SONY.

# **User Guide**

Personal Computer VGX-XL series





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### Before Use

Congratulations on your purchase of this Sony VAIO<sup>®</sup> 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.

External views illustrated in this manual may look slightly different from those of your computer.



### **Notice**

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



### 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 by clicking the **VAIO Documentation** icon on the desktop or following these steps:

- 1 Click Start 📀, All Programs, and My Club VAIO.
- 2 Click Documentation.
- 3 Select the guide you want to read.



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

You may have a separate disc for the documentation of bundled accessories.



#### **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 make a backup copy of your data and recover your computer system, and solutions to computer malfunctions.
 □ Booklets containing the following information: Sony GUARANTEE conditions, Safety / Regulations, Modem Regulations, Wireless LAN Regulations, Bluetooth Regulations, End User Software License Agreement, and

### Non-printed Documentation

Sony Support services.

- □ **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 online support Web site at <a href="http://www.vaio-link.com/">http://www.vaio-link.com/</a>.



# My Club VAIO

In My Club VAIO you can find:

1111	My Club VAIO you can ind.
Do	cumentation, which gives you:
	Access to the <b>User Guide</b> . 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 & Training. This is the portal of VAIO Help and Support Center.
	Important information about your computer, in the form of notices and announcements.
In I	My Club VAIO you can also find:
	Accessories Want to expand the capabilities of your computer? Click 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.



### Windows Help and Support

**Windows Help and Support** is a comprehensive resource for practical advice, tutorials, and demonstrations to help you learn to use 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 **Windows Help and Support**, click **Start** and **Help and Support**. Or go to **Windows Help and Support** by pressing and holding the Microsoft Windows key and pressing the **F1** key.

#### **Further Sources**

- ☐ Consult the help files on the software you are using for detailed information on features and troubleshooting.
- ☐ Go to <a href="http://www.club-vaio.com">http://www.club-vaio.com</a> to find online tutorials about your favorite VAIO software.



# **Getting Started**

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

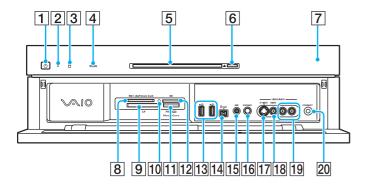
- □ Locating Controls and Ports (page 12)
- □ About the Indicator Lights (page 14)
- □ Connecting a Display (TV) (page 15)
- □ Connecting the Power Cord (page 17)
- ☐ Shutting Down Your Computer Safely (page 19)



## **Locating Controls and Ports**

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

#### **Front**

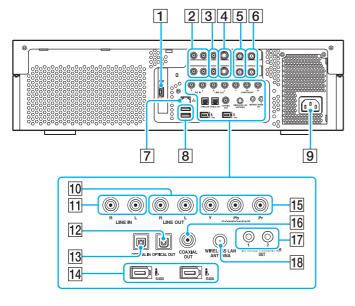


- 1 Power button
- 2 Power indicator (page 14)
- 3 Hard disk drive/Optical disc drive indicator (page 14)
- 4 WLAN (Wireless LAN) indicator (page 14)
- 5 Optical disc drive (page 29)
- 6 Drive eject button (page 30)
- Infrared receiver Point the supplied remote commander to this sensor for operations.
- 8 SM/xD-Picture Card slot (page 52)

- 9 CF (CompactFlash®) memory card slot (page 52)
- 10 Media Access indicator (page 14)
- [11] Memory Stick PRO/Duo media slot\*1 (page 47)
- 12 SD memory card slot (page 52)
- 13 Hi-Speed USB (USB 2.0) ports\*2 (page 67)
- 14 i.LINK (IEEE 1394) S400 port (page 71)
- 15 MIC (microphone) jack Connect an external microphone.
- [16] PHONES (headphones) jack
  Connect external headphones or speakers.
- 17 S VIDEO In port
  Connect an AV device, such as a VCR.
- [18] Composite VIDEO In jack
  Connect an AV device, such as a VCR.
- 19 Composite Audio In (L / R) jacks Connect an AV device, such as a VCR.
- 20 CONNECT button (page 24)
- Your computer supports Memory Stick Duo media and Memory Stick PRO media with high speed and high capacity capabilities.
- \*2 Supports high-/full-/low- speeds.



#### Back





- 1 HDMI OUT port (page 15)
- 2 Composite Audio In (L / R) jacks Connect an AV device, such as a VCR.

- 3 Composite Video In jacks Connect an AV device, such as a VCR.
- 4 S Video In ports
  Connect an AV device, such as a VCR.
- 5 VHF/UHF ports (page 38)
- 6 FM antenna ports Connect an FM radio.
- 7 Network (Ethernet) port (page 73)
- 8 Hi-Speed USB (USB 2.0) ports\* (page 67)
- 9 AC In port (page 17)
- 10 LINE OUT (R / L) jacks Connect an audio device.
- 11 LINE IN (R / L) jacks Connect an audio device.
- 12 OPTICAL OUT port

  Connect a digital device, such as an AV amplifier.
- (3) OPTICAL IN port Connect a digital device, such as a CD player.
- 14 i.LINK (IEEE 1394) S400 ports (page 71)
- 15 COMPONENT (Y / Pb / Pr) jacks (page 15)
- 16 COAXIAL OUT port

  Connect a digital device, such as an AV amplifier.
- 17 INFRARED TRANSMITTER OUT ports Connect the supplied infrared blaster cable to either port.
- 18 WIRELESS LAN ANTENNA port (page 59)
- Supports high-/full-/low- speeds.



# About the Indicator Lights

Your computer is equipped with the following indicator lights.

Indicator	Functions
Power (¹)	The indication behavior varies depending on the state of your computer: Green lit: the computer is on. Orange lit: the computer is in Sleep mode. Off: the computer is off.
Media Access	Illuminates when data is read from or written to a memory card. (Do not enter Sleep mode or turn off the computer when this indicator is on.) When the indicator is off, the memory card is not being used.
Hard disk drive/Optical disc drive	Illuminates when data is read from or written to the hard disk or the optical disc. Do not enter Sleep mode or turn off the computer when this indicator is on.
Wireless LAN	Illuminates when the wireless LAN function is running.



## Connecting a Display (TV)

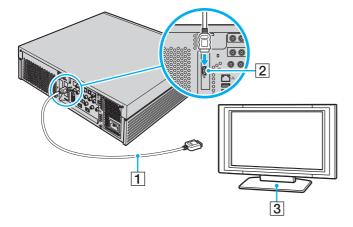
You can connect an HDMI-compatible TV directly to your computer.

If your TV is equipped with a DVI-D port, you can use the HDMI cable and the HDMI to DVI-D adapter (both supplied) for connection.

If your TV is equipped with component jacks, you can use an RCA cable (not supplied) for connection.

#### To connect an HDMI-compatible TV

- 1 Plug one end of the HDMI cable (supplied) (1) to the **HDMI OUT** port (2) on the computer
- 2 Plug the other end to the TV (3).





If your TV is equipped with an HDMI port and a DVI-D port, we recommend that you use the HDMI port.

The HDMI cable carries both video and audio signals.

You cannot use HDMI and Component connections at the same time.

If a device driver other than the ones provided by Sony is used, the image will not be displayed and the audio will not be heard. Always use the device driver provided by Sony for updates.

Your computer is compliant with the HDCP standard and capable of encrypting the transmission channel of digital video signals for the purpose of copyright protection, which enables you to play and view a wide variety of copyright protected, high-quality contents. Note that you need to connect an HDCP-compliant external display to your computer to view the copyright protected contents. If your computer has a non-compliant display connected, you will not be able to play or view any copyright protected contents, including Blu-ray movie contents.

#### To change the sound output device

Once you have connected a device to the HDMI port or the S/PDIF port, you need to change the device for sound output if you want to hear sound from the device.

- 1 Close all open programs.
- Click Start and Control Panel.
- 3 Click Hardware and Sound.
- 4 Click Manage audio devices under Sound.
- 5 On the **Playback** tab, select the desired device for sound output and click **Set Default**.



# Connecting the Power Cord

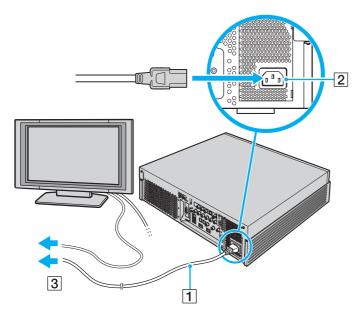
Your computer's power cord must be plugged into an AC power source, such as an AC wall outlet, surge protector, or Uninterruptible Power Supply (UPS), before you can establish communication with your wireless keyboard.

Use your computer only with the supplied power cord.

#### To connect the power cord

- 1 Insert the power cord (1) into the AC In port (2) on the back of the computer.
- 2 Insert the power cord plugs from the display and computer into a grounded AC wall outlet, surge protector, or Universal Power Supply (UPS) (3).





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

Make sure that the AC outlet is easily accessible.



# 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, the arrow next to the Lock button, and Shut Down.
- 3 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.

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# **Using Your VAIO Computer**

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

- □ Using the Keyboard (page 21)
- ☐ Using the Touch Pad (page 27)
- Using the Optical Disc Drive (page 29)
- ☐ Using the TV Function (page 38)
- Using the Memory Stick Media (page 46)
- ☐ Using Other Memory Cards (page 52)
- Using the Internet (page 56)
- ☐ Using Wireless LAN (WLAN) (page 57)

**■** 21 **■** 



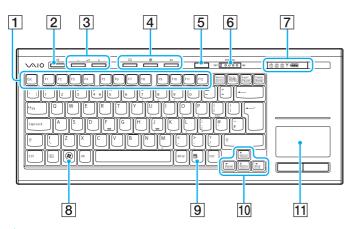
## Using the Keyboard

A wireless keyboard is supplied with your computer.

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

The VAIO-Link Web site (http://www.vaio-link.com) also contains glossary information to help you use the keyboard.

### Using the Wireless Keyboard



L

Illustrated above is the English keyboard as an example.

1 Function keys

Perform certain tasks. The task associated with each function key varies among software applications.

2 Muting button

Turns the volume on and off.

- 3 Volume control buttons Increase (+) or decrease (-) the volume.
- 4 Shortcut buttons

Perform the pre-assigned tasks. The default tasks are as follows:

- : Launches Windows Mail.
- : Launches VAIO Living Browser.

S1: Launches Resolution Setting Utility.

5 Standby button

Provides for the lower level of power consumption. For details on power management, see **Using the Power Saving Modes (page 80)**.

6 POWER switch

Slide the **POWER** switch to turn on and off the wireless keyboard.

**⋖** 22 ►



#### 7 Indicators

(Battery): turns on while the AA batteries for the wireless keyboard are sufficient and switches to when the batteries wear out.

