Notice to Users

© 1998 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 OR 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.

Sony, i.LINK, VAIO and the VAIO logo are registered trademarks of Sony Corporation. ImageStation and Sony VAIO Direct are service marks of Sony Electronics Inc. Windows and the Windows 98 logo are registered trademarks of Microsoft Corporation. Intel, MMX, and Pentium are trademarks of Intel Corporation.

All other trademarks are trademarks of their respective owners.

Safety Information

Owner's Record

The model number and serial number are located on the bottom of your Sony VAIO Notebook Computer. Record the serial number in the space provided here. Refer to the model and serial number when you call your Sony Service Center.

Model Number: PCG-748

Serial Number:________________________

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.

! **The use of optical instruments with this product will increase eye hazard.**

AVERITISSEMENT

- 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 ouvir le châssis de cet appareil et ne confier son entretien qu'à une personne qualifiée.
- L'appariel doit être le plus près possible d'une prise murale pour en faciliter l'accès.

Regulatory Information

Declaration of Conformity

Trade Name: SONY

Model No: PCG-748

Responsible Party:
Sony Electronics Inc.

Address:
1 Sony Drive
Park Ridge, NJ 07656

Telephone No.: 201-930-6970

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 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 equivalence number (REN) for this equipment. If requested, this information must be provided to the telephone company.

All applicable registration jack USCOs, any facility interface codes and service order codes associated with the services the equipment is to be connected.

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 (Notebook Computer PCG-748) 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 isn't 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 (Notebook Computer PCG-748), please contact 1-888-4SONYPC (1-888-476-6972), or write to the Sony Customer Information Center, One Sony Drive, Park Ridge, NJ 07656 for repair and (or) warranty information. If the trouble is causing harm to the telephone network, the telephone company may request you remove the equipment from the network until the problem is resolved.

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 1-888-4SONYPC (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.)

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, 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 Chaudiére, Tour centrale
1 promenade du Portage, 5 étage,
Hull PQ K1A 0N2.

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

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

DISPOSAL OF LITHIUM ION BATTERY

You can return your unwanted lithium ion batteries to your nearest Sony Service Center or Factory Service Center.

✍ In some areas the disposal of lithium ion batteries in household or business trash may be prohibited.

For the Sony Service Center nearest you call 1-888-476-6972 in the United States or 1-800-961-7669 in Canada.

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

! **Ne pas manipuler les batteries au lithium-ion qui fuient ou sont endommagées.**

! **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.**

! **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.**

! **The battery pack used in this device may present a fire or chemical burn hazard if mistreated. Do not disassemble, heat above 212° (100°C) or incinerate. Dispose of used battery promptly. Keep away from children.**

! **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 100 °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. 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.

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 combination 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.

Contents

Welcome

Ergonomic Considerations 2

Using Your Notebook Computer

Locating the Controls and Connectors 5
Connecting a Power Source 8
Starting Your Computer 12
Shutting Down Your Computer 13
Registering Windows® 98 14
Registering Your Computer 15
Using the Keyboard 16
Using the Touchpad 22
Using the Floppy Disk Drive 23
Using the CD-ROM Drive 26
Using PC Cards 29
Using Infrared Communication Devices 31
Using Power Saving Modes 33
Using a Second Battery Pack 35
Using the Weight Saver 37

Connecting Peripheral Devices

Connecting a Phone Line 40
Connecting a Printer 41
Connecting an External Display 42
Connecting an External Mouse or Keyboard 45
Connecting External Speakers 46
Connecting an External Microphone 47
Connecting a Digital Still Camera

or Other Serial Device 48
Connecting a Universal Serial Bus (USB) Device 49

Getting Started With VAIO Space

Starting VAIO Space 51
VAIO Space Centers 52
Navigating through VAIO Space 53
Using the Software Center 55
Using the Audio-Video Center 56
Using the Online Center 59
Using the Tool Center 60
Using the Help Center 62
Exiting VAIO Space 62

Customizing Your Notebook Computer

Displaying the Sony Notebook Setup Screen 63
Controlling Power Management 65
Displaying Battery Information 68
Selecting the Display Mode 71

Getting Help

Calling SOS 75
Troubleshooting 77
Using the System and Application Recovery CDs 82

Notes on Use

Adding Memory 90

Limited Warranty Statement

Index

Welcome

Congratulations on your purchase of the Sony VAIO Notebook Computer. Sony has combined leading-edge technology in audio, video, computing, and communications to provide you with state-of-the-art personal computing.

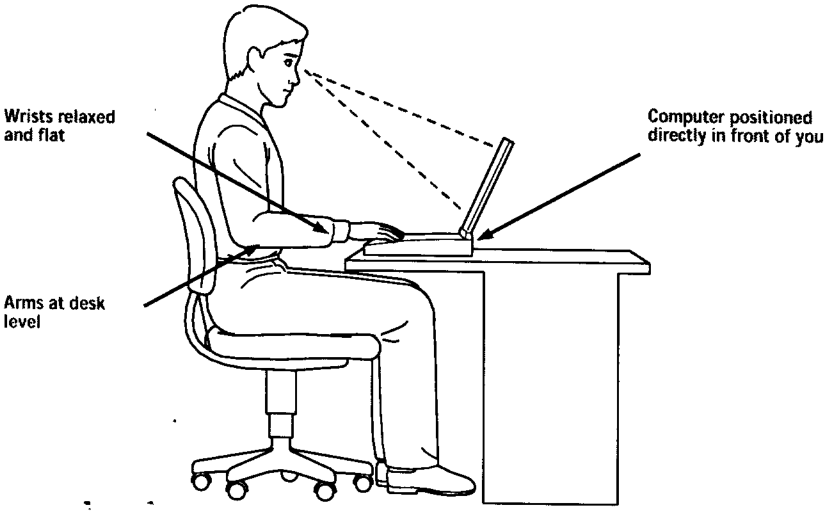
Here are just some of the features your notebook computer has to offer:

- ☐ **Using Your VAIO Notebook Computer** shows you how to use the standard components of your system.
- ☐ **Connecting Peripheral Devices** explains how you can add functionality by connecting various peripherals.
- ☐ **Getting help** explains the support options available to you, shows you how to use Sony Online Support service, and offers basic troubleshooting tips.
- ☐ **Notes on Use** provides facts and advice about using your notebook computer.
- ☐ **Limited Warranty Stement** provides your product warranty statement and explains how to extend your warranty for an additional nine months.

The online *User Guide* is included with your computer as an electronic document. It includes additional information on using the Sony software products that are installed on your computer.

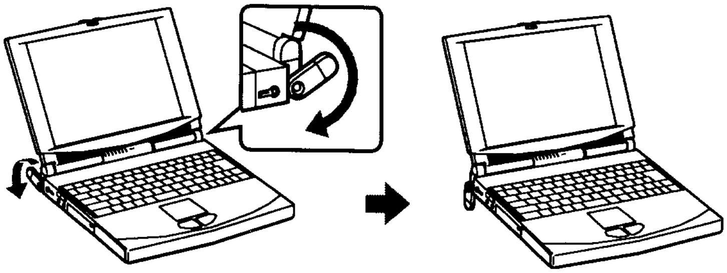
Ergonomic Considerations

You will be using your notebook computer as a portable device in a variety of environments. Whenever possible, you should attempt to apply the following ergonomic considerations to both stationary and portable environments.


Wrists relaxed and flat
Arms at desk level
Computer positioned directly in front of you

- ☐ **Position of your computer** – Place the computer 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 computer. Excessive use of the computer 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 computer's display** – Use the display's tilting feature to find the best position. You can reduce eye strain and muscle fatigue by adjusting the tilt of the display to the proper position. Adjust the contrast or brightness settings of the display also.

- **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.
- **Tilt stand** – You use the tilt stand to place the computer at an angle that allows comfortable typing.



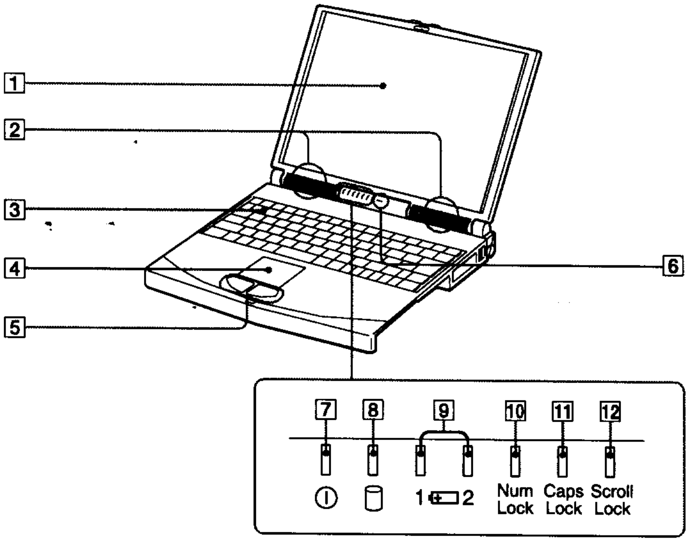
- **Placement of an external display** – When using an external display, set the display at a comfortable viewing distance. Make sure the display screen is at eye level or slightly lower when you are sitting in front of the monitor.

Using Your Notebook Computer

This section describes how to start using your computer and how to use your computer's internal and external devices, such as the touchpad, floppy disk drive, and CD-ROM drive.

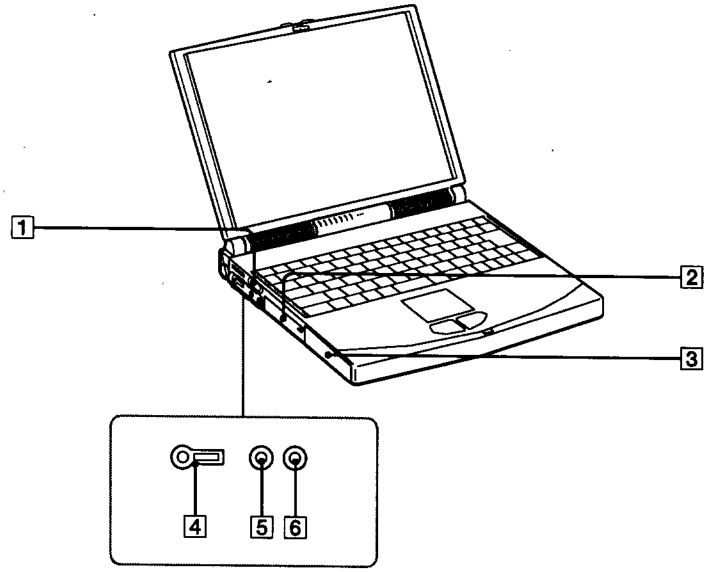
Locating the Controls and Connectors

Front



1	LCD screen (pages 20, 85)	7	Power indicator (pages 12, 19)
2	Speakers (page 46)	8	Hard disk drive indicator (page 19)
3	Keyboard (page 16)	9	Battery 1 and 2 indicators (pages 19, 68)
4	Touchpad (page 22)	10	Num Lock indicator (page 19)
5	Left/right button (page 22)	11	Caps Lock indicator (page 19)
6	Microphone (page 47)	12	Scroll Lock indicator (page 19)

Left



1 Power switch (page 12)

2 Hard disk drive

3 Battery bay (page 9)

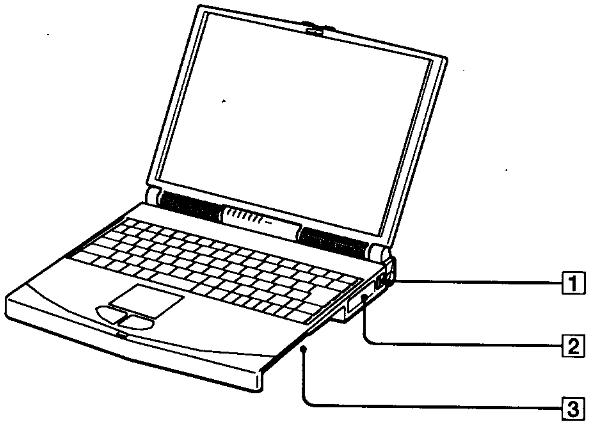
4 Headphone connector (page 46)

5 Microphone connector (page 47)

6 Line In connector

There is a ventilation slot located directly above the headphone connector. Do not cover the ventilation slot when your computer is on.

Right

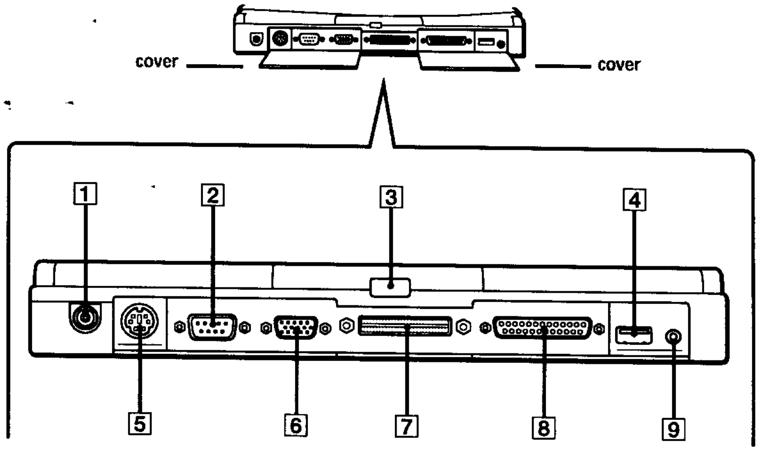


1 Phone line jack (page 40)

2 PC card slots (page 29)

3 Drive bay (pages 23, 26)

Back



1 ⎓ DC In (page 8)

2 IOIOI Serial COM1 connector (page 49)

3 Infrared port (page 31)

4 Ψ USB connector (page 49)

5 🖱 / ⌨ Mouse/Keyboard connector (page 45)

6 ▢ Monitor connector (page 42)

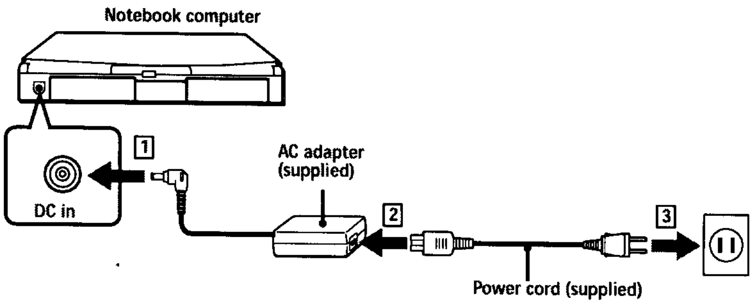
7 🖫 / 🖶 FDD/Printer connector (page 41)

Connecting a Power Source

You can use either AC power or a rechargeable battery pack as a power source.

Using the AC Adapter

1. Plug the cable attached to the AC adapter into the DC In connector on the computer.
2. Plug one end of the power cord into the AC adapter.
3. Plug the other end of the power cord into an AC outlet.


Notebook computer
1
AC adapter (supplied)
2
3
DC in
Power cord (supplied)

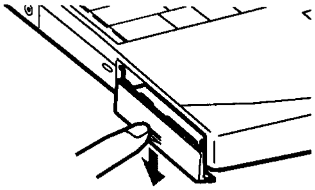
Using Battery Power

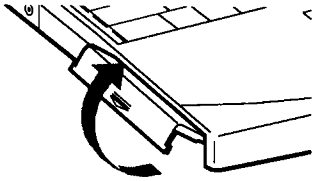
You can use one or two battery packs as a source of power. The second battery pack inserts into the drive bay on the right side of the computer. (See "Using Power Saving Modes" on page 33.) Additional battery packs are available as a separate option.

The battery pack that comes with your computer is not fully charged at the time of purchase. Follow the steps below to insert and charge the battery pack.

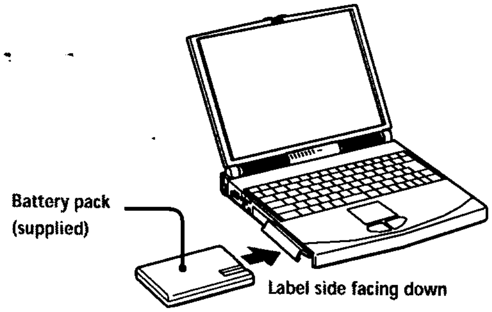
To insert the battery pack

1 Open the cover of the battery bay.





2 Insert the battery pack into the battery bay on the left side of the computer.



3 Close the cover of the battery bay.

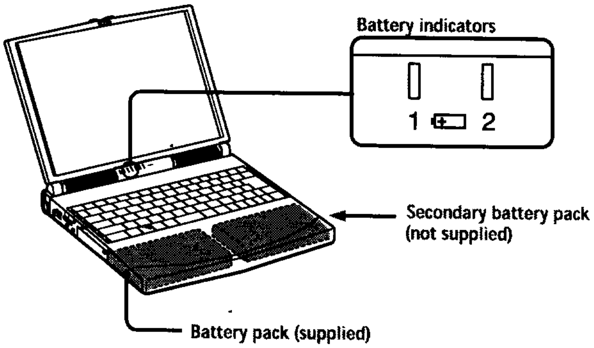
To charge the battery pack

1. Connect the AC adapter to the computer.
2. Insert the battery pack.

The computer automatically charges the battery (the battery indicator light flashes in a double blink pattern as the battery charges). When the battery is 85% full, the battery indicator light turns off. This process takes approximately two hours. To charge the battery completely, continue charging for an additional hour.

A fully charged battery pack supplies power for approximately three to five and a half hours. The time varies based on your system configuration. See "Displaying Detailed Battery Information" on page 69 for information on checking the battery life.

There are two battery indicator lights on the computer:



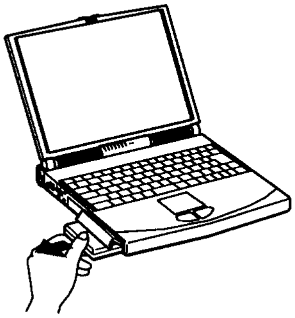
Battery Indicator	*Meaning*
1 🔋	Indicates the status of the battery pack in the battery bay on the left side of the computer.
🔋 2	Indicates the status of the battery pack in the drive bay on the right side of the computer.

Battery Indicator Light Status	*Meaning*
On	The computer is using battery power.
Single blink	The battery is running out of power.
Double blink	The battery is charging.
Off	The computer is using AC power.

To remove the battery pack

1 Open the cover of the battery bay.

2 Pull out the battery pack.



3 Close the cover of the battery bay.

✍ You may lose data if you remove the battery pack while the computer is on and not connected to the AC adapter or if you remove the battery while the computer is in System Suspend mode.

See "Using a Second Battery Pack" on page 35 for information on installing and charging a battery pack in the drive bay.

Keep the battery pack in the computer while it is directly connected to AC power. The battery pack continues to charge while you are using the computer.

When the remaining battery charge drops to a very low level, the computer automatically enters System Hibernation mode. This may result in data loss as the system changes modes.

You can extend battery life by changing the power management modes in the PowerPanel utility. See "Using Power Saving Modes" on page 33.

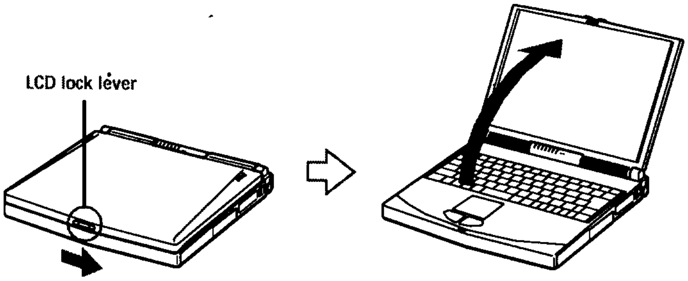
The battery pack supplied with your computer is a lithium ion battery and can be recharged at any time. Charging a partially discharged battery does not affect battery life.

The battery indicator light is on while you use the battery pack as a power source. When battery life is nearly depleted, the battery indicator starts flashing.

