

Machine type: 10142/F0A9

lenovo

Lenovo

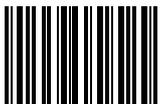
IdeaCentre Flex 20 Series

User Guide

lenovo

www.lenovo.com

Version 1.0 2013.07



31504647



ideacentre

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 product damage.

The interface and functions shown in this User Guide are provided for reference only and may differ from actual product appearance. Product design and specifications may be changed without notice.



Danger: Be aware of extremely hazardous or potentially lethal situations.



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



Note: Pay attention to this important information.

© Copyright Lenovo 2013. All rights reserved.

LIMITED AND RESTRICTED RIGHTS NOTICE: If data or software is delivered pursuant a General Services Administration "GSA" contract, use, reproduction, or disclosure is subject to restrictions set forth in Contract No. GS-35F-05925.

Contents

Important Safety Information

Using the Computer Hardware 1

Front view of the computer.....	2
Left and right view of the computer	3
Rear view of the computer	4
Screen rotation.....	5
Computer stand.....	6
Connecting your computer.....	8
Important information about using the computer	9
Connecting to the Internet.....	10

Using the E-Dice..... 11

E-Dice Components and Connectors.....	12
Charging the E-Dice.....	12
Playing with the E-Dice.....	13
Use and Maintenance	14

Using Windows 8..... 15

Switching between the main Windows 8 interfaces	16
The Charms Bar.....	16
Shutting down the computer.....	16
Switching between apps	17
Closing an app.....	17
Opening other system programs	17
Windows Help and Support	17

Touch screen instructions	19
Touch Screen Calibration.....	20
User Gesture Instructions for the Touch screen	20
Precautions when using the Touch Screen	25
Using the Rescue System.....	27
OneKey Recovery	28
Driver and Application Installation	29
Using the Software.....	31
Lenovo Support	32
Troubleshooting and Confirming Setup	33
Troubleshooting Display Problems.....	34
Troubleshooting Touch screen.....	35
Troubleshooting Audio Problems	35
Troubleshooting Software Problems	36
Troubleshooting Problems Hard Disks	37
Special considerations for troubleshooting Windows	37
Windows Help and Support	38
BIOS setup utility.....	38
Performing Daily Maintenance Tasks	39
Appendix.	41
Declaration.....	41
Trademarks	42
Energy Star Statement	43
Enabling ErP compliance mode.....	44

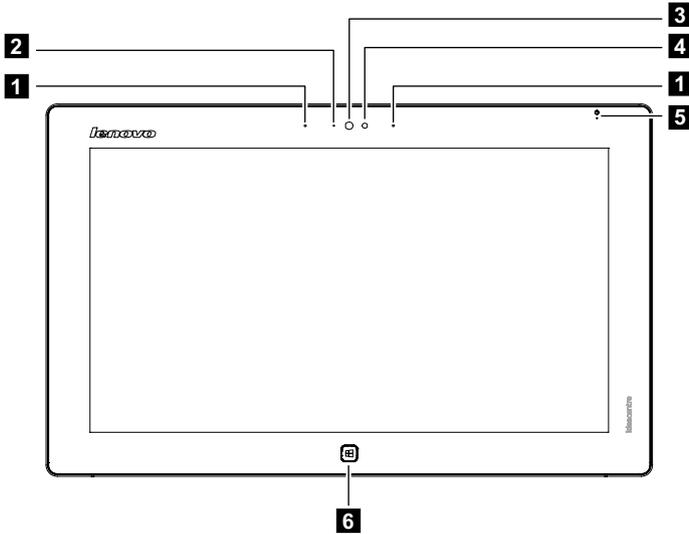
Using the Computer Hardware

This chapter contains the following topics:

- Introduction to the computer hardware
- Information on computer connections

 **Note:** The descriptions in this chapter might be different from what you see on your computer, depending on the computer model and configuration.

Front view of the computer



- | | |
|------------------------------|--------------------------------|
| 1 Built-in microphone | 2 Camera LED indicator |
| 3 Built-in camera | 4 Ambient light sensor* |
| 5 Power LED indicator | 6 Windows button** |

! **Note:** Battery status is displayed in several places in the Windows OS. You will be alerted when the battery starts to run low. Make sure you connect the power supply when you receive an alert.

* Ambient light sensor

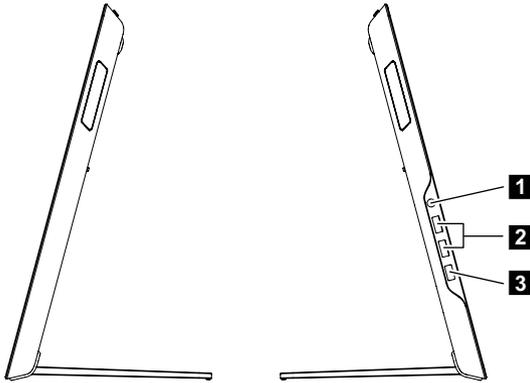
The ambient light sensor detects the amount of light in your surroundings. The screen brightness automatically adjusts depending on the ambient light conditions detected by the built-in ambient light sensor.

** Windows button

Press this button to:

- toggle between the current view and the Start screen
- or
- wake up the computer from sleep mode

Left and right view of the computer



- 1** Combo audio jack*
- 2** USB 3.0 connectors (2)
- 3** Power connector

* **Combo audio jack:** Used to connect headsets.

