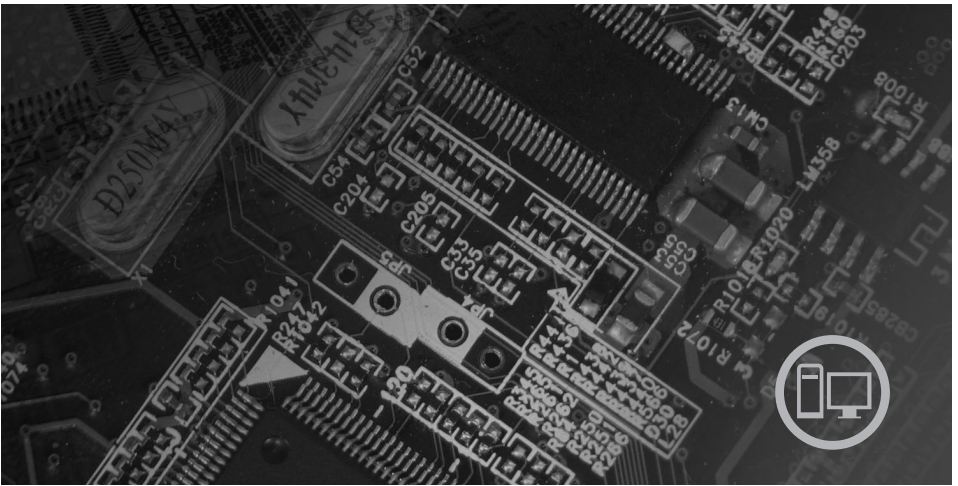




ThinkCentre Safety and Warranty Guide



Inside

- Important safety information**
- Information resources**
- Warranty and other notices**
- Customer Replaceable Units (CRUs)**

ThinkCentre

Safety and Warranty Guide

Note:

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

- Chapter 1, "Important safety information," on page 1
- Chapter 3, "Lenovo Limited Warranty," on page 19
- Chapter 6, "Notices," on page 35

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Chapter 1. Important safety information

Note

Please read important safety information first.

This information can help you safely use your desktop or notebook personal computer. Follow and retain all information included with your computer. The information in this document does not alter the terms of your purchase agreement or the Lenovo™ Limited Warranty. For more information, refer to Chapter 3, “Lenovo Limited Warranty,” on page 19.

Customer safety is important. Our products are developed to be safe and effective. However, personal computers are electronic devices. Power cords, power adapters, and other features can create potential safety risks that can result in physical injury or property damage, especially if misused. To reduce these risks, follow the instructions included with your product, observe all warnings on the product and in the operating instructions, and review the information included in this document carefully. By carefully following the information contained in this document and provided with your product, you can help protect yourself from hazards and create a safer computer work environment.

Note: This information includes references to power adapters and batteries. In addition to notebook computers, some products (such as speakers and monitors) ship with external power adapters. If you have such a product, this information applies to your product. In addition, computer products contain a coin-sized internal battery that provides power to the system clock even when the computer is unplugged, so the battery safety information applies to all computer products.

Conditions that require immediate action

Products can become damaged due to misuse or neglect. Some product damage is serious enough that the product should not be used again until it has been inspected and, if necessary, repaired by an authorized servicer.

As with any electronic device, pay close attention to the product when it is turned on. On very rare occasions, you might notice an odor or see a puff of smoke or sparks vent from your product. Or you might hear sounds like popping, cracking, or hissing. These conditions might merely mean that an internal electronic component has failed in a safe and controlled manner. Or, they might indicate a potential safety issue. However, do not take risks or attempt to diagnose the situation yourself. Contact the Customer Support

Center for further guidance. For a list of Service and Support phone numbers, see Chapter 4, “Worldwide telephone list,” on page 29.

Frequently inspect your computer and its components for damage, wear, or signs of danger. If you have any question about the condition of a component, do not use the product. Contact the Customer Support Center or the product manufacturer for instructions on how to inspect the product and have it repaired, if necessary.

In the unlikely event that you notice any of the following conditions, or if you have any safety concerns with your product, stop using the product and unplug it from the power source and telecommunication lines until you can speak to the Customer Support Center for further guidance.

- Power cords, plugs, power adapters, extension cords, surge protectors, or power supplies that are cracked, broken, or damaged.
- Signs of overheating, smoke, sparks, or fire.
- Damage to a battery (such as cracks, dents, or creases), discharge from a battery, or a buildup of foreign substances on the battery.
- A cracking, hissing, or popping sound, or strong odor that comes from the product.
- Signs that liquid has been spilled or an object has fallen onto the computer product, the power cord, or power adapter.
- The computer product, power cord, or power adapter has been exposed to water.
- The product has been dropped or damaged in any way.
- The product does not operate normally when you follow the operating instructions.

Note: If you notice these conditions with a product (such as an extension cord) that is not manufactured for or by Lenovo, stop using that product until you can contact the product manufacturer for further instructions, or until you get a suitable replacement.

General safety guidelines

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

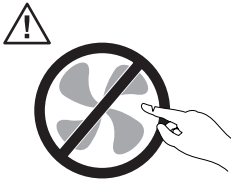
Service and upgrades

Do not attempt to service a product yourself unless instructed to do so by the Customer Support Center or your documentation. Only use a service provider who is approved to repair your particular product.

Note: Some computer parts can be upgraded or replaced by the customer. Upgrades typically are referred to as options. Replacement parts approved for customer installation are referred to as Customer Replaceable Units, or CRUs. Lenovo provides documentation with instructions when it is appropriate for customers to install options or replace CRUs. You must closely follow all instructions when installing or replacing parts. The Off state of a power indicator does not necessarily mean that voltage levels inside a product are zero. Before you remove the covers from a product equipped with an ac power cord, always make sure that the power is turned off and that the product is unplugged from any power source. For more information on CRUs, refer to the User Guide for this product. If you have any questions or concerns, contact the Customer Support Center.

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

Danger



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

Attention



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

Static electricity prevention

Static electricity, although harmless to you, can seriously damage computer components and options. Improper handling of static-sensitive parts can cause damage to the part. When you unpack an option or CRU, do not open the static-protective package containing the part until the instructions direct you to install it.

When you handle options or CRUs, or perform any work inside the computer, take the following precautions to avoid static-electricity damage:

- Limit your movement. Movement can cause static electricity to build up around you.
- Always handle components carefully. Handle adapters, memory modules, and other circuit boards by the edges. Never touch exposed circuitry.
- Prevent others from touching components.
- When you install a static-sensitive option or CRU, touch the static-protective package containing the part to a metal expansion-slot cover or other unpainted metal surface on the computer for at least two seconds. This reduces static electricity in the package and your body.
- When possible, remove the static-sensitive part from the static-protective packaging and install the part without setting it down. When this is not possible, place the static-protective packaging on a smooth, level surface and place the part on it.
- Do not place the part on the computer cover or other metal surface.

Power cords and power adapters

Use only the power cords and power adapters supplied by the product manufacturer.

The power cords shall be safety approved. For Germany, it shall be H05VV-F, 3G, 0.75 mm², or better. For other countries, the suitable types shall be used accordingly.

Never wrap a power cord around a power adapter or other object. Doing so can stress the cord in ways that can cause the cord to fray, crack, or crimp. This can present a safety hazard.

Always route power cords so that they will not be walked on, tripped over, or pinched by objects.

Protect power cord and power adapters from liquids. For instance, do not leave your power cord or power adapter near sinks, tubs, toilets, or on floors that are cleaned with liquid cleansers. Liquids can cause a short circuit, particularly if the power cord or power adapter has been stressed by misuse. Liquids also can cause gradual corrosion of power cord terminals and/or the connector terminals on a power adapter, which can eventually result in overheating.

Always connect power cords and signal cables in the correct order and ensure that all power cord connectors are securely and completely plugged into receptacles.

Do not use any power adapter that shows corrosion at the ac input pins or shows signs of overheating (such as deformed plastic) at the ac input or anywhere on the power adapter.

Do not use any power cords where the electrical contacts on either end show signs of corrosion or overheating or where the power cord appears to have been damaged in any way.