- (Num lock): Turns on while in the Num Lock state.
- (Caps lock): Turns on while in the Caps Lock state.
- (Scroll lock): Turns on while in the Scroll Lock state.

 $\Upsilon$  (Connect): Turns on while connection between the computer and the wireless keyboard is in place to indicate that the keyboard is ready for use (page 25).

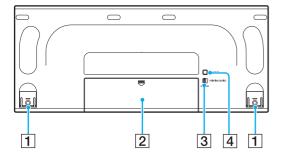
- 8 Windows key
  Displays the **Start** menu.
- Applications key Displays a shortcut menu in certain software applications.
- 10 Directional arrow keys

  Move the pointer on the screen.
- Touch pad

  See **Using the Touch Pad (page 27)** for more information.

**■** 23 **■** 





- 1 Keyboard feet Flip open to adjust the keyboard angle.
- 2 Battery compartment Storage compartment for the AA batteries.
- 3 POINTING DEVICE switch See To disable/enable the touch pad (page 28) for more information.
- 4 CONNECT button

  Press to enable the wireless keyboard to communicate with the main unit.

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### 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 maintain good communication, operate the wireless keyboard within the distance limitations of keyboard: 10 m from your computer.

Confirm that the supplied AA batteries are properly installed.

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

Avoid using any wireless devices that exchange radio signals on the 2.4 GHz frequency band near the wireless keyboard. These devices may cause interference, causing the keyboard to stop working properly.

Do not place metal furniture near your 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 wireless keyboard.

**⋖** 25 ►



#### To connect the wireless keyboard

- To connect your wireless keyboard, it must be located within a range of 30 cm to 1 m from the computer.
- 1 Insert the supplied four AA batteries (1) into the battery compartment (2) on the bottom of the wireless keyboard.
- 2 Turn on the computer.
- 3 Slide the **POWER** switch (3) at the top of the keyboard to the **ON** position.
- 4 Press the **CONNECT** button (4) on the front of the computer.

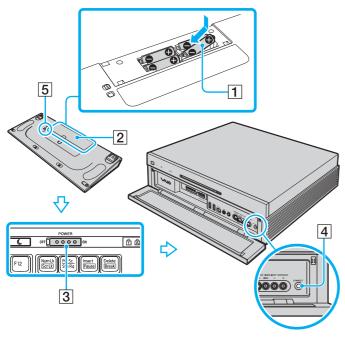
computer and the keyboard. If not, repeat the procedure.

- 5 Press the CONNECT button (5) on the bottom of the keyboard.
  The connect indicator Ψ turns on in the indicator window on the keyboard when connection is established between the
  - ! Steps 4 and 5 must be completed within 10 seconds of each other.

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

**⋖** 26 ►







You can check the battery indicator ( or o or o) in the indicator window on the wireless 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.

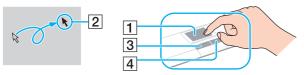
If you want to put the wireless keyboard in a more 'ergonomic' position, flip open the keyboard feet.

**₹** 27 ►



# Using the Touch Pad

You can point to, select, drag, and scroll objects on the screen using the touch pad.



Action	Description
Point	Slide one finger on the touch pad (1) to place the pointer (2) on an item or object.
Click	Press the left button (3) once.
Double-click	Press the left button twice.
Right-click	Press the right button (4) once. In many applications, this action displays a shortcut menu.
Drag	Slide one finger on the touch pad while pressing the left button.
Scroll	Move your finger along the right edge of the touch pad to scroll vertically (the scroll function is available only with applications that support a touch pad scroll feature).

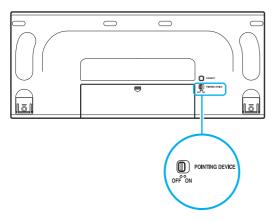
**28** 



If you want to use a mouse, instead of the touch pad, as your pointing device, you can disable the touch pad on the wireless keyboard.

To disable/enable the touch pad

To disable the touch pad, slide the **POINTING DEVICE** switch on the bottom of your keyboard to the **OFF** position. To enable the touch pad, slide it back to the **ON** position.



**₹** 29 **►** 



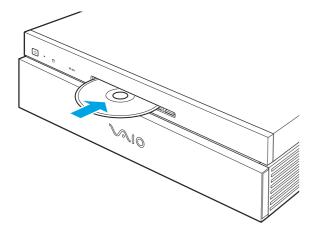
# Using the Optical Disc Drive

Your computer is equipped with an optical disc drive.

#### To insert a disc

Be sure to attach the supplied 8cm disc adapter to an 8cm disc before inserting the disc into the optical disc drive slot. For the supported 8cm disc types, see **Reading and Writing Optical Discs (page 31)**.

- 1 Turn on the computer.
- 2 With the label side facing upward, slide a disc into the optical disc drive slot.





If you plan to use an external optical disc drive, connect the drive before you launch any preinstalled CD/DVD program.

**⋖** 30 ►

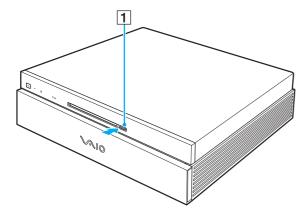


#### To remove a disc

When your computer is in Sleep mode, pressing the drive eject button automatically brings the computer back into Normal mode and ejects an optical disc, if any, from the drive.

When your computer is off, pressing the drive eject button turns on the computer, launches Windows, and ejects an optical disc, if any, from the drive.

1 Press the drive eject button (1). The optical disc slides out.



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### Reading and Writing Optical Discs

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.

PR: playable and recordable P: playable but not recordable -: not playable or recordable

	CD- ROM	Video CD	Music CD	CD Extra	CD-R/ RW	DVD- ROM	DVD- Video	DVD-R/ RW	DVD+R/ RW	DVD+R DL	DVD-R DL	DVD- RAM
DVD±RW/±R DL/RAM	Р	Р	Р	Р	PR	Р	Р	PR*1 *2	PR	PR <sup>*5</sup>	PR <sup>*6</sup>	PR*3 *4
DVD±RW (Supporting DVD±R DL)	Р	Р	Р	Р	PR	Р	Р	PR*1 *2	PR	PR*5	PR <sup>*6</sup>	-
CD-RW/DVD-ROM	Р	Р	Р	Р	PR	Р	Р	Р	Р	Р	Р	-
DVD-ROM	Р	Р	Р	Р	Р	Р	Р	Р	Р	Р	Р	_

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

<sup>\*2</sup> Supports writing data to DVD-RW discs compliant with DVD-RW Version 1.1/1.2.

<sup>\*3</sup> The DVD±RW/RAM disc drive on your computer does not support the DVD-RAM cartridge. Use non-cartridge discs or discs with removable cartridge.

<sup>\*4</sup> Writing data to single-sided DVD-RAM discs (2.6 GB) compliant with DVD-RAM Version 1.0 is not supported. DVD-RAM Version 2.2/12X-SPEED DVD-RAM Revision 5.0 disc is not supported.

<sup>\*5</sup> Writing data to DVD+R DL (Double Layer) discs is available only on discs supporting DVD+R DL (Double Layer) recording.

<sup>\*6</sup> Writing data to DVD-R DL (Dual Layer) discs is available only on discs supporting DVD-R DL (Dual Layer) recording.

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PR: playable and recordable P: playable but not recordable -: not playable or recordable

	CD- ROM	Video CD	Music CD	_				BD- ROM	DVD-R/ RW		DVD+R DL	DVD-R DL	DVD- RAM	BD-R <sup>*9</sup> / RE <sup>*10</sup>
Blu-ray Disc Drive	Р	Р	Р	Р	PR <sup>*8</sup>	Р	Р	Р	PR*1 *2	PR	PR <sup>*5</sup>	PR <sup>*6</sup>	PR*3 *4	PR <sup>*7</sup>

<sup>&</sup>lt;sup>\*7</sup> Supports writing data to BD-R Version 1.1 discs (single-layer discs with the capacity of 25 GB, dual-layer discs with the capacity of 50 GB) and BD-RE Version 2.1 discs (single-layer discs with the capacity of 50 GB). The Blu-ray Disc drive on your computer does not support BD-RE Version 1.0 discs and Blu-ray cartridge discs.

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 are 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.

<sup>\*8</sup> Writing data to Ultra Speed CD-RW discs is not supported.

<sup>\*9</sup> BD-R stands for Blu-ray Disc-Recordable in Version 1.1 format.

<sup>\*10</sup> BD-RE stands for Blu-ray Disc-Rewritable in Version 2.1 format.



8cm disc writing is not supported.

Except the Blu-ray Disc drive, all other optical disc drives are capable of reading 8cm discs with the supplied 8cm disc adapter.

With the supplied 8cm disc adapter, the Blu-ray Disc drive is capable of reading 8cm DVD-R, DVD-RW, DVD+RW, and DVD+R DL discs, but not 8cm CD-ROM and DVD-RAM discs.

To play copyright protected Blu-ray Discs continually, you need to update the AACS key. Note that the AACS key update requires Internet access.

As with other optical media devices, circumstances may limit compatibility or prevent Blu-ray Disc playback. VAIO computers may not support movie playback on packaged media recorded in AVC or VC1 formats at high bit rates.

Region settings are required for Movies and BD-ROM contents. If the region setting and the region of the disc do not match, playback is not possible.

Unless your external display is compliant with the High-bandwidth Digital Content Protection (HDCP) standard, you cannot play or view the contents of copyright protected Blu-ray Discs.

Some contents may restrict video output to be standard definition or prohibit analog video output at all. It is strongly recommended that digital HDCP-compliant environment be implemented for optimum compatibility and viewing quality

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# Notes on writing data to a disc

Use only Sony Value-added software when writing to CD/DVD media. (e.g. <b>Click to DVD</b> )  Other software programs may not be fully compatible and errors may result.
To make data on a disc readable on the optical disc drive, you need to close the session before 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 your computer while writing data to a disc.
Deactivate the screen saver and exit anti-virus software before writing data to a disc.
Do not use memory-resident utility software while writing data to a disc. This may cause your 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 preinstalled software and while using the CD burning software.
Never affix an adhesive label to discs. This will affect the use of the disc irreparably.
Make sure you use the same CD burning software to add data to a used disc. Use of different CD burning software for additional data burning may cause a failure. For example, if you have a disc with data that you burned with the <b>Roxio Easy Media Creator</b> software, use the <b>Roxio Easy Media Creator</b> software to add some data to the same disc.

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### Notes on playing discs

Close all open applications before playing a DVD movie.

