multi-user level. During switching user, close all existing software in order to avoid program run-time error.



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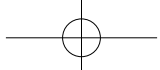
## Key to signs used in this manual

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# 1

Chapter

## Instructions for using computer hardware

### This chapter is organized under the following topics:

These topics describe some of the operations commonly performed during routine use of the computer, including the proper connection of components. Please read it carefully.

**!** **Note:** The configuration of your computer model may vary slightly from the illustrations used in this document.

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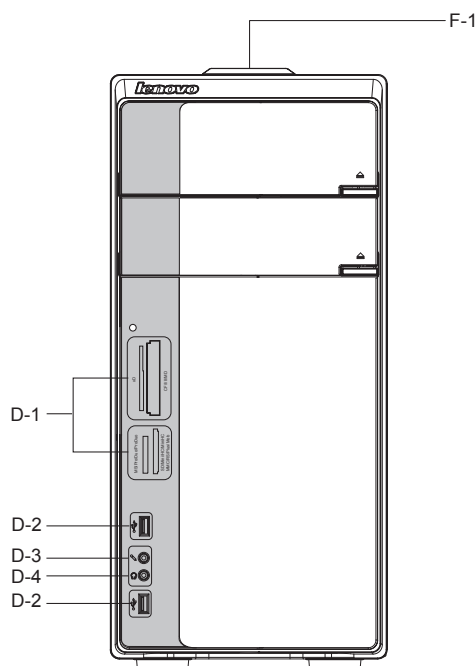
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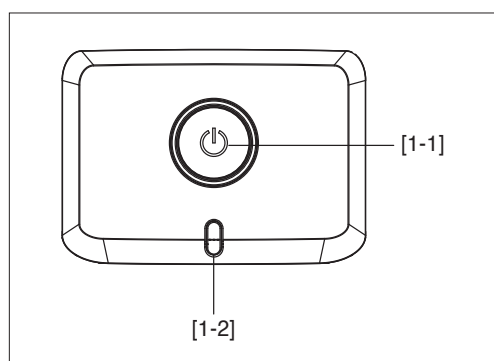


## 1.1 Front view of the Chassis

Instructions for the use of buttons and function keys that are located the front of the computer.

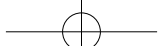


**F-1 Top Mounted Buttons:** Including power switch.



**[1-1] Power switch:** Press this button to turn the computer on or off, or, if the Power Option in the Control Panel has been set to allow it, to hibernate or wake up the computer.

**[1-2] Hard Disk Drive Indicator:** Indicates the read/write operations of the hard disk.



**D-1 Memory card reader Connector:** 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.

**D-2 USB Connectors:** To connect USB devices.

**D-3 Microphone Connector:** To connect the microphone and pass the microphone audio input to the computer.

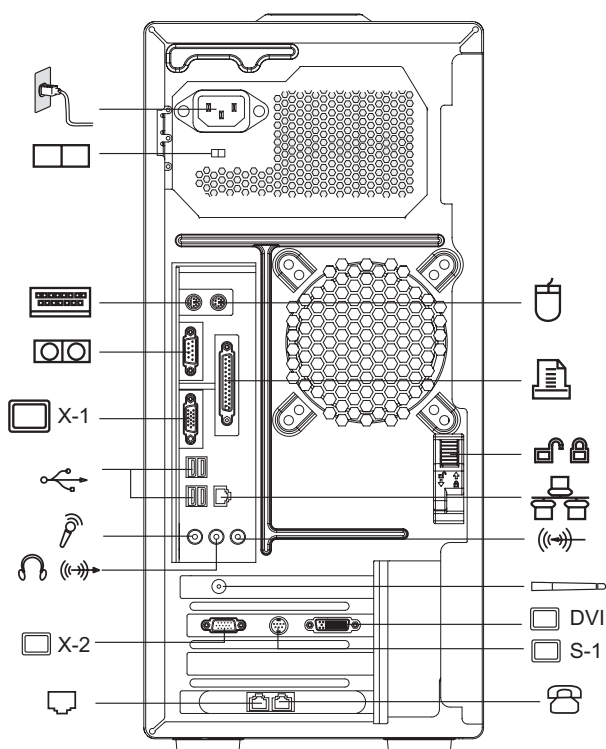
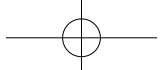
**D-4 Speakers/Headphones Connector:** To connect headphones. If external speakers are used, they can be connected to the Audio Line-out Connector on the back of the machine.

## 1.2 Rear view of the chassis

**Instructions for the use of all I/O interfaces on the rear panel of the computer.**

The following illustrations show connections located at the rear of some computer models. The locations of connectors on your computer will be similar to, but possibly not identical to these. Following the illustrations is a key that explains the symbol callouts used in the figures.





# **Key to symbols used in the above illustrations of the rear of the chassis:**



**Power Connector:** To supply power to the computer.



**PS/2 Mouse Connector:** To connect a mouse having a PS/2 connector.



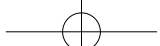
**PS/2 Keyboard Connector:** To connect a keyboard having a PS/2 connector.




**Serial Connector:** To connect devices requiring a serial connection (COM Connector ).




**Parallel Connector:** To connect devices requiring a parallel





connection.