Voltage-selection switch

Some computers are equipped with a voltage-selection switch located near the power-cord connection point on the computer. If your computer has a voltage-selection switch, ensure that you set the switch to match the voltage available at your electrical outlet. Setting the voltage-selection switch incorrectly can cause permanent damage to the computer.

If your computer does not have a voltage-selection switch, your computer is designed to operate only at the voltage provided in the country or region where the computer was originally purchased.

If you relocate your computer to another country, be aware of the following:

- If your computer does not have a voltage-selection switch, do not connect the computer to an electrical outlet until you have verified that the voltage provided is the same as it was in the country or region where the computer was originally purchased.
- If your computer has a voltage selection switch, do not connect the computer to an electrical outlet until you have verified that the voltage-selection switch is set to match the voltage provided in that country or region.

If you are not sure of the voltage provided at your electrical outlet, contact your local electric company or refer to official Web sites or other literature for travelers to the country or region where you are located.

Extension cords and related devices

Ensure that extension cords, surge protectors, uninterruptible power supplies, and power strips that you use are rated to handle the electrical requirements of the product. Never overload these devices. If power strips are used, the load should not exceed the power strip input rating. Consult an electrician for more information if you have questions about power loads, power requirements, and input ratings.

Plugs and outlets

If a receptacle (power outlet) that you intend to use with your computer equipment appears to be damaged or corroded, do not use the outlet until it is replaced by a qualified electrician.

Do not bend or modify the plug. If the plug is damaged, contact the manufacturer to obtain a replacement.

Do not share an electrical outlet with other home or commercial appliances that draw large amounts of electricity; otherwise, unstable voltage might damage your computer, data, or attached devices.

Some products are equipped with a three-pronged plug. This plug fits only into a grounded electrical outlet. This is a safety feature. Do not defeat this safety feature by trying to insert it into a non-grounded outlet. If you cannot insert the plug into the outlet, contact an electrician for an approved outlet adapter or to replace the outlet with one that enables this safety feature. Never overload an electrical outlet. The overall system load should not exceed 80 percent of the branch circuit rating. Consult an electrician for more information if you have questions about power loads and branch circuit ratings.

Be sure that the power outlet you are using is properly wired, easily accessible, and located close to the equipment. Do not fully extend power cords in a way that will stress the cords.

Be sure that the power outlet provides the correct voltage and current for the product you are installing.

Carefully connect and disconnect the equipment from the electrical outlet.

External devices

Do not connect or disconnect any external device cables other than USB and 1394 cables while the computer power is on; otherwise, you might damage your computer. To avoid possible damage to attached devices, wait at least five seconds after the computer is shut down to disconnect external devices.

Batteries

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

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

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

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

Heat and product ventilation

Computers, AC adapters, and many accessories can generate heat when turned on and when batteries are charging. Always follow these basic precautions:

- Do not leave your computer, AC adapter, or accessories in contact with your lap or any part of your body for an extended period when the products are functioning or when the battery is charging. Your computer, AC adapter, and many accessories produce some heat during normal operation. Extended contact with the body could cause discomfort or, potentially, a skin burn.
- Do not charge the battery or operate your computer, AC adapter, or accessories near flammable materials or in explosive environments.
- Ventilation slots, fans, and heat sinks are provided with the product for safety, comfort, and reliable operation. These features might inadvertently become blocked by placing the product on a bed, sofa, carpet, or other flexible surface. Never block, cover, or disable these features.

Inspect your desktop computer for dust accumulation at least once every three months. Before inspecting your computer, turn off the power and unplug the computer’s power cord from the electrical outlet; then remove any dust from vents and perforations in the bezel. If you notice external dust accumulation, then examine and remove dust from the inside of the computer including heat sink inlet fins, power supply vents, and fans. Always turn off and unplug the computer before opening the cover. If possible, avoid operating your computer within 2 feet of high-traffic areas. If you must operate your computer in or near a high-traffic area, inspect and, if necessary, clean your computer more frequently.

For your safety and to maintain optimum computer performance, always follow these basic precautions with your desktop computer:

- Keep the cover closed whenever the computer is plugged in.
- Regularly inspect the outside of the computer for dust accumulation.
- Remove dust from vents and any perforations in the bezel. More frequent cleanings might be required for computers in dusty or high-traffic areas.

- Do not restrict or block any ventilation openings.
- Do not store or operate your computer inside furniture, as this might increase the risk of overheating.
- Airflow temperatures into the computer should not exceed 35° C (95° F).
- Do not use non-desktop air filtration devices.

Operating environment

The optimal environment in which to use your computer is 10°C-35°C (50°F-95°F) with humidity ranging between 35% and 80%. If your computer is stored or transported in temperatures less than 10°C (50°F), allow the cold computer to rise slowly to an optimal operating temperature of 10°C-35°C (50°F-95°F) before use. This process could take two hours in extreme conditions. Failure to allow your computer to rise to an optimal operating temperature before use could result in irreparable damage to your computer.

If possible, place your computer in a well-ventilated and dry area without direct exposure to sunshine.

Keep electrical appliances such as an electric fan, radio, high-powered speakers, air conditioner, and microwave oven away from your computer because the strong magnetic fields generated by these appliances can damage the monitor and data on the hard disk drive.

Do not place any beverages on top of or beside the computer or other attached devices. If liquid is spilled on or in the computer or an attached device, a short circuit or other damage might occur.

Do not eat or smoke over your keyboard. Particles that fall into your keyboard can cause damage.

Electrical current safety information

Danger

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

To avoid a shock hazard:

- **To prevent possible shock hazard, do not use your computer during a lightning storm.**
- **Do not connect or disconnect any cables or perform installation, maintenance, or reconfiguration of this product during an electrical storm.**

- Connect all power cords to a properly wired and grounded electrical outlet.
- Connect to properly wired outlets any equipment that will be attached to this product.
- When possible, use one hand only to connect or disconnect signal cables.
- Never turn on any equipment when there is evidence of fire, water, or structural damage.
- Disconnect the attached power cords, telecommunications systems, networks, and modems before you open the device covers, unless instructed otherwise in the installation and configuration procedures.
- Connect and disconnect cables as described in the following table when installing, moving, or opening covers on this product or attached devices.

<p>To connect:</p> <ol style="list-style-type: none"> 1. Turn everything OFF. 2. First, attach all cables to devices. 3. Attach signal cables to connectors. 4. Attach power cords to outlet. 5. Turn device ON. 	<p>To disconnect:</p> <ol style="list-style-type: none"> 1. Turn everything OFF. 2. First, remove power cords from outlet. 3. Remove signal cables from connectors. 4. Remove all cables from devices.
--	---

Lithium battery notice

<p>Caution Danger of explosion if battery is incorrectly replaced.</p>

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

Do not:

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

Dispose of the battery as required by local ordinances or regulations.

The following statement applies to users in the state of California, U.S.A.

Perchlorate material: Special handling may apply. See www.dtsc.ca.gov/hazardouswaste/perchlorate.

Modem safety information

Caution

To reduce the risk of fire, use only No. 26 AWG or larger telecommunication line cord.

To reduce the risk of fire, electrical shock, or injury when using telephone equipment, always follow basic safety precautions, such as:

- Never install telephone wiring during a lightning storm.
- Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations.
- Never touch uninsulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.
- Use caution when installing or modifying telephone lines.
- Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electric shock from lightning.
- Do not use the telephone to report a gas leak in the vicinity of the leak.

Laser compliance statement

Some personal computer models are equipped from the factory with a CD or DVD drive. CD and DVD drives are also sold separately as options. CD and DVD drives are laser products. These drives are certified in the U.S. to conform to the requirements of the Department of Health and Human Services 21 Code of Federal Regulations (DHHS 21 CFR) Subchapter J for Class 1 laser products. Elsewhere, these drives are certified to conform to the requirements of the International Electrotechnical Commission (IEC) 60825-1 and CENELEC EN 60825-1 for Class 1 laser products.

When a CD or DVD drive is installed, note the following handling instructions.

Caution

Use of controls or adjustments or performance of procedures other than those specified herein might result in hazardous radiation exposure.

Do not remove the drive covers. Removing the covers of the CD or DVD drive could result in exposure to hazardous laser radiation. There are no serviceable parts inside the CD or DVD drive.