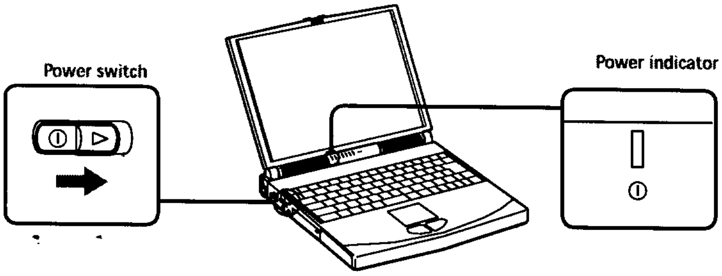
For some software applications and some peripheral devices, your computer may not enter system hibernation mode when the battery life is low. To avoid loss of data when using battery power, you should save your data frequently and manually activate a power management mode, such as system suspend or system hibernation.

Starting Your Computer

1 Slide the LCD lock lever in the direction of the arrow, and lift the cover.



2 Slide the power switch on the left side toward the front of the computer until the green power indicator light turns on.



✍ If you hold the power switch in the on position for more than four seconds, the computer turns off.

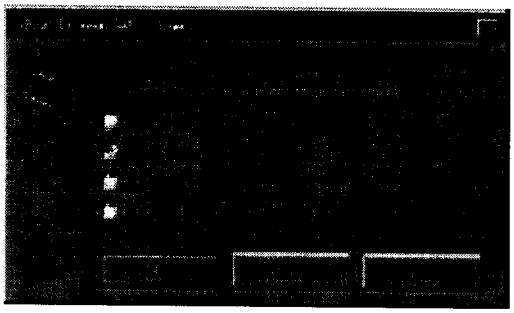
3 If necessary, adjust the contrast controls for the LCD display. To increase the contrast, press Fn+F6 and then the down or left arrow key. To decrease the contrast, press Fn+F6 and then the up or right arrow key.

Shutting Down Your Computer

! **To avoid potential loss of data, follow these steps to shut down your computer.**

1 Click the Start button on the Windows 98 taskbar.

2 Click Shut Down at the bottom of the Start menu to display the Shut Down Windows dialog box.



3 Select Shut down.

4 Click OK.

✍ Respond to any prompts warning you to save documents.

5 Wait for your computer to turn off automatically.

6 Turn off any peripherals connected to your computer.

✍ If you are unable to shut down your computer using the steps described above, press the Ctrl+Alt+Delete keys at the same time to restart the computer. If you are unable to restart the computer in this way, you can slide the power switch forward and hold for four seconds. This operation may result in data loss.

During a period of inactivity, you can conserve battery life by using System Suspend mode. See "Controlling Power Management" on page 65.

Registering Windows® 98

The first time you turn on your computer, you need to complete a few steps to register and configure the Windows 98 software that is already installed on your computer.

> ✍ You must register Windows 98 before you can use the computer.
>
> To install Windows NT Workstation 4.0 on your notebook computer, you need to use the Application Recovery CD. See "Using the Application Recovery CD" on page 104 for instructions.

The on-screen instructions guide you through the registration and configuration process. The following is an overview of the process.

1 Gathering information:
   - ☐ Enter your name.
   - ☐ Read and accept the License Agreement.
   - ☐ Enter your Certificate of Authenticity number located on the cover of the Microsoft Windows 98 *Getting Started* manual.

2 Windows 98 setup:
   - ☐ Click the Finish button on the Windows 98 Setup Wizard screen.

3 Selecting your computer settings:
   - ☐ If necessary, change the Time Zone, Date and Time on the Date/Time Properties screen.

4 Learning about Windows 98:
   - ☐ If you want, take the tour of Windows 98.

Registering Your Computer

You can take advantage of Sony's commitment to quality customer support and receive the following benefits by registering your computer with Sony:

- ☐ **Sony Online Support** – Talk to a Support Representative to troubleshoot problems you may be having with your computer.
- ☐ **Extended Limited Warranty** – Protect your investment. Extend your Warranty nine months for a total of 12 months from the original date of purchase when you register your computer.
- ☐ **Express service** – Provides convenient resolution of problems.
- ☐ **Free Internet access** – Use the Internet for up to 50 free hours when you sign up with GTE (no credit card necessary). Limit of two hours per day; free access expires 50 hours or 90 days after signing up, whichever occurs first .

Follow these steps to use your notebook computer's online registration service.

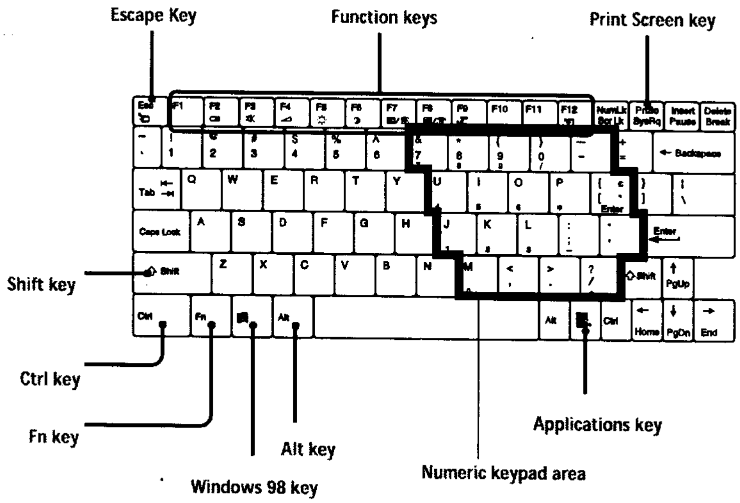
✍ You must connect your phone line before using any online services, including the online registration service. See "Connecting a Phone Line" on page 40.

1. Click the registration icon on the VAIO desktop.
2. Enter the information requested on the first online registration form. Press the Tab key to move from box to box.
3. Click the Next button to advance to the next form.
4. Complete the remaining forms by clicking the Next button each time you complete a form.

The computer automatically transfers your registration information using your built-in modem and a toll-free telephone number.

Using the Keyboard

Your keyboard is very similar to a typewriter's, but the keyboard has additional keys that perform specific computer-related tasks.


Escape Key
Function keys
Print Screen key
Shift key
Ctrl key
Fn key
Alt key
Windows 98 key
Numeric keypad area
Applications key

Keys	Descriptions
Numeric keypad area	Contains the keys found on a typical calculator. Use the numeric keypad area to type numbers or to perform mathematical calculations such as addition and subtraction. Note that you must press the Num Lock key to activate the numeric keypad. (When you do so, the Num Lock light will be on.)
Navigation keys	Several keys are devoted to moving the cursor on the screen (the four arrow keys which also function as the Home, End, Page Up, and Page Down keys).
Correction keys	The Insert, Back Space, and Delete keys enable you to make corrections in your documents.
Function keys	The twelve function keys along the top of the keyboard are used to perform designated tasks. For example, in many applications, F1 is the Help key. The task associated with each function key may vary from one application to the next.

Keys	*Descriptions*
Escape key	The Esc (Escape) key is used to cancel commands
Print Screen key	The Print Screen key takes an electronic snapshot of the screen and places it in the Windows Clipboard. You can then paste the screen shot into a document and print it.
Operator keys	Several keys are always used with at least one other key: Ctrl, Alt, and Shift. When held down with another key, the Ctrl (Control) and Alt (Alternate) keys offer another way to give commands. For example, in many applications, instead of choosing the Save command from a menu, you can hold down Ctrl and press S (referred to as Ctrl+S). The Shift key operates the same way as on a typewriter; it's used to produce capital letters or special symbols such as @ and $.
Windows 98 key ⊞	The key with the Windows logo displays the Windows 98 Start menu; it's the equivalent of clicking the Start button on the task bar. See "Combinations and Functions with the Windows 98 Key" on page 18.
Fn key	The Fn key is used in combination with other keys. To issue commands. See "Combinations and Functions with the Fn Key" on page 20.
Applications key ▤	The Applications key displays a shortcut menu of context-sensitive choices; pressing this key is the equivalent of clicking the right mouse button.

Combinations and Functions with the Windows 98 Key

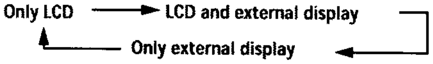
Combinations	*Functions*
⊞ + F1	Displays Windows Help.
⊞ + Tab	Switches the selected button on the taskbar.
⊞ + E	Displays Windows Explorer.
⊞ + F	Displays the Windows Find: All Files window to find a file or folder. This is the equivalent of selecting Find and then Files or Folders from the Start menu.
⊞ + Ctrl + F	Displays the Windows Find: Computer window where you can locate other computers. This is the equivalent of selecting Find and then Computer from the Start menu.
⊞ + M	Minimizes all displayed windows.
Shift + ⊞M	Returns all minimized windows to their previous size.
⊞ + R	Displays the Run window. This is the equivalent of selecting Run from the Start menu.
Fn + ⊞ + Insert	Displays the Properties window. This is the equivalent of double-clicking the System icon in the Control Panel.

Indicators

Indicators	*Functions*
Power ⏻	Lights when the power to the computer is turned on. Flashes in System Suspend mode. Turns off when the computer is in System Hibernation mode or powered off.
Hard disk ▯	Lights when data is being read from or written to the hard drive. Do not enter System Suspend mode or turn off the computer when this indicator light is on.
Battery 1 1 🔋	Indicates the status of the battery inserted in the battery bay on the left side of the computer.
Battery 2 🔋 2	Indicates the status of the battery inserted in the drive bay on the right side of the computer.

Light	*On*	*Off*
Num Lock	Turns on when the number keys area in the numeric keypad are active.	Turns off when the alphanumeric character keys in the keypad area are active.
Caps Lock	Turns on when the letters appear in uppercase as you type. The Shift key lowers the case of typed letters when Caps Lock is on.	Turns off when letters appear in lower case as you type (unless you hold down the Shift key).
Scroll Lock	Turns on when the screen scrolls differently. (Exactly how it scrolls depends on the specific application. It has no effect in many applications.)	Turns off when information moves across the display normally.

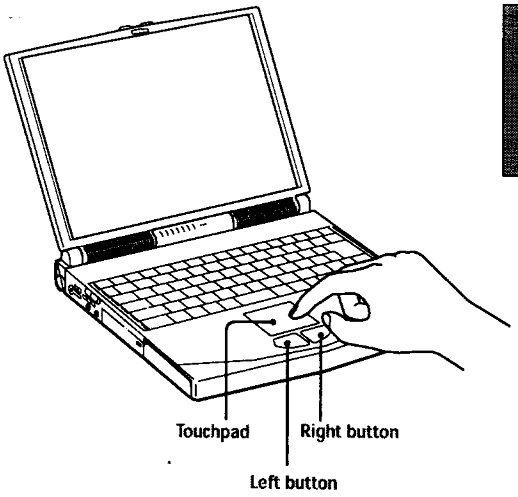
Combinations and Functions with the Fn Key

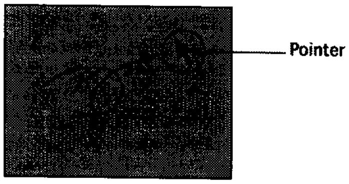
Combinations/ Feature	*Functions*
Fn+ (ESC) System Suspend	Puts the system into System Suspend mode, a power management state. To return the system to the active state, press any key or press the power switch on your computer.
Fn+ (F2) Display power status	Displays the power status, as in the example below: Using AC power
Fn+ (F3) Speaker switch	Toggles the built-in speaker off and on.
Fn+ (F4) Speaker volume	Adjusts the built-in speaker volume. To increase volume, press Fn+F4, then ↑ or →. To decrease volume, press Fn+F4, then ↓ or ←.
Fn+ ☼ (F5) Brightness control	Adjusts the brightness of the LCD. To increase light intensity, press Fn+F5 and then ↑ or →. To decrease light intensity, press Fn+F5 and then ↓ or ←.
Fn+ ◑ (F6) Contrast control	To increase the contrast, press Fn+F6 and then the up or right arrow key. To decrease the contrast, press Fn+F6 and then the down or left arrow key.
Fn+ LCD / ■ (F7) Switch to the external display	Toggles through the LCD, external display (connected to the ▢ Monitor connector) and both LCD and external display.  Only LCD LCD and external display Only external display
Fn+ (F12) System Hibernation	Provides for the lowest level of power consumption. When you execute this command, the state of the system and state of the peripheral devices are written to the hard disk and the system power is turned off. To return the system to the original state, use the power switch to turn on power.
Fn+E Eject CD-ROM	Ejects the CD-ROM drive.

Combinations/ Feature	*Functions*
Fn+F Change the display size	Zooms the display size in or out when the display is set to a low resolution.
Fn+D Video standby	Turns off the LCD in order to save power.

Using the Touchpad

The keyboard contains a cursor-pointing device called a touchpad. You can point to, select, drag, and scroll objects on the screen using the built-in touchpad.





Actions	*Descriptions*
Point	Slide one finger on the touchpad to place the pointer on an item or object.
Click	Press the left button once.
Double-click	Press the left button twice.
Right-click	Press the right button once. In many applications, this action displays a shortcut menu of context-sensitive choices.
Drag	Slide one finger while pressing the left button. When your finger reaches a touchpad edge, the pointer keeps moving until you lift your finger. Use this action to select and move objects.
Scroll	Move your finger along the right edge of the touchpad.

✍ See Mouseware Help for information on touchpad features, such as middle button click, adjusting touchpad speed, and Wheel Mouse functions. To access Mouseware Help, click the Mouse icon in the Control Panel and click the Help button.

Using the Floppy Disk Drive

There are two ways to connect the floppy disk drive to your computer:

- Externally, by connecting it to the computer's FDD/Printer connector.
- Internally, by inserting it into the drive bay.

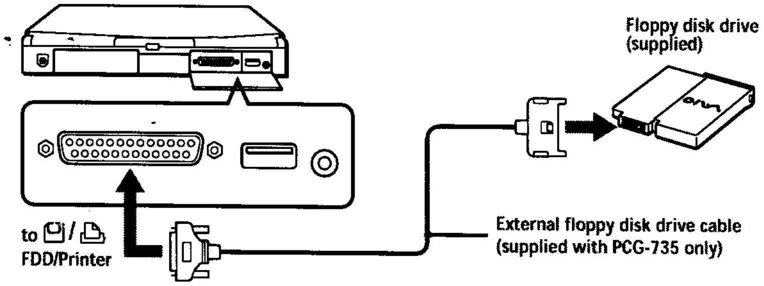
The computer comes with the CD-ROM drive in the drive bay. If you want to use both the CD-ROM and the floppy disk drive at the same time, use the floppy disk drive as an external drive.

If you connect the floppy disk drive externally while your computer is on, use the Sony Notebook Setup utility to select Floppy Disk Drive. See "Displaying the Sony Notebook Setup Screen" on page 63 for details.

To connect the floppy disk drive externally

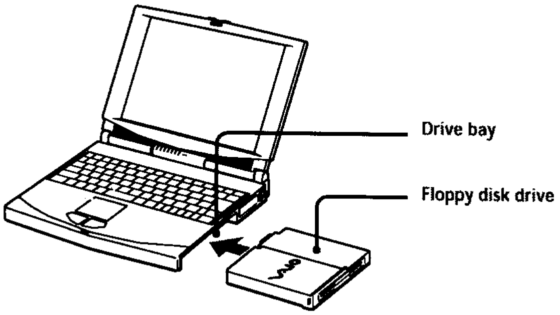
- Connect the floppy disk drive to the 🖫 / 🖶 FDD/Printer connector using the external floppy disk drive cable.

✍ The floppy disk drive cable is not supplied. You can purchase this cable separately or insert the floppy disk drive into the drive bay as described later in this section.


Floppy disk drive (supplied)
to 🖫/🖶 FDD/Printer
External floppy disk drive cable (supplied with PCG-735 only)

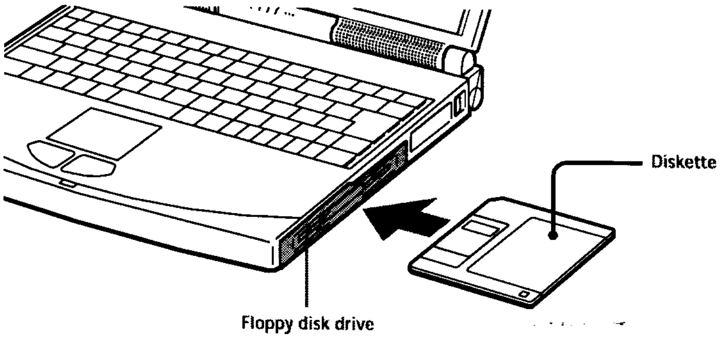
To insert the floppy disk drive

1. Turn off the computer.
2. If another device is in the drive bay, remove the device. See "To remove the CD-ROM drive" on page 28 or "To remove the second battery pack" on page 36.
3. Insert the floppy disk drive into the drive bay with the VAIO label facing up. Continue pushing the drive into the bay until the Eject lever locks into place.



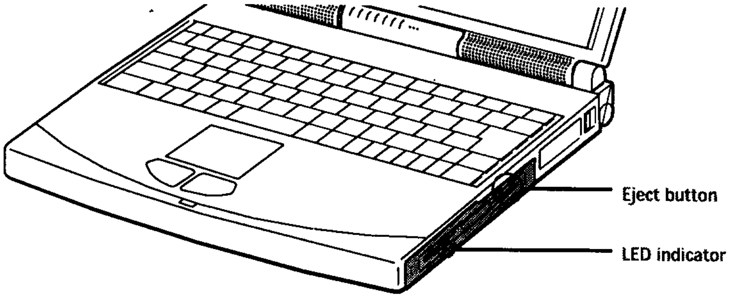
To insert a diskette

1. Hold the diskette with the label side facing up.
2. Gently push the diskette into the drive until it clicks into place.



To remove a diskette

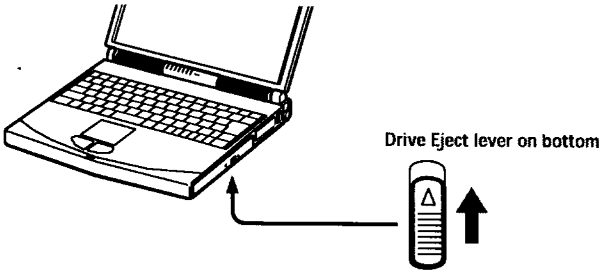
- ☐ When you finish using the diskette, press the Eject button to remove the diskette.



✍ If you have difficulty removing a diskette from the floppy disk drive, remove the floppy disk drive from the drive bay.

To remove the floppy disk drive

1. Turn off the computer.
2. There is an Eject lever on the bottom of the floppy disk drive. Slide this lever in the direction of the arrow.



3. Slide the drive out of the drive bay.
4. Insert the weight saver. See "Using the Weight Saver" on page 37.

Using the CD-ROM Drive

Your computer comes with the CD-ROM drive in the drive bay. You can remove it so that you can use other devices in the drive bay.

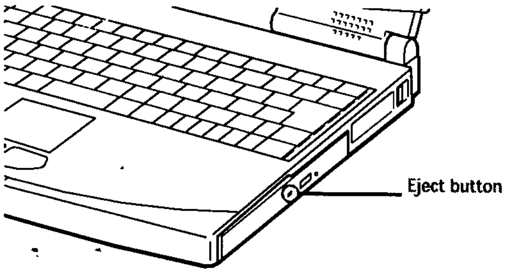
To insert a CD-ROM disc

1 Turn on the computer.

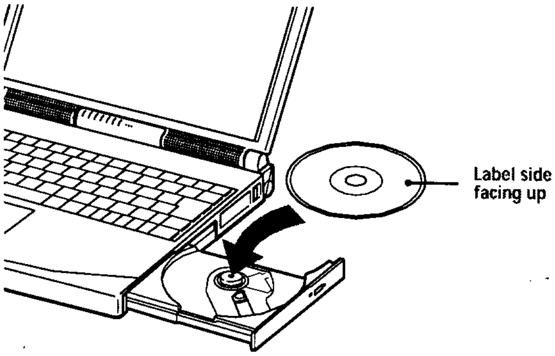
> ✍ When the computer is in System Suspend or System Hibernation mode, you cannot insert a CD-ROM disc. See "Controlling Power Management" on page 65 for more information on System Suspend and System Hibernation modes.

2 Press the Eject button to open the CD-ROM drive.

The CD tray slides out.



3 Place the CD-ROM disc in the tray with the label side facing up. Push the disc onto the hub until the disc clicks into place.