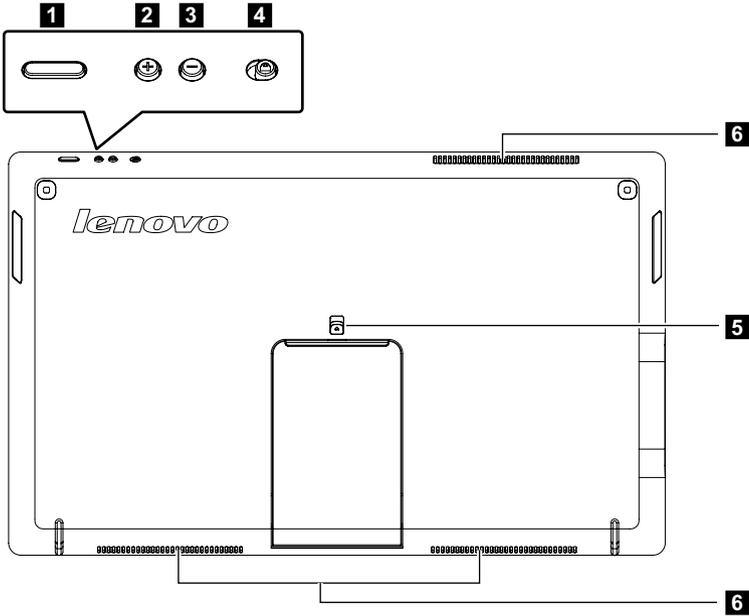
⚠ Notes:

- The combo audio jack does not support conventional microphones.
- Different industry standards may lead to the recording function not being supported if third-party headphones or headsets are connected.

Rear view of the computer



Attention: Be careful not to block any air vents on the computer. Blocked air vents can cause overheating.



- 1** Power button
- 2** Volume up
- 3** Volume down
- 4** Screen rotation lock button*
- 5** Stand lock
- 6** Air vents

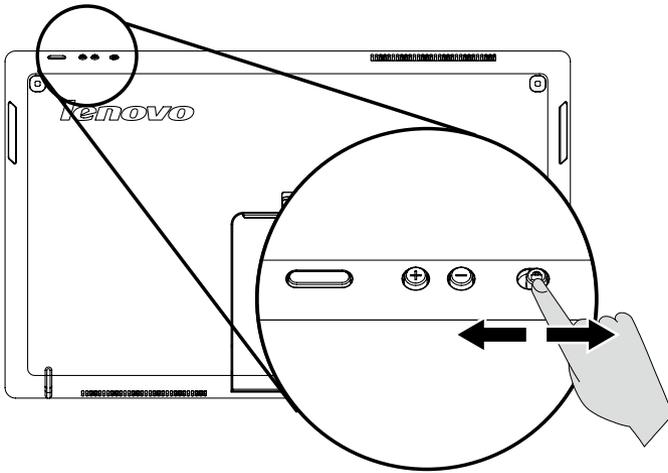
*** Screen rotation lock button**

Keeps the screen locked in portrait or landscape orientation.

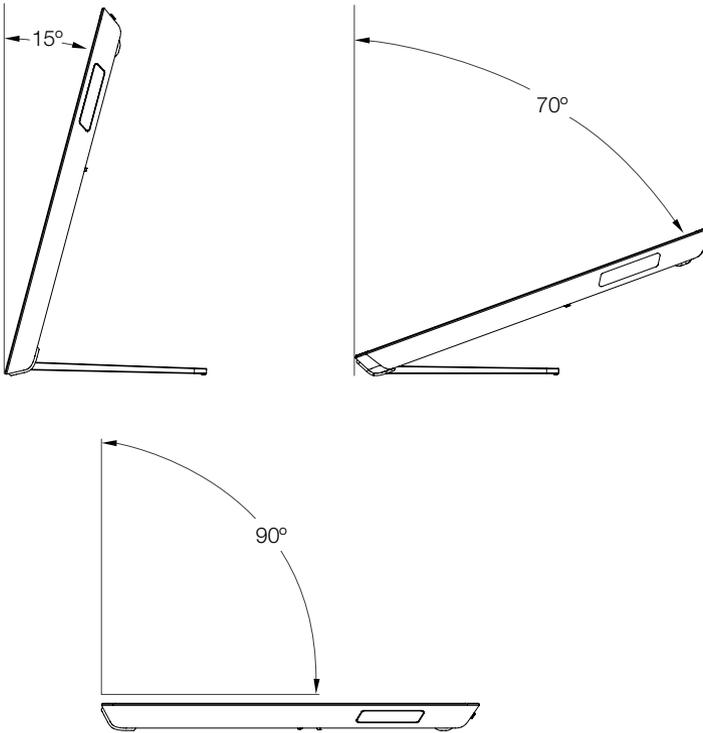
Screen rotation

You can rotate the display panel as you please.

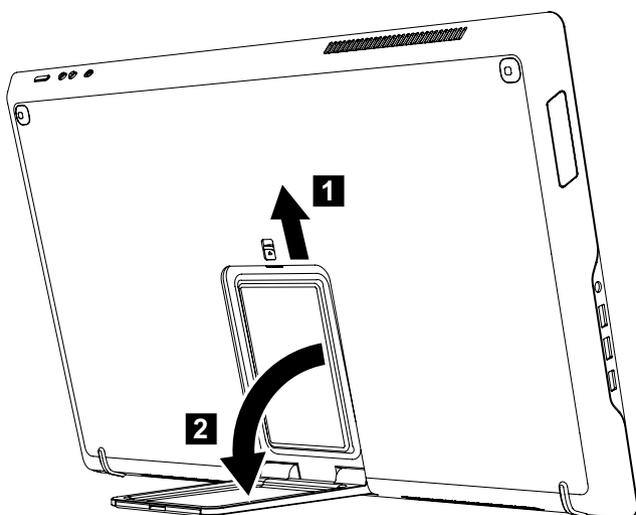
- The orientation of the display automatically changes (alternating between portrait and landscape mode) in response to how you hold the computer.
-  **Note:** Some software does not support screen rotation and will cause the screen to appear abnormal. If this happens, lock the screen to prevent rotation or refrain from rotating the screen.
- Use the screen rotation lock button on the top edge of the computer to prevent automatic display rotation. (See illustration below.)



Computer stand



1. First open the stand to its maximum angle, then adjust the display position.
2. The computer can be positioned at between 15° and 70° from an upright vertical position, and can also be placed flat down in a horizontal position.



1. Slide the stand lock and open the stand as shown in the illustration.
2. Open the stand to the maximum angle for a stable position.

! **Note:** You must open the stand to the maximum angle to prevent the stand coming out of position or becoming unstable, which could cause the computer to fall over.

