Connecting Peripheral Devices 41

Change text in this variable definition to document title.

Welcome

Congratulations on your purchase of this Sony VAIO® computer, and welcome to the VAIO User Guide.
This User Guide provides detailed information on all aspects of using your new VAIO computer, from keyboard functions to preinstalled software applications.
In the left navigation window, click the topics you want to learn more about, and that information will be displayed in this main window.

✍ Click here to find the latest updates and supplemental information about your computer.

Change text in this variable definition to document title.

Using Your VAIO Computer

This section describes the following aspects of your new computer:

❑ Using the Keyboard

❑ Using VAIO Action Setup

❑ Using the Jog Dial Control

❑ Using Memory Stick Media

❑ Using PC Cards

❑ Using Power Saving Modes

❑ Connecting a Telephone Cable

❑ Connecting to a LAN

❑ Connecting to a Wireless LAN

Using the Keyboard

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

Keyboard
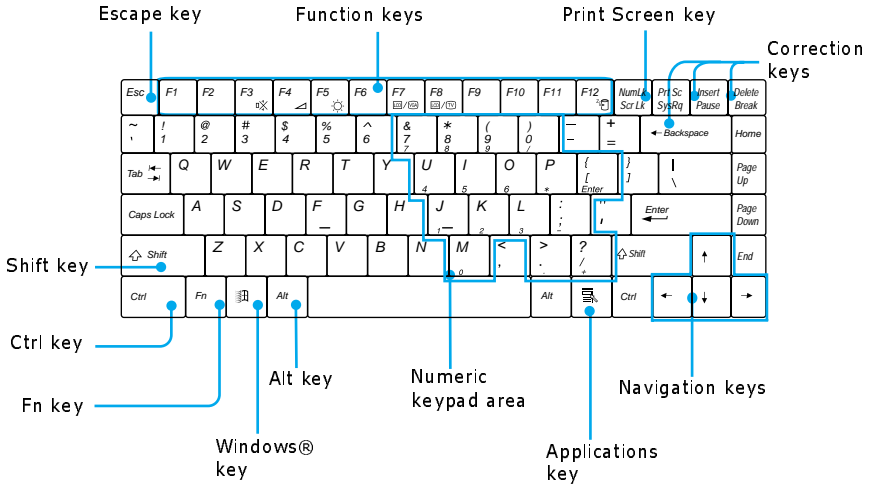
Functions of the keyboard keys

Key	Description
Numeric keypad area	Contains the keys found on a typical calculator. Use the numeric keypad area to type numbers or to perform mathematical calculations such as addition and subtraction. Numbers appear on the front beveled edge of the numeric keys. You must press the Num Lock key to activate the numeric keypad. (When you do so, the Num Lock indicator lights up.)
Navigation keys	Several keys are devoted to moving the cursor on the screen (the four arrow keys which also function as the Home, End, Page Up, and Page Down keys).
Correction keys	The Insert, Backspace, and Delete keys enable you to make corrections in your documents.
Function keys	The twelve function keys along the top of the keyboard are used to perform designated tasks. For example, in many applications, F1 is the Help key. The task associated with each function key may vary among applications.
Escape key	The Esc (Escape) key is used to cancel commands.
Print Screen key	The Print Screen key takes an electronic snapshot of the screen and moves it to the Windows® Clipboard. You can then paste the screen shot into a document and print it.

Key	Description
Operator keys (Shift, Ctrl, Alt keys)	Several keys are always used with at least one other key: Ctrl, Alt, and Shift. When held down with another key, the Ctrl (Control) and Alt (Alternate) keys offer another way to give commands. For example, in many applications, instead of choosing the Save command from a menu, you can hold down Ctrl and press the S key (referred to as Ctrl+S). The Shift key operates the same way as on a typewriter; it is used to produce capital letters or special symbols, such as @ and $.
Windows® key	The key with the Windows® logo displays the Windows® Start menu; it's the equivalent of clicking Start on the taskbar. See "Combinations and functions with the Windows key" for more information.
Fn key	The Fn key is used in combination with other keys to issue commands. See "Combinations and functions with the Fn key" for more information.
Applications key	The Applications key displays a shortcut menu of context-sensitive choices. Pressing this key is the equivalent of clicking the right mouse button.

Combinations and functions with the Windows key

Combination	Function
+ F1	Displays VAIO® Help and Support Center.
+ Tab	Switches the selected button on the taskbar.
+ E	Displays Windows® Explorer.

Combination	*Function*
⊞ + F	Displays the Search window to find a file or folder. This is the equivalent of selecting Search from the Start menu.
⊞ + Ctrl + F	Displays the search results window where you can locate other computers. This is the equivalent of selecting Search, and then Computers from the Start menu.
⊞ + M	Minimizes all displayed windows (with Num Lock off).
Shift + ⊞ + M	Returns all minimized windows to their previous size.
⊞ + R	Displays the Run window. This is the equivalent of selecting Run from the Start menu.
Fn + ⊞ + Insert	Displays the System Properties window. This is the equivalent of selecting Control Panel, and then System from the Start menu.

Indicators

Indicator	*Function*
Power ⏻	Lights up when the power to the computer is turned on, flashes in Standby mode, and turns off when the computer is in Hibernate mode or powered off.
Battery ◄▭	Lights up when the computer is using battery power, flashes when the battery is running out of power, double-flashes when the battery is charging.
Hard disk ⬡	Lights up when data is read from or written to the hard disk drive. Do not enter Standby mode or turn off the computer when this indicator light is on.

Indicator	*Function*
Wireless LAN	Lights up when the Wireless LAN function is running.
Memory Stick®	Lights up when data is read from or written to the Memory Stick media. (Do not enter Standby mode or turn off the computer when this indicator light is on.) When indicator is off, the Memory Stick media is not being accessed.
Num Lock	Lights up when the number keys area in the numeric keypad are active. When indicator is off, the alphanumeric character keys in the keypad area are active.
Caps Lock	Lights up when the letters appear in uppercase as you type. The Shift key lowers the case of typed letters when Caps Lock is on. When the indicator is off, the letters appear in lower case as you type (unless you hold down the Shift key).
Scroll Lock	Lights up when the screen scrolls differently. (Exactly how it scrolls depends on the specific application. This function does not work with all applications.) When indicator is off, information moves across the display normally.

Combinations and functions with the Fn key

If you switch user identities during a computing session, the Fn+F7 key functionality (if available on your computer) will be interrupted. To switch to an external display or monitor, see "Selecting the Display Mode" for more information.

Combinations/ Feature	*Functions*
Fn+ (ESC) Standby	Puts the system into Standby mode, a power management state. To return the system to the active state, press any key on your computer.
Fn+ ⌧ (F3) Speaker switch	Toggles the built-in speaker off and on.
Fn+ ◢ (F4) Speaker volume	Adjusts the built-in speaker volume. To increase volume, press Fn+F4, then ↑ or ➡. To decrease volume, press Fn+F4, then ↓ or ←.
Fn+ ☼ (F5) Brightness control	Adjusts the brightness of the LCD. To increase the intensity, press Fn+F5 and ↑ or ➡. To decrease the intensity, press Fn+F5 and ↓ or ←.
Fn+ ▢ ▢ (F7) Switch to the external display	Toggles between the LCD, external display (connected to the VGA ▭ Monitor port), and both LCD and external display modes. Only LCD ⟶ LCD and external display Only external display
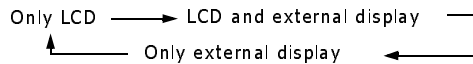
Combinations/ Feature	Functions
Fn+ ᶻ⁴🗗 (F12) Hibernate	Provides for the lowest level of power consumption. When you execute this command, the state of the system and state of the peripheral devices are written to the hard disk, and the system power is turned off. To return the system to the original state, press the power button briefly to turn on the power.
Fn+B Bass Boost	Toggles the bass-boost function off and on. This feature is available only while using headphones.
Fn+ F	Display control. Minimizes and maximizes the LCD screen. If the default display resolution is reduced, this function maximizes the display resolution to fit the screen size. Maximizing the display screen enables you to view the display at a greater resolution.

✎ Some functions are not available until Windows® launches.

Using VAIO Action Setup

VAIO Action Setup manages the settings for your computer's Jog Dial™ control, Memory Stick® ▱ MEMORY STICK™ media, and i.LINK®* interface. With VAIO Action Setup, you can:

❑ Change the Jog Dial setting

❑ Change the USB device connection setting

❑ Change the time setting.

For more information on changing the settings using VAIO Action Setup, right-click the Jog Dial control icon 🖼 or 🖼 in the taskbar, and click Help Topics.

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

Using the Jog Dial Control

Your computer is equipped with a Jog Dial™ control on the bottom center portion of the unit. The Jog Dial control enables you to open an application, folder, or document from a predefined list by rotating and pressing the Jog Dial control. In addition, when you press the Jog Dial control, you can turn on your computer automatically and start the selected application or document.

Using the Jog Dial Control
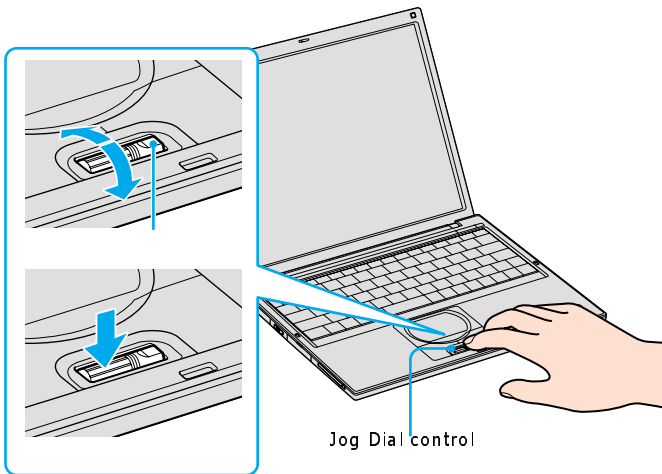
Jog Dial control

The Jog Dial control window always appears in the display. It is either in the launcher mode or in the guide mode.

For information on how to change the Jog Dial control's settings, right-click the Jog Dial control icon in the taskbar, and click Help Topics.

Launcher mode

The Jog Dial control window is in launcher mode until a software application is launched or the Jog Dial control window becomes active. When an arrow is displayed next to an item in the Jog Dial control window, you can display a submenu of that item by selecting it and pressing the Jog Dial control button.

Using Launcher mode

To use the Jog Dial control, double-click the Jog Dial control window or the Jog Dial control icon in the taskbar. Alternatively, you can press the Jog Dial control while pressing the Ctrl key on the keyboard to switch to the launcher mode.

1 Turn the Jog Dial control to select the item you want, and press the Jog Dial control. The window switches to the guide mode and shows the Jog Dial control's function.

Jog Dial Launcher Dialog Box

2 Turn or press the Jog Dial control to use the desired function.

Guide mode

The Jog Dial control window is in the guide mode when software is in use and the software window is active. Depending on the software you are using, you can select items from the displayed list using the Jog Dial control. Some Sony software applications have two modes in List View, Simple Menu, and Full Menu. You can switch the mode by pressing the Shift key while turning the Jog Dial control.

Using the Jog Dial control with Sony software

If Sony software that supports the Jog Dial™ control is active, you can use the Jog Dial's functions that are allocated to that software. For more information on functions allocated to software, see the software application's online Help.

Using the Jog Dial control with other software

If the software you are using does not support the Jog Dial control, you can still perform the following functions:

Action	Description
Maximize Window*	Press the Jog Dial control button to maximize the size of the active window. Press it again to return to normal window size.
Minimize Window*	Press the Jog Dial control button to minimize the size of the active window. Press it again to return to normal window size.
Finish Window*	Press the Jog Dial control button to close the active application.
Scroll*	Press the Jog Dial control button to begin scrolling within the active window.
Jog Dial Launcher	Press the Jog Dial control button to return the Jog Dial control to Jog Launcher mode.
Menu Bar	Press the Jog Dial control button, and then use the Jog Dial control to scroll through the active window's toolbar.

* Some software applications do not support these functions.

Using a dialog box

When a window such as Screen Properties is active, the Dialog box is displayed in the Jog Dial™ window. You can select an item in the window by rotating the Jog Dial control. Pressing the Jog Dial control is the equivalent of pressing Enter.

Jog Dial Guide Dialog Box

Internal timer

You can use the internal timer to start an application at a specific time. When set, the time can launch applications even when the computer is turned off.

1 Rotate or push the Jog Dial™ control, and select VAIO Action Setup in the Jog Dial Launcher window.

2 Click Timer from the left menu, and then click the clock icon.

3 Select either Recommended Settings, Program Files, All Files, or Drag & Drop from the left menu, then select the file or application you want to launch in the right window.

4 Click Next until the One-Time-Only Setting dialog box appears.

5 Select the Date and Time and click Next twice.

6 Click Finish, and close the VAIO Action Setup window.

Using Memory Stick Media

This new compact, portable, and versatile recording medium has a data capacity exceeding that of a floppy disk. The media is specially designed for exchanging and sharing digital data with compatible products. Because it is removable, you can use the media for external data storage.

Types of Memory Stick media

Your computer uses two types of Memory Stick® media:

❑ MagicGate™ ▣ Memory Stick media (hereafter referred as MG Memory Stick media), is provided with copyright protection. (The MG Memory Stick media are colored white.)

❑ Memory Stick ▣ media, does not have the same copyright protection as MagicGate. (The Memory Stick media are colored purple.)

For music, which requires copyright protection, you can only use MG Memory Stick media. You can also use compatible MagicGate devices to record and play back music when they are connected to your computer.

You can store mixed data on the Memory Stick media. For example, you can copy an image onto MG Memory Stick media that already contains music.

What is MagicGate?

MagicGate technology is copyright protection that consists of authentication and encryption technology. Authentication technology ensures that protected content is only transferred between compliant devices and media. Protected content is recorded and transferred in an encrypted format to prevent unauthorized duplication or playback.

✍ Ensure that the MG Memory Stick media has the MG mark ▣ .

To insert a Memory Stick media

1 Hold the Memory Stick media with the label facing up and the arrow facing toward the Memory Stick® media slot.

2 Carefully insert the Memory Stick media into the slot until it clicks into place.

⚠️ **Inserting the media in the wrong direction may damage the connector pins.**

To avoid damaging the computer or the Memory Stick Media, do not force the Memory Stick media into the slot.

