



Safety, Warranty, and Setup Guide

Lenovo B490 and B590
<http://www.lenovo.com/support>

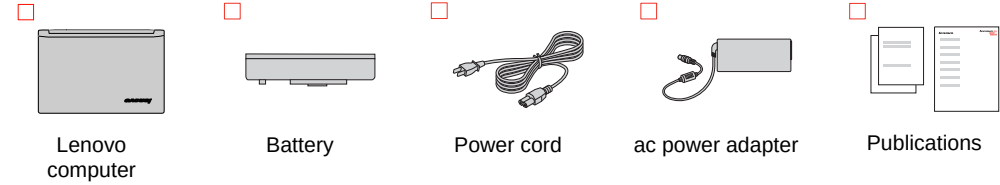
PN: 148511027
Printed in China

For Barcode Position Only

Lenovo® electronic manuals... for a greener planet!
Refer to the electronic *User Guide* for detailed product information:
<http://www.lenovo.com/UserManuals>



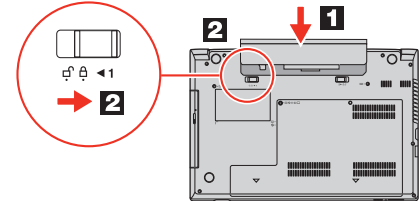
Unpack



Note: Recovery discs are not provided. Instead, everything needed for recovering factory-installed files and applications is provided in the Lenovo_Recovery partition on your hard disk drive. If you decide to remove the Lenovo_Recovery partition, be sure to create a recovery disc first. For more information, see "Recovery overview" in the *User Guide*. See "Accessing your *User Guide*" for instructions on opening the electronic *User Guide* provided on your computer.

Initial setup instructions

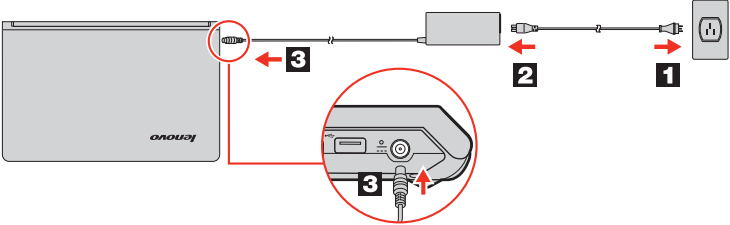
1. Install the battery pack.



This system does not support batteries that are not genuine Lenovo made or authorized. The system will continue to boot, but might not charge unauthorized batteries.

Attention: Lenovo has no responsibility for the performance or safety of unauthorized batteries, and provides no warranties for failures or damage arising out of their use.

2. Connect to power. Ensure that all power cord connectors are securely and completely plugged into receptacles.



3. Press the power button to turn on the computer.

4. Configure the operating system following the on-screen instructions to complete the initial setup. This process takes several minutes.

Additional information about using your Lenovo computer is in the *User Guide*. See "Accessing your *User Guide*" later in this document.

Controls and indicators

- 1 Integrated camera*
- 2 Power button
- 3 Recovery button
- 4 Status indicators
- 5 Numeric keypad*
- 6 Function keys

: Change the camera settings

: Enter sleep mode

: Change the display backlight feature

: Change display settings

: Manage wireless connections

: Enable or disable the touch pad

: Multimedia controls

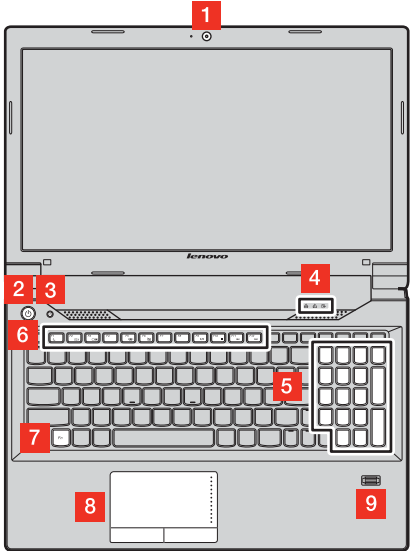
: Volume controls

: Change display brightness

Note: To use the function keys, press and hold the Fn key and then press the desired function key.