Connecting your computer

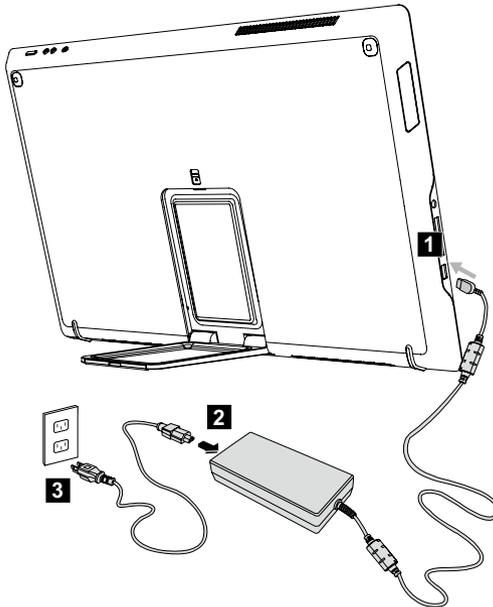
! **Note:** Your computer may not have all of the connectors described in this section.

Basic connector instructions

Connector	Description
Microphone	Use this connector to attach a microphone to your computer when you want to record sound or if you use speech-recognition software.
Headphone	Use this connector to attach headphones to your computer when you want to listen to music or other sounds without disturbing anyone.
USB connector	Use this connector to attach a device that requires a USB connection.

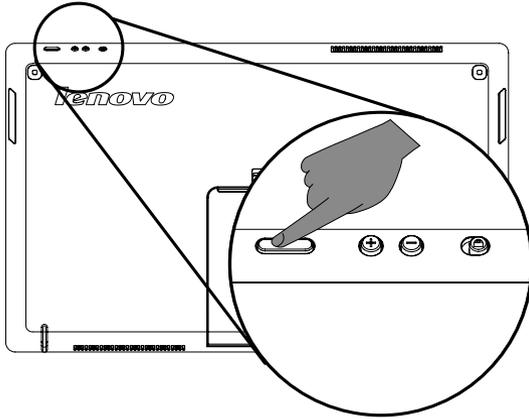
! **Note:** If your computer is equipped with a wireless keyboard or mouse, follow the installation instructions for those devices.

Connecting the power cord

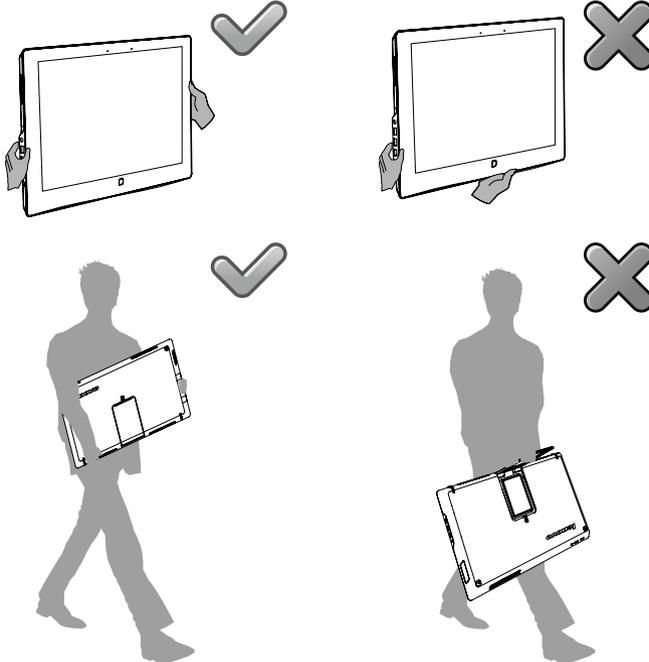


Important information about using the computer

Press the power button on the top of the computer to turn on the computer.



Hold the computer tightly when you carry it.



Connecting to the Internet

To connect to the Internet, you'll need a contract with an Internet Service Provider (ISP) and some hardware.

IPSS and ISP offerings vary by country. Contact your ISP for offerings available in your country.

Your computer is designed to support a wireless (selected models only) or wired network that connects your computer to other devices.

Wired network connection

For wired networks, connect one end of an Ethernet cable (purchased separately) to the Ethernet connector on your computer, and then connect the other end to the network router or broadband modem. Consult your ISP for detailed setup instructions.

 **Note:** Broadband modem and router installation procedures vary depending on the manufacturer. Follow the manufacturer's instructions.

Wireless network connection

For wireless networks, you can use the built-in wireless LAN antenna to access your wireless home network.

To connect your computer to the wireless network:

1. Move the cursor to the top right or bottom right corner of the screen, then click **Settings**. (If your computer is equipped with touch screen, swipe in from the right edge of the screen, then tap **Settings**.)
2. Click or tap the network icon , then select the name of your router. Click or tap **Connect**, then follow the steps on the screen.

Test the wireless network by opening your Web browser and accessing any Web site.

Using the E-Dice

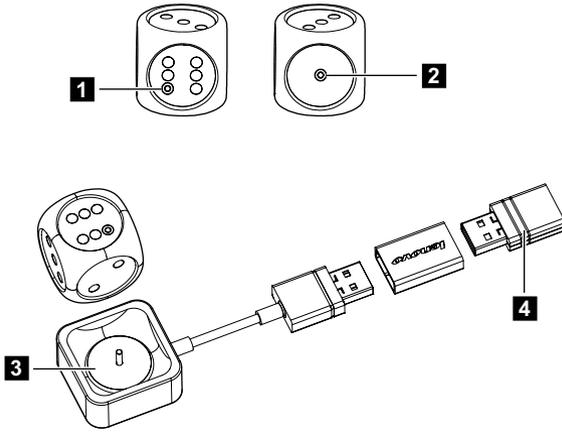
This chapter contains the following topics:

- E-Dice instructions

 **Note:** Only some models are equipped with E-Dice.

 **Note:** The interface and functionality of these features will depend on which software was shipped with the computer model you purchased.