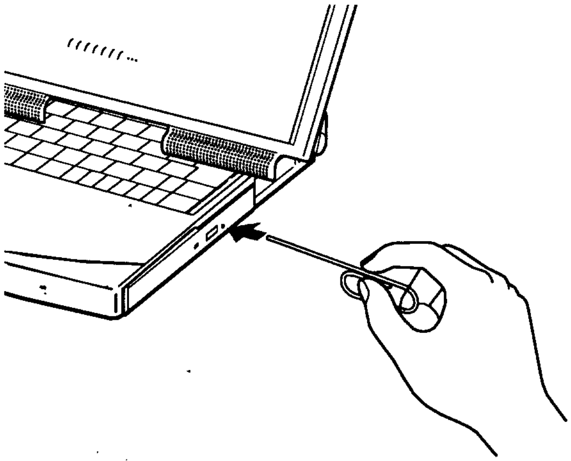
4 Close the tray by pushing it gently.

✍ Be sure to seat the CD-ROM disc firmly over the CD-ROM drive hub fingers. If you do not seat the disc firmly, you could damage your CD-ROM drive and you may not be able to open the CD tray.

When you finish using the CD-ROM, press the Eject button to remove the CD-ROM disc.

When the computer is in System Suspend or System Hibernation mode, you cannot remove a CD-ROM disc. See "Controlling Power Management" on page 65 for more information about System Suspend and System Hibernation modes.

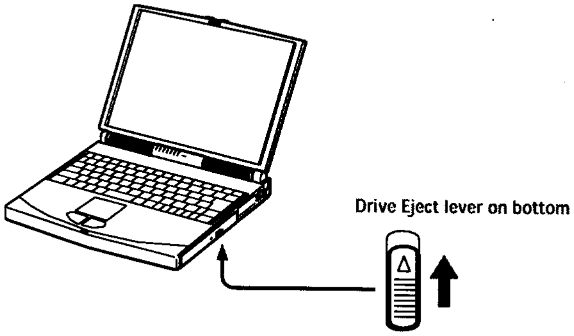
If the CD-ROM disc does not come out when you press the Eject button, turn off the computer and insert a thin, pointed object into the manual eject hole.



To remove the CD-ROM drive

1 Turn off the computer before removing the CD-ROM drive.

2 There is an Eject lever on the bottom of the CD-ROM drive. Slide this lever in the direction of the arrow.



3 Slide the drive out of the drive bay.

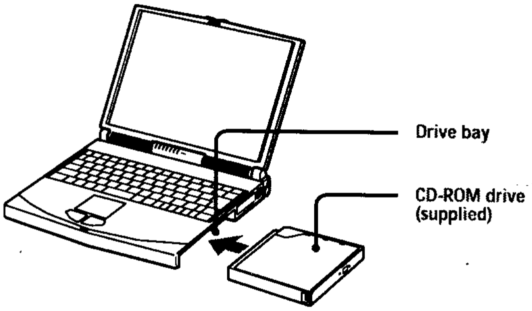
4 Insert the weight saver. See "Using the Weight Saver" on page 37.

To reinsert the CD-ROM drive

1 Turn off the computer.

2 If another device is in the drive bay, remove the device. See "To remove the floppy disk drive" on page 25 or "To remove the second battery pack" on page 36.

3 Insert the CD-ROM drive into the drive bay with the label side facing up.



Using PC Cards

Your computer includes two PC card slots. PC cards allow you to connect portable external devices, such as another hard disk drive, additional memory, or to connect a network.

✍ The PC card slots can accommodate (at the same time) two Type I, two Type II, or one Type III PC card. These slots are compatible with Card Bus and ZV (Zoomed Video) port.

Some PC cards may require that you disable idle devices when using the PCcard. See "Displaying the Sony Notebook Setup Screen" on page 63 for details.

Be sure to use the most recent software driver provided by the PC card manufacturer.

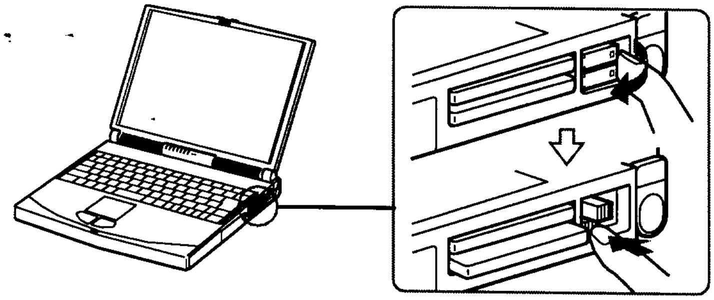
If an "!" mark appears on the Device Manager tab in the System Properties dialog, remove the software driver and then reinstall it.

To insert a PC card

Use the lower slot for Type III PC cards.

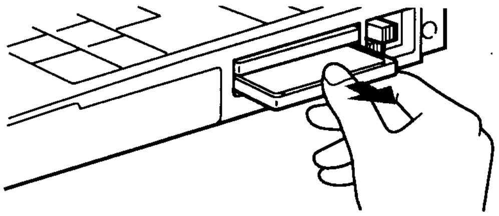
✍ You do not need to shut down the computer before inserting or removing a PC card.

1 Pull the PC card release button up away from the computer and push it in.

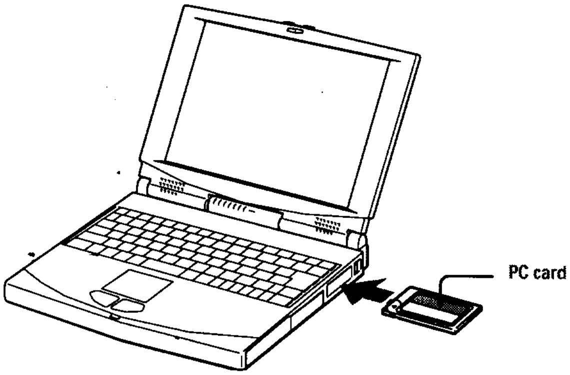


2 Remove the PC card slot protector.

When you use a Type III PC card, you need to remove both the top and bottom PC card slot protectors.



3 Insert the PC card into the PC card slot, front label facing up. Gently push the card into the slot until the card is fixed into the connector. The release button comes out.



✍ Do not force a card into the slot. It may damage the connector pins.

If you have difficulty inserting a card, check that you are inserting the card with the correct orientation.

For some PC cards, if you alternate between normal power operation and the system suspend or system hibernation power management modes while the card is inserted, you may find that a device connected to your system is not recognized. Reboot your system to correct the problem.

To remove a PC card

1 Pull the PC card release button up and press it.

2 Gently grasp the card and pull it out.

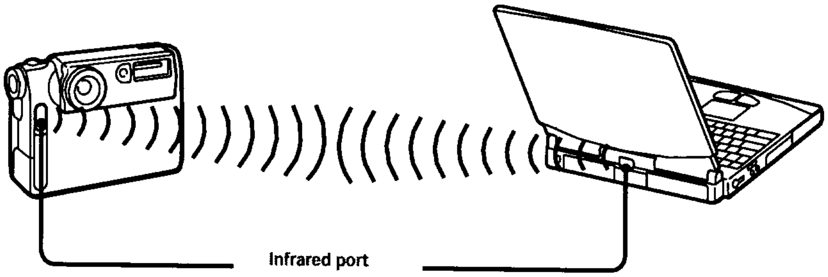
3 Insert the PC card slot protector back into the empty slot.

Using Infrared Communication Devices

Your computer includes an infrared port, located on the back panel. You can use this port to communicate with other infrared-equipped devices with compatible protocols, such as a digital still camera or other computers.

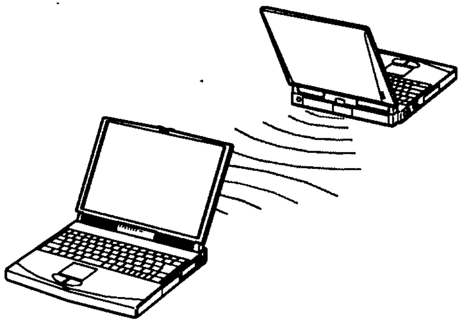
To use infrared communication with a digital still camera

Align the infrared ports on the computer and the digital camera so that they are in a direct line.



To use infrared communication with another computer

Align the infrared ports on the two computers so that they are in a direct line.



✍ Check the Status tag of the Infrared Monitor in the Windows Control Panel to determine if the infrared device is detected.

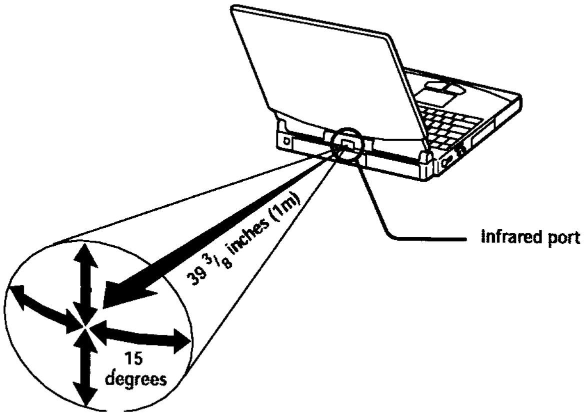
If the two devices are too far apart or too close together, data transfer may be interrupted or there may be noise in the transmission.

Do not cover the infrared ports with your hand or any other objects.

Avoid direct sunlight, fluorescent light, or flashing incandescent light close to the infrared ports.

See the manual that came with your digital still camera or other infrared communication device for more information on installation and use.

The active area of infrared transmission extends about 39 $^3/_8$ inches (1m) with a radius of 15 degrees.



Using Power Saving Modes

When you use a battery as the source of power for your computer, you can take advantage of power management settings to conserve battery life. In addition to the normal operating mode, which allows you to turn off specific devices, your computer has two distinct power saving modes: System Suspend and System Hibernation. When using battery power, you should be aware that the computer automatically enters System Hibernation mode when the remaining battery charge drops to a very low level, regardless of the power management setting you select.

Normal Mode

This is the normal state of your computer when it is in use. The green power indicator light is on in this mode. To save power, you can turn off a specific device such as the LCD or the hard disk.

✍ For details, see "Controlling Power Management" on page 65.

System Suspend Mode

The computer saves the current state of the system in RAM and switches off power to the CPU. The amber power indicator light flashes in this mode.

To activate System Suspend mode

Press Fn+Esc, or slide the power switch forward and hold it for at least four seconds. You can also use the PowerPanel utility to enter System Suspend mode.

To return to normal mode

Press any key.

System Hibernation Mode

The state of the system is saved on the hard drive and power is turned off. The power indicator light is off in this mode.

To activate System Hibernation mode

Press Fn+F12. You can also use the PowerPanel utility to enter System Hibernation mode.

To return to normal mode

Turn on the computer by sliding the power switch forward. The computer returns to its previous state.

✍ When returning from System Hibernation mode, the system status stored on the hard disk is erased and the computer starts normally if you slide the power switch forward and hold for more than four seconds.

- ☐ Time to return to normal mode:

  System Suspend requires less time than System Hibernation
- ☐ Power consumption:

  System Suspend uses more power than System Hibernation

Using a Second Battery Pack

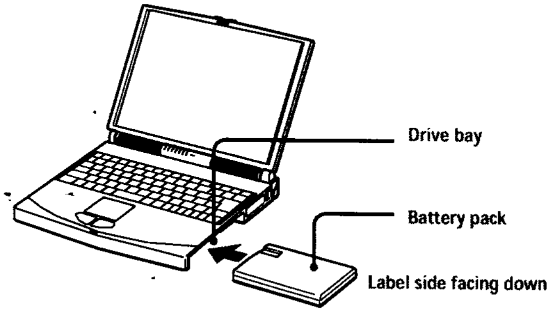
You can purchase a second rechargeable battery pack. With two battery packs, you can extend the time that you use your computer with battery power. When using two battery packs, the battery pack you insert first charges first. The battery pack you insert second charges when the first battery pack is 85% full. You can monitor which battery pack is charging by observing the battery indicator lights.

To insert a second battery pack

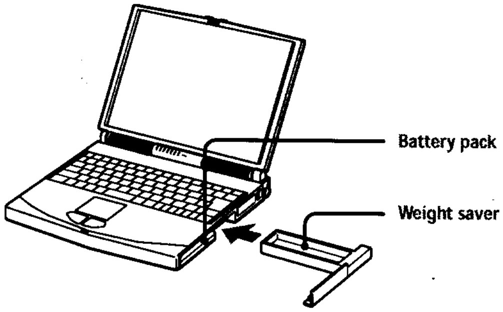
1 If another device is in the drive bay, remove the device. See "To remove the floppy disk drive" on page 25 or "To remove the CD-ROM drive" on page 28.

2 Insert the battery pack into the drive bay.

The battery 2 indicator light turns on.

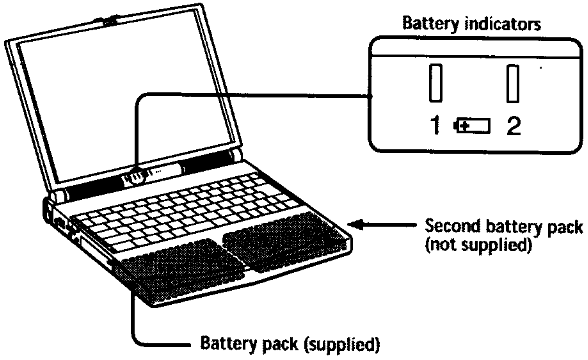


3 Attach the Weight Saver to the computer to stabilize the battery pack. See also "Using the Weight Saver" on page 37.



To charge the second battery pack

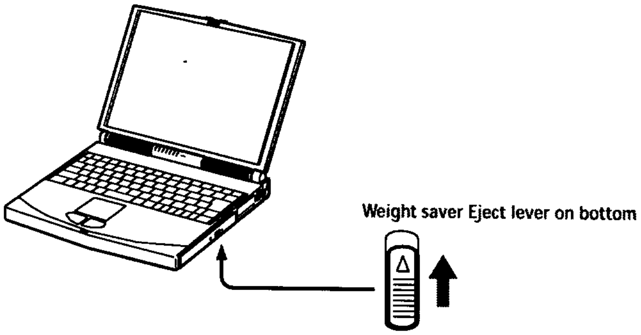
Keep the battery pack in the computer while it is connected to AC power. The battery indicator flashes while the battery is charging. See also "To charge the battery pack" on page 10 for more information.


Battery indicators
1
2
Second battery pack (not supplied)
Battery pack (supplied)

✍ To determine the amount of time the battery lasts, see "Displaying Battery Information" on page 68.

To remove the second battery pack

1. There is an Eject lever on the bottom of the weight saver. To remove the battery pack, slide this lever in the direction of the arrow.


Weight saver Eject lever on bottom

2. Remove the weight saver, and then pull out the battery pack.
3. Reinsert the weight saver. See "Using the Weight Saver" on page 37.

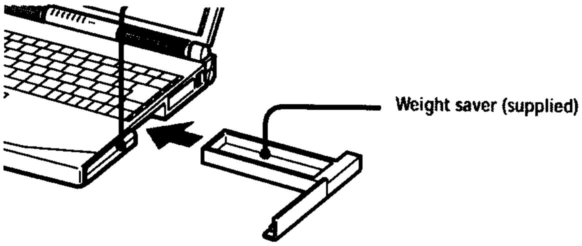
Using the Weight Saver

The weight saver protects the drive bay when it is empty.

To attach the Weight Saver

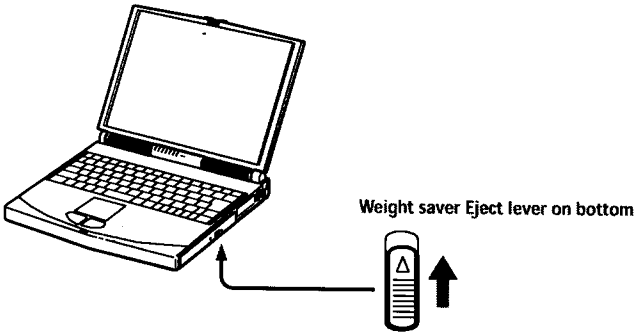
1 If another device is in the drive bay, remove the device. See "To remove the floppy disk drive" on page 25, "To remove the CD-ROM drive" on page 28, or "To remove the second battery pack" on page 36.

2 Slide the weight saver in the direction of the arrow until it clicks.



To remove the Weight Saver

There is an Eject lever on the bottom of the weight saver. To remove the weight saver, slide this lever in the direction of the arrow.



Connecting Peripheral Devices

You can add functionality to your computer by connecting any of these peripherals:

☐ Phone line (page 40)
☐ Printer (page 41)
☐ External display (page 42)
☐ External mouse or keyboard (page 45)
☐ External speakers (page 46)
☐ External microphone (page 47)
☐ Digital still camera or other serial device (page 48)
☐ Digital video camera recorder (page 49)
☐ Universal serial bus (USB) device (page 49)

✍ Before you connect peripherals, turn off the computer and all peripherals.

Connect the power cord only after connecting all cables.

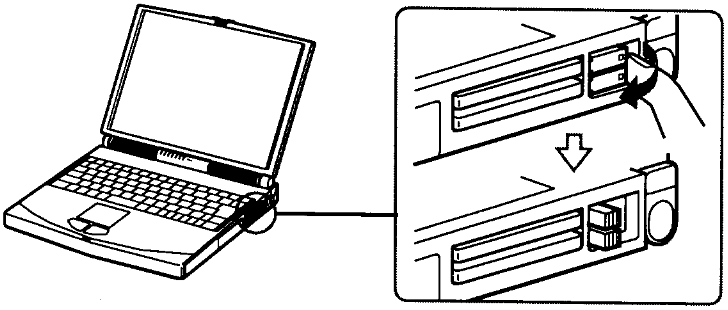
Turn on the computer only after turning on all peripherals.

Connecting a Phone Line

You need to connect a phone line to take advantage of online services, the Internet, and Sony Online Support.

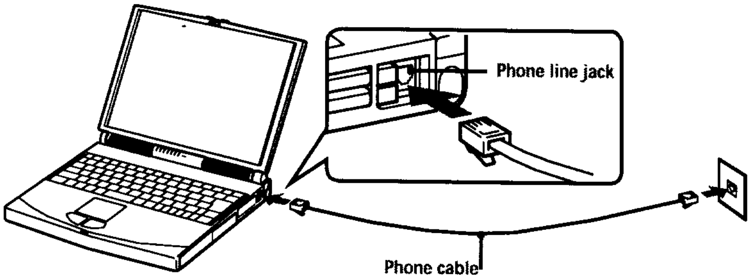
✍ In order to register your Sony VAIO Notebook Computer, register your software online, and use Sony Online Support, you must connect to a phone line. Also, you must register your computer to receive the extended warranty.

1 Pull the PC card release buttons away from the computer.



2 Plug one end of the phone cable into the phone line jack on the computer.

3 Plug the other end into the wall jack.



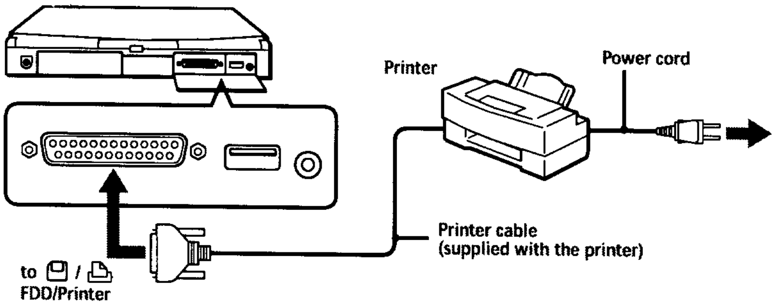
✍ Your computer does not work with party lines, cannot be connected to a coin-operated telephone, and may not work with multiple phone lines or a private branch exchange (PBX).

Connecting a Printer

You can connect a Windows 98-compatible printer to your computer to print documents.

To connect a printer

❑ Use the 🖫/🖶 symbol to locate the FDD/Printer connector. Plug the printer cable (supplied with the printer) into this port on the computer.


Printer
Power cord
Printer cable
(supplied with the printer)
to 🖫 / 🖶
FDD/Printer

✍ See the manual that came with your printer for more information on installation and use.

Before using the printer, you may need to change the FDD/Printer setting in the Sony Notebook Setup software. See "Displaying the Sony Notebook Setup Screen" on page 63.

