



User Guide

Personal Computer
VGC-VA1 (PCV-E51M)

Before Use

Congratulations on your purchase of this Sony VAIO® computer, and welcome to the on-screen User Guide. Sony has combined leading-edge technology in audio, video, computing, and communications to provide state-of-the-art personal computing.

Notice

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Documentation

Your documentation includes printed information and user guides to read on your VAIO computer.

Guides are provided in PDF format, which you can easily browse through and print out.

The **My Club VAIO** portal is a perfect starting point to use your computer — a comprehensive collection of everything you need to get the most from your computer.

The user guides are collected under **Documentation**, which can be shown as follows:

- 1 Click **Start** and then the **My Club VAIO** icon .
- 2 Click **Documentation**.
- 3 Select the guide you want to read.



You can manually browse to the user guides by going to **My Computer > VAIO (C:)** (your C drive) > **Documentation > Documentation** and opening the folder for your language.

Printed Documentation

- ❑ **A Setting Up Poster** — Describes the process from unpacking to starting up your VAIO.
- ❑ **Troubleshooting Guide** — Contains solutions to common problems.
- ❑ **Recovery Guide** — Contains an explanation of how to recover your computer's system if you need to.
- ❑ Booklets containing the following information: **Sony Guarantee** conditions, **Safety Regulations**, **Modem Regulations** and **Wireless LAN Regulations**.

Non-printed Documentation

- ❑ **User Guide (this manual)** — Contains features of your computer. It also includes information about the software programs included with your computer, as well as information on solving common problems.
- ❑ **Specifications** — The online **Specifications** describe the hardware and software configuration of your VAIO computer.

To view the online **Specifications**:

- 1 Connect to the Internet.
- 2 Go to the Sony VAIO-Link online support Web site at <http://www.vaio-link.com>.

My Club VAIO

In **My Club VAIO** you can find:

Documentation, which gives you:

- ❑ Access to the **User Guide**. This manual explains the features of your computer in detail, how to use these features confidently and safely, connect peripheral devices and more.
- ❑ Access to **Help and Training**. This is the portal of **VAIO Help and Support Center**.
- ❑ Important information about your computer, in the form of notices and announcements.

In **My Club VAIO** you can also find:

❑ **Accessories**

Want to expand the capabilities of your computer? Click on this icon and have a look at your compatible accessories.

❑ **Software**

Feeling creative? Click this icon for an overview of your software and check out our upgrade options.

❑ **Wallpapers**

Click this icon and check out our most popular Sony and Club VAIO wallpapers.

❑ **Links**

Click this icon and check out our most popular Sony and Club VAIO web sites.

Help and Support Center

Help and Support Center is a comprehensive resource for practical advice, tutorials, and demonstrations to help you learn to use Microsoft Windows XP and your computer.

Use the Search feature, Index, or table of contents to view all Windows Help resources, including those that are on the Internet.

To access **Help and Support Center**, click **Start** and then **Help and Support**. Or go to the **Help and Support Center** by pressing the Microsoft Windows key  and the **F1** key.

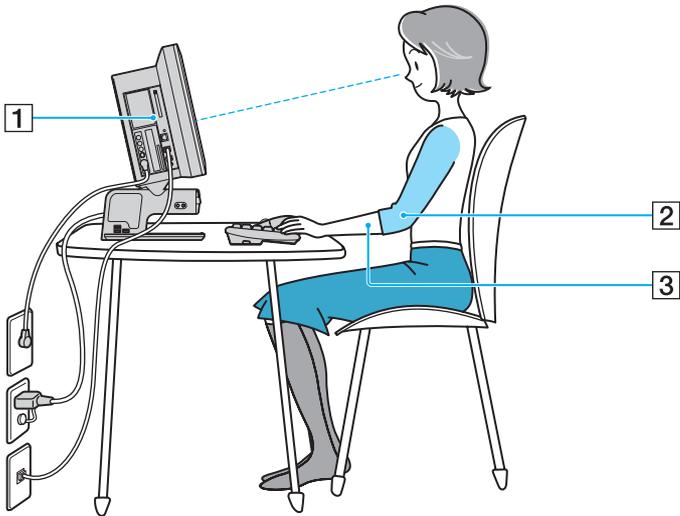
Further Sources

Consult the **Online Help** files of the software you are using for detailed information on features and troubleshooting.

Go to www.club-vaio.com to find online tutorials about your favorite VAIO software.

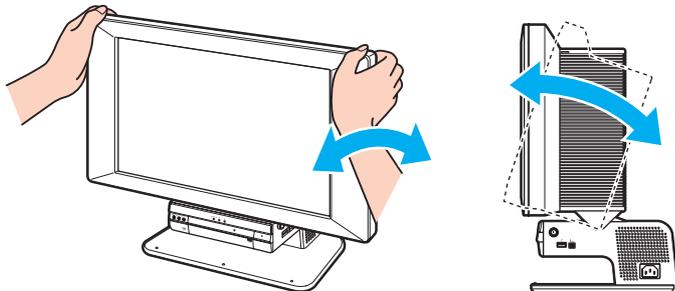
Ergonomic Considerations

Whenever possible, you should attempt to take account of the following ergonomic considerations:



- ❑ **Position of your computer** – Place the display directly in front of you (1). Keep your forearms horizontal (2), with your wrists in a neutral, comfortable position (3) while using the keyboard, pointing device, or external mouse. Let your upper arms hang naturally at your sides. Have 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. 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 backwards.

- ❑ **Viewing angle of the 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 brightness setting of the display as well.



- ❑ **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.
- ❑ **Ventilation** – Make sure you leave at least 25 cm of space behind and on each side of the main unit.

!
When you lift the computer, grasp the computer on both sides, holding the bottom edges firmly.

Getting Started

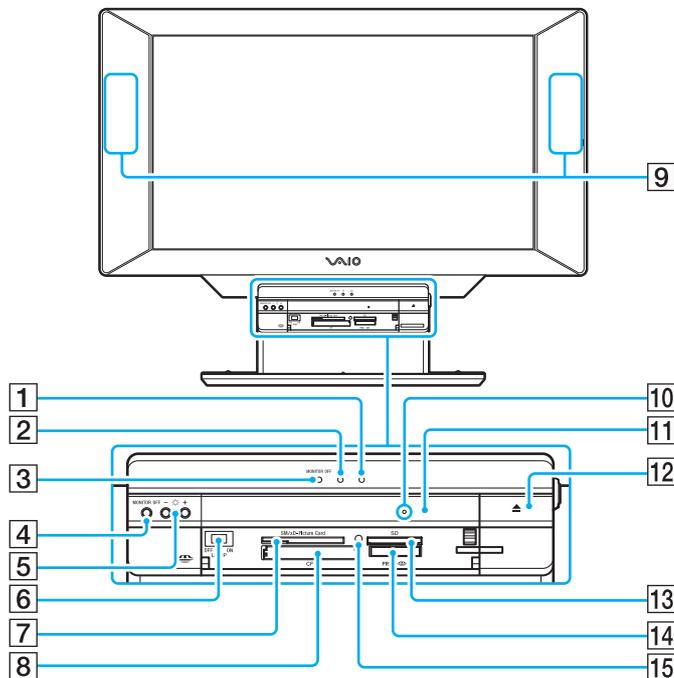
This section describes how to get started with using your VAIO computer.

- ❑ **Locating Controls and Ports** ([page 10](#))
- ❑ **About the Indicator Lights** ([page 13](#))
- ❑ **Connecting the Power Cord** ([page 14](#))
- ❑ **Shutting Down Your Computer Safely** ([page 15](#))

Locating Controls and Ports

Take a moment to identify the controls and ports shown on the following pages.

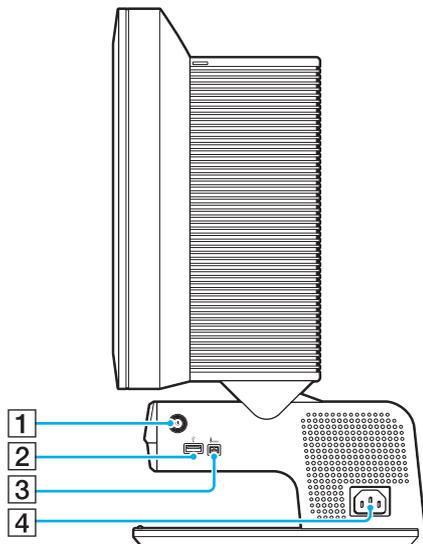
Front



- 1 Power indicator ([page 13](#))
- 2 Drive indicator ([page 13](#))
- 3 **MONITOR OFF** indicator ([page 13](#))
- 4 **MONITOR OFF** button for turning off the display output and the speaker volume.
- 5 Brightness buttons for increasing (+) or decreasing (-) the screen brightness.
- 6 **LAMP ON/OFF** switch for turning on and off all the indicator lights on the computer.
- 7 **SM/xD-Picture Card** slot ([page 55](#))
- 8 **CF** (CompactFlash®) memory card slot ([page 55](#))
- 9 Stereo speakers
- 10 Manual eject hole ([page 128](#))
- 11 Optical disc drive ([page 27](#))
- 12 Drive eject button ([page 27](#))
- 13 **SD** memory card slot ([page 55](#))
- 14 Memory Stick slot* ([page 49](#))
- 15 Media Access indicator ([page 13](#))

* Your computer supports Memory Stick Duo and Memory Stick Pro high speed and high capacity capabilities.

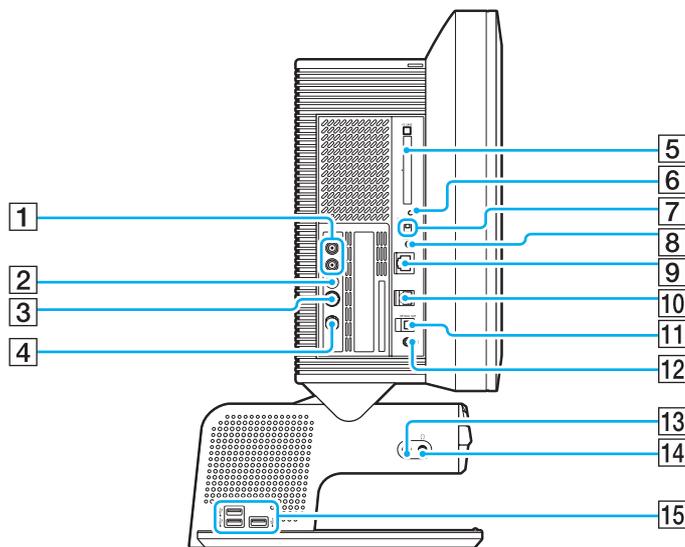
Right



- 1 Power button
- 2 Hi-Speed USB (USB 2.0) port* ([page 69](#))
- 3 i.LINK® (IEEE1394) S400 port ([page 72](#))
- 4 AC Input port ([page 14](#))

* Supports high-/full-/low- speeds.

Left



- 1 Composite Audio In connectors ([page 37](#))
 - 2 Composite Video In connector for connecting a cable or satellite set-top box (STB) without the S Video Out connector.
 - 3 S Video In connector ([page 37](#))
 - 4 VHF/UHF port ([page 33](#))
 - 5 PC Card slot ([page 47](#))
 - 6 **WIRELESS LAN** indicator ([page 59](#))
 - 7 **WIRELESS LAN** switch ([page 59](#))
 - 8 **CONNECT** button ([page 17](#)), ([page 22](#))
 - 9 Network (Ethernet) port ([page 74](#))
 - 10 Modem port ([page 58](#))
 - 11 S/PDIF Optical Out port for connecting digital equipment such as an AV amplifier.
 - 12 Line In connector for connecting audio equipment.
 - 13 Microphone connector ([page 68](#))
 - 14 Headphones connector
 - 15 Hi-Speed USB (USB 2.0) ports* ([page 69](#))
- * Support high-/full-/low- speeds.

About the Indicator Lights

Your computer is equipped with the following indicator lights.

Indicator	Functions
Power 	Illuminates in green when the power of the computer is on, illuminates in orange when the computer is in Standby mode, and turns off when the computer is in Hibernate mode or off.
Media Access	Illuminates when data is read from or written to a memory card. (Do not enter Standby mode or turn off the computer when this indicator is on.) When the indicator is off, the memory card is not being used.
MONITOR OFF	Illuminates in orange when the display output and the speaker volume are turned off.
Drive 	Illuminates when data is read from or written to the hard disk or optical disc drive. Do not enter Standby mode or turn off the computer when this indicator is on.
WIRELESS LAN	Illuminates when the wireless LAN function is running.

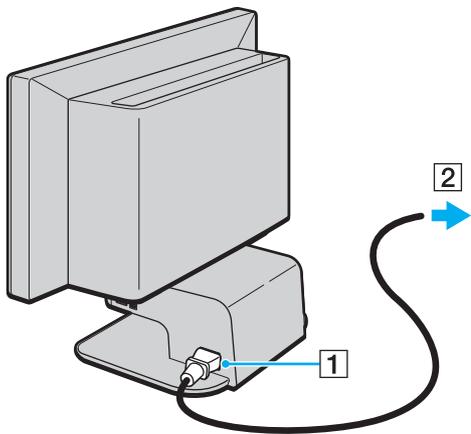
Connecting the Power Cord

Your computer's power cord must be plugged into an AC power source, such as an AC wall outlet, surge protector, or Uninterruptible Power Supply (UPS), before you can establish communication with your wireless keyboard and wireless mouse.

! Use only the power cord supplied with the computer.

To connect the power cord

- 1 Insert the power cord into the AC In port (1) on the right of the computer.
- 2 Insert the power cord plug into a grounded AC wall outlet, surge protector, or Universal Power Supply (UPS) (2).



To disconnect the computer completely from AC power, unplug the power cord.

Make sure that the AC outlet is easily accessible.

If you are interrupted and need to leave your computer suddenly, place the computer into Hibernate mode. See **Using Hibernate Mode** (page 83). This power saving mode saves the time of shutting down or resuming.

Shutting Down Your Computer Safely

To avoid losing unsaved data, be sure to shut down your computer properly, as described below.

To shut down your computer

- 1 Turn off any peripherals connected to the computer.
- 2 Click **Start** and then **Turn Off Computer**.
The **Turn off computer** window appears.
- 3 Click **Turn Off**.
- 4 Respond to any prompts warning you to save documents or to consider other users and wait for the computer to turn off automatically.
The power indicator light turns off.

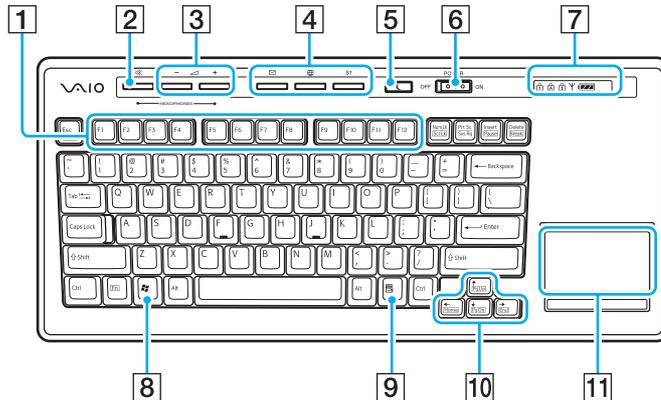
Using Your VAIO Computer

This section describes how to get the most out of using your computer.