E-Dice Components and Connectors



1 Battery indicator

2 Charging connector

3 USB power adapter

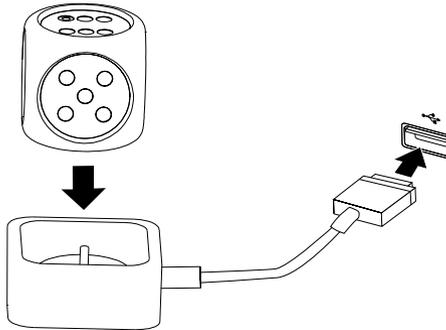
4 Dongle

Charging the E-Dice

The E-Dice has an internal rechargeable battery. If the indicator light blinks while you are rolling the dice, this indicates the battery is low on power.

To charge the battery, do the following:

Put the E-Dice into the included USB power adapter and connect the adapter to the USB connector on your computer.



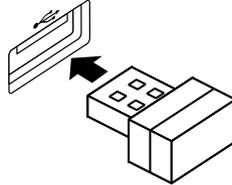
! **Note:** The indicator will blink while the E-Dice is charging. When the light stays on constantly, the E-Dice is fully charged.

Playing with the E-Dice

The E-Dice is paired in the factory for your convenience. It should work immediately after plugging the dongle into your computer.

To play with the E-Dice, do the following:

1. Plug the dongle into USB connector of your computer.



2. Lay the computer face-up on a flat surface to switch the desktop interface to the **Aura** program. Open the **Lenovo Tycoon** game and play the game with the E-Dice as per the directions.

You may need to manually pair the E-Dice if it does not work.

To pair the E-Dice, do the following:

1. Open the **Lenovo Tycoon** game and go to the **Dice Inspection** interface. Click the **Inspection Start** button in the pop-up dialog box, then roll the E-Dice. The dice on the screen will roll and stop with the E-Dice.
2. Click **Inspection Completed** → **OK** to finish the pairing process.

! **Note:** You need to pair all the E-Dice before playing a game. Only successfully paired E-Dice can be used for the game.

If the E-Dice does not pair successfully, please do the following:

1. Check that the E-Dice battery has not run out or run low.
2. Check that the dongle is securely connected to your computer.

After checking the above, wait a few minutes and repeat the pairing process.

Use and Maintenance

- The minimum age recommended for using the E-Dice is 14 years old.
- Keep the E-Dice away from water or damp environments. Clean the dice with a soft dry cloth.
- The effective range between the E-Dice and the computer is 2 meters. Find a comfortable posture when rolling the dice.
- Make sure there are no physical obstacles between the E-Dice and the computer.
- Make sure there are no electronic devices close by, which might create strong electromagnetic fields that could interrupt the wireless connection, such as speakers, remote controls for electronic toys or cell phones.
- Always keep the E-Dice and its power adapter clean to prevent dust buildup.
- The E-Dice and its accessories are only compatible with the IdeaCentre Flex 20 series models. Do not use them with other equipment.
- Charge the E-Dice immediately after purchase.
- To extend battery life, we recommend you charge the battery to approximately 30% to 50% capacity, and recharge it every month to prevent the battery over-discharging.

Using Windows 8

This chapter contains the following topics:

- Switching between the main Windows 8 interfaces
- The Charms Bar
- Shutting down the computer
- Switching between apps
- Closing an app
- Opening other system programs
- Windows Help and Support



Attention: The Windows 8 operating system is provided by Microsoft Corporation. Please use it in accordance with the END USER LICENSE AGREEMENT (EULA) between you and Microsoft. For any question related to the operating system, please contact Microsoft directly.

Switching between the main Windows 8 interfaces

Windows 8 comes with two main user interfaces: the Start Screen and the Windows desktop.

To switch from the Start Screen to the Windows desktop, do one of the following:

- Select the Windows desktop tile on the Start Screen.
- Press the Windows key  + D.

To switch from the desktop to the Start Screen, do one of the following:

- Select **Start** from the Charms Bar.
- Move the cursor to the bottom left corner, then select the Start Screen thumbnail when it is displayed.
- Press the Windows key .

The Charms Bar

Charms provide new and faster ways to perform many basic tasks.

To display the charms, do one of the following:

- Move the cursor to the top right or bottom right corner of the screen.
- If your computer is equipped with touch screen, swipe in from the right edge of the screen.
- Press the Windows key  + C.

Shutting down the computer

To shut down the computer:

1. Move the cursor to the top right or bottom right corner of the screen, then click **Settings**. (If your computer is equipped with touch screen, swipe in from the right edge of the screen, then tap **Settings**.)
2. Select **Power** → **Shutdown**.

Switching between apps

Sometimes you want to get back to an app you were just using, or quickly switch through your recent apps.

To switch between apps:

Move the cursor to the top left corner, then click to bring in the next app. (If your computer is equipped with touch screen, swipe in from the left edge of the screen to bring in the next app.)

Closing an app

To close an app, do one of the following:

- Move the cursor to the top left corner of the screen. When the thumbnail appears, drag it to the bottom of the screen.
- Move the cursor to the top edge of the screen. When the cursor becomes a hand, drag the app page to the bottom of the screen.
- If your computer is equipped with touch screen, swipe in from the top edge of the screen. When the app page becomes smaller, drag it to the bottom of the screen.

Opening other system programs

There is a fast way to open other system programs.

To open the menu, do one of the following:

- Move the cursor to the bottom left corner of the screen. When the thumbnail appears, right-click with the mouse to open the menu.
- Press the Windows key  + X.