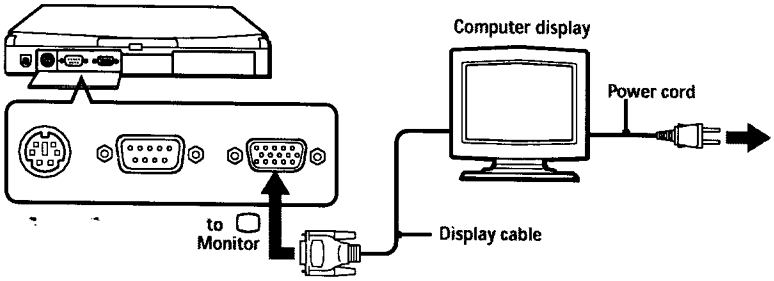
Connecting an External Display

You can connect an external display to your notebook computer. For example, you can use the computer with any of the following:

- Computer display (monitor) (page 42)
- Multimedia computer display (page 43)
- Projector (page 44)

To connect a computer display

- Use the ▢ symbol on the back of the computer to locate the Monitor connector. Plug the display cable into this connector on the back of the computer.
- If necessary, plug one end of the display power cord into the display, and the other end into an AC outlet.

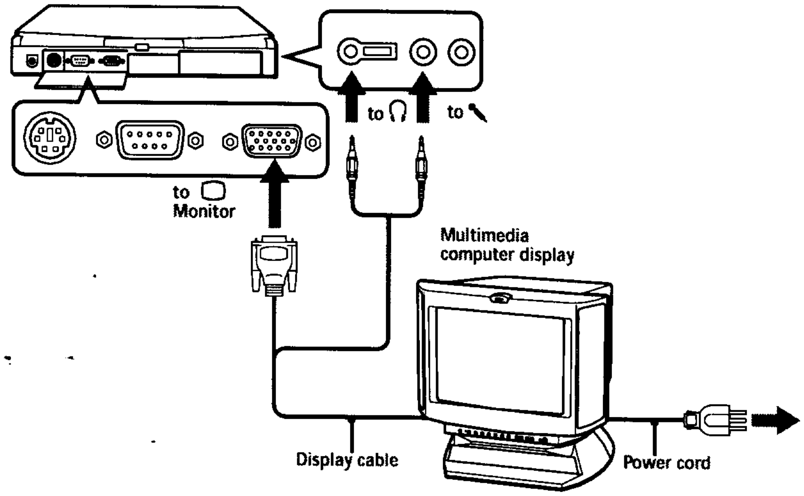


✍ See the manual that came with your computer display for more information on installation and use.

To connect a multimedia computer display

You can connect the notebook computer to a multimedia computer display that includes built-in speakers and a microphone.

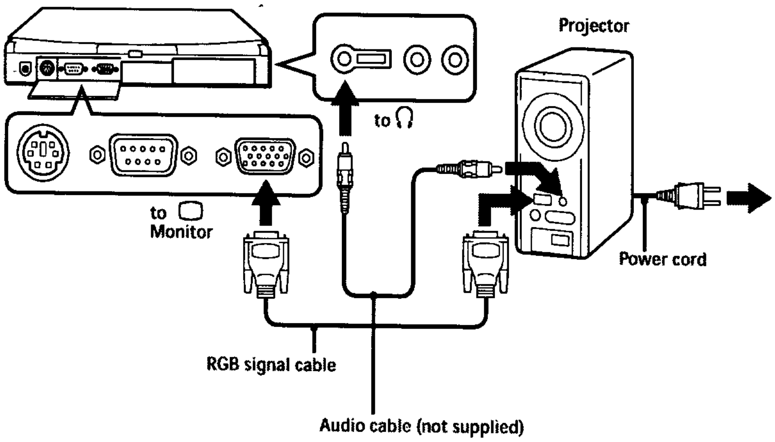
1. Use the ▢ symbol to locate the Monitor connector. Plug the display cable into this connector.
2. Use the ∩ symbol to locate the Headphone connector. Plug the speaker cable into this connector.
3. Use the 🎤 symbol to locate the Microphone connector. Plug the microphone cable into this connector.


to ∩
to 🎤
to ▢
Monitor
Multimedia computer display
Display cable
Power cord

✍ See the manual that came with your multimedia computer display for more information on installation and use.

To connect a projector

You can use a projector as an external display, such as the Sony LCD Projector.



✍ See the manual that came with your projector for more information on installation and use.

To select a display

When you connect an external display to the monitor connector, you can toggle the output among the Liquid Crystal Display (LCD), the external monitor, or both devices.

Use the following keys to select a display. See also "Selecting the Display Mode" on page 71 for more information.

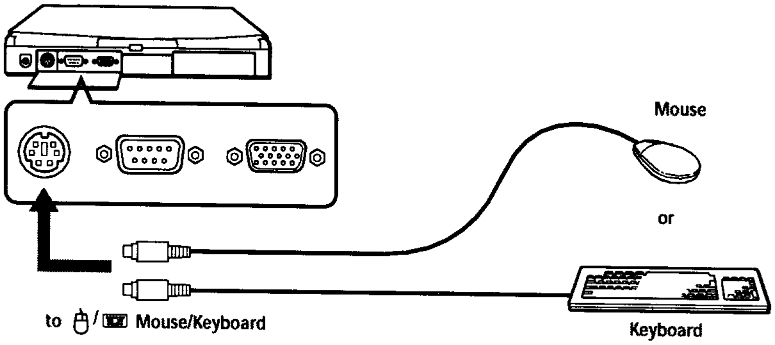
To	*Press*	*Result*
Switch to the VGA monitor	Fn+F7	Toggles among the LCD, the external display connected to the Monitor connector, and both the LCD and external display. Only LCD ——▶ LCD and external display Only external display

Connecting an External Mouse or Keyboard

You can connect an external mouse or keyboard to your computer. The Mouse/Keyboard connector requires a PS/2™style plug or adapter.

To connect an external mouse or keyboard

- ☐ Use the 🖱/⌨ symbol to locate the Mouse/Keyboard connector. Plug the keyboard cable or mouse cable into this connector with the ↑ mark facing up.



See "Using the Keyboard" on page 16 for more information on using the keyboard.

See the manual that came with your mouse or keyboard for more information on installation and use.

Before you connect or disconnect the mouse or keyboard, turn off the computer.

To use a mouse connected to the Serial port, make sure the mouse is compatible with the Serial port.

Connecting External Speakers

You can enhance the sound quality of your computer by connecting external speakers.

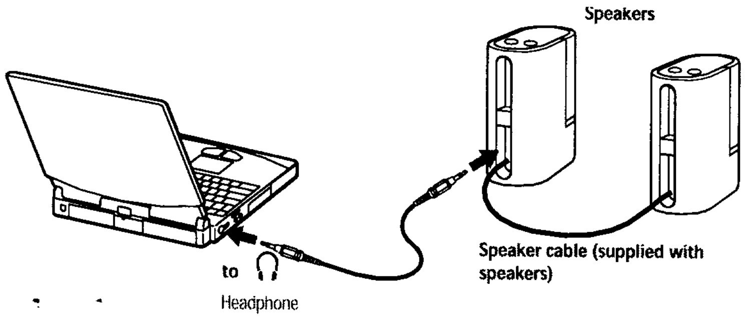
✍ Make sure your speakers are designed for computer use.

Turn down the volume of the speakers before you turn them on.

Do not place diskettes on the speakers; the speaker's maagnetic field may damage the data on the diskettes.

To connect external speakers

- Use the ∩ symbol to locate the Headphone connector. Plug the speaker cable into this connector.



✍ See the manual that came with your speakers for more information on installation and use.

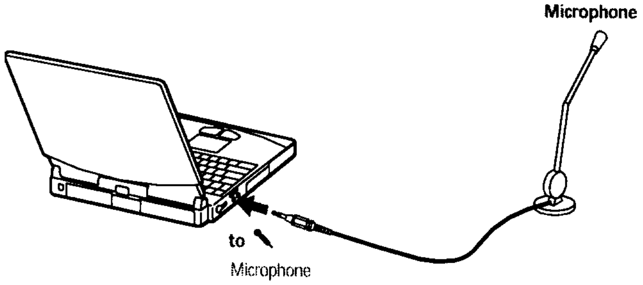
Connecting an External Microphone

You can enhance the quality of sound input by using an external microphone.

✍ Make sure your microphone is designed for computer use.

To connect an external microphone

☐ Use the 🎤 to locate the Microphone connector. Plug the microphone cable into this connector.



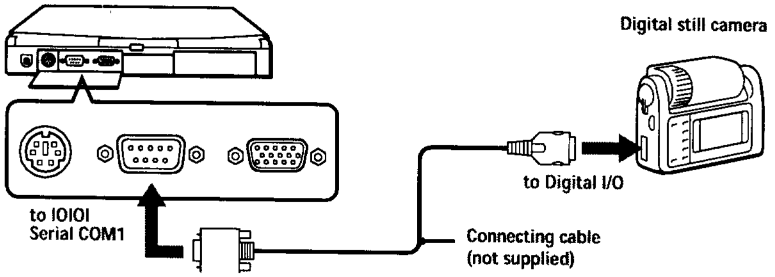
✍ See the manual that came with your microphone for more information on installation and use.

Connecting a Digital Still Camera or Other Serial Device

You can connect other computer peripherals, such as the Sony Digital Still Camera, to the Serial COM1 connector on your computer.

To connect a digital still camera

- Use the IOIOI symbol to locate the Serial COM1 connector. Plug the connecting cable into this port on the computer and into the Digital I/O connector on the digital still camera.



✍ The Sony Digital Still Camera (DSC-F1) is pictured; your camera may need to be connected differently.

See the manual that came with your digital camera or other serial device for more information on installation and use.

You can connect the DSC-FI to your computer either through the Serial port or by using infrared communication.

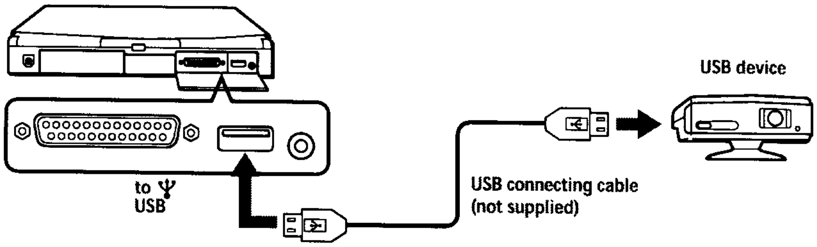
If you use a digital camera that has an infrared data communication system or other infrared communication device, see "Using Infrared Communication Devices" on page 31.

Connecting a Universal Serial Bus (USB) Device

You can connect a USB device to your computer.

To connect a USB device

❑ Use the Ψ symbol to locate the USB connector. Plug the USB cable into this port.



✍ See the manual that came with your USB device for more information on installation and use.

✍ When you enable the PowerPanel setting that allows the computer to enter System Suspend mode or System Hibernation mode, your computer may enter System Suspend mode or System Hibernation mode while you are using a USB device, such as a USB mouse or a USB keyboard. Therefore, when using a USB device, select the AC Profile or change the profile setting in PowerPanel so that the computer does not enter System Suspend mode or System Hibernation mode. The default AC Profile settings do not allow the computer to enter System Suspend mode or System Hibernation mode. For details, see the PowerPanel Help.

Getting Started With VAIO Space

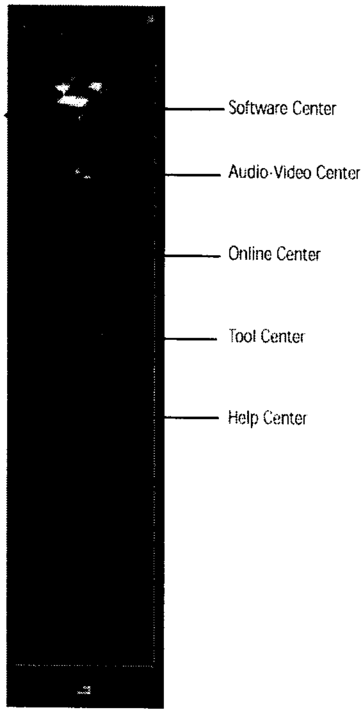
VAIO Space is Sony's original utility that organizes the preinstalled applications on your VAIO Notebook Computer, making it easier for you to find and launch the applications on your computer, use the Sony audio and video players, connect to the Internet, and more.

Starting VAIO Space

To start VAIO Space

☐ Click the VAIO Space icon on the Windows desktop.

The VAIO Launcher appears, which includes icons for the five VAIO Space centers:


Software Center
Audio-Video Center
Online Center
Tool Center
Help Center

VAIO Space Centers

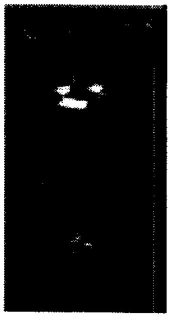
There are five centers within VAIO Space, as follows:

Center Name and Icon	*Contains*	*Description*
Software Center	Applications Accessories	Contains icons for all preinstalled applications and accessories. See "Using the Software Center" on page 55 for details.
Audio-Video Center	Video Audio	Launches the video and audio applications included with your computer. See "Using the Audio-Video Center" on page 56 for details.
Online Center	Easy Internet VAIO Direct℠ Club VAIO ImageStation℠ Internet	Allows you to connect to the Internet. See "Using the Online Center" on page 59 for details.
Tool Center	Tools Options	Provides tools that help you analyze and fix system-related problems. See "Using the Tool Center" on page 60 for details.
Help Center	Help Center	Contains links to various sources of help for your computer. See "Using the Help Center" on page 62 for details.

Navigating through VAIO Space

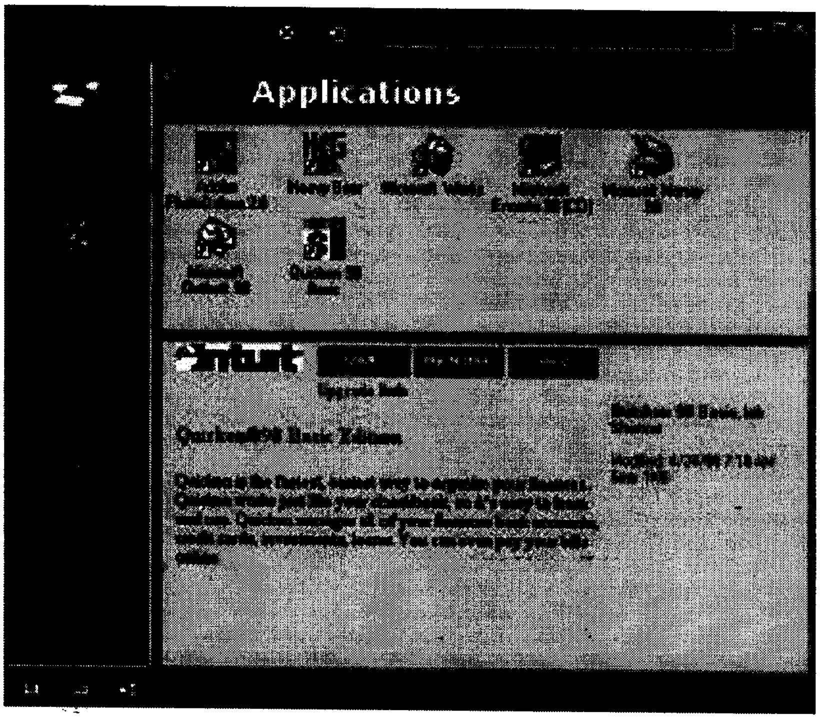
To go to a center within VAIO Space

1 Move the mouse pointer over an icon on the VAIO Launcher. Categories for each center appear.



Moving the mouse over the icon displays the categories of programs for that icon

2 Click the category text (such as **Applications**) to open the VAIO screen.



✍ Your application screen may appear different from the one shown here.

VAIO Space Controls

Button	Function
←	Goes to the previous screen or page in a sequence. Unavailable until you go to another screen.
→	Goes to the next screen or page in a sequence. Unavailable on the last screen in a sequence.
	Stops loading the current page (used for web pages).
	Refreshes the current page (used for web pages).
	Displays the current website address (URL) or file name path. You can also type an address or path in this box.
	Minimizes, maximizes/restores, and closes VAIO Space.
	Shows/hides the VAIO Launcher. Provides the maximum area for viewing pages.
	Opens another VAIO Launcher. This is useful if you want to perform two simultaneous operations, such as launching an application while watching a video.
	Shows/hides the VAIO screen. Provides the maximum view of the desktop.
	Animates when a web page is loading.

Using the Software Center

To launch the Software Center

1. Move the mouse pointer over the Software Center icon on the VAIO Launcher.
2. Click the text of the category (**Applications** or **Accessories**) to open the VAIO screen.
3. To start an application, click the icon.

Other Software Center Functions

Action	*Procedure*
Display information about a program.	Move the mouse pointer over the program icon.
Display questions and answers about the highlighted program.	Click *(grayed out when unavailable)*
Create and save notes about the highlighted program.	Click
Display a help or readme file about the highlighted program.	Click *(grayed out when unavailable)*
Add an application icon to the Software Center.	Drag and drop an application icon from anywhere within Windows onto the VAIO screen.
Remove an application icon from the Software Center.	Drag and drop an application icon from the Software Center to the Windows Recycle Bin.

Using the Audio-Video Center

The Audio-Video Center includes the following programs:

Program	*Description*
Video	Plays MPEG (.mpg), MPEG2 (.vob) and AVI (.avi) video files.
Audio	Music/Movie Player, which plays audio tracks from your CD-ROM drive and a variety of audio and video file formats including: WAV (.wav), MIDI (.mid), and RMI (.rmi) audio files and MPEG (.mpg), Quick Time (.mov), and AVI (.avi) video files.

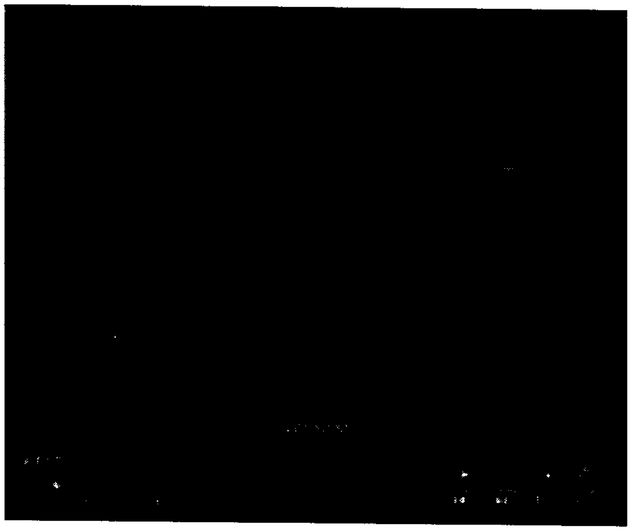
Using the Video Player

The Video Player plays MPEG (.mpg), MPEG2 (.vob) and AVI (.avi) video files.

To play a video file

1 Move the mouse pointer over the Audio-Video Center icon on the VAIO Launcher.

2 Click **Video** in the VAIO Launcher. The Video Player launches and begins playing.



To play a different video file

1. Click the Play List button.
2. Select one or more video files from the AV PlayList dialog box.
3. Click ADD.
4. Click OK.

The video file begins playing automatically.

Other Video Player Functions

Action	*Procedure*
Toggle the sound on and off	Click the mute ■ button. (Green light indicates sound is muted.)
Stop play	Click ■ (Stop).
Pause play	Click ■ (Pause).
Go to the next video file in the playlist	Click ■ (Next).
Go to the previous video file in the playlist	Click ■ (Previous).
Play full screen	Click ■ (full screen).
Create a playlist	Click the Play List button.
Adjust the volume	Drag the volume slider up and down.

Using the Music/Movie Player

The Music/Movie Player allows you to play audio and video from a CD in the CD-ROM drive, or from audio or video files in various formats on your hard drive.

To start Music/Movie Player

1. Move the mouse pointer over the Audio-Video Center icon on the VAIO Launcher.
2. Click **Audio** in the VAIO Launcher.

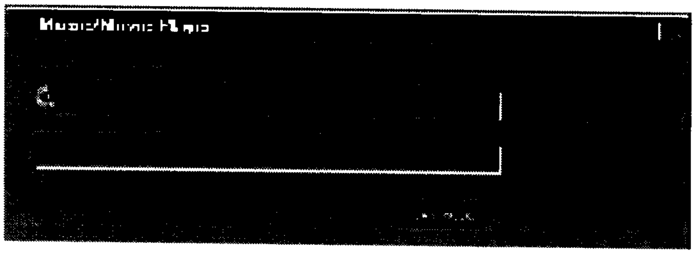
   The Control bar appears across the top of the screen, with buttons similar to the controls on a VCR or CD-player remote control.