- 7 Fn key
- 8 Touch pad
- 9 Fingerprint reader*

* On some models.



Accessing your User Guide

Your *User Guide* contains detailed information about your computer. To access your *User Guide*, do the following:

Windows® 8:

From the desktop or the Start screen

1. Move the cursor to the top-right or bottom-right corner of the screen to display the charms, and then click **Search**. If you are using a touch screen, swipe in from the right edge of the screen to display the charms, and then tap **Search**.
2. From the Apps screen, click or tap **Help and Support**. The Windows Help and Support window opens.
3. Click or tap **Lenovo User Guide**.

From the Start screen

1. Click or tap **Lenovo Support**. The Lenovo Support window opens.
2. Click or tap **User Guide**.

Windows 7:

1. From the Windows desktop, click **Start** and then click **Help and Support**. The Help and Support program opens.
2. Click **Lenovo User Guide**.
3. In the Lenovo User Guide window, click the link for your model and the *User Guide* opens.

Read before using your computer



The following sections provide critical safety and regulatory information for Lenovo computers and instructions on how to access electronic versions of the publications developed for your computer.

Read first — regulatory information

Computer models equipped with wireless communications comply with the radio frequency and safety standards of any country or region in which it has been approved for wireless use. In addition, if your product contains a telecom modem, it complies with the requirements for connection to the telephone network in your country.

Be sure to read the *Regulatory Notice* for your country or region before using the wireless devices contained in your computer. To obtain a PDF version of the *Regulatory Notice*, refer to the "Downloading publications" section below.

Downloading publications

Electronic versions of your computer publications are available from the Lenovo Support Web site. To download the publications for your computer, go to <http://www.lenovo.com/UserManuals> and follow the instructions on the screen.

Downloading drivers

The latest drivers for your computer are available from the Lenovo Support Web site. To download the latest drivers for your computer, go to <http://www.lenovo.com/drivers> and follow the instructions on the screen.

Service and Support information

The following information describes the technical support that is available for your product, during the warranty period or throughout the life of your product. Refer to the Lenovo Limited Warranty for a full explanation of Lenovo warranty terms. See "Lenovo Limited Warranty notice" later in this document for details on accessing the full warranty.

Online technical support

Online technical support is available during the lifetime of a product at <http://www.lenovo.com/support>.

Telephone technical support

You can get help and information from the Customer Support Center by telephone. Before contacting a Lenovo technical support representative, please have the following information available: model and serial number, the exact wording of any error message, and a description of the problem.

Your technical support representative might want to walk you through the problem while you are at your computer during the call.

Important: Telephone numbers are subject to change without notice. The most up-to-date telephone list for the Customer Support Center is always available at <http://www.lenovo.com/support/phone>.

Lenovo product service information for Taiwan

台灣 Lenovo 產品服務資訊如下：
荷蘭商聯想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：0800-000-702

Safety information



This section contains important safety information for Lenovo products. Additional safety information is provided in the *User Guide* for your product. See "Accessing your *User Guide*" for additional information.

Laser compliance statement

CAUTION:

When laser products (such as CD-ROMs, DVD drives, fiber optic devices, or transmitters) are installed, note the following:

Do not remove the covers. Removing the covers of the laser product could result in exposure to hazardous laser radiation. There are no serviceable parts inside the device.

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

DANGER

Some laser products contain an embedded Class 3A or Class 3B laser diode. Note the following:

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

Plastic bag notice

CAUTION:

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

Rechargeable battery notice (for notebook computers)

DANGER

Do not attempt to disassemble or modify the battery pack. Attempting to do so can cause an explosion, or liquid leakage from the battery pack. A battery pack other than the one specified by Lenovo, or a disassembled or modified battery pack is not covered by the warranty.

