How to Use

Windows 8: The Basics

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- Controlling the Power State of Your VAIO Computer (Sleep Mode/Shutdown)
- Restarting Your VAIO Computer
- Using Sleep Mode
- Entering Sleep Mode, Shutting Down, or Restarting

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- Switching from a Local Account to a Microsoft Account

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- Switching User Accounts
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- About a Security Key for Wi-Fi(R) (Wireless LAN)

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- Notes on Using the Wi-Fi(R) (Wireless LAN) Function
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- Stopping Wi-Fi(R) (Wireless LAN) Communications
- About the Internet Connection Services
- About a Security Key for Wi-Fi(R) (Wireless LAN)
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- Connecting a TV with an HDMI Input Port
- Selecting Display Modes
- Using the Multiple Monitors Function
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- Connecting a TV with an HDMI Input Port
- Changing the Resolution (Size) of the Screen Image on an HDMI-Connected Device

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- Connecting a TV with an HDMI Input Port
- Selecting Display Modes
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Speakers
- Connecting External Speakers/Headphones/Headset

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- Connecting External Speakers/Headphones/Headset

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LAN
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Wi-Fi
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- About the Internet Connection Services
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- Booting Your VAIO Computer from External Devices
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• Notes on the LCD screen
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HDMI
• Connecting a TV with an HDMI Input Port
• Changing the Resolution (Size) of the Screen Image on an HDMI-Connected Device

Peripheral device
• Connecting a TV with an HDMI Input Port
• Selecting Display Modes
• Using the Multiple Monitors Function
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CD/DVD/BD
• Booting Your VAIO Computer from External Devices

Audio
• Adjusting the Speakers Volume
• Changing the Sound Output Device
• Connecting a High-Quality Digital Sound Output Device between Your VAIO Computer and a TV
• Adjusting the Volume in Windows
• Adjusting the Microphone Volume
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Speakers
• Adjusting the Speakers Volume
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Keyboard
• Changing the Keyboard Backlight Settings (Keyboard backlight equipped models)

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• Enabling/Disabling the Gesture Function
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- Enabling/Disabling the Touch Pad
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Camera
- Using the Built-in Camera (Built-in camera equipped models)

Internet
- Using the Antivirus App for Your VAIO Computer

Password
- Setting/Changing the Power-on Password
- Creating/Changing/Removing Your Windows Password
- Removing the Power-on Password
- Switching from a Local Account to a Microsoft Account

Memory module
- Viewing the System Information

BIOS
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- Setting/Changing the Power-on Password
- Booting Your VAIO Computer from External Devices
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Service and support
- Keeping Your VAIO Computer in Optimum Condition (VAIO Care)
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Touch panel
- Enlarging the Text Size (DPI) (Touch screen equipped models)
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- Opening Control Panel

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- Using Sleep Mode

User account
- Switching from a Local Account to a Microsoft Account

Playback

CD/DVD/BD
- Inserting/Removing a Disc (Optical disc drive equipped models)
- About Region Codes (Optical disc drive equipped models)
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Backup / Recovery

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Keeping Your VAIO Computer in Optimum Condition (VAIO Care)

CD/DVD/BD
- Booting Your VAIO Computer from External Devices

Button
- About the ASSIST Button

Recovery
- About the ASSIST Button
- Removing Recovery Content to Free up Disk Space
- Recovering from Recovery Media
- Creating Recovery Media
- Checking the Volume of the Recovery Area
- Notes on Recovery
- About Recovery
- Recovering from the Recovery Area
- Refreshing Your VAIO Computer

BIOS
- About the ASSIST Button
- Booting Your VAIO Computer from External Devices

Backup
- About Types of Backup
- About Backup
- Creating a Restore Point
- Restoring System Files Using the Restore Point when You cannot Start Windows
- Backing Up Your Data when You cannot Start Windows
- Restoring Your Data with VAIO Data Restore Tool

Service and support
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Built-in storage device
- Removing Recovery Content to Free up Disk Space
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- Using the Antivirus App for Your VAIO Computer

Password
- Setting/Changing the Power-on Password
• Creating/Changing/Removing Your Windows Password
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BIOS
• Setting/Changing the Power-on Password
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• Restarting Your VAIO Computer
• Charge Indicator Status List
• Using Sleep Mode
• Charging the Battery Pack
• Turning On Your VAIO Computer
• About Sleep Mode
• Changing the Rapid Wake (Sleep Mode) Settings

Battery
• Charge Indicator Status List
• Charging the Battery Pack
• Extending the Battery Life
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• Changing the Rapid Wake (Sleep Mode) Settings
• Checking the Battery Charge Capacity

Display
• Notes on Using the Touch Screen (Touch screen equipped models)
• How to Use the Touch Screen (Touch screen equipped models)
• About the Touch Screen (Touch screen equipped models)

CD/DVD/BD
• Inserting/Removing a Disc (Optical disc drive equipped models)

Keyboard
• Entering Characters with Touch Screen Operations (Touch screen equipped models)
• Combinations and Functions with the Fn Key

Touch pad
• Using the Touch Pad

Camera
• Notes on the Built-in Camera (Built-in camera equipped models)
• Using the Built-in Camera (Built-in camera equipped models)

LAN
• Using the LAN Port

USB
• Connecting a USB Device
• Charging a USB Device

Memory card
• Inserting SD Memory Cards
• Notes on Using SD Memory Cards
• Removing SD Memory Cards

Built-in storage device
• Creating Partitions
• Creating Other Drives (Modifying Partitions)

Touch panel
• Notes on Using the Touch Screen (Touch screen equipped models)
• How to Use the Touch Screen (Touch screen equipped models)
• About the Touch Screen (Touch screen equipped models)
• Entering Characters with Touch Screen Operations (Touch screen equipped models)

Partition
• Creating Partitions
• Creating Other Drives (Modifying Partitions)

NFC/One-touch functions
• Notes on NFC/One-touch functions (NFC supported models)
• Disabling NFC/One-touch functions (NFC supported models)
• About One-touch functions (NFC supported models)
• About NFC (NFC supported models)
• Using NFC/One-touch functions (NFC supported models)

Windows
• Opening Windows Help and Support

Windows 8
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Help and Support
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Notifications

Read this first
• Read This First

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• Checking Supplied Items
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CD/DVD/BD
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• Handling Discs (Optical disc drive equipped models)
• Supported Discs (Optical disc drive equipped models)
• Notes on Using Discs (Optical disc drive equipped models)

Care and maintenance
• Cleaning Your VAIO computer/LCD screen

Important notice
• Safety Information
• Handling the Built-in Storage Device
• About the Software License
• Trademarks
• About the International ENERGY STAR® Program

Service and support
• About Online Support Website
• Updating Your VAIO Computer
• Solving Common Problems with Your VAIO Computer

Product registration
• About Online Support Website

Supplied items
• Checking Supplied Items

Security
• Updating Your VAIO Computer
Troubleshooting

Hardware

Power
- Why does a message appear and Windows fail to start when I turn on my VAIO computer?
- What should I do if my VAIO computer does not turn on or the power button does not work (the charge indicator light blinks fast)?
- Why does my VAIO computer automatically turn off?
- What should I do if I cannot turn off my VAIO computer?
- What should I do if the power indicator light turns on in green when I press the power button but the screen remains blank?
- What should I do if my VAIO computer does not turn on (the power indicator light does not turn on in green)?
- What should I do if the VAIO Care (Rescue Mode) screen appears when I turn on my VAIO computer?
- What should I do if my VAIO computer does not return to Normal mode with keyboard or touch pad operations during Sleep mode?
- What should I do if Hibernate mode is not available or my VAIO computer does not enter Hibernate mode?

Battery
- Why cannot I fully charge my battery pack?
- Why is my VAIO computer running slowly and the CPU clock frequency low while the computer is running on battery power?

Display
- What should I do if captured images flicker?
- Why does the viewfinder show no images or poor-quality images?
- What should I do if captured images contain dropped frames and audio interruptions?
- Why do sound interruptions and/or dropped frames occur when I play high-definition videos, such as those recorded with the AVCHD digital video camcorder?
- How do I change the LCD brightness?
- What should I do if no image is displayed on my external display or TV screen?
- What should I do if videos are not displayed smoothly?
- What should I do if no image is displayed on my TV screen or external display connected to the HDMI output port?
- What should I do if videos are not displayed on the computer screen?
- What should I do if my computer screen goes blank?
- What should I do if some items do not fit on the computer screen?

HDMI
- What should I do if no image is displayed on my TV screen or external display connected to the HDMI output port?

CD/DVD/BD
- Why does it take time to write data to DVD writable media?
- What should I do if I cannot remove the disc from the optical disc drive?
- Why can’t I write data to a disc?
- What should I do if I cannot play a disc, or dropped frames and/or sound interruptions occur during playback?
Audio
- What should I do if my microphone does not work?
- What should I do if I hear microphone feedback from speakers when using my microphone?
- What should I do if I do not hear sound from speakers or headphones?
- What should I do if sound interruptions occur during video or audio playback?
- What should I do if I do not hear sound from a digital audio device connected to the digital output port, such as the HDMI output port?

Microphone
- What should I do if my microphone does not work?
- What should I do if I hear microphone feedback from speakers when using my microphone?

Keyboard
- What should I do if my keyboard configuration is wrong?
- What should I do if I cannot enter certain characters with my keyboard?
- What should I do if my VAIO computer screen freezes?
- What should I do if the pointer does not move?
- What should I do if I cannot enter numbers with the numeric keypad?

Touch pad
- Why can't I use the touch pad?
- How do I avoid unintentional clicks caused by a light touch on the touch pad?
- How do I disable the touch pad?
- What should I do if my VAIO computer screen freezes?
- What should I do if the pointer does not move?

Camera
- What should I do if captured images flicker?
- Why is the video input from the built-in camera suspended momentarily?
- Why does the viewfinder show no images or poor-quality images?
- What should I do if captured images contain dropped frames and audio interruptions?
- Why are captured images poor in quality?

LAN
- How can I find the physical address (MAC address) of the built-in wireless network interface of my VAIO computer?
- What should I do if I cannot play back movies or audio tracks received via Wi-Fi(R) (Wireless LAN), or their playback is interrupted? Why is the data transfer speed slow?
- What should I do if I cannot use the Wi-Fi(R) (Wireless LAN) function?
- What should I do if I do not know the SSID or security key for the access point?
- What should I do if I cannot connect my VAIO computer to an access point (or the Internet)?

Wi-Fi
- How can I find the physical address (MAC address) of the built-in wireless network interface of my VAIO computer?
- What should I do if I cannot play back movies or audio tracks received via Wi-Fi(R) (Wireless LAN), or their playback is interrupted? Why is the data transfer speed slow?
- What should I do if I cannot use the Wi-Fi(R) (Wireless LAN) function?
- What should I do if I do not know the SSID or security key for the access point?
- What should I do if I cannot connect my VAIO computer to an access point (or the Internet)?

BLUETOOTH
- Why is my BLUETOOTH(R) connection slow?
- Why can't I use the BLUETOOTH(R) function when I sign in to my VAIO
computer as a user with a standard user account?

- Why can't I use BLUETOOTH(R) devices when I switch users?
- What should I do if I cannot find the BLUETOOTH(R) device I want to communicate with?
- What should I do if the BLUETOOTH(R) icon is not displayed in the desktop notification area?
- What should I do if other BLUETOOTH(R) devices cannot connect to my VAIO computer?
- What should I do if I cannot use the BLUETOOTH(R) function?

Password

- What should I do if the Enter Onetime Password message appears and Windows does not start after I enter a wrong power-on password three times consecutively?
- What should I do if I forget the power-on password to start my VAIO computer?
- What should I do if I forget the Windows password?

BIOS

- What should I do if I forget the power-on password to start my VAIO computer?

USB

- What should I do if I cannot charge the device connected to the USB port that supports USB charging?

Memory card

- Why can't I write data to a memory card?

Software

- Why do sound interruptions and/or dropped frames occur when I play high-definition videos, such as those recorded with the AVCHD digital video camcorder?

Computer

- Why is my VAIO computer running slowly and the CPU clock frequency low while the computer is running on battery power?

NFC/One-touch functions

- What should I do if I cannot use NFC/One-touch functions?

Apps

Display

- Why do sound interruptions and/or dropped frames occur when I play high-definition videos, such as those recorded with the AVCHD digital video camcorder?

Software

- What should I do if my game app does not work or it keeps crashing?
- Why do sound interruptions and/or dropped frames occur when I play high-definition videos, such as those recorded with the AVCHD digital video camcorder?

Network / Internet

LAN

- How can I find the physical address (MAC address) of the built-in wireless network interface of my VAIO computer?
- What should I do if I cannot play back movies or audio tracks received via Wi-Fi(R) (Wireless LAN), or their playback is interrupted? Why is the data transfer speed slow?
- What should I do if I cannot use the Wi-Fi(R) (Wireless LAN) function?
- What should I do if I do not know the SSID or security key for the access point?
- What should I do if I cannot connect my VAIO computer to an access point (or the Internet)?
Wi-Fi

- How can I find the physical address (MAC address) of the built-in wireless network interface of my VAIO computer?
- What should I do if I cannot play back movies or audio tracks received via Wi-Fi(R) (Wireless LAN), or their playback is interrupted? Why is the data transfer speed slow?
- What should I do if I cannot use the Wi-Fi(R) (Wireless LAN) function?
- What should I do if I do not know the SSID or security key for the access point?
- What should I do if I cannot connect my VAIO computer to an access point (or the Internet)?

BLUETOOTH

- Why is my BLUETOOTH(R) connection slow?
- Why can't I use the BLUETOOTH(R) function when I sign in to my VAIO computer as a user with a standard user account?
- Why can't I use BLUETOOTH(R) devices when I switch users?
- What should I do if I cannot find the BLUETOOTH(R) device I want to communicate with?
- What should I do if the BLUETOOTH(R) icon is not displayed in the desktop notification area?
- What should I do if other BLUETOOTH(R) devices cannot connect to my VAIO computer?
- What should I do if I cannot use the BLUETOOTH(R) function?

Backup / Recovery

Recovery

- What should I do if my VAIO computer becomes unstable (Windows starts)?
- What should I do if my VAIO computer becomes unstable (Windows does not start)?
- What should I do if I cannot start/complete the recovery process?
- What should I do if I cannot create Recovery Media?
- How do I create Recovery Media?
- What should I do if I cannot recover my VAIO computer from the recovery area?
- How can I restore my VAIO computer system to its factory default settings?
- How can I reinstall the original apps and drivers?

Security

Password

- What should I do if the Enter Onetime Password message appears and Windows does not start after I enter a wrong power-on password three times consecutively?
- What should I do if I forget the power-on password to start my VAIO computer?
- What should I do if I forget the Windows password?

BIOS

- What should I do if I forget the power-on password to start my VAIO computer?

Peripheral Devices

USB

- What should I do if I cannot print a document?
- What should I do if my VAIO computer does not recognize the USB device?

Printer

- What should I do if I cannot print a document?
- What should I do if my VAIO computer does not recognize the USB device?
Refreshing Your VAIO Computer

If your VAIO computer has become unstable, it is recommended that you use the refresh function provided by Windows. Refresh the computer by following these steps.

1. Press the ASSIST button while your VAIO computer is off. The VAIO Care (Rescue Mode) screen appears.
2. Select Start troubleshooting (recovery). Follow the on-screen instructions until the Choose an option screen appears.
3. Select Troubleshoot and Refresh your PC.

Most user data saved on your built-in storage device, some Windows settings and all apps downloaded from Windows Store will be retained even after you refresh your VAIO computer. However, some app settings or files in the specific folders may not be retained.

Confirm the following list for details of which settings are retained, and which data is erased after you refresh the computer.

**Settings retained after you refresh your VAIO computer**

The following settings will be retained after you refresh your VAIO computer.

- Library settings
- User accounts (local, domain, Microsoft account), and group memberships
- Domain settings
- Windows Update settings
- Start screen and lock screen background
- Desktop themes
- International settings
- Wireless network profiles
- Settings configured in Windows Welcome

**Data erased after you refresh your VAIO computer**

The data in the folders specified below will be erased after you refresh your VAIO computer.

- \Windows
- \Program Files
- \Program Files(x86)
- \ProgramData
- \Users\(User name)\AppData

**Note**

- Save important data in advance.
- Copyright protected data, such as digital broadcast data or music files organized by digital media playback apps may not be available, even if the data is retained in the same location after you refresh your VAIO computer.
  Refer to the help file included with the app you are using for instructions.
**Hint**
- The apps installed at the time of delivery and installed from Windows Store are retained, whereas all Desktop apps that you installed after the purchase will be erased.
Starting Wi-Fi(R) (Wireless LAN) Communications

You can establish Wi-Fi communications between your VAIO computer and an access point (not supplied). Before using Wi-Fi, make sure a Wi-Fi access point is on and operating.

1. Connect an access point to your VAIO computer. Refer to Windows Help and Support (Opening Windows Help and Support) and the manual that came with the access point for more information.
2. Open the charms and select the Settings charm. (See Opening the Charms to open the charms.)
3. Select Change PC settings in the lower right corner.
4. Select Wireless in the left pane of the PC settings screen.
5. Change Airplane mode to Off and the Wi-Fi setting under Wireless devices to On.
6. Open the charms and select the Settings charm. (See Opening the Charms to open the charms.)
7. Select the network icon.
8. Select the desired access point and Connect. After the connection is established, Connected appears in the selected wireless access point field.
   If a security key entry window appears, enter the security key as required and select OK. See About a Security Key for Wi-Fi(R) (Wireless LAN) for more information.
   Note that security keys are case-sensitive.

To check Wi-Fi connection status

Open the desktop and move the mouse pointer over (the Network icon) in the desktop notification area to check the Wi-Fi connection status, such as the access point currently connected to your VAIO computer.
To open the desktop, see Opening the Desktop.

Note

- On IEEE 802.11a/b/g/n equipped models, when only the 2.4 GHz Wi-Fi function is enabled, your VAIO computer cannot connect to a 5 GHz Wi-Fi access point. Also, when only the 5 GHz Wi-Fi function is enabled, the computer cannot connect to a 2.4 GHz Wi-Fi access point.
  On IEEE 802.11b/g/n equipped models, when the 2.4 GHz Wi-Fi function is disabled, the computer cannot connect to an access point. Also, the computer cannot connect to a 5 GHz Wi-Fi access point.
- It may take some time to find and connect to a Wi-Fi access point before starting communications via Wi-Fi.

Hint

- Refer to Windows Help and Support (Opening Windows Help and Support) for more information on Airplane mode.
- Once you connect your VAIO computer to the access point by entering the security key, the access point will be registered in the computer. You do not have to enter the security key for subsequent connections.
Related Topic

- About the Wi-Fi(R) (Wireless LAN) Standards
- Stopping Wi-Fi(R) (Wireless LAN) Communications
- Notes on Using the Wi-Fi(R) (Wireless LAN) Function
- About a Security Key for Wi-Fi(R) (Wireless LAN)
Checking Supplied Items

Check all items packed with the product before use.

AC adapter
Power cord

Hint
• No Recovery Media is included because your VAIO computer can be recovered using data stored in the hard disk drive or SSD. See Recovering from the Recovery Area for more information.
Recovering from the Recovery Area

You can recover your VAIO computer from the recovery area on the built-in storage device. This recovery method is faster than using Recovery Media. See Notes on Recovery before recovering the computer.

1. Press the **ASSIST** button while your VAIO computer is off. The **VAIO Care (Rescue Mode)** screen appears.
2. Select **Start troubleshooting (recovery)**. Follow the on-screen instructions until the **Choose an option** screen appears.
3. Select **Troubleshoot** and **VAIO recovery solutions**. Follow the on-screen instructions until the **VAIO Care (Rescue Mode): VAIO recovery solutions** screen appears.
4. Select **Start recovery wizard**.
5. Follow the on-screen instructions.

**Hint**
- If the display language selection window appears, select your desired language, then **OK**.
- To perform custom recovery, select **Tools** and **Start advanced recovery wizard**.
Opening Windows Help and Support

You can open **Windows Help and Support** by following these steps.

1. Open the charms and select the ⚫️ **Search** charm. (See Opening the Charms to open the charms.)
2. Select **Apps** (1).
3. Enter "Help and Support" in the search box (2).
4. Select **Help and Support** (3).
Opening the Charms

You can open the charms to search for apps and files, share content, play content on other devices or print, and set up your VAIO computer.

**Touch operation (Touch screen equipped models)**

Swipe in from the right edge.

**Mouse/Touch pad operation**

Point to the upper-right corner (1), then move downward (2). With a touch pad, you can also swipe in from the right edge.

**Keyboard operation**

Press the (Windows) key and the C key at the same time.

Keyboard: ` + C

Related Topic

- About the Start Screen and Menu
- Searching/Starting Apps, Settings, or Files
About a Security Key for Wi-Fi(R) (Wireless LAN)

A security key is a security protocol for Wi-Fi that encrypts data transmitted on Wi-Fi. It is also referred to as an encryption key or a WEP (Wired Equivalent Privacy) key.

The security key allows wireless devices that have the same key, such as a Wi-Fi access point and a computer, to communicate with each other on Wi-Fi.

The security key is assigned to each access point by default. (Make sure the default security key has been changed to protect data from unauthorized use.) If you cannot find the default security key, refer to the manual that came with your access point.

If you enter a wrong security key, follow these steps to re-enter the security key.

1. Open the charms and select the Settings charm. (See Opening the Charms to open the charms.)
2. Select (the network icon).
3. Right-click the desired network and select View connection properties.
4. Select the Security tab.
5. Enter a security key in the Network security key field and select OK.

Related Topic
- About the Wi-Fi(R) (Wireless LAN) Standards
- Starting Wi-Fi(R) (Wireless LAN) Communications
- Notes on Using the Wi-Fi(R) (Wireless LAN) Function
Opening the Desktop

You can access the desktop from a tile, just like an app. Open the desktop by following the instruction below.

1. Open the Start screen and select the Desktop tile. (See About the Start Screen and Menu to open the Start screen.)
Congratulations on your purchase of this VAIO(R) computer.

About your VAIO computer's configuration

To find out about the configuration of your VAIO computer, visit the Sony online support website. See About Online Support Website for more information. Some features, options, and supplied items may not be available on your VAIO computer.

Features

Available features vary depending on the model or options you selected. Not all features described in this manual are available depending on your model.

Illustrations

Illustrations, photos, or screenshots in this manual may look slightly different depending on the model or options you selected.

Apps

The preinstalled apps may vary depending on the model or options you selected. The apps described in this manual may not be preinstalled on your VAIO computer.

Supplied manuals

The following manuals are supplied with your VAIO computer.