To expand the Control bar

You can expand the bar to double-height to access more functions by clicking the Expand button (▼) at the far right. To return to single height, click the Restore button (▲).

To change the Control bar to a floating window

To change the Control bar into a floating window, drag the bar to the center of the screen. The bar opens into a window with File, Control, and Help menus.



Music/Movie Player Functions

You can use the Control bar to:

- Start and stop the playback of audio or video CDs or files.
- Navigate through selections on a CD.
- Pause and resume playback at the point where play left off.
- Set up automatic playback modes, including:
  - Repeat all of the selections in order.
  - Repeat a single selection.
  - Play all of the selections in a random order.

Video images display in a separate Movie window, which you can move and resize. You can also add a variety of visual effects to the images in the Movie window. If the CD supports PlayBack Control (for example, Video CD-ROM format), you can select specific scenes or still images by their assigned numbers.

✍ The Music/Movie Player features extensive and detailed online help. To access online help, right-click the Control bar and select Help from the shortcut menu.

Using the Online Center

To launch the Online Center

1. Move the mouse pointer over the Online Center icon on the VAIO Launcher.
2. Click the text of the category as described below.

Category	*Description*
Easy Internet	Provides an intuitive interface to do almost everything on the Internet: browsing, e-mail, navigating to the best sites on the web, and interacting with multimedia content. Includes 50 free hours of Internet access from GTE Internetworking. (No credit card needed.)
VAIO Direct	Save money by ordering products direct from Sony Online.
Club VAIO	Find out the latest developments in the world of VAIO; interact with other VAIO users.
ImageStation	The easy way to share your photos with friends and family online.
Internet	Shortcuts to all your Internet applications.

Using the Tool Center

Using Tool Center Tools

1. Move the mouse pointer over the Tool Center icon on the VAIO Launcher.
2. Click **Tools** to open the VAIO screen.
3. To start a program or accessory application, click the icon.

Other Tool Functions

Action	*Procedure*
Display information about a program.	Move the mouse pointer over the program icon.
Display questions and answers about the highlighted program.	Click ■ *(grayed out when unavailable)*
Create and save notes about the highlighted program.	Click ■
Display a help or readme file about the highlighted program.	Click ■ *(grayed out when unavailable)*
Add an application icon to the Tool Center.	Drag and drop an application icon from anywhere within Windows and onto the VAIO screen.
Remove an application icon from the Tool Center.	Drag and drop an application icon from the Tool Center to the Windows Recycle Bin.

Using Tool Center Options

The Options screen lets you customize the way VAIO Space works.

To set VAIO Space options

1. Move the mouse pointer over the Tool Center icon on the VAIO Launcher.
2. Click **Options** to open the VAIO screen.
3. Set the options as follows:

Option	*Check This To*
Launch VAIO Space II at Startup	Have VAIO Space start automatically when you turn on your computer. Default is off (VAIO Space does not launch at startup).
Disable Click Sounds	Turn off the click sounds in VAIO Space. Default is off (sounds are turned on).
Default Page	Set which screen appears when VAIO Space is launched. Default is Applications page.

4. Click Apply.

Using the Help Center

✍ For a complete description of all the help options available, see "Getting Help" on page 73.

To launch the Help Center:

1. Move the mouse pointer over the Help Center icon on the VAIO Launcher.
2. Click **Help Center** to open the VAIO screen.
3. Follow the on-screen instructions to find the appropriate source of help for the problem you are having.

Exiting VAIO Space

To exit VAIO Space

- Click the ☒ (Close) button.

Customizing Your Notebook Computer

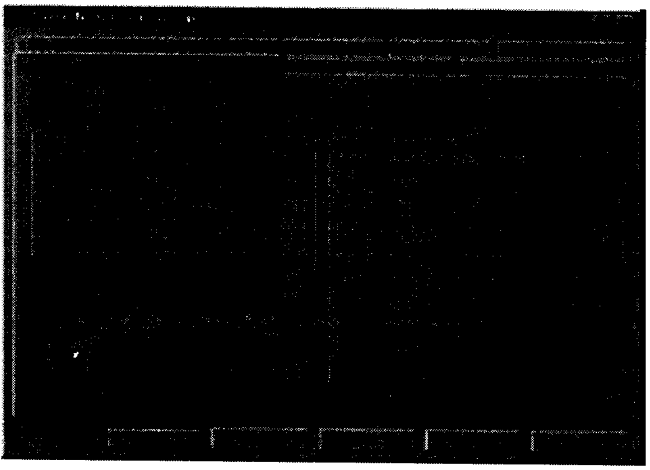
You can customize the settings of your notebook computer. The following sections briefly describe how to change your computer's default settings. You can also refer to the Sony Notebook Setup Help for more detailed information.

Displaying the Sony Notebook Setup Screen

To display the Sony Notebook Setup screen:

1 Click the Start button on the Windows 98 taskbar.

2 Point to Tool Center and click Sony Notebook Setup.



3 Select the tab for the item you want to change. See "Notebook Setup Tabs" on page 64.

4 After you finish, click OK.

Notebook Setup Tabs

Tab	*Descriptions*
About This Computer	Display system information, including memory capacity, serial number, and BIOS version.
Infrared	Change the infrared communication settings depending on the infrared equipment your computer is using to communicate.
Printer/FDD	Switch between connecting a printer or floppy disk drive without turning off the power. Change printer port mode settings.
Power On Device Sequence	Select the order of drives and devices from which you want to load the operating system. You can specify the hard drive inserted into the docking station as well as other drives inserted into your computer.
Touchpad	When you connect an optional mouse to the Serial port of your computer, you can make your touchpad inactive. You can also customize the settings of your mouse using the mouse utility.
Power On Password	Set the password to secure your computer.
Enable Ports	Change the hardware resources such as I/O address, IRQ, or DMA depending on the optional hardware or software you use. Disabling ports releases resources to the system. To change the serial, audio, and modem settings, click Advanced on the Basic/Advanced tab.
Basic/Advanced	Toggle between Advanced mode (additional screens with advanced settings) and Basic mode of display. Advanced mode includes Serial, Audio, Built-in Modem, Enable Ports, and View Resources tabs.

✍ For more information about each option, click Help on the Sony Notebook Setup screen to display the help file.

Controlling Power Management

The PowerPanel utility allows you to control the power management of your notebook computer and provides key information about system activity and battery life. The following sections briefly describe how to conserve your computer's battery power. You can also refer to the PowerPanel Help for more detailed information.

Power Management Profiles

PowerPanel provides several predefined power management profiles. Each profile consists of a group of specific power management settings that are designed to meet specific power management goals—ranging from maximum power management to no power management. You can change the settings for any of the predefined profiles or you can create your own profile to suit your portable computing needs. The predefined profiles are:

Icon	*Description*
	Maximum Performance – Provides the best system performance while still conserving power.
	Maximum Battery Life – Provides power saving features to give you maximum battery life and good performance. It sets a slower clock speed and puts the system into System Suspend mode after a specified period of inactivity.
	Power Management Off – Turns off all power management features such as System Suspend and System Hibernation modes.
	AC Profile – The power management state when AC power is in use. Similar to the Power Management Off setting. PowerPanel automatically loads the AC profile unless you disable this feature.
	Games – Disables the display and the Hard Disk Spindle Down timer.
	Presentation – Keeps the display on at all times while it conserves power. This option is ideal for slide show presentations. You can establish settings for LCD (Video) Standby, Hard Disk Sleep, and System Suspend to optimize power management for your system.

Word Processing – Optimizes power management with longer timeouts on the hard disk and display screen. You can also establish settings for LCD (Video) Standby, Hard Disk Sleep, and System Suspend to optimize power management for your system.

Communications – Extends battery life by initiating a quick display timeout. The Internal modem remains powered. You can also establish settings for LCD (Video) Standby, Hard Disk Sleep, and System Suspend to optimize power management for your system.

Power Management Commands

PowerPanel also provides power management commands that you can use to activate specific power management functions and to control power for a specific device. You might use these commands when you want to override a profile setting or initiate an immediate action, such as putting the system into Video Standby mode before the Video Standby timer expires.

System Suspend – Puts the system into System Suspend mode, a power management state that saves the state of the system and peripheral devices in memory (RAM). Power consumption reduces to a minimum, and the system remains on. To return the system to the active state, press any key or the power switch on your computer.

System Hibernation – Provides for the lowest level of power consumption. The system writes the state of the system and peripheral devices to the hard disk and turns off the system power. To return the system to the original state, use the power switch to turn on power. The system saves the data in the Save to Disk Partition on the hard drive.

Video Standby – Turns off the LCD to save power. If you turn off the Video Standby timer, the display remains active except when the system enters System Suspend mode. The video display system is one of the largest consumers of power in the system.

Hard Disk Standby – Turns off the hard disk spindle motor. Although you can manually turn off the power to the hard disk through this command, any system request to the hard disk turns on the power to the hard disk. During the System Suspend power management state, the system can turn off idle peripheral devices to conserve power.

PCMCIA Control – Controls the PC card sockets. Click this button to open the PC Card (PCMCIA) Properties dialog box. You can view the properties for the PC cards.

To activate PowerPanel

1 Double-click the ■ (PowerPanel) icon on the taskbar.

The Profiles toolbar appears. When you move the pointer over the atom icon on the taskbar, a tooltip with the name of the active power management profile appears.

2 Click the button you want to set.

The power management settings associated with the profile you select become active.

✍ To display the Commands toolbar, right-click an empty portion of the toolbar and select Commands from the shortcut menu. Refer to the PowerPanel Help for information on customizing the PowerPanel toolbars.

When you use the battery pack to power your computer, your system selects the Maximum Battery Life power management profile by default. If you select a different power management profile while using battery power, that profile is selected automatically the next time you use the battery pack to power your computer.

Displaying Battery Information

You can display detailed information for each of the batteries in your computer and docking station. The following sections briefly describe how to display your computer's general battery information. You can also refer to the BatteryScope Help for more detailed information.

Activating BatteryScope

To activate BatteryScope

1. Click the Start button on the Windows 98 taskbar.
2. Point to Tool Center and click BatteryScope.

   When you move the pointer over the battery icon on the taskbar, a tooltip appears indicating the total capacity remaining in the battery and the estimated time until the battery fully discharges

   You can also view battery gauges on the shared PowerPanel and BatteryScope toolbar.

- **Percentage indicator**

  Displays the percentage of the remaining capacity.
- **Time indicator**

  Displays estimated time (hours/minutes) remaining before the battery fully drains, also referred to as the time-to-empty.

Battery Icon Descriptions

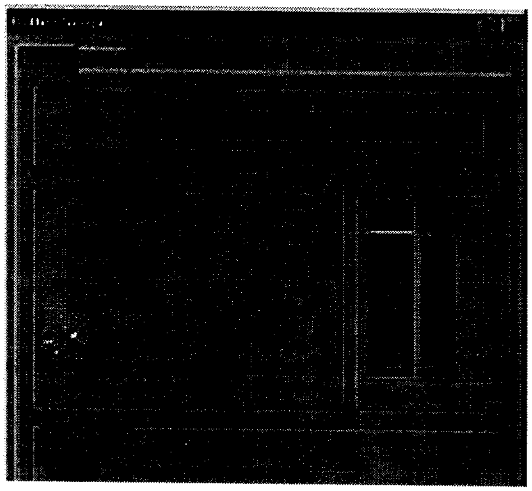
Battery icon	*Battery status*
	Discharging
	Charging
	Not in use
✕	No battery

Displaying Detailed Battery Information

You can obtain detailed information about the batteries.

- ❑ Click the battery icon on the toolbar to display the BatteryScope window.

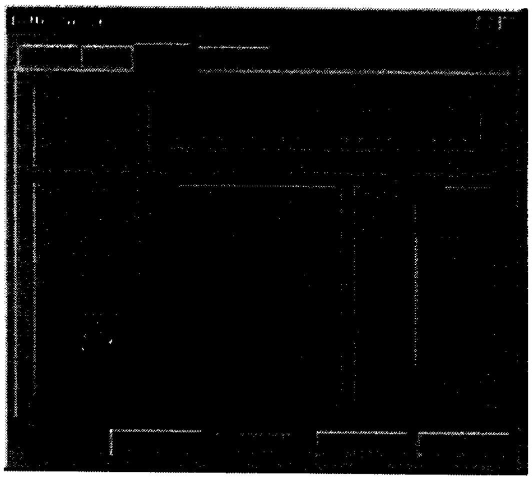
  The screen appears displaying the General tab, which contains information such as the estimated time-to-empty and charging time.



To display information on individual batteries

1. Click the Primary battery tab to display information for the battery in the bay on the left side.
2. Click the Secondary battery tab to display information for the battery in the bay on the right side.

   You can display the information about each battery, such as estimated time-to-empty, manufacturer, capacity, and other information.

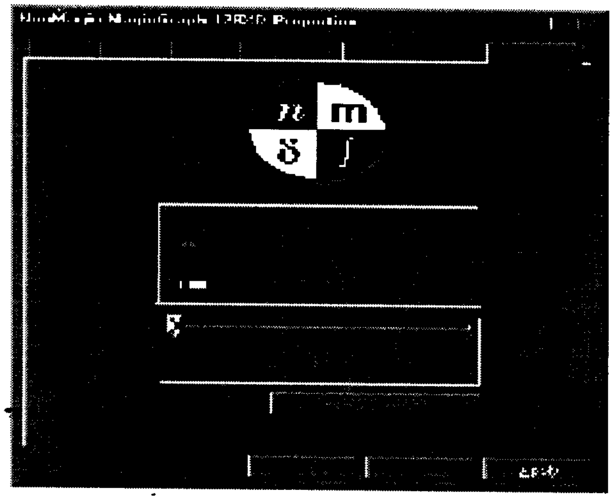


To customize the BatteryScope toolbar and alarm system
You can customize the BatteryScope toolbar to suit your portable computing needs including modifications to the alarm settings. Refer to the BatteryScope Help for more information.

Selecting the Display Mode

When you connect an external display, you can toggle the display mode between the LCD on your computer and external displays.

1. Click the Start button on the Windows 98 taskbar.
2. Point to Settings and click Control Panel.
3. Click Display.
4. Click the NeoMagic® tab.



5. Click Display Options.
6. Select one of the options under Display Mode.

Display modes	*Functions*
Monitor	Displays only an external display connected to the Monitor connector on your computer.
LCD	Displays only the Liquid Crystal Display (LCD) on your computer.
Monitor/LCD	Displays both an external display connected to the Monitor connector on your computer and the LCD simultaneously.

7 Click OK.

✍ You cannot use the following displays simultaneously:

- ☐ The computer's LCD and an external display using the Video Out connector.
- ☐ External displays using the Monitor connector and the Video Out connector.

You can adjust the refresh rate when you select Monitor as the display mode.

Some displays do not support using the computer's LCD and an external display simultaneously.

Getting Help

Sony provides several support options for your Sony computer. When you have questions about your computer and the preinstalled software, check these sources for answers, in the following sequence:

1	*VAIO Notebook Computer Read Me First*	Contains a complete list of the items that ship with your computer, product specifications, software support information, and the most up-to-date information on using your computer.
2	*VAIO Notebook Computer User Guide*	Explains how to use your notebook computer and connect peripheral devices.
3	Online User Guide	This electronic document contains additional information on the preinstalled software titles. You can access this guide from the Help Center on the Windows Start menu.
4	Manuals and online help files that may accompany your preinstalled software	Most of the manuals for preinstalled software are located on your hard disk drive as online help files. You can access the online help files from the Help menu in the specific application. A printed manual is available for some applications.
5	Knowledge Database	Provides instant access to information on commonly encountered problems. Enter a description of your problem and the Knowledge Database searches for the corresponding solutions online. You can access the Sony Knowledge Database at: http://www.sony.com/pcsupport
6	Sony Fax-on-Demand	This service provides you with answers to commonly asked questions. You can use this automated service to request a list of available topics and then select the topics that you want to receive. To contact the Sony fax-on-demand service, call 1-888-4SONYPC (1-888-476-6972). (Requires a fax machine or your fax software.)

7	Sony SOS software	This preinstalled program connects you to a Customer Support Representative. SOS is available 24 hours a day, seven days a week for 90 days after the original date of purchase. Connect your modem before you call, so the representative can access your system if necessary. "Calling SOS" on page 75 describes how to use the SOS software.
8	Calling SOS	You can call and speak with a Sony Customer Support Representative without using your computer by calling 1-888-4SONYPC (1-888-476-6972). Software support is available 24 hours a day, seven days a week for 90 days after the original date of purchase.

Calling SOS

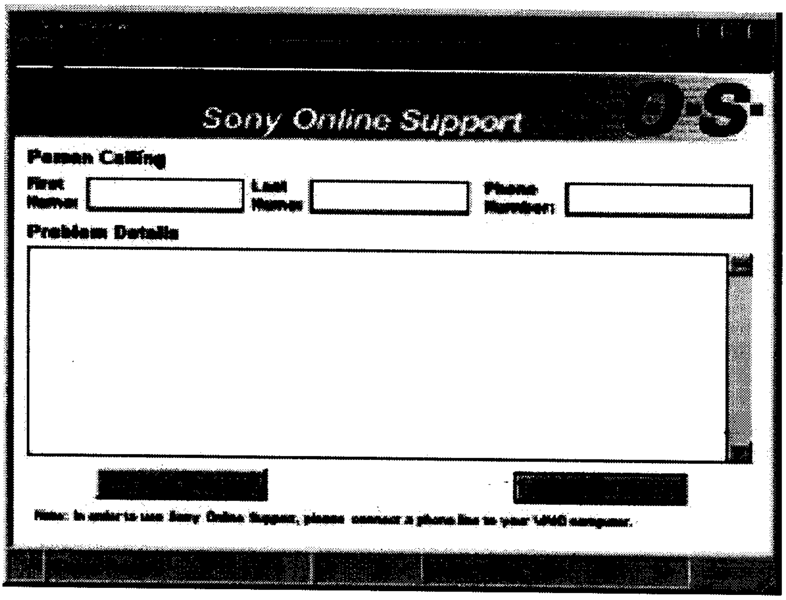
The SOS application enables you to exchange information with a Sony Customer Support Representative (CSR). Here's how it works:

- ☐ Type your name and the problem description in the SOS window.
- ☐ Dial the SOS hotline with a single click of the mouse.
- ☐ Specify the access level for the CSR.
- ☐ The CSR resolves the problem.

Before using SOS, make sure the computer is connected to a phone line as described in "Connecting a Phone Line" on page 40. If you do not have a phone line connected to your computer, you can call SOS by dialing 1-888-4SONYPC (1-888-476-6972). SOS support is available for 90 days from the original date of purchase.

To place a call to SOS

1. Click the Start button on the Windows 98 taskbar.
2. Point to Help Center, point to Step 4 Call SOS, and then click Sony Online Support (SOS). The SOS window appears.



3. In the SOS window, type your name, phone number, and a description of the problem. This information cannot be seen by the

customer support representative until you give the CSR access to your computer.

4 Click the Call SOS button. The Confirmation screen appears.

5 Click the OK button. The Phone screen appears.

6 Click the Dial button. Your modem dials the call and connects you to the Sony support center.

7 Speak into your computer's microphone to answer the voice prompts. You are asked whether you wish to test your system or talk to a support representative. You are then prompted to indicate the type of computer you are using.

8 Discuss the problem with the CSR and follow the CSR's instructions to resolve the problem. Only if the CSR needs to access your computer are you prompted to select a security option, as described in the next step.

9 Select an access level in the Remote Command Security dialog box by clicking one of these options:

Options	*Descriptions*
Full access	Allows the CSR to fully interact with your computer. The CSR can access all the files on your hard disk drive and can copy files to and from your computer to solve your problem.
Limited access	Lets the CSR view your system, but you must approve every action the CSR takes. If the CSR wants to copy a file, for example, the Remote Command Permission dialog box prompts you to approve this action.
No access	Prevents the CSR from accessing your system. You must perform all the operations as described to you by the CSR.