Inserting Memory Stick

Insert in the direction of the arrow with the label facing up
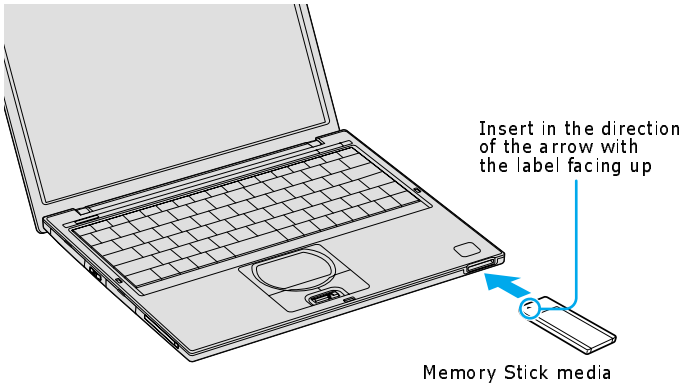
Memory Stick media

To view the contents of Memory Stick media

1   Click Start on the Windows® taskbar, and then My Computer.

2   Click the Sony Memory Stick 🗂 icon. The Sony Memory Stick window appears, displaying the contents of your MemoryStick media.

To remove a Memory Stick media

1   Wait a minimum of 10 seconds after the media finishes reading or writing data before removing it. If the media is removed prematurely, an error message appears, prompting you to continue or exit. Reinsert the media into the slot and press Enter to continue. This enables the media to finish reading or writing data.

2   Make sure the Memory Stick indicator is off. When the indicator is off, the Memory Stick media is not being accessed.

Memory Stick media indicator
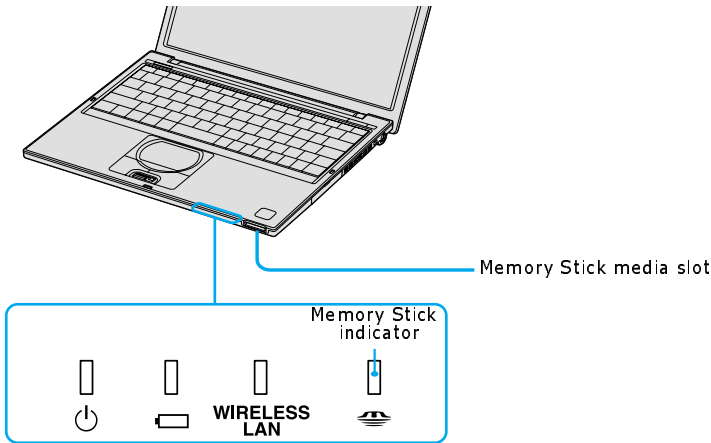
3   Push the media in toward the computer.

4   When the media ejects, pull it out. The Memory Stick media may eject completely from the slot.

Notes on using Memory Stick media

❑   When the media's write-protect tab is set to LOCK, you cannot record or erase data.

❑   Before using Memory Stick media, you should back up important data.

❑   You can enjoy video clips that you have recorded with compatible Memory Stick digital camcorders.

❑   The media slot accommodates one media at a time.

❑   To copy images from a digital video camera via Memory Stick® media, see "Connecting an i.LINK Audio-Video Device" for more information.

❑   Only MG™ Memory Stick media can be used with copyright protected data like music.

❑   Do not remove the media or turn off the power while the access light is on.

❑   Do not use the media in locations that are subject to static electricity or electrical noise.

❑   Do not touch the media connector with your finger or metallic objects.

❑   Do not attach labels other than the supplied label to a media.

❑   Do not bend, drop, or shock the media.

❑   Do not disassemble or modify the media.

❑   Do not allow the media to get wet.

❑   Do not use or store the media in a location that is subject to:

   ❑   Extremely high temperatures, such as in a car parked in the sun.

   ❑   Direct sunlight.

   ❑   High humidity or places with corrosive substances.

❑   To prolong the life of the media, use the supplied storage case. See the instructions supplied with your media for more information on its use.

Using PC Cards

Your computer includes a PC Card slot, which enables you to connect portable external devices, such as an optical disc drive.

⬧ The PC Card slot accommodates a Type I or Type II PC Card. This slot is compatible with Card Bus. Type III PC Cards are not supported.

To insert PC card

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

1   Insert the PC Card into the PC Card slot with the front label facing up.

Inserting PC Card
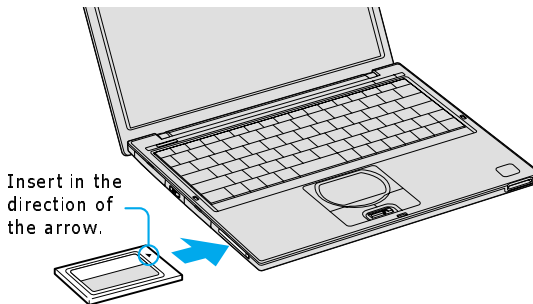
2   Gently push the PC Card into the slot until it is firmly seated in the port and the release button pops out.

⚠ **Do not force a PC Card into the slot. It may damage the connector pins.**

When a PC Card is inserted, do not place your computer in a bag or case. Pressure or shock to a PC Card may damage your computer.

Touching the head of the PC Card will not cause damage to the connector pins, but damage can occur if the head of the PC Card is sticking out of the computer while the unit is being transported.

To remove a PC Card while your computer is on

Failure to follow this procedure may result in a malfunction.

1 Before disconnecting this drive, close all active applications to help prevent data loss.

2 Double-click the Safely Remove Hardware 📇 icon in the taskbar. The Safely Remove Hardware window appears.

3 In the Hardware devices box, select the appropriate PC Card name if it is not already selected, and click Stop. The Stop a Hardware device window appears.

4 Make sure the appropriate PC Card name is selected, and click OK. A message appears stating it is safe to remove the hardware.

5 Press the Release button. The PC Card pops out.

6 Gently grasp the PC Card and pull it out.

Release Button

Release
Button
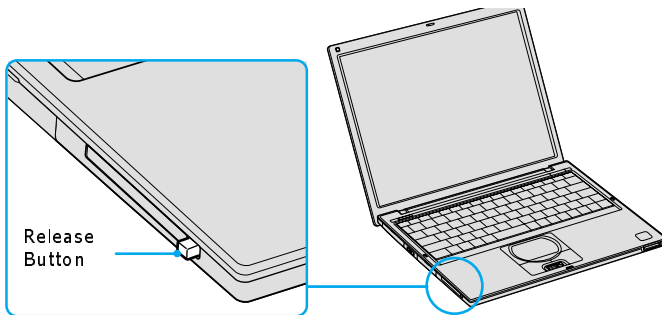
Notes on PC Cards

❑ For some PC Cards, if you alternate between normal power operation and the Standby or Hibernate power management modes while the card is inserted, you may find that a device connected to your system is not recognized. Restart your system to correct the problem.

❏ Some PC Cards may require that you disable idle devices when using the PC Card. You can use Sony Notebook Setup to disable devices. See "Displaying the Sony Notebook Setup Screen" for more information.

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

❏ If an exclamation mark (!) appears on the Device Manager tab in the System Properties dialog box, remove the software driver, and reinstall it.

❏ You may not be able to use some PC Cards or some functions of the PC Card with this computer. If you have difficulty inserting a card, check that you are orienting the card correctly. See the manual supplied with your PC Card for more information on its use.

Using Power Saving Modes

When you use a battery as the power source for your computer, you can use the power management settings to conserve battery life. In addition to the normal operating mode, which enables you to turn off specific devices, your computer has two distinct power saving modes: Standby and Hibernate. When using battery power, the computer automatically enters Hibernate mode when the remaining battery charge drops below 5 percent, regardless of the power management setting you select.

✍ If the battery level falls below 10 percent, you should either attach the AC adapter to recharge the battery or turn off your computer and insert a fully charged battery.

Normal mode

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

Standby mode

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

To activate Standby mode

1   Press the key combination Fn+Esc. You can also use the PowerPanel™ utility to enter Standby mode.

2   Press any key to return to normal mode.

Hibernate mode

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

To activate Hibernate mode

1   Press the key combination Fn+F12, or press the power button and release it immediately. The "Save to Disk Manager" screen appears, and the computer enters Hibernate mode.

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

2   Press the power button to return to normal mode.

Notes on power saving modes

❑   Standby uses more power than Hibernate.

❑   Standby requires less time than Hibernate to return to normal mode.

Connecting a Telephone Cable

You need to connect a telephone cable (not supplied) to register your VAIO® computer, use online services and the Internet, and use Sony Computing Support.

To connect a telephone cable

1   Open the port panel on the right side of the computer, and locate the modem jack.

Plugging in Telephone Jack
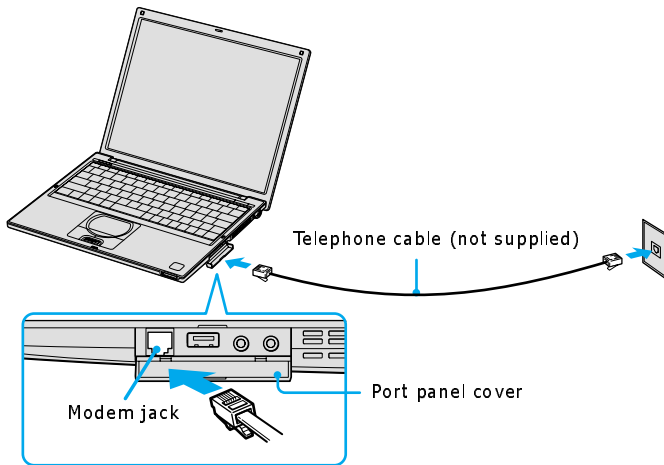
2   Plug one end of the telephone cable into the Modem jack. Make sure it clicks into place.

3   Plug the other end into the wall jack.

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

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

Connecting to a LAN

You can connect your computer to 10BASE-T and 100BASE-TX-type Local Area Networks (LANs) by using the computer's Ethernet port. For the detailed settings and devices needed to connect to the network, ask your network administrator.

Connecting to LAN
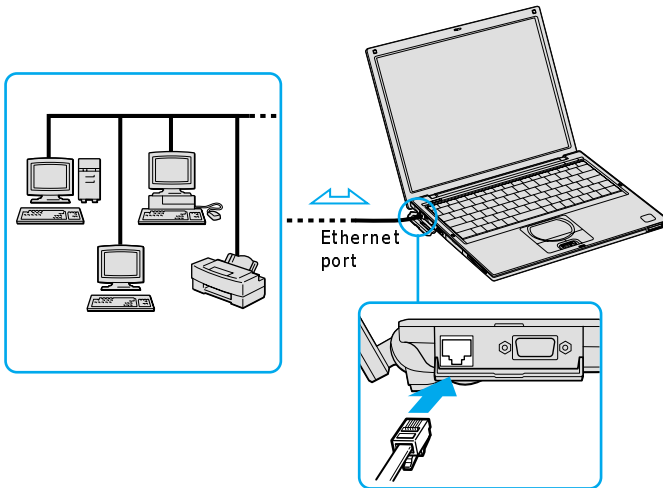
⚠️ **Warning: Only connect 10BASE-T and 100BASE-TX cables to the ⊞ Ethernet port. Do not connect any other type of network cable or a telephone cable. Connecting cables other than those listed above may result in an electric current overload and could cause a malfunction, excessive heat, or fire in the port. To connect the unit to the network, contact your network administrator.**

If you enable Wake on LAN, the power saving mode will be switched to Standby mode.

To set up a network

1 From the Start menu, click Control Panel. The Control Panel window appears.

2 Click Network and Internet Connections. The Network and Internet Connections window appears.

3 Under "Pick a task," click "Set up or change your home or small office network," depending on your configuration. The Network Setup Wizard or the Location Information dialog box appears, depending on your choice.

4 Follow the on-screen instructions.

Connecting to a Wireless LAN

Your computer is equipped with a built-in mini PCI card that allows for wireless connections. With Sony's Wireless Local Area Network (LAN) functionality, all compatible digital devices can communicate freely without cable connections. A Wireless LAN is a network in which a mobile user can connect to a LAN through a wireless (radio) connection. You can opt to purchase a Wireless LAN Access Point to set up a LAN.

Turning On Wireless LAN

To enable Wireless LAN functionality, first locate the Wireless LAN switch that is located on the left side of the computer. Move the switch to the ON position. The Wireless LAN indicator on the bottom left front portion of the computer lights up.

Connecting to a wireless LAN

Wireless LAN switch

Wireless LAN indicator
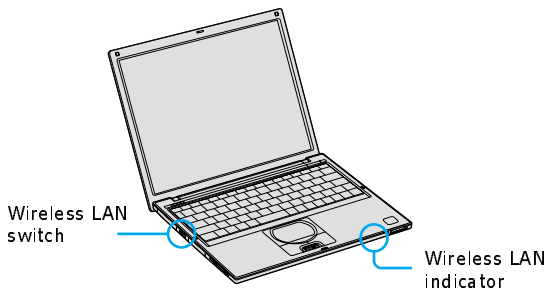
The Wireless LAN Access Point

The Wireless LAN Access Point, also called the access point, is designed for building a Wireless LAN environment. If you purchase an access point, you can easily build a wireless LAN environment by plugging the access point into an AC power outlet, and using the provided software with compatible devices. Because a wireless LAN configuration requires no wiring, you can operate multiple computers more freely than ever before.

You can also connect an access point to a telephone line, Integrated Services Digital Network (ISDN) router, cable modem, or Digital Subscriber Line (xDSL) modem to share access to the Internet among multiple computers.

Communicating via Wireless LAN Access Point
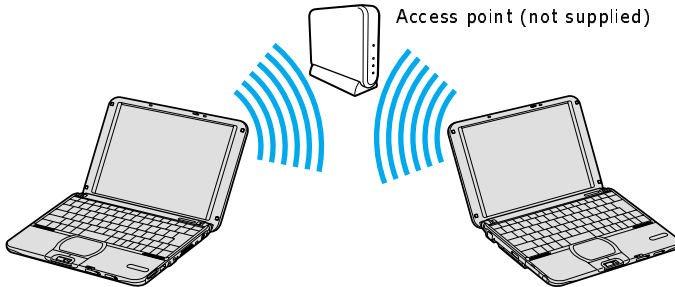
✍ For information on available Sony products, go to:
http://www.sonystyle.com/wirelesslan.

Communicating with an Access Point (infrastructure)

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

To communicate with an access point [[Cannot confirm steps yet]]

1   Locate the Wireless LAN switch that is located on the left side of the computer. Move the switch to the ON position.

2   From the Start menu, point to Connect To, and click Wireless Network Connection. The Wireless network Connection Status window appears.

