

**SONY®**

***VAIO® Notebook  
Notes on Use***

**PCG-R505 Series**

## Notice to Users

© 2002 Sony Electronics Inc. All rights reserved. This manual and the software described herein, in whole or in part, may not be reproduced, translated, or reduced to any machine-readable form without prior written approval.

SONY ELECTRONICS INC. PROVIDES NO WARRANTY WITH REGARD TO THIS MANUAL, THE SOFTWARE, OR OTHER INFORMATION CONTAINED HEREIN AND HEREBY EXPRESSLY DISCLAIMS ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE WITH REGARD TO THIS MANUAL, THE SOFTWARE, OR SUCH OTHER INFORMATION. IN NO EVENT SHALL SONY ELECTRONICS INC. BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL, OR SPECIAL DAMAGES, WHETHER BASED ON TORT, CONTRACT, OR OTHERWISE, ARISING OUT OF OR IN CONNECTION WITH THIS MANUAL, THE SOFTWARE, OR OTHER INFORMATION CONTAINED HEREIN OR THE USE THEREOF.

Sony Electronics Inc. reserves the right to make any modification to this manual or the information contained herein at any time without notice. The software described herein is governed by the terms of a separate user license agreement.

This product contains software owned by Sony and licensed by third parties. Use of such software is subject to the terms and conditions of license agreements enclosed with this product. Some of the software may not be transported or used outside the United States. Software specifications are subject to change without notice and may not necessarily be identical to current retail versions.

Updates and additions to software may require an additional charge. Subscriptions to online service providers may require a fee and credit card information. Financial services may require prior arrangements with participating financial institutions.




As an ENERGY STAR® Partner, Sony Corporation has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

The International ENERGY STAR® Office Equipment Program is an international program that promotes energy saving through the use of computers and other office equipment. The program backs the development and dissemination of products with functions that effectively reduce energy consumption. It is an open system in which business proprietors can participate voluntarily. The targeted products are office equipment such as computers, displays, printers, facsimiles and copiers. Their standards and logos are uniform among participating nations. ENERGY STAR is a U.S. registered mark.



The Standard for  
Wireless Fidelity.

This unit has passed Wi-Fi certification, and complies with the interoperability specifications established by WECA (Wireless Ethernet Compatibility Alliance).

Sony, DVgate, Handycam, i.LINK, Mavica, Memory Stick and , MagicGate Memory Stick and



MovieShaker, PictureGear, PictureToy, VAIO, and the VAIO logo are trademarks of Sony Corporation. Microsoft, Windows Media, Windows, Windows NT, and the Windows logo are registered trademarks of Microsoft Corporation. Intel, SpeedStep, and Pentium are trademarks or registered trademarks of Intel Corporation. PS/2 is a registered trademark of IBM. Acrobat Reader, Photoshop, Photoshop Elements, and Premiere are trademarks of Adobe Systems Incorporated. PowerPanel is a trademark of Phoenix Technologies Ltd.

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. i.LINK is a trademark of Sony used only to designate that a product contains an IEEE 1394 connection. The i.LINK connection may vary, depending on the software applications, operating system, and compatible i.LINK devices. All products with an i.LINK connection may not communicate with each other. Please refer to the documentation that came with your compatible i.LINK device for information on operating conditions and proper connection. Before connecting compatible i.LINK PC peripherals to your system, such as a CD-RW or hard disk drive, confirm their operating system compatibility and required operating conditions.

All other trademarks are trademarks of their respective owners.

## Owner's Record

The model number and serial number are located on the bottom of your Sony VAIO Notebook. Refer to the model and serial number when you call your Sony Service Center.

Model Numbers: PCG-631L, PCG-631R, PCG-632L, PCG-633L

Serial Number: \_\_\_\_\_

## Registering Your Notebook

Sony is proud to offer you state-of-the-art multimedia computing technology. In order for Sony to provide you with the highest caliber of technical support and inform you of new product developments and upgrades, please take a few moments to register your notebook.