If the rechargeable battery pack is incorrectly replaced, there is danger of an explosion. The battery pack contains a small amount of harmful substances. To avoid possible injury:

- Replace only with a battery of the type recommended by Lenovo.
- Keep the battery pack away from fire.
- Do not expose it to water or rain.
- Do not attempt to disassemble it.
- Do not short-circuit it.
- Keep it away from children.
- Do not drop the battery pack.

Do not put the battery pack in trash that is disposed of in landfills. When disposing of the battery, comply with local ordinances or regulations.

The battery pack should be stored at room temperature, charged to approximately 30 to 50% of capacity. We recommend that the battery pack be charged about once per year to prevent overdischarge.

Lithium coin cell battery notice

DANGER

Danger of explosion if battery is incorrectly replaced.

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.

California Perchlorate Information:

Products containing manganese dioxide lithium coin cell batteries may contain perchlorate.

Perchlorate Material - special handling may apply. See www.dtsc.ca.gov/hazardouswaste/perchlorate

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.*

Using headphones or earphones

CAUTION:

Excessive sound pressure from earphones and headphones can cause hearing loss. Adjustment of the equalizer to maximum increases the earphone and headphone output voltage and the sound pressure level. Therefore, to protect your hearing, adjust the equalizer to an appropriate level.

Excessive use of headphones or earphones for a long period of time at high volume can be dangerous if the output of the headphone or earphone connectors do not comply with specifications of EN 50332-2. The headphone output connector of your computer complies with EN 50332-2 Sub clause 7. This specification limits the computer's maximum wide band true RMS output voltage to 150 mV. To help protect against hearing loss, ensure that the headphones or earphones you use also comply with EN 50332-2 (Clause 7 Limits) or a wide band characteristic voltage of 75 mV. Using headphones that do not comply with EN 50332-2 can be dangerous due to excessive sound pressure levels.

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 50332-1 (Clause 6.5 Limitation Values). Using headphones that do not comply with EN 50332-1 can be dangerous due to excessive sound pressure levels.

Lenovo Limited Warranty notice

This product is covered by the terms of the Lenovo Limited Warranty, version L505-0010-02 08/2011. Read the Lenovo Limited Warranty (LLW) at http://www.lenovo.com/warranty/llw_02. You can view the LLW in a number of languages from this Web site. The LLW also is displayed on your computer during the initial setup. After the initial setup has completed, you can view the warranty on your computer by doing the following:

Windows 8:

From the desktop or the Start screen

1. Move the cursor to the top-right or bottom-right corner of the screen to display the charms, and then click **Search**. If you are using a touch screen, swipe in from the right edge of the screen to display the charms, and then tap **Search**.
2. From the Apps screen, click or tap **Warranty Viewer**.

From the Start screen

1. Click or tap **Lenovo Support**. The Lenovo Support window opens.
2. Click or tap **Service & Warranty**.

Windows 7:

From the Windows desktop, click **Start** → **All Programs** → **Lenovo Device Experience** → **Lenovo Warranty**.

If you cannot view the LLW either from the Web site or from your computer, contact your local Lenovo office or reseller to obtain a printed version of the LLW.

Warranty Information

Lenovo B490 and B590

Machine Type	Country or Region of Purchase	Warranty Period	Type of Warranty Service
3756 3761 3772 6274 20205 20206 20207	Austria, Australia, Belgium, Denmark, Estonia, Finland, France, Germany, Iceland, Ireland, Israel, Italy, Japan, Latvia, Lithuania,	Parts and Labor – 1 year Battery Pack – 1 year	1, 3

Reduce | Reuse | Recycle



Third Edition (March 2013)