- ❑ **Using the Keyboard** ([page 17](#))
- ❑ **Using the Mouse** ([page 22](#))
- ❑ **Using the Optical Disc Drive** ([page 27](#))
- ❑ **Using the TV Function** ([page 33](#))
- ❑ **Using PC Cards** ([page 47](#))
- ❑ **Using a Memory Stick** ([page 49](#))
- ❑ **Using Other Memory Cards** ([page 55](#))
- ❑ **Using the Internet** ([page 58](#))
- ❑ **Using Wireless LAN (WLAN)** ([page 59](#))

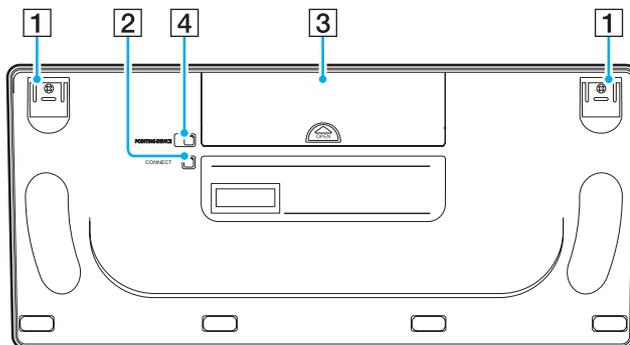
Using the Keyboard

Your computer is supplied with a wireless keyboard. The wireless keyboard uses a standard key arrangement with additional keys that perform specific functions.



The above illustration may appear different from your model.

- 1** Function keys
Perform certain tasks. The task associated with each function key varies among software applications.
- 2** Mute button
Turns the volume on and off.
- 3** Volume control buttons
Increases (+) or decreases (-) the volume.
- 4** Shortcut buttons
Launch the pre-assigned software.
- 5** Standby button
Provides for the lowest level of power consumption. For details on power management, see **Using the Power Saving Modes** (page 81).
- 6** POWER switch
Slide the POWER switch to turn on and off the wireless keyboard.
- 7** Indicators
 - (Battery): appears while the AA batteries for the keyboard are sufficient and switches to when the batteries wear out.
 - (Num lock): Appears while in the Num Lock state.
 - (Caps lock): Appears while in the Caps Lock state.
 - (Scroll lock): Appears while in the Scroll Lock state.
 - (Connect): Appears while connection between the computer and the keyboard is in place to indicate that the keyboard is ready for use (page 20).
- 8** Windows key
Displays the **Start** menu.
- 9** Applications key
Displays a shortcut menu in certain software applications.
- 10** Direction arrows
Move the pointer on the computer screen.
- 11** Pointing device



- 1** Keyboard feet
Extend to adjust the keyboard height.
- 2** **CONNECT** button
Press to enable the keyboard to communicate with the main unit.
- 3** Battery compartment
Storage compartment for the AA batteries.
- 4** Pointing device switch
Slide the switch to turn the pointing device on and off.

Before You Use the Keyboard

Four AA alkaline batteries are supplied with your computer for use in the wireless keyboard. Before attempting to use the wireless keyboard, you must install the batteries and establish communication between the computer and the keyboard. To connect your wireless keyboard, it must be located within a range of approximately 30 cm from the computer.



To maintain good communication, operate the wireless keyboard within the distance limitation of keyboard: approximately 10 m from the computer.

Confirm that the supplied AA batteries are properly installed.

Press the **CONNECT** button located on the left of the computer first, and then press the **CONNECT** button on the bottom of the keyboard.

Avoid using radio-controlled toys or equipment, CB radios, and other wireless devices in the area near the wireless keyboard. These devices may cause interference, causing the keyboard to stop working properly.

Do not place metal furniture near the computer or wireless keyboard, as this may create interference, causing the keyboard to stop working properly.

Do not mix old (used) and new batteries when replacing batteries in the wireless keyboard. Always use the same type and manufacture of battery.

Do not mix alkaline with manganese batteries. Using incompatible batteries or mixing used, new or different types of batteries can damage the keyboard.

To connect the wireless keyboard

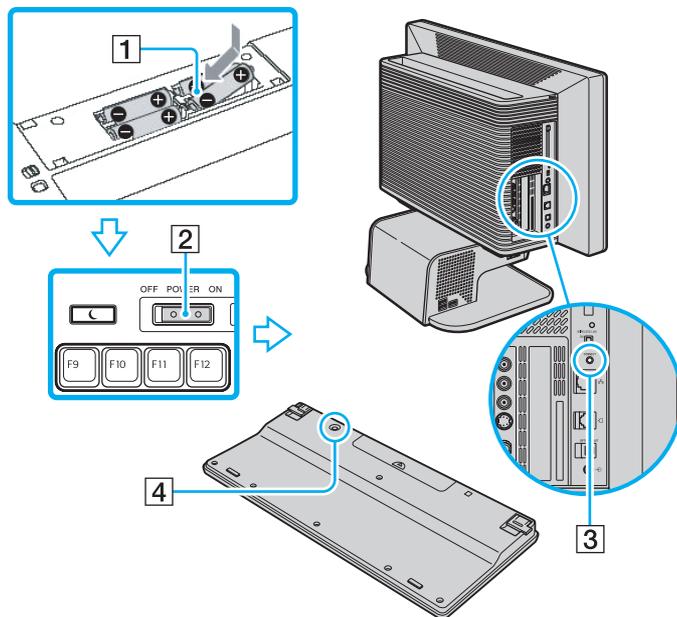
- 1 Insert the supplied four AA batteries (1) into the battery compartment on the bottom of the wireless keyboard.
- 2 Turn on the computer.
- 3 Slide the **POWER** switch (2) at the top of the keyboard to turn on the keyboard.
- 4 Press the **CONNECT** button (3) on the left of the computer.
- 5 Press the **CONNECT** button (4) on the bottom of the keyboard.

The connect indicator Υ appears in the LCD window on the keyboard when connection is established between the computer and the keyboard. If not, repeat the procedure.



Steps 4 and 5 must be completed within 10 seconds of each other.

If the wireless keyboard is left unused for 20 minutes or more, the connect indicator Υ will turn off. This could indicate that the connection between the computer and the keyboard is lost. Press the **Fn** key to check that the connect indicator turns on before using the keyboard.



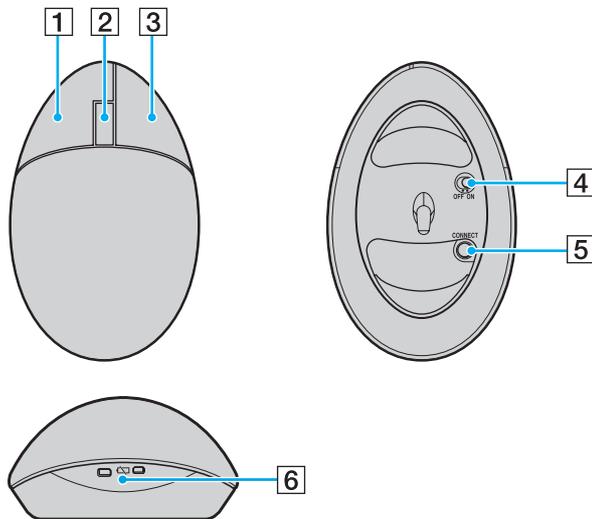
You can check the battery indicator ( or ) in the LCD window on the keyboard for its battery power level.

If the wireless keyboard does not operate properly, the batteries may need to be replaced. If the wireless keyboard is not being used for an extended period of time, remove the batteries to avoid possible damage from battery leakage.

If you want to put the keyboard in a more 'ergonomical' position, open the keyboard feet.

Using the Mouse

Your computer is supplied with a wireless optical mouse, which has no cables to plug in and uses a light-emitting diode (LED) instead of a ball.



- 1** Left button
Click or double-click the left button to select items. To drag and drop items, hold the left button down while sliding the mouse, then release the button to drop the item.
- 2** Central wheel
Rotate the central wheel to scroll up or down a page. Press the wheel once to lock the scroll action and control the movement by moving the entire mouse (the scroll function is available only with applications that support it).
- 3** Right button
Press the right button once to display a context-sensitive shortcut menu (not always an active function).
- 4** Power switch
Slide the switch to turn the mouse on and off. This will help you save battery power.
- 5** **CONNECT** button
Press to enable communication between the computer and the wireless mouse.
- 6** Battery indicator
Blinks when the mouse batteries are running out of power.

Before You Use the Mouse

Two AA alkaline batteries are supplied with your computer for use in the wireless mouse. Before using the wireless mouse, you must install the batteries and establish communication between your computer and the mouse. To connect the wireless mouse, it must be located within a range of approximately 30 cm from the computer.



To maintain good communication, operate the wireless mouse within the distance limitations of the mouse: approximately 10 m from the computer.

Confirm that the supplied AA batteries are properly installed.

Press the **CONNECT** button located on the left of the computer first, and then press the **CONNECT** button on the bottom of the mouse.

Avoid using radio-controlled toys or equipment, CB radios, and other wireless devices in the area near the wireless mouse. These devices may cause interference, causing the mouse to stop working properly.

Use surfaces such as plain paper, card stock, or fabric that have minimal repetitive patterns.

Avoid surfaces such as mirrors, smooth glass, or magazines that have half- tone printing.

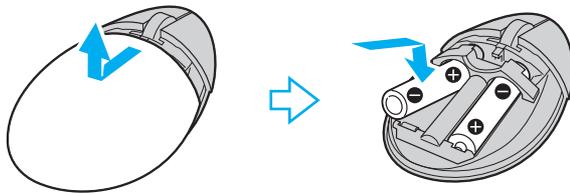
Do not place metal furniture near the computer or wireless mouse, as this may create interference, causing the mouse to stop working properly.

Do not mix old (used) and new batteries when replacing batteries in the wireless mouse. Always use the same type and manufacture of battery.

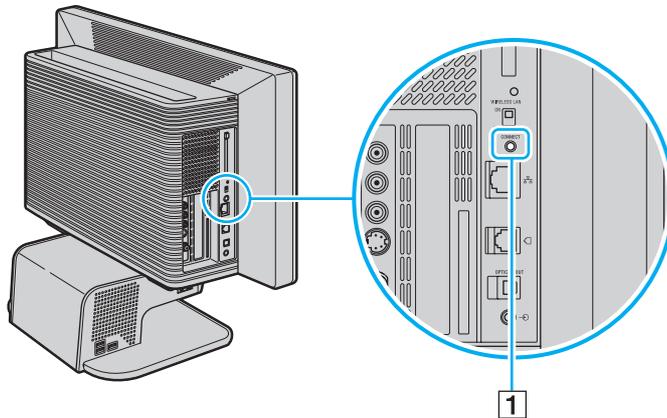
Do not mix alkaline with manganese batteries. Using incompatible batteries or mixing used, new or different types of batteries can damage the mouse.

To connect the wireless mouse

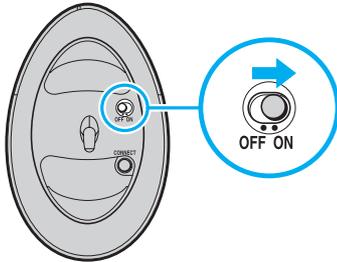
- 1 Insert the two AA batteries (supplied with your computer) into the wireless mouse as shown below.



- 2 Turn on the computer.
- 3 Press the **CONNECT** button (1) on the left of the computer.



- 4 Turn over the wireless mouse, slide the power switch to the **ON** position, and press the **CONNECT** button. Communication between the wireless mouse and the computer should now be established.



! Steps 3 and 4 must be completed within 10 seconds of each other.



If the wireless mouse does not operate properly, the batteries may need to be replaced. If the wireless mouse is not being used for an extended period of time, remove the batteries to avoid possible damage from battery leakage.

Adjusting the Mouse Functions

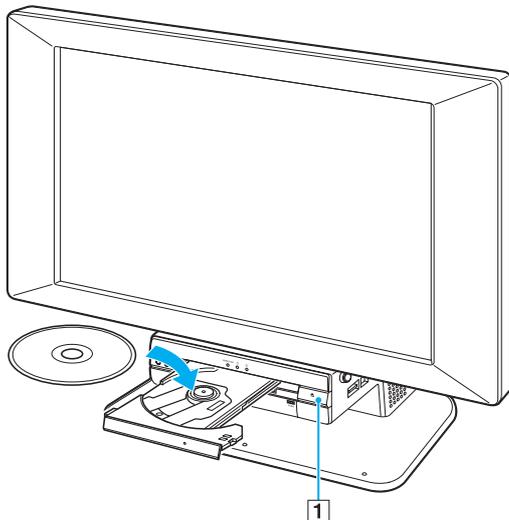
- 1 Click **Start** and then **Control Panel**.
- 2 Click **Printers and Other Hardware**.
- 3 Click **Mouse**.
The **Mouse Properties** window appears.
- 4 Change the settings.

Using the Optical Disc Drive

Your computer is equipped with an optical disc drive.

To insert a disc

- 1 Turn on the computer.
- 2 Press the drive eject button (1) to open the drive.
The tray slides out.
- 3 Place a disc in the middle of the tray with the label side facing up and gently push until the disc clicks into place.
- 4 Close the tray by pushing it in gently.



Do not remove the optical disc when the computer is in a power saving mode (Standby or Hibernate). Doing so may cause the computer to malfunction.

Reading and Writing CDs and DVDs

Your computer plays and records CDs and DVDs, depending on the model you purchased. Check your specifications for the type of optical disc drive installed on your model. Use the table below to see which types of media your optical disc drive supports.

Optical disc drive	Plays	Records to
CD-ROM	CD, CD-R, and CD-RW	—
DVD-ROM	CD, CD-R, CD-RW, DVD and most DVD-R, DVD-RW, DVD+R, DVD+RW and DVD+R DL (Double Layer)	—
CD-RW/DVD-ROM	CD, CD-R, CD-RW, DVD, most DVD-R, DVD-RW, DVD+R, DVD+R DL (Double Layer) and DVD+RW	CD-R and CD-RW
DVD±RW	CD, CD-R, CD-RW, DVD, most DVD-R, DVD-RW, DVD+R, DVD+R DL (Double Layer) and DVD+RW	CD-R, CD-RW, DVD-R, DVD-RW, DVD+R, DVD+R DL (Double Layer) and DVD+RW

! This product is designed to playback discs that conform to the Compact Disc Digital Audio standard specifications (CD Standard). A DualDisc is a two sided disc product which mates DVD recorded material on one side with digital audio material on the other side. Please be aware that the audio side (non-DVD side) of a DualDisc may not play on this product because it does not conform to the CD Standard.

! Due to the multiple formats of discs now available, when buying pre-recorded or blank discs for use with a VAIO computer, be sure to read the notices on the disc packaging carefully to check both playback and recording compatibility with your computer's optical disc drives. Sony does NOT guarantee the compatibility of VAIO CD drives with discs that not compliant with the official "CD" format standard (or "DVD" standard in relation to DVD drives). **USING NON-COMPLIANT DISCS CAN CAUSE FATAL DAMAGE TO YOUR VAIO PC OR CREATE SOFTWARE CONFLICTS AND CAUSE SYSTEM HANGING.** For inquiries about disc formats, contact the individual publisher of the pre-recorded disc or the manufacturer of the recordable disc.



Supports writing to DVD-RW discs compliant with DVD-RW version 1.1/1.2.

Supports writing to DVD-R discs compliant with DVD-R for General version 2.0/2.1.

Supports 8cm disc reading, but does not support 8cm disc writing.

Writing to DVD+R DL (Double Layer) discs is available only on discs supporting DVD+R DL (Double Layer) recording.

Notes on writing data onto a disc

- To make the data on a disc readable on an optical disc drive, you need to close the session when you eject it. To complete this process, follow the instructions included with your software.
- Only use circular discs. Do not use discs in any other shape (star, heart, card, etc.), as this may damage the optical disc drive.
- Do not strike or shake the computer while writing data onto a disc.
- Deactivate the screen saver and exit anti-virus software before writing data onto a disc.
- Do not use memory-resident utility software while writing data to a disc. This may cause the computer to malfunction.
- When using your software application to burn discs, make sure you exit and close all other applications.
- Never touch the surface of the disc. Fingerprints and dust on the surface of a disc may cause writing errors.
- Do not switch power modes while using the pre-installed software and while using the CD burning software.
- Never put stickers on discs. This will affect the use of the disc irreparably.

Notes on playing DVDs

To achieve optimum performance when playing DVDs, you should follow these recommendations.