<ul> <li>Some CD players and computer's optical disc drives may not be able to play audio CDs created with the CD-R or CD-RW disc media.</li> </ul>
Some DVD players and computer's optical disc drives may not be able to play DVDs created with the DVD+R DL, DVD-R DL, DVD+R, DVD+RW, DVD-R, DVD-RW, or DVD-RAM disc media.
Do not use memory-resident utility software to speed up disc access when playing a DVD. This may cause your 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 to power saving modes while your computer is playing a DVD.
Region codes indicators are labeled on the DVDs to indicate in which region and on what type of player you can play the disc. Unless a "2" (Europe belongs to region "2") or "all" (this means that you can play this DVD in most regions of the world) is labeled on your DVD disc or on the packaging, you cannot play the disc on your computer.
! If you change the DVD region code while the <b>WinDVD</b> or <b>WinDVD BD</b> software is running, restart the software or eject the disc and re-insert it to make the new setting effective.
Do not try to change the region code settings of the DVD drive. Any difficulties caused by changing the region code settings of the DVD drive are out of warranty.
When you are playing a DVD (video or audio) and you want to remove a USB device, such as USB-compatible speakers, make sure you stop the DVD first. Removing a USB-compatible device during DVD (video or audio) playback may cause a malfunction.

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

**⋖** 36 ►



### Playing CDs

#### To play an audio CD

- 1 Insert a disc into the optical disc drive.
- 2 If nothing appears on the desktop, then click Start, All Programs, and the desired CD software to play the CD.
  If the Audio CD window appears, click to select an option.

### Copying Files to CDs

To copy files to a disc

- Do not strike or shake your computer while writing data to a disc.
- Insert a disc into the optical disc drive.
  If the AutoPlay window appears, click Burn files to disc and follow the on-screen instructions until the empty disc folder appears.
- 2 Open the folder that contains the file(s) you want to copy and drag them to the empty disc folder.
- 3 Close the disc folder.

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## Playing DVDs

### To play a DVD

- 1 Close all running software applications.
- 2 Insert a DVD into the optical disc drive.
- 3 If nothing appears on the desktop, then click Start, All Programs, and the desired DVD software to play the DVD.

For instructions on how to use the software, see the help file on your DVD software.

## Copying Files to DVDs

To copy files to a disc

- 1 Insert a disc into the optical disc drive.
- 2 If nothing appears on the desktop, then click **Start**, **All Programs**, and the desired DVD software to copy files to the disc.

For instructions on how to use the software, see the help file on your DVD software.

**⋖** 38 ►



## Using the TV Function

Your computer may have two hybrid TV tuner boards installed along with the **Microsoft Windows Vista Home Premium** operating system which includes **Windows Media Center** that enables you to view, record, and playback TV and FM radio but also to record simultaneously a program on another channel.

The dual tuner usage is limited to channels from the same broadcast type: view one DVB-T service and record another,.... Viewing one DVB-T service and recording an analog TV channel is not supported.

The hybrid TV-tuner supports the following broadcasts:

- □ Analog cable and terrestrial TV: Systems B/G/I/D/K/L/L'
   Color systems PAL and SECAM Frequency band 48.25 MHz - 855.25 MHz
- Digital terrestrial TV (DVB-T) and Digital TV: System DVB-T Video system MPEG2 Frequency band 48.25 MHz - 855.25 MHz
- ☐ FM radio: Frequency band 87.5 MHz - 108 MHz

Any functions related to digital terrestrial television (DVB-T) will only work in countries or areas where DVB-T MPEG2 digital terrestrial signals are broadcasted. Please make sure you can receive a DVB-T MPEG2 signal where you live.

To connect your computer to terrestrial or cable TV services

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

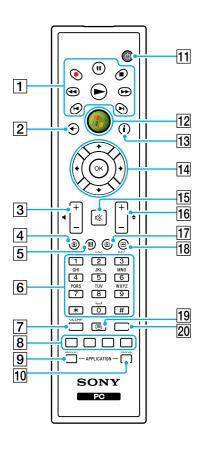
**⋖** 39 ►



## Using the Remote Commander

A remote commander is supplied with your computer for using Media Center features, including TV channel selection.





#### 1 Pause II button

Press to pause media playback. Press again to resume playback.

Stop ■ button

Press to stop media playback or TV recording session.

Forward ▶▶ button

Press to fast-forward media at three speeds.

Skip ►I button

Press to move media forward, for example, one audio track, one

DVD chapter, and 30 seconds of recorded TV or video.

Replay I◀ button

Press to move media backward, for example, one audio track, one DVD chapter, and seven seconds of TV or video.

Rewind ◀◀ button

Press to move media backward at three speeds.

Record ● button

Press to begin recording.

Play ► button

Press to begin media playback.

#### 2 Back button

Press to return to the previous window.

#### 3 Volume buttons

Press to increase (+) or decrease (-) the volume.

#### 4 Recorded TV button

Press to view previously recorded TV programs (In **My TV** window).



5 Guide button

Press to view the TV program guide for your area.

6 Alphanumeric buttons

Press to select specific channels or enter text. (Press **ENTER** or **OK** to activate the channel selection.)

7 CLEAR button

Press to backspace and delete entered text.

8 Teletext TV program mode buttons

Red button

Press to jump to the red shortcut link in teletext TV program mode. Green button

Press to jump to the green shortcut link in teletext TV program mode.

Yellow button

Press to jump to the yellow shortcut link in teletext TV program mode.

Blue button

Press to jump to the blue shortcut link in teletext TV program mode.

9 APPLICATION SELECT button

Press to switch among open applications. This button works the same as the **Alt+Tab** keys.

10 APPLICATION CLOSE button

Press to close the active application window.

11 Standby button

Press to place the computer into Sleep mode to reduce power consumption.

12 Start button

Press to open the Media Center Start menu.

13 More button

Press to view additional options that are available for Media Center features

14 Directional arrow buttons

Press the  $\uparrow$ ,  $\downarrow$ ,  $\leftarrow$ , and  $\Rightarrow$  buttons to move the pointer on the screen.

**OK** button

Press to select the desired action or window option. When watching full-screen TV, press to return to the previous channel. Press again to switch between channels.

15 Muting button

Press to turn off the sound. Press again to restore the sound.

16 Channel/Page buttons

Press to change or page up/down channels (no number input required).

17 Live TV button

Press to view TV programs.

18 DVD menu button

Press to open the main menu on a DVD.

19 Teletext TV program mode selection button Press to activate/deactivate teletext TV program mode.

20 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.)

**◄** 42 ►



## Controlling your TV volume with the supplied remote commander

You can change the volume on your TV with the supplied remote commander by changing the remote commander's signal setting to match with the one used by your TV manufacturer.

Press and hold the **OK** button and press alphanumeric buttons to enter the desired manufacturer code. For example, press and hold the **OK** button and press the **0** and **2** buttons consecutively to enter the manufacturer code for Sony: Sony (02).

Manufacturer	Code
VAIO computer (default setting)	01
Sony	02
Philips	04, 08, 09, 10, 11
Samsung	03, 05, 07, 08, 11
Sharp	06
LG	03, 05, 07

If your TV manufacturer has more than one manufacturer code, you may not be able to control the TV volume with the remote commander even though you have specified one of them for matching the signal setting. In such a case, try another code.

Changes to this signal setting for the TV volume control may not work on some TVs. Sony assumes no liability for the controllability.

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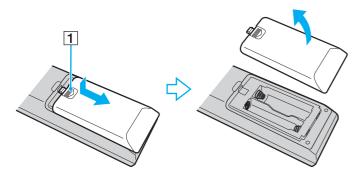


## Before you use the remote commander

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

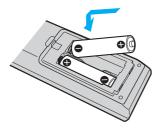
#### To insert batteries

- Turn the remote commander over.
- 2 Slightly push down the dented area (1), slide the battery cover in the direction of the arrow, and remove the cover.





3 Insert the supplied two AA batteries into the remote commander.



4 Put the battery cover back on the remote commander and slide it in the reverse direction of the arrow illustrated above until the cover clicks into place.



If the remote commander does not operate properly, you may need to replace the batteries. When the remote commander has not been used for an extended period of time, remove the batteries to avoid possible damage from battery leakage.

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## Setting up Windows Media Center

The first time you launch **Windows Media Center**, the setup wizard will pop up. To configure the TV tuner, click **Custom setup** and follow the on-screen instructions. In the **Optional Setup** window, click **Configure tuners**, **TV signal**, and **Guide**, and follow the on-screen instructions. In the **Which Tuners Do You Want to Configure** window, select the TV tuner board(s) you want to configure and do any one of the following:

- □ Select the first TV tuner in the list to configure the top board in your computer.
- ☐ Select the second TV tuner in the list to configure the bottom board in your computer.
- ☐ Select both TV tuners in the list if you can to use both tuners (2 RF signal cables needed).

When configuring both TV tuners, make sure that both are connected to the same broadcast signal. For example, both TV tuners are connected to the same DVB-T signal or both are connected to the same analog TV signal.

In case the TV tuner was not configured during the first run of **Windows Media Center**, you can do this by selecting **set up TV** in the **TV** + **Movies** section.

When you want to change TV input signal (TV Signal or TV Signal Type) or change location, click **settings** in the **Tasks** section and then click **TV**.

Note that in this case a new channel scan needs to be done and that the previous channel list and **Guide** information is lost and that scheduled timer recordings are cancelled.

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# Using the Memory Stick Media

Your computer supports the Memory Stick media. Memory Stick media is a compact, portable, and versatile IC recording media 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 about the Memory Stick media, visit the Memory Stick Web site at <a href="http://www.memorystick.com/en/">http://www.memorystick.com/en/</a>.

Your computer has been tested and found compatible with the Sony branded Memory Stick media with capacity of up to 4 GB that are available as of September 2006. However, not all Memory Stick media that meet the same conditions as the compatible media are guaranteed of compatibility.

Inserting a Memory Stick media with multiple conversion adapters is not guaranteed of compatibility.

MagicGate is the general name of the copyright protection technology developed by Sony. Use a Memory Stick media with the MagicGate logo to use this feature.

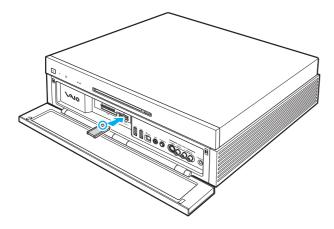
**⋖** 47 ►



## Inserting a Memory Stick Media

### To insert a Memory Stick media

- 1 Flip the front panel down, using your fingertip.
- 2 Locate the Memory Stick PRO/Duo media slot (page 12).
- 3 Hold the Memory Stick media with the arrow facing upward and pointing toward the Memory Stick PRO/Duo media slot.
- 4 Carefully slide the Memory Stick media into the slot until it clicks into place.
  The Memory Stick media is automatically detected by your system and appears in your Computer window as a local drive, under the appropriate letter (depending on the configuration of the computer).