Some CD and DVD drives contain an embedded Class 3A or Class 3B laser diode. Note the following statement.

Danger

Laser radiation when open. Do not stare into the beam, do not view directly with optical instruments, and avoid direct exposure to the beam.

Power supply statement

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



Hazardous voltage, current, and energy levels are present inside any component that has this label attached. There are no serviceable parts inside these components. If you suspect a problem with one of these parts, contact a service technician.

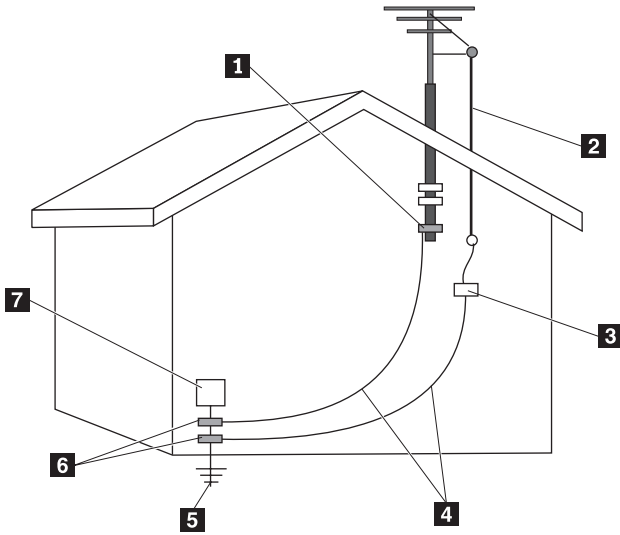
Products with television tuner options installed

The notice below applies to products containing television (TV) tuner devices that connect to external antennas or to cable/CATV systems, or both, and that are intended to be installed in North America. Users and installers in other countries should follow local codes and ordinances when installing appliances that connect to external antennas and cable/CATV systems. If local codes are not applicable, it is recommended that users/installers follow guidelines similar to those that follow.

Note to CATV system installer

This reminder is provided to call the CATV system installer's attention to Article 820-40 of the National Electrical Code (NEC) that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close as possible to the point of cable entry as practical.

Example of antenna grounding



- | | | | |
|----------|---|----------|--|
| 1 | Ground clamp | 5 | Power service grounding electrode system (NEC Article 250, Part H) |
| 2 | Antenna lead-in wire | 6 | Ground clamps |
| 3 | Antenna discharge unit (NEC Section 810-20) | 7 | Electronic service equipment |
| 4 | Grounding conductors (NEC Section 810-21) | | |

Figure 1. Proper grounding for the cable

The following notice applies to all countries and regions:

Danger



Outdoor antenna grounding

If an outside antenna or cable system is connected to the equipment, be sure the antenna or cable system is grounded as to provide some protection against voltage surges and built-up static charges.

Lightning

For added protection for this equipment during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the video product due to lightning and power line surges.

Power lines

An outside antenna system should not be located in the vicinity of overhead power lines or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits, as contact with them may be fatal.

Data safety

Do not delete unknown files or change the name of files or directories that were not created by you; otherwise, your computer software might fail to work.

Be aware that accessing network resources can leave your computer vulnerable to computer viruses, hackers, spyware, and other malicious activities that might damage your computer, software, or data. It is your responsibility to ensure that you have adequate protection in the form of firewalls, antivirus software, and anti-spyware software and keep this software up to date.

Cleaning and maintenance

Keep your computer and workspace clean. Shut down the computer and then disconnect the power cord before cleaning the computer. Do not spray any liquid detergent directly on the computer or use any detergent containing flammable material to clean the computer. Spray the detergent on a soft cloth and then wipe the computer surfaces.

Using headphones or earphones

If your computer has both a headphone connector and an audio-out connector, always use the headphone connector for headphones (also called a headset) or earphones.

Excessive use of headphones or earphones for a long period of time at high volume can be dangerous if the headphones or earphones do not comply with specifications of EN 50332-2. The headphone output connector of your computer complies with EN 50332-2 Sub clause 5.1. This specification limits the computer's maximum wide band true RMS output voltage to 150mV. To help protect against hearing loss, ensure that the headphones or earphones you use also comply with EN 50332-2 (Sub clause 6.1) for a wide band characteristic voltage of 75mV. Using headphones that do not comply with EN 50332-2 can be dangerous due to excessive sound pressure levels.

If your Lenovo computer came with headphones or earphones in the package, as a set, the combination of the headphones or earphones and the computer already complies with the specifications of EN 50332-1. If different headphones or earphones are used, ensure that they comply with EN 50332-2. (Sub clause 6.1) for a wide band characteristic voltage of 75mV. Using headphones that do not comply with EN 50332-2 can be dangerous due to excessive sound pressure levels.

Additional safety information

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

Chapter 2. Information resources

After you have set up your computer using the provided setup poster, you can use the information in this chapter to access useful resources relating to your computing needs.

Online Books folder

The Online Books folder provides publications to help you set up and use your computer. The Online Books folder is preinstalled on your computer and requires no Internet access to view the publications. The following publications are available in the Online Books folder:

- *User Guide*
This publication provides information on setting up your computer, installing options, recovering software, using the Setup Utility, updating system programs, and troubleshooting problems.
- *Hardware Installation and Replacement Guide*
This publication provides step-by-step instructions for replacing Customer Replaceable Units (CRUs) in your computer. CRUs are computer parts that can be upgraded or replaced by the customer.
- *IBM Lotus® Software Offer Publet*
This publication provides license and ordering information for specified Lotus products.

To view a publication, open the **Start** menu from the Windows desktop, select **All Programs**, select **Online Books**, and click **Online Books**. Double-click on the appropriate publication for your computer. The publications also are available on the Lenovo Web site at <http://www.lenovo.com>.

Notes:

1. These publications are in Portable Document Format (PDF) format, which requires Adobe Acrobat Reader to be installed. If Adobe Acrobat Reader has not yet been installed on your computer, a message will appear when you attempt to view the PDF file and you will be guided through the Adobe Acrobat Reader installation.
2. The publications that are preinstalled on your computer are available in other languages on the Lenovo Support Web site at <http://www.lenovo.com/support/>.
3. If you want to install a different language version of Adobe Acrobat Reader than the version provided on your computer, go to the Adobe Web site at <http://www.adobe.com> and download the version you want to use.

ThinkVantage Productivity Center

The ThinkVantage® Productivity Center program guides you to a host of information sources and tools designed to make computing simpler and more secure while helping to reduce costs and increase productivity. The ThinkVantage Productivity Center program helps you set up, understand, and enhance your computer.

The ThinkVantage Productivity Center program provides information about your computer and easy access to various technologies, such as:

- The Rescue and Recovery™ program
- Productivity Center
- Client Security Solutions
- Factory Recovery
- System Updates
- Service and support

Note: ThinkVantage Technologies are only available on select Lenovo computers.

To access the ThinkVantage Productivity Center program, open the **Start** menu from the Windows desktop, select **All Programs**, select **ThinkVantage**, and click **Productivity Center**.

Access Help

The Access Help online help system provides information about getting started, doing basic tasks, customizing settings for your personal preference, protecting data, expanding and upgrading, and troubleshooting.

To open Access Help, open the **Start** menu from the Windows desktop, select **All Programs**, select **ThinkVantage**, and click **Access Help**. After you have opened Access Help, use the left panel to make a selection from the Contents or Index tab, or use the Search tab to find a particular word or phrase.

www.lenovo.com

The Lenovo Web site (www.lenovo.com) provides an extensive amount of information and services to help you buy, upgrade, and maintain your computer. You can access the most up-to-date information for your computer on the Lenovo Web site. From the www.lenovo.com Web site, you can also:

- Shop for desktop and notebook computers, monitors, projectors, upgrades and accessories for your computer, and special offers.

- Purchase additional services, such as support for hardware, operating systems, application programs, network setup and configuration, and custom installations.
- Purchase upgrades and extended hardware repair services.
- Download the latest device drivers and software updates for your computer model.
- Access the online manuals for your products.
- Access the Lenovo Limited Warranty.
- Access troubleshooting and support information for your computer model and other supported products.
- Find the service and support phone number for your country or region.
- Find a service provider located near you.