On-screen documentation

- User Guide - Introduction Version (Welcome)
  A preinstalled manual with limited information of your VAIO computer, focused on support and Internet connection. The User Guide - Introduction Version is replaced with a complete version of the User Guide (this manual), after update.
- User Guide (this manual)
  General information and operation instructions about your VAIO computer including support and troubleshooting information

Printed documentation

- Quick Start Guide
  An overview of how to set up and get started with your VAIO computer
- Recovery, Backup and Troubleshooting Guide
  Information on how to recover and back up your VAIO computer, as well as troubleshooting information
- Safety Regulations
  Read carefully before activating the wireless functions such as the wireless LAN and BLUETOOTH technology.

Other references

- Windows Help and Support
  A comprehensive resource for practical advice, tutorials, and demonstrations to help you learn to use your VAIO computer.
  To open Windows Help and Support, see Opening Windows Help and Support.
App help files
App help files may be included with the preinstalled apps on your VAIO computer. You may be able to access the help files from the help menu.

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Welcome

Congratulations on the purchase of this VAIO computer. This User Guide - Introduction Version provides you with limited information about your VAIO computer. To update this file to the complete version of the User Guide, see Updating the User Guide to the Latest Version for more information.

Your VAIO computer may not support touch screen operations depending on the model you purchased. In such a case, use a mouse or a touch pad for computer operations.

Content in this guide is subject to change without notice.

Read This First

Updating the User Guide to the Latest Version

By updating this User Guide - Introduction Version through the Internet, you can get the complete version of the User Guide with detailed information on your VAIO computer.

Once the User Guide is updated to the complete version, you can access it anytime even if you are offline.

With the complete version of the User Guide, you can view information about:

- Parts description
- Feature and operating instructions
- Precautions
- Troubleshooting information
- Windows 8 basic operations

To update the User Guide to the complete version

To update this User Guide - Introduction Version to the complete version of the User Guide, open this file with your VAIO computer connected to the Internet. After a while, the file will be updated to the latest complete version of the User Guide automatically.

To view the updated User Guide, exit this file and open the file again.

Note

- Be sure to use VAIO Update before updating the User Guide to the complete version.

Hint

- It may take some time to complete the update.
- The User Guide is displayed on VAIO Care.

To view help files for Windows OS and app operations

When you have trouble operating your VAIO computer, try referring to Windows Help and Support or help files included with your apps.

To access Windows Help and Support, open the charms and enter "Help and Support" in the search box.

Connecting to the Internet

You will need to connect your VAIO computer to the Internet before updating to the complete version of the User Guide.
**Before connecting to the Internet**

Before using the Internet, you will need to sign up with an Internet Service Provider (ISP) and set up devices required for connecting your VAIO computer to the Internet.

The following types of Internet connection services may be available from your ISP:

- Fiber to the Home (FTTH)
- Digital Subscriber Line (DSL)
- Cable modem
- Satellite
- Dial-up

For more information on devices required for Internet access and how to connect your VAIO computer to the Internet, ask your ISP.

The following is one of the Internet connection methods as an example.

![Diagram of Internet connection](image)

1. Internet
2. Modem
3. Router/access point
4. LAN cable (not supplied)
5. Wi-Fi(R) (Wireless LAN)

**To use the Wi-Fi network**

1. Open the charms and select the **Settings** charm.
2. Select **(the network icon)**.
3. Select your desired network (SSID) from the list and **Connect**.

**Note**

- For detailed information on network settings and devices, refer to the information from your Internet Service Provider (ISP) or the manuals that came with your network devices.

**To use the network (LAN) (LAN port equipped models)**

You can connect your VAIO computer to networks with a LAN cable. Connect one end of a LAN cable to the LAN port on the computer and the other end to your network. For detailed settings and devices required for LAN access, ask your network administrator.

**Note**

- The connection, setting method, or required devices may vary depending on your network environment.
Updating Your VAIO Computer
Be sure to update your VAIO computer to enhance the computer's efficiency, security, and functionality.

Note
- Your VAIO computer must be connected to the Internet to download the updates.

To use Windows Update
Windows Update enables you to make your VAIO computer more stable.

1. Open the charms and select the Search charm.
2. Select Settings.
3. Enter "Windows Update" in the search box.
4. Select Windows Update from the list.
5. Follow the on-screen instructions to complete the updates.

To use VAIO Update
VAIO Update automatically notifies you of new updates available on the Internet then downloads and installs them on your VAIO computer.

1. Open the charms and select the Search charm.
2. Select Apps.
3. Enter "VAIO Update" in the search box.
4. Select VAIO Update from the list.
5. Follow the on-screen instructions to complete the updates.

To update the antivirus app
The antivirus app helps protect your VAIO computer against security threats by keeping the app current with the latest updates. You can download and install the updates from the website of the manufacturer.

1. Open the charms and select the Search charm.
2. Select Apps.
3. Enter the antivirus app name in the search box.
4. Select the antivirus app from the list.
5. Follow the on-screen instructions to complete the updates.

Solving Problems on Your VAIO Computer Using VAIO Care
With VAIO Care, you can regularly conduct performance checks and system tune-ups on your VAIO computer to keep it running at optimum level. Start VAIO Care whenever a problem arises. VAIO Care will provide appropriate measures and support information to solve the problem.

To start VAIO Care
Press the ASSIST button while your VAIO computer is on.
Below is an example of a screenshot in English.
Finding Support Information
The Sony online support website provides instant access to information on commonly encountered problems. You can find support information such as the support website URL in Contact & Support on VAIO Care or the supplied Quick Start Guide.

Windows 8 : How to Start

About the Start Screen and Menu
You can place the shortcuts to apps, the desktop, and websites that you use the most.

Overview

1 Tiles
   Touch operation
   Tap a tile to start an app and personalize the Start screen by adding and rearranging tiles.
   Mouse/Touch pad operation
   Click a tile to start an app and personalize the Start screen by adding and rearranging tiles.

2 Charms
   Search for apps and files, share content, play content on other devices or print, and set up your VAIO computer.

To open the Start screen

* Design and content of the screen are subject to change.

** Hint **
- Alternatively, search for VAIO Care (Desktop) on the Search charm to start VAIO Care.
- Refer to the help file included with VAIO Care for more information.
- Pressing the ASSIST button while your VAIO computer is off displays the VAIO Care (Rescue Mode) screen. In this screen, you can start the recovery process of the computer in case of emergency, for example, when Windows does not start.
Touch operation
Open the charms, then tap the Start charm.

Mouse/Touch pad operation
Open the charms, then click the Start charm.

Keyboard operation
Press the (Windows) key.

Opening the Charms

Touch operation
Swipe in from the right edge.

Mouse operation
Point to the upper-right corner (1), then move downward (2).

Keyboard operation
Press the (Windows) key and the C key at the same time.

Searching/Starting Apps, Settings, or Files

1. Open the charms and select the Search charm.
2. Select Apps, Settings, or Files (1).
3. Enter a keyword (e.g. Control Panel) in the search box (2).
4. Select your desired app, setting, or file (3).
Viewing Running Apps

**Touch operation**

Swipe in from the left edge until a small app icon appears. Then, drag the icon back towards the left edge.

**Mouse/Touch pad operation**

Point to the upper-left corner (1), then move downward (2).

**Keyboard operation**

Press the (Windows) key and the Tab key at the same time.

Switching Apps

You can switch between apps that are currently running.

**Touch operation**

Display currently running apps, touch your desired app icon, and swipe in from the left edge.

**Mouse/Touch pad operation**

Display currently running apps and drag your desired app icon from the left edge to the center.
Opening the Apps Menu

Many apps have app menus that you can use to control your app. Follow the instructions below to open the app menu.

Hint
- Open the app menu when an app is displayed on the computer screen.
- App commands vary depending on the app that is currently displayed on the computer screen.

Touch operation
Swipe up from the bottom edge.

Mouse/Touch pad operation
Right-click within an app.

Keyboard operation
Press the Win (Windows) key and the Z key at the same time.

Win + Z
Closing Apps
You can close currently running apps by following the instruction below.

**Hint**
- The app window becomes smaller in the bottom of the screen.
  Drag the window to the bottom-center edge.

**Touch operation**
1. When an app is open, point to the top-center of the screen.
2. Drag the app to the bottom of the screen until the app disappears from the screen.

**Mouse/Touch pad operation**
1. When an app is open, move the cursor to the top-center of the screen until the hand icon appears.
2. Drag the app to the bottom of the screen until the app disappears from the screen.

**Keyboard operation**
Press the **Alt** key and the **F4** key at the same time.

![Image showing closing an app](image)

Installing Apps from Windows Store
You can add apps from **Windows Store**.
Internet connection is necessary to access **Windows Store**. You also need to sign in with a Microsoft account.
On how to create and what you can do with the Microsoft account, refer to **Windows Help and Support**.
1. Open the **Start** screen, select the **Store** tile, and then find an app to install.
2. Select your desired app.
3. Follow the on-screen instructions to download and install the app.

**Opening Windows Help and Support**
You can open *Windows Help and Support* by following these steps.
1. Open the charms and select the Search charm.
2. Select Apps (1).
3. Enter "Help and Support" in the search box (2).
4. Select Help and Support (3).

![Image of Windows Help and Support opening steps]

**Entering Sleep or Shutting Down**
1. Open the charms and select the Settings charm.
2. Select (Power), then select Sleep, Shut down, or Restart.

![Image of Windows Settings and Power options]

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Parts and Controls on the Front

Describes the features on the front of the VAIO computer, such as buttons and indicator lights.

1. Built-in camera* (Using the Built-in Camera (Built-in camera equipped models))
2. Built-in camera indicator (Using the Built-in Camera (Built-in camera equipped models))
3. LCD screen or touch screen (Touch screen equipped models) (How to Use the Touch Screen (Touch screen equipped models))
4. Built-in speakers (stereo)
5. Air exhaust vent
6. Keyboard
7. NFC embedded touch pad (Using the Touch Pad, Using NFC/One-touch functions (NFC supported models))

* The shape of the built-in camera depends on the model.

Note

- The air exhaust vent may get hot during use. Take care when touching it.
3  Caps lock indicator
4  Power button (Turning On Your VAIO Computer)
5  Built-in microphone (monaural) (Using the Built-in Camera (Built-in camera equipped models))
6  Power indicator (Turning On Your VAIO Computer)
7  Charge indicator (Charge Indicator Status List)
8  Disc drive indicator

Related Topic
- Parts and Controls on the Sides
- Parts and Controls on the Bottom
Parts and Controls on the Sides

Describes the features on the sides of the VAIO computer, such as connection ports.

A: Models without a Numeric keypad
B: Models with a Numeric keypad

1. DC IN port (Connecting a Power Source)
2. LAN port (Connecting to the Internet with a Wired Connection)
   For details on the LAN port, see Using the LAN Port.
3. HDMI output port (Connecting a TV with an HDMI Input Port)
4. USB port (Connecting a USB Device)
   This USB port supports USB charging. See Charging a USB Device for more information.
5. USB port(s) (Connecting a USB Device)
6. Headset compatible headphone jack (Connecting External Speakers/Headphones/Headset)
7. SD memory card slot (Inserting SD Memory Cards)
8. Security slot
1 Optical disc drive (Inserting/Removing a Disc (Optical disc drive equipped models))
2 Drive eject button (Inserting/Removing a Disc (Optical disc drive equipped models))
3 Manual eject hole

Related Topic
- Parts and Controls on the Front
- Parts and Controls on the Bottom
Parts and Controls on the Bottom

Describes the features on the bottom of the VAIO computer.

1 Battery off button

Note
- The memory of your VAIO computer cannot be replaced.
- If the battery off button is pressed while the VAIO computer is running, unsaved data may be lost. Be sure to save your working data and turn off the VAIO computer before pressing the battery off button.
Connecting a Power Source

Connect your VAIO computer to an AC power source. Carefully read the precautions in Notes on Using the Power Source before connection.

1. Plug one end of the power cord (1) into the AC adapter (2).
2. Plug the other end of the power cord into an AC outlet (3).
3. Plug the cable from the AC adapter (3) into the DC IN port (4) on your VAIO computer.

Note
- Do not plug more than one device into the same AC outlet.
- The shape of the AC adapter varies depending on the model you purchased.
- Make sure that the power plug is firmly plugged into your VAIO computer.

Hint
- You can purchase a power strip with a surge protector to help prevent damage to your VAIO computer caused by sudden power surges (in an electrical storm, for example).
Charging the Battery Pack

The battery pack can be charged even while you are using your VAIO computer when the computer is connected to a power source. The charging time may vary depending on operating conditions.

1. Plug your VAIO computer into an AC outlet. (See Connecting a Power Source.)

<table>
<thead>
<tr>
<th>Hint</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The charging time varies depending on ambient temperature. Note that at a low ambient temperature, it takes longer time to charge the battery pack.</td>
</tr>
<tr>
<td>• Open the desktop and select the battery icon, such as (on battery) or (plugged in), in the desktop notification area to check the built-in battery status of your VAIO computer. To open the desktop, see Opening the Desktop.</td>
</tr>
</tbody>
</table>
Personal Computer
VAIO Fit 14/15 SVF14A1/SVF15A1

How to Use
Windows 8: The Basics
Parts Description
Setup
Network / Internet
Connections
Settings
Playback
Backup / Recovery
Security
Other Operations
Notifications

Troubleshooting

List of Topics

Turning On Your VAIO Computer

Turn on your VAIO computer to start Windows. Carefully read the precautions in Notes on Using the Power Source before turning on.

1. Connect your VAIO computer to an AC outlet. (See Connecting a Power Source.)
2. Lift the LCD screen lid.
3. Press the (Power) button.
   - If your VAIO computer is equipped with the power indicator, it turns on in green.
   - The computer is turned on, and Windows starts after a while.

Note
- If you press and hold down the (Power) button for more than four seconds, your VAIO computer will not turn on.
- When opening the LCD screen lid, do not hold the built-in camera as it may cause your VAIO computer to malfunction. (Built-in camera equipped models)
- If you press the (Power) button with the LCD screen lid closed, your VAIO computer will not turn on.
- Do not touch the touch screen when turning on your VAIO computer as it may cause the computer to malfunction. (Touch screen equipped models)

Hint
- By default, your VAIO computer automatically enters Sleep mode after a certain period of inactivity while the computer is connected to an AC outlet. See Using Sleep Mode for more information.

Related Topic
- Charging the Battery Pack
- Notes on Using the Battery Pack
- Connecting a Power Source
- Controlling the Power State of Your VAIO Computer (Sleep Mode/Shutdown)
- Restarting Your VAIO Computer
- Notes on Using the Power Source

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Extending the Battery Life

When your VAIO computer is running on battery power, you can extend the battery life using the following methods.

- Use Sleep mode.
  When you do not need to use your VAIO computer temporarily, you can use Sleep mode. To extend the battery life, use Sleep mode frequently. If you do not intend to use the computer for an extended period of time, turn off the computer. Resuming the computer from Sleep mode is faster than from booting up the computer. See Using Sleep Mode for more information.

- Decrease the LCD brightness of the computer screen.
  See Changing the LCD Brightness for more information.

- Turn down the volume of the speakers and headphones.
  See Adjusting the Speakers Volume for more information.

- Disconnect peripheral devices that are not in use.

Related Topic

- Checking the Battery Charge Capacity
- Charging the Battery Pack
- Notes on Using the Battery Pack
- Using Sleep Mode
Controlling the Power State of Your VAIO Computer (Sleep Mode/Shutdown)

By default, your VAIO computer automatically enters Sleep mode after a certain period of inactivity.

In Sleep mode, the computer will retain its current state, including data you are working on, while you take a break.

See Using Sleep Mode for more information on Sleep mode.

**When you do not use your VAIO computer for a while**

To avoid losing unsaved data, follow these steps to shut down your VAIO computer.

1. Save your data and close all running apps.
2. Turn off any peripherals connected to your VAIO computer.
3. Open the charms, and then select the **Settings** charm. (See Opening the Charms to open the charms.)
4. Select **Power** and **Shut down**.
   - After a short time, your VAIO computer automatically turns off. If the computer is equipped with the power indicator, the green power indicator light turns off.
   - If your VAIO computer is equipped with the power indicator, make sure it is off before closing the LCD screen lid.

**Note**
- An improper shutdown may cause loss of unsaved data or cause your VAIO computer to malfunction.
- To disconnect your VAIO computer completely from an AC power source, turn off the computer, and then unplug the power cord from the AC outlet.

**Hint**
- If you select **Shut down** while holding down the **Shift** key in step 4, you can place your VAIO computer into the minimum power consumption state (ACPI S5 mode). In this case, the fast boot function is temporarily disabled on the next start-up.
Restarting Your VAIO Computer

After changing the settings or installing an app on your VAIO computer, you may be required to restart the computer.

1. Save your data and close all running apps.
2. Open the charms and select the Settings charm. (See Opening the Charms to open the charms.)
3. Select Power and Restart. Your VAIO computer will restart.

Related Topic

- Turning On Your VAIO Computer
- Controlling the Power State of Your VAIO Computer (Sleep Mode/Shut down)
The charge indicator light turns on or blinks differently according to conditions.

**Lit in orange**
The battery pack is charging. (Turns off when charging is completed.)

**Blinks in orange**
The battery pack is running out of power. (Normal mode)
If your VAIO computer is equipped with the power indicator, it blinks along with the charge indicator.

**Blinks fast in orange**
A battery error has occurred due to a failed battery pack, an unlocked battery pack (if it is removable), etc.
In Sleep mode, you can step away from your VAIO computer while retaining the computer's state including data you are working on.

**To activate Sleep mode**

1. Open the charms and select the Settings charm. (See Opening the Charms to open the charms.)
2. Select Power and Sleep.
   - If your VAIO computer is equipped with the power indicator, it turns off when the computer enters Sleep mode (with the default setting).

**To return to Normal mode**

1. Press the (Power) button.

**Note**

- If you press and hold down the (Power) button for more than four seconds, your VAIO computer will turn off automatically. Doing this will erase all unsaved data.
- By default, your VAIO computer automatically enters Hibernate mode when the battery pack is running out of power. However, depending on the operating conditions, the computer may fail to enter Hibernate mode. If this occurs and the battery pack is running out of power, the computer will be turned off, resulting in loss of unsaved data.
- While the computer is running on battery power, save data frequently.
- Before moving your VAIO computer, make sure that the computer is off to avoid impact or vibration to the running hard disk drive. If the computer is equipped with the power indicator, make sure that it is completely off.

**Hint**

- By default, your VAIO computer enters Sleep mode automatically after a certain period of inactivity while running on AC power.
- The operations below also place your VAIO computer into Sleep mode.
  - Press the (Power) button (with the default setting).
  - Close the LCD screen lid and leave the computer unused for a few seconds.
- You can set to restore your VAIO computer from Sleep mode to Normal mode by opening or raising the LCD screen.
  To change the action when you open or raise the LCD screen, start VAIO Control Center and change the settings in Power and Battery. To start VAIO Control Center, see Searching/Starting Apps, Settings, or Files.

**Related Topic**

- Notes on Using the Power Source
- Notes on Sleep Mode
- Extending the Battery Life
- Changing the Rapid Wake (Sleep Mode) Settings
Selecting a Power Plan

Power management helps you set up power plans to suit your requirements for power consumption.

1. Open Control Panel. (See Opening Control Panel.)
2. Select Hardware and Sound and Power Options.
3. Select your desired power plan.
4. If you want to change the power plan settings, select Change plan settings on the right of your desired power plan in the Power Options window.
   By selecting Change advanced power settings, you can change the advanced settings.
   Refer to Windows Help and Support (Opening Windows Help and Support) for more information on the power plan settings.

Hint
- The power status icon indicates what kind of power source your VAIO computer is currently using, and you can see the computer's power status by selecting this icon.
Read the following precautions before using the power source.

**Notes on the AC adapter**
- Use the AC adapter supplied with your VAIO computer or with genuine Sony products. Do not use any other AC adapter as it may cause a malfunction.
- Do not connect the AC adapter to a power conversion device such as a travel power converter. It may cause overheating or a malfunction.
- If the AC adapter cable becomes damaged or broken, do not use it.

**Notes on turning on your VAIO computer**
- Because your VAIO computer contains magnetic components, keep magnetic storage media away from the computer, as it may cause data corruption.
- Keep magnetic devices away from your VAIO computer.
Read the following precautions before using Sleep mode.

- Some USB devices may not support Sleep mode. When your VAIO computer resumes from Sleep mode, the computer may not recognize such USB devices, depending on the type and number of connected USB devices. If you cannot place the computer into Sleep mode, disconnect all USB devices and try again.
- If your VAIO computer enters Sleep mode when the computer is unstable, it may not resume from Sleep mode. The following operations are recommended:
  - Before placing your VAIO computer into Sleep mode, save your files and exit all running apps.
  - Shut down your VAIO computer periodically.
- Depending on the current state of Windows, your VAIO computer might not be able to enter Sleep mode.
- If your VAIO computer enters Sleep mode while running a task, such as DVD writing, the task may be suspended.
- Your VAIO computer may become warm during Sleep mode.
Using the Touch Pad

By sliding your finger on the touch pad, you can move the pointer on the computer screen.

With the pointer on your desired item or object, press the left button zone or the right button zone to execute various commands or display menus.

To click
With the pointer on your desired item or object, press the left button zone once. Alternatively, tap on the touch pad once.

To double-click
With the pointer on your desired item or object, press the left button zone twice quickly. Alternatively, tap on the touch pad twice quickly.

To right-click
With the pointer on your desired item or object, press the right button zone once. Alternatively, tap on the touch pad with two fingers. Depending on the location of the pointer, you can display various shortcut menus.

To drag
With the pointer on your desired item or object, press the left button zone once, and while holding down the zone, slide your finger on the touch pad. Alternatively, tap on the touch pad twice quickly, and on the second tap, slide your finger.

To drag and drop
Drag an icon, such as a file, to your desired location and release your finger from the left button zone. Alternatively, tap the icon twice quickly, and on the second tap, slide your finger to your desired location and lift the finger off the touch pad.

To scroll
Slide two fingers up and down on the touch pad to scroll vertically on the screen. Slide two fingers from side to side on the touch pad to scroll horizontally on the screen.

To back or forward without moving the pointer
While viewing websites, pictures, etc., put three fingers on the touch pad and slide them from side to side to perform the back/forward operation without moving the pointer.
To zoom in or out
While viewing websites, pictures, etc., pinch on the touch pad with two fingers for zooming. Pinch open to zoom in or pinch close to zoom out.

To open the app menu

Put your finger on the top edge of the touch pad and slide the finger down. The app menu does not appear if an app does not support the app menu.

To open the charms

Put your finger on the right edge of the touch pad and slide the finger left. See Opening the Charms for more information.

To switch apps

Put your finger on the left edge of the touch pad and slide the finger right to switch to the running app. When more than one app is running, repeat this action to switch apps in descending order from the last-used app.

Note
- The gesture function (scroll, back/forward, zoom in/zoom out, open the app menu, open the charms, switch apps) may not work depending on the operating condition of your VAIO computer or the touch pad settings.

Hint
- The shape of the touch pad varies depending on the model you purchased.
- For detailed information on how to use the touch pad, start VAIO Control Center, click Mouse and Keyboard, and follow the instruction movies. To start VAIO Control Center, see Searching/Starting Apps, Settings, or Files.