**■ 48 ■** 



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

Do not insert more than one Memory Stick media into the slot. Improper insertion of the media may damage both your computer and the media.



Your computer supports Memory Stick Duo media and is equipped with the Memory Stick PRO/Duo slot that is compatible with both standard- and duo-size media. For more information on the Memory Stick Duo media, visit the Memory Stick Web site at <a href="http://www.memorystick.com/en/">http://www.memorystick.com/en/</a>.

You can insert a Memory Stick Duo media directly into the slot.

To view the contents of the Memory Stick media

- 1 Click Start and Computer to open the Computer window.
- 2 Double-click the Memory Stick media icon to view the list of data files saved in the Memory Stick media.

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### To format a Memory Stick media

The Memory Stick media has been formatted in the factory default setting and is ready for use. If you want to reformat the media with your computer, follow these steps.

Be sure to use the device that is designed to format the media and supports the Memory Stick media when formatting the media.

Formatting the Memory Stick media erases the entire data on the media. Avoid accidental erasure of your valuable data.

Do not remove the Memory Stick media from the slot while formatting the media. This could cause a malfunction.

- 1 Carefully slide the Memory Stick media into the slot until it clicks into place.
- 2 Click Start and Computer to open the Computer window.
- 3 Right-click the Memory Stick media icon and select Format.
- 4 Click Restore device defaults.

The size of the allocation unit and file system may change.

Do not select NTFS from the File system drop-down list.



The formatting process will be completed more quickly if you select **Quick Format** in **Format options**.

5 Click Start.

**⋖** 50 ►



At the confirmation prompt, click **OK**. The formatting process starts.

! It may take time to format the Memory Stick media depending on the media.

- 7 Once completed, click **OK**.
- 8 Click Close.

**⋖** 51 ►



## Removing a Memory Stick Media

### To remove a Memory Stick media

- 1 Flip the front panel down, using your fingertip.
- 2 Check that the Media Access indicator light is off.
- **3** Push the Memory Stick media in toward the computer. The Memory Stick media ejects.
- 4 Pull the Memory Stick media out of the slot.

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

Do not remove the Memory Stick media while the Media Access indicator light 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 media.

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# **Using Other Memory Cards**

In addition to the Memory Stick PRO/Duo media 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 among 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

	CF	(CompactFlash) memory card slot
		CompactFlash
	SD	memory card slot
		Secure Digital (SD)
		MultiMediaCard (MMC)
	SN	I/xD-Picture Card slot
		SmartMedia
		xD-Picture Card
Fo	r the	e latest information on compatible memory cards, visit the Sony online support Web site regularly.

The memory card slots on your computer support the following memory cards:

**■** 53 **■** 

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

SD memory cards with capacity of over 2 GB, such as SD High Capacity (SDHC) memory cards, are not supported.

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 to 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.

The **CF** (CompactFlash) memory card slot on your computer supports Type I and Type II media.

The SD memory card slot on your computer does not support the high-speed data transfer feature of the SD memory card.

Your computer has been tested and found compatible only with major memory card media available as of September 2006. However, not all memory card media that meet the same conditions as the compatible media are guaranteed of compatibility.

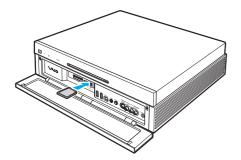
**⋖** 54 ►



## 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 (page 12).
- 3 Carefully slide the memory card into the slot until it clicks into 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.

**⋖** 55 ►



## Removing a Memory 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 Flip the front panel down, using your fingertip.
- 2 Check that the Media Access indicator light is off.
- **3** Firmly grasp the extended part of the memory card.
- 4 Carefully pull it out of the slot.

**⋖** 56 ►



# Using the Internet

To use the Internet, you need to connect an external modem device, for example a USB telephone modem, an xDSL modem, and a cable modem, to your computer. For the detailed instructions on connection setups and modem configuration, see the manual that came with your modem.

**⋖** 57 ►



# 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 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).



In some countries, using WLAN products may be restricted by the local regulations (e.g. limited number of channels). Therefore, before activating the WLAN functionality, read the **Regulations Guide** carefully.

WLAN uses the IEEE 802.11a\*/b/g standard, which specifies the used technology. The standard includes the encryption methods: Wired Equivalent Privacy (WEP), which is a security protocol, Wi-Fi Protected Access 2 (WPA2), and Wi-Fi Protected Access (WPA). Proposed jointly by the IEEE and Wi-Fi Alliance, both WPA2 and WPA are specifications of standards based, interoperable security enhancements that increase the level of data protection and access control for existing Wi-Fi networks. WPA has been designed to be forward compatible with the IEEE 802.11i specification. It utilizes the enhanced data encryption TKIP (Temporal Key Integrity Protocol) in addition to user authentication using 802.1X and EAP (Extensible Authentication Protocol). Data encryption protects the vulnerable wireless link between clients and access points. Besides that, there are other typical LAN security mechanisms to ensure privacy, such as: password protection, end-to-end encryption, virtual private networks, and authentication. WPA2, the second generation of WPA, provides stronger data protection and network access control and is also designed to secure all versions of 802.11 devices, including 802.11b, 802.11a, and 802.11g, multi-band and multi-mode. In addition, based on the ratified IEEE 802.11i standard, WPA2 provides government grade security by implementing the National Institute of Standards and Technology (NIST) FIPS 140-2 compliant AES encryption algorithm and 802.1X-based authentication. WPA2 is backward compatible with WPA.

\* See the online **Specifications** to see whether your model supports the IEEE 802.11a standard.

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Wireless LAN devices using the IEEE 802.11a standard and the ones using the IEEE 802.11b or g standard cannot communicate because the frequencies are different

IEEE 802.11b: The standard speed is 11 Mbps, or about 30 to 100 times faster than a standard dial up.

IEEE 802.11a/g: The standard speed is 54 Mbps, or about 5 times faster than a wireless LAN device using the IEEE 802.11b standard.

The 2.4 GHz bandwidth used by wireless LAN compatible devices is also used by other various devices. Although technologies to minimize interference from other devices that use the same bandwidth are employed on wireless LAN compatible devices, such interference may cause lower communication speed, narrower communication range, or broken wireless connections.

The communication speed varies depending on the distance between communication devices, existence of obstacles between such devices, the device configuration, the radio conditions, and the software in use. In addition, communications may be cut off depending on the radio conditions.

The communication range varies depending on the actual distance between communication devices, existence of obstacles between such devices, the radio conditions, the ambient environment that includes existence of walls and materials of such walls, and the software in use.

Deploying IEEE 802.11b and IEEE 802.11g products on the same wireless network may reduce the communication speed due to radio interference. Taking this into consideration, the IEEE 802.11g products are designed to reduce the communication speed to ensure communications with IEEE 802.11b products.

When the communication speed is not as fast as expected, changing the wireless channel on the access point may increase the communication speed.

**⋖** 59 ►

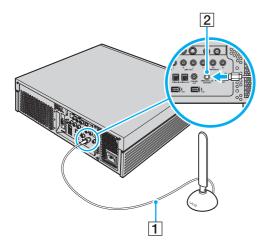


## Connecting the WLAN Antenna

To use the wireless LAN functionality on your computer, you must connect the supplied WLAN antenna to your computer.

To connect the WLAN antenna

Plug the WLAN antenna cable (1) to the WIRELESS LAN ANTENNA port (2) on the back of your computer.



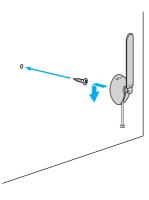
Be sure to keep the WLAN antenna at least 20 cm away from your computer.

**⋖** 60 ►





For better reception, if needed, you may mount the wireless LAN antenna to a wall using the supplied screw.



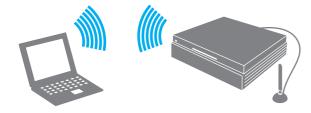
**⋖** 61 ►



## 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.

- ☐ If the wireless connection is initiated by the VAIO computer, channel 11 will be selected.
- ☐ If the wireless connection is initiated by peer wireless LAN equipment, the wireless LAN communication will make use of the channel selected by the peer wireless LAN equipment.



**⋖** 62 ►



### To communicate without an access point (ad-hoc)

- 1 Double-click on the taskbar to display the Wireless Device Switch window.
- 2 Select your desired wireless option and click **OK**. The Wireless LAN indicator lights up.
- 3 Click Start and Control Panel.
- 4 Click View network status and tasks under Network and Internet.
- 5 Click Set up a connection or network on the left pane. The Set up a connection or network window appears.
- 6 Select an option to specify the ad-hoc network settings and click **Next**.
- 7 Follow the on-screen instructions.

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## 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 (not supplied), 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.

The access point will select which channel to use on an infrastructure network.

For details on how to select the channel that will be used by the access point, see the manual that came with your access point.



**■** 64 **►** 



#### To connect to a wireless network

- Make sure an access point is set up.
  See the manual that came with your access point for more information.
- 2 Double-click on the taskbar to display the Wireless Device Switch window.
- 3 Select your desired wireless option and click OK. The Wireless LAN indicator lights up.
- 4 Click Start and Control Panel.
- 5 Click View network status and tasks under Network and Internet.
- 6 Click Manage wireless networks.
- 7 Click Add.
- 8 Follow the on-screen instructions.

#### To disconnect from a wireless network

- 1 Double-click on the taskbar to display the Wireless Device Switch window.
- 2 Deselect the wireless option and click **OK**.

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



For WPA-PSK or WPA2-PSK authentication, you must enter a network key of 8 to 64 alphanumeric characters long.

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## **Stopping Wireless LAN Communications**

To stop wireless LAN communications, double-click on the taskbar to display the **Wireless Device Switch** window, deselect all the wireless options, and then click **OK**.

**⋖** 66 ►



# **Using Peripheral Devices**

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

- □ Connecting a Universal Serial Bus (USB) Device (page 67)
- □ Connecting a Printer (page 70)
- □ Connecting an i.LINK Device (page 71)
- ☐ Connecting to a Network (LAN) (page 73)

**⋖** 67 ►



## Connecting a Universal Serial Bus (USB) Device



You need to flip the front panel down, using your fingertip, to access the USB ports on the front of your computer.

### Connecting a USB Mouse

To connect a USB mouse

- 1 Choose the USB port (1)  $\psi$  you prefer to use.
- Plug the USB mouse cable (2) into the USB port. You can now use your USB mouse (not supplied) (3).



**⋖** 68 ►

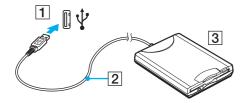


## Connecting a USB Floppy Disk Drive

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 (1)  $\psi$  you prefer to use.
- 2 Plug the USB floppy disk drive cable (2) into the USB port. Your USB floppy disk drive (3) 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.