- ❑ Close all open applications before playing a DVD movie.
- ❑ Do not use memory-resident utility software to speed up disc access when playing a DVD. This may cause the computer to malfunction.
- ❑ Deactivate the screen saver and exit anti-virus software before playing a disc.
- ❑ Some discs recorded at 20 or 24 bits may produce noise while playing. If you have audio devices connected, this may damage your hearing and the speakers. Reduce the volume before playing a DVD.
- ❑ Do not switch power saving modes while the computer is playing a DVD.
- ❑ Region code indicators are labeled on the DVDs to indicate in which region and on what type of player you can play the disc. If the DVD is labeled "all," this means that you can play this DVD in most regions of the world. If the region code of your residence area is different from the label on the DVD disc or on the packaging, you cannot play the disc on this player.

Playing CDs

To play an audio CD

- 1 Insert the disc into the optical disc drive.
- 2 If nothing appears on the desktop once you insert an audio CD disc, then click **Start**, point to **All Programs**, and click to open a CD program, such as the **SonicStage** software.
If the **Audio CD** window appears, click to select an option.

Copying Files to CDs

To determine which type of CD your computer supports, see **Reading and Writing CDs and DVDs** (page 28).

To copy files to a CD-RW or CD-R



Do not strike or shake the computer while writing data onto a disc.

- 1 Insert a blank CD-R or CD-RW disc into the optical disc drive.
If the **CD Drive** window appears, click **Take no action**.
- 2 Open Windows Explorer by pressing the **Windows** key and the **E** key simultaneously.
- 3 In the **Folders** panel on the left, locate the file(s) or folder(s) you want to copy and either:
 - Right-click the file(s) or folder(s), point to **Send To**, and click the optical disc drive* name.
 - Drag the file(s) or folder(s) onto the optical disc drive icon in the **Files Stored on This Computer** panel.
- 4 Close Windows Explorer.
- 5 Click **Start** and then **My Computer**.
- 6 Click the optical disc drive icon under **Devices with Removable Storage**. A new window appears with the file(s) or folder(s) you want to copy listed under **Files Ready to Be Written to the CD**.
- 7 In the **CD Writing Tasks** box, click **Write these files to CD**.
- 8 Follow the instructions in the **CD Writing Wizard**.

* The read/write drive letter designation may vary, depending on your system's hardware configuration.

Playing DVDs

To play a DVD

- 1 Close all open programs.
- 2 Insert the DVD into the optical disc drive.
- 3 Click **Start** and point to **All Programs**.
- 4 Select a DVD software program to play the DVD.

For instructions on how to use a program, see the help guide included with the DVD software program.

Copying Files to DVDs

To copy files to a DVD-R or DVD-RW

- 1 Insert the disc into the optical disc drive.
- 2 Click **Start** and point to **All Programs**.
- 3 Select a DVD software program you want to use from the submenu.

For instructions on how to use a program, see the help guide included with the DVD software program.

Using the TV Function

Your computer has a TV tuner board installed along with the **Microsoft Windows XP Media Center Edition** operating system to enhance your computing experience.

Media Center provides you with a wide range of TV, DVD, and video viewing, as well as music recording and playback. This section describes how to set up your TV, set-top box, and other equipment.

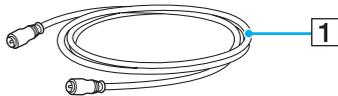
Setting Up TV Connections

! The following connections may not be available depending on the country of your residency.

The best method of connecting your computer system, TV monitor or display, and cable service access, depends on the type of cable connection available in your home.

TV signal reception strength will vary widely depending on service availability in your area as well as the type of connection available.

One primary cable to connect the computer to a TV cable or antenna is the TV coaxial cable (not supplied with the computer). One end connects to the computer's VHF/UHF port, and the other end connects to the cable service access or antenna.

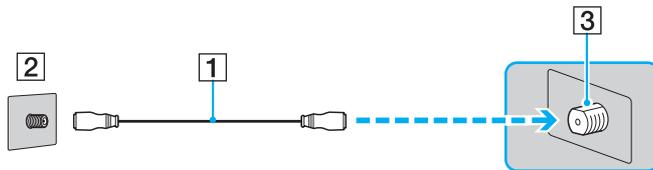


1 TV coaxial cable

Connecting to standard cable access (CATV)

To connect in CATV mode

- 1 Connect one end of the TV coaxial cable (1) (not supplied) to your cable service access (wall outlet) (2).
- 2 Connect the other end of the coaxial cable to the VHF/UHF port (3) on the computer.



Connecting to a standard antenna

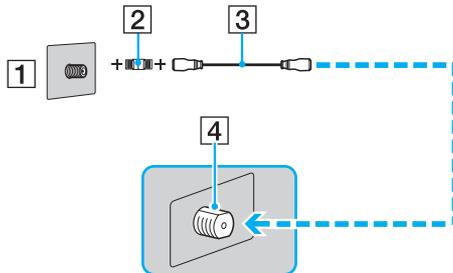
You can connect your computer to an indoor/outdoor antenna system.



If you are connecting to an indoor/outdoor antenna, you may need to reorient the antenna for best reception. Move the antenna cable away from other power sources or connectors to reduce reception interference.

To connect in terrestrial mode

- 1 Connect one end of a TV coaxial cable (2-3) (not supplied) to your antenna outlet (1).
- 2 Connect the TV coaxial cable to the VHF/UHF port (4) on the computer.



Connecting with a cable or satellite set-top box (STB)

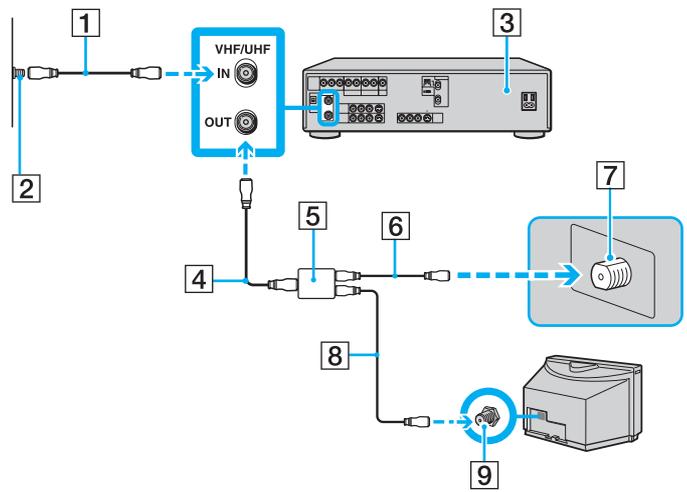
You can connect your computer to cable service access that uses a set-top box (cable or satellite). When using the set-top box (STB) setup, you can only change channels through the STB, using its controls or supplied remote control.

When using the STB setup:

- ❑ A standard TV remote control cannot be used to change TV channels. You can use your TV remote control to set the TV to the channel-out number (channel 3, 4, etc.) or direct video input specified by your cable or satellite service provider.
- ❑ You may be able to use a universal remote control to change TV channels, if the device is able to control the STB.

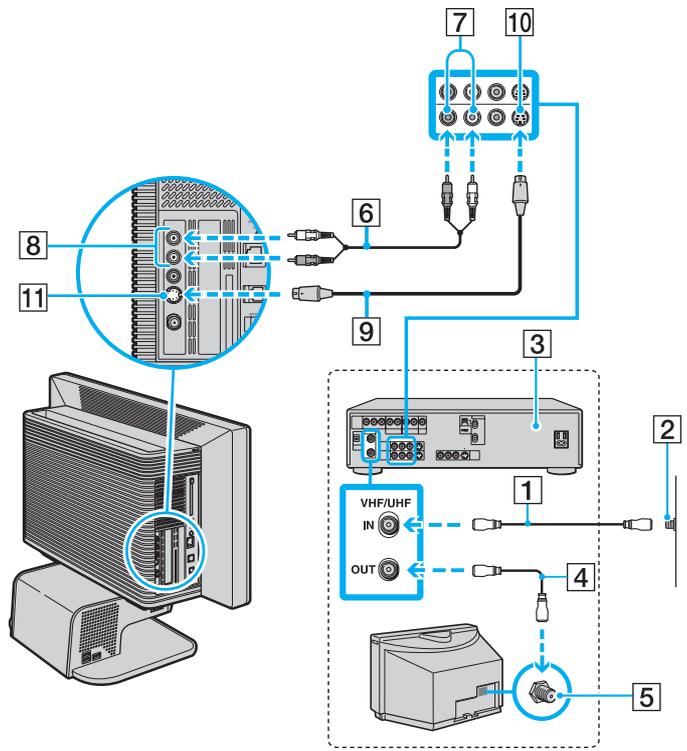
To connect in STB mode (Option 1)

- 1 Connect one end of a TV coaxial cable (1) (not supplied) to your cable service access (wall outlet) (2). Connect the other end to the VHF/UHF IN jack on the back panel of your set-top box (STB) (3).
- 2 Connect a second TV coaxial cable (4) (not supplied) to the VHF/UHF OUT connector on your STB unit (3). Connect the other end to the single-connection end of a splitter device (5) (not supplied).
- 3 Connect a third TV coaxial cable (6) (supplied) to the double-connection end of the splitter device (5). Connect the other end to the VHF/UHF port (7) on the computer.
- 4 Connect a fourth TV coaxial cable (8) (not supplied) to the double-connection end of the splitter device (5). Connect the other end to the VHF/UHF port (9) on the rear of your TV monitor or display.



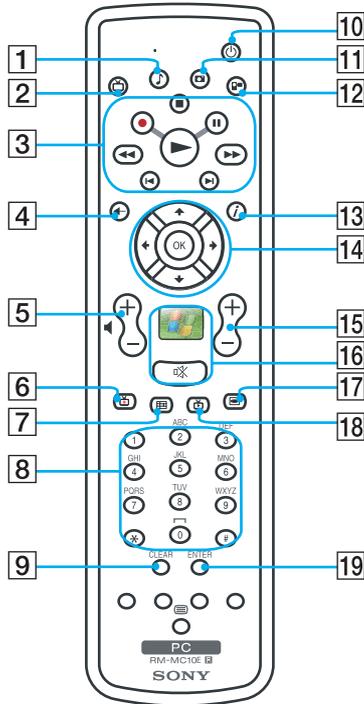
To connect in STB mode (Option 2)

- 1** Connect one end of the TV coaxial cable (1) (supplied) to your cable service access (wall outlet) (2). Connect the other end to the VHF/UHF IN connector on the back panel of your set-top box (STB) (3).
- 2** Connect a second TV coaxial cable (4) (not supplied) to the VHF/UHF OUT connector on your STB unit (3). Connect the other end to the VHF/UHF port (5) on the rear of your TV monitor or display.
- 3** Connect the double mini-plugs of the audio cable (6) (not supplied) to the Composite Audio Out (L/R) connectors (7) on the back panel of your STB unit (3), matching the jack colors. Connect the other end of the audio cable (6) to the Composite Audio In connector (8) on the computer.
- 4** Connect one end of the S Video cable (9) (not supplied) to the Composite Video Out connector (10) on the back panel of your Set top box unit (3). Connect the other end of the same S Video cable to the S Video In connector (11) on the computer.



Using the Remote Control

Your computer is supplied with a remote control for using Media Center features, including TV channel selection.



- 1 **MY MUSIC** button
Press to view and listen to your music playlists.
- 2 **MY TV** button
Press to view the My TV menu.
- 3 **STOP** button
Press to stop media playback or a TV recording session.
PAUSE button
Press to pause media playback. Press again to resume playback.
FWD button
Press to fast-forward media at three speeds.
SKIP button
Press to move media forward, for example, one audio track, one DVD chapter, and 30 seconds of recorded TV or video.
REPLAY button
Press to move media backward, for example, one audio track, one DVD chapter, and seven seconds of TV or video.
REW button
Press to move media backward at two speeds.
RECORD button
Press to begin recording.
PLAY ► button
Press to begin media playback.

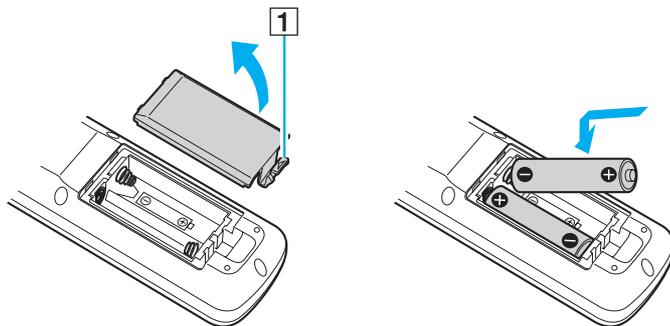
- 4 BACK** button
Press to return to the previous window.
- 5 VOL** button
Press to increase (+) or decrease (-) the volume.
- 6 RECORDED TV** button
Press to view previously recorded TV programs (In **My TV** window).
- 7 GUIDE** button
Press to view the TV program guide for your area.
- 8** Channel number buttons (0-9)
Press to select specific channels or enter text. (Press **Enter** or **OK** to activate the channel selection.)
- 9 CLEAR** button
Use to backspace and delete entered text.
- 10 STANDBY** button
Press to place the computer in Standby mode to reduce power consumption.
- 11 MY PICTURES** button
Press to view pictures or a slide show.
- 12 MY VIDEOS** button
Press to view videos from your video collection.
- 13 MORE *i*** button
Press to view additional options that are available for Media Center features.
- 14** Directional arrow buttons
Press the **↑**, **↓**, **←**, and **→** buttons to move the pointer on the screen.
OK button
Press **OK** to select the desired action or window option. When watching full-screen TV, press **OK** to return to the previous channel. Press **OK** again to switch between channels.
- 15 CH/PG** (Channel/Page) button
Press to change or page up/down channels (no number input required).
- 16 START ** button
Press to open the **Media Center Start** menu.
MUTE button
Press to turn off the sound. Press again to restore the sound.
- 17 DVD MENU** button
Press to open the main menu on a DVD.
- 18 LIVE TV** button
Press to view TV programming.
- 19 ENTER** button
Press to activate feature or action, such as channel selection or return to previous channel. (This button's actions are similar to using the **OK** button.)

Before you use the remote control

Before using the remote control, you need to insert the supplied AA batteries and connect the remote sensor to enable communication between the computer and the remote commander.

To insert batteries

- 1 Turn the remote commander over.
- 2 Press in the tab (1) and lift the battery cover up.
- 3 Insert the supplied two AA batteries into the remote control.



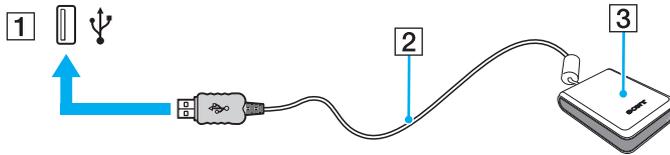
- 4 Align the battery cover to the remote control.
- 5 Press down until the cover clicks into place.



If the remote control does not operate properly, you may need to replace the batteries. When the remote control is not being used for extended periods of time, remove the batteries to avoid possible damage from battery leakage.

To connect the remote sensor

- 1 Choose the USB port (1)  you prefer to use.
- 2 Plug the remote sensor cable (2) into the USB port.



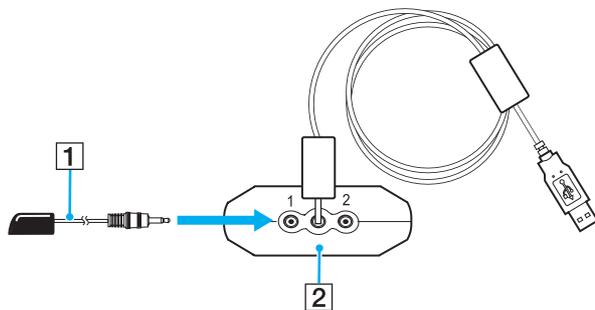
- 3 Position the remote sensor (3) to enable unobstructed communication with the remote control.