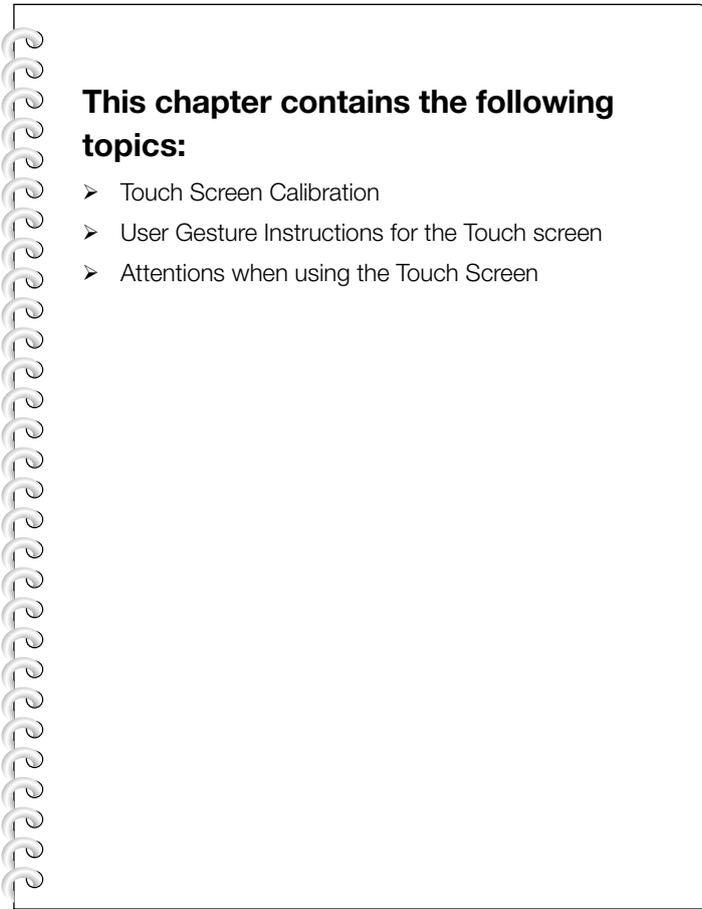
Windows Help and Support

If you have a problem with the operating system, see the Windows Help and Support file. To open the Windows Help and Support file, do one of the following:

- Select the **Settings** charm, then select **Help**.
- Press the Windows key  + F1.

You can read the Windows Help and Support file on your computer. You can also get online help and support by clicking on one of the two links listed under **More to explore**.

Touch screen instructions

A graphic of a spiral-bound notebook with a white cover and a grey spiral binding on the left side. The notebook is open to a page with a white background and a thin black border. The text is centered on the page.

This chapter contains the following topics:

- Touch Screen Calibration
- User Gesture Instructions for the Touch screen
- Attentions when using the Touch Screen

The monitor is touch-sensitive thanks to its touch-sensitive screen. A touch screen is an input device just like a mouse or a keyboard, and the user's fingers transmit position information via the touch screen to the computer. With this technology, you only need to touch the pictures or words on the computer display lightly with your finger, and the computer will react.

Touch Screen Calibration

Prior to first use or whenever the touch screen reacts in a different place where you are touching it, start the calibration program. The procedure is as follows:

1. In Control Panel, select "Hardware and Sound".
2. In "Hardware and Sound" window, select "Tablet PC Settings".
3. In "Tablet PC Settings" dialogue, click "Calibrate" button.

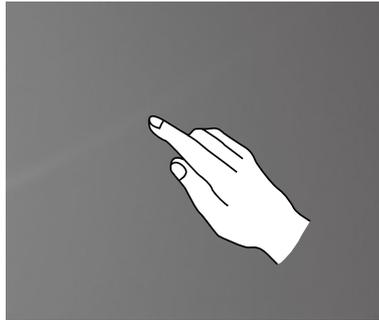
User Gesture Instructions for the Touch screen

The Touch screen supports single touch and rotational movements, enlargement and reduction multi-touch operations, and the user can transmit position information to the computer via touch. The touch screen uses a very low pressure movement recognition method, which only needs the finger to move lightly on the computer display screen or make a simple hand gesture to be detected by the main computer processor.

Basic Hand Gestures

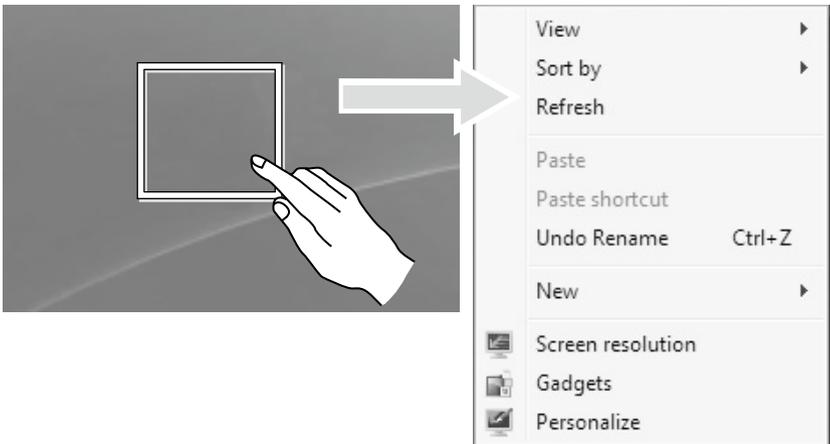
1. Single Click / Double Click

For the item selected on the touch screen, with one finger touch it one or two times, to perform a single click or double click operation. This is similar to the action performed by clicking the mouse left button.



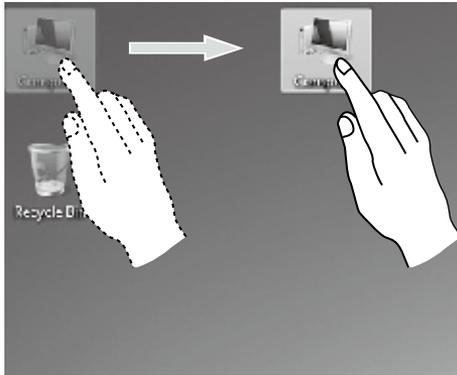
2. Single Finger Right Click

For the item selected on the touch screen, press and hold your finger on the screen until a circle appears. After lifting your finger from the touch screen, a menu bar will pop up, completing the single finger right click operation. This is similar to the action performed by clicking the mouse right button.



3. Dragging Movement

First touch your finger on the desired item on the screen and hold it there, then make a dragging movement. This is similar to the click and drag movement you can make with a mouse.