✍ You can change the access level during your call to SOS.

10 To end a call, click the Hang Up button.

11 Click the Close box at the top right corner of the SOS window or select Exit from the File menu to close the SOS window.

Troubleshooting

This section describes how to solve common problems you may encounter when using your computer. Many problems have simple solutions, so try these suggestions before you call Sony Online Support.

My computer won't start

- ☐ Check that the computer is plugged into a power source and that it is turned on. Check that the power indicator on the front panel of the computer indicates that the power is on.
- ☐ Check that the battery packs are inserted properly and that they are charged.
- ☐ Make sure there is no diskette in the floppy disk drive.
- ☐ Confirm that the power cord and all cables are connected firmly, as described in "Connecting Peripheral Devices" on page 39.
- ☐ If you plugged the computer into a power strip or UPS, make sure the power strip or UPS is turned on and working.
- ☐ If you are using an external display, check that it is plugged into a power source and turned on. Check that the brightness and contrast controls are adjusted correctly. See the manual that came with your display for details.
- ☐ Moisture condensation may have occurred. Do not use the computer for at least one hour and then turn on the computer.

My LCD does not display anything

- ☐ Check that the computer is plugged into a power source and that it is turned on. Check that the power indicator on the front panel of the computer is on.
- ☐ Check that the battery packs are inserted properly and that they are charged.
- ☐ Adjust the brightness of the LCD (page 20).
- ☐ The computer may be in Video Standby mode. Press any key to activate the display.
- ☐ The video output may be directed to an external display. Press Fn+F7 until video output appears on the LCD.
- ☐ The video output may be directed to a TV. Press Fn+F8 until video output appears on the LCD.

The screen image on my external display is not centered or sized properly

Use the controls on your external display to adjust the image. See the manual supplied with your display for more information.

The video image on my screen is too dark

If an external display is connected to the Monitor connector, disconnect the display.

My computer "locks up"

- ☐ Try restarting the computer. On the Windows taskbar, click the Start button, click Shut Down, and then click Restart the computer.
- ☐ If you cannot restart as described in the preceding step, you can restart the computer by pressing Ctrl+Alt+Delete.
- ☐ If the previous step does not work, slide the power switch toward the front and hold it for at least four seconds. This turns off the power.
- ☐ If your computer locks up while playing a CD-ROM, stop the CD-ROM, and restart the computer by pressing Ctrl+Alt+Delete.

✍ Pressing Ctrl+Alt+Delete may result in data loss in files that are currently open.

My software program "locks up" or crashes

Contact the software publisher or designated provider for technical support.

My CD-ROM drive tray won't open

- ☐ Check that the CD-ROM drive is properly inserted.
- ☐ Make sure the computer is turned on.
- ☐ Press the Eject button on the CD-ROM drive.
- ☐ If the Eject button does not work, you can open the CD tray by inserting a sharp, pointed object into the hole to the right of the Eject button.

I cannot play a CD-ROM disc

- ☐ Make sure the label of the CD-ROM is facing up.
- ☐ If the CD-ROM disc requires software, make sure the software is installed according to the program's instructions.
- ☐ Moisture condensation may have occurred. Leave the computer for at least 1 hour while the computer is turned on.
- ☐ Make sure the CD-ROM drive is properly inserted.
- ☐ Clean the CD-ROM disc.

- Check the speaker volume.

When I click an application icon a message appears, such as "You must insert the application CD into your CD-ROM drive", and the software does not start

- Some titles require specific files that are located on the application's CD-ROM disc. Insert the disc and try starting the program again.
- Make sure you place the disc in the tray with the label side facing up.

My floppy disk drive cannot write to a diskette

- The diskette is write-protected. Disable the write-protect feature or use a diskette that is not write-protected.
- Check that the diskette is properly inserted into floppy disk drive.

My speakers have no sound

- The built-in speakers are turned off. Press Fn+F3 to turn on the speakers.
- The speaker volume is turned to the minimum. Press Fn+F4, and then press ↑ or → to increase the volume.
- If your computer is powered by batteries, check that the battery packs are inserted properly and that they are charged.
- If you are using an application that has its own volume control, check that the volume is turned up.
- Check the volume controls in Windows 98.
- If you connect external speakers, check that the speakers are properly connected and the volume is turned up. If the speakers have a mute button, make sure it is off. If the speakers are powered by batteries, check that the batteries are inserted properly and that they are charged.
- If you have connected a headphone or an audio cable to the Headphone connector, disconnect the cable.
- If the CD-ROM drive is in the docking station's drive bay, you cannot hear sound from your computer's built-in speakers.

When I press Fn+F3, I see the message "Sound Disabled"

Click the System icon in the Control Panel. Change the settings under Device Manager so that sound is enabled.

My modem doesn't work

- Check that the phone line is plugged into the line jack. See "Connecting a Phone Line" on page 40 for details.

- ☐ Check that the phone line is working. You can check the line by plugging in an ordinary phone and listening for a dial tone.
- ☐ Check the PowerPanel modem setting. Select Modem On from the PowerPanel toolbar or menu.
- ☐ Check that the phone number the program is dialing is correct.
- ☐ Check that the software you are using is compatible with the notebook computer modem. (All preinstalled programs are compatible.) Call the software publisher or Sony Online Support.

My modem connection is slow

The computer's modem uses K56flex™ technology/V.90. Many factors influence modem connection speed, including telephone line noise or compatibility with telephone equipment (such as fax machines or other modems). If you think your modem is not connecting properly to other PC-based modems, fax machines or your Internet Service Provider, check the following:

- ☐ Have your phone company check that your phone line is free from any line noise.
- ☐ If your problem is fax-related, check that there are no problems with the fax machine you are calling and that it is compatible with fax modems.
- ☐ If you are having a problem connecting with your Internet Service Provider, check that the ISP is not experiencing technical problems.
- ☐ If you have a second phone line available, try connecting the modem to this line.

My microphone doesn't work

If you are using an external microphone, check that the microphone is plugged into the Microphone connector. See "Connecting an External Microphone" on page 47 for details.

My mouse doesn't work

If you are using an external mouse, check that the mouse is plugged into the mouse connector. See "Connecting an External Mouse or Keyboard" on page 45 for details.

My touchpad interprets a single tap as a double-click

Open the Mouse applet in the Control Panel and change the button assignments in the Mouse Properties dialog box. One of the buttons is assigned to the double-click action.

My computer does not shut down

It is best to shut down your computer using the Shut Down command on the Windows 98 Start menu. Using other methods, including those listed here, may result in loss of unsaved data. If the Shut Down command does not work properly, follow these steps:

- ❑ Restart the computer by pressing Ctrl+Alt+Delete. If this does not work, slide the power switch forward and hold it for at least four seconds to turn off the power.
- ❑ Unplug the computer from the AC adapter and remove the battery pack from your computer.

My PC card is not working

- ❑ Make sure the PC card is compatible with Windows 98.
- ❑ Use the Sony Notebook Setup utility to disable devices you are not currently using.

The sound of my computer's fan is too loud

Use the PowerPanel utility to change the Thermal Control Strategy setting to Quiet. This setting disables the fan. See the PowerPanel Help for more information.

My computer abrubtly enters power saving modes

Use the PowerPanel utility to adjust the power management timeout settings or to disable the power management features. See the PowerPanel Help for more information.

Using the System and Application Recovery CDs

The following sections describe how to use the System Recovery and Application Recovery utilities.

Using the System Recovery CD

You can reinstall software titles that shipped with your computer if they are corrupted or accidentally erased. You may not need to recover the entire contents of your hard drive. If you experience a problem with your computer, reinstalling an individual device driver or software title may correct the problem. Use the Application Recovery CD to reinstall individual applications or device drivers. See "Using the Application Recovery CD" on page 84.

The System Recovery CD contains a backup copy of the all the software originally installed on your hard disk drive. **It can be used only to recover the hard disk of the notebook computer you purchased.**

The System Recovery utility gives you three options:

- **Full Restore without Format** restores all the software titles that originally came with your computer without formatting the hard disk.
- **Full Restore with Format** formats the hard disk drive and then restores all the original software.
- **Operating System Only** restores the Windows 98 operating system, the notebook computer utility programs, and the device drivers that shipped with your computer.

> ! **If you choose the Full Restore with Format or Operating System Only option,your hard disk will be formatted, which removes all the information on the hard disk drive. You will lose any software you have installed and any other files you have created since you started to use your computer. This means you will have to reinstall any applications that were not included with the computer when you purchased it. If you choose the Full Restore without Format option, you may need to reinstall applications that were not included with the computer when you purchased it. If you have any questions on using the System Recovery CD, contact Sony Online Support (SOS).**

To use the System Recovery CD

✍ The CD-ROM drive must be inserted in the computer — not the docking station — to use the System Recovery CD.

You need to complete the Windows® 98 registration process when you use the System Recovery CD. Make sure you have the product ID number located on the cover of your Microsoft Windows 98 "Getting Started" manual..You will need this number to complete the recovery process.

1 Insert the Sony System Recovery CD in the CD-ROM drive.
2 Shut down your computer as described in "Shutting Down Your Computer" on page 13.
3 Wait four seconds and turn on your computer.
4 Click OK to signify you have read and accept the Microsoft End-User License Agreement.
5 When the System Recovery menu appears, follow the on-screen instructions to complete the recovery process.

✍ The recovery process takes between 30 to 60 minutes to complete.

If your computer does not start from the Recovery CD

1 Slide the power switch forward and hold it for more than four seconds to turn off the computer.
2 Turn on the computer while holding down the F2 key. The BIOS screen appears.
3 Press the Esc key. The Exit screen appears.
4 Select Get Default Value using the cursor keys and then press the Enter key.
5 Press the Esc key, and then press the Enter key. The computer restarts from the Recovery CD.

Using the Application Recovery CD

The Application Recovery CD allows you to reinstall individual applications and device drivers if they are corrupted or accidentally erased. Reinstalling an individual device driver or software title may correct a problem you are experiencing with your computer, and you may not need to recover the entire contents of your hard drive. If you do need to reinstall all the software titles that shipped with your computer, use the System Recovery CD. See "Using the System Recovery CD" on page 82.

You can also use the Application Recovery CD to install Windows NT Workstation 4.0 drivers on your computer.

✍ You must be in Windows to run the Application Recovery CD. The application will not run from DOS. If you have any questions on using the Application Recovery CD, contact Sony Online Support (SOS).

To use the Application Recovery CD

1 Turn on your computer. If your computer is already on, close all applications.

2 When the Windows desktop appears, insert the Sony Application Recovery CD in the CD-ROM drive. The Application Recovery utility loads automatically.

3 When the Application Recovery menu appears, follow the on-screen instructions to complete the recovery process or Windows NT installation.

Notes on Use

This section describes safety guidelines and precautions to help protect your computer from potential damage.

On Handling the LCD Screen

- Do not leave the LCD facing the sun as it can damage the LCD. Be careful when using the computer near a window.
- Do not scratch the LCD or exert pressure on it. This could cause malfunction.
- Using the computer in low temperature conditions may produce a residual image on the screen. This is not a malfunction. When the computer returns to normal temperature, the screen returns to normal.
- A residual image may appear on the screen if the same image is displayed for a lengthy period of time. The residual image disappears in a while. You can use a screen saver to prevent residual images.
- 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 appears on the LCD. This is a normal result of the manufacturing process and does not indicate a malfunction.

On the Power Source

- Your computer operates on 100V-240V AC 50/60 Hz.
- Do not share the AC outlet with other power-consuming equipment, such as a copying machine or shredder.
- You can purchase a power strip with a surge protector. This device prevents damage to your computer caused by sudden power surges such as those that may occur during an electrical storm.
- Do not place heavy objects on the power cord.

❑ To disconnect the cord, pull it out by the plug. Never pull the cord itself.

❑ Unplug your computer from the wall outlet if you will not be using the computer for a long time.

❑ When the AC adapter is not used, unplug it from the AC outlet.

❑ Use only the AC adapter supplied. Do not use any other AC adapter.

On Handling

❑ 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 computer.

❑ Should any solid object or liquid fall into the computer, shut down your computer and then unplug it. You may want to have the computer checked by qualified personnel before operating it any further.

❑ Do not drop the computer or place heavy objects on top of the computer.

On Installation

❑ Do not place your computer 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 50° F (10° C)
  ❑ High humidity

❑ Do not place electronic equipment near your computer. The computer's electromagnetic field may cause a malfunction.

❑ Provide adequate air circulation to prevent internal heat build-up. Do not place your computer 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 behind the back panel of the computer.

- ❑ The computer uses high-frequency radio signals and may cause interference to radio or TV reception. Should this occur, relocate the computer 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.
- ❑ Your computer will not work with party lines, cannot be connected to a coin-operated telephone, and may not work with multiple phone lines or a private branch exchange (PBX).
- ❑ If the telephone company makes a service call to your home or office and determines that your computer is responsible for a problem, the telephone company may bill you for the service call. Also, if you do not disconnect your computer when it is adversely affecting the telephone line, the telephone company has the right to disconnect your service until you correct the problem.

On Moisture Condensation

If the computer is brought directly from a cold location to a warm one, moisture may condense inside your computer. In this case, allow at least an hour before turning on your computer. If any problems occur, unplug your computer, and contact your Sony Service Center.

On Upgrading the System

- ❑ The procedures described in "Adding Memory" on page 90 assume familiarity with the general terminology associated with personal computers and with the safety practices and regulatory compliance required for using and modifying electronic equipment.
- ❑ Disconnect the system from its power source and from any telecommunications links, networks, or modems before you open the system or do any of the procedures described in "Adding Memory" . Failure to do so may result in personal injury or equipment damage.
- ❑ Electrostatic discharge (ESD) can damage disk drives and other components. Perform the procedures described in "Adding Memory" only at an ESD workstation. If such a station is not available, do not work in a carpeted area, and do not handle materials that produce or hold static electricity (cellophane wrappers, for example). Ground yourself by maintaining contact with an unpainted metal portion of the chassis while performing the procedure.

On Handling Diskettes

- ☐ Do not open the shutter manually and touch the surface of the diskette.
- ☐ Keep diskettes away from magnets.
- ☐ Keep diskettes away from direct sunlight and other heat sources.

On Handling CD-ROM Discs

- ☐ Do not touch the surface of the disc.
- ☐ Do not drop or bend the disc.

On Cleaning CD-ROM Discs

- ☐ Fingerprints and dust on the surface of a disc may cause read errors. Proper care of the disc is essential to maintain its reliability. Do not use solvents such as benzine, thinner, commercially available cleaners or anti-static spray, as they may cause damage to the disc.
- ☐ For normal cleaning, hold the disc by its edge and use a soft cloth to wipe the surface from the center out.
- ☐ If the disc is badly soiled, moisten a soft cloth with water, wring it out well, and use it to wipe the surface of the disc from the center out. Wipe off any remaining moisture with a dry soft cloth.

On Using Batteries

- ☐ Never leave the battery pack in temperatures above 140° F (60° C), such as in a car parked in the sun or under direct sunlight.
- ☐ Battery life is shorter in a cold environment. This is due to decreased battery efficiency at low temperatures.
- ☐ Charge the batteries at temperatures between 50° F and 80° F (10° C to 30° C). Lower temperatures require a longer charging time.
- ☐ While the battery is in use or being discharged, the battery pack heats up. This is normal and is not cause for concern.
- ☐ Keep the battery pack away from all sources of heat.
- ☐ Keep the battery pack dry.
- ☐ Do not open or try to disassemble the battery pack.
- ☐ Do not expose the battery pack to any mechanical shock.
- ☐ If you are not using the computer for an extended period of time, remove the battery pack from the computer to prevent damage to the battery.

- If, after fully charging the battery pack, the battery power is still low, the battery pack may be reaching the end of its life and should be replaced.
- You do not need to discharge the battery before recharging.
- If you have not used the battery pack for a considerable amount of time, recharge the battery.

On Using the Headphone

- **Road safety** – Do not use headphone while driving, cycling, or operating any motorized vehicle. It may create a traffic hazard and is illegal in some areas. It can also be potentially dangerous to play your headphone at high volume while walking, especially at pedestrian crossings. You should exercise extreme caution or discontinue use in potentially hazardous situations.
- **Preventing hearing damage** – Avoid using headphone at high volume. Hearing experts advise against continuous, loud and extended play. If you experience a ringing in your ears, reduce the volume or discontinue use.

On Maintenance

- Make sure to disconnect the power cord before cleaning the computer.
- Avoid rubbing the LCD screen as this can damage the screen. Use a soft, dry cloth to wipe the LCD screen.
- Clean the computer 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.

Adding Memory

In the future you may want to install memory modules to expand the functionality of your computer. You can increase memory to 256 MB by installing optional memory modules. There are two memory module slots in your computer. A 32 MB Expansion Memory Module and a 64 MB Expansion Memory Module are available as optional memory modules.

! **Make sure you observe the proper safety precautions when you install memory modules in your computer. See "On Upgrading the System" on page 87.**

Be careful when adding memory. Mistakes when installing or removing a memory module may cause a malfunction.

✍ Electrostatic discharge can damage electronic components. Before touching a memory expansion board, ensure the following:

- ☐ You are discharged of static electricity by touching a grounded metal object.
- ☐ Do not work in a carpeted area.
- ☐ Do not open the package of the memory module until ready for use. The package protects the memory module from electrostatic discharge.
- ☐ Use the special bag for preventing electrostatic discharge or use aluminum foil when you store the memory module.

Typical expansion memory configuration

Total System Memory (MB)	*Slot 1 (MB)*	*Slot 2 (MB)*
32*	32	Empty
64	64	Empty
64	32	32
96	64	32
128	64	64

** 32 MB is the default memory amount.*

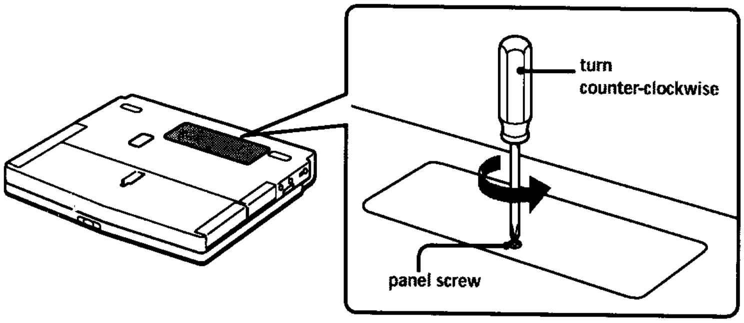
The memory options in Slot 1 and Slot 2 are interchangeable.

To install a memory module

1 Shut down your computer and disconnect all peripheral devices, such as your printer.

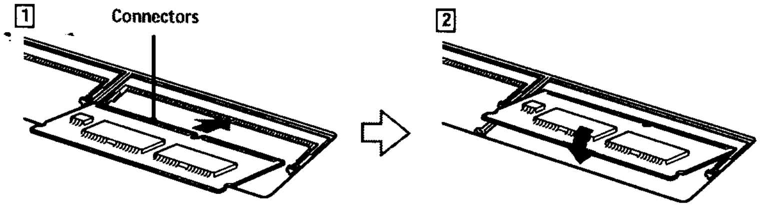
2 Unplug your computer and remove the battery packs.

3 Wait until the computer cools down. Then turn your computer upside down and open the cover on the bottom.



4 Remove the memory module from its packaging.

5 Install the memory module.



1	Slide the memory module into the slot.
2	The connectors snap into place when the board is correctly seated.

6 Close the cover and tighten the screws.

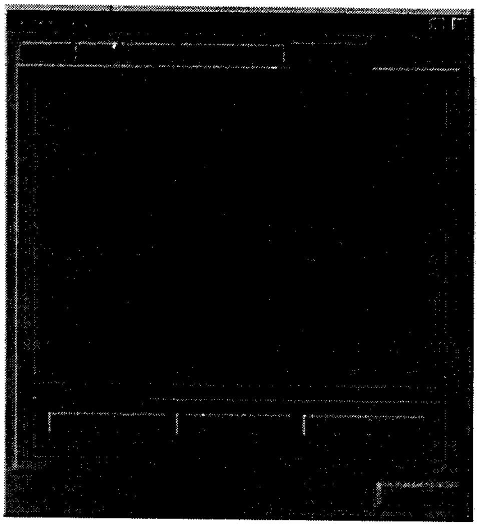
7 Turn on the computer.