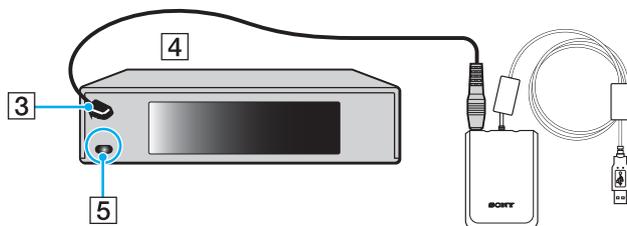
If you are using a cable or satellite set-top box, you can attach the remote sensor control to the remote sensor, which enables you to control the set-top box with the remote control.

To connect the remote sensor control

- 1 Plug the remote sensor control cable (1) into either connector (1 or 2) on the back of the remote sensor (2).



- 2 Remove the adhesive tape cover from the bottom of the remote sensor control.
- 3 Attach the remote sensor control (3) onto the set-top box (4) near the infrared port (5).



! Do not cover the infrared port when attaching the remote sensor control.

The remote sensor must be visible in a line-of-sight with the remote control in order to function properly.

Using PC Cards

PC Cards allow you to connect portable external devices to your computer.

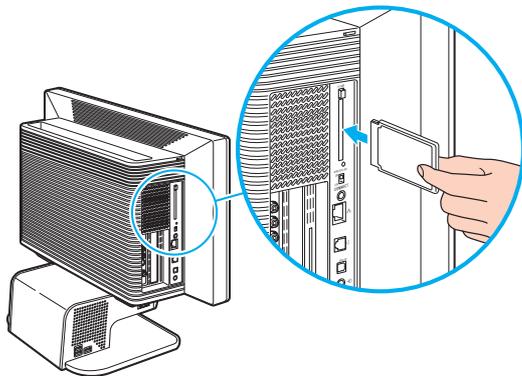
Inserting a PC Card

! Some PC Cards or their functions may not be compatible with the computer.

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

To insert a PC Card

- 1 Hold the PC Card with the label facing toward the front of the computer.
- 2 Gently push the PC Card into the PC Card slot.
The PC Card is automatically detected by your system.
The **Safely Remove Hardware** icon appears on the taskbar.





Some devices may not function properly if you continually switch to Normal mode from Standby mode or Hibernate mode. For some PC Cards, if you alternate between Normal mode and Standby or Hibernate mode while the card is inserted, you may find that a device connected to your system is not recognized. Restart your system to correct the problem. Restarting will restore the original state of the computer.

While the card is inserted, the computer may not enter Hibernate power management mode. It may enter Standby mode. We recommend that you remove the card before the computer enters Hibernate mode.

Make sure you 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** window, remove the software driver and then reinstall it.

Do not force a PC Card into the slot. It may damage the connector pins. If you have difficulty inserting a PC Card, check that you are inserting the PC Card in the correct direction. See the manual supplied with your PC Card for more information on use.

Removing a PC Card

Follow the steps below to remove the PC Card while your computer is on. If it is not removed properly, your system may not work properly.

To remove a PC Card



To remove a PC Card when the computer is off, skip steps 1 to 7.

- 1 Double-click the **Safely Remove Hardware** icon on the taskbar.
The **Safely Remove Hardware** window appears.
- 2 Select the hardware you want to unplug.
- 3 Click **Stop**.
The **Stop a Hardware Device** window appears.
- 4 Confirm that the device can be safely removed from the system.

- 5 Click **OK**.
A window appears, explaining that it is safe to remove the device.
- 6 Click **OK**.
- 7 Click **Close**.
- 8 Push the PC Card release button so that the release button pops out.
- 9 Push the PC Card release button a second time so that the PC Card pops out.
- 10 Gently take hold of the Card and pull it out of the slot.
- 11 If the PC Card release button is still out, push it back in.

Using a Memory Stick

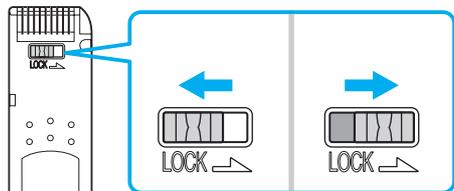
Your computer supports Memory Stick devices. Memory Stick is a compact, portable, and versatile device especially designed for exchanging and sharing digital data with compatible products, such as digital cameras, mobile phones and other devices. Because it is removable, it can be used for external data storage.

For the latest information on Memory Stick devices, visit the Sony online support Web site at <http://www.memorystick.com>.

Write-protecting a Memory Stick

Some versions of Memory Stick are designed with an erasure prevention switch to protect valuable data from accidental erasure or overwriting.

Move the tab horizontally or vertically* to set or release write-protection. When the erasure prevention switch is off, data can be saved on the Memory Stick. When the erasure prevention switch is on, data can be read from but not saved on the Memory Stick.



* Some Memory Stick versions do not have an erasure prevention switch.

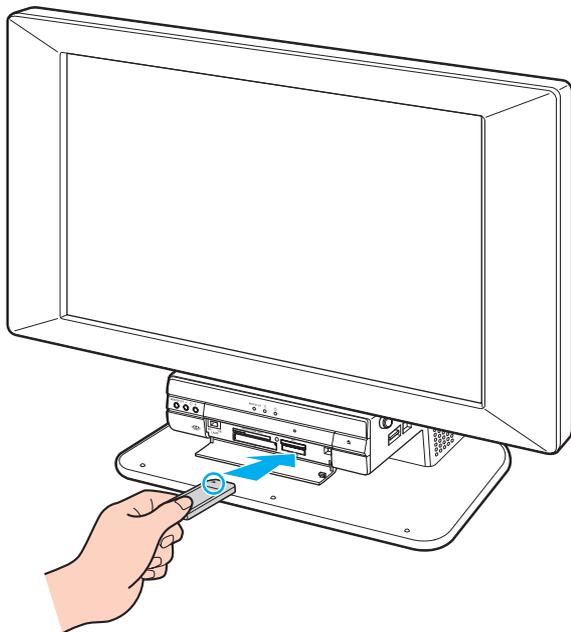
Inserting a Memory Stick

There are two ways you can insert a Memory Stick into your computer:

- ❑ Using the Memory Stick slot;
- ❑ Using a PC Card slot. To do this, you need an optional PC Card adapter.
The Memory Stick slot is located behind a protective cover on the front of the computer. You need to open the cover before accessing the memory card slots.

To insert a Memory Stick using the Memory Stick slot

- 1 Flip the front panel down, using your fingertip.
- 2 Locate the Memory Stick slot.
- 3 Hold the Memory Stick with the arrow facing toward the front of the computer and insert it into the Memory Stick slot in the direction of the arrow.
- 4 Carefully slide the Memory Stick into the slot until it clicks in place.
The Memory Stick is automatically detected by your system and appears in your **My Computer** window as a local drive, under the appropriate letter (depending on the configuration of the computer).



! Be sure to hold the Memory Stick with the arrow pointing in the correct direction as you insert it into the slot. To avoid damaging the computer or the Memory Stick, do not force the Memory Stick into the slot if it does not insert smoothly.

Do not insert more than one Memory Stick into the Memory Stick slot. Inserting the media improperly may damage the computer.



The computer supports Memory Stick Duo and is equipped with the Memory Stick combo slot that is compatible with both standard- and duo-size media. For more information on Memory Stick Duo, visit the Memory Stick web site at <http://www.memorystick.com>.

To view the contents of the Memory Stick

- 1 Click **Start** and then **My Computer** to open the **My Computer** window.
- 2 Double-click the Memory Stick icon  to view the list of data files saved on the Memory Stick.

To format a Memory Stick

Use the **Memory Stick Formatter** software. See the help file on the **Memory Stick Formatter** software for details.

Removing a Memory Stick

To remove a Memory Stick using the Memory Stick slot

- 1 Check that the Media Access indicator is off.
- 2 Push the Memory Stick in toward the computer.
The Memory Stick ejects.
- 3 Pull the Memory Stick out of the slot.

! Always remove the Memory Stick gently, or it may pop out unexpectedly.

Do not remove the Memory Stick while the Media Access indicator is turned on. If you do, you may lose data. Large volumes of data may take time to load, so be sure the indicator is off before removing the Memory Stick.

Using Other Memory Cards

In addition to the Memory Stick slot, your computer is equipped with three other memory card slots to accommodate many popular types of memory cards. You can use these slots to transfer data between digital cameras, camcorders, music players, and other audio/video devices.

The memory card slots are located behind a protective cover on the front of the computer. You need to open the cover before accessing the memory card slots.

Before You Use Memory Cards

Your computer supports the following memory cards:

- CompactFlash
- Multi Media Card (MMC)
- Microdrive
- SmartMedia
- xD-PictureCards
- Secure Digital (SD)

The VAIO-Link web site (www.vaio-link.com) contains the latest information on compatible memory cards.

! Always insert the correct memory card into the appropriate memory card slot.

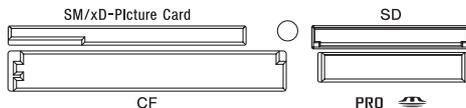
Do not attempt to insert a different memory card or memory card adapter into a different memory card slot. An incompatible memory card or adapter may be difficult to remove from the wrong slot and can cause damage your computer.

Use care when inserting or removing a memory card from the slot. Do not force the memory card in or out of the slot.

Inserting a Memory Card

To insert a memory card

- 1 Flip the front panel down, using your fingertip.
Do not use force to open the cover.
- 2 Locate the appropriate slot for the memory card you want to use.



- 3 Hold the memory card with the arrow facing up and toward the memory card slot.
- 4 Carefully slide the memory card into the slot until it clicks in place.
Do not force the card into the slot.



If the memory card does not go into the slot easily, remove it gently and verify you are inserting it in the proper direction.

Removing a Memory Card

The correct way to remove a memory card from a memory card slot varies, depending on the media or slot. Use care when removing a memory card to avoid damage to the slot or card.

! Do not remove a memory card while the Media Access indicator light is on. The card or its data may become damaged.

To remove a memory card

- 1 Check that the Media Access indicator is off.
- 2 Firmly grasp the extended part of the memory card.
- 3 Carefully pull it out of the slot.

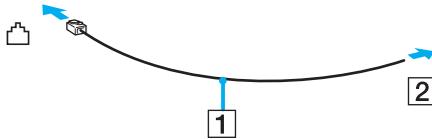
Using the Internet

Setting Up a Dial-up Internet Connection

Before you can connect to the Internet, you need to connect your computer to a telephone line via a telephone cable (not supplied). Once you set up your telephone cable, you're ready to connect to the Internet.

To connect a telephone cable

- 1 Plug one end of the phone cable (1) into the modem port  on the computer.
- 2 Plug the other end into the wall jack (2).



 The computer cannot be connected to a coin-operated telephone, and may not work with multiple telephone lines or a private branch exchange (PBX). Some of these connections may result in excess electrical current and could cause a malfunction in the internal modem.

If you connect a telephone cable coming through a splitter, the modem or connected device may not work properly.

To set up a dial-up connection to the Internet

- 1 Click **Start**, point to **All Programs, Accessories, Communications**, and click **New Connection Wizard**. The **New Connection Wizard** appears.
- 2 Click **Next**. If the **Location Information** window appears, follow the on-screen instructions.
- 3 If it is not already selected, click to select **Connect to the Internet**, and click **Next**.
- 4 Follow the on-screen instructions.

Using Wireless LAN (WLAN)

Using the Sony Wireless LAN (WLAN), all your digital devices with built-in WLAN functionality communicate freely with each other through a powerful network. A WLAN is a network in which a user can connect to a local area network (LAN) through a wireless (radio) connection. So there is no need anymore to pull cables or wires through walls and ceilings.

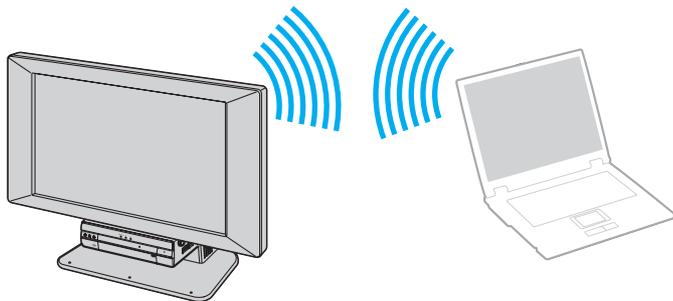
You can communicate without an Access Point, which means that you can communicate between a limited number of computers (ad-hoc). Or you can communicate through an Access Point, which allows you to create a full infrastructure network (infrastructure).



For details about WLAN, refer to the Regulations Guide.

Communicating without an Access Point (Ad-hoc)

An ad-hoc network is a network in which a local network is created only by the wireless devices themselves, with no other central controller or Access Point. Each device communicates directly with other devices in the network. You can set up an ad-hoc network easily at home.



To communicate without an Access Point (ad-hoc)

- 1 Turn on the **WIRELESS** or **WIRELESS LAN** switch.
The **WIRELESS LAN** indicator lights up.
- 2 Click **Start** and then **Control Panel**.
- 3 Click **Network and Internet Connections**.
- 4 Click **Network Connections**.
The **Network Connections** window appears.
- 5 Right-click **Wireless Network Connection**, then click **Properties**.
The **Wireless Network Connection Properties** window appears.
- 6 Select the **Wireless Networks** tab.
- 7 Click the **Add...** button.
The **Wireless network properties** window appears.
- 8 Enter a Network name (SSID)^{*2}.
You can choose a 32-digit alphanumeric name.
- 9 Select **Open** from the **Network Authentication** drop-down box.
- 10 Select **WEP** from the **Data Encryption** drop-down box.
- 11 Deselect the **The key is provided for me automatically** option button.
Some information becomes visible.
- 12 Enter the Network key^{*2}.
The network key should be 5 or 13 alphanumeric characters or 10 or 26 hexadecimal^{*3} characters long. You can choose whatever you want.
- 13 Enter exactly the same Network key again, for confirmation.

- 14 Select the check box **This is a computer-to-computer (ad hoc) network; wireless access points are not used** at the bottom of the screen.
- 15 Click **OK**.
Your Network name appears in the **Preferred networks**.
- 16 Click **Advanced**.
The **Advanced** window appears.
- 17 Select the **Computer-to-computer (ad hoc) networks only** option button.
- 18 Click **Close**.
- 19 Click **OK**.
The computer is ready to communicate with another computer.

- *1 If you want to communicate between two or more computers, you need to configure all these computers in the same way. This means that you need to enter the same Network name and the same Network key on all computers as on the first computer you configure.
- *2 Hexadecimal: A number representation using the digits 0-9, with their usual meaning, plus the letters A-F (or a-f) to represent hexadecimal digits with values of (decimal) 10 to 15.



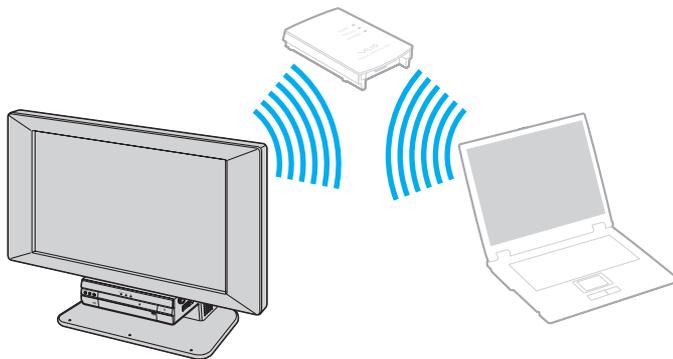
An ad-hoc network does not support WPA (Wi-Fi Protected Access).

To disconnect from a computer-to-computer (ad-hoc) network

- 1 Click **Start** and then **Control Panel**.
- 2 Click **Network and Internet Connections**.
- 3 Click **Network Connections**.
The **Network Connections** window appears.
- 4 In the right panel under **LAN or High-Speed Internet**, double-click **Wireless Network Connection**.
The **Wireless Network Connection Status** window appears.
- 5 Click **Properties**.
The **Wireless Network Connection Properties** window appears.
- 6 On the **Wireless Networks** tab, click **Advanced**.
The **Advanced** window appears.
- 7 Click to select **Any available network (access point preferred)**, and click **Close**.
- 8 Click **OK**.
- 9 Click **Close**.
- 10 Turn off the **WIRELESS** or **WIRELESS LAN** switch.