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## Disconnecting a USB floppy disk drive

You can disconnect a USB floppy disk drive when your computer is on or off. Disconnecting the drive when the computer is in Sleep mode 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** Confirm that the floppy disk drive can be safely removed from the system.
- 6 Click OK.A message appears stating it is now safe to remove the hardware device.
- 7 Click OK.
- 8 Click Close to close the Safely Remove Hardware window.
- **9** Disconnect the floppy disk drive from the computer.

**▼** 70 ▶



## Connecting a Printer

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

## Connecting a Printer Using the USB Port

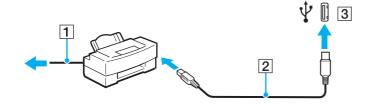
You can connect a USB printer compatible with your version of Windows to the computer.



You need to flip the front panel down, using your fingertip, to access the USB ports on the front of your computer.

### To connect a printer using the USB port

- 1 Plug the power cord (1) of your printer into an AC outlet.
- 2 Choose the USB port (3)  $\psi$  you prefer to use.
- 3 Plug one end of a USB printer cable (2) (not supplied) into the USB port and the other end to your printer.





# Connecting an i.LINK Device

# Notes on connecting i.LINK devices

u	Your computer is equipped with an i.LINK port, which you can use to connect to an i.LINK device such as a digital video camcorder or to connect two VAIO computers in order to copy, delete or edit files.
	Your computer is equipped with a 4-pin port on the front and two 6-pin i.LINK ports on the back. A 4-pin i.LINK port cannot supply power to a connected i.LINK device. A 6-pin i.LINK port can supply power (10V to 12V) to a connected i.LINK device, if the device is equipped with a 6-pin connector. The total power supplied by the 6-pin i.LINK port does not exceed 6 watts. To use the 4-pin port on the front, you need to flip the front panel down, using your fingertip, to access the port
	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.
	The optional i.LINK cables may not be available, depending on the country or area of your residency.
	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. See 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 a CD-RW drive) before you connect them to your computer.

**▼** 72 ▶



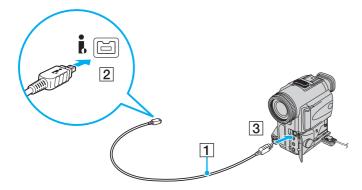
## Connecting a Digital Video Camcorder



You need to flip the front panel down, using your fingertip, to access the i.LINK port on the front of your computer.

### To connect a digital video camcorder

- 1 Plug one end of an i.LINK cable (1) (not supplied) into the i.LINK port (2) on the computer and the other end into the DV In/Out ports (3) on the digital video camcorder.
- 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 camcorder shown here is an example; your digital video camcorder may need to be connected differently.

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

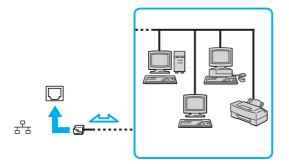


## Connecting to a Network (LAN)

You can connect your computer to 1000BASE-T/100BASE-TX/10BASE-T-type networks with an Ethernet network cable. Connect one end of a network cable (not supplied) to the network (Ethernet) port on the back of the computer and the other end to your network. For detailed settings and devices needed to connect to the network, ask your network administrator.

I

Your computer has a protective sticker covering the network (Ethernet) port located on the back of the computer. Connect a 10BASE-T, 100BASE-TX, or 1000BASE-T 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, ask your network administrator.





Your 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.

**▼** 75 ▶



# **Customizing Your VAIO Computer**

This section briefly describes how to change the main settings of your VAIO computer. Among other things, you will learn how to use and customize the look of your Sony software and utilities, etc.

- □ Setting the Password (page 76)
- ☐ Setting Up Your Computer with VAIO Control Center (page 79)
- ☐ Using the Power Saving Modes (page 80)



## 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 the computer from unauthorized access.

#### Adding the Power-on Password

The power-on password is provided to protect your computer from unauthorized access.

There are two types of the power-on password: machine password and user password. The machine password is provided for users with administrator rights on the computer to change all the setup options on the BIOS setup screen, as well as to start the computer. The user password is provided for other standard users to allow for changing some of the BIOS setup options, as well as starting the computer. To set the user password, you must first set the machine password.

Once you have set the power-on password, you cannot start your 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 it, a password reset fee will be charged, and your computer may need to be sent in for depot service for password reset.

**▼** 77 ▶



#### 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. If not, restart the computer and press the F2 key several times when the VAIO logo appears.
- 3 Press the ← or → key to select **Boot** to display the **Boot** tab, then select **Security** and press the **Enter** key.
- 4 Press the ← or → key to select **Supervisor Password** and press the **Enter** key.
- On the password entry screen, enter the password twice and press the **Enter** key. The password can be up to 8 alphanumeric characters (including spaces) long.



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

- 6 Select Security Option under Security.
- 7 Press the Enter key and select System.
- 8 Press the Esc key.
- 9 Press the ← or → key to select Exit, select Exit (Save Changes) or Exit Setup, and then press the Enter key. On the Setup Confirmation screen, confirm that Yes 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. The BIOS setup screen appears. If not, restart the computer and press the F2 key several times when the VAIO logo appears.
- 3 Enter the current password for **Enter Password** and press the **Enter** key.
- 4 Press the ← or → key to select Boot to display the Boot tab, then select Security and press the Enter key.
- 5 Press the ← or → key to select Supervisor Password and press the Enter key.
- 6 On the password entry screen, enter a new password once, and then press the **Enter** key. To remove the password, leave the **Enter Password** field blank and press the **Enter** key. When confirmation to save the changes is prompted, press the **Enter** key.
- 7 Press the **Esc** key.
- 8 Press the ← or → key to select Exit, select Exit (Save Changes) or Exit Setup, and then press the Enter key. On the Setup Confirmation screen, confirm that Yes 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, All Programs, and 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 standard user.

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## Using the Power Saving Modes

In addition to the normal operating mode, which allows you to turn off specific devices, your computer has a distinct power saving modes called Sleep mode.

## **Using Normal Mode**

This is the normal state of the computer when it is in use. To save power while not working, you can turn off a specific device such as the hard disk.



## **Using Sleep Mode**

Sleep mode temporarily suspends the entire system operations for lower power consumption. The orange power light is on in this mode.

#### To activate Sleep mode

Click Start, the arrow next to the Lock button, and Sleep.



Alternatively, you can slide the **POWER** switch on the wireless keyboard to **OFF** position, or press the standby button on the keyboard or the remote commander to place your computer into Sleep mode.

#### To return to Normal mode

- Slide the POWER switch to the ON position, or press the standby button or the space bar on the wireless keyboard.
- Press the standby button on the remote commander.

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

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

#### To change the Sleep mode settings

- 1 Right-click the power status icon on the taskbar and select **Power Options**.
- 2 Click Change plan settings under the current power plan.
- 3 Change the time to put the computer to sleep and click **Save Changes**.

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# **Upgrading Your VAIO Computer**

Your VAIO computer, memory modules, add-on cards, and hard disk drives use high precision components and electronic
connectors technology. To avoid invalidation of the warranty during your product warranty period, we recommend that:
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- ☐ You contact your dealer to install a new component.
- ☐ You do not install it yourself, if you are not familiar with upgrading a computer.
- You do not touch the connectors on any component.

For the type of components available for upgrading and the amount of memory installed on your model, see the online **Specifications**.

Contact VAIO-Link if you need assistance.

- □ Before Upgrading Your Computer (page 83)
- □ Opening and Closing the Computer (page 84)
- □ Adding and Removing Memory (page 87)
- ☐ Installing the Hard Disk Drive (page 93)

**■ 83 ■** 



## 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 follow any procedures in this section.

Failure to disconnect your 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.

**■ 84 ■** 



## Opening and Closing the Computer

When you access memory modules, add-on cards, and hard disks inside your computer, you need to remove and replace the top panel beforehand and afterward.

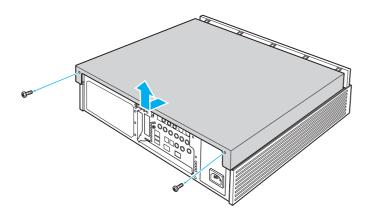
#### Opening the Computer

If you remove the top panel immediately after you shut down your 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 remove the top panel

- 1 Shut down the computer and turn off all peripheral devices, such as a printer.
- 2 Unplug the computer and disconnect all peripheral devices.
- 3 Remove the two screws from the back of the computer.
- 4 Slide the top panel toward the back of the computer, lift the panel, and set it aside.





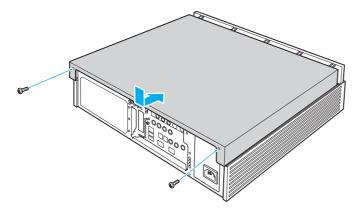
**■** 86 **■** 



## Closing the Computer

To replace the top panel

- 1 Place the top panel on the computer and slide it toward the front.
- 2 Tighten the two screws on the back of the computer to secure the panel.





## Adding and Removing Memory

module from ESD.

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 this section. The number of available slots depends on your computer's hardware configuration.

## Notes on adding/removing memory modules

		careful when changing memory. Improper installation of memory modules may cause damage to your system. This mage may void your manufacturer's warranty.
Only use memory modules that are compatible with your computer. If a memory module is not detected or Windows becomes unstable, contact your sales dealer or the manufacturer of your memory module		
☐ Electro		ectrostatic 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 your computer and disconnect the system from its power source (that is, AC adapter) 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

Do not open the memory module package before you are ready to change the module. The package protects the

an unpainted metal portion of the chassis while performing the procedure.



		e the special bag delivered with the memory module or wrap the module in aluminum foil to protect it from electrostatic charge.		
Introducing any liquids, foreign substances, or objects into the memory module slots or other internal components o 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 a location 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 35°C or less than 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 your computer.				

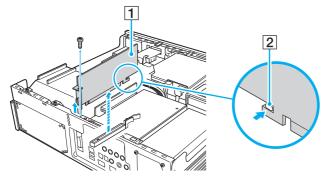
**⋖ 89** ►



## Removing and Installing a Memory Module

To change or add a memory module

- 1 Remove the side panel.
  See Opening the Computer (page 84) for the detailed instructions.
- 2 Touch a metal object (such as the chassis frame) to discharge static electricity.
- 3 Disconnect the cable and remove the screw from the graphic card (1).
- 4 Press and hold the latch (2) to disengage the card and pull out the card.