Related Topic
- Enabling/Disabling the Touch Pad
• Disabling the Tapping Function on the Touch Pad
• Enabling/Disabling the Gesture Function
Enabling/Disabling the Touch Pad

You can enable/disable the touch pad on your VAIO computer.

1. Press and hold down the **Fn** key and press the **F1** key. Each time you press the keys, the touch pad is enabled/disabled.

**Hint**

- Be sure to connect a mouse before disabling the touch pad. If you disable the touch pad before connecting a mouse, you will be able to use only the keyboard for pointing operations. (Non touch screen equipped models)

Related Topic

- Using the Touch Pad
- Disabling the Tapping Function on the Touch Pad
- Enabling/Disabling the Gesture Function

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Disabling the Tapping Function on the Touch Pad

You can disable the tapping function to avoid unintentional clicks caused by a light touch on the touch pad during the keyboard operations.

1. Start VAIO Control Center and select Mouse and Keyboard. (See Searching/Starting Apps, Settings, or Files to start VAIO Control Center.)
2. Select Details under Touchpad Operations.
3. Clear the Enable tap functions check box.
4. Select OK.

Related Topic
- Using the Touch Pad
- Enabling/Disabling the Touch Pad
- Enabling/Disabling the Gesture Function
Enabling/Disabling the Gesture Function

You can enable/disable the gesture function of the touch pad on your VAIO computer.
With the gesture function, you can perform the following operations.

- Scroll
- Back/Forward
- Zoom in/Zoom out
- Open the app menu
- Open the charms
- Switch apps

Follow these steps to enable/disable the gesture function.

1. Start **VAIO Control Center** and select **Mouse and Keyboard**. (See **Searching/Starting Apps, Settings, or Files** to start **VAIO Control Center**.)
2. Select **Details** under **Touchpad Operations**.
3. Select or clear the **Enable multi-touch functions** check box.
   Select the check box to enable the function or clear it to disable the function.

Related Topic

- Using the Touch Pad
- Enabling/Disabling the Touch Pad
- Disabling the Tapping Function on the Touch Pad
About the Touch Screen (Touch screen equipped models)

The touch screen enables direct interaction with your VAIO computer using your finger(s). You can perform various gestures on the touch screen. Your VAIO computer supports multi-touch input.

**Note**
- Your VAIO computer is equipped with a capacitive touch screen. When using it, note the following characteristics of the capacitive touch screen.
  - The touch screen will not work if you touch it with fingernails, or if you wear gloves.
  - If tapping triggers an unintentional operation, make sure that no other parts of your body are in contact with the touch screen.
  - The surface of the touch screen may get hot. This is normal and does not indicate a malfunction.
  - Even though the surface of the touch screen is tempered glass, it could still become damaged. Treat it with adequate care. If it breaks, small granular shards may scatter and cause injury. Do not drop the touch screen or subject it to a strong impact. Do not scratch the surface. A surface flaw may cause the glass to break.
  - A protection sheet may be attached to the LCD screen frame at the factory. Remove the sheet before use; otherwise the touch screen may not work correctly.
  - Some apps do not accept touch screen operations.

Related Topic

- How to Use the Touch Screen (Touch screen equipped models)
How to Use the Touch Screen (Touch screen equipped models)

You can tap the touch screen or make a simple motion with your fingers to operate your VAIO computer.

**Basic operations**

**To click (tap)**

Tap on the touch screen once with a finger. You can select a button, such as OK and Cancel, or an item in a menu by tapping it.

**To double-click (double-tap)**

Tap on the touch screen twice in quick succession with a finger. You can start an app, such as a word processor or a spreadsheet program, or open a file by double-tapping its icon.

**To drag**

Put a finger on the desired point on the touch screen and slide the finger. You can move a file or change the window size with this motion.

**To drag and drop**

Touch the desired file icon, slide to another folder, window or app icon, and then lift your finger off the screen. You can move or copy a file with this motion.

**Advanced operations**

You can make a simple motion (gesture) with your fingers on the touch screen to operate your VAIO computer. The response to a gesture varies depending on the apps.

**To right-click (touch and hold)**

Touch and hold the desired point on the touch screen for a few seconds and lift your finger off the screen. Depending on the point you touch, you can display various menus.

**To scroll**

Touch and slide a scrollable area of a window, such as an Internet Explorer window. You can also drag the slider on the vertical scroll bar of the selected window to scroll the window.

**To zoom in or out on an image such as a photo (zoom)**

Pinch on the touch screen with two fingers for zooming on an image, such as a photo on Photos. Pinch open to zoom in or pinch close to zoom out.
To rotate an image such as a photo (rotate)
Put two fingers on the touch screen and slide them in circles to rotate an image, such as a photo. You cannot rotate images depending on the apps you are using.

To select by swiping
Slide your finger in short distance in the direction that the screen does not scroll. You can select an item, such as an app tile or a picture.
Enlarging the Text Size (DPI) (Touch screen equipped models)

Changing the DPI to enlarge the text and icon size enables you to operate the touch screen easier.

1. Open Control Panel and select Appearance and Personalization and Make text and other items larger or smaller. (See Opening Control Panel to open Control Panel.)
2. Select the desired settings from the options on the screen and Apply.
3. If a message appears and recommends signing out, select Sign out now.
4. Sign in again.
   The text font size for Windows changes.
Notes on Using the Touch Screen (Touch screen equipped models)

Before using the touch screen, read the following precautions for correct use.

- Do not push the touch screen roughly. Gentle touches always work as your VAIO computer is equipped with a capacitive touch screen.
- Do not use an object other than your finger to use the touch screen. The touch screen may be damaged or a malfunction may occur. Be sure to touch the screen only with your finger.
- The touch screen may not work properly if you turn on your VAIO computer while touching the screen. In such a case, restart the computer.
- The touch screen may not work for several seconds after your VAIO computer returns to Normal mode from Sleep mode. In such a case, wait for a while before using the touch screen.
- Keep the touch screen clean for good touch sensitivity. Dirt may cause damage or a malfunction.
Changing the Resolution (Size) of the Screen Image

You can change the screen resolution to adjust the size of the characters and images on the computer screen. Refer to Windows Help and Support (Opening Windows Help and Support) for more information.

1. Right-click on the desktop and select Screen resolution. (See Opening the Desktop to open the desktop.)

2. Select the current screen resolution next to Resolution and move the slider to change the screen resolution.

**Note**
- You may not be able to play high-resolution videos depending on the amount of video memory on your VAIO computer. In such a case, lower the screen resolution.
- Do not change the display resolution while using video/image apps or playing DVDs, as it may cause unsuccessful playback/display or unstable system operations.

Related Topic
- Connecting a TV with an HDMI Input Port
- Notes on the LCD screen
Connecting a TV with an HDMI Input Port

You can connect a TV with an HDMI input port to your VAIO computer with an HDMI cable (not supplied). Refer to the manual that came with your TV for more information on installation and use.

1. Plug the power cord of your TV into an AC outlet and turn it on.
2. Connect one end of an HDMI cable to the HDMI output port (Parts and Controls on the Sides) on your VAIO computer and the other end to the TV.
3. Set the TV input to the external input.
   The screen image of your VAIO computer is displayed on the TV.

**Note**
- If a device driver other than the one provided by Sony is used, the image will not be displayed and audio will not be heard. Always use the device driver provided by Sony for updates.
- To hear sound from a device connected to the HDMI output port, you need to change the sound output device. For detailed instructions, see Changing the Sound Output Device.

**Hint**
- The HDMI output port on your VAIO computer is compliant with the High-bandwidth Digital Content Protection (HDCP) standard and capable of encrypting the transmission channel of digital video signals for the purpose of copyright protection, which enables you to view a wide variety of copyright protected and high-quality content.

Related Topic
- Selecting Display Modes
- Using the Multiple Monitors Function
- Changing the Resolution (Size) of the Screen Image
- Changing the Resolution (Size) of the Screen Image on an HDMI-Connected Device
Selecting Display Modes

You can switch the display output between the computer screen and an external display connected to your VAIO computer.

1. Turn on an external display.
2. Press the $\text{Fn} + F7$ keys several times to select your desired display output, and then press the $\text{Enter}$ key.

**Note**
- If you disconnect a display cable (not supplied) while only an external display is selected as the display output, it is hard to operate your VAIO computer because the computer screen is blank. To switch the display output to the computer screen, press the $\text{Fn} + F7$ keys twice, then the $\text{Enter}$ key.
- The display switch may become unavailable or your VAIO computer may become unstable during video playback. Exit the video playback app before switching the display output.
- The display switch may not be available depending on the type of external display or projector.

Related Topic
- Using the Multiple Monitors Function
- Connecting a TV with an HDMI Input Port
Using the Multiple Monitors Function

The Multiple Monitors function allows you to distribute portions of your desktop across separate displays. For example, if you have an external display connected to the monitor port, the computer screen and the external display can function as a single desktop.

1. Right-click on the desktop and select **Screen resolution**. (See **Opening the Desktop** to open the desktop.)
2. Select **Extend these displays** from the drop-down list next to **Multiple Displays** and **OK**. The setting options vary depending on the number of the connected external displays.

**Note**
- Your external display may not support the Multiple Monitors function.
- Certain apps may not be compatible with the Multiple Monitors settings.
- Do not change the display settings while using video/image apps or playing DVDs, as it may cause unsuccessful playback/display or unstable system operations. Change the display settings after you exit the video/image app.

**Hint**
- You can set the screen resolution for each display used for the Multiple Monitors function.

Related Topic

- Changing the Resolution (Size) of the Screen Image
- Selecting Display Modes
- Connecting a TV with an HDMI Input Port
Read the following precautions for correct use of the LCD screen.

- The LCD screen is manufactured using high-precision technology. You may, however, see tiny black points and/or bright points (red, blue, or green) that continuously appear on the LCD screen. This is a normal result of the manufacturing process and does not indicate a malfunction.
- Do not scratch the surface of the LCD screen or exert pressure on it. This could cause damage.
- Do not exert pressure on the LCD screen lid with the lid closed as it may scratch the LCD screen or soil it.
- The LCD screen may become warm during operation. This is normal and does not indicate a malfunction.
- Due to the mechanical design of your VAIO computer’s LCD screen/touch screen, the screen surface may become warm while you are using the computer for an extended period of time. This is normal and does not indicate a malfunction. (Touch screen equipped models)
- The LCD screen/touch screen is made of reinforced glass to implement high durability, however, treat the screen with care as it is not 100% unbreakable. In case the screen breaks into small pieces, be careful not to cut yourself on the pieces of broken glass. (Touch screen equipped models)
- Do not leave the LCD screen facing the sun. This could damage the LCD screen. Be sure to block direct sunlight when using your VAIO computer near a window.
- Do not exert pressure on the LCD screen or its edges when opening the LCD screen lid or lifting your VAIO computer. The LCD screen may be sensitive to pressure or added stress, and exerting pressure may damage the screen or cause it to malfunction. When opening the computer, hold the base with one hand and gently lift the LCD screen lid with the other. To carry the computer with the lid open, be sure to hold the computer with both hands.
- Using your VAIO computer in low temperature conditions may produce a residual image on the LCD screen. This does not indicate a malfunction. When the computer returns to normal temperature, the screen returns to normal.
- A residual image may appear on the LCD screen if the same image is displayed for an extended period of time. The residual image disappears after a while. You can use a screen saver to prevent residual images.
Adjusting the Speakers Volume

You can change the volume level of the speakers and headphones.

**To adjust the volume using the Fn key**
Press the **F3** key while holding down the **Fn** key to turn down the volume. Press the **F4** key while holding down the **Fn** key to turn up the volume.

**To turn off the volume using the Fn key**
Press the **F2** key while holding down the **Fn** key to turn off the volume of the speakers and headphones. Press the **Fn+F2** keys again to turn on the volume. Alternatively, press the **Fn+F3** or **Fn+F4** keys to turn on the volume.

Related Topic
- Adjusting the Volume in Windows
- Adjusting the Microphone Volume
- Connecting External Speakers/Headphones/Headset
Changing the Sound Output Device

If there is no sound coming from an external device connected to your VAIO computer, you need to change the device for sound output.

1. Open Control Panel and select Hardware and Sound. (See Opening Control Panel to open Control Panel.)
2. Select Sound.
3. Select the Playback tab.
4. Ensure there is a check mark next to the icon of the device you intend to output computer sound from.
   If there is no check mark next to the icon, select it and Set Default.
5. Select OK.

To change the sound rate and bit depth
The sound rate and bit depth of the digital audio output signal should be set according to your digital audio device.
Follow the above steps 1 to 3, and then select the HDMI device or OPTICAL OUT (optical digital audio output) icon and Properties. On the Advanced tab, select the sample rate and bit depth (for example, 16 bit, 48000 Hz (DVD quality)) which the device supports, and then OK.
Adjusting the Volume in Windows

You can adjust the volume on each device and app from Control Panel.

1. Open Control Panel and select Hardware and Sound. (See Opening Control Panel to open Control Panel.)
2. Select Adjust system volume under Sound.
3. Move the slider under Device or Applications up and down to your desired volume level.
   When the volume is turned off (🔇), select 🔊 (Deactivate muting) to turn on the volume (🔊). When the volume is low, turn the volume up with the slider.

Related Topic
- Adjusting the Speakers Volume
- Adjusting the Microphone Volume
- Connecting External Speakers/Headphones/Headset
Connecting a High-Quality Digital Sound Output Device between Your VAIO Computer and a TV

You can connect a high-quality home theater receiver or other surround sound decoder devices between your VAIO computer and a TV using an HDMI connection.

1. Make sure the HDMI connection has been set up between the TV and the home theater receiver or surround sound decoder device.
2. Change the device for sound output to the HDMI output. (See Changing the Sound Output Device for more information.)
3. Turn on the TV and set its input to the HDMI input.
4. Turn on the home theater receiver or surround sound decoder device and set its input to the HDMI input.
5. Plug one end of an HDMI cable to the HDMI input port on the home theater receiver or surround sound decoder device and the other end to the HDMI output port on your VAIO computer.

Hint
- You can adjust the screen resolution of the connected TV with your VAIO computer. See Changing the Resolution (Size) of the Screen Image on an HDMI-Connected Device for more information.
- With the HDMI connection, the volume can be adjusted by the connected audio device only. Your VAIO computer has no control over the output volume of any connected devices.
Adjusting the Microphone Volume

You can adjust the volume level of the microphone.

1. Open Control Panel and select Hardware and Sound. (See Opening Control Panel to open Control Panel.)
2. Select Sound.
3. Select the Recording tab.
4. Double-click the microphone icon.
5. Select the Levels tab in the Microphone Properties window.
6. Move the slider under Microphone right and left to your desired volume level. If the microphone volume is still not loud enough even at the maximum volume level, move the slider under Microphone Boost right and left to adjust the volume level.
7. Select OK.

Related Topic
- Adjusting the Speakers Volume
- Adjusting the Volume in Windows
Connecting an External Drive

Connect an external disc drive or hard disk drive to a USB port on your VAIO computer.

1. Plug the power cord of your external drive into an AC outlet (1).
2. Plug one end of a USB cable (3) (not supplied) into the USB port (2), and the other end to the external drive.

![Diagram showing USB connection](image)

See Connecting a USB Device for information on the USB connection.

**Note**
- Be sure to connect an external drive to a power source with an AC adapter (if supplied).

**Hint**
- You may need to install a driver depending on the external drive you use. In addition, procedures to connect and use an external drive vary depending on the drive you use. Refer to the manual that came with your external drive for more information.
Inserting/Removing a Disc (Optical disc drive equipped models)

Insert/remove a disc to/from your VAIO computer that is turned on.

1. Press the drive eject button. The drive tray slides out.
2. Insert/remove a disc to/from your VAIO computer. When you insert a disc: Hold the bottom of the drive tray with one hand, place a disc in the middle of the drive tray, and gently push it down until the disc clicks into place. If the disc is not properly placed when you close the drive tray, it may become unable to open.

Place the disc with the label side facing upward.
3. Close the drive tray by pushing it in gently.

Note
- Do not exert pressure on the drive tray when placing a disc.
Supported Discs (Optical disc drive equipped models)

This topic explains media types that are playable/recordable on your VAIO computer. The installed optical disc drive varies depending on the model you purchased. Check the specifications before use.

For DVD SuperMulti Drive equipped models
The optical disc drive supports playback and/or recording of the following media.

Playback and recording
- CD-R/RW*1
- DVD-R/RW
- DVD+R/RW
- DVD+R DL (Double Layer)
- DVD-R DL (Dual Layer)
- DVD-RAM*2*3

Playback only
- CD-ROM
- DVD-ROM

For Blu-ray Disc(TM) Drive with DVD SuperMulti equipped models
The optical disc drive supports playback and/or recording of the following media.

Playback and recording
- CD-R/RW*1
- DVD-R/RW
- DVD+R/RW
- DVD+R DL (Double Layer)
- DVD-R DL (Dual Layer)
- DVD-RAM*2*3
- BD-R SL (Single Layer)/DL (Dual Layer), BD-RE SL/DL*4
- BD-R TL (Triple Layer), BD-RE TL*5

Playback only
- CD-ROM
- DVD-ROM
- BD-ROM

For Blu-ray Disc(TM) ROM Drive with DVD SuperMulti equipped models
The optical disc drive supports playback and/or recording of the following media.

Playback and recording
- CD-R/RW*1
- DVD-R/RW
- DVD+R/RW
- DVD+R DL (Double Layer)
- DVD-R DL (Dual Layer)
- DVD-RAM*2*3

**Playback only**
- CD-ROM
- DVD-ROM
- BD-R SL (Single Layer)/DL (Dual Layer), BD-RE SL/DL*4
- BD-ROM

*1 Writing data to Ultra Speed CD-RW media is not supported.
*2 The optical disc drive does not support the DVD-RAM cartridge. Use non-cartridge discs or discs with a removable cartridge.
*3 Writing data to single-sided DVD-RAM media (2.6 GB) compliant with DVD-RAM Version 1.0 is not supported. DVD-RAM Version 2.2/12X-SPEED DVD-RAM Revision 5.0 media are not supported.
*4 BD-RE Disc media in Version 1.0 format and Blu-ray Disc media with a cartridge are not supported.
*5 Available when the optical disc drive supports BDXL(TM) media. Some apps may not support playback and/or recording of BD-R TL/BD-RE TL media, and the preinstalled apps vary depending on the model you purchased. Refer to the help files included with the apps for more information. Other players may not support playback of BD R TL/BD-RE TL media on which you recorded data with your VAIO computer. Make sure your player supports BD R TL/BD-RE TL media.

**Note**
- Your optical disc drive may not support writing or playback of some types of media.
- Your optical disc drive does not support 8 cm disc writing.
- Your optical disc drive supports only circular discs. Do not use discs in any other shape (star, heart, card, etc.) or damaged discs, as it may cause your VAIO computer to malfunction.
- DVD-Video format data can be written to DVD+R (single layer or dual layer), DVD+RW/DVD-R (single layer or dual layer), and DVD-RW media. DVD-Video Recording format data can be written to DVD-R (single layer or dual layer), DVD-RW, and DVD-RAM media. Writable media differ depending on the disc burning app you use. Refer to the help file included with the app for more information.
- You cannot write data to DVD-RW media (6x writing) unless your optical disc drive supports at least 6x writing for DVD-RW media.
- You cannot write data to DVD+RW media (8x writing) unless your optical disc drive supports at least 8x writing for DVD+RW media.
- Your VAIO computer is designed to playback discs that conform to the Compact Disc (CD) standard. DualDiscs and some music discs encoded with copyright protection technologies do not conform to the CD standard. Therefore, these discs may not be compatible with the computer.
- When you buy pre-recorded or blank discs for use with your VAIO computer, be sure to read the notices on the disc package carefully to check both playback and recording compatibility with your computer's optical disc drives. Sony does not guarantee the compatibility of VAIO optical disc drives with discs that are not compliant with the official "CD," "DVD," or "Blu-ray Disc" standard. USING NON-COMPLIANT DISCS CAN CAUSE FATAL DAMAGE TO YOUR VAIO COMPUTER OR CREATE APP CONFLICTS AND CAUSE SYSTEM HANGING. For inquiries about disc formats, contact the individual publisher of the pre-recorded disc or the manufacturer of the recordable disc.
- Your VAIO computer needs to be connected to the Internet to play DVD-RW, DVD-RAM, and DVD-R (single layer or dual layer) media that are compliant with the Content Protection for Recordable Media (CPRM) standard.
- To record, edit, or play copyright protected content, Blu-ray Disc media employs the Advanced Access Content System (AACS) technology. To use Blu-ray Disc media
continually, you need to update the AACS key.

- You can update the AACS key through the Internet. Follow a message displayed on a recording, editing, or playback app you are using. Without updating the AACS key, you may become unable to record, edit, or play copyright protected content. To record, edit, or play content without copyright protection, you do not need to update the AACS key. You can update the AACS key for the Blu-ray Disc recording or playback app installed on your VAIO computer for five years after purchase. After that, we will inform you about the update on the support website.
- Region settings are required for some contents of DVD and BD-ROM Disc media. If the region setting on the optical disc drive does not match the region code on the disc, playback is not possible.
- Unless your external display is compliant with the High-bandwidth Digital Content Protection (HDCP) standard, you cannot play or view the contents of copyright protected Blu-ray Disc media through an HDMI connection.
- Some Blu-ray Disc content may restrict video output to standard definition or prohibit analog video output.

Related Topic

- About Region Codes (Optical disc drive equipped models)
About Region Codes (Optical disc drive equipped models)

The following is a list of DVD region codes indicating playable regions of DVD media.

You can check the region codes of DVD media sold in the following countries or regions.

1. USA, Canada
2. Europe, Middle East, South Africa, Japan
3. Southeast Asia, Taiwan, South Korea, Hong Kong
4. Central America, South America, Mexico, Australia, New Zealand
5. North Africa, Asia, Russia, Ukraine, Belarus, India
6. China
7. Reserved for future use
8. International aircraft, international cruise ship, international conference hall, etc.

Region code indicators are labeled on the discs or packages to indicate in which region and on what type of player you can play the disc. If the region code indicates "all," you can play this disc in most regions of the world. If the region code for your residence area is different from the label, you cannot play the disc on your VAIO computer.
Handling Discs (Optical disc drive equipped models)

Read the following to protect data stored on discs and take proper care of discs.

- Be sure to hold the disc by its edges and central hole without touching the recording surface (playing surface), as shown below. Fingerprints and dust on the surface of a disc may cause a read or write error. Be sure to keep the disc clean.

- Sony assumes no liability for any problems and damages to discs arising out of adhesive labels affixed to discs. Refer to the manual carefully that came with the label app or label paper, and use the labels under your responsibility.

To take proper care of discs

- For normal cleaning, hold the disc by its edges and use a soft cloth to wipe the surface from the center out, as shown below.