Communicating with an Access Point (Infrastructure)

An infrastructure network is a network that extends an existing wired local network to wireless devices by providing an Access Point, for example the Sony Access Point. The Access Point bridges the wireless and wired LAN and acts as a central controller for the Wireless LAN. The Access Point coordinates transmission and reception from multiple wireless devices within a specific range.



To connect to a wireless network

- 1** Make sure an access point is set up.
See the instructions that accompanied the access point for more information.
- 2** Turn on the **WIRELESS LAN** switch.
The WIRELESS LAN indicator lights up.
- 3** Click **Start** and then **Control Panel**.
- 4** Click **Network and Internet Connections**.
- 5** Click **Network Connections**.
- 6** In the right panel under **LAN or High-Speed Internet**, double-click **Wireless Network Connection**.
The **Wireless Network Connection** window appears.
- 7** Follow the on-screen instructions.

To connect to a wireless network (Models with the VAIO Wireless Utility software only)

Use the **VAIO Wireless Utility** software to guide you through the set up process and provide you with more detailed information about wireless connections.

- 1** Make sure an access point is set up.
See the instructions that accompanied the access point for more information.
- 2** Turn on the **WIRELESS** or **WIRELESS LAN** switch.
The WIRELESS LAN indicator lights up.
- 3** Click **Start**, point to **All Programs**, and click **VAIO Wireless Utility**.
The **VAIO Wireless Utility** appears.
- 4** Follow the on-screen instructions.

To disconnect from a wireless network

Turn off the **WIRELESS** or **WIRELESS LAN** switch.

!
Turning off the wireless LAN functionality while accessing remote documents, files, or resources may result in data loss.



The WPA (Wi-Fi Protected Access) key needs to contain at least 8 characters.

Using Peripheral Devices

You can add functionality to your computer by using the various ports on the computer.

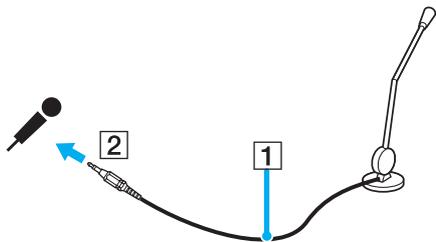
- ❑ **Connecting an External Microphone** ([page 68](#))
- ❑ **Connecting a Universal Serial Bus (USB) Device** ([page 69](#))
- ❑ **Connecting a Printer** ([page 71](#))
- ❑ **Connecting an i.LINK Device** ([page 72](#))
- ❑ **Connecting to a Network (LAN)** ([page 74](#))

Connecting an External Microphone

If you need to use a sound input device (for example, to chat on the Internet) you need to plug in an external microphone.

To connect an external microphone

Plug the microphone cable (1) into the microphone connector (2) .



Make sure your microphone is designed for computer use.

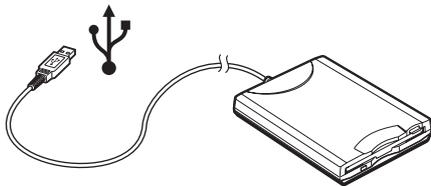
Connecting a Universal Serial Bus (USB) Device

Connecting a USB Floppy Disk Drive

You can purchase a USB floppy disk drive and connect it to your computer.

To connect a USB floppy disk drive

- 1 Choose the USB port  you prefer to use.
- 2 Plug the USB floppy disk drive cable into the USB port.
Your USB floppy disk drive is now ready for use.



! When using a USB floppy disk drive, do not apply force on the USB port. This may cause a malfunction.

Disconnecting a USB floppy disk drive

You can disconnect a USB floppy disk drive when the computer is on or off. Disconnecting the drive when the computer is in a power saving mode (Standby or Hibernate) may cause the computer to malfunction.

If the computer is off, you can unplug the USB cable directly from the computer.

To disconnect a USB floppy disk drive

- 1 Close all programs accessing the floppy disk drive.
- 2 Double-click the **Safely Remove Hardware** icon on the taskbar.
The **Safely Remove Hardware** window appears.
- 3 Select the floppy disk drive you want to unplug.
- 4 Click **Stop**.
The **Stop a Hardware device** window appears.
- 5 Make sure the floppy disk drive is selected, and click **OK**.
A message appears stating it is now safe to remove the hardware device.
- 6 Remove the floppy disk drive from the computer.

Connecting a Printer

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

Connecting a Printer using the USB Port

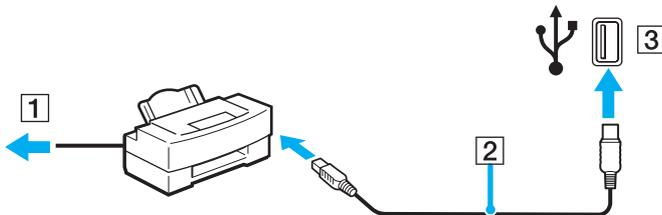
You can connect a USB printer compatible with your version of Windows to the computer.



You need to slide the back panel cover up to access the USB ports on the bottom panel.

To connect a printer using the USB port

- 1 Plug the printer power cord into an AC outlet (1).
- 2 Choose the USB port (3) you prefer to use.
- 3 Plug one end of a USB printer cable (2) into the USB port and the other end to your printer.



Connecting an i.LINK Device

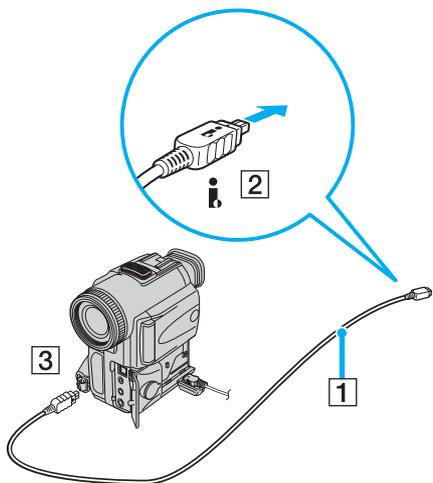
Notes on connecting i.LINK devices

- ❑ The computer includes an i.LINK (IEEE1394) port, which you can use to connect to an i.LINK device such as a digital video camera recorder or to connect two VAIO computers in order to copy, delete or edit files.
- ❑ The i.LINK port of the computer does not supply power to external devices generally powered by i.LINK ports.
- ❑ The i.LINK port supports transfer rates up to 400 Mbps; however, the actual transfer rate depends on the transfer rate of the external device.
- ❑ i.LINK cables compatible with the computer include cables with the following part numbers:
VMC-IL4415 (a 1.5 meter cable with a 4-pin connector at each end), VMC-IL4408 Series (a 0.8 meter cable with a 4-pin connector at each end).
- ❑ An i.LINK connection with other compatible devices is not fully guaranteed.
- ❑ The i.LINK connection varies depending on the software applications, operating system and i.LINK compatible devices you use. Refer to the manual that came with your software for more information.
- ❑ Check the working conditions and OS compatibility of i.LINK-compatible PC peripherals (for example, an HDD or CD-RW drive) before you connect them to the computer.

Connecting a Digital Video Camera Recorder

To connect a digital video camera recorder

- 1 Plug one end of the i.LINK cable (1) into the i.LINK port (2) on the computer and the other end into the DV In/Out ports (3) on the digital video camera recorder.
- 2 Launch the **DVgate Plus** software.



On Sony digital video cameras, ports labeled **DV Out**, **DV In/Out** or **i.LINK** are i.LINK-compatible.

The Sony digital video camera recorder shown here is an example; your digital video camera recorder may need to be connected differently.

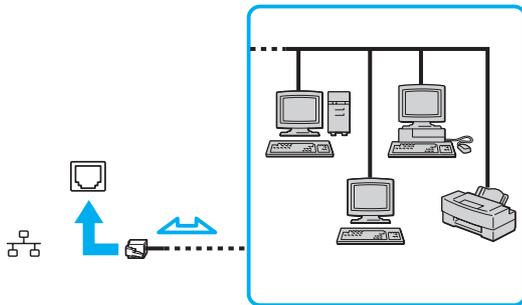
You cannot access the pictures stored on a Memory Stick when using an i.LINK connection.

Connecting to a Network (LAN)

You can connect your computer to 100BASE-TX/10BASE-T-type networks via an Ethernet network cable. Connect one end of an optional network cable to the Network (Ethernet) port on the left of the computer and the other end to your network. For detailed settings and devices needed to connect to the network, see your network administrator.

!

Your computer has a protective sticker  covering the Network (Ethernet) port located on the left of the computer. Connect a 10BASE-T or 100BASE-TX cable to the Network (Ethernet) port. Using an incorrect cable or a phone cable may result in an electric current overload that can cause a malfunction, excessive heat, or fire in the Network (Ethernet) port. For help on connecting to a network, see your network administrator.



The computer can be connected to the network with the default settings.

! Telephone lines cannot be connected to the Network (LAN) connector on your computer. If the Network (LAN) connector is connected to the telephone lines mentioned below, high electric current to the connector may cause damage, overheating or fire.

- Home (intercom speakerphone) or business-use telephone lines (multi-line business telephone)
- Public telephone subscriber line
- PBX (private branch exchange)

! Do not plug a telephone cable into the network port.

Customizing Your VAIO Computer

This section briefly describes how to change the main settings of your computer.

- ❑ **Setting the Password** ([page 77](#))
- ❑ **Setting Up Your Computer with VAIO Control Center** ([page 80](#))
- ❑ **Using the Power Saving Modes** ([page 81](#))

Setting the Password

Use one of the BIOS functions to set the password.

Once you have set the password, you will have to enter the password after the VAIO logo appears to start your computer. The power-on password will allow you to protect your computer from unauthorized access.

Adding the Power-on Password



Once you have set the power-on password, you cannot start the computer without entering the password. Make sure not to forget the password. Write down your password and keep it safe and private from other people.

If you forget the power-on password and need assistance to reset, a password reset fee will be charged, and your computer may need to be sent in for depot service for password reset.

To add the power-on password

- 1 Turn on the computer.
- 2 Press the **F2** key when the VAIO logo appears.
The BIOS setup screen appears.
- 3 Use the **←** or **→** key to select **Security** on the **Boot** menu to display another screen, select **Change Supervisor Password**, and then press the **Enter** key.
- 4 On the password entry screen, enter the password twice and press the **Enter** key.
The password can be up to 6 alphanumeric characters long.



The following is to configure the computer to prompt password entry when you turn it on or display the BIOS setup screen.

- 5 Select **Password Check** under **Security**.
Press the **Enter** key to change the setting from **Setup** to **Always**.
- 6 Press the **Esc** key.
- 7 Use the **←** or **→** key to select **Exit** and select **Exit (Save Changes)**; and then press the **Enter** key.
On the **Setup Confirmation** screen, make sure that **OK** is selected and then press the **Enter** key.

Changing/Removing the Power-on Password

To change or remove the power-on password

- 1 Turn on the computer.
- 2 Press the **F2** key when the VAIO logo appears.
- 3 Enter the current password for **Enter Current Password:**
The BIOS setup screen appears.
- 4 Use the **←** or **→** key to select **Security** on the **Boot** menu to display another screen, select **Change Supervisor Password**, and then press the **Enter** key.
- 5 On the password entry screen, enter a new password twice, and press the **Enter** key.
To remove the password, leave the **Enter Password** field blank and press the **Enter** key.
- 6 Press the **Esc** key.
- 7 Use the **←** or **→** key to select **Exit** and select **Exit (Save Changes)**; and then press the **Enter** key.
On the **Setup Confirmation** screen, confirm that **OK** is selected and then press the **Enter** key.

Setting Up Your Computer with VAIO Control Center

The **VAIO Control Center** utility allows you to consult system information and specify preferences for system behavior.

To use VAIO Control Center

- 1 Click **Start**, point to **All Programs**, and click **VAIO Control Center**.
The **VAIO Control Center** window appears.
- 2 Select the desired control item and change the settings.
- 3 Once finished, click **OK**.
The setting of the desired item has been changed.



For more information about each option, click **Help** on the **VAIO Control Center** window to display the help file.
Some of the control items will not be visible if you open **VAIO Control Center** as a limited user.

Using the Power Saving Modes

In addition to the normal operating mode, which allows you to turn off specific devices, your computer has two distinct power saving modes: Standby and Hibernate.

The color of the power indicator light behind the power button tells you which mode the computer is in.

Power indicator	Mode
Green	Computer is in Normal mode (on).
Amber	Computer is in Standby mode.
No light	Computer is turned off or in Hibernate mode.

To set the timer for the computer to automatically enter Standby or Hibernate mode after a certain amount of time, click **Start** and **Control Panel**. Click **Performance and Maintenance** and **Power Options**, and then change the settings under **Power Schemes**.

Using Normal Mode

This is the normal state of the computer when it is in use. The green power indicator light is on in this mode. To save power while not working, you can turn off a specific device such as the LCD or the hard disk.

Using Standby Mode

Standby mode turns off the LCD screen and sets the hard disk and the CPU to a low power consumption mode. The amber power light flashes in this mode.

To activate Standby mode

- 1 Click **Start** and then **Turn Off Computer**.
- 2 Click **Stand By**.



Alternatively, you can press the Standby button on the keyboard to put the computer in Standby mode.

To return to Normal mode

Press any key.



If you press the power button for more than four seconds, the computer will switch off automatically. You will lose any unsaved data.



When the computer is in Standby mode, you cannot insert a disc.

The computer comes out of Standby mode quicker than out of Hibernate mode.

Standby mode uses more power than Hibernate mode.

If the computer is not used for more than 20 minutes, it will enter Standby mode. To avoid this, you can change the Standby mode settings.

Using Hibernate Mode

In Hibernate mode, the state of the system is saved on the hard disk and power is turned off. The power indicator light is off in this mode.

To activate Hibernate mode

- 1 Click **Start** and then **Turn Off Computer**.
- 2 Click **Hibernate**.

To return to Normal mode

Turn on the computer by pressing the power button.

The computer returns to its previous state.



If you press the power button for more than four seconds, the computer will switch off automatically.



If you do not use the computer for a long period of time, put the computer into Hibernate mode. This power saving mode saves you the time of shutting down or resuming.

When the computer is in Hibernate mode, you cannot insert a disc.

Hibernate mode requires more time than Standby mode to be activated.

It takes more time to return to Normal mode from Hibernate mode than from Standby mode.

Hibernate mode uses less power than Standby mode.



Do not move the computer until its power indicator light turns off.

Upgrading Your VAIO Computer

Your computer and memory modules use high precision components and electronic connectors technology. To avoid the invalidation of your guarantee due to mishandling, we recommend that:

- You contact your dealer to install a new memory module.
- You do not install it yourself, if you are not familiar with upgrading memory on a computer.
- You do not touch the connectors or open the memory panel.

For the type of module and amount of memory installed on your model, refer to the online **Specifications**.

Contact VAIO-Link if you need assistance.

- Before Upgrading Your Computer** ([page 85](#))
- Adding and Removing Memory** ([page 86](#))
- Installing the Hard Disk Drive** ([page 95](#))

Before Upgrading Your Computer

The upgrading procedures described in this section assume that you are familiar with the general terminology associated with personal computers, safety practices, required regulatory compliances, and the modification of electronic equipment.

Disconnect the computer from its power source and from telecommunications links, networks, or modems before you open the computer or follow any procedures in this section.



Failure to disconnect the computer from its power source may result in personal injury or equipment damage. Always turn the power off before you open the computer or connect peripheral equipment. Otherwise, damage may occur to the integrated circuits.

Electrostatic discharge (ESD) can damage disk drives and other components. Follow the procedures described here 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 (for example, cellophane wrappers). Ground yourself by maintaining continuous contact with an unpainted metal portion of the chassis while performing the procedure.