3   Click Network and Internet Connections, and then Network Connections.

4   Double-click the Wireless Network Connection icon. The Connect to Wireless Network dialog box opens.

Connecting to a wireless LAN

5   Select a network from the Available Networks list box.

6   Click Connect.

Communicating without an access point (ad-hoc)

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

To communicate without an access point [[Cannot confirm steps yet]]

1   Turn on the Wireless LAN switch located on the left side of the computer. The Wireless LAN indicator on the bottom left front portion of the computer lights up. See "Turning On Wireless LAN" for more information.

2   Click Start on the taskbar, point to Connect To, and click Wireless Network Connection.

3   Click View Available Wireless Networks. The Connect to Wireless Network dialog box appears.

4   Click the Advanced button. The Wireless Network Connection Properties dialog box appears.

Setting Wireless Network Connection Properties

5   Select the Wireless Networks tab.

6   Click the Add... button. The Wireless Network Properties dialog box appears.

7   Enter a Network name (SSID). Choose a 6-digit name.

8   Check the box to select Data encryption (WEP enabled).

9 Check the box to select Network Authentication (Shared mode).

10 Clear the box to deselect the option "The key is provided for me automatically." Some information boxes become visible.

11 Fill in the Network key. Choose a 5-digit name.

12 Click OK. Your new Network name appears in the Preferred networks window.

13 Click Advanced. The Advanced dialog box appears.

14 Select the option "Computer-to-computer (ad hoc) networks only."

15 Click Close.

16 Click OK.

Turning Off Wireless LAN

To turn off Wireless LAN functionality, locate the Wireless LAN switch that is located on the left side of the computer, above the PC Card slot. Move the switch to the OFF position. The Wireless LAN indicator on the bottom left front portion of the computer turns off.

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

Notes on using Wireless LAN

❑ Sony Wireless LAN devices support the IEEE802.11b standard. Devices connecting to a Wireless LAN using the IEEE802.11a standard cannot connect to devices using the IEEE802.11b standard.

❑ 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 using a Wireless LAN Access Point, refer to connectivity information contained in those instructions.

Connecting Peripheral Devices

You can add functionality to your notebook by connecting a variety of peripherals, as discussed in the following sections:

❑   Connecting a Floppy Disk Drive

❑   Connecting a PC Card Bus Drive

❑   Connecting an i.LINK Optical Disc Drive

❑   Connecting a USB Mouse or Keyboard

❑   Connecting a USB Device

❑   Connecting a USB Printer

❑   Connecting an i.LINK Audio-Video Device

❑   Connecting an External Display

❑   Connecting with another VAIO computer

❑   Connecting External Speakers

❑   Connecting a Microphone

❑   Expanding Your Computer Capabilities

Connecting a Floppy Disk Drive

You can connect a floppy disk drive (not supplied) to a USB ⍦ port on your computer, port replicator, or docking station.

To connect a floppy disk drive

✍ You do not need to shut down your computer before connecting or disconnecting a floppy disk drive.
Before disconnecting the floppy disk drive, see "To disconnect a floppy disk drive when the computer is on" for more information.

1 Before connecting this drive, close any active applications to help prevent data loss.

2 Plug the USB connector into the USB ⍦ port. The logo on the floppy disk drive should face upward.

Connecting an Floppy Disk Drive

Floppy disk drive (not supplied)

USB ports

USB connector
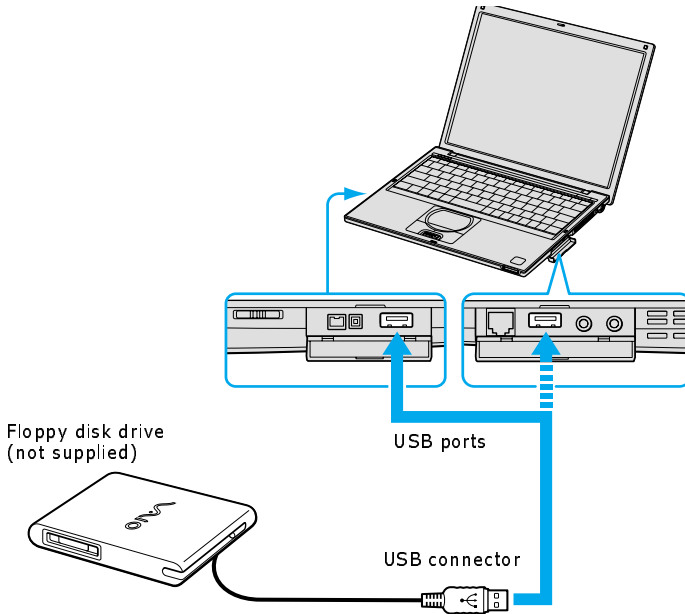
To insert a floppy disk into the floppy disk drive

1 Hold the floppy disk with the label facing up.

2 Gently push the floppy disk into the drive until it clicks into place.

Inserting a Floppy Disk
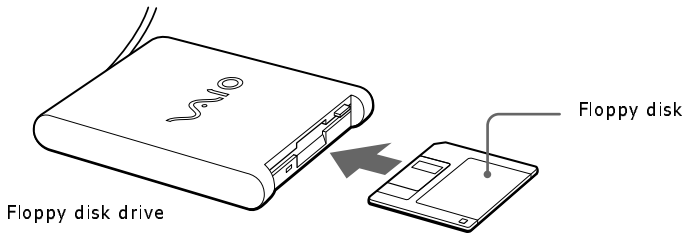
To remove a floppy disk from the floppy disk drive

1 Close all applications that were opened from the disk and wait for the LED indicator to turn off.

2 Push the Eject button, and remove the disk.

✍ Do not push the Eject button when the LED indicator is turned on; otherwise, you may lose data.

Removing a Floppy Disk
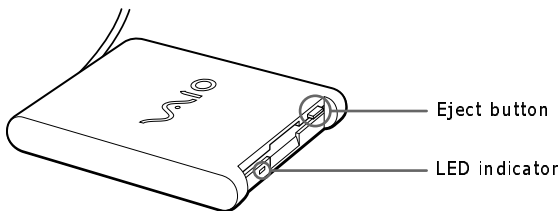
To disconnect a floppy disk drive when the computer is on

1 Before disconnecting this drive, close any active applications to help prevent data loss.

2 Double-click the Safely Remove Hardware   icon in the taskbar. The Safely Remove Hardware window appears.

3 In the Hardware devices box, select Y-E Data USB Floppy, and click Stop. The Stop a Hardware device window appears.

4 Make sure Y-E Data USB Floppy is selected, and click OK. A message appears stating it is safe to remove the hardware.

5 Unplug the floppy disk drive from the computer, port replicator, or docking station.

To carry an floppy disk drive

❑ Fold the floppy disk drive cable and connector into the side compartment on the floppy disk drive.

Carrying an Floppy Disk Drive
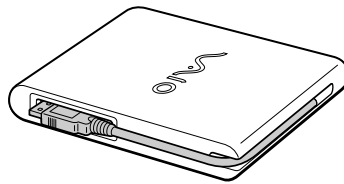
Notes on handling floppy disks

❑ Do not open the shutter manually and touch the surface of the floppy disk.

❑ Keep floppy disks away from magnets.

❑ Keep floppy disks away from direct sunlight and other heat sources.

Connecting a PC Card Bus Drive

[[Cannot confirm steps yet]]

You can use an optional optical drive with your computer. If you use an optional drive when your computer is running on battery power, the battery life will be shorter. The drive draws power from the computer through a PC Card.

⚠ **If you connect a non-Sony DVD drive to your VAIO® computer, the DVD playback may not function properly. The DVD software (supplied) must be installed to play a DVD.**

For best performance, use a Sony compatible DVD drive.

To connect an optical drive

Procedures for connecting an optical drive may vary, depending on the specific drive you purchase. See the manual supplied with your optical drive for more information on its installation and use.

✎ You can connect an optical drive while the computer is on. For specific instructions on using your supplied Application, Driver, and System Recovery CDs, see "Using Your Recovery CDs" for more information.

1   Remove the PC Card from the bottom side of the optical drive.

Removing PC Card
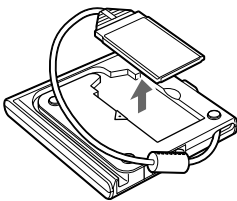
2   Insert the PC Card into the PC Card slot with the logo facing up. See "Using PC Cards" for details.

Inserting PC Card

Make sure logo faces up
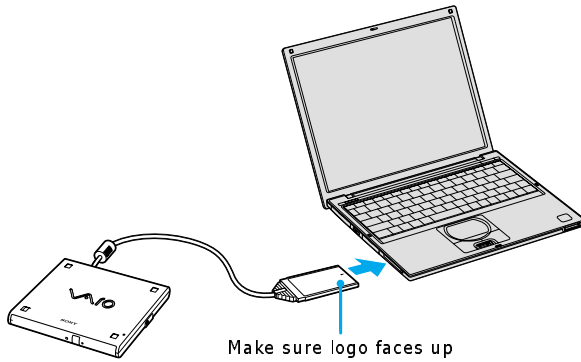
✎ A protective cover is attached to the lens of the optical drive at the factory. Before using the optical drive, remove the protective cover.

To insert a disc

1   Press the Eject button. The disc tray slides out.

Optical Drive

Eject button
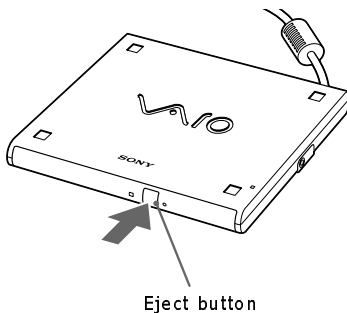
2   Place the disc in the tray with the label facing up.

3   Push the disc onto the hub until the disc clicks into place.

Inserting Disc
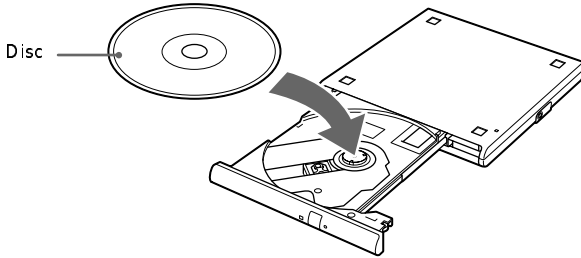
4 Close the tray by pushing it in gently. The Busy indicator on the drive flashes while your computer is reading data from the disc.

Flashing Busy Indicator
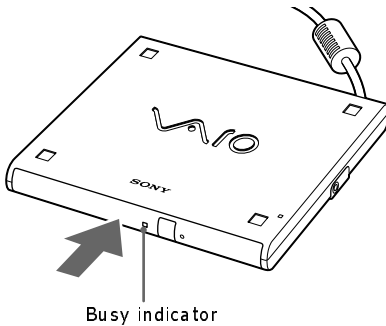
To remove the drive

Remove the PC Card from the computer. See "To disconnect a floppy disk drive when the computer is on" for more information.

Notes on CD and DVD discs

Handling CD or DVD discs

❏ Do not touch the surface of the disc.

❏ Do not drop or bend the disc.

❏ Avoid using adhesive labels to identify your discs. Adhesive labels may come off while the disc is in use in your optical drive and damage to the unit.

Cleaning CD or DVD discs

❏ Fingerprints and dust on the surface of a disc may cause data reading errors. Proper care of the disc is essential to maintain its reliability. Do not use solvents such as benzine, thinner, commercially available cleaners or anti-static spray, as they may damage the disc.

❏ For normal cleaning, hold the disc by its edge and use a soft cloth to wipe the surface from the center outward.

❏ 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.

Connecting an i.LINK Optical Disc Drive

You can connect an i.LINK®[*] optical disc drive to your computer, port replicator, or docking station. This computer is preinstalled with software that enables you to create CDs and play DVD movies. The i.LINK optical disc drive draws power from the computer through a peripheral cable. This peripheral cable connects to both the i.LINK port and DC OUT jack on the computer.[†]

✍ If you use an optional drive when your computer is running on battery power, the battery life will be shorter.

To connect an i.LINK optical disc drive

1   Before connecting this drive, close any active applications to help prevent data loss.

2   Turn on power to the computer.

3   Insert the L-shaped connector of the peripheral cable (supplied with the i.LINK drive) into the matching jack on the i.LINK drive. Secure the connector by turning the LOCK device clockwise.

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

[†]   If you connect and use an optional drive when your computer is running on battery power, the battery life will be reduced.

Connecting i.LINK optical disc drive

L-shaped cable connector

i.LINK cable

DC OUT jack
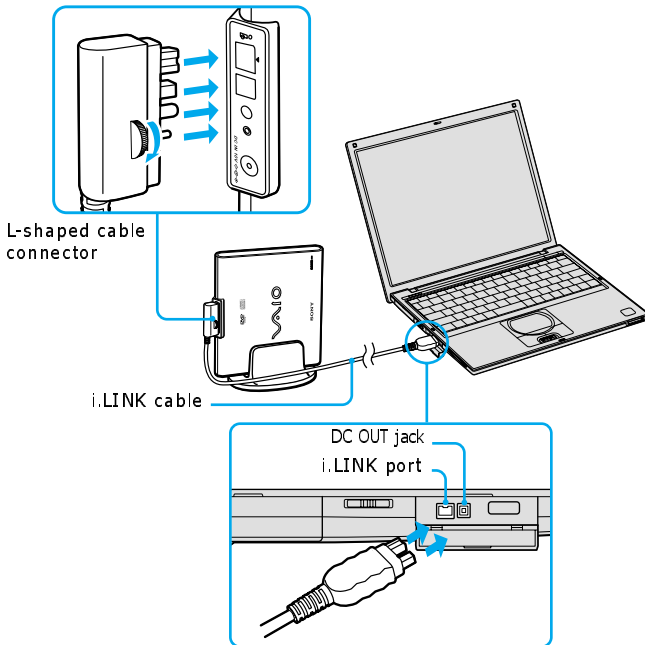
i.LINK port

4 Insert the straight-shaped, two-prong connector of the peripheral cable into both the computer's i.LINK port and DC OUT jack.

5 The i.LINK drive's power indicator lights up, and the computer automatically detects and identifies the connected drive.

6 Click Start on the Windows® operating system taskbar, and select My Computer to verify that an icon for the i.LINK optical disc drive was added in the window.

✍ The Sony i.LINK optical disc drive is compatible only with certain Sony VAIO® PCG series computers preinstalled with Microsoft® Windows® XP Home Edition or Professional.

To disconnect an i.LINK optical disc drive

1   Before disconnecting this drive, close any active applications to help prevent
data loss.

2   Double-click the Safely Remove Hardware icon in the taskbar. The
Safely Remove Hardware window appears.

3   In the Hardware devices box, select the appropriate i.LINK drive if it is not
already selected, and click Stop. The Stop a Hardware device window
appears.