- 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. Wipe off any remaining moisture with a dry soft cloth.
- Do not use solvents such as benzine, thinner, commercially available cleaners, or anti-static spray which may cause damage to the disc.
Observe the following notes when using discs on your VAIO computer.

**Notes on playing discs**

- Depending on system environment, you may find sound interruptions and/or dropped frames during DVD/BD/AVCHD playback. In addition, some discs may not be able to play on your VAIO computer.
- When you are playing discs:
  - The CPU load increases. Close all running apps other than the playback app you are currently using to enjoy smoother playback.
  - Do not switch the display output between the computer screen and an external display.

**Notes on playing recorded discs on other players**

- Some CD players may not be able to play audio CDs created with CD-R or CD-RW media.
- Some DVD players may not be able to play DVDs created with DVD+R DL, DVD-R DL, DVD+R, DVD+RW, DVD-R, DVD-RW, or DVD-RAM media.
- Blu-ray Disc recorders that support only BD-RE Ver.1.0 cannot play BD-R or BD-RE media created with your VAIO computer. (Blu-ray Disc Drive with DVD SuperMulti equipped models)

**Tips for successful writing**

- Do not plug or unplug cables, such as the AC adapter or the power cord while the optical disc drive is writing data to a disc.
- The writing process may take longer to complete than theoretically predicted because some apps write and verify data simultaneously.
- Sony assumes no liability for any loss or damage of any kind arising out of writing failure.
Notes on the Built-in Camera (Built-in camera equipped models)

- Do not scratch or soil the area on and around the built-in camera, as it may cause poor-quality images.
- Do not let direct sunlight enter the lens of the built-in camera regardless of your VAIO computer’s power state, as it may cause the camera to malfunction.

Care and cleaning of the built-in camera
If the area on and around the built-in camera is soiled, gently wipe it with a soft cloth, such as a lens cleaning cloth. Do not rub the area too hard, as it can be easily scratched.

Related Topic
- Using the Built-in Camera (Built-in camera equipped models)
About the Network (LAN)

The network (LAN) enables you to connect your VAIO computer to the Internet and transfer data between the computer and other devices. You can connect your VAIO computer to 1000BASE-T/100BASE-TX/10BASE-T type networks with a LAN cable (not supplied). Connect one end of a LAN cable to the LAN port on the computer and the other end to your network. For information on peripheral devices required for LAN access, ask your Internet Service Provider (ISP) or refer to the manual that came with your modem. For information on how to connect your VAIO computer to the network, refer to your ISP’s instructions or the manual that came with the modem and other peripheral devices. If you require information on the network settings at your workplace, ask the network administrator.

Related Topic

- About the Internet Connection Services
- Starting Wi-Fi(R) (Wireless LAN) Communications
About the Internet Connection Services

The following types of Internet connection services are available. You can select from among the services according to your preference, for example, communication speed or a usage fee. For detailed information on a variety of connection services, contact Internet Service Providers (ISPs).

- Fiber to the Home (FTTH)
- Cable modem
- Digital Subscriber Line (DSL)
- Satellite
- Dial-up

Related Topic
- Connecting to the Internet with a Wired Connection
- Starting Wi-Fi(R) (Wireless LAN) Communications
Connecting to the Internet with a Wired Connection

Before using the Internet, you need to sign up with an Internet Service Provider (ISP) and set up devices required for connecting your VAIO computer to the Internet.

Connect one end of a LAN cable (not supplied) to the LAN port on your VAIO computer and the other end to your network.

**Note**
- For detailed information on devices required for Internet access and how to connect your VAIO computer to the Internet, ask your ISP.
- When connecting your VAIO computer to the Internet, be sure to use a cable with "Network" or "Ethernet" writing on it.
- Do not plug a telephone cable into the LAN port on your VAIO computer.
- If the LAN port is connected to the following networks or telephone lines, high electric current to the port may cause damage, overheating, or fire.
  - Any network, except 1000BASE-T/100BASE-TX/10BASE-T type networks
  - Public telephone subscriber line
  - Private branch exchange (PBX)
  - Home (intercom speakerphone) or business-use telephone lines (multi-line business telephone)

**Hint**
- To connect your VAIO computer to the Internet using the Wi-Fi(R) (Wireless LAN) function, you need to set up the Wi-Fi settings. See Starting Wi-Fi(R) (Wireless LAN) Communications for more information.
About the Wi-Fi(R) (Wireless LAN) Standards

Wi-Fi allows your VAIO computer to connect to a network through a wireless connection. Wi-Fi uses the following IEEE 802.11a/b/g/n standard, which specifies the type of technology used. Refer to the specifications to find out about the configuration of the computer.

**IEEE 802.11a (Frequency band: 5 GHz)**
Exclusive to models compliant with the IEEE 802.11a/b/g/n standard.

**IEEE 802.11b/g (Frequency band: 2.4 GHz)**
The IEEE 802.11g standard provides higher-speed communications than the IEEE 802.11b.

**IEEE 802.11n (Frequency band: 2.4 GHz/5 GHz)**
For models compliant with the IEEE 802.11b/g/n standard, only 2.4 GHz band can be used.

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**Related Topic**
- Starting Wi-Fi(R) (Wireless LAN) Communications
- Stopping Wi-Fi(R) (Wireless LAN) Communications
- Notes on Using the Wi-Fi(R) (Wireless LAN) Function

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Stopping Wi-Fi(R) (Wireless LAN) Communications

You can stop Wi-Fi communications by following these steps.

1. Open the charms and select the Settings charm. (See Opening the Charms to open the charms.)
2. Select (the network icon).
3. Select the desired access point and Disconnect.

**Note**
- Do not disable the Wi-Fi function while accessing remote documents, files, or resources, as it may result in data loss.
Disabling the Wi-Fi(R) (Wireless LAN) Function

You can disable the Wi-Fi function by following these steps.

1. Open the charms and select the Settings charm. (See Opening the Charms to open the charms.)
2. Select Change PC settings in the lower right corner.
3. Select Wireless in the left pane of the PC settings screen.
4. Change the Wi-Fi setting under Wireless devices to Off.

Hint
- To enable the Wi-Fi function, turn off Airplane mode and change the Wi-Fi setting under Wireless devices to On.
- To disable all wireless functions, turn on Airplane mode.
- The wireless function(s) whose setting is on will be enabled when you turn off Airplane mode.
- Refer to Windows Help and Support (Opening Windows Help and Support) for more information on Airplane mode.
Before using the Wi-Fi function, read the following precautions for correct use.

- In some countries or regions, using the Wi-Fi products may be restricted by the local regulations.
- Wi-Fi devices work on the 2.4 GHz band, which is used by a variety of devices. They use the technology to minimize radio interference from other devices that use the same band; however, radio interference may still slow communication speeds, reduce communication range, or cause communication failure.
- If both the BLUETOOTH function and the 2.4 GHz Wi-Fi function of your VAIO computer are enabled, interference may occur and cause slower communication speeds or other problems.
- To communicate via Wi-Fi while you are on the road, you may need to contract with a Wi-Fi connection service provider.
- If your VAIO computer is equipped with the IEEE 802.11a/b/g/n standard, outdoor use of the 5 GHz Wi-Fi function is prohibited by law.
- The communication speed and range may vary depending on the following conditions:
  - Distance between devices
  - Existence of obstacles between devices
  - Device configuration
  - Radio conditions
  - Ambient environment (including wall material, etc.)
  - Apps in use
  Communications may be cut off depending on radio conditions.
- The data transfer rate specified in the specification is the theoretical maximum, and may not reflect actual data transfer rate.
- Actual communication speed may not be as fast as the one displayed on your VAIO computer.
- The 2.4 GHz and 5 GHz Wi-Fi frequency bands are not communicable with one another.
- The data transfer rate of IEEE 802.11g and IEEE 802.11n (2.4 GHz) may be affected by interference when used with an IEEE 802.11b product. Also, IEEE 802.11g and IEEE 802.11n automatically lower the transfer rate to maintain compatibility with an IEEE 802.11b product. The transfer rate may be regained by changing the channel settings of your access point.
- To stop the Wi-Fi function abruptly, turn off your VAIO computer.
- The WLAN standard includes the encryption methods: Wired Equivalent Privacy (WEP), which is a security protocol, Wi-Fi Protected Access 2 (WPA2), and Wi-Fi Protected Access (WPA). Proposed jointly by the IEEE and Wi-Fi Alliance, both WPA2 and WPA are specifications of standards based on interoperable security enhancements that increase the level of data protection and access control for existing Wi-Fi networks. WPA is designed to be forward compatible with the IEEE 802.11i specification. It utilizes the enhanced data encryption Temporal Key Integrity Protocol (TKIP) in addition to user authentication using 802.1X and Extensible Authentication Protocol (EAP). Data encryption protects the vulnerable wireless link between clients and access points. Besides that, there are other typical LAN security mechanisms to ensure privacy, such as: password protection, end-to-end encryption, virtual private networks, and
authentication. WPA2, the second generation of WPA, provides stronger data protection and network access control and is also designed to secure all versions of 802.11 devices, including 802.11b, 802.11a, 802.11g, and 802.11n standards, multi-band and multi-mode. In addition, based on the ratified IEEE 802.11i standard, WPA2 provides government grade security by implementing the National Institute of Standards and Technology (NIST) FIPS 140-2 compliant AES encryption algorithm and 802.1X-based authentication. WPA2 is backward compatible with WPA.

Related Topic

- About the Wi-Fi(R) (Wireless LAN) Standards
- Starting Wi-Fi(R) (Wireless LAN) Communications
- Stopping Wi-Fi(R) (Wireless LAN) Communications
- Notes on Using the BLUETOOTH(R) Function
About the BLUETOOTH(R) Function

You can establish wireless communications between your VAIO computer and other BLUETOOTH devices, such as another computer, a smartphone, a mobile phone, a headset, or a mouse.

You can transfer data between these devices without cables at a range of up to 33 feet / 10 meters in an open area.

One BLUETOOTH device can connect with up to seven devices via wireless network to exchange data.

When a device requires connection to another device, it sends out an inquiry to neighboring BLUETOOTH devices. If any device responds to the inquiry, the two devices can connect with each other.

Related Topic

- Communicating with Another BLUETOOTH(R) Device such as a Mouse
- Stopping BLUETOOTH(R) Communications
- Notes on Using the BLUETOOTH(R) Function
- About BLUETOOTH(R) Security
You can connect BLUETOOTH devices to your VAIO computer.
For details on BLUETOOTH communication, see About the BLUETOOTH(R) Function.

1. Open the charms and select the Settings charm. (See Opening the Charms to open the charms.)
2. Select Change PC settings in the lower right corner.
3. Select Wireless in the left pane of the PC settings screen.
4. Change Airplane mode to Off and the Bluetooth settings to On.
5. Select Devices in the left pane of the PC settings screen.
6. When connecting a BLUETOOTH mouse, turn it on and press the button to connect the mouse.
   Refer to the manual that came with your BLUETOOTH device for the procedure to ready the device for connection.
7. Select Add a device.
   Your VAIO computer searches for devices and displays a device list.
   Follow the on-screen instructions to register your device.

Note
- Depending on the BLUETOOTH device, it may take some time for your VAIO computer to find the device.
  If your device does not appear in the list, repeat the procedure to ready the device for connection.
- Depending on the BLUETOOTH device, the procedure to establish connection may vary. Refer to the manual that came with the device for the procedure.

Hint
- If your VAIO computer is compliant with BLUETOOTH high speed technology and you intend to use it for high-speed communications, change the Wi-Fi setting under Wireless devices to On in step 4.
- A window appears for passcode input if a BLUETOOTH device is requesting authentication to establish connection. Follow the on-screen instructions to share the passcode between the BLUETOOTH device and your VAIO computer. If you do not wish to connect, select the Cancel button in the window.
  A passcode is a secret number that is entered by a user to use for the authentication process to allow two BLUETOOTH devices to communicate with each other. Enter the same alphanumeric string (case-sensitive) for both devices to allow them to communicate with each other. You can change the passcode every time you perform authentication, providing you enter the same passcode for both devices during the authentication process. For details on the passcode of a BLUETOOTH device, refer to the manual that came with the device. If no BLUETOOTH passcode is entered for a certain time, the connection process will be terminated for security. In this case, try again.
- For details on the operations, open Windows Help and Support (Opening Windows Help and Support), and enter “BLUETOOTH” in the search box.
Stopping BLUETOOTH(R) Communications

You can stop BLUETOOTH communications by following these steps.

1. Open the charms and select the Settings charm. (See Opening the Charms to open the charms.)
2. Select Change PC settings in the lower right corner.
3. Select Wireless in the left pane of the PC settings screen.
4. Change the Bluetooth setting under Wireless devices to Off.

Related Topic

- About the BLUETOOTH(R) Function
- Communicating with Another BLUETOOTH(R) Device such as a Mouse
- Notes on Using the BLUETOOTH(R) Function
About BLUETOOTH(R) Security

The BLUETOOTH wireless technology has an authentication function, which allows you to control communication with other devices. The authentication function helps you prevent unwanted anonymous BLUETOOTH devices from accessing your VAIO computer. The first time two BLUETOOTH devices communicate, a common passcode (a password required for authentication) should be identified to register both devices. Once a device is registered, there is no need to re-enter the passcode.

For details, open Windows Help and Support (Opening Windows Help and Support), and enter "BLUETOOTH" in the search box.

Related Topic

- About the BLUETOOTH(R) Function
- Communicating with Another BLUETOOTH(R) Device such as a Mouse
- Stopping BLUETOOTH(R) Communications
- Notes on Using the BLUETOOTH(R) Function
Before using the BLUETOOTH function, read the following precautions for correct use.

- In some countries or regions, using the BLUETOOTH function may be restricted by the local regulations.
- The BLUETOOTH function may not work with some devices, depending on the manufacturer or the app version employed by the manufacturer. Check the system requirements of the BLUETOOTH device before purchasing. For information on BLUETOOTH devices, visit the VAIO Support website. Some BLUETOOTH devices require authentication (pairing) before establishing connection with another device. Perform the authentication process before connecting to such devices.
- BLUETOOTH devices work on the 2.4 GHz band, which is used by a variety of devices. BLUETOOTH devices use the technology to minimize radio interference from other devices that use the same band; however, radio interference may still cause slower communication speeds, reduce communication range, or in some cases, cause communication failure.
- Communication speed and range may vary depending on the following conditions:
  - Distance between communication devices
  - Existence of obstacles between devices
  - Ambient environment that includes existence of walls and materials of such walls
  - Device configuration
  - Apps in use
  - Radio conditions
    Communications may be cut off depending on radio conditions.
- If your VAIO computer is compliant with BLUETOOTH high speed technology and you intend to use it for high-speed communications, enable both the wireless LAN and BLUETOOTH functions on the computer.
- Large files may occasionally be corrupted during continuous transfer due to limitations of the BLUETOOTH standard and electromagnetic interference in the environment.
- Connecting multiple BLUETOOTH devices to your VAIO computer may cause channel congestion, resulting in poor device performance. This is normal with BLUETOOTH technology and does not indicate a malfunction.
- Video and audio may not be synchronized if you play videos on your VAIO computer with audio output from a connected BLUETOOTH device. This is a frequent occurrence with BLUETOOTH technology and does not indicate a malfunction.
- All BLUETOOTH devices must be certified through the procedure stipulated by Bluetooth SIG to ensure that they are compliant with the BLUETOOTH standard. Even if the BLUETOOTH devices are compliant with the BLUETOOTH standard, individual device performance, specifications, and operation procedures may vary. Data exchange may not be possible in all situations.
- Not all BLUETOOTH devices are guaranteed of compatibility with your VAIO computer.
- If you urgently need to disable the BLUETOOTH function, turn off your VAIO.
computer.

Related Topic

- About the BLUETOOTH(R) Function
- Communicating with Another BLUETOOTH(R) Device such as a Mouse
- Stopping BLUETOOTH(R) Communications
- About BLUETOOTH(R) Security
- Notes on Using the Wi-Fi(R) (Wireless LAN) Function

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Combinations and Functions with the Fn Key

Press and hold down the **Fn** key and another key simultaneously to perform a keyboard shortcut action.

For example, to turn off the sound: **Fn** + **F2**  ➔  Press and hold down the **Fn** key, then press the **F2** key.

Some keyboard functions can only be used while Windows is running.

**Fn + F1**

Disables and enables the touch pad. See Enabling/Disabling the Touch Pad for more information.

**Fn + F2**

Turns on and off the built-in speakers or the headphones.

**Fn + F3/F4**

Press the button repeatedly to adjust the volume level of the built-in speakers and the headphones. See Adjusting the Speakers Volume for more information.

To decrease the volume, press the **Fn+F3** keys.

To increase the volume, press the **Fn+F4** keys.

**Fn + F5/F6**

Press the button repeatedly to adjust the LCD brightness of your computer screen. See Changing the LCD Brightness for more information.

To decrease lighting intensity, press the **Fn+F5** keys.

To increase lighting intensity, press the **Fn+F6** keys.

**Fn + F7**

Switches the display output to an external display.

Press the **Fn+F7** keys several times to select the desired display output destination, and then press the **Enter** key to confirm. See Selecting Display Modes for more information.

**Fn + Num Lk (Num Lock)**

Enables the keys on which numbers are printed as a numeric keypad to enter the numbers. (Non numeric keypad equipped models)

**Fn + Scr Lk (Scroll Lock)**

Works differently depending on the apps you use. Refer to the help file included with the app for more information.

**Fn + Pg Up (Page Up)**

Goes to the previous page. (Non numeric keypad equipped models)

**Fn + End (End)**

Moves the cursor to the end of a line or page. (Non numeric keypad equipped models)

**Fn + Pg Dn (Page Down)**

Goes to the next page. (Non numeric keypad equipped models)

**Fn + Home (Home)**

Moves the cursor to the top of a line or page. (Non numeric keypad equipped models)
• For information on shortcut keys combined with the Windows key, etc., refer to Windows Help and Support (Opening Windows Help and Support).
Changing the LCD Brightness

You can adjust the LCD brightness.

1. Press the $\text{Fn} + \text{F5}$ keys or $\text{Fn} + \text{F6}$ keys. To decrease lighting intensity, keep pressing the $\text{Fn} + \text{F5}$ keys. To increase lighting intensity, keep pressing the $\text{Fn} + \text{F6}$ keys.

**Hint**
- The LCD brightness setting is retained even after your VAIO computer is turned off and restarted.

Related Topic
- [Combinations and Functions with the Fn Key](#)
Customizing Your VAIO Computer

**VAIO Control Center** allows you to access system information and to change settings of various kinds of functions such as display and sounds.

1. Start **VAIO Control Center**. (See Searching/Starting Apps, Settings, or Files to start **VAIO Control Center**.)
2. Select your desired item and change the settings.

**Hint**
- Some of the items will not be visible if you sign in as a user without administrative rights.
Changing the Resolution (Size) of the Screen Image on an HDMI-Connected Device

You can change the screen resolution or size of your VAIO computer’s screen image displayed on an external display, such as a TV, connected to the computer with an HDMI cable (not supplied).

1. Connect your VAIO computer to an HDMI equipped TV with an HDMI cable. (See Connecting a TV with an HDMI Input Port for more information.)
2. Turn on the TV.
3. Start VAIO Control Center and select Image Quality. (See Searching/Starting Apps, Settings, or Files to start VAIO Control Center.)
4. Select Details in External Display Resolution.
5. On the Select Resolution tab, select the desired resolution. After a few seconds, the selected resolution is applied.
6. If the computer image does not fit the displayable region of the TV, select the Adjust Resolution tab to adjust the display size.

Note
- Some resolution options may not be available, depending on the model or the HDMI-connected device.
- The function to adjust the screen resolution may be disabled depending on the selected resolution.
Viewing the System Information

You can view the system information of your VAIO computer.

1. Start VAIO Care (Desktop). (See Searching/Starting Apps, Settings, or Files to start VAIO Care (Desktop).)
2. Select About Your VAIO and System information. The system information of your VAIO computer is displayed.

Related Topic

- Keeping Your VAIO Computer in Optimum Condition (VAIO Care)
Checking the Battery Charge Capacity

The battery pack is consumable. The capacity gradually declines through repeated cycles of recharging and discharging. As a result, the battery life becomes short even if it is fully charged and eventually the battery pack reaches the end of its life.

If the battery life has become short, replace the battery pack with a new one specified by Sony. Refer to the help file for more information on battery charge status and capacity decrease.

1. Start **VAIO Control Center** and select **Power and Battery** (See Searching/Starting Apps, Settings, or Files to start **VAIO Control Center**.)

2. Select **Details** in **Battery**.
   - Detailed battery pack information, such as charging capacity, is displayed.

**Hint**
- Enable the battery care function to maximize the battery lifespan. With this function, you can reduce battery degradation by limiting the maximum charging capacity. When the function is enabled, the battery pack is not fully charged.
Changing the Keyboard Backlight Settings (Keyboard backlight equipped models)

You can turn on and off the keyboard backlight by changing the keyboard backlight settings.

1. Start **VAIO Control Center** and select **Mouse and Keyboard**. (See **Searching/Starting Apps, Settings, or Files** to start **VAIO Control Center**.)

2. Change the keyboard backlight settings in **Keyboard Backlight**. The settings window appears. Follow the on-screen instructions to change the settings.

**Hint**
- You can set the keyboard backlight to automatically turn on and off according to ambient light intensity. If you enable this function, you can also set a time period to turn off the keyboard backlight after inactivity of keyboard operations.
- Ambient light intensity is measured by the ambient light sensor. Blocking the ambient light sensor may turn on the keyboard backlight.
Charging a USB Device

You can charge a USB device even while your VAIO computer is off, in Hibernate mode, or Sleep mode by enabling the USB charging settings. Change the settings while the USB device is disconnected from the USB port that supports USB charging.

1. Start VAIO Control Center and select Hardware. (See Searching/Starting Apps, Settings, or Files to start VAIO Control Center.)
2. Enable the USB Charging setting.
3. Connect a USB device to the USB port with the mark printed around it.
   If charging does not start even when you connect a USB device to the USB port that supports USB charging, disconnect and connect the device.

**Note**
- With the USB charging settings enabled, power consumption when your VAIO computer is off or in Hibernate mode or Sleep mode increases because the computer supplies power to the USB port even when a USB device is not connected to the port.
- When the USB charging settings are enabled, you cannot use the remote wake-up function on the USB device connected to the USB port that supports USB charging.

**Hint**
- The USB charging settings are disabled by default.
User Guide

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Entering Characters with Touch Screen Operations (Touch screen equipped models)

You can operate the on-screen Touch Keyboard with touch screen operations for text entry.

1. Open the desktop and select (the Touch Keyboard icon) in the desktop notification area. (See Opening the Desktop to open the desktop.)

Hint
- The on-screen Touch Keyboard appears automatically when you touch a text field.
Changing the Rapid Wake (Sleep Mode) Settings

You can change the Rapid Wake settings in VAIO Control Center. Rapid Wake is enabled by default. With this function, your VAIO enters Sleep mode after your working data is saved on the built-in storage device.