Adding and Removing Memory

If you want to expand the functionality of your computer, you can increase the memory by installing optional memory modules. Before you upgrade your computer's memory, read the notes and procedures in the following pages. The number of available slots depends on the configuration of your model.

Notes on adding/removing memory modules

- ❑ Be careful when changing memory. Improper installation of memory modules may cause damage to your system. This damage may void your manufacturer's warranty.
- ❑ Only use memory modules that are compatible with the computer. If a memory module is not detected by the computer or Windows becomes unstable, contact your sales dealer or the manufacturer of your memory module.
- ❑ Electrostatic discharge can damage electronic components. Before touching a memory module, ensure the following:
 - ❑ The procedures described in this document 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.
 - ❑ Turn off the computer and disconnect the system from its power source and from any telecommunication links, networks, or modems before you open the computer. Failure to do so may result in personal injury or equipment damage.
 - ❑ Electrostatic Discharge (ESD) can damage memory modules and other components. Install the memory module 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.
 - ❑ Do not open the memory module package until you are ready to change the module. The package protects the module from ESD.

- ❑ Use the special bag delivered with the memory module or wrap the module in aluminum foil to protect it from electrostatic discharge.
- ❑ Introducing any liquids or any foreign substances or objects into the memory slots, or other internal components of the computer, will result in damage to the computer and any repair costs will not be covered by the warranty.
- ❑ Do not place the memory module in places subject to:
 - ❑ Heat sources such as radiators or air ducts
 - ❑ Direct sunlight
 - ❑ Excessive dust
 - ❑ 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 41°F (5°C)
 - ❑ High humidity
- ❑ Handle the memory module with care. To avoid injuries to your hands and fingers, do not touch the edges of the components and circuit boards inside the computer.

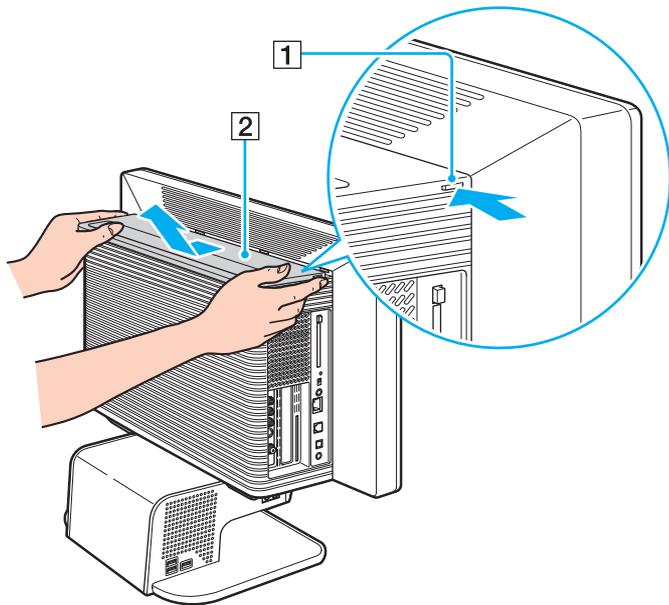
Removing and Installing a Memory Module

! If you remove the top panel immediately after you shut down the computer, the internal components may be too hot to touch. Wait about one hour to let the components cool down before you attempt to remove the panel.

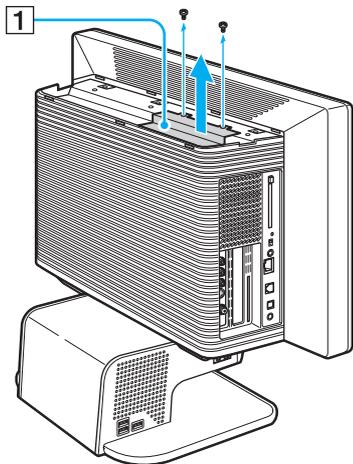
To change or add a memory module

- 1 Shut down the computer and turn off all peripheral devices, such as a printer.
- 2 Unplug the computer and disconnect any peripheral devices.

- 3 Press and hold the release button (1), slide the top panel (2) toward the back of the computer, lift the panel, and set it aside.

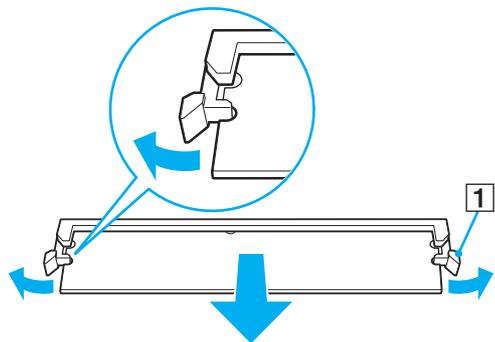


- 4 Unscrew the two screws on the memory cover (1), lift the cover, and set it aside.

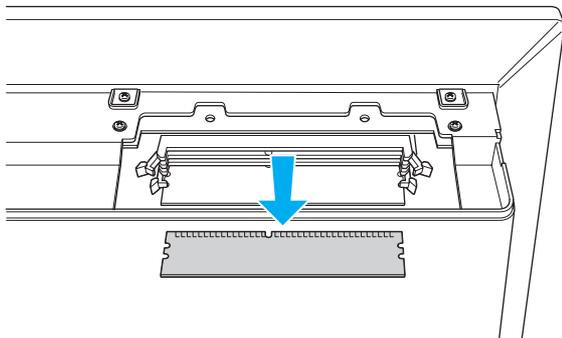


- 5 Touch a metal object (such as the chassis frame) to discharge static electricity.

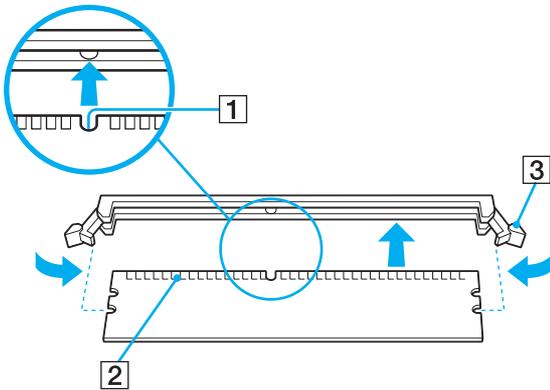
- 6 Locate the memory module(s) you wish to remove.
- 7 Push down on the latches (1), located on both sides of the module, to gently eject it from the slot.



- 8 Grasp the memory module by the sides and remove from the computer. Store the module in a static-free bag.

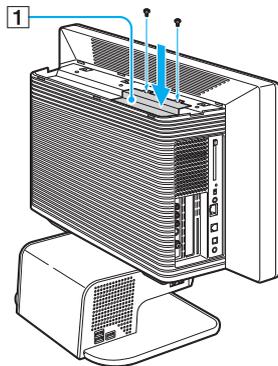


- 9 Locate the center notch (1) on the bottom edge of the memory module and align it to the center bump in the open module slot.
- 10 Firmly insert the lower edge of the module (2) into the slot by pressing down evenly against the module's upper corners. The side latches (3) snap into position, holding the memory module in place.

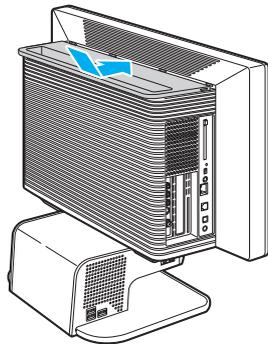


! To avoid damaging a memory module or the memory module slot, move the side latches slightly outward to relieve pressure.

11 Replace the memory cover (1) and tighten the two screws.



12 Gently slide the top panel onto the computer until it snaps into place.



Viewing the Amount of Memory

To view the amount of memory

- 1 Turn on the computer.
- 2 Click **Start**, point to **All Programs**, and click **VAIO Control Center**.
- 3 Click the **System Information** tab in the **VAIO Control Center** window.
- 4 Double-click the **System Information** folder.
- 5 Double-click the **System Information** icon.

You can view the amount of system memory. If the additional memory does not appear, repeat the whole procedure and restart the computer.

Installing the Hard Disk Drive

Your computer may be equipped with open internal bays to hold additional 3.5-inch hard disk drives. See the online **Specifications** for details about the installed hard disk drive.

Review the manufacturer's information provided with your new hard disk drive before attempting to install it in the computer.

Replacing the Original Hard Disk Drive

If you replace the original, factory-installed hard disk drive, you may need to correct the drive mapping, and/or create a VAIO Recovery Media Kit. Visit the VAIO-Link web site (www.vaio-link.com) for more information.

About drive mapping

When a new hard disk drive is installed, the original drive mapping^{*} may be changed. The identified drives, including those for removable media, may not reflect correct drive/icon associations. For more information on how to correct the drive mapping, visit the VAIO-Link web site (www.vaio-link.com).

* Drive mapping refers to the assignment of an identifying letter to a specific drive, such as Drive C or Drive D which identify the original hard disk drive.

About hard disk drive recovery

When you replace the original hard disk drive, the preinstalled **VAIO Recovery** utility cannot restore the drive partitions, operating system, or original software programs. Before replacing the hard disk drive, create a VAIO Recovery Media Kit.



Your computer is not supplied with **System or Application Recovery CDs**. Use the **VAIO Recovery** utility to recover the computer's operating system and preinstalled software programs. For more details, refer to the **Recovery Guide**.

Drive letter assignment

When a new hard disk drive is installed, an identifying drive letter is assigned. The drive letter assignment becomes effective after you register for the first time or after recovering your computer with the **VAIO Recovery** utility.

The **Click to DVD** software creates a new folder location on the new hard disk drive. This new folder is the default location to save files created with the **Click to DVD** software.

- ❑ If the Microsoft Windows operating system identifies the new hard disk drive as drive D, the **Click to DVD** software saves its files to a new folder on the new drive D.
- ❑ If the Windows operating system assigns another letter to the new hard disk drive, such as drive E or J, the **Click to DVD** software creates the new save folder on the new drive.



When you start the **Click to DVD** software for the first time, after recovering the computer or installing a new hard disk drive, the software automatically creates a new save folder on the new drive.

Notes on installing a new hard disk drive

- ❑ If the computer is equipped with a Serial ATA (SATA) hard disk drive, you do not need to configure the new drive.
- ❑ Follow the configuration instructions supplied with the new hard disk drive.

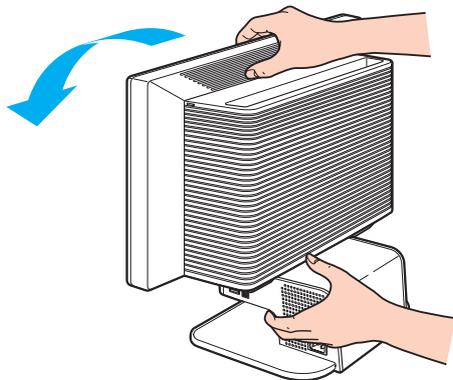
Installing an Additional Hard Disk Drive

You can install up to two SATA hard disk drives to the internal hard disk drive bay.

! If you remove the back panel immediately after you shut down the computer, the internal components may be too hot to touch. Wait about one hour to let the components cool down before you attempt to remove the panel.

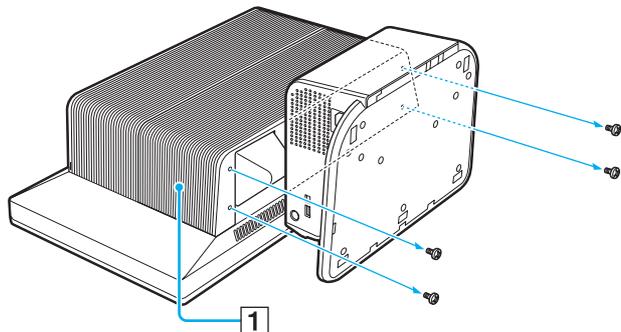
To install an additional hard disk drive

- 1 Shut down the computer and turn off all peripheral devices, such as a printer.
- 2 Unplug the computer and disconnect any peripheral devices.
- 3 Gently place the computer on a flat and stable surface, with the LCD screen facing down.

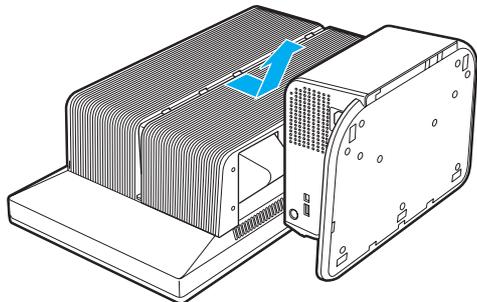


! Use caution when placing the LCD screen face-down on a table or other flat surface. The work surface must be free of dirt or debris that may damage the screen.

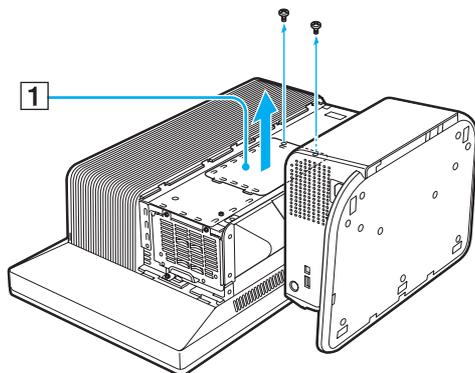
- 4 Unscrew the four screws on the bottom of the back panel (1).



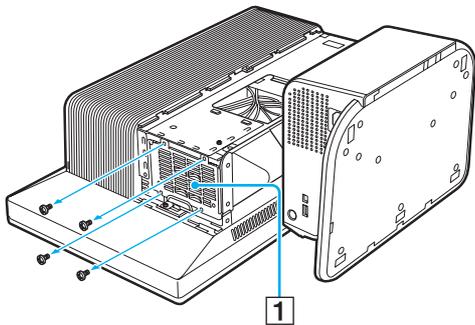
- 5 Slide the back panel toward the bottom of the computer, lift the panel, and set it aside.



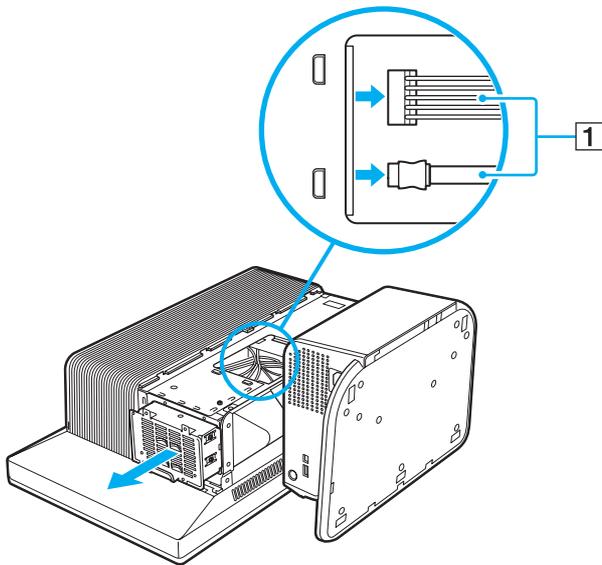
- 6 Unscrew the two screws on the hard disk cover (1), lift the cover, and set it aside.



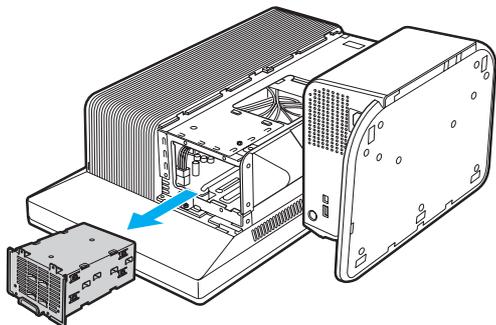
- 7 Unscrew the four screws on the drive holder (1).