Recording your computer information

Recording information about your computer can be helpful if you ever need to have your computer serviced. The service technician will probably ask you for this information.

The machine type, model, and serial number are labeled on your computer. Use the following table to record this information.

Product name	_____
Machine type and model	_____
Serial number (S/N)	_____
Date of purchase	_____

You can register your computer over the Internet at the following Web site:

<http://www.lenovo.com/register>

When you register your computer, you will receive the following benefits:

- Faster service when you call for help
- Automatic notification of free software and special promotional offers

For more information about registering your computer, refer to the Access Help online help system. See “Access Help” on page 16 for instructions on how to open the online help system.

Chapter 3. Lenovo Limited Warranty

L505-0010-00 09/2006

This Lenovo Limited Warranty applies only to Lenovo hardware products you purchased for your own use and not for resale. This warranty may sometimes be referred to as the "Statement of Limited Warranty" (SOLW) in other documents from Lenovo.

What this Warranty Covers

Lenovo warrants that each hardware product is free from defects in materials and workmanship under normal use during the warranty period. The warranty period for the product starts on the original date of purchase specified on your invoice unless Lenovo informs you otherwise in writing. The warranty period and type of warranty service that apply to your product are designated below under the section titled "**Warranty Information.**"

THIS WARRANTY IS YOUR EXCLUSIVE WARRANTY AND REPLACES ALL OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. SOME STATES OR JURISDICTIONS DO NOT ALLOW THE EXCLUSION OF EXPRESS OR IMPLIED WARRANTIES, SO THE ABOVE EXCLUSION MAY NOT APPLY TO YOU. IN THAT EVENT, SUCH WARRANTIES APPLY ONLY TO THE EXTENT REQUIRED BY LAW AND ARE LIMITED IN DURATION TO THE WARRANTY PERIOD. NO WARRANTIES APPLY AFTER THAT PERIOD. SOME STATES OR JURISDICTIONS DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION ON DURATION MAY NOT APPLY TO YOU.

How to Obtain Warranty Service

If the product does not function as warranted during the warranty period, you may obtain warranty service by contacting Lenovo or an approved service provider. Each of them is referred to as a "Service Provider." A list of Service Providers and their telephone numbers is available at www.lenovo.com/support/phone.

Warranty service may not be available in all locations and may differ from location to location. Charges may apply outside a Service Provider's normal service area. Contact a local Service Provider for location-specific information.

What Your Service Provider Will Do to Correct Problems

When you contact a Service Provider, you must follow the problem determination and resolution procedures specified.

Your Service Provider will attempt to diagnose and resolve your problem over the telephone or through remote assistance. Your Service Provider may direct you to download and install designated software updates.

Some problems can be resolved with a replacement part that you install yourself (such as keyboard, mouse, speaker, memory, hard disk drive, or port replicator), called a "Customer Replaceable Unit" or "CRU." If so, your Service Provider will ship the CRU to you for you to install.

If your problem cannot be resolved over the telephone or remotely, through your application of software updates, or with a CRU, your Service Provider will arrange for service under the type of warranty service designated for the product under the section titled "**Warranty Information.**"

If your Service Provider determines that it is unable to repair your product, your Service Provider will replace it with one that is at least functionally equivalent.

If your Service Provider determines that it is unable to either repair or replace your product, your sole remedy is to return the product to your place of purchase or to Lenovo and your purchase price will be refunded.

Exchange of a Product or Part

When the warranty service involves the exchange of a product or part, the item your Service Provider replaces becomes Lenovo's property and the replacement becomes yours. All removed items must be genuine and unaltered. The replacement may not be new, but will be in good working order and at least functionally equivalent to the item replaced. The replacement assumes the warranty status of the replaced item.

Before your Service Provider exchanges a product or part, you agree to:

1. remove all features, parts, options, alterations, and attachments not under warranty service;
2. ensure that the product is free of any legal obligations or restrictions that prevent its exchange; and
3. obtain authorization from the owner to have your Service Provider service a product that you do not own.

Your Additional Responsibilities

Where applicable, before service is provided, you agree to:

1. follow the service request procedures that your Service Provider specifies;
2. backup or secure all programs and data contained in the product;
3. provide your Service Provider with all system keys or passwords and sufficient, free, and safe access to your facilities to permit the terms of this warranty to be fulfilled; and
4. ensure that all information about identified or identifiable individuals ("Personal Data") is deleted from the product or that, with respect to any remaining Personal Data you did not delete, you are in compliance with all applicable laws.

Use of Personal Information

If you obtain service under this warranty, Lenovo will store, use, and process information about your warranty issue and your contact information, including name, phone numbers, address, and e-mail address. Lenovo will use this information to perform service under this warranty and to improve our business relationship with you, such as to conduct internal reviews of the efficiency of the warranty service we provide to you. We may contact you to inquire about your satisfaction regarding our warranty service or to notify you about any product recalls or safety issues. In accomplishing these purposes, we may transfer your information to any country where we do business and may provide it to entities acting on our behalf. We also may disclose it where required by law or legal authorities to do so.

What this Warranty Does not Cover

This warranty does not cover the following:

- uninterrupted or error-free operation of a product;
- loss of, or damage to, your data;
- any software programs, whether provided with the product or installed subsequently;
- failure or damage resulting from misuse, accident, modification, unsuitable physical or operating environment, natural disasters, power surges, or improper maintenance by you;
- any third party products, including those that Lenovo may procure and provide with or integrate into the Lenovo product at your request; and
- any technical or other support, such as assistance with "how-to" questions and those regarding product set-up and installation.

This warranty is voided by removal or alteration of identification labels on the product or its parts.

Limitation of Liability

Lenovo is responsible for loss of, or damage to, your product only while it is 1) in your Service Provider's possession or 2) in transit in those cases in which the Service Provider is responsible for the transportation.

Neither Lenovo nor your Service Provider is responsible for any of your data including confidential, proprietary, or personal data contained in a product. You should remove and/or backup all such information from the product prior to its service or return.

Circumstances may arise where, because of a default on Lenovo's part or other liability, you may be entitled to recover damages from Lenovo. In each such instance, regardless of the basis on which you are entitled to claim damages from Lenovo (including fundamental breach, negligence, misrepresentation, or other contract or tort claim), except and to the extent that liability cannot be waived or limited by applicable laws, Lenovo is liable for no more than the amount of actual direct damages suffered by you, up to the amount you paid for the product. This limit does not apply to damages for bodily injury (including death) and damage to real property and tangible personal property for which Lenovo is required by law to be liable.

This limit also applies to Lenovo's suppliers, resellers, and your Service Provider. It is the maximum for which Lenovo, its suppliers, resellers, and your Service Provider are collectively responsible.

UNDER NO CIRCUMSTANCES IS LENOVO, ITS SUPPLIERS, RESELLERS, OR SERVICE PROVIDERS LIABLE FOR ANY OF THE FOLLOWING EVEN IF INFORMED OF THEIR POSSIBILITY: 1) THIRD PARTY CLAIMS AGAINST YOU FOR DAMAGES; 2) LOSS OF, OR DAMAGE TO, YOUR DATA; OR 3) SPECIAL, INCIDENTAL, OR INDIRECT DAMAGES OR FOR ANY ECONOMIC CONSEQUENTIAL DAMAGES, INCLUDING LOST PROFITS, BUSINESS REVENUE, GOODWILL, OR ANTICIPATED SAVINGS. SOME STATES OR JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

Dispute Resolution

If you acquired the product in **Cambodia, Indonesia, Philippines, Vietnam or Sri Lanka**, disputes arising out of or in connection with this warranty shall be finally settled by arbitration held in Singapore and this warranty shall be governed, construed and enforced in accordance with the laws of Singapore, without regard to conflict of laws. If you acquired the product in **India**, disputes arising out of or in connection with this warranty shall be finally settled by arbitration held in Bangalore, India. Arbitration in Singapore shall be held in accordance with the Arbitration Rules of Singapore International

Arbitration Center ("SIAC Rules") then in effect. Arbitration in India shall be held in accordance with the laws of India then in effect. The arbitration award shall be final and binding for the parties without appeal and shall be in writing and set forth the findings of fact and the conclusions of law. All arbitration proceedings shall be conducted, including all documents presented in such proceedings, in the English language, and the English language version of this warranty prevails over any other language version in such proceedings.