1. Start VAIO Control Center and select Hardware. (See Searching/Starting Apps, Settings, or Files to start VAIO Control Center.)

2. Enable/disable the setting in Rapid Wake.

**Note**
- With Rapid Wake disabled:
  - Your working data is not saved on the built-in storage device when your VAIO computer enters Sleep mode. Therefore, if the computer is turned off during Sleep mode because, for example, the battery pack runs out of power or the computer is disconnected from an AC power source, the working data will be lost. To avoid data loss, be sure to save the data before the computer enters Sleep mode.
  - If your VAIO computer is equipped with the power indicator, it blinks slowly in orange during Sleep mode. When the battery pack runs out of power during Sleep mode, the charge indicator light blinks. If the computer is equipped with the power indicator, it blinks along with the charge indicator.
Connecting a USB Device

You can connect a Universal Serial Bus (USB) device such as a mouse, floppy disk drive, speaker or printer to your VAIO computer. Installation of the device driver supplied with the USB device may be required when connecting. Refer to the manual that came with the device for more information.

1. Choose the USB port (1) you prefer to use.
2. Plug the USB device cable (2) (not supplied) into the USB port.

Note
- You may need to install the driver supplied with your USB device before use. Refer to the manual that came with the device for more information.
- In order to print documents, be sure the USB printer is compatible with your version of Windows.
- Before disconnecting USB speakers from your VAIO computer, stop DVD or music playback or turn off the computer. If you disconnect the USB speakers during playback, it may cause a malfunction. For information on how to remove a USB device, refer to the manual that came with the device.
- To protect your VAIO computer and/or USB devices from damage, observe the following:
  - When moving your VAIO computer with USB devices connected, avoid exposing the USB ports to shock or impact.
  - Do not put your VAIO computer in a bag or carrying case with USB devices connected.

Hint
- The USB ports on your VAIO computer are compliant with the USB 2.0 standard and/or USB 3.0 standard. USB ports that are compliant with the USB 3.0 standard are identifiable by their blue color.
- In addition to the USB 2.0 standard transfer modes, the USB 3.0 standard specifies the following transfer mode:
  - SuperSpeed: Transfer rate of 5 Gbps.

Related Topic
- Connecting an External Drive
- Charging a USB Device
Using the Built-in Camera (Built-in camera equipped models)

You can make a video call through the Internet using the built-in camera and communication apps. The built-in camera indicator light is on while the built-in camera is in use.

![Diagram of VAIO Fit 14/15 SVF14A1/SVF15A1 with labels 1, 2, and 3 indicating built-in camera, camera indicator, and microphone, respectively.]

1. Built-in camera*
2. Built-in camera indicator
3. Built-in microphone (monaural)

* The shape of the built-in camera depends on the model.

**Hint**

- The apps installed on your VAIO computer vary depending on the computer’s configurations.
- Some apps may not support the maximum resolution of the built-in camera.
Inserting SD Memory Cards

Your VAIO computer is equipped with an SD memory card slot. You can use this slot to transfer data among digital cameras, camcorders, music players, and other audio/video devices.

The SD memory card slot on the computer can accommodate the following memory cards:

- SD memory card
- SDHC memory card
- SDXC memory card

To insert an SD memory card, follow these steps.

1. Locate the SD memory card slot.
2. Hold the SD memory card with the arrow pointing toward the slot, and carefully slide it into the slot until it clicks into place.

The SD memory card icon will appear in the Computer window after you insert the card into the slot.

Note

- Be careful not to insert an SD memory card in the wrong orientation. If you force it into the slot upside down, the slot may be damaged. Refer to the manual that came with the SD memory card for more information.
- The SD memory card icon will not appear in the Computer window until you insert the card into the slot.

Hint

- To open the Computer window, see Searching/Starting Apps, Settings, or Files.
- When you insert the SD memory card into the slot for the first time, you may be prompted to install a driver. If prompted, follow the on-screen instructions to install the driver.
Before using SD memory cards, read the following precautions for correct use.

- Keep an SD memory card out of reach of children. There is a risk of swallowing it.
- Do not touch the SD memory card connector with your finger or metal objects.
- An SD memory card contains delicate electronic components. Do not impact, bend or drop it.
- Do not disassemble or modify an SD memory card.
- Do not wet an SD memory card.
- Do not use or store in a location subject to:
  - Extremely high temperature, such as in a car parked in the sun
  - Direct sunlight
  - High humidity or corrosive substances
  - Excessive dust
- Be sure to use SD memory cards and adaptors that are compliant with the standards supported by your VAIO computer. Incompatible cards and adaptors may get stuck in the slot, causing damage to the computer.
- You cannot write data to an SD memory card that is write-protected.
- It is recommended that you make a backup copy of important data.
- Stored data may be lost or corrupted if:
  - You remove an SD memory card or turn off your VAIO computer while data is being read from or written to the SD memory card.
  - You use an SD memory card at a place where static electricity or electrical noise may disturb the card.
- When carrying an SD memory card, be sure to put it in its case to avoid static electricity.
- Before using an SD memory card with a device other than a computer, such as a digital camera or a portable audio, format (initialize) the SD memory card using the device. Some devices may not support the file format for computers and show you a message that recommends you to format the SD memory card. In this case, copy data from the card to your VAIO computer and format the card using the device. All data in the SD memory card will be deleted when you format it. Refer to the manual that came with the device for more information.
- Do not insert foreign objects into the SD memory card slot.
- The SD memory card slot can be used for reading/writing supported memory cards only, and cannot be used for other purposes.
- SD memory cards (up to 2 GB), SDHC memory cards (up to 32 GB) and SDXC memory cards (up to 128 GB) available as of January 2013 have been tested and found compatible with your VAIO computer. However, it is not guaranteed that all SD memory cards, SDHC memory cards or SDXC memory cards will be compatible with the computer.
- The SD memory card slot on your VAIO computer does not support the copyright protection feature of the SD memory card, the SDHC memory card, and the SDXC memory card.
- Do not attempt to insert a memory card or memory card adaptor of a different
type into the memory card slot. An incompatible memory card or memory card adaptor may get stuck in the slot, causing damage to your VAIO computer.

- Some types of SD memory cards, for example ones with the UHS (Ultra High Speed data transfer feature), may become extremely hot due to continuous access to the memory cards. In such a case, wait for a while before removing the memory card until it cools down.

Related Topic

- Inserting SD Memory Cards
- Removing SD Memory Cards
Creating/Changing/Removing Your Windows Password

Setting a Windows password allows you to protect your VAIO computer from unauthorized access by requiring password entry when the computer is turned on or returns from power saving mode to Normal mode.

Refer to Windows Help and Support (Opening Windows Help and Support) for more information on the Windows password.

1. Open the charms and select the Settings charm. (See Opening the Charms to open the charms.)
2. Select Change PC settings in the lower right corner.
3. Select Users in the left pane of the PC settings screen.
4. Select Create a password or Change your password.
5. Follow the on-screen instructions to enter your password.

**Note**
- Do not forget your password. Write down the password and keep it in a secure place.

**Hint**
- You can enter a hint in order to recall your password if you forget it. You can also create a password reset disc that can be used to create a new password. Refer to Windows Help and Support (Opening Windows Help and Support) for more information on the Windows password.
Using the Antivirus App for Your VAIO Computer

Protect your VAIO computer against computer viruses by using the antivirus app. You can keep the antivirus app current with the latest updates by downloading and installing the updates from the website of the app publisher. To update the antivirus app, find the antivirus app installed on your VAIO computer from the following and follow these steps.

1. Make sure your VAIO computer is connected to the Internet.
2. Perform any of these operations according to the preinstalled antivirus app.
   - For Trend Micro: Start **Trend Micro Titanium Maximum Security**.
   - For McAfee: Start **McAfee Internet Security** or **McAfee Total Protection**.
   - For Kaspersky Internet Security: Start **Kaspersky Internet Security**.
3. Follow the on-screen instructions.

**Note**
- The actual procedure may be different from the above depending on the version of the app installed on your VAIO computer. In such a case, follow the on-screen instructions.

**Hint**
- To start the antivirus app, see **Searching/Starting Apps, Settings, or Files**.
- Refer to the help file included with your app for more information.
Booting Your VAIO Computer from External Devices

You can boot your VAIO computer from external devices, such as an optical disc drive, a USB floppy disk drive, or a USB flash drive by using the BIOS function.

1. Connect an external device to your VAIO computer.
2. Press the ASSIST button while your VAIO computer is off.
   The VAIO Care (Rescue Mode) screen appears.
3. Select Start from media (USB device/optical disc).
   The booting process from the external device starts.

**Note**
- Disconnect all devices from your VAIO computer except for the external device from which you intend to boot up. Some devices cannot be used to boot the computer, or cannot be used with the computer.
- If an AC adapter is supplied with the external device, be sure to connect it to an AC power source in advance.
Setting/Changing the Power-on Password

You can set a password (power-on password) for booting up your VAIO computer, using the BIOS function. Entry of the power-on password will be prompted after the VAIO logo appears to start the computer.

There are two types of passwords. Set the machine password first.

- **Machine password (for administrators):** Allows users with administrative rights to change all the setup options in the BIOS setup screen, as well as to start your VAIO computer.
- **User password (for users without administrative rights):** Allows standard users to change some of the BIOS setup options, as well as to start your VAIO computer. To set the user password, you must first set the machine password.

1. Press the **ASSIST** button while your VAIO computer is off.
   
   The **VAIO Care (Rescue Mode)** screen appears.

2. Select **Start BIOS setup**.
   
   Enter a password if it has already been set.
   
   The BIOS setup screen appears.

3. Press the **←** or **→** key to select the **Security** tab, select **Set Machine Password** or **Set User Password**, and then press the **Enter** key.
   
   The password entry screen appears.

4. Enter the password and press the **Enter** key.
   
   To change the password, enter the current password and a new password. The password can be set up to 32 alphanumeric characters long (including spaces) and it is case-sensitive.

5. Press the **↑** or **↓** key to select **Password when Power On**, press the **Enter** key, and select **Enabled**.

6. Press the **←** or **→** key to select the **Exit** tab, select **Exit Setup**, and then press the **Enter** key.

7. At the confirmation prompt, press the **Enter** key.

**Note**

- Be sure to write down the password to avoid forgetting it.
- If you forget the password, you cannot boot up your VAIO computer.
- You can reset the user password at the BIOS setup screen by entering the machine password.
- If you forget the machine password, the password must be reset by authorized Sony service/support center. (The reset fee will be charged.)
Creating Other Drives (Modifying Partitions)

Partitions are divided areas on your built-in storage device. Dividing the built-in storage device into more than one partition may have various advantages, such as separating the system files from your data files.

Your VAIO computer has only one partition (C: drive) as the factory default setting.

If you want to store data in another partition, such as D: drive, change the partition size and create a new partition.

For more information on how to create partitions, see Creating Partitions.

**Hint**
- Some models may have D: drive as the factory default setting.

Related Topic

- Creating Partitions
- Removing Recovery Content to Free up Disk Space
Creating Partitions

This topic describes how to create partitions.

**Note**
- If you reduce the volume of the C: drive partition, you may not create Recovery Media or complete the recovery process successfully because the free space on the built-in storage device is not sufficient.

1. Open **Control Panel**, select **System and Security**, and select **Create and format hard disk partitions** under **Administrative Tools**. (See **Opening Control Panel to open Control Panel**)
   - If the **User Account Control** window appears, select **Yes**.
2. Right-click the C: drive and select **Shrink Volume**.
3. Enter the size of the partition to be created in **Enter the amount of space to shrink in MB** and select **Shrink**.
4. Right-click **Unallocated** and select **New Simple Volume**.
5. Follow the on-screen instructions.

**Hint**
- If you are signed in to your VAIO computer as a standard user, you may be prompted to enter an administrator name and password.

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### Related Topic

- [Creating Other Drives (Modifying Partitions)]
- [Removing Recovery Content to Free up Disk Space]
Removing Recovery Content to Free up Disk Space

Your built-in storage device contains the recovery area where the data for system recovery is stored. If your VAIO computer includes a solid state drive (SSD), you might want to minimize the recovery area by removing such data to free up disk space on the C: drive (or the last drive in your drive list, for example D: drive). You need Recovery Media to remove the data for system recovery or to recover the computer after you remove the data. Note that removing recovery content makes it impossible to use the refresh function.

1. Create Recovery Media if you have not yet created it. See Creating Recovery Media for more information on how to create Recovery Media.
2. Insert the Recovery Media into the optical disc drive or connect a USB flash drive (not supplied) to the USB port on your VAIO computer while the computer is in Normal mode.
3. Turn off your VAIO computer.
4. Press the ASSIST button to display the VAIO Care (Rescue Mode) screen and select Start from media (USB device/optical disc). Follow the on-screen instructions until the Choose an option screen appears.
5. Select Troubleshoot and VAIO recovery solutions. Follow the on-screen instructions until the VAIO Care (Rescue Mode): VAIO recovery solutions screen appears.
6. Select Tools and Remove recovery partition.
7. Follow the on-screen instructions.

Related Topic

- Creating Other Drives (Modifying Partitions)
- Creating Partitions
About Backup

The backup process creates a backup copy of your data stored on the built-in storage device and saves it to another location. Due to unexpected events or computer viruses, you might lose various data stored on your built-in storage device. To restore the lost data, its backup copy is needed. It is strongly recommended that you back up your data regularly. If you can start Windows, back up and restore your data with the Windows feature. To use the feature, open Control Panel and select System and Security and File History.

Related Topic

- About Types of Backup
- Backing Up Your Data when You cannot Start Windows
- Restoring Your Data with VAIO Data Restore Tool
- Creating a Restore Point
- Restoring System Files Using the Restore Point when You cannot Start Windows
About Types of Backup

You can use the Windows Backup and Restore feature to back up your valuable data. There are several types of backup to meet your needs, as described below.

**Backing up files**
You can select and back up folders and files stored on your VAIO computer to an external hard disk drive. For details on how to back up data, refer to Windows Help and Support (Opening Windows Help and Support).

**Backing up system images**
You can create a backup copy of the whole system of your VAIO computer. If the built-in storage device or the computer ever stops working, you can use the system image to restore the computer as it was when backed up. To create a system image, you need an optional hard disk drive formatted in NTFS format. You can also back up a system image to optical discs such as Blu-ray Disc or DVD disc. For details on how to create a system image, refer to Windows Help and Support (Opening Windows Help and Support).

**Note**
- We will not restore or compensate for any lost or damaged data under any circumstances including failure of your VAIO computer.
- Create Recovery Media soon after purchasing your VAIO computer. In the event that you cannot make a backup copy of your data with the Windows feature due to computer malfunctions, you can use the backup tool included in the Recovery Media to back up your data. For information on how to create the Recovery Media, see Creating Recovery Media.

**Hint**
- If your VAIO computer is equipped with no disc drive, you need to connect an external device, such as an external hard disk drive or DVD drive, to the computer before backup, or you need to resize the partition of your C: drive and create another partition before backup. See Creating Partitions for more information.

Related Topic
- About Backup
- Backing Up Your Data when You cannot Start Windows
- Restoring Your Data with VAIO Data Restore Tool
- Restoring System Files Using the Restore Point when You cannot Start Windows
Creating a Restore Point

A restore point enables you to restore your computer system files to a previous state, depending on when the restore point was created. Typically, restore points are created automatically, for example when you install a driver. However, we recommend that you create a new restore point manually before installing any apps or drivers on your VAIO computer.

Refer to Windows Help and Support (Opening Windows Help and Support) for information on creating a restore point.

Related Topic

- Restoring Your Data with VAIO Data Restore Tool
- Restoring System Files Using the Restore Point when You cannot Start Windows
If you cannot start Windows, back up your data with **VAIO Care (Rescue Mode): VAIO recovery solutions**.

1. Press the **ASSIST** button while your VAIO computer is off. The **VAIO Care (Rescue Mode)** screen appears.
2. Select **Start troubleshooting (recovery)**. Follow the on-screen instructions until the **Choose an option** screen appears.
3. Select **Troubleshoot** and **VAIO recovery solutions**. Follow the on-screen instructions until the **VAIO Care (Rescue Mode): VAIO recovery solutions** screen appears.
4. Select **Tools** and **Rescue Data**.
5. Follow the on-screen instructions.

**Hint**
- If the display language selection window appears in step 3, select your desired language, then **OK**.
- Alternatively, you can start **VAIO Care (Rescue Mode): VAIO recovery solutions** with Recovery Media. See **Recovering from Recovery Media** for more information.
- It is recommended that you select an external hard disk drive as a location to save rescued files if you select **Custom rescue**.

**Notes on using VAIO Care (Rescue Mode): VAIO recovery solutions**

- Handle rescued files with care to protect from unauthorized access.
- Disable the Windows hard disk drive encryption feature before using **VAIO Care (Rescue Mode): VAIO recovery solutions** to back up and restore your data. However, rescued files which are not encrypted on the built-in storage device can be easily accessed by unauthorized users using Recovery Media and this app. Therefore, after using the app, be sure to set the power-on or hard disk password, enable the Windows hard disk drive encryption feature, and keep the Recovery Media in a secure place to protect rescued files from unauthorized access.
- To restore copyright protected data, such as music files organized by digital media playback apps, use a backup tool specified by the app you used to import such data. Sony does not guarantee the playback compatibility of data which is not restored with the specified backup tool.
- **VAIO Care (Rescue Mode): VAIO recovery solutions** does not support backup of a file whose name including the path is over 260 characters.
- Using **VAIO Care (Rescue Mode): VAIO recovery solutions** does not guarantee backup of all the data on your built-in storage device. Sony assumes no liabilities for any loss of your data arising out of the backup process.
- Use the power cord or the AC adapter to power your VAIO computer while using **VAIO Care (Rescue Mode): VAIO recovery solutions**.
- Your VAIO computer automatically restarts 72 hours after **VAIO Care (Rescue Mode): VAIO recovery solutions** starts. If 72 hours have passed during the
backup process, the process will be stopped and the computer will restart. There is no way to resume the process.

- Rescued files may be divided into two or more files and saved in a specified location or renamed, depending on the location you select. Use **VAIO Data Restore Tool** to restore the rescued files. See **Restoring Your Data with VAIO Data Restore Tool** for more information.

- If an external hard disk drive or optical disc drive does not support the USB connection, you need to install a driver.

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**Related Topic**

- About Backup
- About Types of Backup
- Restoring Your Data with VAIO Data Restore Tool
- Creating a Restore Point
- Restoring System Files Using the Restore Point when You cannot Start Windows
Restoring System Files Using the Restore Point when You cannot Start Windows

When you cannot start Windows, follow these steps to restore computer system files.

1. Insert Recovery Media (optical discs) into the optical disc drive or connect a USB flash drive to the USB port on your VAIO computer while the computer is in Normal mode.
2. Turn off your VAIO computer.
3. Press the ASSIST button to display the VAIO Care (Rescue Mode) screen and select Start from media (USB device/optical disc). Follow the on-screen instructions until the Choose an option screen appears.
5. Select your operating system. The System Restore window appears.
6. Select Next.
7. Select a restore point and Next. The confirmation window of the selected restore point appears.
8. Select Finish to confirm the restore point. Your VAIO computer restarts after system files are restored.
Restoring Your Data with VAIO Data Restore Tool

You can use **VAIO Data Restore Tool** to restore files previously backed up using **VAIO Care (Rescue Mode): VAIO recovery solutions**.

For instructions on how to use the app, refer to the help file included with the app.

1. Open the charms and select the **Search** charm. (See [Opening the Charms to open the charms.](#)
2. Select **Apps** and enter "VAIO Data Restore Tool" in the search box.
3. Select **VAIO Data Restore Tool**.
   The **VAIO Data Restore Tool** window appears.
4. Select **Next**.
   If the **User Account Control** window appears, select **Yes**.
5. Follow the on-screen instructions.

**Note**
- To restore copyright protected data, such as music files organized by digital media playback apps, use a backup tool specified by the app you used to import such data. Sony does not guarantee the playback compatibility of data which is not restored with the specified backup tool.

**Hint**
- If you are signed in to your VAIO computer as a standard user, you may be prompted to enter an administrator name and password.
- If necessary, move the restored files to the original location.
About Recovery

Recovery is the process of restoring the built-in storage device back to its original factory condition. Refresh is the process of reinstalling the operating system with the main settings and personal data retained. Refresh your VAIO computer first if the computer becomes unstable. If the problem persists, recover the computer. There are two ways to recover the computer:

- From Recovery Media
- From the recovery area

When do I have to perform recovery or refresh?

- If your VAIO computer has become unstable
- If your VAIO computer has been infected with a computer virus
- If your VAIO computer is experiencing problems which cannot be solved through troubleshooting
- If you have formatted the C: drive by mistake

Which apps should I use to recover or refresh my VAIO computer or create Recovery Media?

Use the following apps.

**VAIO Care**
- Creating Recovery Media
- Checking your computer hardware

**VAIO Care (Rescue Mode): VAIO recovery solutions**
- Recovering your VAIO computer
- Rescuing (backing up) your data
- Erasing all the data on your built-in storage device

**Windows Recovery Environment (Windows RE)**
- Refresh

**Hint**
- Refer to the help file included with **VAIO Care** and **VAIO Care (Rescue Mode): VAIO recovery solutions** for more information.
- You can also recover your VAIO computer from Windows Recovery Environment (Windows RE).

What is a recovery area?

The recovery area on the built-in storage device contains data for system and app recovery. Typically, you cannot modify or delete data in this area, however, there are commercially available apps designed for this purpose.

Why do I have to create Recovery Media?

Recovery Media are used to restore your VAIO computer back to its original factory
condition. If Windows does not start and you have deleted the recovery area, you will need the Recovery Media to perform recovery. Create the Recovery Media immediately after the computer is ready for use.

Related Topic

- Creating Recovery Media
- Refreshing Your VAIO Computer
- Recovering from the Recovery Area
- Recovering from Recovery Media
- Notes on Recovery
Follow the instructions below to create Recovery Media. You can use DVDs, Blu-ray Disc, or a USB flash drive as Recovery Media.

- On the model without a built-in optical disc drive:
  Use a USB flash drive.

- On the model with a built-in optical disc drive:
  It is recommended that you use DVD-R media, because data can be accidentally deleted from a USB flash drive. You can also use BD-R/BD-R DL/DVD-R DL/DVD+R/DVD+R DL media; however, the type of media your VAIO computer supports and the number of discs you need vary depending on the model you purchased. You will be notified of such information during the creation process.

**Note**
- USB ports that are compliant with the USB 3.0 standard do not support recovery with a USB flash drive that is compliant with the USB 3.0 standard. On models without the USB ports that are compliant with only the USB 2.0 standard, be sure to create Recovery Media using the USB flash drive that is not compliant with the USB 3.0 standard.