 **X-1** — **On-board VGA Card Connector:** To connect with the signal cable of a monitor. On computer models that have an external graphics card, on-board graphics card signals are shielded and there are no VGA signal outputs. (some models are equipped with this connector.)


 — **USB Connector:** To connect USB devices.

 — **Ethernet Connector:** To connect LAN or broadband network devices.

 **X-2** — **External VGA Card Connector:** To connect with the signal cable of a monitor. It connects with the data cable of the monitor. (Some models are equipped with this connector.)


 **DVI** — **External DVI Card Connector:** To connect to the data cable of the DVI connector. (Some models are equipped with this connector.)

 **S-1** — **S Video Connector:** To connect the data cable of the S video. (Some models are equipped with this connector.)


 — **Chassis Side Lock:** After installing the side panel of the chassis, push the lock upward to lock the side panel in place. To remove the side panel, depress the lock first.

 — **Audio Line-in Connector:** To connect audio input to the computer.

 — **Audio Line-out Connector:** To connect to the speakers or headphones.

 — **WiFi antenna connector:** To connect the computer to a wireless network. (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*.)

 — **Microphone Jack:** To connect to audio input from a microphone.

 — Used to attach your computer to a telephone line for modem use. (some models equipped with this connector)



— Used to attach a telephone line to your computer. (some models equipped with this connector)



— **Voltage: selection switch (Some models are equipped with this switch)**

Check the position of the voltage-selection switch on the rear of the computer. Use a ballpoint pen to slide the switch, if necessary.

1. If the voltage supply range is 100-127 V ac, set the switch to 115 V.
2. If the voltage supply range is 200-240 V ac, set the switch to 230 V.

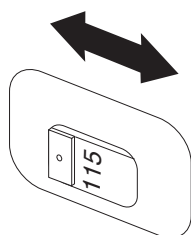


Figure 1

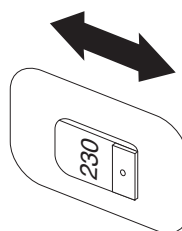
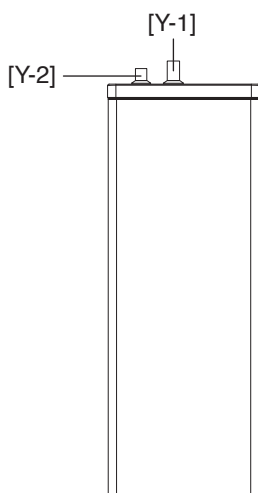
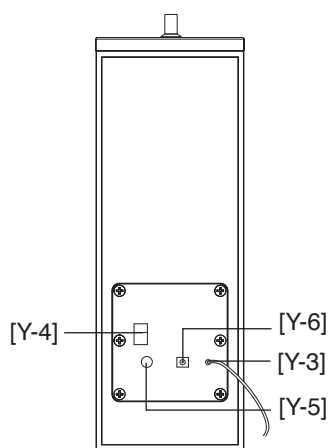


Figure 2

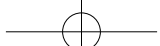
### 1.3 Speaker (some models equipped with Speaker)



Side elevation

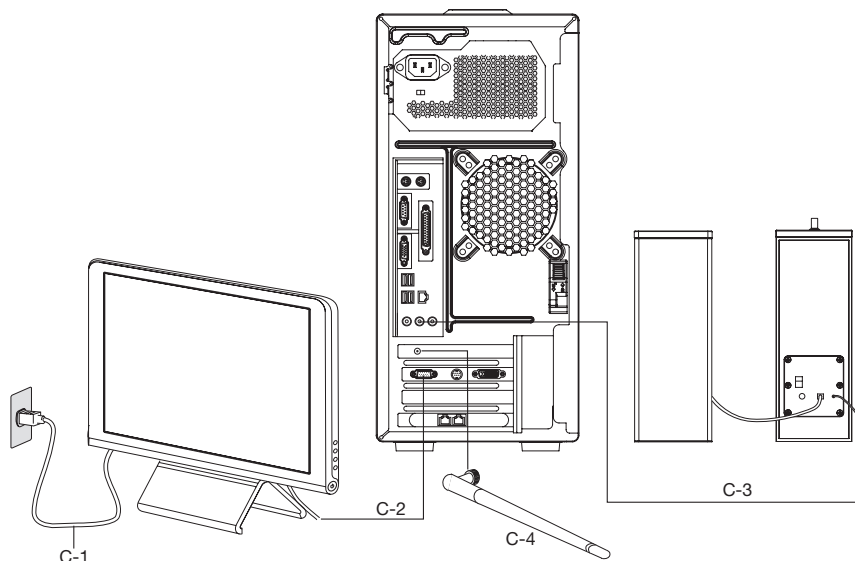


Back elevation



- |                                   |  |
|-----------------------------------|--|
| Y-1 Volume adjustment Knob        | Y-4 Speaker Power Switch                 |
| Y-2 Bass adjustment Knob          | Y-5 Speaker DC IN                        |
| Y-3 Connect to computer Audio-out | Y-6 Primary and secondary speaker cables |