Other Rights

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS AND YOU MAY HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE OR JURISDICTION TO JURISDICTION. YOU ALSO MAY HAVE OTHER RIGHTS UNDER APPLICABLE LAW OR WRITTEN AGREEMENT WITH LENOVO. NOTHING IN THIS WARRANTY AFFECTS STATUTORY RIGHTS, INCLUDING RIGHTS OF CONSUMERS UNDER NATIONAL LEGISLATION GOVERNING THE SALE OF CONSUMER GOODS THAT CANNOT BE WAIVED OR LIMITED BY CONTRACT.

European Economic Area (EEA)

Customers in the EEA may contact Lenovo at the following address: Lenovo Warranty & Service Quality Dept., PO Box 19547, Inverkip Road, Greenock, Scotland PA16 9WX. Service under this warranty for Lenovo hardware products purchased in EEA countries may be obtained in any EEA country in which the product has been announced and made available by Lenovo.

This Lenovo Limited Warranty is available in other languages at www.lenovo.com/warranty.

Warranty Information

Machine Type	Country or Region of Purchase	Warranty Period	Type of Warranty Service
6416	United States, Canada, Latin America, Argentina, Mexico, Brazil, Europe, Middle East, Africa, Australia, New Zealand, Singapore, India, Malaysia, Thailand, Indonesia, Philippines, Vietnam, Brunei, Sri Lanka, Bangladesh, Korea, PRC (China), China (Hong Kong S.A.R.), Taiwan	Parts and labor - 1 year	1 and 2
	Japan	Parts and labor - 1 year	1 and 3

Machine Type	Country or Region of Purchase	Warranty Period	Type of Warranty Service
6417	United States, Canada, Latin America, Argentina, Mexico, Brazil, Europe, Middle East, Africa, Australia, New Zealand, Singapore, India, Malaysia, Thailand, Indonesia, Philippines, Vietnam, Brunei, Sri Lanka, Bangladesh, Korea, PRC (China), China (Hong Kong S.A.R.), Taiwan	Parts and labor - 1 year	1 and 2
	Japan	Parts and labor - 1 year	1 and 3
6418	United States, Canada, Latin America, Argentina, Mexico, Brazil, Europe, Middle East, Africa, Singapore, India, Malaysia, Thailand, Indonesia, Philippines, Vietnam, Brunei, Sri Lanka, Bangladesh, Korea, PRC (China), China (Hong Kong S.A.R.), Taiwan	Parts and labor - 3 years	1 and 2
	Australia and New Zealand	Parts - 3 years Labor - 1 year	1 and 2
	Japan	Parts and labor - 1 year	1 and 3
6449	United States, Canada, Latin America, Argentina, Mexico, Brazil, Europe, Middle East, Africa, Australia, New Zealand, Singapore, India, Malaysia, Thailand, Indonesia, Philippines, Vietnam, Brunei, Sri Lanka, Bangladesh, Korea, PRC (China), China (Hong Kong S.A.R.), Taiwan	Parts and labor - 3 years	1 and 2
	Japan	Parts and labor - 1 year	1 and 3
6453	United States, Canada, Latin America, Argentina, Mexico, Brazil, Europe, Middle East, Africa, Australia, New Zealand, Singapore, India, Malaysia, Thailand, Indonesia, Philippines, Vietnam, Brunei, Sri Lanka, Bangladesh, Korea, PRC (China), China (Hong Kong S.A.R.), Taiwan	Parts and labor -1 year	1 and 2
	Japan	Parts and labor -1 year	1 and 3

Machine Type	Country or Region of Purchase	Warranty Period	Type of Warranty Service
6495	United States, Canada, Latin America, Argentina, Mexico, Brazil, Europe, Middle East, Africa, Australia, New Zealand, Singapore, India, Malaysia, Thailand, Indonesia, Philippines, Vietnam, Brunei, Sri Lanka, Bangladesh, Korea, PRC (China), China (Hong Kong S.A.R.), Taiwan	Parts and labor - 1 year	1 and 2
	Japan	Parts and labor - 1 year	1 and 3

If required, your Service Provider will provide repair or exchange service depending on the type of warranty service specified for your product and the available service. Scheduling of service will depend upon the time of your call, parts availability, and other factors.

A warranty period of 3 years on parts and 1 year on labor means that Lenovo provides warranty service without charge for:

- a. parts and labor during the first year of the warranty period (or a longer period as required by law); and
- b. parts only, on an exchange basis, in the second and third years of the warranty period. Your Service Provider will charge you for any labor provided in performance of the repair or replacement(s) in the second and third year of warranty period.

Types of Warranty Service

1. Customer Replaceable Unit ("CRU") Service

Under CRU Service, your Service Provider will ship CRUs to you for you to install. Most CRUs are easy to install whereas others may require some technical skill and tools. CRU information and replacement instructions are shipped with your product and are available from Lenovo at any time upon request. You may request that a Service Provider install some CRUs under one of the other types of warranty service designated for your product. Installation of external CRUs (such as mice, keyboards, or monitors) is your responsibility. Lenovo specifies in the materials shipped with a replacement CRU whether the defective CRU must be returned. When return is required, 1) return instructions, a prepaid return shipping label, and a container are included with the replacement CRU, and 2) you may be charged for the replacement CRU if

your Service Provider does not receive the defective CRU within thirty (30) days of your receipt of the replacement.

2. On-site Service

Under On-Site Service, your Service Provider will either repair or exchange the product at your location. You must provide a suitable working area to allow disassembly and reassembly of the Lenovo product. For some products, certain repairs may require your Service Provider to send the product to a designated service center.

3. Courier or Depot Service

Under Courier or Depot Service, your product will be repaired or exchanged at a designated service center, with shipping arranged by your Service Provider. You are responsible for disconnecting the product. A shipping container will be provided to you for you to return your product to a designated service center. A courier will pick up your product and deliver it to the designated service center. Following its repair or exchange, the service center will arrange the return delivery of the product to you.

4. Customer Carry-In or Mail-In Service

Under Customer Carry-In or Mail-In Service, your product will be repaired or exchanged at a designated service center, with delivery or shipping arranged by you. You are responsible to deliver or mail, as your Service Provider specifies, (prepaid unless specified otherwise) the product suitably packaged to a designated location. After the product has been repaired or exchanged, it will be made available for your collection. Failure to collect the product may result in your Service Provider disposing of the product as it sees fit. For Mail-in Service, the product will be returned to you at Lenovo's expense, unless your Service Provider specifies otherwise.

Guarantee supplement for Mexico

This supplement is considered part of the Lenovo Limited Warranty and shall be effective solely and exclusively for products distributed and commercialized within Territory of the Mexican United States. In the event of a conflict, the terms of this supplement shall apply.

All software programs pre-loaded in the equipment shall only have a thirty-(30) day guarantee for installation defects from the date of purchase. Lenovo is not responsible for the information in such software programs and/or any additional software programs installed by you or installed after purchase of the product.

Services not chargeable to the guarantee shall be charged to the final user, prior an authorization.

In the event that warranty repair is required please call the Customer Support Center at 001-866-434-2080, where you will be directed to the nearest Authorized Service Center. Should no Authorized Service Center exist in your city, location or within 70 kilometers of your city or location, the guarantee includes any reasonable delivery charges related to the transportation of the product to our nearest Authorized Service Center. Please call the nearest Authorized Service Center to obtain the necessary approvals or information concerning the shipment of the product and the shipment address.