## Safety Information

### WARNING

- ☐ To prevent fire or shock hazard, do not expose your notebook computer to rain or moisture.
- ☐ To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.
- ☐ Never install modem or 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 wire or terminals unless the telephone line has been disconnected at the network interface.
- ☐ Use caution when installing or modifying telephone lines.
- ☐ Avoid using the modem during an electrical storm.
- ☐ Do not use the modem or a telephone to report a gas leak in the vicinity of the leak.
- ☐ A socket outlet should be as close as possible to the unit and easily accessible.
- ☐ i.LINK®, PC Card, and USB connectors are not supplied with limited power sources.



**To change the backup battery, please contact your nearest Sony Service Center.**

**Caution: The use of optical instruments with this product will increase eye hazard. As the laser beam used in this product is harmful to the eyes, do not attempt to disassemble the cabinet. Refer servicing to qualified personnel only.**

**(For CD-RW/DVD Combo Drive, DVD-ROM drive) Danger: Visible and invisible laser radiation when open. Avoid direct exposure to beam.**

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

### AVERTISSEMENT

- ☐ Pour prévenir tout risque d'incendie ou d'électrocution, garder cet appareil à l'abri de la pluie et de l'humidité.
- ☐ Pour prévenir tout risque d'électrocution, ne pas ouvrir le châssis de cet appareil et ne confier son entretien qu'à une personne qualifiée.
- ☐ Ne jamais effectuer l'installation de fil modem ou téléphone durant un orage électrique.
- ☐ Ne jamais effectuer l'installation d'une prise téléphonique dans un endroit mouillé à moins que la prise soit conçue à cet effet.

- ☐ Ne jamais toucher un fil téléphonique à découvert ou un terminal à moins que la ligne téléphonique n'ait été débranché de l'interface réseau.
- ☐ Soyez très prudent lorsque vous installez ou modifiez les lignes téléphoniques.
- ☐ Évitez d'utiliser le modem durant un orage électrique.
- ☐ N'utilisez pas le modem ni le téléphone pour prévenir d'une fuite de gaz vous êtes près de la fuite.
- ☐ L'appareil doit être le plus près possible d'une prise murale pour en faciliter l'accès.
- ☐ Des connecteurs i.LINK, PC Card, et USB ne sont pas fournis avec des sources d'énergie limitées.



**Pour changer la pile de rechange, veuillez contacter votre centre de service Sony le plus près.**

**Avertissement: L'utilisation d'instruments optiques avec ce produit augmente les risques pour les yeux. Puisque le faisceau laser utilisé dans ce produit est dommageable pour les yeux, ne tentez pas de désassembler le boîtier. Adressez-vous à un agent de service qualifié.**

**(Pour le lecteur Combo de CD-RW/DVD, le lecteur DVD-ROM) Danger: Radiation laser visible et invisible si ouvert. Évitez l'exposition directe au faisceau.**

**Attention : Afin de réduire les risques d'incendie, n'utilisez qu'un cordon de communication N0. 26 AWG ou plus gros.**

If you have questions about this product, you can reach the Sony Customer Information Service Center at 1-888-4-SONY-PC; or write to the Sony Customer Information Service Center at 12451 Gateway Blvd., Ft. Myers, FL 33913 or find Sony Computing Support on the Web at: <http://www.sony.com/pcsupport>.

## Regulatory Information

### Declaration of Conformity

Trade Name:	Sony
Model No.:	PCG-631L PCG-631R, PCG-632L PCG-633L
Responsible Party:	Sony Electronics Inc.
Address:	680 Kinderkamack Road Oradell, NJ 07649
Telephone: (For FCC-related matters only.)	201-930-6972

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.
- (2) This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the 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 that 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 the receiver.
- ☐ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- ☐ Consult the dealer or an experienced radio/TV technician for help.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

Only peripherals (computer input/output devices, terminals, printers, etc.) that comply with FCC Class B limits may be attached to this computer product. Operation with non-compliant peripherals is likely to result in interference to radio and television reception.

All cables used to connect peripherals must be shielded and grounded. Operation with cables, connected to peripherals, that are not shielded and grounded, may result in interference to radio and television reception.

## **FCC Part 68**

This equipment complies with Part 68 of the FCC rules. On the bottom of this equipment is a label that contains, among other information, the FCC Ringer Equivalency Number (REN) for this equipment. If requested, this information must be provided to the telephone company.

This modem uses the USOC RJ-11 telephone jack.