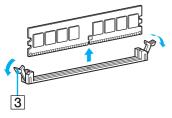


**5** Locate the memory module(s) you wish to remove.

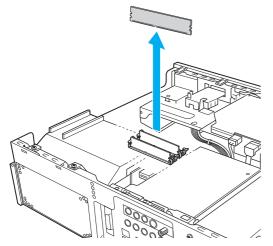
**■** 90 **■** 



6 Push down on the latches (3), located on both sides of the module, to gently eject it from the slot.

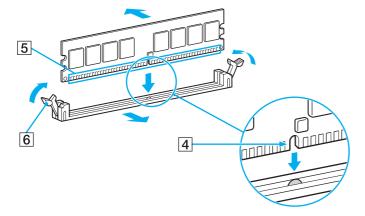


7 Grasp the memory module by the sides and pull it out of the computer. Store the module in a static-free bag.



8 Remove a new memory module from its anti-static package, handling it by the edges.

- **9** Locate the center notch (4) 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 (5) into the slot by pressing down evenly against the module's upper corners. The side latches (6) 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 graphic card, connect the cable, and tighten the screw.
- 12 Replace the top panel.

  See Closing the Computer (page 86) for the detailed instructions.

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## Viewing the Amount of Memory

To view the amount of memory

- 1 Turn on the computer.
- 2 Click Start, All Programs, and VAIO Control Center.
- 3 Double-click the System Information folder in the VAIO Control Center window.
- 4 Double-click the **System Information** icon in the **System Information** folder. You can view the amount of system memory. If the additional memory does not appear, repeat the whole installation procedure and restart the computer.

**■** 93 **■** 



## Installing the Hard Disk Drive

Your computer is equipped with open internal bays to hold additional 3.5-inch hard disk drives.

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



Certain models may already have additional hard disk drives installed that support the Redundant Array of Independent Disks (RAID) technology.

The installation information provided in this section may not apply if you have purchased a model that supports RAID.

The entire repair cost will be charged if there is a failure or accident arising from installation of a hard disk by yourself.

Hard disk installation requires great care. Improper installation or removal will cause a malfunction of your computer.

If you need assistance to install a hard disk, contact VAIO-Link.

Be sure to avoid accidental disconnection of the internal cables of your computer during hard disk installation.

Be sure to avoid injury during hard disk installation as your computer contains components and circuit boards with sharp corners and edges.

If you leave a foreign object, for example a screw, inside your computer during hard disk installation, turning on the computer may cause to produce fumes. Be sure to remove the object and replace the top cover before turning on your computer.

Do not touch the electronic components on the internal circuit board of your computer to avoid a malfunction as they are susceptible to external pressure and static electricity.

The drive bay size of your computer is 3.5 inches.

Some hard disks are not compatible with your computer. Contact the manufacturer of your hard disk for compatibility with VAIO computers.

There may be some limitations on video import from i.LINK devices, depending on your hard disk.



Make sure you disconnect your computer and peripheral devices from the power sources before installing or removing a hard disk. Installing or removing a hard disk while your computer is connected to its power source may cause damage to the computer and the peripheral devices as well as the hard disk.

The internal components of your computer are too hot to touch immediately after you shut down your computer. Wait until the components cool down before you attempt to install a hard disk.

The label of the installed hard disk, for example "Local disk (E:)" and "Local disk (F:)," depends on the hardware configuration of your computer. It may also change after your computer recovery.

By default, recorded videos are stored on your C drive.

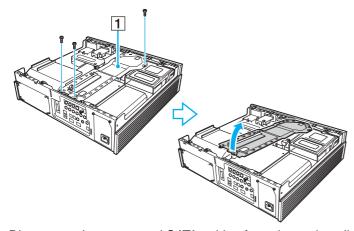


#### Installing an Additional Hard Disk Drive

You can install a total of three (one preinstalled and two additional) SATA hard disk drives to the internal hard disk drive bay.

#### To install an additional hard disk drive

- 1 Remove the top panel.
  See Opening the Computer (page 84) for the detailed instructions.
- 2 Touch a metal object (such as the chassis frame) to discharge static electricity.
- **3** Remove the screws from the inside support panel (1) and take out the panel.

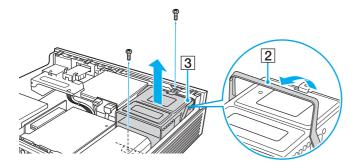


4 Disconnect the power and SATA cables from the preinstalled hard disk drive.

**■** 96 **■** 



5 Remove the screws, pull the drive holder handle (2) straight up from the chassis, and slide out the drive holder (3).



Be careful not to touch other internal components when removing and replacing the drive holder as it may cause a failure.

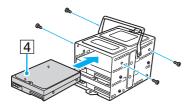
Make sure you keep the removed screws out of your computer.

6 Slide a new hard disk drive (4) into the drive holder and align the holes on each side of the drive bay.

Be sure to use a lower bay, if any, when installing a new drive.



7 Secure the drive to the drive holder with screws, through the holes on each side of the drive holder.



New hard disk drives may come with necessary screws. Do not overtighten these screws when securing the drive to the drive holder.

- 8 Connect the power cables to the preinstalled and new hard disk drives.
- 9 Connect the SATA cables to the hard disk drives as follows:

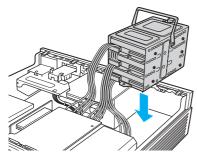
Connect the internal SATA cables:	To the hard disk drives in:
PORT0 cable	Bottom drive bay
PORT1 cable	Middle drive bay
PORT3 cable	Top drive bay

Use of a commercially available SATA cable with the straight-head connector may damage the connector on the hard disk drive by being pulled out when you replace the drive holder. We recommend you use Sony SATA cables exclusively designed for your computer.

**■** 98 **■** 



**10** Replace the drive holder.



- **11** Replace the inside support panel and tighten the screws.
- 12 Replace the top panel.
  See Closing the Computer (page 86) for the detailed instructions.

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## 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.
- Click Start and right-click 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 Vista 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 VAIO computer from potential damage.

- □ On Using the Power Source (page 101)
- □ On Handling Your Computer (page 102)
- □ On Handling Floppy Disks (page 104)
- ☐ On Handling Discs (page 105)
- On Using Headphones (page 107)
- ☐ On Handling Memory Stick Media (page 107)
- ☐ On Handling the Hard Disk (page 108)



# On Using the Power Source

cause a malfunction.

_	See the online <b>Specifications</b> 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 your 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 your computer from the AC outlet if you are not planning to use the computer for a long period of time.
	Make sure that the AC outlet is easily accessible.
	Use the power cord supplied with your computer or genuine Sony products. Do not use any other power cord as it may

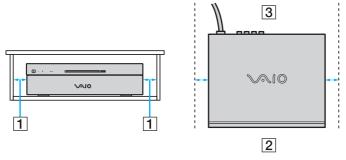


# On Handling Your Computer

	of a	ean the cabinet with a soft cloth, which is dry or lightly moistened with a mild detergent solution. Do not use any type abrasive pad, scouring powder, or solvent such as alcohol or benzine, as these may damage the finish of your mputer.		
If you drop a solid object or any liquid onto your computer, shut down the computer and then unplug it. You may w have the computer checked by qualified personnel before operating it again.				
	Do	not drop your computer.		
	Do	not place your computer in a location subject to:		
		Heat sources, such as radiators or air ducts		
		Direct sunlight		
		Excessive dust		
		Moisture or rain		
		Mechanical vibration or shock		
		Strong magnets or speakers that are not magnetically shielded		
		Ambient temperature of more than 35°C or less than 5°C		
		High humidity		
Do not place electronic equipment near your computer. The electromagnetic field of the computer may cause malfunction.				



- ☐ Provide adequate air circulation to prevent internal heat from building up. The internal heat will cause your computer to malfunction.
  - ☐ Do not place your computer on porous surfaces such as rugs or blankets, or near material such as curtains or draperies that may block its air vents.
  - ☐ Be sure to allow clearance of at least 5.0 cm wide on either side (1) of your computer.
  - ☐ Keep the front (2) and back (3) of your computer unblocked.



- ☐ Your 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 your 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 VAIO-Link.
- ☐ Make sure you disconnect the power cord before cleaning your computer.
- ☐ To avoid losing data if your computer is damaged, back up your data regularly.



## On Handling Floppy Disks

- ☐ Do not open the shutter manually or touch the surface of the floppy disk.
- □ Keep floppy disks away from magnets.
- □ Keep floppy disks away from direct sunlight and other sources of heat.
- ☐ Keep floppy disks away from any liquid. Do not let them get wet. When you are not using your floppy disk, always remove it from the floppy disk drive and use a storage case.
- ☐ If the floppy disk comes with an adhesive label, make sure that the label is properly affixed. If the edge of the label is curled up, the label may stick to the inside of the floppy disk drive and cause a malfunction or damage your floppy disk.



## 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 affix an adhesive label on discs. This will affect the use of the disc irreparably.



An 8cm disc adapter exclusively designed for your model is provided for use of 8cm discs on your computer.



- ☐ Be sure to attach the adapter to an 8cm disc before using it on your computer. Not using the supplied adapter or using a similar kind of the adapter with the disc may cause a disc recognition error or result in a stuck disc, a damaged disc, or a malfunction of your computer.
- ☐ Remove the adapter from an 8cm disc when not using the disc. Keeping the adapter attached may deform the disc.
- □ Do not leave the adapter in a place subject to high temperatures to avoid deformation. Use of the deformed adapter with an 8cm disc may cause a disc recognition error or result in a stuck disc, a damaged disc, or a malfunction of your computer.
- □ Not all types of the 8cm disc can fit into the adapter.



## 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 Memory Stick Media

Do not use the media in a location subject to static electricity or electrical noise.					
Do not touch the Memory Stick media connector with your finger or metallic objects.					
Use only the adhesive label supplied with the Memory Stick media as a label.					
Do not bend, drop, or apply strong shock to the Memory Stick media.					
Do not disassemble or modify Memory Stick media.					
Do not let Memory Stick media get wet.					
Do not use or store Memory Stick media in a location subject to:					
☐ Extremely high temperatures, such as in a car parked in the sun					
□ Direct sunlight					
☐ High humidity					
□ Corrosive substances					
Use the storage case supplied with the Memory Stick media.					
Be sure to make a backup copy of your valuable data.					
Keep the Memory Stick media out of reach of children. There is a risk of swallowing the media.					
When using the Memory Stick Duo media, do not use a fine-tipped pen to write on the label adhered to the Memory Stick Duo media. Exerting pressure on the media may damage internal components.					



## 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 your computer.

i o avoia aairiaairia voai riara aibi	То	avoid	damaging	vour	hard	disk
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Do not sub	ject you	r computer	to sudden	movements.