To obtain a list of Authorized Service Centers, please visit:

<http://www.lenovo.com/mx/es/servicios>

Manufactured by:
eCMMS S.A. de C.V.
FOXCONN Group
Bulevard Oscar Flores Sanchez no. 8951
Colonia Puente Alto
Cd. Juarez, Chih.
C.P. 32690
From the U.S.: Tel. (915) 225-3118
From Mexico: Tel. (656) 649-9999

Marketing by:
Lenovo de México, Comercialización y
Servicios, S. A. de C. V.
Alfonso Nápoles Gándara No 3111
Parque Corporativo de Peña Blanca
Delegación Álvaro Obregón
México, D.F., México
C.P. 01210,
Tel. 01-800-00-325-00

Chapter 4. Worldwide telephone list

Country or Region	Telephone Number
Africa	Africa: +44 (0)1475-555-055 South Africa: +27-11-3028888 and 0800110756 Central Africa: Contact the nearest Lenovo Business Partner
Argentina	0800-666-0011 (Spanish)
Australia	131-426 (English)
Austria	Up and running support: 01-24592-5901 Warranty service and support: 01-211-454-610 (German)
Belgium	Up and running support: 02-210-9820 (Dutch) Up and running support: 02-210-9800 (French) Warranty service and support: 02-225-3611 (Dutch, French)
Bolivia	0800-10-0189 (Spanish)
Brazil	Sao Paulo region: (11) 3889-8986 Outside Sao Paulo region: 0800-701-4815 (Brazilian Portuguese)
Canada	Toronto: 416-383-3344 Outside Toronto: 1-800-565-3344 (English, French)
Chile	800-361-213 Toll Free: 188-800-442-488 (Spanish)
China	86-10-58851110 800-990-8888 (Mandarin)
China (Hong Kong S.A.R.)	ThinkCentre® Commerical PC: 8205-0333 Multimedia Home PC: 800-938-228 (Cantonese, English, Mandarin)
China (Macau S.A.R.)	ThinkCentre (Technical enquiry hotline): 0800-336 (Cantonese, English, Mandarin)
Colombia	1-800-912-3021 (Spanish)
Costa Rica	0-800-011-1029 (Spanish)
Croatia	0800-0426
Cyprus	+357-22-841100
Czech Republic	+420-2-7213-1316
Denmark	Up and running support: 4520-8200 Warranty service and support: 7010-5150 (Danish)

Country or Region	Telephone Number
Dominican Republic	1-866-434-2080 (Spanish)
Ecuador	1-800-426911 (Spanish)
El Salvador	800-6264 (Spanish)
Estonia	+372 6776793 +372 66 00 800
Finland	Up and running support: 09-459-6960 Warranty service and support: +358-800-1-4260 (Finnish)
France	Up and running support: 0238-557-450 Warranty service and support (hardware): 0810-631-213 Warranty service and support (software): 0810-631-020 (French)
Germany	Up and running support: 07032-15-49201 Warranty service and support: 01805-25-35-58 (German)
Greece	+30-210-680-1700
Guatemala	1800-624-0051 (Spanish)
Honduras	Tegucigalpa: 232-4222 San Pedro Sula: 552-2234 (Spanish)
Hungary	+36-1-382-5720
India	1800-425-6666 +91-80-2678-8970 (English)
Indonesia	800-140-3555 (English) 62-21-251-2955 (Bahasa, Indonesian)
Ireland	Up and running support: 01-815-9202 Warranty service and support: 01-881-1444 (English)
Israel	Givat Shmuel Service Center: +972-3-531-3900 (Hebrew, English)
Italy	Up and running support: 02-7031-6101 Warranty service and support: +39-800-820094 (Italian)

Country or Region	Telephone Number
Japan	Toll Free: 0120-20-5550 International: +81-46-266-4716 The above numbers will be answered with a Japanese language voice prompt. For telephone support in English, please wait for the Japanese voice prompt to end, and an operator will answer. Please say "English support please," and your call will be transferred to an English speaking operator. Computer software: 0120-558-695 Overseas calls: +81-44-200-8666 (Japanese)
Korea	1588-5801 (Korean)
Latvia	+371 7070360
Lithuania	+370 5 278 66 00
Luxembourg	+352-298-977-5063 (French)
Malaysia	1800-88-8558 (English, Bahasa, Melayu)
Malta	+35621445566
Mexico	001-866-434-2080 (Spanish)
Middle East	+44 (0)1475-555-055
Netherlands	+31-20-514-5770 (Dutch)
New Zealand	0800-733-222 (English)
Nicaragua	001-800-220-1830 (Spanish)
Norway	Up and running support: 6681-1100 Warranty service and support: 8152-1550 (Norwegian)
Panama	001-866-434-2080 (Toll Free) 206-6047 (Spanish)
Peru	0-800-50-866 (Spanish)
Philippines	1800-1888-1426 (English) 63-2-995-8420 (Filipino)
Poland	+48-22-878-6999
Portugal	+351-21-892-7147 (Portuguese)
Romania	+4-021-224-4015
Russia	+7-495-258-6300 +8-800-200-6300 (Russian)
Singapore	1800-3172-888 (English, Bahasa, Melayu)

Country or Region	Telephone Number
Slovakia	+421-2-4954-5555
Slovenia	+386-1-4796-699
Spain	91-714-7983 0901-100-000 (Spanish)
Sri Lanka	+9411 2493547 +9411 2493548 (English)
Sweden	Up and running support: 08-477-4420 Warranty service and support: 077-117-1040 (Swedish)
Switzerland	Up and running support: 058-333-0900 Warranty service and support: 0800-55-54-54 (German, French, Italian)
Taiwan	886-2-8723-9799 0800-000-700 (Mandarin)
Thailand	1-800-299-229 (Thai)
Turkey	00800-4463-2041 (Turkish)
United Kingdom	Up and running support: 01475-555-055 Warranty support: 08705-500-900 (English)
United States	1-800-426-7378 (English)
Uruguay	000-411-005-6649 (Spanish)
Venezuela	0-800-100-2011 (Spanish)
Vietnam	For northern area and Hanoi: 84-4-843-6675 For southern area and Ho Chi Minh City: 84-8-829-5160 (English, Vietnamese)

Chapter 5. Customer Replaceable Units (CRUs)

Customer Replacement Units (CRUs) are computer parts that can be upgraded or replaced by the customer. There are two types of CRUs: *internal* and *external*. External CRUs are easy to install, whereas internal CRUs require some technical skills and in some cases might require tools such as a screwdriver. However, both internal and external CRUs are safe for removal by the customer.

Customers are responsible for replacing all external CRUs. Internal CRUs can be removed and installed by customers or by a Lenovo service technician during the warranty period.

Desktop computers contain external and internal CRUs. External CRUs are located outside of the computer. Examples of external CRUs include the keyboard, the mouse, any USB device, and the power cord. Internal CRUs cannot be removed without first opening the cover of the computer. Examples of internal CRUs include memory modules, optical drives, hard disk drives, adapter cards, and the power supply.

The *User Guide* and *Hardware Installation and Replacement Guide* provide instructions for replacing internal and external CRUs. Refer to the following tables to determine which publication contains the instructions you need. To view a publication, open the Start menu from the Windows desktop, select **All Programs**, select **Online Books**, and click **Online Books**. Double-click the appropriate publication.

The publications also are available on the Lenovo Web site at <http://www.lenovo.com>.

Note: Only use computer parts provided by Lenovo. Refer to Chapter 3, “Lenovo Limited Warranty,” on page 19 for warranty information about the CRUs for your machine type.

List of Machine Types: 6416, 6417, 6418, 6449, 6453, 6495		
	User Guide	Hardware Installation and Replacement Guide
External CRUs		
Keyboard	X	X
Mouse	X	X
AC adapter		X
Internal CRUs		

List of Machine Types: 6416, 6417, 6418, 6449, 6453, 6495		
Hard disk drive		X
Memory		X
Optical drive		X
Heat sink		X
System fan (if present)		X
Modem		X
CMOS battery		X

Chapter 6. Notices

Lenovo may not offer the products, services, or features discussed in this document in all countries. Consult your local Lenovo representative for information on the products and services currently available in your area. Any reference to a Lenovo product, program, or service is not intended to state or imply that only that Lenovo product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any Lenovo intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any other product, program, or service.

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*Lenovo (United States), Inc.
1009 Think Place - Building One
Morrisville, NC 27560
U.S.A.
Attention: Lenovo Director of Licensing*

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Any performance data contained herein was determined in a controlled environment. Therefore, the result obtained in other operating environments may vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurements may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

Television output notice

The following notice applies to models that have the factory-installed television-output feature.

This product incorporates copyright protection technology that is protected by method claims of certain U.S. patents and other intellectual property rights owned by Macrovision Corporation and other rights owners. Use of this copyright protection technology must be authorized by Macrovision Corporation, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision Corporation. Reverse engineering or disassembly is prohibited.