4. Rolling Movement

When you move your finger one time vertically (or horizontally) on the touch screen, this is called a Rolling Operation. For example: This operation is similar to moving the scroll wheel on the top of a mouse, and produces the same results as the scroll wheel interface does.



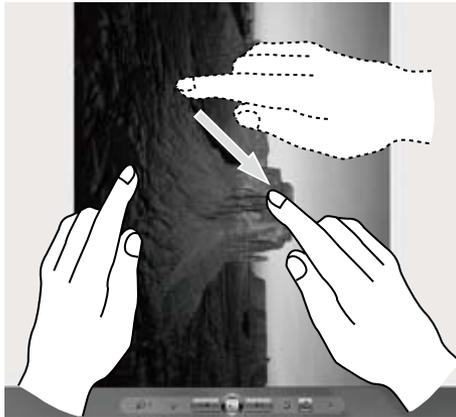
5. Zoom Operation

Touch two fingers lightly on the desired item on the touch screen, then keeping both fingers on the screen, change the distance between them. By increasing (or decreasing) the distance, you can perform a zoom in (or zoom out) operation. For example: you can enlarge or reduce the picture size in Windows Photo Viewer.



6. Rotation Operation

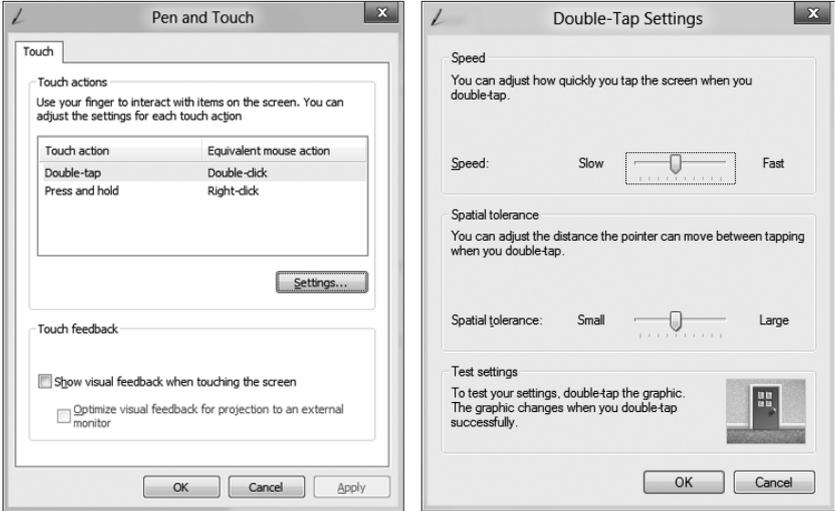
Use two figures to touch the desired item on the touch screen, then rotate them in the desired direction. For example: you can rotate the picture which is being displayed in Windows Photo Viewer.



! **Note:** To learn more about how to use the touch screen, refer to **Windows Help and Support** by press Windows key  + F1 or Select **Settings** charm, then select **Help**.

Related Touch Screen Settings

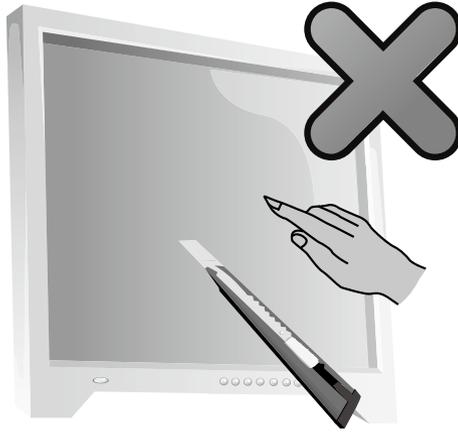
- Select **Hardware and Sound** → **Pen and Touch** from the **Settings** charm.
- Select touch actions which you wish to adjust. By clicking on “**Settings**”, you can adjust the “**Speed**” and “**Spatial tolerance**” parameters, to match the user’s natural way of double-clicking. You can double-click on the lower right corner of the icon to test this.



! **Note:** Users can access more help information from the **Windows Help and Support** menu.

Precautions when using the Touch Screen

1. When using the touch screen, be careful not to tear the surface with any sharp objects.



2. To ensure normal use of the touch screen, ensure that both the screen surface and your fingers are clean and dry.
3. To ensure precise positioning on the touch screen, avoid handling or touching the glass frame when you are touching the screen.
4. Turn the computer off for safety before cleaning the screen and frame with a soft cotton cloth. Do not wipe it with a wet cloth as this may leave a water mark and affect touch operation.
5. Avoid using the touch screen in dusty environments or hot or humid conditions. Any abrupt temperature change may cause condensation on the inside surface of the glass screen, which will disappear after a short time and does not affect normal use.

! **Note:** The touch screen will not affect other computer processes when used normally.

6. Recognition of touch gestures can be influenced by the following:
 - Touching the correct place on the screen.
 - The speed of movement.
 - The time interval from when the screen was last touched.

! **Note:** The user can consult this manual and also the related Windows help content to learn accurate hand gestures.

7. The touch screen does not function in Rescue System mode.
8. The touch screen also does not function during the startup process, in Hibernate mode and in Sleep mode or Safe mode.

Using the Rescue System

This chapter contains the following topics:

- OneKey Recovery
- Driver and Application Installation



Attention: Using OneKey Recovery will result in loss of data.

- You can restore the C: drive of the computer to factory default settings or to the last system backup status using **OneKey Recovery**. If you do this, all of the existing data on drive C: will be lost, but the content and format of the other partitions of the hard disk drive will remain unchanged.
- If you want to install an operating system 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.

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:

From the **Search** charm, select **Apps** → **Control Panel** → **Administrative Tools** → **Computer Management** → **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 service personnel, Lenovo will not be liable for any losses arising therefrom in any way.

OneKey Recovery

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

Detailed Operation Procedure

1. Repeatedly press and release the **F2** key once turning on the computer until the **Lenovo Rescue System** opens, then select **OneKey Recovery**.