1. Connect your VAIO computer to the Internet and download and install the latest updates using VAIO Update.
2. Press the ASSIST button while your VAIO computer is on to start VAIO Care. If the User Account Control window appears, select Yes.
   The VAIO Care window appears.
4. Read the on-screen instructions carefully, and then select Next.
5. Follow the on-screen instructions.

**Note**
- It may take some time for the current status of the process to display.
- Do not eject or disconnect the media while creating Recovery Media, as doing so may result in a failure.
- Keep Recovery Media in a secure place.

**Hint**
- If you are signed in to your VAIO computer as a standard user, you may be prompted to enter an administrator name and a password.

**Notes on creating Recovery Media**
- Recovery Media is specific to your VAIO computer of which it was created.
- You cannot refresh your VAIO computer using Recovery Media.
- Create Recovery Media immediately after your VAIO computer is ready for use. In the following cases, you may not be able to recover the computer from the recovery area and Recovery Media will be necessary:
  - You have modified the recovery area with apps designed for data modification.
  - You have installed an operating system different from the preinstalled operating system on the computer.
- You have formatted your built-in storage device without using VAIO Care.
(Rescue Mode): VAIO recovery solutions.

- Do not touch or allow the surface of the discs to become dirty. Fingerprints or dust on the surface may cause read/write errors.
- To create Recovery Media, you may need to use the free space on your C: drive more than double capacity of media you use. Depending on your model, you cannot create Recovery Media even at the time of purchase due to the shortage of free space, regardless if the optical disc drive supports Blu-ray Disc or Double/Dual Layer DVD media.
- Refer to the help file included with VAIO Care before using a USB flash drive as Recovery Media.

Related Topic

- About Recovery
- Recovering from the Recovery Area
- Recovering from Recovery Media
- Notes on Recovery
Recovering from Recovery Media

If the recovery area data has been corrupted or erased, you can use Recovery Media to recover your VAIO computer. However, recovering the computer using the Recovery Media will take longer than using the recovery area.

1. Insert Recovery Media (optical discs) into the optical disc drive or connect a USB flash drive to the USB port on your VAIO computer while the computer is in Normal mode.
2. Turn off your VAIO computer.
3. Press the ASSIST button to display the VAIO Care (Rescue Mode) screen and select Start from media (USB device/optical disc). Follow the on-screen instructions until the Choose an option screen appears.
4. Select Troubleshoot and VAIO recovery solutions. Follow the on-screen instructions until the VAIO Care (Rescue Mode): VAIO recovery solutions screen appears.
5. Select Start recovery wizard.
6. Follow the on-screen instructions.

Hint
- If the display language selection window appears, select your desired language, then OK.
- To perform custom recovery, select Tools and Start advanced recovery wizard.
- If you cannot recover your VAIO computer using the USB flash drive, connect the drive to another USB port on the computer, and then try recovering the computer again.
Read the following notes thoroughly before recovering your VAIO computer.

**Important notes on recovery**

- Recovering your VAIO computer will delete all the data on the built-in storage device and restore all the settings to the original factory settings. Make sure you have a backup copy of your valuable data. If you want to retain the main settings and personal data, refresh the computer. See [Refreshing Your VAIO Computer](#) for more information.

- Disconnect all peripherals from your VAIO computer except the power cord, the AC adapter, or devices required for recovery before recovering the computer.

- Keep the power cord or the AC adapter connected to your VAIO computer during the recovery process.

- Do not stop the recovery process until the process is complete.

- If you have forgotten the password and cannot start the recovery process, contact an authorized Sony service/support center to reset it. A reset fee will be charged.

**Notes on apps**

- Recovering your VAIO computer can restore only the preinstalled apps. The app(s) that has been installed on your own or the data you have created since purchase cannot be restored. In addition, you cannot restore only Windows.

- Certain preinstalled apps include options that allow the apps to uninstall or install themselves. However, the apps may not work properly on your VAIO computer if such options are used.

- Installing apps to modify partition sizes may disable recovery or Recovery Media creation. To avoid this, create the Recovery Media immediately after your VAIO computer is ready for use. See [Creating Recovery Media](#) for more information.
Checking the Volume of the Recovery Area

Your built-in storage device contains the recovery area where the data for the system recovery is stored. To check the volume of the recovery area, follow these steps:

1. Open the charms and select the Search charm. (See Opening the Charms to open the charms.)
2. Select Apps and enter "Computer" in the search box.
3. Select Computer.
4. Select Computer on the menu bar and Manage.
5. Select Disk Management under Storage in the left pane. The volume of the recovery area and the total volume of the C: drive are displayed in the Disk 0 row in the center pane.
About the Start Screen and Menu

You can add shortcuts to apps, the desktop, and websites that you use the most.

**Overview**

![Start Screen Diagram]

1. **Tiles**
   - Select a tile to start an app and personalize the **Start** screen by adding and rearranging tiles.

2. **Charms**
   - Search for apps and files, share content, play content on other devices or print, and set up your VAIO computer.

**To open the Start screen**

**Touch operation (Touch screen equipped models)**

Open the charms, then tap the **Start** charm. (See Opening the Charms to open the charms.)

**Mouse/Touch pad operation**

Open the charms, then click the **Start** charm. (See Opening the Charms to open the charms.)

**Keyboard operation**

Press the **Win** (Windows) key.
Searching/Starting Apps, Settings, or Files

You can search apps, files, or settings on the charms, and then start your desired apps, files, or settings.

To search and start them, open the charms, select the Search charm, and follow these steps. To open the charms, see Opening the Charms.

1. Enter a keyword in the search box (1).
2. Select Apps, Settings, or Files (2) to narrow the search result.
3. Select your desired app or file (3).

Hint
- When you open the Search charm with certain Windows Store apps running, you can search from within the running apps. If no apps are running, you can also search from within the apps by selecting Apps below the search box in step 2.
Viewing Running Apps

You can view running apps by displaying the list on the **Start** screen. See **About the Start Screen and Menu** for more information.

**Touch operation (Touch screen equipped models)**

Swipe in from the left edge until a small app icon appears, then drag the icon back towards the left edge.

**Mouse/Touch pad operation**

Point to the upper-left corner (1), then move downward (2).

**Keyboard operation**

Press the **Windows** key and the **Tab** key at the same time.
Related Topic

- Searching/Starting Apps, Settings, or Files
- Opening the App Menu
- Closing Apps
- Switching Apps
- Installing Apps from Windows Store
Switching Apps

You can switch between apps that are currently running.

**Touch operation (Touch screen equipped models)**
Display currently running apps, touch and swipe in your desired app icon from the left edge. To display the currently running apps, see Viewing Running Apps.

**Mouse/Touch pad operation**
Display currently running apps and drag your desired app icon from the left edge to the center. To display the currently running apps, see Viewing Running Apps.

**Related Topic**
- Searching/Starting Apps, Settings, or Files
- Opening the App Menu
- Viewing Running Apps
- Closing Apps
- Installing Apps from Windows Store
Opening the App Menu

Many apps have app menus that you can use to control your app. Follow the instructions below to open the app menu.

Touch operation (Touch screen equipped models)
Swipe up from the bottom edge.

Mouse/Touch pad operation
When an app is open, right-click anywhere on the screen. On a touch pad, click the bottom-right corner.

Keyboard operation
Press the (Windows) key and the Z key at the same time.

Hint
- Open the app menu when an app is displayed on the computer screen.
- App commands vary depending on the app that is currently displayed on the computer screen.

Related Topic
- Searching/Starting Apps, Settings, or Files
- Viewing Running Apps
- Closing Apps
Closing Apps

You can close currently running apps by following the instruction below.

**Touch operation (Touch screen equipped models)**

1. When an app is open, point to the top-center of the screen.
2. Drag the app to the bottom of the screen until the app disappears from the screen.

**Mouse/Touch pad operation**

1. When an app is open, move the cursor to the top-center of the screen until the hand icon appears.
2. Drag the app to the bottom of the screen until the app disappears from the screen.

**Keyboard operation**

Press the **Alt** key and the **F4** key at the same time.

Related Topic
- Searching/Starting Apps, Settings, or Files
- Viewing Running Apps
- Opening the App Menu
Switching Apps
Installing Apps from Windows Store
Installing Apps from Windows Store

You can install apps from **Windows Store**.
You will need a Microsoft account to use certain apps or services, including **Windows Store**.
On how to create and what you can do with the Microsoft account, refer to
**Windows Help and Support** (Opening Windows Help and Support).

1. Connect to the Internet.
   See Connecting to the Internet with a Wired Connection for more information on how to connect to the Internet.
2. Open the **Start** screen and select the **Store** tile. (See About the Start Screen and Menu to open the **Start** screen.)

3. Find an app to install.
4. Follow the on-screen instructions to install the app.
Opening Control Panel

You can open **Control Panel** by following these steps.

1. Open the charms and select the **Search** charm. (See *Opening the Charms* to open the charms.)
2. Select **Apps** (1).
3. Enter "Control Panel" in the search box (2).
4. Select **Control Panel** (3).
Entering Sleep Mode, Shutting Down, or Restarting

You can place your VAIO computer into Sleep mode or shut down/restart the computer by following these steps.

1. Open the charms and select the Settings charm. (See Opening the Charms to open the charms.)
2. Select Power and Sleep, Shut down, or Restart.
Switching User Accounts

You can switch to another user account by following these steps.

1. Open the **Start** screen and select an account name at the upper-right corner of the computer screen. (See About the Start Screen and Menu to open the **Start** screen.)
2. Select your desired account name.

**Hint**
- To create a new user account, you need to sign in as an administrator. Then, open the charms and select the **Settings** charm. Select **Change PC settings** in the lower right corner, and select **Users** in the left pane.
- To open the charms, see Opening the Charms.
Using VAIO Update

**VAIO Update** provides a service that informs you of available update information, such as important notices or update programs, to keep your VAIO computer up to date.

Through the Internet, **VAIO Update** automatically detects the update programs that are necessary for enhancing your computer’s performance or new apps that are available, and let you download and install with simple steps.

1. Start **VAIO Update** and follow the on-screen instructions. (See Searching/Starting Apps, Settings, or Files to start **VAIO Update**.)

**Hint**
- You can also start **VAIO Update** from **VAIO Care (Desktop)**.

**Related Topic**
- **Keeping Your VAIO Computer in Optimum Condition (VAIO Care)**
Keeping Your VAIO Computer in Optimum Condition (VAIO Care)

With VAIO Care, you can perform the following operations to keep your VAIO computer running at an optimum level.

- Conduct regular performance checks and tune-ups.
- Find support information (the support website URL, the contact information phone number, etc.).
- Start VAIO Care just by pressing the ASSIST button and search for appropriate measures if you have any problem.

1. Press the ASSIST button while your VAIO computer is on. VAIO Care starts.
   Refer to the help file included with VAIO Care for more information.

**Hint**

- Pressing the ASSIST button while your VAIO computer is off displays the VAIO Care (Rescue Mode) screen. VAIO Care (Rescue Mode): VAIO recovery solutions VAIO Care (Rescue Mode) can be used to recover the computer in case of emergency, for example, if Windows does not start.
- Alternatively, open the charms, select the Search charm and Apps, and enter "VAIO Care (Desktop)" in the search box to start VAIO Care.
  To open the charms, see Opening the Charms.

Related Topic

- Recovering from the Recovery Area
- Backing Up Your Data when You cannot Start Windows
- Restoring Your Data with VAIO Data Restore Tool
Be sure to update your VAIO computer by installing the following apps to enhance its efficiency, security and functionality.

**Note**
- To perform the update settings below, your VAIO computer must be connected to the Internet.

### Windows Update

Windows Update enables you to make your VAIO computer more stable.

1. Open the charms and select the Search charm. (See Opening the Charms to open the charms.)
2. Select Settings and enter "Windows" in the search box.
3. Select Windows Update from the list and follow the on-screen instructions to complete the updates.

### VAIO Update

VAIO Update automatically notifies you of new updates available on the Internet, and downloads and installs them on your VAIO computer.

1. Start VAIO Update and follow the on-screen instructions. (See Searching/Starting Apps, Settings, or Files to start VAIO Update.)

### To update Windows Store apps

Be sure to update the Windows Store app. If an update is required, a number will appear in the Store tile of the Start screen.

1. Select the Store tile to open it.
2. Select Updates in the upper right of the screen.
   - The number in the bracket shows the number of programs you can use.
3. Set a check mark for the apps you want to update, then select Install.
   - To update the apps later, remove the check mark.
About Online Support Website

The online support website provides information concerning your VAIO computer, as well as a selection of frequently asked questions.

**Sony online support website**

- USA  
  http://esupport.sony.com/US/VAIO/
- Canada  
  http://www.sony.ca/support/ (English)  
  http://fr.sony.ca/support/ (French)
- Spanish-speaking Latin American countries or areas  
  http://esupport.sony.com/LA/VAIO/
- Brazil  
  http://esupport.sony.com/BR/VAIO/

**Hint**

- If you experience any problem or have a technical question about your VAIO computer, launch **VAIO Care** first, which offers you various options to help you solve the problem. See **Keeping Your VAIO Computer in Optimum Condition (VAIO Care)** for more information.
- When you contact VAIO support, you may be asked for the serial number and the model number of your VAIO computer. The serial number is a 15-digit number that can be found:
  - in the **VAIO Care** window;
  - on the bottom, on the back panel of the computer, inside the back panel or inside the battery compartment;
  - on the original VAIO box.

  The model number is located at the lower right corner of the display on the VAIO computer.

**Other websites**

You can also find useful information at the following Web sites.

**Sony products**

http://www.sony.net/
http://www.sony.net/electronics/

**Operating system online support website**

For Microsoft Windows operating system support, visit the Microsoft customer support site.

http://support.microsoft.com/

**In Store Service & Support (available in USA only)**

Make an appointment with a Sony certified technician at a U.S. Sony Store and get personalized service and support for your VAIO computer. Sony Technicians can assist with the setup of your new VAIO computer, system optimization, data rescue, and any repair service you might need.

http://www.sony.com/store/

**Sony Community**

Visit our community support site to ask for help and share your knowledge.

http://community.sony.com/
**Environmental sustainability**

For Sony's environmental initiatives and recycling of your products, visit our sustainability site.

http://www.sony.com/green/

**Hint**
- You can find a link to register your computer online in **VAIO Care**. To start **VAIO Care**, see *Searching/Starting Apps, Settings, or Files*.
About the Software License

This product contains software owned by Sony and licensed by third parties. Use of such software is subject to the terms and conditions of license agreements enclosed with this product.

Related Topic

- Read This First
Cleaning Your VAIO computer/LCD screen

Before cleaning your VAIO computer, read the following precautions for the correct cleaning procedure.

**When cleaning your VAIO computer**
- Turn off your VAIO computer and unplug the AC adapter before cleaning the computer.
- Use a soft, dry cloth to wipe debris and dust off your VAIO computer.
- Be sure to use a soft, dry cloth when cleaning your VAIO computer. If the computer is badly soiled, fog the surface of the computer with your breath and wipe off the dirt, or clean off with a lightly wet cloth and then wipe remaining moisture away with a dry cloth.
- Do not use solvents such as benzine, acetone, alcohol, thinner, or commercially available cleaners, as these may cause damage to the surface or coating of your VAIO computer.
- Use a blower to blow off debris and dust underneath the keys (keycaps). Do not remove any keycap from the keyboard. Do not use a vacuum cleaner, as it may cause a malfunction.

**When cleaning your LCD screen**
- Be sure to use a soft, dry cloth when cleaning your VAIO computer. If the LCD screen is badly soiled, fog the surface of the LCD screen with your breath and wipe off the dirt, or clean off with a lightly wet cloth and then wipe remaining moisture away with a dry cloth.
- Do not use solvents such as benzine, acetone, alcohol, thinner, or commercially available cleaners, as these may cause damage to the LCD screen.
Setting Up an Appropriate Work Environment

This topic describes where to or not to place your VAIO computer and ergonomic instructions.

**Where to place your VAIO computer**

When placing your VAIO computer, ensure that:

- You have easy access to a power source and necessary ports.
- You leave enough space around the computer.
- The computer is placed on a flat surface that is wide enough and you can face the computer screen as you operate it.
- You can place the computer in front of you where you can sit upright and keep your forearms parallel to the floor.

**Where not to place your VAIO computer**

Placing your VAIO computer in an inappropriate location may cause damage or a malfunction. Do not place the computer in a location subject to:

- Direct sunlight
- Magnetic items or sources
- Heat sources, such as residential heating equipment
- Excessive dust
- High humidity
- Poor ventilation

**Note**

- The area around the air exhaust vent may become extremely hot while your VAIO computer is on. Be careful before touching the area.
- Do not place any object near the air exhaust vent that may block the vent.

**Hint**

- Your VAIO computer uses high-frequency radio signals and may cause interference to radio or TV reception. If this occurs, move the computer a suitable distance away from the radio or TV.

**Ergonomic considerations**

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

**Furniture and posture**

Sit in a chair with good back support. Adjust the level of the chair so your feet are flat on the floor. A footrest may make you more comfortable.

Sit in a relaxed, upright posture and avoid slouching forward or leaning far backwards.

**Viewing angle of the computer screen**

Use the screen tilting feature to find the best position. Make sure the computer screen is at or slightly below eye level when you are sitting in front of your VAIO computer. Adjust the brightness level of the display as well.
You can reduce eye strain and muscle fatigue by adjusting the tilt and brightness level of the computer screen to the proper position.

**Lighting**

Choose a location where windows and lights do not cause glare and reflection on the computer screen. Use indirect lighting to avoid bright spots on the computer screen. Proper lighting adds to your comfort and work efficiency.

**Note**

- While adjusting the viewing angle, do not exert excessive pressure on your VAIO computer to eliminate a risk of mechanical damage.

**Hint**

- The same considerations apply when you use an external display.

**Notes on handling your VAIO computer**

Observe the following to avoid malfunctions and damage to your VAIO computer.

- Place your VAIO computer gently on a flat surface to avoid a mechanical shock.
- Be sure to turn off your VAIO computer before moving the computer. Moving the computer that is turned on may cause a hard disk malfunction. Be sure to disconnect all cables connected to the computer before moving it.
- Do not drop or hit your VAIO computer. Even a slight shock or vibration may cause a hard disk malfunction.
- Do not place your VAIO computer in an unstable position.
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Solving Common Problems with Your VAIO Computer

If you have any problem operating your VAIO computer, try these suggestions before contacting an authorized Sony service/support center or your local Sony dealer directly.

1. See other sections in this on-screen manual.
2. Start VAIO Care (Desktop) and perform necessary operations. (See Searching/Starting Apps, Settings, or Files to start VAIO Care (Desktop).)
3. Visit the VAIO online support website and find necessary information.

Related Topic

- Keeping Your VAIO Computer in Optimum Condition (VAIO Care)
- Read This First
- About Online Support Website
About the International ENERGY STAR(R) Program

The following information is applicable to ENERGY STAR qualified products only. As an ENERGY STAR Partner, Sony confirmed that this product meets the ENERGY STAR standards for energy efficiency.

The International ENERGY STAR Office Equipment Program is an international program that promotes energy saving through the use of computers and office equipment. The program backs the development and dissemination of products with functions that effectively reduce energy consumption.

For detailed information on the ENERGY STAR Program, visit the following websites:

- http://www.energystar.gov/ (USA)
- http://www.eu-energystar.org/ (Europe)

This computer is designed in compliance with the ENERGY STAR standards and delivered with the following power saving settings that apply to the computer running on AC power:

- The LCD backlight is turned off automatically after no more than 15 minutes of inactivity.
- The computer enters Sleep mode automatically after no more than 30 minutes of inactivity.

Press the (Power) button to bring the computer back into Normal mode.
Why cannot I fully charge my battery pack?

- The battery care function is enabled. Start VAIO Control Center and change the settings in the Power and Battery window. To start VAIO Control Center, see Searching/Starting Apps, Settings, or Files.
- If ambient temperature is outside the specified range or the power consumption of your VAIO computer is high when you charge the battery pack, the charge current may be reduced.
Why is my VAIO computer running slowly and the CPU clock frequency low while the computer is running on battery power?

- While your VAIO computer is running on battery power, the CPU clock frequency is reduced for power conserving purposes, which causes the computer to run slowly. This is normal and does not indicate a malfunction.
What should I do if my VAIO computer does not turn on (the power indicator light does not turn on in green)?

- Make sure all cables are securely connected to devices, such as between your VAIO computer and the AC adapter; the AC adapter and the power cord; and the power cord and an AC outlet. See Connecting a Power Source.

- If you plug the power cord of your VAIO computer into a power strip with a switch, make sure the switch is turned on and the power cord of the power strip is securely plugged into an AC outlet.

- If you do not turn off your VAIO computer through the normal procedure, the power controller may be suspended due to a program error. Disconnect all cables and peripheral devices, such as the power cord and the USB device, and push and hold the battery off button for three to five seconds with a thin, straight object (such as a paper clip). Wait about five minutes and then put all cables and devices back in place and turn on the computer again.

- Before using your VAIO computer for the first time, you need to connect the computer to a power source with the AC adapter.

- Check that you are using the supplied Sony AC adapter. For your safety, use only the genuine Sony AC adapter, which is supplied by Sony for your VAIO computer.

- The battery pack may have run out of power.

- Make sure your VAIO computer is not in Hibernate mode by pressing the (Power) button on the computer. Note that if you press and hold down the (Power) button for more than four seconds, the computer will turn off.

- If you bring your VAIO computer directly from a cold location to a warm one, or use it in a high humidity location, moisture may condense inside the computer. In such a case, allow at least one hour before turning on the computer. Do not use the computer in a high humidity location (a relative humidity of more than 80 %), as it may cause the computer to malfunction.
What should I do if my VAIO computer does not turn on or the power button does not work (the charge indicator light blinks fast)?

- Your VAIO computer may not recognize the battery pack. In this case, push and hold the battery off button for three to five seconds with a thin, straight object (such as a paper clip). If the problem persists, contact an authorized Sony service/support center and replace the battery pack with a new one specified by Sony.
What should I do if the power indicator light turns on in green when I press the power button but the screen remains blank?

- Make sure the brightness and contrast controls are adjusted correctly.
- An external display may be selected as the display output. Press the \texttt{Fn+}F7\texttt{ keys several times to select your desired display output, and then press the }\texttt{Enter}\texttt{ key.}
- If you are using an external display, make sure it is plugged into an AC outlet and is on. Make sure the brightness and contrast controls are adjusted correctly. Refer to the manual that came with your display for information on how to change the settings.
- Press the \texttt{Alt+}F4\texttt{ keys several times to close the app window. An app error may have occurred.}
- If you wait for a while and the computer screen remains blank, restart your VAIO computer by following the procedures below in order. Note that following these procedures may cause working data to become corrupted.
  - Disconnect all peripheral devices, such as a printer or a USB device, and your VAIO computer from the network, if any.
  - Press and hold down the \texttt{(Power)} button for more than four seconds and make sure the power indicator light is off. Then, turn on your VAIO computer again.
- If the problem persists, reset the battery pack.
  Press and hold down the \texttt{(Power)} button for more than four seconds and make sure the power indicator light is off. Disconnect all cables connected to your VAIO computer, such as the AC adapter, and push and hold the battery off button for three to five seconds with a thin, straight object (such as a paper clip).
  Wait about five minutes and then put all cables back in place and turn on the computer again.
- If you bring your VAIO computer directly from a cold location to a warm one, or use it in a high humidity location, moisture may condense inside the computer. In such a case, allow at least one hour before turning on the computer. Do not use the computer in a high humidity location (a relative humidity of more than 80 %), as it may cause the computer to malfunction.
What should I do if I cannot turn off my VAIO computer?