Trademarks

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

IBM and Lotus are trademarks of International Business Machines Corporation in the United States, other countries, or both.

Other company, product, or service names may be trademarks or service marks of others.

Electronic emissions notices

The following information refers to Lenovo personal computer machine types: 6416, 6417, 6418, 6449, 6453, 6495.

Federal Communications Commission (FCC) Declaration of Conformity

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee the interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult an authorized dealer or service representative for help.

Lenovo is not responsible for any radio or television interference caused by using other than recommended cables or connectors or by unauthorized changes or modifications to this equipment. Unauthorized changes or modifications could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Responsible party:

Lenovo (United States) Incorporated
1009 Think Place - Building One
Morrisville, NC 27650
U.S.A.
Telephone: (919) 294-5900



Tested To Comply
With FCC Standards

FOR HOME OR OFFICE USE

Industry Canada Class B emission compliance statement

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

European Union EMC Directive conformance statement

This product is in conformity with the protection requirements of EU Council Directive 2004/108/EC on the approximation of the laws of the Member States relating to electromagnetic compatibility. Lenovo cannot accept responsibility for any failure to satisfy the protection requirements resulting from a nonrecommended modification of the product, including the installation of option cards from other manufacturers.

This product has been tested and found to comply with the limits for Class B Information Technology Equipment according to CISPR 22/European Standard EN 55022. The limits for Class B equipment were derived for typical residential environments to provide reasonable protection against interference with licensed communication devices.

EU-EMC Directive (2004/108/EC) EN 55022 class B Statement of Compliance

Deutschsprachiger EU Hinweis:

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

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

Um dieses sicherzustellen, sind die Geräte wie in den Handbüchern beschrieben zu installieren und zu betreiben. Des Weiteren dürfen auch nur von der Lenovo empfohlene Kabel angeschlossen werden. Lenovo übernimmt keine Verantwortung für die Einhaltung der Schutzanforderungen, wenn das Produkt ohne Zustimmung der Lenovo verändert bzw. wenn Erweiterungskomponenten von Fremdherstellern ohne Empfehlung der Lenovo gesteckt/eingebaut werden.

Deutschland: Einhaltung des Gesetzes über die elektromagnetische Verträglichkeit von Betriebsmitteln

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

Zulassungsbescheinigung laut dem Deutschen Gesetz über die elektromagnetische Verträglichkeit von Betriebsmitteln, EMVG vom 20. Juli 2007 (früher "Gesetz über die elektromagnetische Verträglichkeit von Geräten"), bzw. der EMV EG Richtlinie 2004/108/EC (früher 89/336/EWG), für Geräte der Klasse B.

Dieses Gerät ist berechtigt, in Übereinstimmung mit dem Deutschen EMVG das EG-Konformitätszeichen - CE - zu führen. Verantwortlich für die Konformitätserklärung nach Paragraf 5 des EMVG ist die Lenovo (Deutschland) GmbH, Pascalstr. 100, D-70569 Stuttgart.

Informationen in Hinsicht EMVG Paragraf 4 Abs. (1) 4:
Das Gerät erfüllt die Schutzanforderungen nach EN 55024 und EN 55022 Klasse B.

Korean Class B statement

이 기기는 가정용으로 전자파 적합등록을 한 기기로서
주거지역에서는 물론 모든 지역에서 사용할 수 있습니다.

Japanese VCCI Class B statement

この装置は、情報処理装置等電波障害自主規制協議会（VCCI）の基準に基づくクラスB情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。
取扱説明書に従って正しい取り扱いをして下さい。

Japanese compliance for products less than or equal to 20A per phase

高調波電流規格 JIS C 61000-3-2 適合品

Keyboard and mouse compliance statement for Taiwan

本產品隨貨附已取得經濟部標準檢驗局認可之PS/2或USB的鍵盤與滑鼠一組

Lenovo product service information for Taiwan

台灣 **Lenovo** 產品服務資訊如下：
荷蘭商思惟個人電腦產品股份有限公司台灣分公司
台北市信義區信義路五段七號十九樓之一
服務電話: 0800-000-700

Federal Communications Commission (FCC) and telephone company requirements

1. This device complies with Part 68 of the FCC rules. A label is affixed to the device that contains, among other things, the FCC registration number, USOC, and Ringer Equivalency Number (REN) for this equipment. If these numbers are requested, provide this information to your telephone company.

Note: If the device is an internal modem, a second FCC registration label is also provided. You may attach the label to the exterior of the computer in which you install the Lenovo modem, or you may attach the label to the external DAA, if you have one. Place the label in a location that is easily accessible, should you need to provide the label information to the telephone company.

2. The REN is useful to determine the quantity of devices you may connect to your telephone line and still have those devices ring when your number is called. In most, but not all areas, the sum of the RENs of all devices should not exceed five (5). To be certain of the number of devices you may connect to your line, as determined by the REN, you should call your local telephone company to determine the maximum REN for your calling area.
3. If the device causes harm to the telephone network, the telephone company may discontinue your service temporarily. If possible, they will notify you in advance; if advance notice is not practical, you will be notified as soon as possible. You will be advised of your right to file a complaint with the FCC.
4. Your telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the proper operation of your equipment. If they do, you will be given advance notice to give you an opportunity to maintain uninterrupted service.

5. If you experience trouble with this product, contact your authorized reseller or call the Customer Support Center. In the United States, call **1-800-426-7378**. In Canada, call **1-800-565-3344**. You may be required to present proof of purchase.

The telephone company may ask you to disconnect the device from the network until the problem has been corrected, or until you are sure the device is not malfunctioning.

6. No customer repairs are possible to the device. If you experience trouble with the device, contact your Authorized Reseller or see the Diagnostics section of this manual for information.
7. This device may not be used on coin service provided by the telephone company. Connection to party lines is subject to state tariffs. Contact your state public utility commission or corporation commission for information.
8. When ordering network interface (NI) service from the local Exchange Carrier, specify service arrangement USOC RJ11C.

Canadian Department of Communications certification label

NOTICE: The Industry Canada label identifies certified equipment. This certification means that the equipment meets telecommunications network protective, operational and safety requirements as prescribed in the appropriate Terminal Equipment Technical Requirements documents. The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations. Repairs to certified equipment should be coordinated by a representative designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines, and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

Caution: Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

NOTICE: The Ringer Equivalence Number (REN) assigned to each terminal device provides an indication of the maximum number of terminals allowed to

be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed 5.

Power cord notice

For your safety, Lenovo provides a power cord with a grounded attachment plug to use with this product. To avoid electrical shock, always use the power cord and plug with a properly grounded outlet.

Power cords provided by Lenovo in the United States and Canada are listed by Underwriter’s Laboratories (UL) and certified by the Canadian Standards Association (CSA).

For units intended to be operated at 115 volts: Use a UL-listed and CSA-certified cord set consisting of a minimum 18 AWG, Type SVT or SJT, three-conductor cord, a maximum of 15 feet in length and a parallel blade, grounding-type attachment plug rated 15 amperes, 125 volts.

For units intended to be operated at 230 volts (U.S. use): Use a UL-listed and CSA-certified cord set consisting of a minimum 18 AWG, Type SVT or SJT, three-conductor cord, a maximum of 15 feet in length and a tandem blade, grounding-type attachment plug rated 15 amperes, 250 volts.

For units intended to be operated at 230 volts (outside the U.S.): Use a cord set with a grounding-type attachment plug. The cord set should have the appropriate safety approvals for the country in which the equipment will be installed.

Power cords provided by Lenovo for a specific country or region are usually available only in that country or region.

For units intended to be operated in Germany: The power cords shall be safety approved. For Germany, it shall be H05VV-F, 3G, 0.75 mm², or better. For other countries, the suitable types shall be used accordingly.