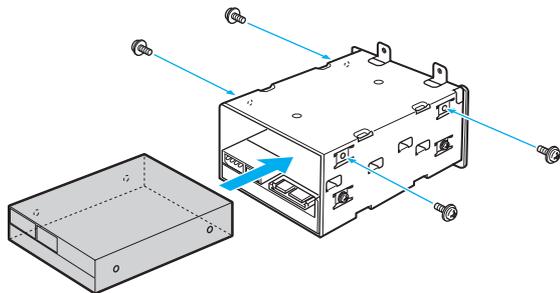
- 8 Pull the drive holder slightly out and detach the power and interface cables from the original hard disk drive that is preinstalled in the computer.



- 9 Slide the drive holder completely out.

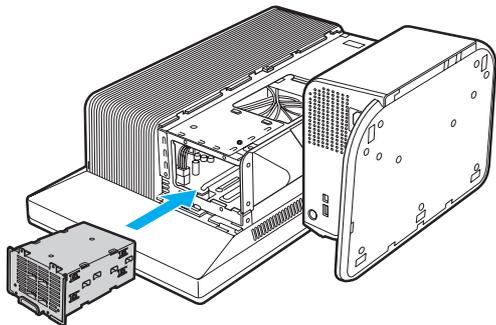


- 10 Slide a new drive into the drive holder and align the holes on each side of the drive bay.
11 Secure the drive to the drive holder with screws, through the holes on each side of the drive holder.



The new hard disk drive is supplied with the necessary screws. Do not overtighten these screws when securing the drive to the drive holder.

- 12** Align the drive holder with the tracks on the inside of the chassis.
Connect the power and internal SATA cables to the original and new hard disks and slide the drive holder in completely.



- 13** Replace the hard disk cover and the back panel, and then place the computer upright.

Identifying the Additional Hard Disk Space

When you initialize the new hard disk, it must be configured as an extended partition in Windows NT file system (NTFS) format.

To identify the additional hard disk space

- 1 Log on to Windows as a user with administrator rights.
- 2 Click **Start** and right-click **My Computer**.
- 3 Select **Manage** from the menu.
The **Computer Management** window appears.
- 4 Under the file directory on the right, double-click **Storage** and then **Disk Management**.
- 5 Right-click on the newly installed, unformatted hard disk (Disk label identified with red marking) and select **Initialize Disk** from the menu.
- 6 Click on the allocated area of the disk.
- 7 Right-click the area and select **New Partition** from the menu.
The **New Partition** wizard window appears.
- 8 Follow the on-screen instructions to complete the process.

The Windows XP operating system recognizes the new hard disk drive and applies the NTFS format.

Precautions

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

- ❑ **On Handling the LCD Screen** ([page 106](#))
- ❑ **On Using the Power Source** ([page 107](#))
- ❑ **On Handling Your Computer** ([page 108](#))
- ❑ **On Handling Discs** ([page 110](#))
- ❑ **On Using Headphones** ([page 110](#))
- ❑ **On Handling Memory Stick** ([page 111](#))
- ❑ **On Handling the Hard Disk** ([page 112](#))

On Handling the LCD Screen

- ❑ Do not leave the LCD facing the sun. This could 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 a 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 appear on the LCD. This is a normal result of the manufacturing process and does not indicate a malfunction.
- ❑ Avoid rubbing the LCD screen. This could damage the screen. Use a soft, dry cloth to wipe the LCD screen.

On Using the Power Source

- ❑ See the online **Specifications** to check the power operation of your model.
- ❑ Do not share the AC outlet with other power-consuming equipment, such as a photocopier or shredder.
- ❑ You can purchase a power strip with a surge protector. This device prevents damage to the computer caused by sudden power surges, in an electrical storm, for example.
- ❑ 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 the computer from the AC outlet if you are planning to not use the computer for a long time.
- ❑ Make sure that the AC outlet is easily accessible.
- ❑ Use the power cord supplied with the computer or genuine Sony products. Do not use any other power cord as it may cause a malfunction.

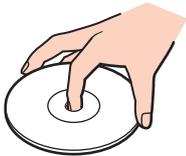
On Handling Your Computer

- ❑ Clean the cabinet with a soft cloth, which is dry or 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 the computer.
- ❑ If you drop a solid object or any liquid onto the computer, shut down the computer and then unplug it. You may want to have the computer checked by qualified personnel before operating it again.
- ❑ Do not drop the computer or place heavy objects on top of the computer.
- ❑ Do not place the 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 41°F (5°C)
 - ❑ High humidity
- ❑ Do not place electronic equipment near the computer. The electromagnetic field of the computer may cause a malfunction.
- ❑ Provide adequate air circulation to prevent internal heat from building up. Do not place the computer on porous surfaces such as rugs or blankets, or near material such as curtains or draperies that may block its ventilation slots.
- ❑ The computer uses high-frequency radio signals and may cause interference to radio or TV reception. If this occurs, relocate the computer a suitable distance away from the set.
- ❑ Use only specified peripheral equipment and interface cables; otherwise, problems may occur.

- ❑ Do not use cut or damaged connection cables.
- ❑ If the computer is brought directly from a cold location to a warm one, moisture may condense inside the computer. In this case, allow at least one hour before turning on the computer. If any problems occur, unplug the computer and contact an authorized Sony Service Center. To find the nearest center or agent, visit the Sony online support Web site.
- ❑ Make sure you disconnect the power cord before cleaning the computer.
- ❑ To avoid losing data if the computer is damaged, back up your data regularly.

On Handling Discs

- ❑ Do not touch the surface of the disc.
- ❑ Do not drop or bend the disc.
- ❑ Fingerprints and dust on the surface of a disc may cause read errors. Always hold the disc by its edges and central hole, as shown below:



- ❑ Proper care of the disc is essential to its continuous reliability. Do not use solvents (such as benzine, thinner, alcohol, commercially available cleaners, or anti-static spray) which 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.
- ❑ Never put stickers on discs. This will affect the use of the disc irreparably.

On Using Headphones

Preventing hearing damage – Avoid using headphones 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 Handling a Memory Stick

- ❑ Do not use the Memory Stick in locations that are subject to static electricity or electrical noise.
- ❑ Do not touch the Memory Stick connector with your finger or metallic objects.
- ❑ Use only the label supplied with the Memory Stick as a label.
- ❑ Do not bend, drop, or apply strong shock to the Memory Stick.
- ❑ Do not disassemble or modify Memory Sticks.
- ❑ Do not let Memory Sticks get wet.
- ❑ Do not use or store Memory Sticks in a location subject to:
 - ❑ Extremely high temperatures, such as in a car parked in the sun
 - ❑ Direct sunlight
 - ❑ High humidity or
 - ❑ Corrosive substances
- ❑ Use the storage case supplied with the Memory Stick.

On Handling the Hard Disk

The hard disk has a high storage density and reads or writes data in a short time. However, it can be easily damaged by mechanical vibration, shock or dust.

Although the hard disk has the internal safety device to prevent losing data due to mechanical vibration, shock or dust, you should be careful when handling the computer.

To avoid damaging your hard disk

- Do not subject the computer to sudden movements.
- Keep the computer away from magnets.
- Do not place the computer in a location subject to mechanical vibration or in an unstable position.
- Do not move the computer while the power is on.
- Do not turn off the power or restart the computer while reading or writing data to disk.
- Do not use the computer in a place subject to extreme changes in temperature.



If the hard disk is damaged, the data cannot be restored.

Troubleshooting

This section describes how to solve common problems you might encounter when using your computer. Many problems have simple solutions. Try these suggestions before visiting the Sony online support Web site at <http://www.vaio-link.com>.

- ❑ **Computer** ([page 114](#))
- ❑ **System Security** ([page 121](#))
- ❑ **Internet** ([page 123](#))
- ❑ **Networking** ([page 125](#))
- ❑ **CDs and DVDs** ([page 128](#))
- ❑ **Display** ([page 132](#))
- ❑ **Printing** ([page 133](#))
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- ❑ **Keyboard** ([page 137](#))
- ❑ **Floppy Disks** ([page 138](#))
- ❑ **PC Cards** ([page 139](#))
- ❑ **Audio/Video** ([page 140](#))
- ❑ **Memory Stick** ([page 141](#))
- ❑ **Peripherals** ([page 142](#))

Computer

What should I do if my computer won't start?

- Make sure the computer is securely plugged into a power source and turned on. Make sure the power indicator shows the power is on.
- Make sure the optical disc drive (if applicable) is empty.
- If the computer is plugged into a power strip or uninterruptible power supply (UPS), make sure the power strip or UPS is plugged into a power source and turned on.
- Make sure the brightness and contrast controls are adjusted correctly.
- Condensation may cause the computer to malfunction. If this occurs, do not use the computer for at least one hour.
- Remove any extra memory modules you may have inserted since purchase.
- Confirm that the computer is not in Standby mode by pressing any key on the keyboard.

What should I do if a BIOS error appears when my computer starts?

If the message "Press F2 to setup" appears at the bottom of the screen

- 1 Press the **F2** key when the VAIO logo appears.
The BIOS setup screen appears.
- 2 Press the **→** key to select the **Exit** menu.
- 3 Press the **↓** key to select **Load Setup Defaults**.
- 4 Press the **Enter** key.
The **Load Setup Defaults** window appears.
- 5 Select **OK**, and press the **Enter** key.
- 6 Select **Exit (Save Changes)**, and press the **Enter** key.
The **Save configuration changes and exit now?** window appears.
- 7 Select **OK**, and press the **Enter** key.
The computer restarts.

If this occurs on a regular basis, contact an authorized Sony Service Center. To find the nearest center or agent, visit the Sony online support Web site.

What should I do if the power indicator (Green) lights but my screen does not display anything when I turn on my computer?

If nothing still appears on your screen after a while

- 1 Press the power button for more than four seconds to check that the power indicator goes out. Then turn on the computer again.
- 2 If nothing still appears on your screen, unplug the power cord and leave the computer for about a minute. Then plug in the power cord and turn on the computer again.

What should I do if the message "Operating system not found" appears when my computer starts, and why won't Windows start?

- ❑ Make sure the computer does not have a "non-bootable" CD or DVD in the optical disc drive (if applicable).
- ❑ If a non-bootable media is in the drive:
 - 1 Remove the media.
 - 2 Restart the computer and confirm that the Microsoft Windows operating system starts properly.
- ❑ If the Windows operating system still does not start, follow these steps to initialize the BIOS:
 - 1 If there is a CD or DVD in the optical disc drive, remove it.
 - 2 Turn off the computer.
 - 3 Remove any peripheral devices connected to the computer.
 - 4 Restart the computer.
 - 5 Press the **F2** key when the VAIO logo appears.
The BIOS setup screen appears.
 - 6 Press the **→** key to select the **Exit** menu.
 - 7 Press the **↓** key to select **Load Setup Defaults**.
 - 8 Press the **Enter** key.
The **Load Setup Defaults** window appears.
 - 9 Select **OK**, and press the **Enter** key.
 - 10 Select **Exit (Save Changes)**, and press the **Enter** key.
The **Save configuration changes and exit now?** window appears.
 - 11 Select **OK**, and press the **Enter** key.
The computer restarts.

What should I do if my computer or software stops responding?

- ❑ It is best to turn off the computer using the **Turn Off Computer** option on the Microsoft Windows Start menu, located on the taskbar. Using other methods, including those listed below, may result in loss of unsaved data.
- ❑ Click **Start**, point to **Turn Off Computer**, and then click **Turn Off**.
- ❑ If the computer does not turn off, press the **Ctrl+Alt+Delete** keys simultaneously. When the **Windows Task Manager** window appears, click **Turn Off** from the **Shut Down** menu.
When the **Windows Security** window appears, click **Shut Down**.
- ❑ If the computer still does not turn off, press and hold the power button until the computer turns off.
- ❑ If the computer stops responding while playing a CD or DVD, press the **Ctrl+Alt+Delete** keys simultaneously. You can turn off the computer from the **Windows Task Manager**.
- ❑ Pressing the **Ctrl+Alt+Delete** keys simultaneously or turning off the computer with the power button or switch may cause loss of data.
- ❑ Remove the power cord.
- ❑ Try reinstalling the software.
- ❑ Contact the software publisher or designated provider for technical support.

Why won't my computer enter Standby or Hibernate mode?

The computer may become unstable if the operating mode is changed before the computer completely enters Standby or Hibernate.

To restore the computer to normal operating stability

- 1 Close all open programs.
- 2 Restart the computer. Follow these steps:
 - 1 Press the **Windows** key.
 - 2 Press the **U** key.
 - 3 Press the **R** key to select restart.
- 3 If the computer does not restart, follow these steps:
 - 1 Press the **Ctrl+Alt+Delete** keys simultaneously.
The **Windows Task Manager** or **Windows Security** window appears.
 - 2 When the **Windows Task Manager** window appears, press and release the **Alt** key to highlight the menu bar, press the **→** key to select **Shut Down**, and then follow step 3 and 4.
When the **Windows Security** window appears, press the **S** key to shut down.
 - 3 Press the **Enter** key.
 - 4 Press the **R** key to select restart.
- 4 If this procedure does not work, press and hold the power button until the computer turns off.

Why don't my changes appear on the computer screen (LCD)?

You may need to refresh the computer screen. Press and hold the **Windows** key, and press **D** twice.

What should I do if I start my computer and the message "System Disabled" appears and Windows does not start?

If you enter a wrong power-on password three times consecutively, the **System Disabled** message appears and Windows does not start. Press the power button for more than four seconds to check that the power indicator goes off. Wait for 10 or 15 seconds, then restart the computer and enter the correct password. When entering the password, check that the Num lock indicator and Caps lock indicator are off. If any are lit, press the **Num Lk** key or the **Caps Lock** key to turn off the indicator before entering the password.

What should I do if my game software does not work or it keeps crashing?

- Check the web site of the game if there are any patches or updates to download.
- Make sure you have installed the latest video driver.
- On some VAIO models, the graphics memory is shared with the system. The optimal graphic performance in this case is not guaranteed.

What should I do if I cannot remember the password?

If you have forgotten the password, contact an authorized Sony Service Center to cancel it. A cancellation fee will be charged. To find the nearest center or agent, visit the Sony online support Web site.

Why does it take time before my computer starts?

If Norton Internet Security's Personal Firewall is active, it may take some time before the Desktop screen appears due to network security checkups.

System Security

This section provides information about keeping your computer operating smoothly and protecting against potential threats to the computer's security.

How can I protect my computer against security threats, such as viruses?

The Microsoft Windows operating system is preinstalled on the computer. The best way to protect the computer against security threats, such as viruses, is to download and install the latest Windows updates regularly.

You can get important Windows updates by doing one of the following:

- ❑ The Automatic Updates feature — This feature automatically searches for and delivers updates directly to the computer whenever you are connected to the Internet.
- ❑ The Windows Updates web site — This site enables you to download computer updates without turning on the **Automatic Updates** feature.

The computer must be connected to the Internet before you can receive updates.

To use the Automatic Updates feature

- 1 Connect to the Internet.
- 2 Click the **Automatic Updates** icon on the taskbar.
- 3 Click **Next**, and follow the on-screen instructions to set up automatic or scheduled updates.

To visit the Windows Updates web site

- 1 Connect to the Internet.
- 2 Type <http://windowsupdate.microsoft.com/> in the address bar of your browser. The **Microsoft Windows Update** and **Security Warning** windows appear.
- 3 In the **Security Warning** window, start installation and run **Windows Update**.
- 4 In the **Microsoft Windows Update** window, select an installation type, and follow the on-screen instructions.

How do I keep my antivirus software updated?

You can keep the Norton Internet Security software program current with the latest updates from Symantec Corporation.

To download and install the latest security update

- 1 Double-click the **Norton Internet Security** icon on the taskbar. If you have not previously registered the antivirus software, a series of information wizards appear.
 - 1 Follow the on-screen instructions to complete each wizard.
 - 2 Double-click the **Norton Internet Security** icon again. The **Norton Internet Security** window appears. If you have previously registered this antivirus software, the Norton Internet Security window automatically appears.
- 2 Follow the on-screen instructions to select and download updates.