8 Click the My Computer icon with the right button and select Properties.

The System Properties screen appears.

9 Click the Performance tab to view memory.

If the additional memory is not shown, repeat steps 1-9.



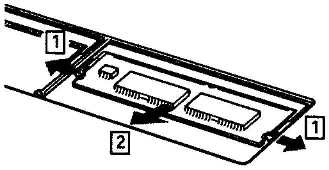
To remove a memory module

1 Shut down your computer and disconnect all peripheral devices.

2 Unplug your computer and remove the battery packs.

3 Turn your computer upside down and open the cover on the bottom.

4 Remove the memory module.



1	Pull the tabs in the direction of the arrows. The memory module is released.
2	Pull the memory module in the direction of the arrow.

5 Close the cover.

Limited Warranty Statement

Notebook Computer Warranty

The limited warranty on your Sony VAIO Notebook computer covers parts and labor against defects in material or workmanship for a period of three months from the original date of purchase. You can extend the warranty period for an additional nine months by registering your computer. See "Registering Your Computer" on page 15. Once you register your computer, the limited warranty period is twelve months from the original date of purchase.

There is a separate warranty for the battery included with your computer. See "Battery Limited Warranty" on page 97.

For the purpose of this Limited Warranty "SONY" means SONY ELECTRONICS INC. for Products purchased in the United States of America and Sony of Canada Ltd. for Products purchased in Canada. SONY warrants this computer hardware product ("the Product") against defects in material or workmanship as follows:

1. Labor: For a period of ninety (90) calendar days from the original date of purchase from SONY or a SONY authorized reseller, SONY will repair defects in material or workmanship in the Product at no charge, or pay the associated labor charges to a SONY authorized personal computer service facility. The ninety (90) day warranty period is extendible only to the original purchaser, for an additional period of nine (9) months, for a total of twelve (12) months from date of purchase when the Product is registered electronically prior to the expiry of ninety (90) days from the original date of purchase. After the applicable period you must pay for all labor charges.

2. Parts: For a period of ninety (90) calendar days from the original date of purchase from SONY or a SONY authorized reseller, SONY will supply, at no charge, new or rebuilt, at SONY's option, replacement parts in exchange for defective parts. Any replacement parts will be warranted for the remainder of the original warranty period or ninety (90) calendar days from installation by SONY's authorized personal computer service facility, whichever is longer. The ninety (90) day warranty period is extendible only to the original purchaser, for an additional period of nine (9) months, for a total of twelve (12) months from date of purchase when the Product is registered electronically prior to the expiry of ninety (90) days from the original date of purchase. All defective parts replaced under this Limited Warranty will become the property of SONY.

This Limited Warranty covers only the hardware components packaged with the Product. It does not cover technical assistance for hardware or software usage and it does not cover any software products whether or not contained in the Product; SONY excludes all warranties express or implied in respect of any software provided with the product and any such software is provided "AS IS" unless expressly provided for in any enclosed software limited warranty. Please refer to the End User License Agreements included with the Product for your rights and obligations with respect to the software.

This Limited Warranty is non-transferable. Proof of purchase in the form of a bill of sale (which is evidence that the Product is within the warranty period) must be presented to obtain warranty service. In addition, if replacement parts are required and you wish to receive the most expedient service available, you will be required to provide SONY with a credit card authorization to bill your credit card in the event you fail to return the original parts in the postage-paid envelope we provide. The credit card will only be charged for SONY's list price for the part if the original part has not been returned within thirty (30) days.

In respect of certain components you may be entitled to express warranty service during the warranty period, subject to certain restrictions. Please contact SONY as indicated below for further information.

With respect to all service provided, it is your responsibility prior to Product service to backup the contents of your hard drive, including any data you have stored or software you have installed on the hard drive. It is likely that the contents of your hard drive will be lost or reformatted in the course of service and SONY will not be responsible for any damage to or loss of any programs, data or other information stored on any media or any part of any Product serviced hereunder or any consequential damages resulting therefrom.

IF DURING THE REPAIR OF THE PRODUCT THE CONTENTS OF THE HARD DRIVE ARE ALTERED, DELETED, OR IN ANY WAY MODIFIED, SONY IS NOT RESPONSBILE WHATSOEVER. YOUR PRODUCT WILL BE RETURNED TO YOU CONFIGURED AS ORIGINALLY PURCHASED (SUBJECT TO AVAILABILITY OF SOFTWARE).

Be sure to remove all third party hardware, software, features, parts, options, alterations, and attachments not warranted by SONY prior to sending the Product to SONY for service. SONY is not liable for any loss or damage to these items.

This Limited Warranty does not cover any consumable items (such as batteries) supplied with this Product; cosmetic damages; damage or loss to any software programs, data, or removable storage media; or damage due to (1) acts of God, accident, misuse, abuse, negligence, commercial use or modifications of this Product; (2) improper operation or maintenance of this Product; (3) connection to improper voltage supply; or (4) attempted repair by any party other than a SONY authorized personal computer service facility. This Limited Warranty does not apply when the malfunction results from the use of this Product in conjunction with accessories, products or ancillary or peripheral equipment, or where it is determined by SONY that there is no fault with this Product itself. This Limited Warranty is valid only in the United States of America and Canada. This Limited Warranty is invalid if the factory applied serial number has been altered or removed from the Product.

Repair or replacement of defective parts or hardware as provided under this Limited Warranty is the exclusive remedy of the consumer. SONY SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES OR OTHER DAMAGES INCLUDING BUT NOT LIMITED TO, LOSS OF PROFITS, LOSS OF REVENUE, LOSS OF DATA, LOSS OF USE OF THE PRODUCT OR ANY ASSOCIATED EQUIPMENT, DOWN TIME AND PURCHASER'S TIME. FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY, BREACH OF CONTRACT, NEGLIGENCE, STRICT LIABILITY OR ANY OTHER LEGAL THEORY RELATED TO THIS PRODUCT. EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON THIS PRODUCT IS LIMITED IN DURATION TO THE DURATION OF THIS WARRANTY.

Some states or provinces do not allow the exclusion or limitation of incidental or consequential damages, or allow limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you. This Limited Warranty gives you specific legal rights, and you may have other rights which vary from state to state, or province to province.

Technical Support: Although technical support is not provided free of charge under this Limited Warranty, SONY has established a telephone number for technical support. Charges may apply for technical support, unless and to the extent that free technical support for a limited period is provided in writing as a feature of your Product. Prior to placing your call, please have available the model and serial number for your Product, date of purchase, a list of all options installed in your Product and a detailed description of the problem.

For Product support, on-line knowledge base, frequently asked questions, and free updates via the Internet: http://www.ita.sel.sony.com/support/pc/

For Product information, service assistance, resolution of a service problem, or technical assistance, call: 1-888-4SONYPC (476 - 6972)

Save this for future reference.

© 1998 Sony Electronics Inc. and Sony of Canada Ltd. Reproduction in whole or in part without written permission is prohibited. All rights reserved. SONY is a registered trademark of Sony.

GARANTIE RESTREINTE

SONY DU CANADA LTÉE ("SONY") garantit comme suit ce Produit d'ordinateur ("le Produit") contre tous vices de matières premières et de fabrication :

1. Main-d'oeuvre : Pendant une période de quatre-vingt-dix (90) jours à compter de la date d'achat originale chez SONY ou chez un de ses revendeurs autorisés, SONY réparera le Produit à ses frais ou en remboursera les frais de main-d'oeuvre au centre de réparation d'ordinateur personnel autorisé SONY. La période de garantie de quatre-vingt-dix (90) jours peut être prolongée au bénéfice de l'acheteur original pour une période additionnelle de neuf (9) mois, soit un total de douze (12) mois à compter de la date d'achat, lorsque le Produit est enregistré électroniquement. Après la période applicable, l'acheteur doit payer tous les frais de main-d'oeuvre.

2. Pièces : Pendant une période de quatre-vingt-dix (90) jours à compter de la date d'achat originale chez SONY ou chez un de ses revendeurs autorisés, SONY fournira à ses frais des pièces de rechange neuves ou reconstruites, à sa discrétion, en échange des pièces défectueuses. Ces pièces de remplacement seront garanties pour le reste de la période originale de garantie ou pour quatre-vingt-dix (90) jours à compter de leur installation par un centre de service d'ordinateur personnel autorisé SONY, au plus long des deux termes. La période de garantie de quatre-vingt-dix (90) jours peut être prolongée au bénéfice de l'acheteur original pour une période additionnelle de neuf (9) mois, soit un total de douze (12) mois à compter de la date d'achat, lorsque le Produit est enregistré électroniquement. Toutes les pièces défectueuses remplacées au titre de cette garantie restreinte deviennent la propriété de SONY.

Cette garantie restreinte couvre uniquement les composants physiques emballés avec le Produit. Elle n'inclut pas l'assistance technique en rapport avec l'utilisation du matériel ou du logiciel et ne couvre aucun logiciel, qu'il soit ou non fourni avec le Produit. Les logiciels sont fournis "TELS QUELS" à moins d'être expressément couverts par une autre garantie restreinte spécifique. Veuillez vous reporter aux Contrats de licence d'utilisation accompagnant le Produit quant à vos obligations en rapport avec les logiciels.

Cette garantie restreinte est incessible.

Pour vous prévaloir du service au titre de la garantie, vous devrez présenter une preuve d'achat sous forme de facture de vente attestant que le Produit est couvert par la garantie en vigueur. Par ailleurs, si des pièces doivent être remplacées et que vous désirez obtenir le service le plus rapide possible, vous devrez fournir à SONY une autorisation lui permettant d'en porter le montant à votre carte de crédit advenant que vous négligiez de retourner les pièces originales dans l'enveloppe affranchie qui vous est fournie. Seul le prix courant de SONY pour cette pièce sera porté à votre carte de crédit si la pièce ne lui est pas retournée dans un délai de trente (30) jours.

Vous pouvez avoir droit au service de garantie exprès durant la période de garantie, sous réserve de certaines restrictions. Pour tout renseignement, veuillez communiquer avec SONY de la façon indiquée ci-après.

Vous avez l'entière responsabilité de faire une copie de sauvegarde du contenu du disque dur, incluant toute donnée en mémoire ou tout logiciel que vous y avez installé. Il est fort probable que le contenu du disque dur sera reformaté ou perdu en cours de service et SONY ne pourra être tenue responsable d'aucun dommage ni de la perte des programmes, des données ou de toute autre information gardée en mémoire sur tout support d'information ou sur toute partie de tout Produit en réparation.

SI, DURANT LA RÉPARATION DU PRODUIT, LE CONTENU DU DISQUE DUR EST ALTÉRÉ, SUPPRIMÉ OU MODIFIÉ, SONY N'EN SERA AUCUNEMENT RESPONSABLE. LE PRODUIT VOUS SERA RETOURNÉ TEL QU'IL ÉTAIT CONFIGURÉ QUAND VOUS L'AVEZ ACHETÉ (SOUS RÉSERVE DE LA DISPONIBILITÉ DU LOGICIEL).

Avant d'envoyer le Produit à SONY pour le faire réparer, assurez-vous d'en retirer tous produits de tierce partie, logiciels, caractéristiques, pièces, options, altérations et accessoires non garantis par SONY car SONY n'est pas responsable de la perte ou de l'endommagement de ces articles.

Cette garantie restreinte exclut les articles consommables (comme les batteries) fournis avec le Produit ; les dommages cosmétiques ; l'endommagement ou la perte des logiciels, données et supports informatiques amovibles ; les dommages dus à 1) un cas fortuit, un accident, une mauvaise utilisation, un abus, une négligence, une utilisation commerciale ou une modification du Produit ; 2) l'utilisation ou l'entretien incorrect du Produit ; 3) le branchement à une source électrique non conforme ; ou 4) toute tentative de réparation par tout autre qu'un centre de service d'ordinateur personnel autorisé SONY. Cette garantie restreinte ne s'applique pas si la défectuosité est causée par l'utilisation du Produit en conjonction avec des accessoires, articles ou équipements périphériques ou connexes, ou si SONY détermine que le Produit lui-même ne comporte aucun défaut. Cette garantie restreinte n'est valide qu'au Canada.

Cette garantie restreinte est nulle si le numéro de série appliqué en usine a été modifié ou enlevé du Produit.

La réparation ou le remplacement du matériel ou des pièces défectueuses tel que prévu au titre de cette garantie est le seul recours de l'acheteur. SONY NE SERA AUCUNEMENT RESPONSABLE DE TOUT DOMMAGE INDIRECT OU CONSÉCUTIF POUR DÉROGATION À TOUTE GARANTIE EXPRESSE OU TACITE, RUPTURE DE CONTRAT, NÉGLIGENCE, RESPONSABILITÉ STRICTE OU TOUTE AUTRE THÉORIE JURIDIQUE EN RAPPORT AVEC CE PRODUIT. DE TELS DOMMAGES INCLUENT, ENTRE AUTRES, LE TEMPS DE L'ACHETEUR, LA PERTE DE PRODUCTIVITÉ, DE REVENUS ET DE PROFITS, ET LA PERTE DE DONNÉES OU D'UTILISATION DU PRODUIT OU DE TOUT ÉQUIPEMENT CONNEXE. SAUF DANS LA LIMITE OÙ LA LOI APPLICABLE L'INTERDIT, TOUTE GARANTIE TACITE DE VALEUR MARCHANDE OU DE CONVENANCE À UNE FIN PARTICULIÈRE DE CE PRODUIT EST RESTREINTE DANS SA DURÉE À LA DURÉE DE CETTE GARANTIE.

Certaines provinces ne permettent pas l'exclusion ou la restriction des dommages accidentels ou indirects et n'admettent pas de limites quant à la durée d'une garantie tacite, de sorte que les exclusions/restrictions exprimées ci-dessus peuvent ne pas s'appliquer. Cette garantie vous donne des droits spécifiques et vous pouvez en avoir d'autres qui varient selon la province.

Soutien technique : Bien que le soutien technique ne soit pas offert gratuitement au titre de cette garantie restreinte, SONY a prévu une ligne téléphonique à cet effet. Des frais peuvent être exigés à moins que le soutien technique gratuit et temporaire ne soit expressément indiqué par écrit comme caractéristique de votre Produit. Avant de placer l'appel, assurez-vous d'avoir les numéros de modèle et de série du Produit, la date d'achat, la liste des options qui y sont installées et une description détaillée du problème.

Vous trouverez sur l'Internet un appui direct, une base de renseignements, une foire aux questions et des mises à jour gratuites sous http://www.ita.sel.sony.com/support/pc/

Pour de l'information sur les produits, de l'aide avec le service, la résolution de problèmes de service ou pour une aide technique, veuillez composer le 1-888-4SONYPC (476-6972).

À conserver pour référence future.

©1998 Sony du Canada Ltée. Reproduction partielle ou complète interdite sans autorisation écrite préalable. Tous droits réservés. SONY est une marque déposée de Sony.

Battery Limited Warranty

The limited warranty on the battery included with your Sony VAIO Notebook Computer covers defects in material or workmanship for a period of 30 days from the original date of purchase. This warranty is not extendible.

For the purposes of this Limited Warranty, "SONY" means Sony Electronics Inc. for Products purchased in the United States of America and Sony of Canada Ltd. for Products purchased in Canada. Sony warrants this Product against defects in material or workmanship for thirty (30) days from your purchase date. If this Product is determined to be defective, SONY will replace the Product at no charge to you. This Limited Warranty contains your exclusive remedy. SONY shall not be liable for any incidental or consequential damages for breach of any express or implied warranty on this product. Some states and provinces do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights which vary from state to state or province to province. For information on obtaining warranty service, please call SONY at 1-888-4SONYPC (1-888-476-6972).

GARANTIE RESTREINTE

Au titre de cette garantie restreinte, "SONY" signifie Sony du Canada Ltée pour les produits achetés au Canada et Sony Electronics Inc. pour les produits achetés aux États-Unis. SONY garantit ce produit contre tous vices de matières premières et de fabrication pour trente (30) jours à compter de la date d'achat. Si ce produit est reconnu défectueux, SONY le remplacera à ses frais. Cette garantie restreinte est votre seul recours. SONY ne sera aucunement responsable de tout dommage indirect ou consécutif pour dérogation à toute garantie tacite ou expresse sur ce produit. Certaines provinces ne permettent pas l'exclusion ou la-restriction des dommages accidentels ou indirects, de sorte que les exclusions/ restrictions exprimées ci-dessus peuvent ne pas s'appliquer. Cette garantie vous donne des droits spécifiques et vous pouvez en avoir d'autres qui varient selon la province. Pour de l'information sur le service au titre de la garantie, veuillez appeler Sony au 1-888-4SONYPC (1-888-476-6972).

Index

A
About This Computer tab **64**
AC adapter **5, 8**
AC power **8**
AC Profile power setting **65**
accessing online support **14**
adding
    hardware **39**
    memory **90**
    peripherals **39**
    printers **41**
adjusting
    brightness **20**
    contrast **20**
air circulation **86**
Alt key **17**
Application Recovery CD **84**
Applications key **17**
audio CDs **57**
Audio-Video Center,using **56**

B
Basic/Advanced tab **64**
battery bay **6**
battery packs **5, 9, 88**
    charge status icons **69**
    charging **10, 36**
    indicator light status **10**
    indicator lights **5, 10, 19, 35**
    inserting **9**
    inserting into battery bay **9**
    loading **9**
    power status **10**
    rechargeable **8**
    removing **11, 35, 36**
BatteryScope utility **68, 70**
brightness
    adjusting **20**
built-in speakers **5**
    See also speakers **20**
buttons
    Call SOS **76**
    Eject **26, 27**
    Expand **58**
    Finish **14**
    left **5**
    Restore **58**
    right **5**
    Start (Windows 98) **13, 63**

C
cables
    floppy disk drive **5**
    phone **5**
    power cord **5**
    video **5**
Call SOS button **76**
cameras
    Sony Digital Still **48**
canceling commands **17**
Caps Lock **5**
    indicator light **19**
CD drive tray
    troubleshooting **78**
CD-ROM discs
    cleaning **88**
    ejecting **20, 27**
    handling **88**
    inserting **26**
    troubleshooting **78**

CD-ROM drive
  closing tray **27**
  connecting **26**
  Music/Movie Player **57**
  opening tray **26**
  troubleshooting **78**
  using **26**
changing
  display size **21**
charge status indicator light **10**
charging battery packs **10, 36**
choosing
  power source **9**
cleaning computer **86**
coin-operated telephones **40**
computer
  cleaning **86**
  condensation **87**
  customizing **63**
  lithium ion battery **v**
  setting up **5**
  setup screen **63**
  starting **12**
  troubleshooting **77, 78**
  upgrading **87**
connecting
  CD-ROM drive **26**
  coin-operated telephones **40**
  digital still camera **48**
  external keyboard **45**
  external mouse **45**
  external speakers **46**
  floppy disk drive **23**
  hard drives **29**
  keyboard **45**
  microphone **47**
  monitor **42**
  multimedia computer display **43**
  multiple phone lines **40**
  network **29**
  party phone lines **40**
  PBX **40**
  phone line **40**
  power source **8**
  printer **41**
  projector **44**
  serial device **48**
  USB device **49**
  weight saver **37**
connectors
  DC In **7, 8**
  FDD/Printer **7, 23, 41**
  headphone **6**
  infrared **7, 31**
  keyboard **5, 7**
  Line In **6**
  microphone **5, 6**
  monitor
  mouse **7**
  phone line **7**
  printer **41**
  Serial port **7**
  USB **7**
contrast
  adjusting **12, 20**
correction keys **16, 17**
Ctrl key **17**
cursor-movement keys **17**
customer assistance
  support options **73**
customizing your computer **63**

D
DC In **7, 8**
digital still camera **31**
  connecting **48**
diskettes
  ejecting **25**
  handling **88**
  inserting into drive **24**
  troubleshooting **79**
display
  changing size **21**
  mode **71**
  options **44**
  See also monitor
  selecting **44**
disposal of lithium ion battery **v**
drive bay **7**
  weight saver **37**
drives **28**
  CD-ROM **26, 28**

  floppy disk **5, 23**
  installing additional hard disk **29**

E
Eject button **25, 26, 27**
Eject lever **24, 25, 28, 36, 37**
ejecting
  battery packs **36**
  CD-ROM discs **20, 27**
  diskettes **25**
  weight saver **37**
electronic
  documentation **73**
Enable Ports tab **64**
ergonomic considerations **2, 3**
Escape key **17**
Expand button **58**
expansion memory module **90**
Express Service technical support **15**
external devices
  display **3, 44**
    See also monitor
  keyboard **45**
  mouse **45**
  speakers **20, 46**