 **Note:** System Recovery will overwrite all of the data on the C: drive. To prevent loss of data, be sure to back up relevant data before performing system recovery.

2. Follow the on-screen instructions to select the backup task you want to restore from and the disk where you want to install the operating system, then press **Next** to start the restore.
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 will prompt you to restart the computer. Restart the computer and start the operating system.

Driver and Application Installation

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

Method 1: Automatic Installation

Repeatedly press and release the **F2** key once turning on the computer until the **Lenovo Rescue System** opens, then select **Driver and Application Installation**.

Follow the on-screen prompts to install the Lenovo drivers and applications. Click **OK** to start installing the **Lenovo Driver and Application Installation** software.

The system will restart. After the system has restarted, the drivers and application installation process will continue until it has completed.

Method 2: Manual Installation

In the Windows system, Select **Driver and Application Installation** from the **Search** charm.

After starting the procedure, install the drivers and software manually by following the prompts.

Notes:

1. Do not install software which is already installed on the computer.
2. Make sure that the Driver and Application Installation software has been automatically installed before starting the operating system. The manual installation function can only be used after the software has been installed.

Using the Software



This chapter contains the following topic:

- Software instructions

 **Note:** The interface and functionality of these features will depend on which software was shipped with the computer model you purchased.

Lenovo Support

The Lenovo Support program enables you to register your computer with Lenovo, download and view user manuals for your computer, get the warranty information of your computer, and explore help and support information.

To open this program, do the following:

Click the Lenovo Support icon from the Start Screen or Search Screen.

The main functions of this program are listed below. (This program supports online upgrades. The functions shown below are for reference only, functionality will depend on the program icons currently displayed.)

Registration

Registration provides you with access to product support, upgrades and alerts on topics. Take advantage of award-winning Lenovo services.

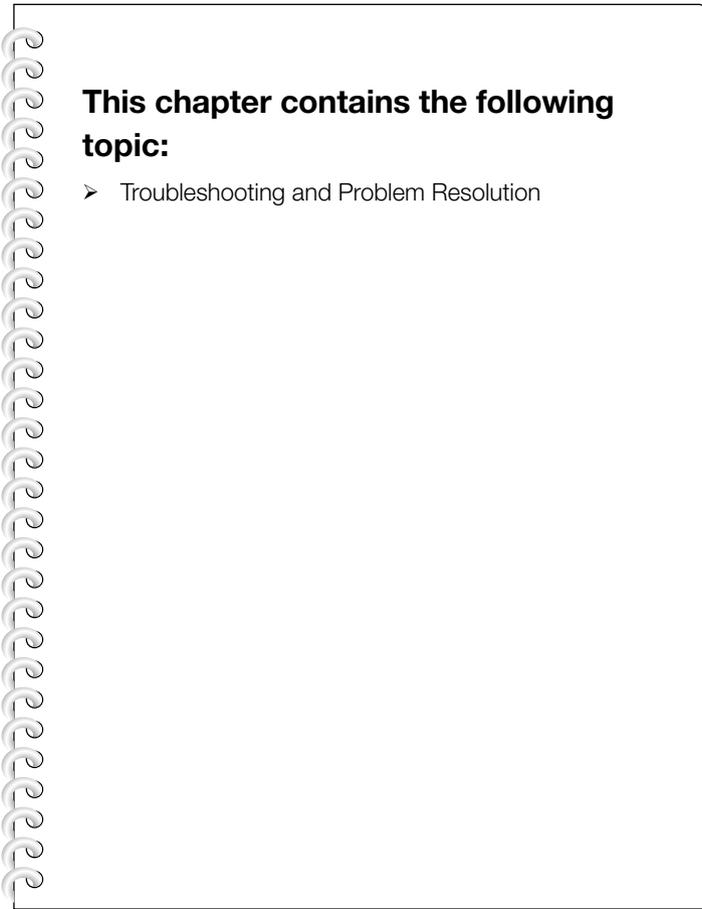
User Guide

The User Guide provides more information about your computer.

Service and Warranty

You can extend the warranty of your computer through this option. Lenovo provides flexible options to meet your personal or business needs.

Troubleshooting and Confirming Setup

A graphic of a spiral-bound notebook with a white cover and a silver spiral binding on the left side. The notebook is open to a page with a white background and a thin black border. The text is printed on this page.

This chapter contains the following topic:

- Troubleshooting and Problem Resolution

Solving Problems

Follow these tips when troubleshooting your computer:

- If you added or removed a part before the problem started, review the installation procedures to 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 Help document of this program.

Troubleshooting Display Problems

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

Troubleshooting and problem resolution:

1. Make sure the power cord is plugged into your computer and a functioning power outlet.
2. Unplug the power cord and plug the power cord back in securely and restart the computer.
3. If the LCD screen has a LCD On/Off button, check that the LCD screen has been turned on.

If still cannot solve the problem, contact Lenovo Customer Service.

Problem: You need to change the 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 Windows color options for borders and taskbar
 - Select a themes
3. Right-click the desktop anywhere except over an icon, then select **Screen resolution** from the pop-up menu to change the appearance.

Problem: Ripple on screen.

Troubleshooting and problem resolution:

1. Check to see if any of the following devices are located less than one meter from the computer: refrigerators, electric fans, electric dryers, UPS systems, 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, contact Lenovo Service.

Troubleshooting Touch screen

Problem: The touch screen reacts, but not where you are touching it.

Troubleshooting and problem resolution:

Touch Screen Calibration:

1. In Control Panel, select “Hardware and Sound”.
2. In “Hardware and Sound” window, select “Tablet PC Settings”.
3. In “Tablet PC Settings” dialogue, click “Calibrate” button.

Troubleshooting Audio Problems

Problem: No sound from the integrated speakers.

Troubleshooting and problem resolution:

- Adjust the Windows volume control — select the speaker icon from the **Settings** Charm or click the arrow on taskbar to show the hidden icons in Windows desktop mode, then click the speaker icon. Ensure that the volume is turned up and the sound is not muted. Adjust the volume, bass, or treble controls to eliminate distortion.
- Reinstall the audio driver.
- Disconnect any 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 — select the speaker icon from the **Settings** Charm or click the arrow on taskbar to show the hidden icons in Windows desktop mode, then click the speaker icon. Ensure that the volume is turned up and the sound is not muted.