- Keep your computer away from magnets.
- ☐ Do not place your computer in a location subject to mechanical vibration or in an unstable position.
- Do not move your computer while the power is on.
- Do not turn off the power or restart your computer while reading or writing data to the hard disk.
- Do not use your 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 VAIO computer. Many problems have simple solutions. Try these suggestions before contacting VAIO-Link.

- □ Computer (page 110)□ System Security (page 115)□ Networking (page 116)
- □ Optical Discs (page 119)
- □ Display (page 123)
- ☐ Printing (page 127)
- ☐ Microphone (page 128)
- ☐ Speakers (page 129)
- Keyboard (page 130)
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- ☐ Floppy Disks (page 132)
- □ Audio/Video (page 133)
- ☐ Memory Stick Media (page 134)
- ☐ Peripherals (page 135)



# Computer

## What should I do if my computer does not start?

Make sure your 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 is empty.
If your computer is plugged into a power strip or an uninterruptible power supply (UPS), make sure the power strip or UPS is plugged into a power source and turned on.
Make sure your external display is plugged into an appropriate power source and turned on.
Make sure the brightness and contrast controls on your external display are adjusted correctly.
Condensation may cause your computer to malfunction. If this occurs, do not use the computer for at least one hour.
Remove any extra memory modules you may have installed since purchase.
Make sure your computer is not in Sleep mode by pressing the standby button on the wireless keyboard or the remote commander.



## What should I do if a BIOS error appears when I turn on my computer?

If the message "Press <F1> to resume, <F2> to setup" appears at the bottom of the screen, follow these steps:

- 1 Press the **F2** key.

  The BIOS setup screen appears. If not, restart the computer and press the **F2** key several times when the VAIO logo appears.
- 2 Set the date (month/day/year). Press the **Enter** key.
- 3 Press the 

  √
  key to select System Time, and then set the time (hour: minute: second). Press the Enter key.
- 4 Press the → key to select the Exit tab, select Load Setup Defaults, and press the Enter key. The message Load Setup Defaults (Y/N)? appears.
- 5 Select **Yes**, and press the **Enter** key.
- 6 Select Exit (Save Changes) or Exit Setup, and press the Enter key. The message Save configuration changes and exit now? appears.
- 7 Select **Yes**, and press the **Enter** key. Your computer restarts.

If this occurs frequently, contact VAIO-Link.



What should I do if power indicator lights but my display stays	s blank'	/ stavs t	/ displav	but my	liahts	indicator	power	do it	should I	What
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- ☐ Make sure the proper input for your display (TV, DVI-D monitor) is selected.
- ☐ Make sure your display (TV, DVI-D monitor) is turned on.
- ☐ If your display is still blank, follow these steps:
  - 1 Press the power button for more than four seconds to check that the power indicator goes out. Then turn on your computer again.
  - 2 If your display still stays blank, 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 my computer or software stops responding?

- ☐ If your computer stops responding while a software application is running, press the Alt+F4 keys to close the application window.
- ☐ If the Alt+F4 keys do not work, click Start, the arrow next to the Lock button, and Shut Down to turn off your computer.
- ☐ If your computer does not turn off, press the Ctrl+Alt+Delete keys and click the arrow ☐ next to the Shut down button and Shut Down.

If the Windows Security window appears, click Shut Down.

- Turning off your computer with the Ctrl+Alt+Delete keys or the power button may cause loss of unsaved data.
- If your computer still does not turn off, press and hold the power button until the computer turns off.
- Remove the power cord.
- ☐ Try reinstalling the software.
- ☐ Contact the software publisher or designated provider for technical support.



## Why doesn't my computer enter Sleep mode?

Your computer may become unstable if the operating mode is changed before the computer completely enters Sleep mode.

To restore your computer to normal operating stability

- 1 Close all open programs.
- 2 Click Start, the arrow next to the Lock button, and Restart.
- 3 If your computer does not restart, press the Ctrl+Alt+Delete keys and click the arrow next to the Shut down button and Restart.
- 4 If this procedure does not work, press and hold the power button until the computer turns off.

Turning off your computer with the power button may cause loss of unsaved data.

# What should I do if Windows does not start, showing a message, when I start my computer?

If you enter a wrong power-on password three times consecutively, the **System Disabled** message appears and Windows will not start. Press and hold the power button for more than four seconds to check that the power indicator goes off. Wait for 10 or 15 seconds, then restart your computer and enter the correct password. When entering the password, check that the Num lock indicator and Caps lock indicator on the wireless keyboard 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 BIOS password?

If you have forgotten the BIOS password, contact VAIO-Link to reset it. A reset fee will be charged.

## 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.

# Why doesn't my display turn off when the time selected for the automatic turn-off action has passed?

The originally selected VAIO's screen saver disables the timer setting, which you can select using the Windows power options, for your display to turn off.

Change the originally selected VAIO's screen saver.



# 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 your computer. The best way to protect your 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 the following:

- Your computer must be connected to the Internet before you can receive updates.
- Connect to the Internet.
- 2 Double-click the Windows Security Alerts icon on the taskbar.
- 3 Follow the on-screen instructions to set up automatic or scheduled updates.

## 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 Click Start, All Programs, Norton Internet Security, and Norton Internet Security.
- 2 Click the item to update the software on the left pane.
- 3 Follow the on-screen instructions to select and download updates.



## Networking

#### What should I do if my computer cannot connect to a wireless LAN access point?

- ☐ Connection availability is affected by distance and obstructions. You may need to move your computer away from obstructions or closer to any access point you may be using.
- Make sure your desired wireless option is selected on the **Wireless Device Switch** window and then the Wireless LAN indicator is lit on your computer.
- Make sure power to the access point is on.
- Follow these steps to check the settings:
  - 1 Click Start and Control Panel.
  - 2 Click View network status and tasks under Network and Internet.
  - 3 Click Connect to a network to confirm that your access point is selected.
- ☐ Make sure the encryption key is correct.

#### What should I do if I cannot access the Internet?

- ☐ Check the access point settings. See the manual that came with your access point for more information.
- Make sure your computer and the access point are connected to one another.
- ☐ Move your computer away from obstructions or closer to any access point you may be using.
- ☐ Make sure your 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 your 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 the manual that came with your access point for more information.

## How do I avoid data transfer interruptions?

When your 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 your computer closer to the access point.
- Make sure the access point connection is intact.
- Change the access point channel. See the manual that came with your access point 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 the manual that came with your access point.

## Why does the network connection stop when I change the encryption key?

Two computers with the wireless LAN functionality 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.



# **Optical Discs**

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

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

- 1 Restart the computer by clicking Start, the arrow next to the Lock button, and Restart.
- 2 Eject the disc from the optical disc drive.
- Examine the disc for dirt or damage. If the disc is dirty, see **On Handling Discs (page 105)** for instructions on how to clean it.

#### What should I do if the disc does not slide out?

- ☐ Make sure your computer is on.
- Press the drive eject button.
- ☐ If the drive eject button does not work, click **Start** and **Computer**. Right-click the optical disc drive icon, and select **Eject** from the shortcut menu.
- Try restarting your computer.



### What should I do if I cannot play a CD or DVD properly on my computer?

Ма	ke sure the disc is inserted into the optical disc drive with the label facing upward.
Ма	ke sure the necessary program(s) is installed according to the manufacturer's instructions.
If a	CD or DVD is dirty or damaged, your computer will stop responding. Follow these steps:
1	Press the Ctrl+Alt+Delete keys and click the arrow next to the Shut down button and Restart to restart the computer.
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 105) for instructions.
If y	ou are playing a CD or DVD and cannot hear sound, do any of the following:
	Check if the volume is turned off or minimized by the muting or volume button, respectively, on the wireless keyboard.
	Right-click the volume icon on the taskbar and click <b>Open Volume Mixer</b> to check the settings.
	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 your computer.
	Make sure the correct driver software is installed. Follow these steps:
1	Click Start and Control Panel.

4 Click Device Manager on the left pane.

Click System and Maintenance.

Click System.

- The **Device Manager** window appears with a listing of your computer's hardware devices. 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 a list of the optical disc drives of your computer.



- 6 Double-click the desired drive.
  You can confirm the driver software by selecting the **Driver** tab, and clicking **Driver Details**.
- 7 Click OK to close the window.
- ☐ Make sure an adhesive label is not affixed to a 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 your computer, do not use the computer for at least one hour. Condensation can cause the computer to malfunction.
- If your TV is connected with a component video cable and your computer's signal format is set to 576p, the **WinDVD BD for VAIO** software may fail to play a Blu-ray Disc. To play the Blu-ray Disc successfully, follow these steps to change the output signal format to 576i, 720p, or 1080i.
  - 1 Click Start and Control Panel.
  - 2 Click Additional Options.
  - 3 Click NVIDIA Control Panel.
  - 4 Click Video & Television.
  - 5 Click Change the signal or HD format under Television.
  - 6 Select 576i, 720p, or 1080i and click **Apply**.



#### What should I do if I cannot write data to CD media?

_	make sure you heither launch any software application nor allow any to launch automatically, not even a screen saver.
	Stop using the keyboard.

If you are using a CD-R/RW disc with an adhesive label affixed, replace it with one with no affixed adhesive label. Using a disc with an affixed adhesive label could cause a write error or other damage.

#### What should I do if I cannot write data to DVD media?

Make sure you are using the correct DVD recordable me
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- □ Check which DVD recordable format is compatible with your optical disc drive. Note the possibility that some brands of DVD recordable media do not work.
- ☐ The preinstalled software on your 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

#### What should I do if my TV stays blank?

Ц	Make sure that both power cords of your computer and TV are securely plugged into power sources.
	Make sure that your computer and TV are properly connected.
	Make sure that both your computer and TV are turned on.
	If your TV is connected with a component video cable:
	☐ Be sure to use an output signal format that matches the component terminal on the TV.

☐ Be sure to use a resolution that matches the component input of the TV.

## What should I do if my TV screen is dark?

- Adjust the brightness control on your TV to brighten the screen. See the manual that came with your TV for the detailed instructions.
- Check other inputs on your TV for brightness. If they also appear dark, see the manual that came with your TV for adjustment.



# What should I do if I have undesirable symptoms when playing movies on my TV that is connected with a component video cable?

The following symptoms may occur because an output signal format selection of 1125i (1080i) or 750p (720p) on your TV prohibits playback of DVD-Videos labeled "Copy Prohibited" as well as movies containing copyright protection signals in consideration for copyright holders.

The output signal format switches to 625p (576p) during DVD-Video playback.
DVD-Video audio is successfully played but video feeds are all blackened out from the beginning or a certain point of the playback.
DVD-Video playback does not start.
No video feeds appear during movie playback.
eliminate the symptoms, quit the software and follow these steps to change the output signal format to 625i (576i) or 5p (576p).