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Machine Type	Country or Region of Purchase	Warranty Period	Type of Warranty Service
20208	Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, UK		
	Algeria, Argentina, Bahrain, Bolivia, Bosnia-Herzegovina, Bulgaria, Chile, Colombia, Croatia, Cyprus, Ecuador, Egypt, Greece, Hong Kong, Hungary, India, Indonesia, Kenya, Kuwait, Macao, Macedonia, Malaysia, Nigeria, Oman, Paraguay, Peru, Philippines, Poland, Qatar, Romania, Saudi Arabia, Serbia, Singapore, Slovakia, Slovenia, South Africa, Sri Lanka, Thailand, United Arab Emirates, Uruguay, Venezuela, Vietnam	Parts and Labor – 1 year Battery Pack – 1 year	1, 4
	Czech Republic	Parts and Labor – 2 years Battery Pack – 1 year	1, 4
	Turkey	Parts and Labor – 2 years Battery Pack – 2 years	1, 4
	Canada, Mexico, USA	Parts and Labor – 1 year Battery Pack – 1 year	1, 5
	Korea, Taiwan	Parts and Labor – 1 year Battery Pack – 1 year	3, 4
	Armenia, Azerbaijan, Belarus, Brazil, Georgia, Kazakhstan, Russia, Turkmenistan, Ukraine, Uzbekistan	Parts and Labor – 1 year Battery Pack – 1 year	4
	China	Parts and Labor – 1 year Battery Pack – 1 year	4

Types of Warranty Service

1. Customer Replaceable Unit ("CRU") Service
2. On-site Service
3. Courier or Depot Service
4. Customer Carry-In Service
5. Mail-in Service
6. Customer Two-Way Mail-in Service
7. Product Exchange Service

For a full explanation of the types of warranty service, refer to the full warranty. See *"Lenovo Limited Warranty notice"* for details on accessing the full warranty.

Suplemento de Garantía para México

Este Suplemento se considera parte integrante de la Garantía Limitada de Lenovo y será efectivo única y exclusivamente para los productos distribuidos y comercializados dentro del Territorio de los Estados Unidos Mexicanos. En caso de conflicto, se aplicarán los términos de este Suplemento.

Todos los programas de software precargados en el equipo sólo tendrán una garantía de treinta (30) días por defectos de instalación desde la fecha de compra. Lenovo no es responsable de la información incluida en dichos programas de software y/o cualquier programa de software adicional instalado por Usted o instalado después de la compra del producto.

Los servicios no cubiertos por la garantía se cargarán al usuario final, previa obtención de una autorización.

En el caso de que se precise una reparación cubierta por la garantía, por favor, llame al Centro de soporte al cliente al 001-866-434-2080, donde le dirigirán al Centro de servicio autorizado más cercano. Si no existiese ningún Centro de servicio autorizado en su ciudad, población o en un radio de 70 kilómetros de su ciudad o población, la garantía incluirá cualquier gasto de entrega razonable relacionado con el transporte del producto a su Centro de servicio autorizado más cercano. Por favor, llame al Centro de servicio autorizado más cercano para obtener las aprobaciones necesarias o la información relacionada con el envío del producto y la dirección de envío.

Para obtener una lista de los Centros de servicio autorizados, por favor, visite:

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

Importado por:
Lenovo México S. de R.L. de C.V.
Boulevard Escobedo No. 316
Apodaca Technology Park
Apodaca, Nuevo Leon, México
ZIP CODE 66600

Customer Replaceable Units

Customer Replaceable Units (CRUs) are parts that can be upgraded or replaced by the customer. If a CRU is determined to be defective during the warranty period, a replacement CRU will be provided to the customer. Customers are responsible for installing the self-service CRUs for this product. Customers also can install optional-service CRUs, which might require some technical skills or tools, or request that a technician install the optional-service CRU under the terms of the applicable warranty service type for your country or region. The following tables list CRUs for your computer and tell where to find the replacement instructions.