## 1.4 Notes on computer cabling and installation



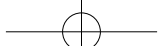
**C-1 Monitor power cord**

**C-2 Monitor data cable**

**C-3 Speaker audio signal cable**

**C-4 WiFi antenna**

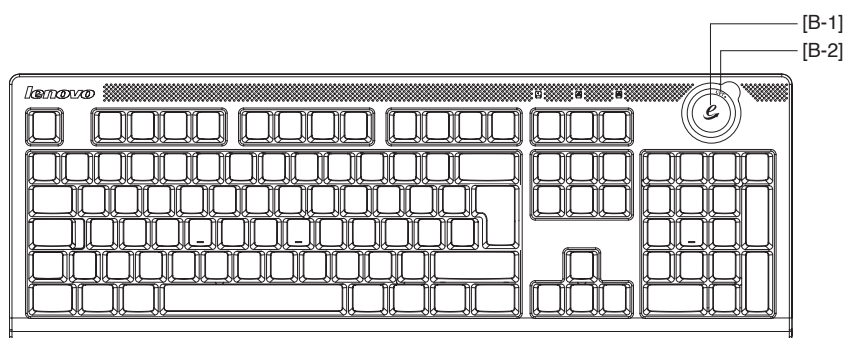
1. Connect the monitor signal cable to the on-board graphics card connector if the model you purchased is not equipped with an external graphics card.
2. If there is an external graphics card, connect the monitor signal cable to the VGA or DVI connector on the external graphics card.
3. If both your computer and monitor have a DVI connector, you can connect the computer to the monitor through your own DVI data cable.
4. If there is only a DVI connector on the external graphics card and the monitor only has a VGA connector, the two can be connected with a DVI-VGA converter.
5. Screw the WiFi antenna on the WiFi card connector if the model you purchased is equipped with the WiFi card.



### ! Notes:

- Keep speakers away from the monitor to avoid magnetic interference.
- Ensure the monitor-to-computer cable connections are secure, with screws tightened.
- Connect the monitor signal cable to the on-board graphics card connector if the model you purchased is not equipped with an external graphics card.
- 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.

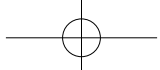
## 1.5 Keyboard



(This picture is only a sketch map for the keyboard, it does not show the detail of the key)

**[B-1]** — Press this key under Windows system to launch the IE.

**[B-2]** — LVT key, available for models with the “**Rescue System**” feature. Press this key to launch “**Rescue System**” when the “Lenovo” screen appears during booting.



# 2

## Chapter

# Rescue System Operation Instruction

### The following topics will be introduced in this chapter:

- Installing Drivers and Software
- OneKey Recovery
- File Management
- OneKey Antivirus

You can recover drive C of the computer to factory status or the last system backup status using OneKey Recovery. With this operation, all of the existing data in drive C will be lost while content and format of the other partitions in the hard disk drive will remain unchanged.

If you want to install operation system with Windows Vista CD and *backup it with OneKey Recovery*, you must format the partition C to be NTFS format and install the operation system in the partition C. Else the OneKey Recovery can not run.

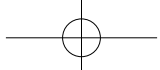
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## Note about service partition:

The files and relevant data of the rescue system are saved in the service partition. Do not delete this partition. Otherwise, the rescue system will become unusable. For detailed operations, see the following instructions:

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

**!** **Note:** The recovery files and relevant data of the rescue system are saved in the service partition. If the service partition is deleted or damaged by someone other than Lenovo maintainers, Lenovo shall not be liable for any losses arising therefrom in any way.

## Rescue system and keyboard operation

The rescue system works only if it runs together with the standard-configuration keyboard of this model. If there is no keyboard of standard configuration, the rescue system function will not work normally.

## 2.1 Installing Drivers and Software Shipped with Computer

The “Installing drivers and software” in the rescue system provides a way for the user to install the drivers and software shipped with the computer conveniently. It can install all drivers and software shipped with the computer automatically, and can selectively install some of the drivers and software as required by the user.

### Method 1: Automatic Installation

Power on the computer. When the screen displays the “Lenovo” picture initially, press the “LVT” key on the keyboard to start the **Rescue System**, select **Install drivers and software**.

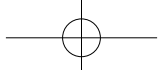
Install them as prompted. Click **Install** to start installing the drivers and software.

The system restarts. After the system is restarted, the installation process goes on until completion.

### Method 2: Manual Installation

#### Launch

In the Windows system, Click **Start** → **All Programs** → **Lenovo** → **Drivers &**



**Application Installation.** In the main interface of software, install all the drivers and software automatically, or install some of them selectively.

In the software list, check the software to be installed. It is recommended not to install the software which is already on the computer.

**!** **Note:** In order to use all software shipped with the computer properly, the tool software pctype must be installed. Otherwise, certain software shipped with the computer cannot work normally!

## 2.2 OneKey Recovery

### Main functions:

1. If a Windows operating system is preinstalled in your computer, the OneKey Recovery function works in the following way:

**Recover Factory Backup:** Recover the computer system partition (drive C) to the original factory default settings.

**!** **Note:** After this operation, all existing data in the system partition will be lost and other partitions on the disk will remain unchanged. In order to prevent loss of data, be sure to back up important data before this operation.

2. If a Windows operating system is not preinstalled in your computer, the OneKey Recovery function will instead contain the following two functions:

**Create base backup:** Without factory backup, the Lenovo OneKey Recovery enables you to back up all data of the current system partition manually after installing the operating system and common software. Upon completion of base backup, you can use the Recover Base Backup function to recover the system partition to the original factory default settings.