F
faxes
  laws governing **v**
FDD/Printer connector **7, 23, 41**
Finish button **14**
floppy disk drive **5**
  bay **7**
  cable **5**
  connecting **23**
  disconnecting **25**
  troubleshooting **79**
Fn key **17**
  combination commands **20**
function keys **16, 17**

G
glare **2**

H
handling
  audio CDs **88**
  CD-ROM discs **88**
  diskettes **88**
Hard Disk Standby power setting **66**
hard drives **6**
  indicator light **5, 19**
  installing additional **29**
hardware
  installing memory modules **91**
headphone **5**
  connector **6**
  precautions **89**
headphones **43**
Help
  Mouseware **22**
  Music/Movie Player **58**
help **73**
Help Center,using **62**
help, getting **62**

I
indicator lights **19**
  battery **5, 10, 19, 35**
  Caps Lock **5, 19**
  charge status **10**
  hard drive **5, 19**
  Num Lock **5, 19**
  power **5**
  Scroll Lock **5, 19**
infrared communication devices **31**
  other computers **31**
infrared port **7, 31**
Infrared tab **64**
infrared transmission
  active distance **32**
  troubleshooting **32**
input devices **iv**
Insert key **17**
inserting
  battery pack **9**
  diskettes into drive **24**
installing
  hard drives **29**
  hardware **39**
  memory **29, 90**
  memory modules **91**

  peripherals **39**
interference **iii, 86**
internal speakers
  See speakers
Internet **59**

K
keyboard **17**
  connecting **45**
  connector **5, 7, 45**

L
LCD **71, 85**
  lock lever **12**
  reducing glare **2**
  selecting to display output **44**
  troubleshooting **77, 78**
left button **5**
lever
  eject **24, 25, 28, 36, 37**
  LCD **12**
lighting **2**
Limited Warranty **93**
Limited Warranty card **15**
Line In **6**
Liquid Crystal Display screen
  See LCD
lithium ion battery
  disposal **v**
  safety precautions **v**
loading
  battery pack **9**
location for computer **2**

M
maintenance **86, 89**
Maximum Battery Life power setting **65**
Maximum Performance power setting **65**
memory module **90, 91**
  installing **29, 91**
  removing **92**
microphone **6**
  connecting **47**
  connector **5, 43**
  troubleshooting **80**
modem
  laws governing **v**
  troubleshooting **79**
moisture condensation **87**
monitor **7, 71**
  connecting **42**
  connector **43**
  selecting **44**
  switching among **20**
mouse
  connecting **45**
  connector **7**
  troubleshooting **80**
Mouse Properties screen **22**
Mouseware
  accessing help **22**
  features **22**
multimedia computer display **43**
multiple phone lines **40**
Music/Movie Player
  help **58**
  PlayBack Control **58**
  Player bar **57**

N
navigation keys **16, 17**
network
  connecting **29**
Notebook Computer **5**
Notebook Setup tabs **64**
Notebook Setup utility **23**
Num Lock **5**
  indicator light **19**
numeric keypad area **16**

O
online
  help **73**
  support
    options **73**
Online Center,using **59**
online support **15**
opening
  CD-ROM drive tray **26**
operator keys **17**

output devices **iv**
    adding **41**

P

party phone lines **40**
PBX **40**
PC card
    inserting **29**
    release button **29, 40**
    removing **30**
    slot protector **30**
    slots **7, 29**
    troubleshooting **81**
    Type III **29**
PCMCIA Control power setting **66**
Performance tab **91**
phone
    cable **5**
    connecting line **40**
    jack **7, 40**
    laws governing **v**
PlayBack Control **58**
Player bar **57**
playing
    audio CDs **57**
    CD-ROM discs **57**
    video CDs **57**
power **19**
    cord **5**
    indicator light **5**
    switch **6, 12**
Power Management
    toolbar **67**
power management
    settings **65**
Power Management Off power setting **65**
Power On
    Device Sequence tab **64**
    Password tab **64**
power saving modes **33**
    System Hibernation **20, 33**
    System Suspend **33**
    Video Standby **21**
power setting
    AC Profile **65**
    Maximum Battery Life **65**
    Maximum Performance **65**
    PCMCIA Control **66**
    Power Management Off **65**
    System Hibernation **66**
    System Suspend **66**
    Video Standby **66**
power sources **9, 85**
    connecting **8**
power standby
    Hard Disk Standby **66**
PowerPanel
    activating **67**
    customizing toolbar **65, 66**
precautions **86**
Print Screen key **17**
printer **7**
    connecting **41**
    connector **23, 41**
    port **41**
Printer tab **64**
problems, analyzing and fixing **60**
projector **44**

R

radio interference **iii, 86**
rechargeable battery packs **8, 9**
recharging battery packs **10**
Recovery CD **84**
registering
    Windows 98 **14**
    your computer **15**
regulatory information **iii**
removing
    battery packs **11**
    diskettes **25**
    floppy disk drive **25**
    memory module **92**
replacing
    battery packs **35**
Restore button **58**
restoring data **84**
right button **5**

S

screen

    See LCD
Scroll Lock **5**
    indicator light **19**
second battery pack **9, 35**
selecting
    display **44**
    LCD **44**
    monitor **44**
    power source **9**
Serial connector **7, 48**
serial devices
    connecting **48**
    digital still camera **48**
setting up
    Windows 98 **14**
setup screen
    About This Computer tab **64**
    Basic/Advanced tab **64**
    displaying **63**
    Enable Ports tab **64**
    Infrared tab **64**
    Power On Device Sequence tab **64**
    Power On Password tab **64**
    Printer tab **64**
    Touchpad tab **64**
setup tabs **64**
Shift key **17**
Shut Down Windows dialog box **13**
Software Center, using **55**
software support **15**
Sony Fax-on-Demand service **73**
Sony Notebook Setup screen **63**
Sony Notebook Setup utility **23**
Sony Online Support **15**
    call instructions **75**
    Call SOS button **76**
    options **73**
    SOS screen **75**
SOS
    See Sony Online Support
speakers **5**
    built-in **5**
    external **46**
    switching **20**
    troubleshooting **79**
    volume **20**
Start button **13, 63**
starting
    computer **12**
startup problems **13**
switching
    display **20**
    monitor **20**
System Hibernation mode **20, 33, 66**
system problems, fixing **60**
System Suspend mode **20, 33, 66**

T
technical support **15**
    support options **73**
Tool Center,using **60**
touchpad **5, 22**
Touchpad tab **64**
troubleshooting **77**
    startup **13, 77**
turning on
    computer **12**
TV
    interference **86**
TV interference **iii**

U
upgrading
    computer **87**
USB
    connecting **49**
    connector **7, 49**

V
VAIO Space
    Audio-Video Center **56**
    exiting **62**
    Help Center **62**
    Online Center **59**
    Software Center **55**
    starting **51**
    Tool Center **60**
    using **51–62**
    using the Launcher **51, 53**
    Video Player **56**
ventilation **86**
video cable **5**

Video Player, using **56**
Video Standby mode **21**

W
warranty **15, 93**
weight saver **5**
  attaching **35**
  connecting **37**
  removing **37**
Windows 98
  Certificate of Authenticity **14**
  Control Panel **31**
  Explorer **18**
  Find window **18**
  Finish button **14**
  help **18**
  key **17**
  key combinations **18**
  License Agreement **14**
  registering **14**
  setup **14**
  Setup Wizard screen **14**
  Start button **13**
  taskbar **13, 78**

SONY

VAIO® Notebook Computer Read Me First

PCG-748

NOTICE

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.

Sony, DVgate, i.LINK, Mavica, PictureGear, VAIO, and the VAIO logo are registered trademarks of Sony. Windows and the Windows 98 logo are registered trademarks of Microsoft Corporation. Intel, MMX, and Pentium are trademarks of Intel Corporation.

All other trademarks are trademarks or registered trademarks of their respective owners.

Contents

Welcome 1
Features...1
Unpacking Your Notebook Computer..2
Supplementary Information 4
For Answers to Your Software Questions 8
Specifications...10

Welcome

Congratulations on your purchase of the Sony Notebook Computer. Sony has combined leading-edge technology in audio, video, computing, and communications to provide you with state-of-the-art personal computing.

Features

✍ For a complete description of the specifications of your VAIO Notebook Computer, see page 8.

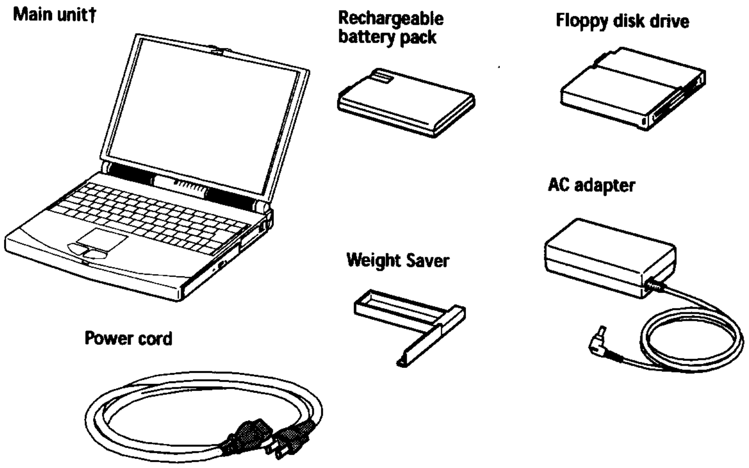
- ☐ **Exceptional performance**: Your notebook includes a fast Intel® Pentium processor with MMX technology, and a V.90 compatible data/fax modem.*
- ☐ **Portability** – The rechargeable battery pack provides hours of use without AC power. See "To charge the battery pack" in the User Guide for specific information on your model.
- ☐ **Sony audio and video quality** – High-quality MPEG1 video, which supports full-screen display (13.0-inch Active Matrix LCD screen) and enables you to take advantage of today's advanced multimedia applications, games, and entertainment software.
- ☐ **Windows® 98** –Your system includes the latest operating system from Microsoft.
- ☐ **Communications** – Access popular online services, send e-mail, browse the Internet, and use fax features.
- ☐ **50 free hours of Internet access** – Use the Internet for up to 50 free hours when you sign up with GTE (no credit card required). Limit of two hours per day. Free access expires after 50 hours of use or 90 days after signing up—whichever occurs first.
- ☐ **VAIO Space**: Sony's original navigation utility, which helps simplify the use of applications on your computer more efficiently.

---

* Actual upload and download speeds may vary due to line conditions, ISP support, and government regulations.

Unpacking Your Notebook Computer

Remove the following hardware items from the box:


Main unit†
Rechargeable battery pack
Floppy disk drive
AC adapter
Weight Saver
Power cord

Manuals

- ☐ *Read Me First* (this manual) contains specifications, software support numbers, and quick tips on specific hardware and software issues.
- ☐ The *VAIO Notebook Computer User Guide* describes how to set up, use, and upgrade your notebook computer.
- ☐ The *Microsoft® Windows®98 Getting Started* manual explains how to use the basic features of the Windows operating system.

Recovery CDs

- ☐ System Recovery CD(s)
- ☐ Application Recovery CD(s)

Other

- ☐ Setting up your VAIO Notebook Computer (poster)
- ☐ Packet containing special product offers

Supplementary Information

For the most recent version of this manual, see the online version of *Read Me First*. You can access this document in the Help Center/Step 1 Troubleshooting on the Windows Start Menu.

Power Management Tips

- ☐ If you find that an application exhibits unexpected behavior (such as reduced video quality) after returning from a reduced power consumption mode, you should close that application before your computer enters a power-saving mode.
- ☐ When playing MPEG files, use PowerPanel to select the maximum performance power saving mode.
- ☐ For maximum audio and video performance, use PowerPanel to select either the AC Power Profile or the Power Management Off profile.
- ☐ If your battery level falls to less than 10%, you should either attach the AC adapter to recharge the battery or shut down your computer and insert a fully charged battery

Hardware Temperature

The AC adapter or the bottom panel of your computer may become warm. This is the result of CPU operation and does not indicate a malfunction of the computer. The actual temperature varies depending on the peripherals and software you are using and the length of time that the unit is in use.

Applications That Use the TWAIN Driver

- ☐ Digital imaging applications, such as Adobe PhotoDeluxe® Business Edition, allow you to transfer images to your PC from an external device, such as a scanner or digital camera. When you select a device, a TWAIN driver window appears on the screen. You should always close the TWAIN driver window before exiting or minimizing a digital imaging application.
- ☐ To transfer images from a Sony DSC-F1 camera to your notebook computer, make sure the function dial on the camera is set to Play.

Using the Touchpad

In addition to using the left and right buttons for mouse clicks, you can tap on the touchpad to indicate mouse clicks. By default, the tapping feature is disabled. If you wish to turn on the tapping feature, double-click the Mouse icon in the Control Panel, select the Touchpad tab, and click the check box to enable tapping.

Outlook™ 98

- ☐ In order for the Add New Components functionality to be available with Microsoft® Outlook, you must first run the installation program for Outlook from the Application Recovery CD. When prompted to install the program, select Exit. This decompresses the software, making the Add New Components functionality available.
- ☐ If you restore Outlook 98 from the Application Recovery CD and wish to use its fax capability, you should follow these steps after restoring Outlook:

1. Click the Start button on the Windows® taskbar.
2. Point to Settings and click Control Panel.
3. Click Add/Remove Programs.
4. Double-click Microsoft Outlook 98.
5. Click the Add New Components button.
6. Click the Install from CD button. (You do not need to insert a CD. Internet Explorer launches at this point.)
7. In the dialog box that says "Active Setup is about to determine what internet components are installed on your computer", click the Yes button.
8. Check the box next to "Symantec Winfax Starter Edition".
9. Click the Next button.
10. Click the Install Now button.
11. When the installation is complete, click the OK button.
12. Click Yes to restart your computer.

Sending and Receiving Faxes Using Microsoft Outlook

If you wish to use Microsoft Outlook to send and receive faxes, you must complete the Internet Connection Wizard the first time you use Outlook. To complete this Wizard, you need information on the name of your display, your e-mail address, and your incoming and outgoing mail servers.

When you launch Outlook, the Internet Connection Wizard appears. Follow the on screen instructions. When the Symantec WinFax Starter Edition Setup Wizard automatically appears, follow the on screen instructions. On the Auto Receive panel, select the checkbox for Automatic receive fax. To select the modem that ships with your VAIO computer, select Sony Internal Modem on the Modem panel. Click the Properties button to confirm the correct modem properties. When this is complete, click the OK button. When you complete the Modem Configuration Wizard panel, you receive a message indicating successful configuration.

The Registration Wizard screen appears on your screen. After you complete this Wizard, Outlook launches. You must close and restart Outlook before you can send or receive faxes.

If you experience difficulties completing this process, call Sony Online Support before cancelling out of the setup process.

Free Internet Access

Use the Internet for up to 50 free hours when you sign up with GTE (no credit card needed). Limit of two hours per day. Free access expires at 50 hours or 90 days after signing up, whichever occurs first.

! **Do not cover the computer or adapter with clothing or blankets when the computer is turned on. Covering these components may result in damage to your unit.**

When connecting the supplied AC adapter to an AC outlet that has more than two outlets, do not plug the AC adapter into an outlet that is obstructed by another adapter. To prevent fire or electrical shock, the adapter must be firmly plugged into the outlet. If necessary, use a separate AC outlet.

For Answers to Your Software Questions

Sony Service Center

For the Sony Service Center nearest you, call at 1-888-4SONY PC (1-888-476-6972).

Acrobat® Reader, Adobe PhotoDeluxe® Business Edition (Adobe Systems Incorporated)

website	http://www.adobe.com/
phone	206-628-2746 (fee-based support)
fax	206-628-5737
e-mail	techdocs@adobe.com
hours	M-F, 6 AM-5 PM PT

America Online® (America Online)

website	http://www.aol.com/
phone	800-827-3338
hours	7 days a week, 6 AM - 2 PM ET

CompuServe® Interactive (CompuServe Interactive, Inc.)

website	http://www.compuserve.com/
phone	800-848-8990
hours	M-F, 8 AM - 1 PM ET, S-S 10 AM - 10 PM ET

Dr. Solomon's AntiVirus (Dr. Solomon's Software Inc.)

website	http://www.drsolomon.com/
phone	888-377-6566
e-mail	support@us.drsolomon.com
hours	7 days a week, 24 hours a day

Easy Internet Access (Encompass, Inc.)

website	http://www.encmpss.com/
phone	800-927-3000
hours	7 days a week, 24 hours a day.

Windows 98 Operating System, Works, Money, Internet Explorer (Microsoft Corporation)

website	http://www.microsoft.com/support/
phone	888-4SONY PC (888-476-6972)*
hours	7 days a week, 24 hours a day

**Support from 1-888-4SONY PC is free of charge for 90 days after the original date of purchase.*

Netscape Communicator® (Netscape Communications Corporation)

website	http://www.netscape.com/
phone	888-4SONY PC (888-476-6972)*
hours	7 days a week, 24 hours a day

**Support from 1-888-4SONY PC is free of charge for 90 days after the original date of purchase.*

Quicken® Basic (Intuit Inc.)

website	http://www.intuit.com/support/
phone	900-555-4688
hours	7 days a week, 24 hours a day

Specifications

Model	*PCG-748*
Processor	266 MHz Pentium® with MMX™ technology
Hard Disk Drive	4.0 GB
Standard RAM	64 MB SDRAM, expandable to 256 MB
LCD Screen	13.0"XGA HPA
L2 Cache Memory	512 KB
MPEG	MPEG1 Digital Video supports full-screen playback
Graphics	128-bit accelerator with 2MB Video RAM
Sound Capabilities	16-bit CD-quality stereo sound
Diskette Drive	Removable 3.5" 1.44 MB Internal and External Operation (optional cable available)
Modem	V.90 compatible data/fax modem
Infrared	Supports 4mbps, 1.1 mbps, and 115 kpbs IrDA Standard
Expansion Capabilities	Two PCMCIA type II Cards or One PCMCIA type III Card Zoomed Video and Card Bus support
Built-in Capabilities	Microphone Stereo Speakers Digital touch pad
Telecommunication Capabilities	Full duplex speakerphone Fax send/receive
Connection Capabilities	Serial COM1 USB Port Keyboard/mouse (PS/2-style) VGA Monitor Parallel (printer)/floppy disk drive Phone line (RJ-11) Microphone Audio Line In Headphone
Supplied Accessories	CD-ROM drive Floppy disk drive Rechargeable battery AC adapter and power cord Weight Saver
Service	90-day limited express service. Extendible to one year from original date of purchase upon registration†
Limited Warranty	90-day parts/labor standard. Extendible to one year from original date of purchase upon registration†
Power Requirements	80 watts maximum (19.5V DC/AC120-240V)
Power Management	Energy Star compliant Advanced power management (APM) version 1.2

Model	*PCG-748*
Battery	Lithium-ion, supports dual battery operation
Dimensions	11.7" (w) x 1.5" (h) x9.3" (d) (297mm x 37.6mm x 236.5mm)
Weight	5.5 lbs. (2.5 kg) (with battery and weight saver) 5.9 lbs. (2.7 kg) (with floppy disk drive and battery) 6.19 lbs. (2.81 kg) (with CD-ROM and battery)
Operating Temperature	40° F to 95° F (+5° C to 35° C)

** Maximum speed for faxing is 14.4 kbps. Your modem is capable of downloading at 56 kpbs using K56flex Technology or V.90. Your online service or Internet Service Provider, however, may not support this technology or operate at this speed.*

† *Certain restrictions apply*

Specifications are subject to change without notice.

This product meets the standards of the International Energy Star Program for energy efficiency.

© 1998 Sony Electronics Inc. Sony, VAIO, and the VAIO logo are registered trademarks of Sony Corporation. Windows is a registered trademark of Microsoft Corporation. All other trademarks are trademarks of their respective owners.

Printed in USA
September 1998

3-865-487-11
N8-RMF-1