The REN is used to determine the quantity of devices which may be connected to the telephone line. Excessive RENs on the telephone line may result in the devices not ringing in response to an incoming call. In most, but not all areas, the sum of the RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to the line, as determined by the total RENs, contact the telephone company to determine the maximum REN for the calling area.

If the terminal equipment causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice is not practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in its facilities, equipment, operations or procedures that could affect the operations of the equipment. If this happens, the telephone company will provide advance notice in order for you to make the necessary modifications in order to maintain uninterrupted service.

If trouble is experienced with this equipment, you can reach the Sony Customer Information Service Center at 1-888-4-SONY-PC; or write to the Sony Customer Information Service Center at 12451 Gateway Blvd., Ft. Myers, FL 33913 or find Sony Customer Service on the Web at: <http://www.sony.com/pcsupport>.

Repair of this equipment should be made only by a Sony Service Center or Sony authorized agent. For the Sony Service Center nearest you, call 1-888-4-SONY-PC (1-888-476-6972).

This equipment cannot be used on public coin service provided by the telephone company. Connection to Party Line Service is subject to state and possible provincial tariffs. (Contact the state or provincial utility service commission, public service commission, or corporation commission, for information.)

## ***FCC Radio Frequency Exposure (United States)***

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 8 inches (20 cm) between the radiator and body (excluding extremities: hands, wrists, and feet). Users are not permitted to make changes or modify the system in any way.

## ***IC RSS-210 (Canada)***

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

To prevent radio interference to the licensed service, this device is intended to be operated indoors and away from windows to provide maximum shielding. Equipment (or its transmit antenna) that is installed outdoors is subject to licensing.

L'utilisation de ce dispositif est autorisée seulement aux conditions suivantes: (1) il ne doit pas produire de brouillage et (2) l'utilisateur du dispositif doit être prêt à accepter tout brouillage radioélectrique reçu, même si ce brouillage est susceptible de compromettre le fonctionnement du dispositif.

Pour empêcher que cet appareil cause du brouillage au service faisant l'objet d'une licence, il doit être utilisé à l'intérieur et devrait être placé loin des fenêtres afin de fournir un écran de blindage maximal. Si le matériel (ou son antenne d'émission) est installé à l'extérieur, il doit faire l'objet d'une licence.

## ***Telephone Consumer Protection Act of 1991 (United States)***

The Telephone Consumer Protection Act of 1991 makes it unlawful for any person to use a computer or other electronic device to send any message via a telephone facsimile machine unless such message clearly contains, in a margin at the top or bottom of each transmitted page or on the first page of the transmission, the date and time it is sent and an identification of the business, other entity, or individual sending the message, and the telephone number of the sending machine or such business, other entity, or individual.

In order to program this information into your facsimile machine, see your fax software documentation.

## ***Telephone Consumer Guidelines (Canada)***

Please refer to your telephone directory under 'Privacy Issues' and/or 'Terms of Service.' For more detailed information, please contact:

CRTC

Terrasses de la Chaudière, Tour centrale 1 promenade du Portage, 5 étage Hull PQ K1A 0N2.

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.



## **RECYCLING LITHIUM ION BATTERIES**

### **RECYCLING LITHIUM-ION BATTERIES**

Lithium-Ion batteries are recyclable.

You can help preserve our environment by returning your used rechargeable batteries to the collection and recycling location nearest you.

For more information regarding recycling of rechargeable batteries, call toll free 1-800-822-8837, or visit <http://www.rbrc.org/>.

Caution: Do not handle damaged or leaking Lithium-Ion batteries.



## **RECYCLAGE DES ACCUMULATEURS AUX IONS DE LITHIUM**

### **RECYCLAGE DES ACCUMULATEURS AUX IONS DE LITHIUM**

Les accumulateurs aux ions de lithium sont recyclables.

Vous pouvez contribuer à préserver l'environnement en rapportant les piles usées dans un point de collection et recyclage le plus proche.

Pour plus d'informations sur le recyclage des accumulateurs, téléphonez le numéro gratuit 1-800-822-8837 (Etats-Unis et Canada uniquement), ou visitez <http://www.rbrc.org/>.