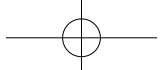
**!** **Note:** Create base backup only can be used once. Once the user has performed the operation of base backup, this operation cannot be used anymore.

It is recommended to perform this operation after installing the Windows operating system and the drivers & software shipped together with the computer.

Otherwise, the backup space is insufficient.

**Recover base backup:** This operation recovers the computer system partition (drive C) to the state of base backup.





- ❗ **Note:** After this operation, all existing data in the system partition will be lost, and other partitions on the disk will remain unchanged. In order to prevent loss of data, be sure to back up important data before this operation.
- ❗ **Note:** Do not change the size of partition drive C after the backup operation. This will ensure that the required space for every recovery option is available.

### Detailed Operation Procedure (example: Recovering Factory Backup):

1. Power on the computer. When the screen displays the Lenovo picture initially, press the LVT key on the keyboard to start the Rescue System, where you can select OneKey Recovery.
2. Select Recover Factory Backup to start the system recovery function.

- ❗ **Note:** System Recovery will overwrite all of the data in drive C; In order to prevent loss of data, be sure to back up relevant data before performing system recovery.
3. Follow the onscreen instructions, and press E on the keyboard to start recovery if you are sure you want to recover.
  4. Please wait during the process of system recovery. Do not interrupt the operation during the recovery process.
  5. After the system is recovered successfully, the software prompts to restart the computer. Restart the computer and enter the system.

## 2.3 File Management

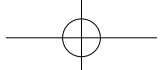
With the **File Management** module, you may access the critical data in directories such as **Desktop** or **Document** of the system partition (usually drive C) when the system crashes and is irrecoverable, and backup such data into other partitions or storage devices.

### Launch

Power on the computer. When the “Lenovo” picture appears on the screen initially, press the “LVT” key to launch **Rescue System**. Then select **File Management**.

### File Backup

Select the file and folder to be copied in the left dialog box, and select the target folder and drive letter in the right dialog box. The drive letter of the source file must be different with the target drive letter. Then click **Copy**.



## File Backup

Wait while copying.

**!** **Note:** Please wait while copying; time for this operation depends on the quantity and size of files you need to copy. Do not turn off the power forcefully, otherwise it might cause file system abnormality.

## Configuring a Password

Click the key-shape icon on the upper right side of the main interface to configure the password.

To ensure authentication of the user ID who is copying the files, the Lenovo file management function enables you to configure a protection password - the user is unable to access the files in your hard disk drive partitions without passing the password authentication.

The default password is blank.

File management provides the search function, and backs up the searched files. Input the file or file type to be searched, click **Search** on the lower side to start searching files.

### Precautions:

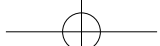
1. In the process of copying files, do not cut off the power supply of the computer. Otherwise, it may damage the files in the hard disk drive.
2. The disk partition identifier in the file management interface may fail to correspond to that in the Windows system. Select it according to the directory content.
3. The file copying function cannot be performed in the same partition. If the source address and the target address share the same partition, the Copy button is disabled.

## 2.4 OneKey Antivirus

The OneKey Antivirus is independent of the operating system. It can implement general virus scan and killing, and can scan and kill viruses even when the Windows cannot start and the antivirus software cannot work as a result of virus infection, thus solving the problem of inability of using the computer after the virus damages the operating system.

### Launch

Power on the computer. When the “Lenovo” picture appears on the screen initially, press the “LVT” key to launch Rescue System. Then select OneKey Antivirus.



## Scan and kill viruses

Select **Full Scan** or **System Scan** to scan the disks.

**Full Scan** — Scan all partitions of the disk consecutively and kill the detected viruses.

**System Scan** — Only scan the operating system partition (usually drive C) and kill viruses in it.

## Scan and kill viruses

Please wait while the software is scanning and killing viruses. Try to avoid interruption of the process.

### Scan and kill viruses — stop

If you need to stop scanning or killing viruses halfway, click **Stop**. In the stop interface, click **OK** to stop the virus killing process. Or click **Cancel** to continue scanning.

### Scan and kill viruses — results of scan

The software will report the results of scan upon completion of virus scanning and killing, and will list all viruses killed and quarantined.

### Scan and kill viruses — quarantined zone

Click **View quarantine** to display the files which are infected with viruses and quarantined.

In the quarantined zone, you can clear, delete and recover the infected files.

## Update

To get OneKey Antivirus function to work normally and ensure detection of the latest viruses, the virus definitions need to be updated continuously. In the **OneKey Antivirus** main interface, select **Update** to start update of virus definitions.

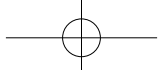
### Update — online Update

1. Virus definitions can be updated by:

- Downloading the latest virus package online.
- Obtaining the latest virus package from the flash disk.

First, we introduce the method of updating online. Select **Download latest virus package from Trend Technologies**, and click **Update Now**.


2. Depending on the network access mode of the computer, select “ADSL” or “LAN connection” in the network connection modes.



3. If you select “ADSL”, input the username and password of the ADSL connection.  
If you select “LAN connection”, configure the IP address and proxy server of the LAN.
4. After the network is configured properly, the software will prompt success of network configuring. Click **OK** to start updating.
5. Please wait while the update process is going on. Try to avoid interruption of the process.  
After the virus definitions are updated successfully, the software will prompt success of update.