**4**   Make sure the appropriate i.LINK drive is selected, and click OK. A
message appears stating it is safe to remove the hardware.

5   Unplug the i.LINK optical disc drive from the computer, port replicator, or
docking station.

Notes on using i.LINK optical disc drives

❑   You can use the supplied Application Recovery, Driver Recovery, and
System Recovery CDs with an i.LINK optical disc drive. See "Application,
Driver, and System Recovery CDs" for more information.

❑   Do not use an optional i.LINK optical disc drive and an optional optical disc
drive with PC Card at the same time. Connecting both drives may cause a
system malfunction.

Connecting a USB Mouse or Keyboard

You can connect a universal serial bus (USB) mouse or keyboard to your computer, port replicator, or docking station. Make sure the USB device is compatible with the Windows® operating system.

To connect a USB mouse or keyboard

1   Turn off your computer before you connect or disconnect the mouse or keyboard.

2   Locate the USB ꙍ port on your computer, port replicator, or docking station.

3   Plug the mouse or keyboard cable into this port.

✎ You can use a Sony USB mouse (not supplied) with this computer. The USB mouse software driver is preinstalled; however, the first time you connect a mouse, on-screen installation instructions may appear. Press Enter to complete the on-screen instructions.

Connecting a USB Mouse or Keyboard
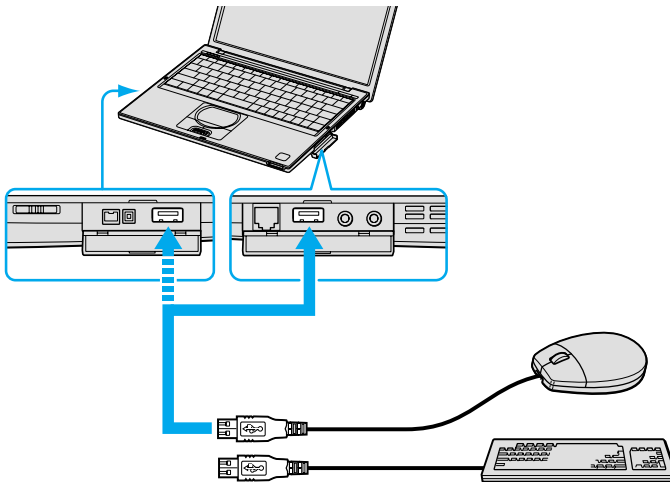
Change text in this variable definition to document title.

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

Connecting a USB Device

You can connect a universal serial bus (USB) device, such as speakers or microphones, to your computer, port replicator, or docking station. Make sure the USB device is compatible with the Windows® operating system.

To connect a USB device

1 Locate the USB 🖞 port.

2 Plug the USB cable (not supplied) into this port, and plug the opposite end of the cable into the USB device, if it is not already connected.

Connecting a USB Device to a USB Port

To USB ports
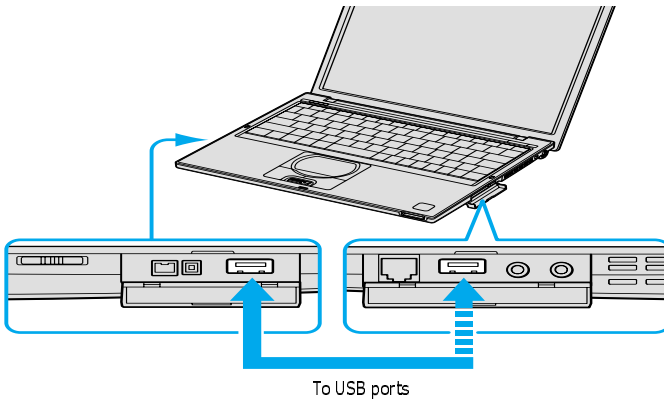
☞ See the manual that came with your USB device for more information on its installation and use.

Connecting a USB Printer

You can connect a universal serial bus (USB) printer to your computer, port replicator, or docking station. Make sure the USB device is compatible with the Windows® operating system.

To connect to a USB printer

1 Locate the USB ⵢ port.

2 Plug the USB printer cable (not supplied) into the USB port, and plug the opposite end of the cable into the USB port on your printer.

3 Make sure your computer's printer settings are properly set. See "Displaying the Sony Notebook Setup Screen" for more information.

✎ To use a printer, you need to install the driver software that came with your printer.

Connecting a USB Printer Cable

Power cord

USB ports

Printer

USP printer cable (not supplied)
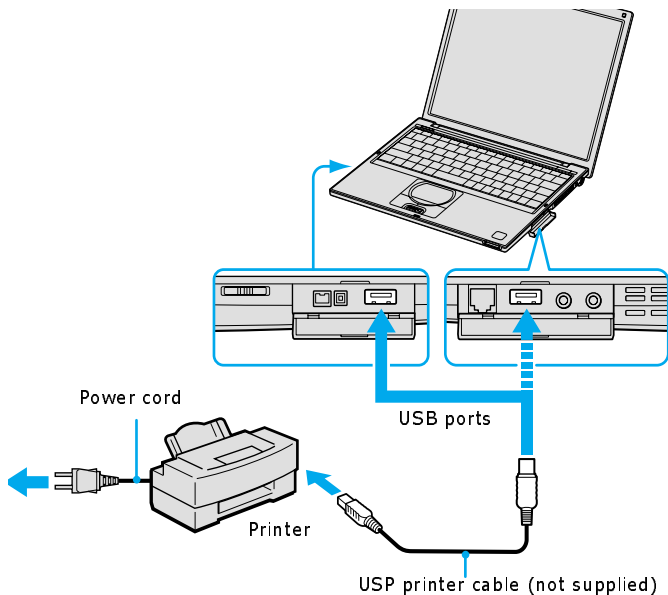
✎ See the manual that came with your printer for more information on its installation and use.

Connecting an i.LINK Audio-Video Device

You can connect an i.LINK®[*] enabled digital video camera recorder to the i.LINK® S400 (IEEE 1394) port on your computer, port replicator, or docking station.

To connect a digital video camera recorder

1 Plug the i.LINK® cable (not supplied) into the i.LINK port on the computer, port replicator, or docking station.

2 Plug the opposite end of the i.LINK cable into the DV IN/OUT port on the digital video camera recorder.

Connecting Digital Video Camera Recorder to i.LINK Port[*]

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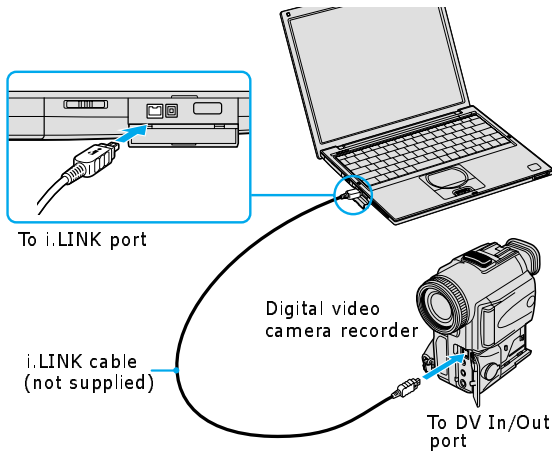
[*] i.LINK is a trademark of Sony used to designate that a product contains an IEEE 1394 connector. The i.LINK connection may vary, depending on the software application, operating system, and compatible i.LINK devices. All products with an i.LINK connection may not communicate with each other. Refer to the documentation 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.

* In this illustration, a Sony digital video camera recorder is connected to the computer. Instructions for connecting a different type of digital video camera recorder may differ.

Notes on connecting an i.LINK device

❏ Only the Sony digital video camera port labeled DV IN/OUT or i.LINK are i.LINK-compatible.

❏ Do not connect more than one digital video camera at a time. The software supplied with your computer will not recognize multiple cameras.

❏ The i.LINK port does not supply power to external devices. If the external device requires power from the i.LINK port, you cannot use the device with the computer.

❏ The computer supports transfer rates up to 400 Mbps; however, the actual transfer rate is the lowest transfer rate of the external device.

❏ The i.LINK features available may vary depending on the software applications you use. See the documentation that accompanied your software for more information.

❏ See the manual that came with your digital video camera recorder for more information on its installation and use.

Connecting an External Display

You can connect any of the following external displays to your computer, port replicator, or docking station:

❑ Computer display (monitor)

❑ Projector

To connect a computer display

1 Turn off the computer before you connect the computer display.

2 Locate the VGA (Monitor) ◯ port.

3 Plug the display cable (not supplied) into the VGA (Monitor) port.

4 Verify that the power cord is plugged into the computer display and an AC outlet.

5 Turn on all external devices before turning on the computer.

Connecting an External Computer Display
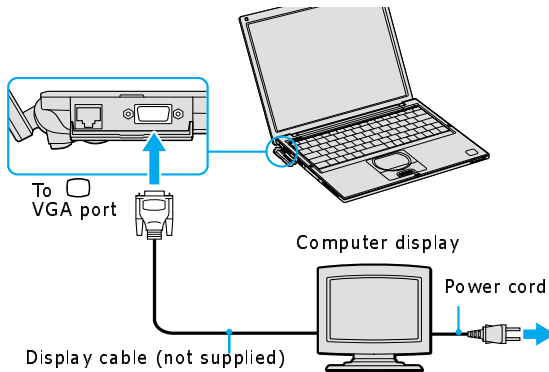
You cannot use the monitor port on your computer when the docking station is connected to the computer; however, you can use the monitor port on the docking station.

To connect a projector

1   Turn off the computer before you connect the projector.

2   Locate the VGA (Monitor) ○ port and the Headphone ○ jack.

3   Plug the display cable (not supplied) into the VGA port, and plug the opposite end into the appropriate port on the projector.

4   Plug the audio cable (not supplied) into the Headphone jack, and plug the opposite end into the appropriate port on the projector.

5   Verify that the power cord is plugged into the projector and an AC outlet.

6   Turn on all external devices before you turn on the computer.

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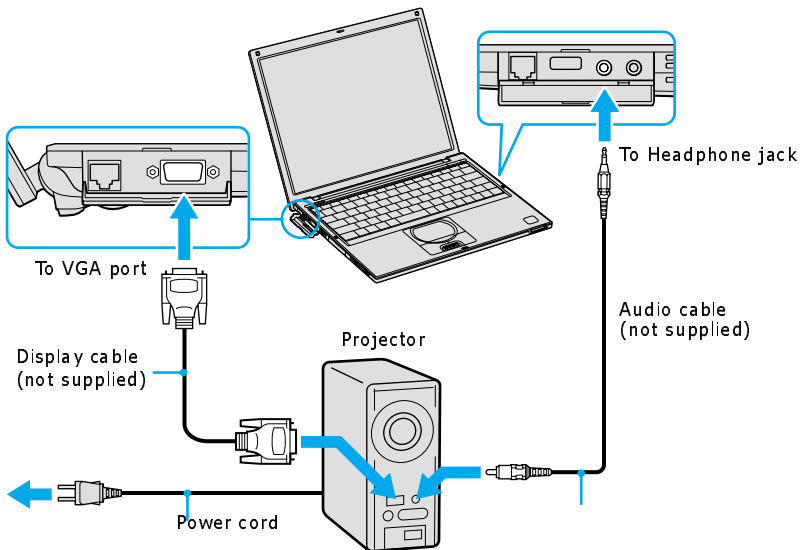
✍ See the manual that came with your projector for more information on its installation and use.

Changing the display when connecting an external computer display or projector

When you connect an external display to the VGA (Monitor) ⬭ port, you can toggle the output between the Liquid Crystal Display (LCD), the external monitor, or both devices.

To change

Press the Fn+F7 key combination to select a display. See "Selecting the Display Mode" for more information.

To	*Press*	*Result*
Switch to an external display	Fn+F7	Toggles between the LCD, the external display connected to the Monitor port, or both the LCD and external display.

Only LCD ⟶ LCD and external display ⟶
Only external display ⟵
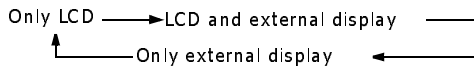
✎ Connect the external display to the notebook or port replicator before you turn on the unit, otherwise the Fn+F7 key combination will not work.

Connecting with another VAIO computer

Use an i.LINK®[*] cable (not supplied) to connect your VAIO computer to another computer that also has an i.LINK port. You can use one computer to edit, copy or delete files on the other computer. You can also print from a printer attached to either computer.

Connecting with an i.LINK Cable

i.LINK cable (not supplied)
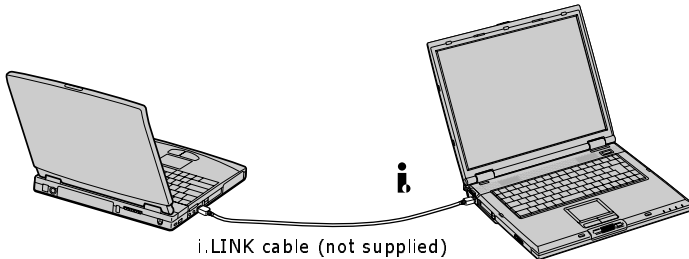
> ✍ When you connect two VAIO computers, you must assign each computer a unique name. You can identify the computers by this unique name when the two computers are networked together.

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

Connecting External Speakers

You can enhance the sound quality of your computer by connecting external speakers (not supplied).

⚠	**Do not place floppy disks on the speakers; the speakers' magnetic field may damage the data on the floppy disks.**

To connect external speakers

1   Verify that your speakers are designed for computer use.

2   Turn down the volume of the speakers.

3   Locate the Headphone ⌒ jack, and plug the speaker cable (not supplied) into this jack.

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

Connecting Speakers to the Headphone Jack
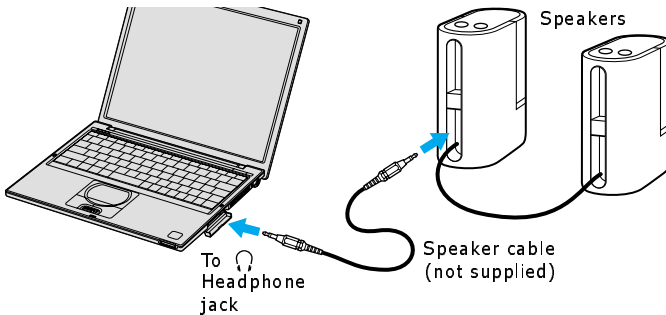
Connecting a Microphone

You can enhance the quality of sound input by using a microphone (not supplied).

To connect a microphone

1   Verify that your microphone is designed for computer use and compliant with the plug-in power microphone. **Double check**

2   Locate the Microphone ↖ jack. A protruding dot above the Microphone jack distinguishes this jack from the Headphone jack.