Power cord part number	Used in these countries and regions
42T5004 or 42T5089	Antigua and Barbuda, Aruba, Bahamas, Barbados, Belize, Bermuda, Bolivia, Calicos Island, Canada, Cayman Islands, Costa Rica, Colombia, Cuba, Dominican Republic, Ecuador, El Salvador, Guam, Guatemala, Haiti, Honduras, Jamaica, Mexico, Micronesia (Federal States of), Netherlands Antilles, Nicaragua, Panama, Peru, Philippines, Saudi Arabia, Thailand, United States, Venezuela
42T5011 or 42T5096	Japan

Power cord part number	Used in these countries and regions
42T5017 or 42T5102	Argentina, Paraguay, Uruguay
42T5174 or 42T5177	Brazil
42T5029 or 42T5114	Afghanistan, Albania, Algeria, Andorra, Angola, Armenia, Austria, Azerbaijan, Belarus, Belgium, Benin, Bosnia and Herzegovina, Bulgaria, Burkina Faso, Burundi, Cambodia, Cameroon, Cape Verde, Central African Republic, Chad Comoros, Congo (Democratic Republic of), Congo (Republic of), Cote D'Ivoire (Ivory Coast), Croatia (Republic of), Dahomey, Djibouti, Egypt, Equatorial Guinea, Eritrea, Estonia, Ethiopia, Finland, France, French Guyana, French Polynesia, Gabon, Georgia, Germany, Greece, Guadeloupe, Guinea, Guinea Bissau, Hungary, Iceland, Indonesia, Iran, Kazakhstan, Kyrgyzstan, Laos (Peoples Democratic Republic of), Latvia, Lebanon, Lithuania, Luxembourg, Macedonia (former Yugoslav Republic of), Madagascar, Mali, Martinique, Mauritania, Mauritius, Mayetta, Moldova (Republic of), Monaco, Mongolia, Morocco, Mozambique, Netherlands, New Caledonia, Niger, Norway, Poland, Portugal, Reunion, Romania, Russian Federation, Rwanda, São Tomé and Príncipe, Saudi Arabia, Senegal, Serbia, Slovakia, Slovenia (Republic of), Somalia, Spain, Suriname, Sweden, Syrian Arab Republic, Tajikistan, Tahiti, Togo, Tunisia, Turkey, Turkmenistan, Ukraine, Upper Volta, Uzbekistan, Vanuatu, Vietnam, Wallis and Futuna, Yugoslavia (Federal Republic of), Zaire
42T5035 or 42T5120	Abu Dhabi, Bahrain, Botswana, Brunei Darussalam, Channel Islands, Cyprus, Dominica, Gambia, Ghana, Grenada, Hong Kong S.A.R. of China, Iraq, Ireland, Jordan, Kenya, Kuwait, Liberia, Malawi, Malaysia, Malta, Myanmar (Burma), Nigeria, Oman, Qatar, Saint Kitts & Nevis, Saint Lucia, Saint Vincent and the Grenadines, Seychelles, Sierra Leone, Singapore, Sudan, Tanzania (United Republic of), Trinidad & Tobago, United Arab Emirates (Dubai), United Kingdom, Yemen, Zambia, Zimbabwe
42T5041 or 42T5126	Denmark
42T5044 or 42T5129	Liechtenstein, Switzerland
42T5047 or 42T5132	Chile, Italy, Libyan Arab Jamahiriya
42T5050 or 42T5135	Australia, Fiji, Kiribati, Nauru, New Zealand, Papua New Guinea
42T5056 or 42T5141	Bangladesh, Lesotho, Maceo, Maldives, Namibia, Nepal, Pakistan, Samoa, South Africa, Sri Lanka, Swaziland, Uganda
42T5062 or 42T5147	Israel
42T5065 or 42T5150	China (PRC)
42T5071 or 42T5156	Taiwan
42T5077 or 42T5162	Korea
42T5083 or 42T5168	India

Polyvinyl Chloride (PVC) cable and cord notice

WARNING: Handling the cord on this product or cords associated with accessories sold with this product will expose you to lead, a chemical known to the State of California to cause cancer, and birth defects or other reproductive harm. *Wash hands after handling.*

China substance disclosure table

产品中有毒有害物质或元素的名称及含量

部件名称	有毒有害物质或元素					
	铅(Pb)	汞(Hg)	镉(Cd)	六价铬 (Cr(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
印刷电路板组件*	X	○	○	○	○	○
硬盘	X	○	○	○	○	○
光驱	X	○	○	○	○	○
内存	X	○	○	○	○	○
电脑I/O 附件	X	○	○	○	○	○
电源	X	○	○	○	○	○
键盘	X	○	○	○	○	○
鼠标	X	○	○	○	○	○
机箱/ 附件	X	○	○	○	○	○

○:表示该有毒有害物质在该部件所有均质材料中的含量均在SJ/T11363-2006 标准规定的限量要求以下

*:表示该有毒有害物质至少在该部件的某一均质材料中的含量超出SJ/T11363-2006 标准规定的限量要求

表中标有"*"的所有部件都符合欧盟RoHS 法规.

印刷电路板组件*: 包括印刷电路板及其零部件、电容和连接器

根据型号的不同, 可能不会含有以上的所有部件, 请以实际购买机型为准



在中华人民共和国境内销售的电子信息产品必须标识此标志, 标志内的数

字代表在正常使用状态下的产品的环保使用期限

Waste electrical and electronic equipment (WEEE) notices

Lenovo encourages owners of information technology (IT) equipment to responsibly recycle their equipment when it is no longer needed. Lenovo offers a variety of programs and services to assist equipment owners in recycling their IT products. Information on product recycling offerings can be found on Lenovo's Internet site at <http://www.pc.ibm.com/ww/lenovo/about/environment/>.

European Union (EU) WEEE statement

The WEEE mark applies only to countries within the European Union (EU) and Norway. Appliances are labeled in accordance with European Directive 2002/96/EC concerning waste electrical and electronic equipment (WEEE). The Directive determines the framework for the return and recycling of used appliances as applicable throughout the European Union. This label is applied to various products to indicate that the product is not to be thrown away, but rather reclaimed upon end of life per this Directive.

Users of electrical and electronic equipment (EEE) with the WEEE marking per Annex IV of the WEEE Directive must not dispose of end of life EEE as unsorted municipal waste, but use the collection framework available to them for the return, recycle, recovery of WEEE and minimize any potential effects of EEE on the environment and human health due to the presence of hazardous substances. For additional WEEE information go to: <http://www.lenovo.com/lenovo/environment>.

Japanese recycling statement

Collecting and recycling a disused Lenovo computer or monitor

If you are a company employee and need to dispose of a Lenovo computer or monitor that is the property of the company, you must do so in accordance with the Law for Promotion of Effective Utilization of Resources. Computers and monitors are categorized as industrial waste and should be properly disposed of by an industrial waste disposal contractor certified by a local government. In accordance with the Law for Promotion of Effective Utilization of Resources, Lenovo Japan provides, through its PC Collecting and Recycling Services, for the collecting, reuse, and recycling of disused computers and monitors. For details, visit the Lenovo Web site at www.ibm.com/jp/pc/service/recycle/pcrecycle/

Pursuant to the Law for Promotion of Effective Utilization of Resources, the collecting and recycling of home-used computers and monitors by the manufacturer was begun on October 1, 2003. This service is provided free of

charge for home-used computers sold after October 1, 2003. For details, visit the Lenovo Web site at www.ibm.com/jp/pc/service/recycle/personal/.

Disposing of a Lenovo computer component

Some Lenovo computer products sold in Japan may have components that contain heavy metals or other environmental sensitive substances. To properly dispose of disused components, such as a printed circuit board or drive, use the methods described above for collecting and recycling a disused computer or monitor.

Disposing of disused lithium batteries from Lenovo computers

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

ENERGY STAR model information



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

Lenovo is proud to offer our customers products with an ENERGY STAR compliant designation. The following machine types have been designed and tested to conform to the ENERGY STAR 4.0 program requirement for computers:

- 6416
- 6417
- 6418

- 6449
- 6453
- 6495

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

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

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

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

Windows XP	Windows Vista
<ul style="list-style-type: none"> • Turn off monitor: After 15 minutes • Turn off hard disks: Never • System standby: After 20 minutes • System hibernates: Never 	Power plan: Balanced <ul style="list-style-type: none"> • Turn off the display: After 10 minutes • Put the computer to sleep: After 25 minutes • Advanced power settings: <ul style="list-style-type: none"> – Turn off hard disks: 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.

ThinkCentre®

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