### Update — Obtaining the latest virus package from the flash disk

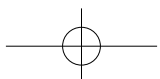
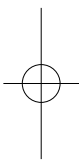
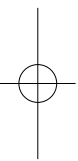
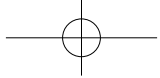
1. First, make a flash disk for purpose of OneKey Antivirus in the Windows system. Connect the flash disk to the USB connector, and click **Start** → **All Programs** → **Lenovo** → **Download USB update package**.

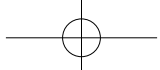
 **Note:** Connect to the Internet before making the OneKey Antivirus flash disk.

2. Save the latest virus definitions in the flash disk. Restart the computer and access the OneKey Antivirus interface.
3. Select **Obtain latest virus package from flash disk**, and click **Update Now**.  
The virus definitions will be updated automatically.

 **Note:**

1. OneKey Antivirus does not promise to solve all problems caused by computer viruses. If the problems persist after you apply the OneKey Antivirus, use other methods to recover the system or solve the system problems.
2. This software only scans and kills the viruses in the hard disk drive partitions instead of the floppy disk, flash disk or CD. You can install and use the virus killer software under the Windows to scan such media.
3. In the process of cleaning viruses, do not cut off the power supply of the computer. Otherwise, it may damage the files in the hard disk drive.





# 3

## Chapter

## Using the software

This chapter contains the usage of the software shipped with your computer.

### 1. Intervideo: WinDVD

**Website:** [www.intervideo.com](http://www.intervideo.com)

**Support E-mail:** [support@intervideo.com](mailto:support@intervideo.com)

### 2. Cyberlink: Power2go

**Web support:**

**English:** <http://support.gocyberlink.com>

**Traditional Chinese:** <http://tw.cyberlink.com/chinese/cs/support/index.jsp>

**Simple Chinese:** <http://cn.cyberlink.com/chinese/cs/support/index.jsp>

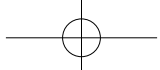
**French, German, Italian, Spanish:** [http://de.cyberlink.com/multi/program/page/\\_page\\_display.jsp?seqno=173](http://de.cyberlink.com/multi/program/page/_page_display.jsp?seqno=173)

**Support E-mail:** [goCyberlink@aixtema.de](mailto:goCyberlink@aixtema.de)

3. Lenovo Veriface and Lenovo healthcare software only can be functionalized with the Lenovo PC Bright Eye Camera on the Lenovo consumer 19" W LCD or 22" W LCD monitor which can be compatible with this kind of camera .



**Note:** The interface and function of each of these features is subjected to the actual software that was shipped with computer model that you purchased.



### 3.1 Power2Go — Burning Discs (This software only can be used on model with a rewritable optical drive. Some models are equipped with this software.)

**Power2Go** is the software for disc burning. It provides various burning tools that enable you to easily store your files into CDs or DVDs.

**Power2Go** can make common data discs, music discs, video/photo discs and mixed discs. It also supports disc duplication.

 **Note:** This software does not support the burning of VCD audio or Blu-ray disk DVDs.

#### Launch

1. Choose **All Programs** → **Lenovo** → **Power2Go** → **Power2GoExpress** from the **Start** menu to launch the burner program.
2. The shortcut to launch the burner software is the block icon on the desktop. To use the burner program, just drag and drop the files to be recorded onto their appropriate data, music, or video icon.

#### Starting the Burner Software

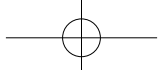
1. Choose **All Programs** → **Lenovo** → **Power2Go** → **Power2Go** from the **Start** menu to launch the burner program.
2. Choose a task for the burner from the task list. Then start the burner to record files.
3. You can choose the medium to burn from the disc type, and then click the OK icon to access the burner interface.
4. Select the file to be burned from the select source box, and then click the add files icon to add your files into the disc compilation column. Click the burn icon to start burning process.

#### Disc Utility

The burner also provides utility tools for preparing and processing various CDs and DVDs, such as the recording of mirror files, erasing of discs, and conversion of audio.

#### Help

For more information about the use of **Power2Go**, click the **Help** icon.



## 3.2 DVD MovieFactory (This software only can be used on model with a rewritable optical drive. Some models are equipped with this software.)

DVD MovieFactory is the software for creating DVD, VCD, SVCD and BD (Blu-ray DVD) video discs or slideshow discs, etc. It can make common data discs and also supports copy disc.

DVD MovieFactory provides disc tools that enable you to easily format or erase the discs.

### Launch

1. Choose **All Programs** → **Ulead DVD MovieFactory 5 SE** → **Ulead DVD MovieFactory 5 Launcher** from the **Start** menu to launch this program.
2. The shortcut to launch this DVD MovieFactory software is to double click the block icon on the desktop.

### Video Disc

Add video and interactive menu create a video disc.

To create a new project, select **New Project** and choose a format under **Output disc type**. To edit an existing project, select **Open Existing Project** and browse for the project file. Creating a new project or opening an existing one takes you to the **Add or Edit Media** step.

### Slideshow Disc

Add photos and interactive menu create a slideshow video disc.

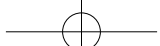
To create a new project, select **New DVD or BD (Blu-ray DVD) Project** to create a slideshow or collect multiple slideshows. To edit an existing project, select **Open Existing Project** and browse for the project file. Creating a new project or opening an existing one takes you to the **Add or Edit slideshow** step.