3   Plug the microphone cable (not supplied) into the Microphone jack.

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

Connecting to a Microphone Jack
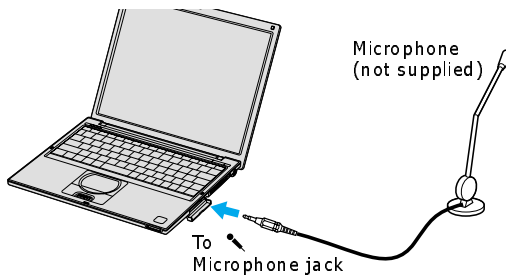
To record from a microphone or audio equipment

You can record messages, memos, or other recordings in analog by connecting a microphone or other audio equipment to the Microphone jack of your computer, port replicator, or docking station and switching the jack functionality. The Microphone jack is for MIC IN (monaural).

1   Double-click the **Volume** 🔊 icon on the taskbar. The **Volume Control** window appears.

2   From the **Options** menu, click **Properties**. The **Properties** window appears.

3   In the **Adjust volume for** box, click the **Recording** option button to select it, and then click **OK**. The **Recording Control** window appears.

4   If it is not already turned on, click the **Select** check box at the bottom of the **Microphone** column. Close the **Recording Control** window.

5   Click **Start** on the taskbar, and select **All Programs**, **Accessories**, **Entertainment**, and then **Sound Recorder**. The **Sound - Sound Recorder** window appears.

✎ You are ready to begin recording. For help using Sound Recorder, click **Help** in the **Sound Recorder** window.

Adjusting the volume

You can adjust the volume for playing or recording, but you can only adjust the recording volume in the **Recording Control** window. If you adjust the volume, the adjustment is only effective for playing sound. It does not adjust the volume for recording sound.

To adjust the volume when playing

1   Double-click **Volume** icon in the taskbar. The **Volume Control** window appears.

2   In the **Volume Control** column, move the slider up for increased volume and down for decreased volume.

Sound device	*Function*
Volume Control	Adjust the sound level from the speakers or headphones.
Wave	Adjust the wavfile sound or the system sound of Windows.
SW Synth	
CD Audio	Adjust the volume of the CD in the optional optical drive.

Sound device	*Function*
Microphone	Adjust the internal or external microphone volume.
Telephony	Adjust the modem or telephone line volume.
PC Beep	Adjust the beep sound when inserting or removing the PC Card and other devices.

Expanding Your Computer Capabilities

You can connect the following peripheral devices to your computer to expand its capabilities and enhance its versatility to meet your needs:

❑ A Personal Digital Assistant (PDA)

❑ A Wireless LAN Access Point

❑ A Wireless LAN PC Card

Personal Digital Assistant

A handheld PDA is the quintessential personal planner and entertainment center that fits in your pocket. With a PDA, you can easily perform the following functions:

❑ Enter your schedule details in the calendar and view them by the day, week, or month, and even set an alarm to remind you of important events.

❑ Keep your contact names, addresses, phone numbers, and other details in the address book and find them when you need them.

❑ Add tasks to the To Do List, prioritize them, and assign them due dates.

❑ Synchronize your data with the software on your computer to back up your data.

❑ Track expenses when you are out of the office and transfer the data to your notebook.

❑ Exchange data with your computer.

Wireless LAN Access Point

The Wireless LAN Access Point is designed for building a wireless Local Area Network (LAN) environment. The Access Point comes with the Wireless LAN PC Card and required software. You can easily build a wireless LAN environment by plugging the Access Point into an AC power outlet, installing the Wireless LAN PC Card in your computer, and using the provided software. Because a wireless LAN configuration requires no wiring, you can operate multiple computers more freely than ever before.

You can also connect your Access Point to a telephone line, Integrated Services Digital Network (ISDN) router, cable modem, or Digital Subscriber Line (xDSL) modem to share access to the Internet among multiple computers.

Wireless LAN PC Card

The Wireless LAN PC Card, which comes with the Wireless LAN Access Point, can be purchased separately and is designed for building a wireless LAN environment. You can use the Wireless LAN PC Card with or without the access point. With the access boint, you can build a wireless LAN between computers that are equipped with the Wireless LAN PC Card and gain access to the Internet. Without the Access Point, you can achieve direct communication (Peer-to-Peer mode) between computers.

✍ For more information on Sony Wireless LAN, go to
http://www.sonystyle.com/vaio/wirelesslan.shtml

Change text in this variable definition to document title.

Customizing Your VAIO Computer

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

❑   Displaying the Sony Notebook Setup Screen

❑   Controlling Power Management

❑   Displaying Battery Information

❑   Selecting the Display Mode

Displaying the Sony Notebook Setup Screen

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

To display the Sony Notebook Setup screen

1 From the Start menu, point to All Programs, and then Sony Notebook Setup.

2 From the Sony Notebook Setup menu, click Sony Notebook Setup.

Sony Notebook Setup Screen

3 Select the tab for the item you want to change. See "Sony Notebook Setup tabs" for more information.

4 After you finish making your changes, click OK.

Sony Notebook Setup tabs

Tab	*Description*
About This Computer	Display system information, including memory capacity, serial number, and BIOS version.
Initial Setting	Change the volume of the sounds that play while the operating system is loading. Select the order of drives and devices from which you want to load the operating system. You can specify the hard drive as well as other drives inserted into your computer.
Touchpad	Change touchpad settings, or enable/disable touchpad functionality if you are using an external mouse.
Power On Password	Set the password to secure your computer.
Bass Boost	Set the Bass Boost option.

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

Controlling Power Management

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

Viewing the Power Management status icons

The Power Management status icons are displayed on the taskbar. Move the pointer over the icons to see the tool tip that displays information about the active profile.

The current profile icon's appearance changes depending on which power management profile is currently selected. To change the power management profile, right-click the current profile icon, and then select a profile from the pop-up list. See "Power Management profiles" for a description of available options.To select another power management command, click that icon in the Power Management toolbar.

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

Refer to PowerPanel Help for information on customizing the Power Management settings.

You can change the power management settings, such as the system timer and the brightness of the screen.

To access PowerPanel Help

1   Click Start, point to All Programs, and select PowerPanel.

2   Click Help. The PowerPanel Help window appears.

To customize Power Management settings

1   Right-click the current Profile icon on the taskbar.

2   Select Edit/Create Profiles from the menu. The Profile Editor window
    appears.

3   Click a profile whose setting you want to change from the list in the left
    field.

4   Double-click an item whose setting you want to change from the list in the
    right field.

5   Click the desired setting.

6   Click the File menu, and then click Save.

7   Click the File menu, and then click Exit.

Power Management profiles

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

Icon	*Description*
	Maximum Performance Provides the best system performance while still conserving power.
	Maximum Battery Life Provides power saving features to give you maximum battery life and good performance. It slows the computer and puts it into Standby mode after a specified time period.
	Ultimate Battery Life Extends the Maximum Battery Life by disabling ports such as the i.LINK port. This profile disables many applications such as Memory Stick, DVgate, and Smart Capture.
	Disable Power Management Turns off all power management features such as Standby and Hibernate modes. You can not change the settings of this profile.
	AC Power The power management state when AC power is in use. Similar to the Power Management Off setting. Power Management automatically loads the AC profile unless you disable this feature.
	Games Disables the display and the Hard Disk Standby timer.
	Presentation Keeps the display on at all times while it conserves power. This option is ideal for slide show presentations. You can establish settings for LCD (Video) Standby, Hard Disk Standby, and Standby to optimize power management for your system.
	Camera Optimizes performance and power requirements for camera usage.

Icon	*Description*
	Word Processing Optimizes power management with longer timeouts on the hard disk and display screen. You can also establish settings for LCD (Video) Standby, Hard Disk Standby, and Standby to optimize power management for your system.
	Spreadsheet Optimizes performance and power requirements for spreadsheet applications.
	Communications Extends battery life by initiating a quick display timeout. The Internal modem remains powered. You can also establish settings for LCD (Video) Standby, Hard Disk Standby, and Standby to optimize power management for your system.
	Automatic Profile Selection Automatically switches to a profile suitable for active applications.

✎ Do not choose the Automatic Profile Selection when connected to AC power.

Power Management commands

PowerPanel™ also provides power management commands that you can use to activate specific power management functions and to control power for a specific device. You can use these commands to override a profile setting or initiate an immediate action.

Icon	Description
	Standby Puts the system into Standby mode, a power management state that saves the state of the system and peripheral devices in memory (RAM). Power consumption reduces to a minimum, and the system remains on. To return the system to the active state, press any key or the power button on your computer.
	Hibernate Provides for the lowest level of power consumption. The system writes the state of the system and peripheral devices to the hard disk drive and turns off the system power. To return the system to the original state, use the power button to turn on power. The system saves the data in the Save to Disk Partition on the hard disk drive.
	LCD (Video) Standby Turns off the video display to save power. If you turn off the Video Standby timer, the display remains active except when the system enters Standby mode. The video display system is one of the largest consumers of power in the system.

Conserving battery power

When using the computer with a battery, the LCD display and the hard disk drive can be set to switch off automatically to conserve battery power.

See "Power Management profiles" for more information.

Displaying Battery Information

[[Can't confirm yet]]

You can display information for the battery on your computer. The following sections briefly describe how to display your computer's general battery information. You can also refer to PowerPanel Help for more detailed information.

To display the Battery Information window

1   Double-click the current Profile icon on the taskbar. The Battery Information window appears.

2   For additional information, click the Help button. The PowerPanel Help window appears.

To display the Battery Information toolbar

1   Right-click the taskbar, point to Toolbars, and select Battery Information.

2   The Battery Information toolbar appears on the taskbar.

The toolbar displays battery status gauges and the battery status icon.

Battery Information Toolbar

❑   **Percentage indicator —** Displays the percentage of the remaining capacity.

❑   **Time indicator —** Displays estimated time (hours:minutes) remaining before the battery fully drains, also referred to as the time-to-empty.

To close the Battery Information toolbar

1   Right-click the Battery Information toolbar, and point to Toolbars.

2   Click to deselect Battery Information. The toolbar disappears from view.

Battery icon descriptions

Battery icon	*Battery status*
	Charging
	Fully charged
	Discharging
	No battery

Displaying detailed battery information

Double-click the battery icon on the task tray to display the Battery Information window. The screen appears displaying the Battery tab, which contains information such as the estimated time-to-empty and charging time.

Battery Information Window
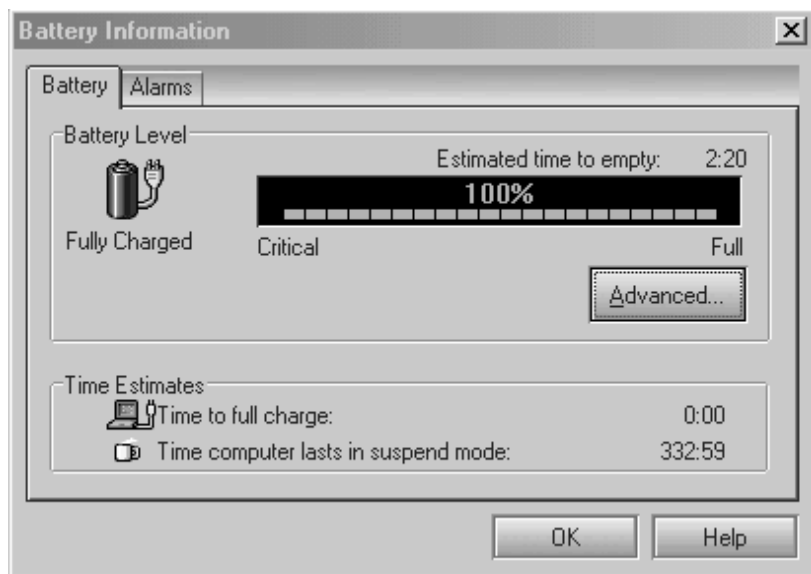
Customizing the Battery Information toolbar and alarm system

You can customize the Battery Information toolbar to suit your portable computing needs, including modifications to the alarm settings. Refer to PowerPanel Help for more information.

Changing the window design of Sony software

To change the window design

1   Click the Start button, then select Control Panel.

2   In the left window pane of Control Panel, click "Switch to Classic View."

3   Double-click UI Design Selector.

4   Click << or >> and select the desired design.

5   Click Apply. The "UI Design Selector" window design changes. The window design for your Sony software will match the "UI Design Selector" window.

6   To try another selection, click << or >> and then click OK to close the UI Design Selector.

✎ This feature is available with UI Design Selector-compatible software only.

Selecting the Display Mode

[[Can't confirm steps yet]]

This computer uses the Intel® video controller, which enables you to select the desired display when the computer is connected to an external monitor. When you connect an external display, you can switch the display mode between your notebook's LCD display and the external monitor.

To select the display mode

1   Click Start, and point to Control Panel.

2   Click Display. The Display Properties window appears.

3   From the Settings tab, click Advanced, and select the Intel® Graphics Technology tab to display the Intel® 82815 Graphics Controller Properties dialog box.

Intel® 82815 Graphics Controller Properties Screen

4 Click the Intel® Graphics Technology tab, then click the Graphics Properties button.

5 Click the Device tab.

6 Select the type of display.

> ✍ You may not be able to display the computer LCD screen and an external display or projector at the same time, depending on the types of computer displays and projectors you are using.
>
> Turn on the computer after you turn on the peripheral devices.

Adding Memory

In the future you may want to install memory modules to expand the functionality of your computer. See the Specifications flyer supplied with your computer for the amount of memory preinstalled on your computer. Expansion memory modules are available as options. For memory upgrades, use only unbuffered PC100 (CL2) SDRAM µDIMM modules. (Sony offers the optional 128 MB PCGA-MM128T memory module.)

This section provides you with information on removing and replacing a memory module:

❏ Precautions and Procedures

❏ Removing a Memory Module

❏ Installing a Memory Module

❏ Confirming Added Memory Capacity

Precautions and Procedures

The procedures described below 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.

⚠ **Sony recommends that memory upgrades be performed by an authorized Sony Service Center. To find the nearest center or agent, go to: http://www.sony.com/pcsupport.**

Be careful when installing a memory module in your computer, and be sure to observe the proper safety precautions listed below. Mistakes that occur when installing or removing a memory module may cause a malfunction.

❑ Disconnect the system from its power source and from any telecommunications links, networks, or modems before you open the system or follow any of the procedures described below. Failure to do so may result in personal injury or equipment damage.