- Click Start and Control Panel.
- 2 Click Additional Options.
- 3 Click NVIDIA Control Panel.
- 4 Click Video & Television.
- 5 Click Change the signal or HD format under Television.
- 6 Select 576i or 576p and click Apply.
- If the symptoms persist, restart your computer.



#### What should I do if my TV shows distorted images?

- Make sure that your computer and TV are properly connected.
- ☐ If your TV is connected with a component video cable:
  - ☐ Be sure to use an output signal format that matches the component terminal on the TV.
  - ☐ Be sure to use a resolution that matches the component input of the TV.

# What should I do if the screen of my TV that is connected to the HDMI OUT port stays blank?

- ☐ Unplug the HDMI cable once and plug it back.
- ☐ Your TV may not be HDCP compliant. Be sure to use an HDCP compliant TV.



## What should I do if my TV does not show a clear view of the Windows desktop?

Depending on your TV, it may not be capable of displaying the Windows desktop as clearly as computer displays. You may solve this problem by changing your TV or computer settings as follows, but it also depends on your TV if such changes to the settings are available. For more information, see the manual that came with your TV.

- ☐ Disable the image quality settings on your TV, such as noise reduction, correction features, and enhancer features.
- ☐ If your computer's output signal format is 576i or 1080i (interlaced mode), change it to 576p or 720p (progressive mode). To change the output signal format, follow the steps in **What should I do if I have undesirable symptoms when playing movies on my TV that is connected with a component video cable? (page 124)**.

#### How do I run Windows Aero?

This Q & A entry applies to selected models only. To run Windows Aero, follow these steps:

- 1 Click Start and Control Panel.
- 2 Click Customize colors under Appearance and Personalization. The Appearance Settings window appears.
- 3 Select Windows Aero from the Color scheme options on the Appearance tab.
- 4 Click OK.



# **Printing**

#### What should I do if I cannot print a document?

- Make sure your printer is on, and the printer cable is securely connected to the ports on the printer and computer.
- ☐ Make sure your printer is compatible with the Windows operating system installed on your computer.
- You may need to install the printer driver software before you use your printer. See the manual that came with your printer for more information.
- ☐ If your printer is not functioning after your computer resumes from Sleep mode, then restart the computer.
- ☐ If the bidirectional communication functions are provided with your printer, disabling the functions on your computer may enable printing. Follow these steps:
  - 1 Click Start, Control Panel, and Printer under Hardware and Sound.
  - 2 Right-click the printer icon and select Properties.
  - Click the Ports tab.
  - 4 Click to cancel the **Enable bidirectional support** check box.
  - 5 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

#### What should I do if my microphone does not work?

- ☐ If you are using an external microphone, make sure the microphone is turned on and is properly plugged into the microphone jack on your computer.
- ☐ The muting button on the wireless keyboard may have been pressed. Press the button once again.
- ☐ The volume may have been turned off with one of the volume control buttons on the wireless keyboard. Press the other to turn up the volume loud enough to hear sound.



# Speakers

#### What should I do if I cannot 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 the program's help file for more information.
- ☐ Make sure the speaker volume is turned up loud enough and the audio option is enabled.
- ☐ The muting button on the wireless keyboard may have been pressed. Press the button once again.
- ☐ The volume may have been turned off with one of the volume control buttons on the wireless keyboard. Press the other to turn up the volume loud enough to hear sound.
- Check the volume controls in Windows by clicking the volume icon on the taskbar.

# What should I do if I do not hear microphone or line-in sound from my HDMI-compatible TV?

Your computer is not capable of outputting audio signals from the MIC (microphone) and LINE IN jacks directly through the HDMI OUT port. Save the audio data first to an audio file, and then play it back to output through the HDMI OUT port.



# Keyboard

## What should I do if the keyboard configuration is wrong?

The language layout of your computer's keyboard is labeled on the packaging 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:

- Click Start and Control Panel
- 2 Click Clock, Language, and Region, and click Regional and Language Options.
- 3 Change the settings as desired.

#### What should I do if I cannot enter certain characters with the keyboard?

- ☐ If you cannot enter **U**, **I**, **O**, **P**, **J**, **K**, **L**, **M**, and so on, the **Num Lk** key may be activated. Check that the Num lock indicator is off. If the Num lock indicator is on, press the **Num Lk** key to turn it off before entering these characters.
- Avoid using any wireless devices that exchange radio signals on the 2.4 GHz frequency band near the wireless keyboard. These devices may cause interference, causing the keyboard to stop working properly.
- Do not place metal furniture near your computer or wireless keyboard, as this may create interference, causing the keyboard to stop working properly.

## What should I do if my computer does not recognize my keyboard?

- ☐ Make sure the **POWER** switch at the top of the wireless keyboard is in the **ON** position.
- Make sure the supplied AA batteries are properly installed.
- □ Press the **CONNECT** button on your computer and then on the wireless keyboard to re-establish the connection between the two devices.



## **Touch Pad**

## What should I do if the touch pad does not work?

<b>_</b>	27).
	Make sure that a mouse is not connected to your computer.
	Check the <b>POINTING DEVICE</b> switch on the bottom of your wireless keyboard to see whether the touch pad is disabled. If the switch is in <b>OFF</b> position, slide it to the <b>ON</b> position to enable the touch pad.
	Check if your keyboard is recognized by the system. See <b>What should I do if my computer does not recognize my keyboard? (page 130)</b> for more information.
	If the pointer does not move while a software application is running, press the Alt+F4 keys to close the application window
	If the Alt+F4 keys do not work, click Start, the arrow next to the Lock button, and Restart to restart your computer.
	If your computer does not restart, press the <b>Ctrl+Alt+Delete</b> keys and click the arrow next to the <b>Shut down</b> button and <b>Restart</b> .  If the <b>Windows Security</b> window appears, click <b>Restart</b> .
	If this procedure does not work, press and hold the power button until the computer turns off.
	! Turning off your computer with the power button may cause loss of unsaved data.



# Floppy Disks

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

Your 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 are 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 your 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**, the arrow next to the **Lock** button, and **Restart**.

### What should I do if I cannot 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.



### Audio/Video

## What should I do if I cannot use my DV camcorder?

If the message appears to indicate DV equipment seems to be disconnected or turned off, the i.LINK cable may not be securely plugged into the ports on your computer or camcorder. Unplug the connectors, and plug them in again. See **Connecting an i.LINK Device (page 71)** for more information.

i.LINK is a trademark of Sony used only to designate that a product contains an IEEE 1394 connection. The procedure to establish an i.LINK connection may vary, depending on a software application, an operating system, and a compatible i.LINK device. Not all products with an i.LINK connection can communicate with each other. See the manual that came with your compatible i.LINK device for more information on operating conditions and proper connection. Before connecting compatible i.LINK PC peripherals to your system, such as a CD-RW or hard disk drive, confirm their operating system compatibility and required operating conditions.



# Memory Stick Media

# What should I do if I cannot use Memory Stick media, which were formatted on a VAIO computer, on other devices?

You may need to reformat your Memory Stick media.

Formatting Memory Stick media erases all data, including music data previously saved on it. Before you reformat Memory Stick media, 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 media onto your computer's hard disk to save data or images.
- 2 Format the Memory Stick media by following the steps in To format a Memory Stick media (page 49).

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

Copyright protected music cannot be checked out to any Memory Stick media other than those with the MagicGate logo.

Use of recorded music requires permission from 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 camera using Memory Stick media?

Yes, and you can view video clips that you have recorded with Memory Stick media-compatible digital cameras.

## Why can't I write data to Memory Stick media?

Some versions of Memory Stick media are equipped with an erasure prevention switch to protect data from accidental erasure or overwriting. Make sure the erasure prevention switch is off.



## Peripherals

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

If applicable, check the USB device is turned 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 another USB port on your computer. The driver could be installed to the specific port you used the first time you connected the device.
- ☐ See the manual that came with your USB device for more information. You may need to install software before you connect the device.
- ☐ Try connecting a simple, low-powered device such as a mouse to test if 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 your computer without a hub.



# **Support Options**

The section contains information on where to go for answers to questions about your VAIO computer.

## Sony Support Information

See the following sources for answers in the sequence listed below.

See **Documentation** (page 7) for details on the printed and non-printed documentation supplied with your computer, as well as further sources of reference. Go to the help files that accompany your software for instructions on using the software. Use the search functionality in Windows Help and Support by pressing and holding the Microsoft Windows key and pressing the F1 key. □ VAIO-Link Web site: If you have any problem with the computer, you can access the VAIO-Link Web site for troubleshooting. Go to <a href="http://www.vaio-link.com">http://www.vaio-link.com</a>. •-Support: This interactive part of our Web site http://www.vaio-link.com allows you to get in contact with our dedicated support team over the Internet. Using a personalized account, you can log your technical queries with ease. VAIO-Link help lines: Before contacting VAIO-Link by telephone, try to solve the problem by reading the printed and nonprinted documentation. ☐ Visit the other Sony Web sites: http://www.club-vaio.com if you want to know more about VAIO and become part of the growing VAIO community. http://www.sonystyle-europe.com for online purchases. http://www.sony.net for other Sony products.



You need to set up an Internet connection before you can access the online features described here.



## e-Support

## What is e-Support?

You have searched our user guides and Web site (<a href="http://www.vaio-link.com">http://www.vaio-link.com</a>) but have not found an answer to your question/issue? e-Support is the ideal solution for you!

Our e-Support Web Portal is an interactive Web site on which you can submit any technical query you may have regarding your computer and receive answers from our dedicated support team.

Every submitted query will result in a unique 'case number' to ensure smooth communication between yourself and the e-Support Team.

### Who can use e-Support?

All registered VAIO customers are entitled to unlimited access to the VAIO-Link e-Support Web Portal.

## How can I access the e-Support portal?

When you register your computer, you will automatically receive an email with the link to the e-Support Web Portal, your Customer ID and some basic explanation a few hours later.

All you need to do is activate your account by clicking on the provided link in the email.

You are now ready to create your first case!

You can access the e-Support Web Portal from any computer with an active Internet connection.

A complete help file is available on the e-Support Web Portal to help you use our e-Support Service.

## Can I submit questions in my native language?

Since you are interacting with our e-Support Team through a portal, which connects you directly to our central database, e-Support will only accept and deal with queries submitted in English, French or German.



## Can I submit my questions at any time?

Yes, you can submit your questions 24/7, but please keep in mind that our e-Support Team can only treat your queries from Monday till Friday between 8am and 6pm.

## Is there a cost involved for using e-Support?

No, this is a complete free of charge service offered to all registered VAIO customers!

## How do I know when the e-Support Team has handled my query/case?

As soon as your case has been dealt with by our e-Support Team, you will receive an email, notifying you that your case has been updated.



#### **Trademarks**

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