Avertissement: Ne pas utiliser des accumulateurs aux ions de lithium qui sont endommagés ou qui fuient.





**Do not handle damaged or leaking lithium ion batteries.**

**Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.**

**The battery pack used in this device may present a fire or chemical burn hazard if mistreated. Do not disassemble, heat above 140°F (60°C) or incinerate. Dispose of used battery promptly. Keep away from children.**

**Ne pas utiliser des batteries au lithium ionisé qui sont endommagées ou qui fuient.**

**Une batterie non conforme présente un danger d'explosion. La remplacer seulement par une batterie identique ou de type équivalent recommandé par le fabricant. Évacuer les batteries usées selon les directives du fabricant.**

**La manutention incorrecte du module de batterie de cet appareil présente un risque d'incendie ou de brûlures chimiques. Ne pas démonter, incinérer ou exposer à une température de plus de 60°C. Évacuer promptement la batterie usée. Garder hors de portée des enfants.**

## **INDUSTRY CANADA NOTICE**

NOTICE: The Industry Canada label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational and safety requirements as prescribed in the appropriate Terminal Equipment Technical Requirements document(s). 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. Equipment malfunctions or any repairs or alterations made by the user to this equipment may give the telecommunications company cause to request that the user 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 Equivalency 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 RENs of all the devices does not exceed 5. The REN for this equipment is 0.2.

## **AVIS DE L'INDUSTRIE CANADA**

AVIS: L'étiquette d'Industrie Canada identifie le matériel homologué.

Cette étiquette certifie que le matériel est conforme aux normes de protection, d'exploitation et de sécurité des réseaux de télécommunications, comme le prescrivent les documents concernant les exigences techniques relatives au matériel terminal. Le Ministère n'assure toutefois pas que le matériel fonctionnera à la satisfaction de l'utilisateur.

Avant d'installer ce matériel, l'utilisateur doit s'assurer qu'il est permis de le raccorder aux installations de l'entreprise locale de télécommunication. Le matériel doit également être installé en suivant une méthode acceptée de raccordement. L'abonné ne doit pas oublier qu'il est possible que la conformité aux conditions énoncées ci-dessus n'empêche pas la dégradation du service dans certaines situations.

Les réparations de matériel homologué doivent être coordonnées par un représentant désigné par le fournisseur. L'entreprise de télécommunications peut demander à l'utilisateur de débrancher un appareil à la suite de réparations ou de modifications effectuées par l'utilisateur ou à cause de mauvais fonctionnement.

Pour sa propre protection, l'utilisateur doit s'assurer que tous les fils de mise à la terre de la source d'énergie électrique, des lignes téléphoniques et des canalisations d'eau métalliques, s'il y en a, sont raccordés ensemble. Cette précaution est particulièrement importante dans les régions rurales.

Avertissement: L'utilisateur ne doit pas tenter de faire ces raccordements lui-même; il doit avoir recours à un service d'inspection des installations électriques, ou à un électricien, selon le cas.

AVIS: L'indice d'équivalence de la sonnerie (IES) assigné à chaque dispositif terminal indique le nombre maximal de terminaux qui peuvent être raccordés à une interface.

La terminaison d'une interface téléphonique peut consister en une combinaison de quelques dispositifs, à la seule condition que la somme d'indices d'équivalence de la sonnerie de tous les dispositifs n'excède pas 5. L'indice d'équivalence de la sonnerie de ce matériel est de 0.2.

## Ergonomic Considerations

Your notebook is a portable device and can be used in a variety of environments. Whenever possible, you should apply the following ergonomic considerations for both stationary and portable environments.

- ☐ **Position of your notebook** — Place the notebook directly in front of you as you work. Keep your forearms horizontal, with your wrists in a neutral, comfortable position while using the keyboard, touchpad, or external mouse. Let your upper arms hang naturally at your sides. Take breaks during sessions with your notebook. Excessive use of the notebook may strain muscles or tendons.
- ☐ **Furniture and posture** — Sit in a chair with good back support and armrests. Adjust the level of the chair so your feet are flat on the floor. A footrest may make you more comfortable. Sit in a relaxed, upright posture and avoid slouching forward or leaning far backward.
- ☐ **Viewing angle of the notebook's display** — Use the display's tilting feature to find the best viewing angle. Also try adjusting the brightness setting of the display. Following these suggestions can reduce eye strain and muscle fatigue.
- ☐ **Lighting** — Choose a location where windows and lights do not create glare and reflection on the display. Use indirect lighting to avoid bright spots on the display. You can also purchase accessories for your display that help reduce glare. Proper lighting adds to your comfort and work effectiveness.
- ☐ **Placement of an external display** — When using an external display, set the display at a comfortable viewing distance. Make sure the display screen is at eye level or slightly lower when you are sitting in front of the monitor.