❑ Electrostatic discharge (ESD) can damage disk drives and other components. Perform the procedures described below only at an ESD workstation. If such a station is not available, do not work in a carpeted area, and do not handle materials that produce or hold static electricity (cellophane wrappers, for example). Ground yourself by maintaining contact with an unpainted metal portion of the chassis while performing the procedure.

❑ Do not open the memory module package until you are ready to install the module. The package protects the module from ESD.

❑ Use the special protective package to store a memory module and prevent ESD, or wrap the memory module in aluminum foil.

Typical expansion memory configuration

Total System Memory (MB)	*On board (MB)*	*Slot (MB)*
128	128	0
256	128	128

Installing a Memory Module

To add a memory module, proceed as follows:

1   Turn off the computer and all peripheral devices.

2   Disconnect the power cord and all cables from the computer, and remove the battery.

3   Wait for the computer to cool down.

✎ The interior of the computer becomes extremely hot during operation. Wait at least one hour for the computer to cool down before you remove the screws.

4   Use an appropriate screwdriver to loosen and remove the three screws at the bottom of the computer.

⚠   **To avoid damaging the computer, do not remove or loosen any other screws.**

Removing Bottom Screws
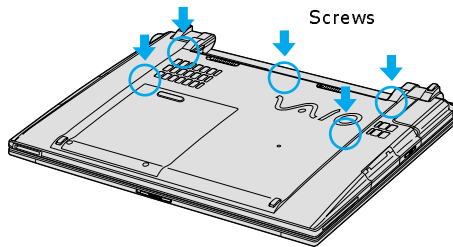
5   Slide the LCD lock lever and lift the cover.

6   Slide the keyboard toward the LCD display, then lift it away slightly.

Lifting the Keyboard
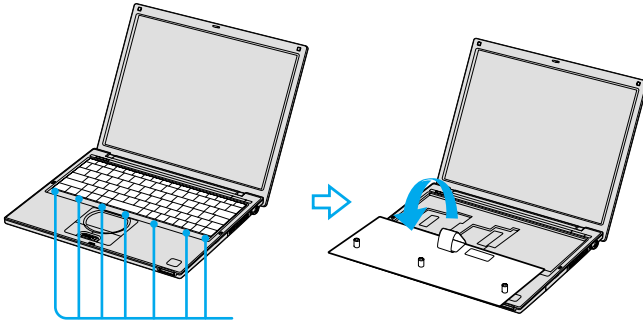
7   Lift the keyboard from the LCD display side.

8   Gently turn the keyboard over the touchpad. Take care not to detach the cable when lifting the keyboard.

9   Touch a metal object (such as the connector panel on the back of your computer) to discharge static electricity.

10 Remove the existing memory module.

11 Remove the new memory module from its packaging.

12 Install the memory module by sliding the module into the open slot.

> ⚠   **Do not touch any part of the motherboard or the other components inside the computer.**

Installing New Memory Module
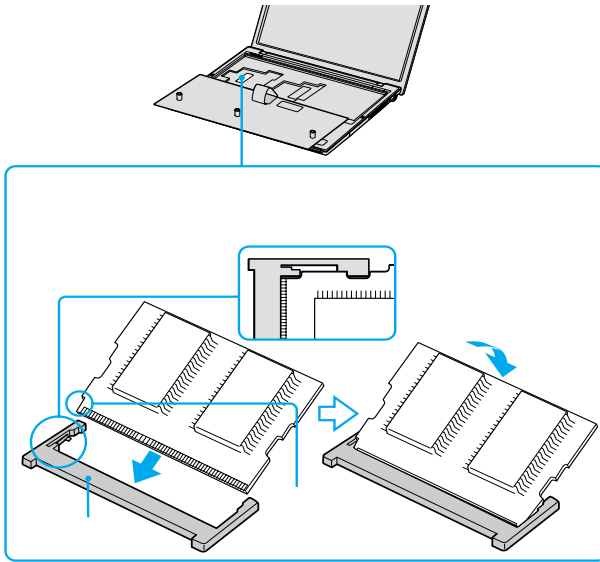
13 Snap the connectors into place when the board is correctly seated.

14 Close the computer cover and replace the three (3) fastening screws on the bottom of the computer.

Removing a Memory Module

1 Turn off the computer and all peripheral devices.

2 Disconnect the power cord and all cables from the computer, and remove the battery.

3 Wait for the computer to cool down.

✍ The interior of the computer becomes extremely hot during operation. Wait at least one hour for the computer to cool down before you remove the screws.

4 Use an appropriate screwdriver to loosen and remove the three screws at the bottom of the computer.

Double check grfx??? ⚠ **To avoid damaging the computer, do not remove or loosen any other screws.**

Removing Bottom Screws

Screws

5 Slide the LCD lock lever and lift the cover.

6 Slide the keyboard toward the LCD display, then lift it away slightly.

7 Lift the keyboard from the LCD display side.

8 Gently turn the keyboard over the touchpad. Take care not to detach the cable when lifting the keyboard.

9 Touch a metal object (such as the connector panel on the back of your computer) to discharge static electricity.

10 Remove the memory module by pulling out the tabs (see arrows No. 1), and pulling out the module in the direction of arrow No. 2.

Removing a Memory Module
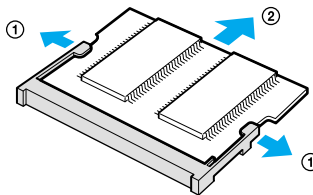
11 Gently replace the keyboard, then press it into your computer.

12 Close the computer cover and replace the three (3) fastening screws on the bottom of the computer.

Confirming Added Memory Capacity

1   Turn on the computer.

2   Click Start on the Windows® taskbar, point to All Programs, and then click
    Sony Notebook Setup.

3   Click the About This Notebook tab. Verify that the System Memory
    displayed in the left panel matches the amount of memory installed.

Sony Notebook Setup Dialog Box

About the Software on Your Computer

Your VAIO® computer is ready to help you work, play, learn, and communicate as soon as you turn it on. This section gives you the following:

❑   Software Overview

❑   DVgate application notes

❑   Software Support Information

Software Overview

Your computer may not be supplied with all of the software listed below, depending on the configuration you purchased. Preinstalled software may not be identical to retail versions, or include supporting documentation.

Your computer may not be supplied with all of the software listed below, depending on the configuration you purchased. Preinstalled software may not be identical to retail versions or include supporting documentation.

Adobe® Acrobat® Reader®
Adobe Systems Inc.
Acrobat Reader software allows you to view, navigate, and print electronic documents in Adobe's Portable Document Format (PDF), an open file format that is intended to preserve the fidelity of documents created on all major computer platforms.

Adobe® Photoshop® Elements (On selected models)
Adobe Systems Inc.
Using state-of-the-art image editing tools, you can unleash your artistic ability and create digital images for print, e-mail and posting to the Web. The versatile image capturing options allow you to start working with digital and traditional photos immediately. Explore endless creative possibilities for your personal images with Adobe Photoshop Elements software.

America Online®
America Online, Inc.
America Online is a popular Internet online service. Stay in touch with family and friends with easy-to-use e-mail. Manage your personal finances, get the latest news and sports scores, and chat with thousands of others who share your interests.

DigitalPrint
Sony Electronics Inc.
This image management software makes it fun and easy to edit, import, and organize your digital pictures in a photo album for rich digital printing to any standard color laser or ink-jet printer. DigitalPrint can also be used to make custom CD labels for your audio CDs.

DVgate™
Sony Electronics Inc.
Connect a digital video camera recorder to the i.LINK® port and capture your own video clips and still images. You can edit clips from your video, add new clips, and combine clips into new movie segments. You can also save your images in a variety of popular file formats.

EarthLink Total Access®
EarthLink, Inc.
An Internet Service Provider that supplies access, information, and assistance to its customers, introducing them to the Internet. Member benefits include e-mail, newsgroups, a Personal Start Page, free storage space for your personal Web site, a member magazine, and 24-hour technical support.

EverQuest (On selected models)
Sony Online Entertainment Inc.
This introductory edition of EverQuest, a living, constantly evolving fantasy world, takes users to new heights of online role-playing gaming.

Jog Dial Utility
Sony Electronics Inc.
The Jog Dial Utility enables you to easily scroll, launch applications, access settings, and perform other useful functions by manipulating the center Jog Dial™ control, which is located near the touchpad.

Microsoft® Office XP Professional (On selected models)
Microsoft Corp.
Microsoft Office XP software redefines the relationship between people and software by providing a smarter, simpler way of working. New Office XP software features include context-sensitive smart tags, enhanced formatting options, and more, that enable you to continually integrate additional services into Office and access information anytime.

Microsoft® Office XP Small Business Edition (On selected models)
Microsoft Corp.
With Microsoft Office XP system you'll find a powerful new technology that will help you get work done more quickly by providing real-time, context-sensitive options for important actions, from formatting to error correction. Task panes consolidate important tasks into a single integrated view, enabling you to conduct searches, launch and format documents, and view the contents of your Clipboard from one location.

Microsoft® Word (On selected models)
Microsoft Corp.
Microsoft Word makes it easy to create common Web, e-mail, and print documents for use around the world. It embraces HTML as a first-class file format and extends Word's ease-of-use to the Web and e-mail. Word also extends that ease-of-use to international users, making it easy to create multilingual documents.

MovieShaker™ (On selected models)
Sony Electronics Inc.
Sony's original MovieShaker software creates personal movies that have transitions, background music, and text. Just import your video clips and "shake" with a click of the mouse. Your personal movies are easy to create and fun to share with family and friends.

PC-Cillin® 2000
Trend Micro, Inc.
PC-Cillin software provides portable, easy-to-use, real-time antivirus security at your computer's entry point (beaming, synchronization, Internet access) to defend against potential threats hidden inside files, e-mail, or on the Web.

PicoPlayer™
Sony Electronics Inc.
PicoPlayer software is a video player utility that enables you to use Giga Pocket™ Personal Video Recorder functions on a computer that does not have Giga Pocket Personal Video Recorder installed. You can play Video Capsules created by Giga Pocket Personal Video Recorder, and, if a Giga Pocket Server is available on your home network, watch TV streamed from the Giga Pocket Server and remotely control the Giga Pocket Server's TV programming functions.

Quicken® 2002 New User Edition
Intuit Inc.
Quicken software is the fastest, easiest way to organize your finances. Quicken software works just like your checkbook, so it's easy to learn and use. You can even pay your bills online. Quicken software manages all of your finances, bank accounts, credit cards, investments, and loans. (Users of other versions of Quicken must upgrade for a fee.)

QuickTime®
Apple Computer, Inc.
The versatile QuickTime software plays hundreds of different kinds of files, including video, audio, and virtual reality (VR) movies. You can play QuickTime files (referred to as "QuickTime movies") using QuickTime Player or any other application, such as a Web browser or word processor, that supports QuickTime software

RealPlayer®
RealNetworks, Inc.
RealPlayer software is a high-quality streaming media player that supports many digital media formats. The user-friendly interface has enhanced navigation capabilities, allowing you to access and enjoy audio and video programming over the Internet. RealPlayer software is your gateway to a superb Internet multimedia experience.

Smart Capture
Sony Electronics Inc.
Smart Capture is a fun new way to send multimedia messages via e-mail. Smart Capture manages the i.LINK® connection between your notebook and a Sony Digital Handycam® Camcorder that supports the i.LINK interface. It allows you to capture compressed video or still images and save them to your hard disk drive or share via e-mail. A smart solution for computer, digital audio/video and network convergence.

SonicStage™
Sony Electronics Inc.
This new jukebox application adds a host of new features to its predecessor, OpenMG™ Jukebox. Continuing to take advantage of Sony's copyright-protected ATRAC3™ format for high-quality digital audio storage, SonicStage software sports a new music visualizer, a sleek new player skin design, audio CD burning capability, and a parametric equalizer for fine-tuning audio playback.

Sony ScreenBlast™ ACID (On selected models)
Sony Pictures Digital Entertainment
With the powerful Sony ScreenBlast ACID software you can create royalty-free music by utilizing its loop-based production tool, including unlimited tracks and enhanced effects.

Sony ScreenBlast™ Sound Forge (On selected models)
Sony Pictures Digital Entertainment
Sony ScreenBlast Sound Forge allows you to record, edit, and process mono or stereo audio files for your multimedia or Internet projects. Whether you want to use a number of professional effects, convert video into streaming media, or synchronize audio to video — this software has everything you need to create rich, immersive multimedia and Internet content.

Sony on Yahoo!
Yahoo! Inc.
Personalize your own web portal with Sony on Yahoo! Get a free webmail account, customized news and local weather reports, comics, instant messaging, and more.

VAIO Action Setup
Sony Electronics Inc.
VAIO Action Setup manages the settings for your computer's Shortcut keys.

VAIO Support Agent (On selected models)
Sony Electronics Inc.
VAIO Support Agent provides immediate, interactive, online support with information about your preinstalled software and answers to frequently asked questions.

WinDVD® 2000
InterVideo, Inc.
WinDVD 2000 software is a simple-to-use DVD player that offers all the features you would expect to find in a standard consumer DVD player, while also including advanced display and navigation features such as zoom, pan, bookmark, and time search.

DVgate application notes

Digital video captures

If your system displays the message, "Failed to record to DV deck, please check deck's power status, cable connection…," while you are recording images to a digital video device using DVgate software, close all open applications, and restart your computer. Frequent recording of images to a digital video device while using DVgate may cause this situation to occur.

For more information on DVgate software, see the DVgate online help.

Adjusting image resolution

If the images on the LCD do not display smoothly, the resolution may not be set correctly. To check the resolution, click the Setup button in the DVgate Motion-Monitor window. Point to Settings, and then select Low Resolution. The settings you change in this menu affect the images in the monitor window only. Movie data imported to your hard drive and images recorded to DV devices will not be affected.

Hard disk drive partition

In order to improve the performance of your computer's DVgate™ motion software, the hard disk drive on your computer has been formatted with two partitions, C and D. The C partition hold 40 percent and the D partition holds 60 percent of the entire drive capacity. DVgate software saves files to the D partition. This prevents large video capture from consuming the available space on your C partition. To maintain optimum performance of DVgate, you should defragment or format the D partition regularly.

To defragment a partition

⚠	**Before you begin to defragment a partition, make sure you back up all files that you want to save.**

❑   Click the Start button in the Windows® taskbar.

❑   Click Programs, Accessories, System Tools, and then click Disk Defragmenter. The Disk Defragmenter window appears.

Select the drive you want to defragment from the list, and click the Defragment button. See Windows® Help for more information on defragmenting.

Software Support Information

Adobe Acrobat® Reader™, Photoshop® Elements (Adobe Systems, Inc.)