### Data Disc

Add data files to a CD, DVD or Blu-ray Disc to burn a data disc.

To create a new data disc, select the medium from **Data Disc** to start burning task. Click the add files icon to add files and folders into data disc column, or just drag and drop files and/or folders to be burned.





## Copy Disc

Supporting to create a copy of a disc, convert DVD+VR/-VR video to DVD-Video and burn an existing disc image file to a disc.

## Disc Tools

**Format Disc:** Format a disc in the UDF file system you select.

**!** **Note:** Quick format can be performed only on a disc that has been formatted. Some discs such as DVD-RW and DVD+RW can be formatted using Quick format directly.

**Erase Disc:** Remove the contents of a rewritable disc and make it ready for writing again.

## Help

For further information about the use of DVD MovieFactory, click the **Help** icon or press **F1**.

## 3.3 WinDVD (Some models are equipped with WinDVD Blu-ray software.)

With WinDVD, you can play DVD and VCD.

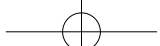


### To launch the player:

Double click the **InterVideo WinDVD8** on the desktop.  
Launch the player.

Click the “?” icon to obtain more information about WinDVD.

WinDVD Blu-ray Disc(BD) is the software for disc player. It can play DVD standard format disc and Blu-ray format disc with the optical drive.



The WinDVD player includes the following basic buttons:

▶ — Play

◀◀ — Move backward within the current track

|| — Pause

▶▶ — Move forward within the current track

▼ — Track list

■ — Stop

◀ — Go to the previous track

▲ — Eject

▶ — Go to the next track

🔊 — Mute

▬ — Volume

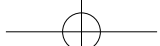
### 3.4 Lenovo Healthcare Software (This software only can be preinstalled on model with 32-bit Windows Vista operating system.)

Lenovo Healthcare Software is a smart software platform that helps parents to guide their children to use computer correctly, thus to protect and promote healthy growth of their children.

**With the bright vision function, the Lenovo Healthcare Software:**

- Automatically monitors the distance between the child's head and the computer display during computer operation, and prompts the child to keep a proper distance from the computer monitor.
- Automatically adjusts the display brightness of the computer according to the ambient brightness.
- Helps the child keep a proper sitting posture while operating a computer.

In a word, the Lenovo Healthcare Software protects the healthy growth of children's



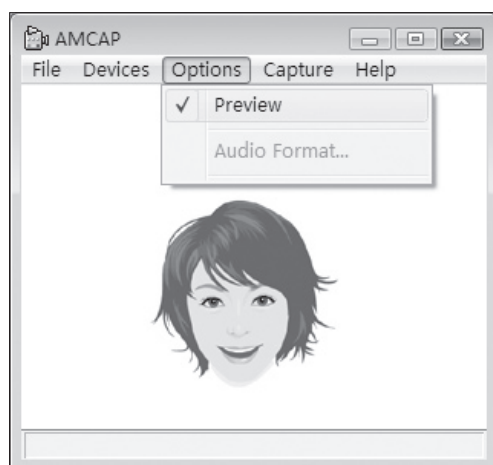
spines and vision (the use of Lenovo PC Bright Eye camera is required before such functions are available).

## Bright Vision Setting

1. The Lenovo PC Bright Eye camera and Lenovo Healthcare Software work together to ensure proper distance between the computer operator and the computer display and adjust the display brightness to a comfortable level, thus to protect the operator's vision.
2. This function applies only to the computers equipped with Lenovo PC Bright Eye camera and is available only after the camera is installed.
3. For details about installing Lenovo PC Bright Eye camera, see “**Installation Guide for Lenovo Bright Eye Camera**” in this document.
4. Before using this software, you need adjust the pitching angle of web camera to appropriate position.

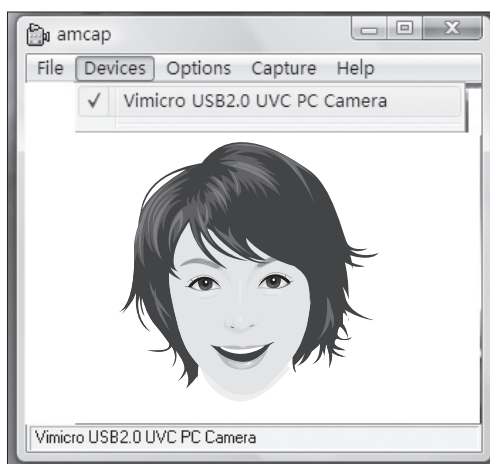
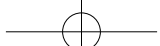
### The operation is as following:

- 1) Click **Star** → **All Programs** → **Vimicro UVC Camera** → **vmcap**.



- 2) Select **Options** → **Preview** from the pop window to display image in the video capture window.

**! Note:** If there is no image display in AMCAP video capture window, please confirm whether the “Preview” in the “Options” has been checked.



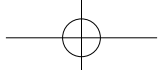
- 3) Confirm the **Devices** → **Vimicro USB 2.0 UVC PC Camera** has been checked. If there are some other devices in this option, do not check them. Only choose the “**Vimicro USB2.0 UVC PC Camera**” device, the window can display the camera image. Now, an image, which is caught by **Lenovo PC Bright Eye** camera, will be displayed in the video capture window. Adjusting the position and pitching angle of the camera to make the whole face display in the video capture window. So that you may use **the Lenovo PC Bright Eye camera** and **Lenovo Health Care Software** very well.
- 5 Select **Lenovo Healthcare Software** → **Bright Vision**.
- 6 After installing the camera, click **Distance Setup** or **Brightness Adjustment** to set it.