## Notes on Setup

- ☐ Do not place your notebook in a location subject to:
  - ☐ Heat sources, such as radiators or air ducts
  - ☐ Direct sunlight
  - ☐ Excessive dust
  - ☐ Moisture or rain
  - ☐ Mechanical vibration or shock
  - ☐ Strong magnets or speakers that are not magnetically shielded
  - ☐ Ambient temperature of more than 95° F (35° C) or less than 40° F (5° C)
  - ☐ High humidity
- ☐ Do not place electronic equipment near your notebook. The notebook's electromagnetic field may cause a malfunction.
- ☐ Provide adequate air circulation to prevent internal heat buildup. Do not place your notebook on porous surfaces such as rugs or blankets, or near materials such as curtains or draperies that may block its ventilation slots. Leave a space of at least 8 inches (20 cm) behind the back panel of the notebook.

- ☐ If the notebook is brought directly from a cold location to a warm one, moisture may condense inside your notebook. In this case, allow at least an hour before turning on your notebook. If any problems occur, unplug your notebook, and contact your Sony Service Center.
- ☐ The notebook uses high-frequency radio signals and may cause interference to radio or TV reception. Should this occur, relocate the notebook a suitable distance away from the set.
- ☐ Use only specified peripheral equipment and interface cables; otherwise, problems may result.
- ☐ Do not use cut or damaged connection cables.
- ☐ If the telephone company makes a service call to your home or office and determines that your notebook is responsible for a problem, the telephone company may bill you for the service call. Also, if you do not disconnect your notebook when it is adversely affecting the telephone line, the telephone company has the right to disconnect your service until you correct the problem.

### ***Handling Your Notebook***

- ☐ Clean the cabinet with a soft, dry cloth or a soft cloth lightly moistened with a mild detergent solution. Do not use any type of abrasive pad, scouring powder, or solvent such as alcohol or benzine, as these may damage the finish of your notebook.
- ☐ Should any solid object or liquid fall into the notebook, shut down your notebook and then unplug it. You may want to have the notebook checked by qualified personnel before operating it any further.
- ☐ Do not drop the notebook or place heavy objects on top of the notebook.

### ***Cleaning Your Notebook***

- ☐ Make sure to disconnect the power cord before cleaning the notebook.
- ☐ Avoid rubbing the LCD screen as this can damage the screen. Use a soft, dry cloth to wipe the LCD screen.
- ☐ Clean the notebook with a soft cloth lightly moistened with a mild detergent solution. Do not use any type of abrasive pad, scouring powder or solvent, such as alcohol or benzine.

### ***Handling the LCD Screen***

- ☐ Do not leave the LCD facing the sun as it can damage the LCD. Be careful when using the notebook near a window.
- ☐ Do not scratch the LCD or exert pressure on it. This could cause a malfunction.
- ☐ Using the notebook in low temperature conditions may produce a residual image on the screen. This is not a malfunction. When the notebook returns to normal temperature, the screen returns to normal.
- ☐ The screen becomes warm during operation. This is normal and does not indicate a malfunction.
- ☐ The LCD is manufactured using high-precision technology. You may, however, see tiny black points and/or bright points (red, blue, or green) that continuously appear on the LCD. This is a normal result of the manufacturing process and does not indicate a malfunction.





© 2002 Sony Electronics Inc. Reproduction in whole or in part without written permission is prohibited. All rights reserved. Sony, VAIO, the VAIO logo, VAIO Smart, DVgate, Handycam, MovieShaker, PictureGear, and i.LINK are trademarks of Sony. All other trademarks are trademarks or registered trademarks of their respective owners.

Printed in USA

4-661-916-01