Internet

Why doesn't my modem work?

- Make sure the telephone cable is securely plugged into the Modem port on the computer and the wall jack.
- Make sure the telephone cable is working. Plug the cable into an ordinary telephone and listen for a dial tone.
- Make sure the telephone number the program is dialing is correct.
- Make sure the software you are using is compatible with the computer's modem. (All preinstalled Sony programs are compatible.)
- Make sure that the modem is the only device connected to your phone line.
- Check the following setting:
 - 1 Click **Start** and then **Control Panel**.
 - 2 Click **Printers and Other Hardware**.
 - 3 Click **Phone and Modem Options**.
 - 4 On the **Modems** tab, check that your modem is listed.
 - 5 On the **Dialing Rules** tab, check the location information is correct

Why is my modem connection slow?

The computer is equipped with a V.92/ V.90 compatible modem. Many factors may 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 (ISP), follow these steps:

- Ask your telephone company to verify your telephone line is free of any line noise.
- If your problem is fax-related, make sure 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 ISP, make sure the ISP is not experiencing technical problems.
- If you have a second telephone line, try connecting the modem to that line.

Networking

Why can't my computer connect to a wireless LAN access point?

- Connection availability is affected by distance and obstructions. You may need to move the computer away from obstructions or closer to any access point you may be using.
- Make sure the **WIRELESS** or **WIRELESS LAN** switch is on and the WIRELESS LAN indicator is lit on the computer.
- Make sure power to the access point is on.
- Check the following setting:
 - 1 Click **Start** and then **Control Panel**.
 - 2 Click **Network and Internet Connections**.
 - 3 Click **Network Connections**.
 - 4 Right-click **Wireless Network Connection**.
 - 5 Click **Properties**.
 - 6 Click the **Wireless Network** tab.
 - 7 Make sure the access point is displayed in the **Available networks**.
- Make sure the encryption key is correct.

Why can't I access the Internet?

- Check the access point settings. See the instructions supplied with the access point.
- Make sure the computer and the access point are connected to one another.
- Move the computer away from obstructions or closer to any access point you may be using.
- Make sure the computer is properly configured for Internet access.

Why is the data transfer speed slow?

- ❑ The wireless LAN data transfer speed is affected by distance and obstructions between devices and access points. Other factors include device configurations, radio conditions, and software compatibility. To maximize the data transfer speed, move the computer away from obstructions or closer to any access point you may be using.
- ❑ If you are using a wireless LAN access point, the device may be temporarily overloaded depending on how many other devices are communicating via the access point.
- ❑ If your access point interferes with other access points, change the access point channel. See your access point instructions for more information.

How do I avoid data transfer interruptions?

- ❑ When the computer is connected to an access point, data transfer interruptions may occur when using large files or if the computer is in close proximity to microwaves and cordless telephones.
- ❑ Move the computer closer to the access point.
- ❑ Make sure the access point connection is intact.
- ❑ Change the access point channel. See your access point manual for more information.

What are channels?

- ❑ Wireless LAN communication occurs on divided frequency bands known as channels. Third-party wireless LAN access point channels may be preset to different channels from Sony devices.
- ❑ If you are using a wireless LAN access point, see connectivity information contained in your access point instructions.

When I change the encryption key, the network connection stops. What should I do?

Two computers with built-in wireless LAN may lose a peer-to-peer network connection if the encryption key is changed. You can either change the encryption key back to the original profile or re-enter the key on both computers so the key matches.

CDs and DVDs

Why does my computer freeze when I try to read a disc?

The disc the computer is trying to read may be dirty or damaged. Follow these steps:

- 1 Restart the computer by clicking **Start, Turn Off Computer**, and **Restart**.
- 2 Eject the disc from the optical disc drive.
- 3 Examine the disc for dirt or damage. If the disc is dirty, see **On Handling Discs (page 110)** for instructions on how to clean it.

What should I do if the drive tray won't open?

- Make sure the computer is on.
- Press the drive eject button.
- If the drive eject button does not work, click **Start** and then **My Computer**. Right click the optical disc drive icon, and select **Eject** from the shortcut menu.
- If none of the above options work, insert a thin, straight object (such as a paper clip) in the manual eject hole near the drive eject button.
- Try restarting the computer.

What should I do if the optical disc drive isn't playing my CD or DVD properly?

- ❑ Make sure the disc was inserted into the optical disc drive with the label facing up.
- ❑ Make sure the necessary program(s) is installed according to the manufacturer's instructions.
- ❑ If the CD or DVD is dirty or damaged, the computer will stop responding. Follow these steps:
 - 1 Restart the computer by pressing the **Ctrl+Alt+Delete** keys, and selecting **Restart** from the **Shut Down** menu of the **Windows Task Manager** window.
 - 2 Remove the CD or DVD from the optical disc drive.
 - 3 Check the disc for dirt or damage. If you need to clean the disc, see **On Handling Discs (page 110)** for instructions.
- ❑ If you are playing a CD or DVD and cannot hear sound, follow these steps:
 - ❑ Double-click the **Volume icon** on the taskbar, and click to cancel the **Master Volume Mute All** and **Wave Mute** check boxes.
 - ❑ Check the volume setting in the audio mixer.
 - ❑ If you are using external speakers, check the volume settings on the speakers and the connections between the speakers and the computer.
 - ❑ Make sure the CD audio feature is enabled and the correct driver software is installed. Follow these steps:
 - 1 Click **Start** and then **Control Panel**.
 - 2 Click **Performance and Maintenance**.
 - 3 Click **System**.
The **System Properties** window appears.
 - 4 Select the **Hardware** tab, and click **Device Manager** in the **Device Manager** box.
A window with a listing of the computer's hardware devices appears.
If an "X" or an exclamation point appears on the listed device, you may need to enable the device or reinstall the drivers.

- 5 Double-click the optical disc drive device to open the submenu.
 - 6 Double-click the listed drive, and select the **Properties** tab.
 - 7 Click to select the **Enable digital CD audio for this CD-ROM device** check box, if it is not selected. You can confirm the driver software by selecting the **Driver** tab, and clicking **Driver Details**.
 - 8 Click **OK** to close the window.
- Make sure an adhesive label was not attached to the CD or DVD. Adhesive labels can come off while the disc is in the optical disc drive and damage the drive or cause it to malfunction.
 - If a region code warning appears, the disc may be incompatible with the optical disc drive. Check the DVD package to make sure the region code is compatible with the optical disc drive.
 - If you notice condensation on the computer, do not use the computer for at least one hour. Condensation can cause the computer to malfunction.
 - Make sure the computer is running on AC power supply and try the disc again.

What should I do if I cannot write to CD?

- ❑ Do not launch any software application or allow any to launch automatically, not even a screen saver.
- ❑ Do not use the keyboard.
- ❑ Do not use a CD-R/RW disc that has a label affixed to it. This could cause a write error or other damage.

What should I do if I cannot write to DVD?

This Q & A entry applies to selected models only. See the online **Specifications** to see whether your model is equipped with an optical disc drive capable of DVD writing.

- ❑ Are you using the correct DVD recordable media?
- ❑ Check which DVD recordable format is compatible with the computer's built-in DVD recorder (DVD-R / DVD-RW / DVD+R / DVD+RW). Note the possibility that some brands of DVD recordable media do not work.
- ❑ The preinstalled software on the computer does not support copying DVD movies. Macrovision or a similar video protection technology prevents users from copying DVD movies. Copying a DVD movie would be a copyright infringement and therefore illegal.

Display

Why did the computer screen (LCD) go blank?

- ❑ The computer screen may go blank if the computer has lost power or has entered a power saving mode (Standby or Hibernate). If the computer is in Standby mode, press any key to activate the computer screen. See **Using the Power Saving Modes (page 81)** for more information.
- ❑ Make sure the computer is plugged into a power source and is on. The power indicator on the computer will be on if the computer is on.
- ❑ The display output of the computer may have been turned off, press the **MONITOR OFF** button.

What should I do if the screen is dark?

Press the Brightness (+) button to brighten the screen.

Printing

Why can't I print a document?

- ❑ Make sure the printer is on, and the printer cable is securely connected to the ports on the printer and computer.
- ❑ Make sure the printer is compatible with the Windows operating system installed on the computer.
- ❑ You may need to install the printer driver software before you use the printer. See the manual that accompanied the printer for more information.
- ❑ If the printer is not functioning after the computer resumes from a power saving mode (Standby or Hibernate), then restart the computer.
- ❑ If the bidirectional communication functions are provided with your printer, disabling the functions on the computer may enable printing. Follow these steps:
 - 1 Click **Start** and then **Control Panel**.
 - 2 Click **Printers and Other Hardware**.
 - 3 Click **Printers and Faxes**.
 - 4 Right-click an unused printer and select **Properties**.
 - 5 Click the **Ports** tab.
 - 6 Deselect the **Enable bidirectional support** check box.
 - 7 Click **OK**.

This change to the settings disables the bidirectional communication functions of the printer, such as data transfer, status monitoring, and remote panel.

Microphone

Why doesn't my microphone work?

If you are using an external microphone, make sure the microphone is turned on and is properly plugged into the Microphone jack on the computer.

Mouse

What should I do if the computer doesn't recognize the mouse?

- Confirm that the supplied AA batteries are properly installed.
- Press the **CONNECT** button on the mouse and the computer to re-establish the connection between the two devices.

What should I do if the pointer doesn't move when I use the mouse?

- Make sure another mouse is not installed.
- If you are playing a disc, press the **Ctrl+Alt+Delete** keys simultaneously to stop playback and restart the computer.
- If you still cannot use the pointer, restart the computer. You can restart the computer three different ways:
 - Press the **Windows** key, and press the **U** key. When the **Turn off computer** window appears, press the **R** key.
 - Press the **Ctrl+Alt+Delete** keys simultaneously. When the **Windows Task Manager** window appears, press the **Alt** key to highlight the menu bar, and press the **➔** key to select **Shut Down**. Press the **Enter** key, and then press the **R** key.
 - Press and hold the power button. When the computer turns off, wait 10 to 15 seconds then press the power button again to restart the computer.
- If you are using a wireless optical mouse:
 - Confirm that the supplied AA batteries are properly installed.
 - Press the **CONNECT** button on the mouse and the computer to re-establish the connection between the two devices.
- Avoid using radio-controlled toys or equipment, CB radios, and other wireless devices in the area near your wireless mouse. These devices may cause interference, causing your mouse to stop working properly.
- Do not place metal furniture near the computer or wireless mouse, as this may create interference, causing your mouse to stop working properly.

Speakers

Why won't my speakers work?

- ❑ The speaker volume may have been turned off. Press the **MONITOR OFF** button on the front of the computer or press the Mute button on the keyboard.
- ❑ The keyboard also has a volume control, make sure the volume is turned up loud enough to hear sound.

Why can't I hear sound from my speakers?

- ❑ If you are using a program that has its own volume control, make sure the volume control is properly set. See that program's help guide for more information.
- ❑ Your speakers may be set to mute, the volume setting may be too low, or the audio option may be disabled.
- ❑ The speaker volume may have been turned off. Press the **MONITOR OFF** button on the front of the computer or press the Mute button on the keyboard.
- ❑ The keyboard also has a volume control, make sure the volume is turned up loud enough to hear sound.
- ❑ Check the volume controls in Windows.

Keyboard

What should I do if the keyboard configuration is wrong?

- ❑ The language layout of the computer's keyboard is specified on the sticker on the box. If you choose a different regional keyboard when you complete the Windows setup, the key configuration will be mismatched.
- ❑ To change the keyboard configuration, follow these steps:
 - 1 Click **Start** and then **Control Panel**
 - 2 Click **Date, Time, Language and Regional Options**, and click **Regional and Language Options**.
 - 3 Change the settings as desired.

Floppy Disks

Why doesn't the Safely Remove Hardware icon appear on the taskbar when the drive is connected?

The computer does not recognize the floppy disk drive. First, make sure the USB cable is properly connected to the USB port. If you need to secure the connection, wait a few moments for the computer to recognize the drive. If the icon still does not appear, follow these steps:

- 1 Close all programs that were accessing the floppy disk drive.
- 2 Wait for the LED indicator on the floppy disk drive to turn off.
- 3 Push the eject button to remove the disk, and disconnect the USB floppy disk drive from the computer.
- 4 Reconnect the floppy disk drive by inserting the USB connector (with the USB icon facing upward) into the USB port.
- 5 Restart the computer by clicking **Start, Turn Off Computer**, and then **Restart**.

Why is the drive unable to write data to a floppy disk?

- Make sure the floppy disk is properly inserted in the drive.
- If the disk is inserted properly and you are still unable to write data to it, the disk may be full or write-protected. You can either use a floppy disk that is not write-protected or disable the write-protect feature.

PC Cards

Why doesn't my PC Card work?

- ❑ Make sure the PC Card is inserted properly. See **Inserting a PC Card (page 47)** for more information.
- ❑ Make sure the PC Card is compatible with the Microsoft Windows operating system installed on the computer.
- ❑ See the instructions that accompanied your PC Card. You may need to install driver software if you are not using a Sony PC Card.

Why doesn't my computer recognize attached devices?

For some PC Cards, if you alternate between normal power operation and the Standby or Hibernate modes while the card is inserted into the PC Card slot, the computer may not recognize the PC Card or the connected device. Restart the computer.

Why can't I insert my PC Card?

- ❑ Make sure you are inserting the card correctly. See **Inserting a PC Card (page 47)** for more information.
- ❑ You may not be able to use some PC Cards or some functions of the PC Card with the computer. Check the manual that accompanied your PC Card for more information on its use.

Audio/Video

Why can't I use the DV camera recorder?

You may not be able to use the DV camera recorder, and the message DV equipment seems to be disconnected or turned off may appear because the i.LINK cable is not securely plugged into the ports on the computer or camera. Unplug the connectors, and plug them in again. See **Connecting an i.LINK Device (page 72)** for more information.

i.LINK is a trademark of Sony used only to designate that a product contains an IEEE1394 connection. The i.LINK connection may vary, depending on the software applications, operating system, and compatible i.LINK devices. All products with an i.LINK connection may not communicate with each other. See the manual that came with your compatible i.LINK device for information on operating conditions and proper connection. Before connecting compatible i.LINK PC peripherals to your system, such as CD-RW or hard disk drive, confirm their operating system compatibility and required operating conditions.

Memory Stick

Why can't I open my image files?

You may need to reformat your Memory Stick.

Formatting a Memory Stick erases all data, including music data, previously saved to it. Before you reformat the Memory Stick, back up important data and confirm that the media does not contain files you want to keep.

- 1 Copy the data from the Memory Stick onto the computer's hard disk to save data or images.
- 2 Format the Memory Stick using the **Memory Stick Formatter** software preinstalled on the computer. For instructions about formatting a Memory Stick, see the help file on the **Memory Stick Formatter** software.

Why can't I save music files onto my Memory Stick?

- Copyright protected music cannot be checked out to any Memory Stick other than MagicGate Memory Stick.
- Using recorded music requires permission of the copyright holders.
- Sony is not responsible for music files that cannot be recorded from a CD or downloaded from other sources.

Can I copy images from a digital video camera using a Memory Stick?

Yes, and you can view video clips that you have recorded with Memory Stick-compatible video camera recorders.

Peripherals

What should I do if I cannot connect a USB device?

- ❑ If applicable, check the USB device is switched on and using its own power supply. For example, if you are using a digital camera, check the battery is charged. If you are using a printer, check the power cable is connected properly to the AC outlet.
- ❑ Try using a different USB port on the computer. The driver could be installed to the specific port you used the first time you connected the device.
- ❑ Check the manual provided with the USB device. You may need to install software before you connect the device.
- ❑ Try connecting a simple, low-powered device such as a mouse to test that the port is working at all.
- ❑ USB hubs may prevent a device from working because of the distribution of power. We recommend you connect the device directly to the computer without a hub.

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Please see the online **Specifications** to see what software is available for your model.