Web site	http://www.adobe.com
phone	206-675-6126 (fee-based support)
e-mail	techdocs@adobe.com
hours	M-F, 6 AM-5 PM (PST)

America Online® (America Online, Inc.)

Web site	http://www.aol.com
phone	800-827-3338
hours	7 days a week, 24 hours a day

Apple QuickTime™ (Apple Computer Inc.)

Web site	http://www.apple.com
phone	800-692-7753
hours	7 days a week, 24 hours a day

ArcSoft PhotoPrinter® 2000 Pro (ArcSoft, Inc.)

Web site	http://www.arcsoft.com
e-mail	support@arcsoft.com
phone	510-440-9901
fax	510-440-1270
hours	M-F 8:30 AM - 5:30 PM (PST)

EarthLink™ Network Total Access (EarthLink Network Inc.)

Web site	http://www.help.earthlink.net/techsupport
e-mail	support@earthlink.net
phone	800-890-5128, 800-890-6356
hours	7 days a week, 24 hours a day

PC-Cillin® 2000 (Trend Micro, Inc.)

Web site	http://www.antivirus.com/pc-cillin
phone	949-387-7800
e-mail	support@trendmicro.com
hours	M-F 8 AM - 5 PM (PST)

Quicken® (Intuit Inc.)

Web site	http://www.intuit.com/support
phone	800-644-3193
hours	7 days a week, 24 hours a day

RealJukebox®, RealPlayer (Real Networks, Inc.)

Web site	http://service.real.com/rjoptions.html
e-mail	http://service.real.com/help/call.html

Sony Applications (Sony Electronics Inc.)

Web site	http://www.sony.com/pcsupport
phone	888-4-SONY-PC (888-476-6972)[*]
hours	7 days a week, 24 hours a day

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

Windows® Operating System, Internet Explorer, Word (Microsoft Corp.)

Web site	http://www.sony.com/pcsupport
phone	888-4-SONY-PC (888-476-6972)[*]
hours	7 days a week, 24 hours a day

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

WinDVD® (InterVideo, Inc.)

Web site	http://www.intervideo.com
phone	510-651-0888

Sony Service Center

For the Sony Service Center nearest you, call 1-888-4-SONY-PC
(1-888-476-6972) or find Sony Computing Service on the Web at:
http://www.sony.com/pcsupport.

Change text in this variable definition to document title.

Using the Recovery CDs

This section provides you with details on your Sony application, driver, and system recovery CDs.

❑ Application, Driver, and System Recovery CDs

❑ Using Your Recovery CDs

Application, Driver, and System Recovery CDs

Your computer comes with the following Application Recovery, Driver Recovery, and System Recovery CDs. You will need an optical disc drive (supplied with selected models) to use these recovery CDs. If your computer does not come with an optical disc drive, use an external optical disc drive.

Application Recovery CD(s)
Sony Electronics Inc.
This CD enables you to reinstall individual applications if they become corrupted or are erased.

Driver Recovery CD(s)
Sony Electronics Inc.
This CD enables you to reinstall individual device drivers if they become corrupted or are erased.

System Recovery CD(s)
Sony Electronics Inc.
This CD enables you to restore the operating system and software that shipped with your computer if they become corrupted or are erased. This CD restores your computer to its original factory settings, so user data and applications installed since you started using your computer will be lost.

✎ For models that come with a docking station, make sure you connect the docking station to the computer before using the recovery CDs.

Using Your Recovery CDs

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

To use the Application Recovery CD(s)

The Application Recovery CD(s) enables you to reinstall individual applications if they become corrupted or are accidentally erased. Reinstalling an individual software title may correct a problem you are experiencing with your computer or software application; you may not need to reinstall the entire contents of your hard drive. If you need to reinstall all the software titles that shipped with your notebook, use the System Recovery CD(s). If you have any questions on using the Application Recovery CD after reading this section, contact Sony Customer Support.

> ✍ You must be in Windows to run the Application Recovery CD. If you have any questions on using the Application Recovery CD after reading this section, contact Sony Customer Support.

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

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

3   When the Application Recovery menu appears, select the icon for the application you want to restore, and then follow the on-screen instructions to complete the recovery process.

> ✍ Your system may include one or two Application Recovery CDs. If you have two Application Recovery CDs, insert the first CD to run the Application Recovery program. You may be prompted to insert the second CD, depending on the application you wish to restore.

To use the Driver Recovery CD(s)

The Driver Recovery CD utility enables you to reinstall individual drivers if they become corrupted or are erased. You can reinstall an individual driver to correct a problem that you are experiencing with your computer, hardware, or software application. VAIO Support Agent, an application repair utility, uses a vault feature on the Driver Recovery CD(s) to repair software applications.

✎ If you need to reinstall all of the software applications that shipped with your computer, use the System Recovery CD.

You must be in Windows to run the Driver Recovery CD utility.

Reinstalling specific drivers with the Driver Recovery CD

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

2   When the Windows desktop appears, insert the Driver Recovery CD into the optical disc drive.

3   Click Start on the Windows taskbar, and click Control Panel. The Control Panel window appears.

4   Click Performance and Maintenance, then System. The System Properties dialog box appears.

5   From the Hardware tab, click Device Manager.

6   Click to highlight the device for which you wish to reinstall the driver.

7   From the Actions menu, select Properties. The Properties dialog box for that device appears.

Properties dialog box

8   Click Reinstall Driver. The Hardware Update Wizard appears.

9   Click next. The wizard searches for the correct driver on your Driver Recovery CD.

10   When the recovery process is complete, click Finish. Some drivers require that you restart the computer to complete installation.

To use the System Recovery CD(s)

The System Recovery utility formats your hard disk drive and restores all original software applications. Your computer is returned to the original factory settings.

⚠️ **The System Recovery process removes all software that you may have installed since you started using your computer. Reinstall any applications that were not included with the computer when you purchased it.**

You can use the System Recovery CD(s) to reinstall the operating system and software titles that shipped with your computer if they become corrupted or are erased. You may not need to reinstall the entire contents of your hard drive. If you experience a problem with your computer, reinstalling an individual device driver or software title may correct the problem. Use the Application Recovery CD(s) to reinstall individual applications or use the Driver Recovery CD(s) to reinstall device drivers.

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

System Recovery options

❑ **System Drive Recovery —** All data on Drive C is deleted. The factory default settings and software applications are restored on this drive only.

❑ **Change Partition Size —** All partitions, custom installations, and changes are removed from the hard disk drive. You can set the partition sizes for both the Drive C and Drive D. The original, preinstalled operating system and software applications are restored.

❑ **Recovery to Original Factory Defaults —** All data and partitions are removed from the hard disk drive. All original factory settings, operating system, and preinstalled software is restored.

⚠️ **The System Recovery utility does not back up your system's data. If you wish to retain your system data, perform a backup to an external media.**

Using the System Recovery CD(s)

Your system may take a few minutes to load necessary files. A blue screen appears during the downloading process.

1 Insert the Sony System Recovery CD in the optical drive. The System Recovery utility starts from the optical drive. The first CD must be in the drive when your turn on the computer.

2 Shut down your computer as described in the "Shutting Down Your Notebook" section of your supplied Quick Start.

3 Wait 30 seconds and turn on your computer.

4 The VAIO System Recovery Utility dialog box appears. Click Next.

5 At the pop-up prompt, select Yes to begin the system recovery process. Follow the on-screen instructions.

If your computer does not start from the Recovery CD

1 Press the power button and hold it for more than four seconds to turn off the computer.

2 Turn on the computer. When the Sony logo is displayed, press the F2 key. The BIOS setup menu screen appears.

3 Press the arrow keys to select the Exit menu.

4 Press the arrow keys to select "Get Default Values" and then press the Enter key. The message "Load default values for all SETUP items." appears.

5 Check that "Yes" is selected, and press the Enter key.

6 Press the arrow keys to select "Save and Exit," and press the Enter key. The message "Save configuration changes and exit now?" appears.

7 Check that "Yes" is selected, and press the Enter key. The computer restarts from the Recovery CD.

✍ Your system may include one or more System Recovery CDs. If you have more than one System Recovery CDs, insert the first CD to run the System Recovery program. You are prompted to insert the second CD once the information from the first CD has been installed.

The recovery process takes from 30 to 60 minutes to complete.

After recovering your system using the System Recovery CD(s), you may be prompted to insert your Application Recovery CD(s) after restarting Windows. Insert the Application Recovery CD to automatically complete recovery of your system.

Troubleshooting

This section describes how to solve common problems you may encounter when using your computer. Many problems have simple solutions, so try these suggestions before you contact Sony Computing Support (http://www.sony.com/pcsupport).

❑ Troubleshooting Your Computer

❑ Troubleshooting the LCD Screen

❑ Troubleshooting the Mouse and Touchpad

❑ Troubleshooting Drives, PC Cards and Peripheral Devices

❑ Troubleshooting i.LINK devices

❑ Troubleshooting Software

❑ Troubleshooting the Modem

❑ Troubleshooting Wireless LAN functions

❑ Troubleshooting Audio

❑ Troubleshooting Memory Stick Media

Troubleshooting Your Computer

My computer does not start.

❑ Check that the computer is plugged into a power source and that it is turned on. Check that the power indicator on the front panel of the computer indicates that the power is on.

❑ Check that the battery pack is inserted properly and is charged.

❑ If you have connected an external floppy disk drive, make sure there is no floppy disk in the floppy disk drive.

❑ Confirm that the power cord and all cables are connected firmly. See "Connecting a USB Device" for more information.

❑ If you plugged the computer into a power strip or Uninterruptible Power Supply (UPS), make sure the power strip or UPS is turned on and working.

❑ If you are using an external display, check that it is plugged into a power source and turned on. Check that the brightness and contrast controls are adjusted correctly. See the manual supplied with your display for details.

❑ Condensation may cause the computer to malfunction. If this occurs, do not use the computer for at least one hour.

❑ Unplug the power cord, press the reset button by using a thin, straight object (such as a paper clip), remove battery pack, plug it in again and turn on the power.

✎ If this occurs on a regular basis, contact Sony Computing Support at: http://www.sony.com/pcsupport/.

My computer starts, but a BIOS error appears.

❑ When the computer's internal backup battery is low on power, it may not start your system properly. 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 menu appears.

  2 Set the date (month/day/year). Press Enter.

  3 Press ↓ to select System Time, then set the time (hour: minute: second). Press Enter.

4 Press ➜ to select Exit, then press ⬇ to select Get Default Values. The message "Load default configuration now?" appears.

5 Select Yes and press Enter.

6 Select Exit (Save Changes), and then press Enter. The message "Save configuration changes and exit now?" appears.

7 Select Yes, and then press Enter. The computer restarts.

My computer starts, but the message "Operating system not found" appears and Windows does not start.

❑ If you have connected an external floppy disk drive, make sure there is no floppy disk in the floppy disk drive (non-bootable).

❑ If a non-bootable disk is in the drive, follow these steps:

1 Turn off the computer, and then remove the floppy disk.

2 Restart the computer and confirm that Windows starts properly.

❑ If Windows still does not start, follow the steps below to initialize the BIOS:

1 Remove any disk from the floppy disk drive.

2 Remove any peripheral devices connected to the computer.

3 Turn off the computer and then turn it on.

4 Press the F2 key when the Sony logo appears. The BIOS setup menu screen appears.

5 Press the directional arrow keys to select the Exit menu.

6 Press the arrow keys to select "Get Default Values" and then press Enter. The message "Load default configuration now?" appears.

7 Select Yes, then press Enter.

8 Use the directional arrow keys to select "Exit" (Save Changes), and then press Enter. The message "Save configuration changes and exit now?" appears.

9 Select Yes, then press Enter. The computer restarts.

If your computer continues to display the message "Operating system not found," and Windows does not start, contact Sony Computing Support.

My computer stops responding or does not shut down.

It is best to shut down your computer using the Turn Off Computer command on the Windows Start menu. Using other methods, including those listed here, may result in loss of unsaved data.

❑ Try restarting the computer. On the Windows taskbar, click the Start button, click Turn Off Computer, and then click Restart.

❑ If you cannot restart as described in the preceding step, you can restart the computer by pressing the Ctrl+Alt+Delete keys at the same time. The Windows Task Manager dialog box appears, and you can turn off the computer from the Shut Down menu.

❑ If the previous step does not work, press and hold the power button for at least four seconds. This turns off the power to the computer.

❑ If your computer stops responding while playing a CD or DVD, stop the CD/DVD, and restart the computer by pressing the Ctrl+Alt+Delete keys at the same time. The Windows Task Manager dialog box appears, and you can restart the computer from the Shut Down menu.

❑ Unplug the computer from the AC adapter and remove the battery pack from your computer.

✍ Pressing the Ctrl+Alt+Delete keys to turn off the computer via Windows Task Manager, or turning off the computer with the power switch may result in data loss in files that are currently open.

The Power Management setting is not responding.

Your computer's operating system may become unstable if it is interrupted or if you attempt to make changes before the computer completely enters a lower power mode, such as Hibernate.

❑ To restore the computer to its normal operating stability:

   1 Close all open applications.

   2 Restart the computer by pressing the Ctrl+Alt+Delete keys at the same time to display Windows Task Manager, and then selecting Restart from the Shut Down menu.

✎ If this procedure does not work, press and hold the power button for at least four seconds to shut down the computer.

The sound of my computer's fan is too loud.

Use the PowerPanel™ utility to change the Thermal Control Strategy setting to Quiet. This setting slows down the CPU speed. See PowerPanel Help for more information.

Why does the System Properties dialog box display a slower CPU speed than advertised?

This is normal. Because your computer's CPU utilizes a type of CPU speed controlling technology, System Properties may display the CPU's current speed instead of the maximum advertised speed.

Troubleshooting the LCD Screen

My LCD screen is blank.

❑ Check that the computer is plugged into a power source and that it is turned on.

❑ Check that the power indicator on the computer is on.

❑ Check that the battery pack is inserted properly and that it is charged.

❑ The computer may be in LCD (Video) Standby mode. Press any key to activate the screen.

❑ The display mode may be set to external display mode. Press and hold the Fn key while pressing F7 several times.

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

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

I cannot simultaneously display movies, DVD video, or the Smart Capture (Finder) window on the LCD display and an external display.

Images cannot be displayed on both the LCD display and an external display at the same time. Select only one display option.

I want to change the video resolution of my display.

You can use independent controls to change the video resolution of your display.

❑ Click Start, point to Control Panel, point to Appearance and Themes, and then click the Display icon. The Display Properties dialog box appears.

❑ Click on the Settings tab.