- Follow any of these procedures to exit all running apps and then turn off your VAIO computer again.
  - Drag the app from the top center of the screen to the bottom center. See Closing Apps for more information.
  - Press the Alt+F4 keys.
    - If there is unsaved data, save it at the confirmation prompt.
    - Press the Alt+F4 keys until the Shut Down Windows window appears and select Shut down from the drop-down list and OK.
- If you have installed a new app on your VAIO computer, check if the app is working properly, its data is normal, and you have operated it correctly.
- Contact the app publisher or designated provider for technical support.
- If you connect peripheral devices, such as a printer or a USB device, to your VAIO computer or connect the computer to your network, disconnect all peripheral devices or the computer’s network connection and then turn off the computer.
  While the computer is communicating with a peripheral device or the network, Windows does not allow you to turn off the computer. In addition, some peripheral device drivers for the peripheral devices do not support the feature to force the computer to shut down.
- If the computer screen freezes, press the Ctrl+Alt+Delete keys, select Shut down (Shut down) in the lower right corner of the computer screen, and then select Shut down.
- If your VAIO computer freezes with a message indicating the settings are being saved or the computer is shutting down displayed, follow these procedures in order.
  - Press the Enter key.
    - Wait for a while.
  - If the problem persists, press the Ctrl+Alt+Delete keys.
    - Wait for a while.
- If you still cannot turn off your VAIO computer even after you follow all the above procedures in this topic, perform the following operations.
  Note that performing these operations may cause working data to become corrupted. Be sure to disconnect the computer from the network before performing the following operations.
  - Press the Ctrl+Alt+Delete keys, select Shut down (Shut down) in the lower right corner of the computer screen, and then select Shut down.
  - Press and hold down the Power button for more than four seconds.
  - Unplug the AC adapter, and push and hold the battery off button for three to five seconds with a thin, straight object (such as a paper clip).
Why does my VAIO computer automatically turn off?

- When the battery pack is running out of power, your VAIO computer automatically enters Hibernate mode and eventually turns off. Connect the AC adapter to the computer or charge the battery pack.
Why does a message appear and Windows fail to start when I turn on my VAIO computer?

- If another message on how to solve the problem appears after the first message, follow the on-screen instructions.
- The BIOS boot options may have been incorrectly configured. Press the ASSIST button while your VAIO computer is off to display the VAIO Care (Rescue Mode) screen, select Start BIOS setup, and change the Boot Mode setting, then restart the computer.
Why can't I use the touch pad?

- The touch pad is disabled.
  - Press the `Fn+F1` keys to enable the touch pad. See Enabling/Disabling the Touch Pad for more information. Alternatively, start VAIO Control Center, then enable the touch pad. To start VAIO Control Center, see Searching/Starting Apps, Settings, or Files.
  - If a mouse is connected to your VAIO computer, disconnect it.
- See Using the Touch Pad for information on how to use the touch pad.
How do I disable the touch pad?

- Press the **Fn+F1** keys to disable the touch pad. See Enabling/Disabling the Touch Pad for more information.
  Alternatively, start **VAIO Control Center**, then disable the touch pad. To start **VAIO Control Center**, see Searching/Starting Apps, Settings, or Files.
How do I avoid unintentional clicks caused by a light touch on the touch pad?

- To avoid unintentional operation, disable the tapping function. See Disabling the Tapping Function on the Touch Pad.
What should I do if the pointer does not move?

- If your finger reaches an edge of the touch pad, the pointer will not move. You will need to lift your finger, and then place it back on the center of the touch pad.

- The pointer may not move temporarily as expected depending on the condition of your VAIO computer. In such a case, wait for a while before moving the pointer again. If the pointer still does not move, press the Ctrl+Alt+Delete keys, select Shut down in the lower right corner of the computer screen, and then select Shut down.

  If the problem persists, press and hold down the Power button or slide the Power switch to the right for more than four seconds. Turning off the computer with the Ctrl+Alt+Delete keys, the Power button, or the Power switch may cause loss of unsaved data.

- The touch pad may be disabled. See Why can't I use the touch pad? for more information.
What should I do if my VAIO computer screen freezes?

- Restart your VAIO computer.
  Press the Ctrl + Alt + Delete keys, select (Shut down) in the lower right corner of the computer screen, and then select Restart.
  If the problem persists, press and hold down the (Power) button for more than four seconds, or slide the (Power) switch to the right for more than four seconds.
What should I do if I cannot enter certain characters with my keyboard?

- Check if the Num lock indicator light is on or off.
  When the indicator light is on, you can enter the numbers printed on the keys. When the indicator light is off, you can enter the letters and symbols printed on the keys.
  Press the **Num Lk** key, or **Fn+Num Lk** keys, to turn the Num Lock indicator light on or off. See **Parts and Controls on the Front** for the location.

- Check if the Caps Lock indicator light is on or off.
  When the indicator light is on, characters typed will appear in uppercase (or lowercase if you also hold down the **Shift** key).
  When the indicator light is off, characters typed will appear in lowercase (or uppercase if you also hold down the **Shift** key).
  Press the **Shift+Caps Lock** keys to turn the Caps Lock indicator light on or off. See **Parts and Controls on the Front** for the location.
What should I do if my keyboard configuration is wrong?

- The language layout of your keyboard is labeled on the packaging box. If you choose a different regional keyboard when you complete the Windows setup, the key configuration will be mismatched. To change the keyboard configuration, refer to Windows Help and Support (Opening Windows Help and Support).
What should I do if my computer screen goes blank?

- Make sure your VAIO computer is on and not in a power saving mode. See Using Sleep Mode for more information.
- Make sure your VAIO computer is securely plugged into an AC outlet. If the computer is equipped with the power indicator, make sure it is on. See Connecting a Power Source for more information.
- The computer screen may be off. Press any key on the keyboard.
- The display output may be set to an external display. Press the **Fn**+**F7** keys several times to select your desired display output, and then press the **Enter** key. See Selecting Display Modes for more information.
- If you wait for a while and the computer screen remains blank, follow the procedures below:
  - Press and hold down the (Power) button for more than four seconds. If your VAIO computer is equipped with the power indicator, check that it is off, and then turn on the computer.
  - If the problem persists, press and hold down the (Power) button for more than four seconds. If your VAIO computer is equipped with the power indicator, check that it is off. Disconnect all cables and peripheral devices, such as the power cord and the USB device, and wait about five minutes. Then, put them back in place and turn on the computer again.
What should I do if videos are not displayed on the computer screen?

- Your VAIO computer may not have sufficient video memory to display high resolution videos. In such a case, lower the resolution of the LCD screen. See Changing the Resolution (Size) of the Screen Image for more information.

- If you have selected to use an external display using the $\text{Fn} + \text{F7}$ keys and the external display is disconnected from your VAIO computer, the computer screen may be unable to display the video. In such a case, stop video playback, press the $\text{Fn} + \text{F7}$ keys to select the computer screen as the display output, and then press the Enter key. Then, restart video playback.
What should I do if videos are not displayed smoothly?

- It is recommended you disable your screen saver. If the screen saver is enabled, it may be activated during DVD playback and prevent the playback from running successfully.
- If you have set the display output to both the computer screen and an external display, change the display output to either of them.
- Some videos may not be displayed smoothly depending on the type or bit rate of videos. Lowering the screen resolution may improve video playback performance. See Changing the Resolution (Size) of the Screen Image for more information.
- If data access to a memory card is in progress, wait until the data access ends and then start playback again.
- If you are playing a video stored on the memory card, copy it to the built-in storage device and then play the copied video.
What should I do if no image is displayed on my TV screen or external display connected to the HDMI output port?

- Reconnect the HDMI cable (not supplied). See Connecting a TV with an HDMI Input Port for more information.
- Make sure you are using an HDCP-compliant display. The copyright protected content is not displayed on a non-HDCP compliant display.
- Change the screen resolution of the connected TV or external display. Images may appear on the screen. See Changing the Resolution (Size) of the Screen Image for more information.
How do I change the LCD brightness?

- Press the $\text{Fn} + F5$ or $\text{Fn} + F6$ keys to adjust the LCD brightness of your VAIO computer. See Changing the LCD Brightness for more information.
- To adjust the LCD brightness of the connected external display, such as a computer display or a TV, use the brightness control on the external display.
What should I do if no image is displayed on my external display or TV screen?

- Press the **Fn+F7** keys several times to select your desired display output, and then press the **Enter** key. See [Selecting Display Modes](#) for more information.
What should I do if some items do not fit on the computer screen?

- Check that the text size is set to 100%. If not, some items, for example an app menu, may not be displayed correctly, depending on the apps you are using. Refer to **Windows Help and Support** (Opening Windows Help and Support) for more information on how to change the text size.
Why do sound interruptions and/or dropped frames occur when I play high-definition videos, such as those recorded with the AVCHD digital video camcorder?

- Playing high-definition videos requires substantial hardware resources, such as CPU, GPU, or system memory performance on your VAIO computer. During the video playback, some operations and/or functions may become unavailable, and sound interruptions, dropped frames, and playback failure may occur depending on the configuration of the computer.
What should I do if sound interruptions occur during video or audio playback?

- Sound interruptions may occur when the CPU load is high. In this case, reduce the CPU load by exiting all running apps other than a playback app, or by disabling unnecessary audio effects applied to playback.
What should I do if I do not hear sound from a digital audio device connected to the digital output port, such as the HDMI output port?

- To output sound from a digital audio device connected to the digital output port on your VAIO computer, you need to change the sound output to the digital audio device. See Changing the Sound Output Device for more information.
What should I do if my microphone does not work?

- Check if your microphone is selected as a recording device.
  Open Control Panel and select Hardware and Sound. (To open Control Panel, see Opening Control Panel.)
  Select Sound and check if there is a check mark on your desired microphone icon on the Recording tab.
  If not, select the icon and Set Default.
  If the icon is not displayed, make sure the microphone is properly connected to your VAIO computer.
What should I do if I hear microphone feedback from speakers when using my microphone?

- Microphone feedback may occur when your microphone receives the sound from a sound output device, such as speakers.
  - Keep the microphone away from a sound output device.
  - Turn down the volume of the speakers and the microphone.
What should I do if I do not hear sound from speakers or headphones?

- Check if the volume from speakers or headphones is not minimized. Keep pressing the Fn + F4 keys to turn up the volume loud enough to hear sound. See Combinations and Functions with the Fn Key for more information.

- Check if the volume in Windows is not turned off or minimized. See Adjusting the Volume in Windows for more information. When the volume is turned off ( ), select (Deactivate muting) to turn on the volume ( ). When the volume is minimized, turn up the volume.

- When connecting external speakers or headphones, check the following:
  - Make sure external speakers or headphones are properly connected to your VAIO computer. See Connecting External Speakers/Headphones/Headset for more information.
  - If external speakers require external power, make sure the speakers are securely connected to an AC outlet.
  - Make sure external speakers are turned on.
  - Make sure the volume from external speakers is not minimized.

- Make sure the sound output device is correctly selected. See Changing the Sound Output Device for more information.

- Check the volume on the playback app you are using.
What should I do if I cannot remove the disc from the optical disc drive?

- The drive eject button may not work depending on your VAIO computer status. Exit all running apps and press the drive eject button. If the problem persists, restart the computer and press the drive eject button again.
- If the problem persists, insert a thin, straight object (such as a paper clip) into the manual eject hole on the optical disc drive.
Why does it take time to write data to DVD writable media?

- In disc-at-once mode, it may take about 20 to 40 minutes to complete the writing process after the progress bar reaches 100%. This is normal and does not indicate a malfunction, so wait until the process is complete. Because disc-at-once mode writes all the data to a disc at one time, the optical disc drive writes 1 GB of dummy data to a disc even when the actual data size is less than 1 GB to ensure playback compatibility. Some players can play only discs that are created in disc-at-once mode. When you play the created disc on a player other than your VAIO computer, make sure if the player supports disc writing mode you selected.
What should I do if I cannot play a disc, or dropped frames and/or sound interruptions occur during playback?

- Exit all running apps other than the playback app.
- Try using other playback apps, such as a DVD playback app.
- To play DVD media with Content Protection for Recordable Media (CPRM), you need to install a CPRM pack for the playback app on your VAIO computer.
- To play copyright protected Blu-ray Disc media continually, you need to update the AACS key.
  Follow a message displayed on the computer screen to update the AACS key. You can update it through the Internet.
- Uninstall the playback or writing app installed on your VAIO computer after purchase.
  For instructions on how to uninstall the app, refer to the help file included with the app or Windows Help and Support (Opening Windows Help and Support).
Why can’t I write data to a disc?

- See Supported Discs (Optical disc drive equipped models) for more information.
Why does the viewfinder show no images or poor-quality images?

- Some camera apps may not work correctly when another camera app is running. Exit the current app before starting another.
- You may not be able to use another camera app that uses the built-in camera while using the gesture function.
- The viewfinder may show some noise, for example horizontal streaks, when you are viewing a rapid-moving object. This is normal and does not indicate a malfunction.
- If the problem persists, restart your VAIO computer.
Why is the video input from the built-in camera suspended momentarily?

- The video input may be suspended momentarily if:
  - A shortcut key with the **Fn** key is used.
  - The CPU load increases.
Why are captured images poor in quality?

- Images captured under fluorescent light may contain light reflections.
- A dark portion in captured images may contain noise.
- The area on and around the built-in camera is soiled. Clean the area. See Notes on the Built-in Camera (Built-in camera equipped models) for more information on how to clean the camera.
What should I do if captured images contain dropped frames and audio interruptions?

- The effect settings on your app may cause dropped frames. Refer to the help file included with the app for more information.
- There may be more app running than your VAIO computer can handle. Exit the apps that you are not currently using.
- This problem may occur while your VAIO computer is running on the power saving plan, which reduces the CPU performance. See Selecting a Power Plan to check the current power plan.
What should I do if captured images flicker?

- This problem occurs when you use the built-in camera under fluorescent lights and is due to a mismatch between the lighting output frequency and the shutter speed.

To reduce flicker noise, change the direction of your VAIO computer so that you can adjust the direction of the built-in camera. Some apps offer adjustable parameters, such as brightness or power frequencies, to eliminate flicker noise.
What should I do if I cannot use the Wi-Fi(R) (Wireless LAN) function?

- Enable the Wi-Fi function.
  Open the charms and select the Settings charm. Select Change PC settings in the lower right corner, and select Wireless in the left pane.
  Turn off Airplane mode and change the Wi-Fi setting under Wireless devices to On.
  To open the charms, see Opening the Charms.

- To use the Wi-Fi function on your VAIO computer, you need to configure the Wi-Fi settings.
  Check the Wi-Fi settings of the computer. See Starting Wi-Fi(R) (Wireless LAN) Communications for more information.

- If a connection utility app supplied with a third-party Wi-Fi product is installed, uninstall it.
  If a connection utility app is installed, Windows may fail to configure the Wi-Fi settings. Be sure to take a note of your settings, (such as security keys) before uninstalling.
What should I do if I do not know the SSID or security key for the access point?

- You can find the key in the setting screen of your access point. Refer to the manual that came with your access point for more information.
What should I do if I cannot connect my VAIO computer to an access point (or the Internet)?

- See What should I do if I cannot use the Wi-Fi(R) (Wireless LAN) function?.
- Make sure the access point is on.
- Check the access point settings.
  In the following settings, your VAIO computer may fail to connect to an access point, or the connection may be unstable.
  - When the access point is set to refuse communication with a device whose SSID is set to "ANY," and the SSID of your VAIO computer or the access point is set to "ANY."
  - When the access point is in stealth mode.
    For more information, refer to the manual that came with your access point, or consult your Wi-Fi service provider.
- Make sure your VAIO computer and access point are connected to one another. See Starting Wi-Fi(R) (Wireless LAN) Communications for more information.
- Connection capability is affected by distance, obstructions, device configuration, radio wave strength/interference, wall materials, running apps, etc.
  Move your VAIO computer away from obstructions or closer to any access point you may be using.
- Open the charms and select the Settings charm and (the network icon).
  Check that your access point is displayed.
  To open the charms, see Opening the Charms.
What should I do if I cannot play back movies or audio tracks received via Wi-Fi(R) (Wireless LAN), or their playback is interrupted? Why is the data transfer speed slow?

- Move your VAIO computer away from obstructions, or closer to any access point you may be using. Connection capability is affected by distance, obstructions, device configuration, radio wave strength/interference, wall materials, running apps, etc.

- If you are using an access point, the device may be temporarily overloaded depending on how many other devices are communicating via the access point. Wait for a while and try again.

- Change the channel setting of your access point. By changing the channel, interference on your wireless network may be reduced and data transfer speed may improve. If access point channel interference occurs, data transfer speed may be reduced.

- If your access point interferes with other access points, change the access point channel. Refer to the manual that came with your access point for more information.

- Make sure that a microwave oven is not operating near your Wi-Fi devices. The 2.4 GHz frequency band, on which Wi-Fi operates, is used by various devices and apparatus. If you use a microwave oven while communicating via Wi-Fi, data transfer rate may slow down, communication range may narrow, or communication may be interrupted.
How can I find the physical address (MAC address) of the built-in wireless network interface of my VAIO computer?

- If MAC address filtering of your access point is enabled, register the MAC address of your VAIO computer in the setup screen of the access point. Otherwise, the computer cannot connect to the access point.

  Open **Command Prompt**, enter "ipconfig /all", and then press the **Enter** key. You can find the physical address (MAC address) in the **Physical Address** field under **Wireless LAN adapter Wi-Fi**.

  To open **Command Prompt**, see **Searching/Starting Apps, Settings, or Files**.
What should I do if I cannot use the BLUETOOTH(R) function?

- Make sure the BLUETOOTH function is enabled.
  Open the charms and select the Settings charm. Select **Change PC settings** in the lower right corner, then select **Wireless** in the left pane. Turn off **Airplane mode** and change the Bluetooth setting under **Wireless devices** to **On**.
  To open the charms, see **Opening the Charms**.
What should I do if other BLUETOOTH(R) devices cannot connect to my VAIO computer?

- See What should I do if I cannot find the BLUETOOTH(R) device I want to communicate with?.
- Make sure that the authentication (pairing) between the device and your VAIO computer has been properly performed. Some BLUETOOTH devices require authentication (pairing) before establishing connection with another device. Perform the authentication process before connecting to such devices.
- Make sure that your VAIO computer allows BLUETOOTH devices to find the computer.
  Select (arrow) in the desktop notification area, right-click (the BLUETOOTH icon), and select Open Settings to open the settings window. Select the Options tab and make sure that the Allow Bluetooth devices to find this computer check box is selected.
  To open the desktop, see Opening the Desktop.
What should I do if the BLUETOOTH(R) icon is not displayed in the desktop notification area?

- Make sure the BLUETOOTH function is enabled.
  - Open the charms and select the Settings charm.
  - Select Change PC settings in the lower right corner, then select Wireless in the left pane.
  - Turn off Airplane mode and change the Bluetooth setting under Wireless devices to On.
  - To open the charms, see Opening the Charms.
- Check the BLUETOOTH settings.
  - Open Control Panel and select Hardware and Sound and Devices and Printers.
  - Right-click the computer icon and select Bluetooth settings and the Show the Bluetooth icon in the notification area check box.
  - To open Control Panel, see Opening Control Panel.
What should I do if I cannot find the BLUETOOTH(R) device I want to communicate with?

- Shorten the distance between your VAIO computer and the BLUETOOTH device within 33 feet/10 meters. If the computer is more than 33 feet/10 meters away from the BLUETOOTH device, communication will not be possible. The computer may not be able to communicate with the BLUETOOTH device even within 33 feet/10 meters due to obstacles between the devices, radio wave quality, ambient environment that includes existence of walls and materials of such walls, or apps in use. In such a case, move the computer away from obstructions or closer to the device.
- Check that the BLUETOOTH function of the device you want to communicate with is on, and the device is not in the power saving mode.
- Check that the BLUETOOTH function of the device you want to communicate with is enabled. Refer to the manual that came with the device for more information.
- If the device you want to communicate with is already communicating with another BLUETOOTH device, it may not be found or it may not be able to communicate with your VAIO computer.
Why is my BLUETOOTH(R) connection slow?

- Data transfer speed depends on obstructions and/or the distance between the two devices, radio wave quality, and the device configuration or apps in use. Move your VAIO computer and BLUETOOTH device closer to each other.
- If a version of a BLUETOOTH standard employed on the BLUETOOTH device with which you want to communicate is not the same version as the one employed on your VAIO computer, the communication speed may become slower.
- If your VAIO computer is compliant with BLUETOOTH high speed technology and the following two conditions are met, high-speed communications are available. However, some BLUETOOTH profiles do not support high-speed communications.
  - The BLUETOOTH device with which you want to communicate supports BLUETOOTH high speed technology.
  - Both the Wi-Fi(R) (Wireless LAN) and BLUETOOTH functions on the computer are enabled.
Why can't I use the BLUETOOTH(R) function when I sign in to my VAIO computer as a user with a standard user account?

- The BLUETOOTH function may not be available to a user with a standard user account on your VAIO computer.
  
  Sign in to the computer as a user with administrative rights.
Why can't I use BLUETOOTH(R) devices when I switch users?

- If you switch users without signing out from your system, BLUETOOTH devices will not work.
  Be sure to sign out before switching users.
What should I do if I cannot charge the device connected to the USB port that supports USB charging?

- Make sure that the **USB Charging** setting is enabled. See [Charging a USB Device](#) for more information.
What should I do if I cannot print a document?

- Make sure the printer settings are correctly configured.
  For information on the printer settings, refer to the manual that came with your printer.

- Make sure your printer is on.
  Refer to the manual that came with your printer for more information.

- Make sure the connections between the printer’s power cord and AC adapter and between the AC adapter and an AC outlet are securely made.

- Make sure the appropriate printer driver is installed.
  When you connect a new printer, you first need to set up the printer driver.
  For information on how to set up the printer driver, refer to the manual that came with your printer, or visit the website of the manufacturer.

- Make sure the status of your printer is displayed as online or ready.
  Then, make sure the printer settings are correctly configured as instructed in the manual that came with the printer.

- Make sure your printer is set to Set as Default Printer.
  Refer to Windows Help and Support (Opening Windows Help and Support) for more information.

- Make sure your printer is compatible with Windows installed on your VAIO computer.