## Distance Setup

1. Select the display type according to the size of the display used.
2. Select **Healthy Viewing Distance Selection** to set the distance between the computer operator and the computer display.  
By default, “Default” is selected. You can adjust the viewing distance according to your requirement.
3. Select **Response Time Setting** to set the duration when the distance between the operator and the display is shorter than the health viewing distance before an alarm is given.

## Brightness Adjustment

1. Adjust the display brightness according to the ambient brightness.
2. There are three levels of ambient brightness: Dim, Moderate, and Bright.



3. When you use the computer for the first time, you should set the proper display brightness according to each level of ambient brightness.
4. For each level of the ambient brightness, the recommended display brightness is selected by default. Please adjust your display brightness to a comfortable level.
5. After the brightness setting is completed, the display brightness will be automatically changed according to the current level of ambient brightness.

### **! Notice:**

1. Ensure the lens of the camera is not masked by anything.
2. Ensure your eyes are not masked by anything. (The function detect the distance between the user and monitor based on the user's eyes. So if the image of the eyes are masked or the reflection is too blazing, the distance detection may be affected.)
3. The limitation of the distance detection by the camera:  
The minimum distance : about 20CM  
The maximum distance : about 70CM  
The pitch angle(the face rotary angle scope in the vertical):  
Elevation angle: 20 degree  
Depression angle: 30 degree  
The horizontal rotary angle(the face rotary angle scope in the horizontal):  
-20~+20 degree

## **3.5 Trend Micro Internet Security**

If the Trend Micro Internet Security antivirus software is installed on your computer, operate according to the following instructions.

Trend Micro Internet Security is a common type of antivirus software. It can scan and kill viruses and Trojans (spy) in the computer.

### **Launch of Trend Micro Internet Security**

Choose Trend Micro Internet Security in All Programs from the Start menu to launch the Trend Micro Internet Security antivirus software.

Another option is to right click the icon of Trend Micro Internet Security in the notification area and launch the antivirus software in the pop-up options.

### **Scanning viruses**

In the main interface of Trend Micro Internet Security, click the scan icon to scan



the computer. Upon completion of scanning, the software will pop up a system scanning report, which lists all virus files detected, and you can quarantine or delete them as required.

## Upgrade

In the main interface of Trend Micro Internet Security, click the update icon to upgrade the virus definitions of the software.

**!** **Note:** Connect to the Internet before upgrade.

## Configure scanning of the specified disk

In the main interface of Trend Micro Internet Security, select Custom Scan from more options. You can select the disks that you want to scan in the scan targets.

## Other protection functions

Other settings of the software are available in the toolbar on the left side, including the setting of protection against Trojan viruses, the setting of personal network and interconnection, and the setting of email. Configure them as specifically required.

## Help and support

For more information on the operation of Trend Micro Internet Security, see Product Help Information in the Help and Support option. In the help document, you can learn more about the operation and settings of Trend Micro Internet Security.

**!** **Note:** Restart your computer as per the prompt dialog box after uninstalling the Trend Micro Internet Security.

## 3.6 Lenovo Media Studio (This software only can be preinstalled on model with 32-bit Windows Vista operating system.)

Lenovo Media Studio provides a platform of transacting and processing digital video files to enable you to easily complete the entire work of making video files from video capture to processing. In addition, this software helps you create movies and photo slides with professional appearance, dubs, captions, movie effects, transitions, and so on.

## Start

Select **[Start]** → **[Programs]** → **[Lenovo]** → **[Lenovo Media Studio]**.



## Capture

Use the capture function of the software to import video or audio file from external devices. In the capture setting dialog box, select the video source to import the video.

Add the selected or captured video to the main video track.

## Modify

In the toolbar, select modifying items such as transition, title and audio, drag and drop them to corresponding modifying tracks (title track, audio track, etc.) to process the video file.

After modifying the video file, do the following to make the video file: Click the Create icon, set the file format and properties, and then click [√] button to export the file.

After exporting the file, click the Back button to return to the main interface.

For details about using this software, see help documents.

## 3.7 Veriface (This software only can be preinstalled on model with 32-bit Windows Vista operating system.)

The Lenovo VeriFace software was developed by Lenovo for application in a wide array of security systems. It is a fast and accurate biometrics, facial recognition system that can be implemented with Lenovo computers and video-capture hardware.

This software applies only to the computers equipped with Lenovo PC Bright Eye camera and is available only after the camera is installed.

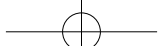
### ! Notes:

Use the following guidelines to ensure the best performance during face registration and verification:

**Location:** When initially registering your face image, ensure your face is centered and oriented directly at the camera.

**Facial expression:** The Lenovo VeriFace software is designed to account for various facial expressions. However, the following guidelines will help produce the most accurate results.