Self-service CRUs

CRU	This setup sheet	User Guide
ac power adapter	X	
Power cord for ac power adapter	X	
Battery	X	X
Optical drive		X
Memory modules		X
PCI Express Mini Card for wireless LAN		X
Backup battery		X

Optional-service CRUs

CRU	This setup sheet	User Guide
Hard disk drive		X

CRU installation instructions are in the *User Guide* for the respective product. See *"Accessing your User Guide"* and *"Downloading publications"* for additional information.

Electronic emission notices

This device has been tested and found to comply with the limits for a Class B digital device. The *User Guide* for this product provides the complete Class B compliance statements that are applicable for this device. See *"Accessing your User Guide"* for additional information.

Korean Class B compliance statement

B급 기기 (가정용 방송통신기자재)
이 기기는 가정용(B급) 전자파 적합기기로서 주로 가정에서 사용하는 것을 목적으로 하며, 모든 지역에서 사용할 수 있습니다

European Union conformity

EU contact: Lenovo, Einsteinova 21, 851 01 Bratislava, Slovakia



Radio and Telecommunications Terminal Equipment Directive

This product is in compliance with the essential requirements and other relevant provisions of the Radio and Telecommunications Terminal Equipment Directive, 1999/5/EC. The Declaration of Conformity information is located in the *Regulatory Notice*, which you can download from the Lenovo Support Web site. See "Downloading publications" for additional information.

Recycling and environmental information

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. For information on recycling Lenovo products, go to:

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

Important WEEE information

	Country-specific information is available at: http://www.lenovo.com/recycling
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Recycling information for Japan

Recycling and disposal information for Japan is available at:
<http://www.lenovo.com/recycling/japan>

Recycling information for China

《废弃电器电子产品回收处理管理条例》提示性说明

联想鼓励拥有联想品牌产品的用户当不再需要此类产品时，遵守国家废弃电器电子产品回收处理相关法律法规，将其交给当地具有国家认可的回收处理资质的厂商进行回收处理。更多回收服务信息，请点击进入<http://support.lenovo.com.cn/activity/551.htm>。

Additional recycling statements

Additional information about recycling computer components and batteries is in your *User Guide*. See "Accessing your *User Guide*" for details.

Restriction of Hazardous Substances Directive (RoHS)

China RoHS

The information in the following table is applicable for products manufactured on or after March 1, 2007 for sale in the People's Republic of China.]

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	o	o	o	o	o
硬盘	X	o	o	o	o	o
光驱	X	o	o	o	o	o
内存	X	o	o	o	o	o
电脑I/O附件	X	o	o	o	o	o
电源	X	o	o	o	o	o
键盘	X	o	o	o	o	o
鼠标	X	o	o	o	o	o
机箱/附件	X	o	o	o	o	o
○ : 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該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						

Turkish RoHS

The Lenovo product meets the requirements of the Republic of Turkey Directive on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (EEE).

Türkiye EEE Yönetmeliğine Uygunluk Beyanı

Bu Lenovo ürünü, T.C. Çevre ve Orman Bakanlığı'nın "Elektrik ve Elektronik Eşyalarda Bazı Zararlı Maddelerin Kullanımının Sınırlanılmasına Dair Yönetmelik (EEE)" direktiflerine uygundur.

EEE Yönetmeliğine Uygundur.

Ukraine RoHS

Цим підтверджуємо, що продукція Леново відповідає вимогам нормативних актів України, які обмежують вміст небезпечних речовин

India RoHS

RoHS compliant as per E-Waste (Management & Handling) Rules, 2011.

ENERGY STAR

	Select models conform to ENERGY STAR requirements. Additional ENERGY STAR information is in your <i>User Guide</i> . See "Accessing your <i>User Guide</i> ."
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Windows is a trademark of the Microsoft group of companies.

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

For additional legal notices, refer to the *User Guide* for your computer. See "Accessing your *User Guide*" for additional information.