❑ Move the Screen Area slider to change your video resolution.

Troubleshooting the Mouse and Touchpad

My mouse does not work.

❑ If you are using an external mouse, check that the mouse cable is plugged into the USB port. See "Connecting an External Display" for details. A serial mouse or PS/2® mouse is not compatible with this computer.

❑ Reinstall the mouse/touchstick drivers. See "Using Your Recovery CDs" for more information.

My touchpad does not work properly.

You may have disabled the touchpad without a mouse being connected to the notebook. To enable the touchpad:

1 Press the Windows® key and use the arrow keys to select Programs, and then Sony Notebook Setup.

2 Select the Touchpad tab using the arrow keys.

3 Select Enable Touchpad, and press Enter.

You must restart the notebook to make the touchpad work again.

If your touchpad is interpreting a single tap as a double-click, you must adjust the button assignments. Follow these steps:

1 Press the Windows key and use the arrow keys to select Control Panel, and then Mouse.

2 Change the button assignments in the Mouse Properties dialog box. (One of the buttons is assigned to the double-click action.)

If this procedure does not work, ensure that another mouse was not installed. You may need to use your supplied Driver Recovery CD(s) to reinstall the mouse drivers. See "To use the Driver Recovery CD(s)" for more information.

The pointer does not move while I am using the Touchpad or Mouse.

❑ The computer should be restarted. Follow these steps:

   1 Press the Windows key.

2 Press the "U" key to select Turn Off Computer / Shut Down, and wait at least four seconds.

3 Press the "R" key to restart your computer.

❑ If you cannot restart your notebook as described in the step above, press Ctrl+Alt+Delete simultaneously to display Windows Task Manager, press Alt+"U" to display the Shut Down menu, and press "R" to restart the computer.

❑ If you cannot restart your notebook as described in the step above, press and hold the power button for more than four seconds to turn off the notebook.

❑ If the pointer does not move while playing a disc, press Ctrl+Alt+Delete simultaneously to stop playback, display the Windows Task Manager and enable you to restart the notebook by selecting Restart from the Shut Down menu.

❑ If this procedure does not work, ensure that another mouse was not installed.

❑ You may need to use your supplied Driver Recovery CD(s) to reinstall the touchpad drivers. See "To use the Driver Recovery CD(s)" for more information.

Troubleshooting Drives, PC Cards and Peripheral Devices

My floppy disk drive icon doesn't appear even though it is connected.

❑ Make sure that the floppy disk drive is properly connected. Wait a few moments to allow the computer to recognize the drive.

❑ Close all open applications and restart your computer with the connected floppy disk drive. Make sure that there is no floppy disk in the floppy disk drive, in order for the computer to start up correctly.

My optical drive is not playing my disc properly.

❑ Make sure the optical drive is inserted correctly into the PC Card slot or i.LINK®* port.

❑ Make sure the label of the disc is facing up.

❑ If the disc requires software, make sure the software is installed according to the manufacturer's instructions.

❑ A dirty or damaged disc may cause the computer to stop responding while it tries to read the disc. If necessary, restart the computer, remove the disc, and then check it for dirt or damage.

❑ If you see video but can not hear audio, check all of the following:

    ❑ Check that your optical drive does not have the mute setting enabled.

    ❑ Check the volume setting in the audio mixer.

    ❑ If you are using external speakers, check the volume settings, and then check the connections between your external speakers and the computer.

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

❑ Check that the correct drivers are installed properly. To view the drivers, do the following: Click Start, point to Control Panel, click System, select the Hardware tab, and click Device Manager.

❑ Check that digital CD audio is enabled for your optical drive. Perform the following steps:

1 Click Start, point to Control Panel, and click System. The System Properties window appears.

2 Select the Hardware tab and then click the Device Manager button. The Device Manager window appears.

3 Double-click the DVD/CD-ROM drive name. The Properties window appears.

4 Click the Properties tab, and then select the "Enable digital CD audio for this CD-ROM device" check box.

❑ Do not use adhesive labels to identify the CD. The label may come off while the disc is in use in the optical drive and cause the drive to malfunction.

❑ If a region code warning appears when you try to use a DVD-ROM drive, it may be that the DVD you are trying to play is incompatible with the DVD-ROM drive. Check the region code listing on the DVD packaging.

❑ Condensation may cause the computer to malfunction. If this occurs, do not use the computer for at least one hour.

My optical disc drive tray does not open.

❑ Make sure the computer is turned on.

❑ Press the Eject button on the optical drive.

❑ If the Eject button does not work, you can open the tray by inserting a long, thin object (such as a straightened paper clip) into the hole to the right of the Eject button.

I cannot use digital video (DV) devices. The message "DV equipment seems to be disconnected or turned off" appears.

❑ Check that the DV device is turned on and that the cables are properly connected.

❑ Disconnect the i.LINK® cable and connect it again.

My PC Card is not working.

❑ Make sure the PC Card is inserted properly into the PC Card slot.

❑ Make sure the PC Card is compatible with Microsoft® Windows®.

Troubleshooting i.LINK devices

I cannot establish a connection between two VAIO computers when using an i.LINK cable.

1 Disconnect the i.LINK$^{®*}$ cable from both computers and reconnect it.

2 Wait for the computers to respond. If neither computer responds after a few moments, restart both computers.

✍ The computers may not recognize an i.LINK connection after returning from a power saving mode (Standby or Hibernate). If that happens, restart the computers to establish a connection.

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Troubleshooting Software

My software program stops responding or crashes.

Contact the software publisher or designated provider for technical support. See the "Software Support Information" section for more information.

When I click an application icon, the message "You must insert the application CD into your CD-ROM (DVD-ROM) drive" appears, and the software does not start.

❑ Make sure that your optical drive is connected to your computer.

❑ Some titles require specific files that are located on the application CD. Insert the disc and try starting the program again.

❑ Make sure you place the CD in the tray with the label side facing up.

I cannot use the DVgate software.

If your computer is using the Ultimate Battery Life profile for its power saving mode, you cannot use DVgate or Smart Connect software. Please select another profile.

My computer's start-up time seems longer after I have installed AOL. What can I do?

On some computers, installing America Online® (AOL) may increase boot time by up to a minute. If you experience this on your system and would like to speed up the time required to start your computer, you may want to disable the AOL WAN driver. Do the following:

1 Click Start in the Windows® taskbar and select Control Panel.

2 Click Network Connections. The Network Connections dialog box appears.

3 Right-click on the Local Area Connection with device name "WAN Network Driver," and select Disable.

Verify that your AOL connection still functions satisfactorily with the WAN Network Driver disabled. If you need to reverse this setting, repeat the steps above and select Enable.

What software do I use for CD-R/CD-RW software functions?

Sony recommends using the preinstalled SonicStage software's Record function to create CDs on your VAIO® computer, if the specific model you purchased is preconfigured with all necessary components for CD-R and CD-RW capability.

Downloading the optional RealJukebox CD-burning component to create any CDs on your computer may interfere with normal system operations.

Troubleshooting the Modem

My modem does not work.

❑ Check that the phone line is plugged into the line jack. See "Connecting a Telephone Cable" for details.

❑ Check that the phone line is working. You can check the line by plugging in an ordinary phone and listening for a dial tone.

❑ Check that the phone number the program is dialing is correct.

❑ Check that the software you are using is compatible with the computer's modem. (All preinstalled Sony programs are compatible.)

❑ Reinstall the modem driver. See "Using Your Recovery CDs" for more information.

My modem connection is slow.

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

❑ Have your phone company check that your phone line is free from any line noise.

❑ If your problem is fax-related, check that there are no problems with the fax machine you are calling and that it is compatible with fax modems.

❑ If you are having a problem connecting with your Internet Service Provider, check that the ISP is not experiencing technical problems.

❑ If you have a second phone line available, try connecting the modem to that line.

Troubleshooting Wireless LAN functions

I cannot use the Wireless LAN functionality.

Check if the Wireless LAN switch on the left side of the computer is in the ON position.

The computer cannot connect to a Wireless LAN Access Point.

❑ Check if the Wireless LAN switch on the left side of the computer is in the ON position.

❑ Check if power to the Access Point is on.

❑ Check if the Access Point is displayed in the "Available networks" window. Do the following:

  1 Click Start and select Control Panel.

  2 Click Network Connections.

  3 Right-click Wireless Network Connection and select Properties. The Wireless Network Connection Properties dialog box is displayed.

  4 Select the Wireless Networks tab, and check if the Access Point is displayed in the "Available networks" window.

❑ Connection availability is affected by distance and obstructions. You may need to move your computer away from obstructions or nearer to any Access Point you may be using.

❑ Be sure that the encryption key is correctly inserted.

I cannot access the Internet.

❑ Check the Access Point settings. Refer to the instructions supplied with the Access Point.

❑ Check if your computer and the Access Point are connected to one another.

❑ Move your computer away from obstructions or nearer to any access point you may be using.

The data transfer speed is 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 nearer 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 the number of other devices communicating via the access point.

The communication speed is interrupted or slowed down when MPEG2 data is transferred.

The typical effective data transfer speed via an Access Point is 4-5 Mbps when adhering to the IEEE802.11b standard. High-rate stream transfers with MPEG2 data may lower this rate further.

Data transfers are interrupted.

Data transfer interruptions may occur with large files. Check if the Access Point connection is intact. Do the following:

1 Right-click the Wireless Network Connection icon in the taskbar and select Status. The Wireless Network Connection Status dialog box appears.

2 Check the connection status.

Next, change the settings temporarily by performing the following actions:

1 Click Start and select Control Panel.

2 Click Network Connections.

3 Right-click Wireless Network Connection and select Properties. The Wireless Network Connection Properties dialog box is displayed.

4 Select the Wireless Networks tab.

5 Click to deselect the "Use Windows to configure my wireless network settings" option.

6 Resume or restart the file transfer.

7   When the file transfer has been completed, repeat the steps above to select
the "Use Windows to configure my wireless network settings" option.

Troubleshooting Audio

My speakers have no sound.

❑ If the built-in speakers are turned off, press the Fn+F3 keys to turn on the speakers. You can also turn on the speakers using the Jog Dial control.

❑ If the speaker volume is turned to the minimum, press the Fn+F4 keys and press the Up ⬆ or Down ➡ icon to increase the volume or you can use the Jog Dial control to control the volume.

❑ If nothing is displayed when you press the Fn+F3 or Fn+F4 keys, then:

    1 Click Start, point to Control Panel, click "Sounds, Speech, and Audio Devices," and click "Sounds and Audio Devices." The Sounds and Audio Devices Properties dialog box appears.

    2 Verify that the Mute box has not been checked, and that the volume is not on the lowest setting. You can choose advanced options to customize audio settings.

❑ If your computer is battery-powered, check that the battery pack is inserted properly and that it is charged.

❑ If you are using an application that has its own volume control, check that the volume is turned up.

❑ Check the volume controls in Windows®.

❑ If you connect external speakers, check that the speakers are properly connected and the volume is turned up. If the speakers have a mute button, make sure it is off. If the speakers are powered by batteries, check that the batteries are inserted properly and that they are charged.

❑ If you have connected an audio cable to the Headphone jack, disconnect the cable.

There is noise distortion while listening to music with USB speakers or USB headphones.

Use the preinstalled PowerPanel™ software to set the CPU control to Performance. Do the following:

1   Right-click the CPU icon on the bottom right of the taskbar, and click "Edit/create profiles. The Profile editor window appears.

2   In the left portion of the window, click the power management profile you want to set. Maximum Battery Life is the default selection when your computer runs on battery power.

3   In the right portion of the window, double-click CPU Control. The list of CPU control options appears.

4   Click Performance.

5   Click the File menu and select Save.

6   Close the Profile Editor window.

My microphone does not work.

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

Troubleshooting Memory Stick Media

Image files do not open even though I insert Memory Stick media into the slot.

❑ By the default setting, VisualFlow™ software starts automatically when you insert Memory Stick® media into the slot.

❑ If VisualFlow software is active and the image files in Memory Stick media are not displayed, the format type of the Memory Stick media can be different.

❑ Copy the data from the Memory Stick media onto the hard disk drive of your computer and then format the Memory Stick media using Memory Stick Formatter software preinstalled on your computer.

Memory Stick media does not work. I cannot access the removable drive.

❑ If you cannot find the Memory Stick icon in My Computer, click the View drop-down menu and select Refresh. Wait a few moments to recognize the Memory Stick media. Click the Memory Stick icon to view any possible contents.

Change text in this variable definition to document title.

Getting Help

Sony provides you with several support resources to answer questions about your VAIO® computer or the preinstalled software. Refer to these resources in the order they are listed.

Support Options

If you have questions about your computer or the preinstalled software, refer to the following sources for answers in the sequence listed below.

1   **VAIO® Computer User Guide**
     The online VAIO® Computer User Guide and the printed VAIO® Computer Quick Start provide you with information on how to maximize your notebook capabilities and solve common problems.

2   **Software Manuals and Online Help Files**
     The software preinstalled on your notebook may come with an online manual. These manuals are stored on the hard disk drive as online Help files. You can find the Help files from the Help menu under the specific software application. Some software applications may come with a printed manual.

3   **Operating System Online Support**
     Your computer comes preinstalled with Microsoft® Windows®. For operating system support, you can access Microsoft® customer support at: http://support.microsoft.com/directory/.

4   **VAIO Support Agent**
     You can find VAIO Support Agent by clicking Start and selecting Help and Support. Using advanced diagnostic technology, Sony's VAIO Support Agent runs scheduled protections of your applications, network settings, and other important software settings. When your software is protected, you can use VAIO Support Agent to repair software problems by restoring your software to any of the previously protected states.

5   **Sony Computing Support**
This service provides instant access to information on commonly
encountered problems. Enter a description of your problem and the
Knowledge Database searches for the corresponding solutions online.
You can access Sony Computing Support at:
http://www.sony.com/pcsupport.

6   **Sony Fax-on-Demand**
This service, which requires a fax machine or your fax software, provides
answers to commonly asked questions. You can use this automated
service to request a list of available topics, and select the topics that you
want to receive. To contact the Sony fax-on-demand service, call:
1-888-4-SONY-PC (1-888-476-6972).

7   **Sony Customer Support**
Software support is available free of charge for 90 days after the original
date of purchase. You can call and speak with a Sony Customer Support
Representative without using your computer by calling:
1-888-4-SONY-PC (1-888-476-6972).

8   **Sony Service Center**
For the Sony Service Center nearest you, call 1-888-4-SONY-PC
(1-888-476-6972) or find Sony Customer Service on the Web at
http://www.sony.com/pcsupport.