Troubleshooting Software Problems

Problem: You are unable to 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 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 problems or even failure during system initialization.

During the uninstall process, never directly delete the files or folders. This is harmful to the operating 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 **Apps** → **Control Panel** from the **Search** charm.
4. From the **Control Panel**, choose **Programs** → **Programs and Features**.
5. Find the applicable program from the **Programs and Features** dialog box and then select **Uninstall/Change**.
6. Perform the instructions displayed to uninstall the software.

Troubleshooting Problems Hard Disks

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 as 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: $40 \times 1000 \times 1000 \times 1000 / (1024 \times 1024 \times 1024) = 37\text{G}$.

If the Service partition of 3G - $3 \times 1000 \times 1000 \times 1000 / (1024 \times 1024 \times 1024) = 2.79\text{G}$ 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.

Special considerations for troubleshooting Windows

Record the following information as it may be useful later when troubleshooting system problems:

The drivers for this computer model only support the Windows 8 system.

Windows Help and Support

If you have a problem with the operating system, see the Windows Help and Support file. To open the Windows Help and Support file, do one of the following:

- Select the **Settings** charm, then select **Help**.
- Press Windows key  + F1.

You can read the Windows Help and Support file on your computer. You can also get online help and support by clicking on one of the two links listed under **More to explore**.

BIOS setup utility

What is the BIOS setup utility?

The BIOS setup utility is ROM-based software. It communicates basic computer information and provides options for setting boot devices, security, hardware mode, and other preferences.

How can I start the BIOS setup utility?

To start the BIOS setup utility:

1. Shut down the computer.
2. Repeatedly press and release the F1 key once turning on the computer to start the Setup Utility program.

How can I change the boot mode?

There are two boot modes: UEFI and Legacy. To change the boot mode, start the BIOS setup utility and select **Startup** → **Boot Priority**, then set boot mode to UEFI or Legacy support on the boot menu.

When do I need to change the boot mode?

The default boot mode for your computer is the UEFI mode. If you need to install a legacy Windows operating system (any operating system before Windows 8) on your computer, you must change the boot mode to Legacy support. The legacy Windows operating system cannot be installed if you don't change the boot mode.

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 the computer to prevent dust buildup. The cleaning supplies you need to clean the components include: a vacuum cleaner, a soft cotton cloth, pure water (preferably purified or distilled water) 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 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 the computer.

LCD monitor should be cleaned daily. Use a dry cloth to brush dust from the monitor and keyboard every day. Keep all surfaces clean and free of grease stains.

Appendix.

Declaration

Thank you for using Lenovo products.

Carefully read all documents shipped with your computer before you install and use the product for the first time. Lenovo is not responsible for any loss except when caused by installation and operations performed by Lenovo professional service personnel. You are responsible if you fail to operate the product according to instructions and requirements in the manuals included with your computer, or operate the product inappropriately.

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

The manuals included with your computer are provided to help you use Lenovo's products appropriately. For the configuration of the product, refer to the related contract (if any) or product packing list, or consult the distributor for the product sales.

The content of the manuals included with your computer is protected by copyright laws and rules. None of the manuals included with your computer may be reproduced or transcribed by any means or translated into any language without prior written permission of Lenovo.

The software interface and function and hardware configuration described in the manuals included with your computer might not match exactly the actual configuration of the computer that you purchase. You are welcome to contact us about the manuals included with your computer. For the latest information or any questions or comments, contact or visit the Lenovo Web site:

Service Web site: <http://support.lenovo.com>

Trademarks

Lenovo and the Lenovo logo, IdeaCentre and IdeaCentre logo are trademarks of Lenovo in the United States, other countries, or both.

Microsoft, Windows, and Windows Vista are trademarks of the Microsoft group of companies.

Intel Inside is a trademark of Intel Corporation in the U.S. and/or other countries.

AMD, the AMD Arrow logo, ATI, AMD Athlon, AMD LIVE!, AMD Opteron, AMD Phenom, AMD Sempron, Catalyst, Cool 'n' Quiet, CrossFire, PowerPlay, Radeon, and The Ultimate Visual Experience are trademarks of Advanced Micro Devices, Inc.

Other company, product, or service names referred to herein or in other Lenovo publications may be trademarks or service marks of others.

All rights reserved.

Names or marks of certain companies mentioned in the manuals included with your computer or this document do not necessarily indicate that related software or hardware is included. The actual configuration of the product depends on the packing list description.

Energy Star Statement



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

Lenovo is proud to offer our customers products with an ENERGY STAR compliant designation. The following machine types have been designed and tested to conform to the ENERGY STAR program requirement for computers at the time of manufacture. For more information about ENERGY STAR ratings for Lenovo computers, go to <http://www.lenovo.com>.

- 10142/F0A9

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

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

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

ENERGY STAR power-management features, by operating system.

Microsoft Windows Vista, Windows 7 and Windows 8

Power plan: Balanced

- Turn off the display: After 10 minutes
- Put the computer to sleep: After 25 minutes
- Advanced power settings:
 - Turn off hard disk drives: After 20 minutes
 - Hibernate: Never

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

Enabling ErP compliance mode

You can enable the energy-related products directive (ErP) compliance mode through the **Power** menu in the Setup Utility program. This mode reduces electricity consumption when your computer is in standby mode or turned off.

To enable ErP compliance mode in the Setup Utility program, do the following:

1. Repeatedly press and release the F1 key when turning on the computer to start the Setup Utility program.
2. From the Setup Utility program main menu, select **Power** → **ErP** and press Enter.
3. Select **Enabled** and press Enter.
4. Press F10 to save changes and exit the Setup Utility program. Press Enter when prompted to confirm.

 **Note:** When ErP compliance mode is enabled, you only can wake up your computer by pressing the power switch.