Keep your face relaxed and in a natural position



Keep your eyes open

Keep your face turned toward the camera

Keep your face clear of obstructions such as stray hair or glasses that were not present during your initial face registration

**Avoid making the following expressions:**

Laughing

Raising your eyebrows

Closing your eyes

Looking away from the camera

Looking sideways

Frowning

**Image change:** Although we have already dealt with some particular situations like varying hairstyles or facial hair, some significant changes, such as shaving off a beard, can affect the accuracy of the face image verification. To avoid failed verification, register a new face image. For more information, see Register face image.

**Light:** Ensure you are in an environment with steady and even light. The following situation may affect the results:

Bright light behind your head

A window with bright light

Bright light pointed directly at your face or the camera

Insufficient, directional light, such as a reading lamp

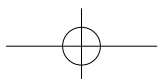
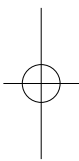
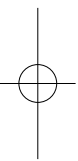
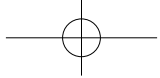
Darkness

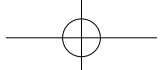
**Glasses:** Because different glasses have different effects on light, we recommend you to take off your glass or wear untinted glasses with very narrow rims. Be sure to take off dark colored glasses like sunglasses or sports glasses.

**Video camera:** Be sure to use the same video camera when you log in or out. Images taken by different video cameras might produce different effects, which can cause the face verification to fail.

More detail information, please click “?” to get help document.







# 4

## Chapter

# System maintenance and recovery

### This chapter includes the following topics:

- System restoration
- Hard disk cleanup
- Hard disk error checking and correcting
- Hard disk defragmenting
- Daily maintenance

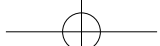
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## 4.1 Restoring the system

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.

### ! Notes:

- The system closes all programs before it performs system restoration. Be sure to save your data.
- 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:

1. Choose **System Restoration via Start** → **Programs** → **Accessories** → **System tools**.
2. Choose either the recommended restore or select a different recovery time from the pop-up box. Choose the latest date when the system was running properly.
3. Click **Next**.

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

## File Backup

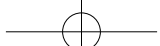
For security purposes, you can back up the system status before you install additional software, or otherwise modify system settings. To backup up the system status, do the following:

1. Follow the above steps to enter the backup status and configuration. Select **Run file backup immediately**.
2. Select the location for your backup. Click **Next** and follow the instructions to continue.

## 4.2 Cleaning up the disk

Do the following periodically to cleanup the disks and possibly enhance your computer's performance.

1. Choose **Disk Cleanup via Start** → **Programs** → **Accessories** → **System tools**.
2. Choose the file you want to clean up.



3. Click the **OK** button to start the cleanup process.

### 4.3 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, then click **Check Now**.
3. Check your inspection items for the disk and click **Start**.

You cannot start error checking until the computer is restarted and initialized.

### 4.4 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. Go to the Tools tab from disk Properties and select Defragment Now.
2. Select the time and scheme to be used by the defragging program, then start the defragmenting program.

Defragmentation usually takes a long time.

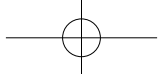
### 4.5 Performing daily maintenance tasks

#### 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.

#### Following are general methods for cleaning the components:

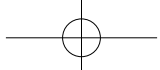
- You can use a soft cloth to remove dust on the surface of the computer, the monitor, the printer, the speakers and the mouse.
- You can use a vacuum cleaner to clean in otherwise inaccessible corners.
- To clean the keyboard thoroughly, shut down the computer and scrub it gently with a wet cloth
-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



# 5

Chapter

## Troubleshooting and Confirming Setup

### This chapter contains information on the following topics:

- Troubleshooting display problems
- Troubleshooting audio problems
- Troubleshooting software problems
- Troubleshooting problems with optical drives and hard disks

The description of the TV card in this manual is only used for the machines which have the TV card. It is invalid for those machines which do not have TV card.

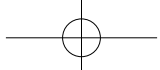
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## 5.1 Troubleshooting display problems

**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:

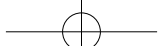
1. Check for devices located less than one meter from the computer such as refrigerators, electric fans, electric dryers, UPSs, regulators, fluorescent lamps or other computers that may be generating magnetic interference.
2. Move any interfering devices away from the computer.
3. If the problem persists,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

## 5.2 Troubleshooting audio problems

**Problem:** When you connect the headphones to the front audio output connector, the speakers connected to the back audio output connector are silenced.

### Troubleshooting and problem resolution:

The front audio output connector is provided for convenience and has a priority higher than the back audio output connector. If a speaker or headphones are connected to the front audio output connector, sound is delivered through those devices and any devices connected to the rear connector become silenced.



**Problem:** You are unable to get any sound from either the front or the rear output connectors.

**Troubleshooting and problem resolution:**

1. Check that the cable between the speakers and computer is properly connected.
2. Make sure the audio option in the lower right corner of the taskbar is not Mute.
3. Check that the volume of each sound channel is set to an audible level; if not adjust the volume to the appropriate level.
4. If the problem persists, re-install the driver for the audio card by clicking in succession **Start** → **All Programs** → **Lenovo** → **Drivers and Software Installation**.

## 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, then click the **End Task** button.

**Problem:** You need to install or uninstall a program.

**Problem resolution:**

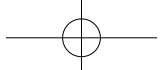
***During installation*** never abort the install process by powering the system off or through other drastic means. This can cause system program disorder or even failure during system initialization.

***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. Backup 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:

1. 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 can not 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 can not 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 One-Key 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.