- Make sure your printer is connected to your network (LAN).
  If the printer is directly connected to the network (LAN), make sure a router or a hub is on.
  If the printer is connected to a printer server, make sure an error message is not displayed on the printer server.

- Make sure your app is working properly.
  The app may not support your document format. In such a case, your document will not be printed properly.
  Contact the app publisher or the manufacturer of your printer.

- Make sure the correct printer port for your printer is selected.
  For more information on the printer port settings, refer to the manual that came with the printer, or contact the manufacturer.
What should I do if my VAIO computer does not recognize the USB device?

- Check if the USB device is on and using its own power supply.
  - If you are using a digital camera, check if the battery is charged.
  - If you are using a printer, check if the power cable is connected properly to an AC outlet.

- You may need to install a USB driver for the USB device before connecting the device. Refer to the manual that came with the USB device for more information.

- Try using another USB port on your VAIO computer. The USB driver could be installed to the specific port you used the first time you connected the device.

- USB hubs may prevent the USB device from working because of a power distribution failure. We recommend you connect the device directly to your VAIO computer without a hub.
Why can't I write data to a memory card?

- Some types of memory cards are equipped with an erasure prevention switch to protect data from unintentional erasure or overwriting. Make sure the erasure prevention switch is off.
What should I do if I forget the Windows password?

- The Windows password is case-sensitive. Check your password and enter again.
- Log on using a user account that has system administrator privileges to reset your password.
  - If you forget all passwords for system administrator accounts, you cannot reset any Windows passwords. You need to perform system recovery. See About Recovery for more information.
What should I do if the Enter Onetime Password message appears and Windows does not start after I enter a wrong power-on password three times consecutively?

- Press and hold down the Power button for more than four seconds. If your VAIO computer is equipped with the power indicator, check that it is off. Then, restart the computer and enter the correct password. The password is case-sensitive, so be sure to check letters for the current case before you enter the password.
- If you forget the power-on password, you cannot start your VAIO computer. See What should I do if I forget the power-on password to start my VAIO computer? for more information.
What should I do if I forget the power-on password to start my VAIO computer?

- If you forget the password (Setting/Changing the Power-on Password), you cannot start your VAIO computer.
  - When you forget your user password:
    Enter the machine password to reset the user password at the BIOS setup screen.
  - When you forget your machine password:
    The password needs to be reset and a fee will be charged. To reset the password, contact an authorized Sony service/support center.
What should I do if my VAIO computer becomes unstable (Windows starts)?

- Try the suggestions below:
  - Start **VAIO Care** to search for a solution. See *Keeping Your VAIO Computer in Optimum Condition (VAIO Care)* for more information.
  - Restore computer system files. Use the restore point that you created before your VAIO computer becomes unstable. See *Restoring System Files Using the Restore Point when You cannot Start Windows* for more information.
  - Uninstall an app or a driver if your VAIO computer has become unstable after you installed the app or the driver.
  - Reinstall the preinstalled apps or drivers on your VAIO computer if such apps or drivers have not been working properly. See *How can I reinstall the original apps and drivers?* for more information.
  - Restore your VAIO computer from a system image backup if you have created the backup. Refer to *Windows Help and Support* *(Opening Windows Help and Support)* for more information.

- If the problem persists, follow the instructions in *Refreshing Your VAIO Computer* to reinstall the operating system. If the problem persists after you refresh your VAIO computer, follow the instructions in *Recovering from the Recovery Area* to recover the computer. The computer may not support the refresh function depending on the model you purchased.
  - If you have not yet created Recovery Media, create the Recovery Media. See *Creating Recovery Media*.
  - Be sure to make a backup copy of your valuable data before recovering your VAIO computer. Refer to *Windows Help and Support* *(Opening Windows Help and Support)* for more information.

**Note**

- Recovering your VAIO computer will delete all the data on the built-in storage device.
What should I do if my VAIO computer becomes unstable (Windows does not start)?

- Try the suggestions below:
  - Restore computer system files.
    Use the restore point that you created before your VAIO computer becomes unstable. See Restoring System Files Using the Restore Point when You cannot Start Windows for more information.
  - Restore your VAIO computer from a system image backup if you have created the backup. Refer to Windows Help and Support (Opening Windows Help and Support) for more information. Any file you have created or changed after you created the system image backup will not be restored. You need to back up such a file with VAIO Care (Rescue Mode): VAIO recovery solutions. See Backing Up Your Data when You cannot Start Windows for more information.

- Use VAIO Hardware Diagnostics to identify problems on your VAIO computer.
  - With the app, you can check if the computer hardware (a CPU, a memory module, and a built-in storage device) needs to be replaced.
    To start VAIO Hardware Diagnostics, select Tools and VAIO Hardware Diagnostics in VAIO Care (Rescue Mode): VAIO recovery solutions.

- Follow the instructions in Recovering from the Recovery Area to recover your VAIO computer.
  - If you have not backed up your data, be sure to make a backup copy of your valuable data using VAIO Care (Rescue Mode): VAIO recovery solutions before recovering your VAIO computer. See Backing Up Your Data when You cannot Start Windows for more information.
    If you have a backup created with the Windows backup feature before your VAIO computer becomes unstable, but you have created or changed the file after that, back up such a file with VAIO Care (Rescue Mode): VAIO recovery solutions.

Note
- Recovering your VAIO computer will delete all the data on the built-in storage device.
What should I do if I cannot start/complete the recovery process?

- Disconnect all unnecessary external devices from your VAIO computer.
- Try the suggestions below:
  - Check the condition of Recovery Media. If you are using optical discs, check the discs for dirt or damage. If the discs are not clean, clean them and try recovering your VAIO computer again.
  - If you cannot recover your VAIO computer from the recovery area, restart the computer and recover the computer from the recovery area again, or use Recovery Media.
  - If you cannot recover your VAIO computer using a USB optical drive or USB flash drive, connect the drive to another USB port or to the USB port that is compliant with the USB 2.0 standard (if any). Then, turn off the computer and try recovering it again. See Recovering from the Recovery Area for more information.
- If the problem persists, visit the VAIO online support website for further assistance.
What should I do if I cannot create Recovery Media?

- Try the suggestions below:
  - Download and install the latest updates using VAIO Update. See Using VAIO Update for more information.
  - Restart your VAIO computer. And then, try to create Recovery Media again.
  - If an AC adapter is supplied with an external optical disc drive, plug the AC adapter into a power source.

- Try other reliable media.
- If the problem persists, visit the VAIO online support website for further assistance.
Removing the Power-on Password

If power-on password input for booting up your VAIO computer is no longer necessary, follow these steps to remove the machine password and user password.

1. Press the **ASSIST** button while your VAIO computer is off.
   The **VAIO Care (Rescue Mode)** screen appears.

2. Select **Start BIOS setup**.
   Enter a password if it has already been set.
   The BIOS setup screen appears.

3. Press the ← or → key to select the **Security** tab, select **Set Machine Password** or **Set User Password**, and then press the **Enter** key.
   The password entry screen appears.

4. Leave the **Enter New Password** and **Confirm New Password** fields blank and press the **Enter** key.

5. Press the ← or → key to select the **Exit** tab, select **Exit Setup**, and then press the **Enter** key.
   At the confirmation prompt, press the **Enter** key.

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**Related Topic**

- Setting/Changing the Power-on Password
- What should I do if I forget the power-on password to start my VAIO computer?
How do I create Recovery Media?

- You can create Recovery Media using VAIO Care. See Creating Recovery Media for more information.
What should I do if I cannot recover my VAIO computer from the recovery area?

- Recover your VAIO computer from Recovery Media if you have used apps to modify the recovery area, installed a different operating system from the preinstalled one, or formatted the built-in storage device without using VAIO Care (Rescue Mode): VAIO recovery solutions.
- If the problem persists, visit the VAIO online support website for further assistance.
How can I restore my VAIO computer system to its factory default settings?

- There are two ways to recover your VAIO computer system: Recovering from Recovery Media and Recovering from the Recovery Area.
How can I reinstall the original apps and drivers?

- You can restore the preinstalled apps and drivers using **VAIO Care**. To restore them, start **VAIO Care** (*Keeping Your VAIO Computer in Optimum Condition (VAIO Care)*) and then select **Advanced Tools, Restore and recovery**, and **Reinstall Applications and Drivers**. Refer to the help file included with **VAIO Care** for more information.
What should I do if the VAIO Care (Rescue Mode) screen appears when I turn on my VAIO computer?

- You may have accidently pressed the ASSIST button rather than the (Power) button. Close the VAIO Care (Rescue Mode) screen and locate the (Power) button on your VAIO computer.
What should I do if my game app does not work or it keeps crashing?

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

Refer to the supplied safety manual for detailed safety information.

**Computer**
- If you drop a solid object or any liquid onto your VAIO computer, shut down the computer, unplug it, and remove the battery pack if it is removable. You may want to have the computer checked by qualified personnel before operating it again.
- Use only specified peripheral equipment and interface cables.
- Keep small parts such as memory cards and memory card adaptors out of reach of children. There is a risk of swallowing them.
- The temperature of the surface and the bottom of your VAIO computer, the AC adapter, and the battery may rise due to the CPU load or an electric current generated while the battery is being charged. This is normal and does not indicate a malfunction. The amount of heat generation varies depending on external devices or apps in use.
- If your VAIO computer or the AC adapter becomes extraordinarily hot, turn off the computer, unplug the AC adapter, remove the battery pack if it is removable, and then contact an authorized Sony service/support center.

**Power source**
- Do not place heavy objects on the power cord, or this could cause a fire.
- To disconnect the power cord, pull it out by holding the plug. Never pull the cord itself.
- Do not use cut or damaged connection cables.
- Unplug your VAIO computer from the AC outlet if you are not planning to use the computer for an extended period of time.

**Headphones**
- Do not use headphones while driving, cycling, or operating any motorized vehicle. It may create a traffic hazard and is illegal in some areas. It can also be potentially dangerous to play loud music while walking, especially at pedestrian crossings.
- Avoid using headphones at high volume. Hearing experts advise against continuous, loud and extended play. If you experience a ringing in your ears, reduce the volume or discontinue use.
Handling the Built-in Storage Device

The built-in storage device (hard disk drive or solid state drive) has a high storage density and reads or writes data in a short time. However, it can be easily damaged if improperly used. If the built-in storage device is damaged, the data cannot be restored. To prevent losing data, you should be careful when handling your VAIO computer.

To avoid damaging your built-in storage device

- Do not subject your VAIO computer to sudden movements.
- Keep your VAIO computer away from magnets.
- Do not place your VAIO computer in a location subject to mechanical vibration or in an unstable position.
- Do not turn off the power or restart your VAIO computer while reading or writing data to the storage device.
- Do not use your VAIO computer in a place subject to extreme changes in temperature.
- Do not remove the storage device from your VAIO computer.
About the ASSIST Button

Press the ASSIST button to perform regular maintenance of your VAIO computer or to solve problems you might encounter when using the computer.

While the computer is on, the ASSIST button starts VAIO Care. While the computer is off, the ASSIST button displays the VAIO Care (Rescue Mode) screen.

**VAIO Care (Rescue Mode):** VAIO recovery solutions can be used to recover the computer in case of emergency, for example, when Windows does not start.

**Note**
- If the VAIO Care (Rescue Mode) screen is displayed and five minutes pass without any operation, your VAIO computer automatically turns off.

Related Topic

- Keeping Your VAIO Computer in Optimum Condition (VAIO Care)
- Recovering from the Recovery Area
- Backing Up Your Data when You cannot Start Windows
- Restoring Your Data with VAIO Data Restore Tool
Removing SD Memory Cards

This topic explains how to remove an SD memory card.

1. Locate the **SD** memory card slot.
2. Open **Computer**.
   To open **Computer**, see Searching/Starting Apps, Settings, or Files.
3. Right-click the SD memory card icon and select **Eject**.
4. Push in the SD memory card toward your VAIO computer and release.
5. Pull the SD memory card out of the slot.

**Related Topic**
- Inserting SD Memory Cards
- Notes on Using SD Memory Cards
Notes on Using the Battery Pack

Before using the battery pack, read the following precautions for correct use.

**About the battery pack**

- The battery pack built in your VAIO computer is not removable.
- For safety reasons, battery charging may be suspended at higher or lower temperatures.
- The battery pack is not fully charged at the time of delivery.
- While the battery pack is in use or being charged, heat builds up in the battery pack. This is normal and is not cause for concern.

**About battery discharge**

After battery charge, the battery pack will gradually discharge over time even while not in use. If it is left unused for an extended period of time, the battery power may be depleted. It is recommended that you recharge the battery pack before use.

**About battery life**

Battery life varies depending on usage and settings.

**About battery deterioration and replacement**

- The battery pack is consumable. The capacity gradually declines through repeated cycles of recharging and discharging. As a result, the battery life becomes short even if it is fully charged and eventually the battery pack reaches the end of its life.
- If the battery pack quickly runs out of power after being fully charged or it has reached the end of its life, replace it with a new one. Contact an authorized Sony service/support center and replace the battery pack with a new one specified by Sony.

**When the battery pack is running out of power**

If the battery pack runs out and your VAIO computer is not plugged in, power will be cut off and any data you are working on will be lost. While your VAIO computer is running on battery power, save data frequently.
What should I do if Hibernate mode is not available or my VAIO computer does not enter Hibernate mode?

- Select Choose what the power button does in the Power Options window. Select Change settings that are currently unavailable, the Hibernate check box, and Save changes.
- Your VAIO computer may not enter Hibernate mode if you execute a task before the computer completely enters Hibernate mode.
What should I do if my VAIO computer does not return to Normal mode with keyboard or touch pad operations during Sleep mode?

- To restore your VAIO computer from Sleep mode to Normal mode, press the (Power) button.
About Sleep Mode

Sleep mode enables you to take a break and retain the computer's state, including data you are working on. With the default Sleep mode settings, Rapid Wake is enabled and your VAIO computer enters Sleep mode after your working data is saved on the built-in storage device. This reduces the possibility of loss of unsaved data if the battery pack runs out during Sleep mode.

Related Topic

- Controlling the Power State of Your VAIO Computer (Sleep Mode/Shutdown)
- Using Sleep Mode
- Notes on Sleep Mode
- Changing the Rapid Wake (Sleep Mode) Settings
Using the LAN Port

Before connecting a LAN cable to the LAN port, pull the port cover down as illustrated below.

![Image of LAN port cover being pulled down]

Related Topic

- Parts and Controls on the Sides
- Connecting to the Internet with a Wired Connection
About NFC (NFC supported models)

Near Field Communication (NFC) is a short-range wireless technology. The communication distance of NFC is approximately 4 inches / 10 cm.

Related Topic

- About One-touch functions (NFC supported models)
- Using NFC/One-touch functions (NFC supported models)
- Disabling NFC/One-touch functions (NFC supported models)
- Notes on NFC/One-touch functions (NFC supported models)
About One-touch functions (NFC supported models)

One-touch functions are Sony original functions which use NFC. Simply touch two One-touch functions supported devices to easily establish communication, without complicated settings.

Related Topic

- About NFC (NFC supported models)
- Using NFC/One-touch functions (NFC supported models)
- Disabling NFC/One-touch functions (NFC supported models)
- Notes on NFC/One-touch functions (NFC supported models)
You can disable NFC/One-touch functions by following these steps.

1. Open the charms and select the **Settings** charm. (See **Opening the Charms** to open the charms.)
2. Select **Change PC settings** in the lower right corner.
3. Select **Wireless** in the left pane of the **PC settings** screen.
4. Change the **NFC** setting under **Wireless devices** to **Off**.

**Hint**
- To use NFC/One-touch functions, change **Airplane mode** to **Off** and the **NFC** setting under **Wireless devices** to **On**.
- When **Airplane mode** is **Off**, the wireless function setting is enabled.
- Refer to **Windows Help and Support** (Opening Windows Help and Support) for more information on **Airplane mode**.

**Related Topic**
- About NFC (NFC supported models)
- About One-touch functions (NFC supported models)
- Using NFC/One-touch functions (NFC supported models)
- Notes on NFC/One-touch functions (NFC supported models)
Using NFC/One-touch functions (NFC supported models)

Easily connect an NFC/One-touch functions supported device to your VAIO computer by simply touching the computer with the device.

1. Open the charms and select the \( \text{Settings} \) charm. (See Opening the Charms to open the charms.)
2. Select \textbf{Change PC settings} in the lower right corner.
3. Select \textbf{Wireless} in the left pane of the \textbf{PC settings} screen.
4. Change \textbf{Airplane mode} to \textbf{Off} and the \textbf{NFC} setting under \textbf{Wireless devices} to \textbf{On}.
5. When touching your VAIO computer with an NFC/One-touch functions supported device, ensure that the touch mark on an NFC/One-touch functions supported device faces to the NFC embedded touch pad (Parts and Controls on the Front). A touch mark sticker is placed on the touch pad at the time of delivery. A message will appear the moment the device is recognized. Follow the on-screen instructions.

\textbf{Hint}
- Refer to \textbf{Windows Help and Support} (Opening Windows Help and Support) for more information on \textbf{Airplane mode}.
- You may need to change the device settings depending on the NFC/One-touch functions supported device you use. For detailed information, refer to the manual that came with your device.

Related Topic
- \textbf{About NFC (NFC supported models)}
- \textbf{About One-touch functions (NFC supported models)}
- \textbf{Disabling NFC/One-touch functions (NFC supported models)}
- \textbf{Notes on NFC/One-touch functions (NFC supported models)}
What should I do if I cannot enter numbers with the numeric keypad?

- Check if the Num lock indicator light is on or off. When the indicator light is on, you can enter the numbers printed on the keys. When the indicator light is off, you can enter the letters and symbols printed on the keys.
  
  Press the **Num Lk** key, or **Fn**+**Num Lk** keys, to turn the Num Lock indicator light on or off. See Parts and Controls on the Front for the location.
Notes on NFC/One-touch functions (NFC supported models)

Before using the NFC/One-touch functions, read the following precautions for correct use.

- In some countries or regions, using NFC/One-touch functions may be restricted by local regulations.
- If you urgently need to disable NFC/One-touch functions, turn off your VAIO computer.
What should I do if I cannot use NFC/One-touch functions?

- Bring your NFC/One-touch functions supported device toward your VAIO computer as close as possible. If the NFC/One-touch functions still do not work, slightly move the device up or down, or separate the device from the computer for about 10 seconds, and then touch the computer with the device again.
- Make sure that NFC/One-touch functions are enabled on the supported device. You may need to change the device settings depending on the device you use. For detailed information, refer to the manual that came with your device.
- Enable NFC/One-touch functions.
  Open the charms and select the Settings charm. Select Change PC settings in the lower-right corner, and select Wireless in the left pane. Turn off Airplane mode and change the NFC setting under Wireless devices to On.
  To open the charms, see Opening the Charms.
- Do not bring metal objects other than devices supported with the NFC/One-touch functions close to your VAIO computer.
- Do not touch your VAIO computer with more than one device supported with the NFC/One-touch functions at a time.
- If NFC/One-touch functions still do not work after you perform above operations, restart your VAIO computer.
Connecting External Speakers/Headphones/Headset

You can connect external sound output devices (such as speakers, headphones, or a headset) to your VAIO computer. Use a Sony smartphone compatible headset (not supplied) to make an Internet call and voice chat.

1. Connect external speakers, headphones, or a headset to the headset compatible headphone jack (Parts and Controls on the Sides).

**Note**

- Turn down the volume of the speakers before turning them on.
- Your headset may not be compatible with your VAIO computer.
- An external microphone does not work if you connect it to the headset compatible headphone jack.

**Hint**

- Refer to the manual that came with your speakers, headphones, or headset.

**Related Topic**

- Adjusting the Speakers Volume
- Changing the Sound Output Device
- Adjusting the Volume in Windows
Playing Optimized Sound for Your VAIO Computer Using the ClearAudio+ Mode

The ClearAudio+ mode enables high quality sound that is optimized for your VAIO computer using digital signal processing technologies originally developed by Sony. With a simple operation, you can enjoy rich sound with clear highs and deep lows.

1. Start VAIO Control Center and select Sound Quality. (See Searching/Starting Apps, Settings, or Files to start VAIO Control Center.)
2. Select the audio mode in Sound Effects. The optimized sound is reproduced when you select the ClearAudio+ mode that matches your audio source.

**Hint**
- You can also adjust the sound effects to suit your preferences in Details under Sound Effects.

Related Topic

- Adjusting the Speakers Volume
- Adjusting the Volume in Windows
About User Account Types

There are two types of user accounts available in Windows 8: a local account and a Microsoft account.

Local account
A local account is a user name and password that you use to sign in to your VAIO computer. Because local account information is stored on the computer, you cannot sign in to other computers with the same account.

- **Note**
  - If you forget your local account password, recover your VAIO computer.

- **Hint**
  - Setting a local account password is optional.

Microsoft account
A Microsoft account is an email address and password that you use to sign in to Microsoft services. If you create a Microsoft account, you can sign in to multiple computers with your Microsoft account. To download apps from **Windows Store**, you need to switch from a local account to a Microsoft account.

- **Note**
  - Setting a Microsoft account password is required.
  - If you forget your Microsoft account password, contact Microsoft support services.
Switching from a Local Account to a Microsoft Account

In Windows 8, you can switch between a local account and a Microsoft account. By switching from a local account to a Microsoft account, you can download apps from Windows Store.

To create or switch to a Microsoft account, follow these steps.

1. Open the charms and select the Settings charm. (See Opening the Charms to open the charms.)
2. Select Change PC settings in the lower right corner.
3. Select Users in the left pane of the PC settings screen.
4. Select Switch to a Microsoft account.
5. Follow the on-screen instructions.

**Note**

- To switch to a local account, select Switch to a local account in step 4 instead of Switch to a Microsoft account.
- If you forget your Microsoft account password, contact Microsoft support services.
Safety Regulations
Réglementations de sécurité
Reglamentación de Seguridad
Regulamentação de Segurança

IMPORTANT
Por favor lea detalladamente este manual de instrucciones antes de conectar y operar este equipo. Recuerde que un mal uso de su aparato podría anular la garantía.

Por favor, leia atentamente este manual de instruções antes de conectar e utilizar o computador. Lembre-se que a utilização inadequada deste equipamento poderá invalidar a garantia.
For customers in USA and Canada
Pour les utilisateurs aux Etats-Unis et au Canada

Owner’s Record
The model number and serial number are located on the bottom, the back panel, or inside the back panel or the battery compartment of your VAIO® computer. Record the model and serial numbers in the space provided here, and keep in a secure location. The model and serial numbers will be required when calling the Sony Service Center.

<table>
<thead>
<tr>
<th>Model Number:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Serial Number:</td>
<td></td>
</tr>
</tbody>
</table>

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Certain product(s) included with this computer may include features such as copy protection and content management technology. USE OF THE SOFTWARE PRODUCT(S) REQUIRES AGREEMENT TO APPLICABLE END USER AGREEMENTS AND FULL COMPLIANCE WITH APPLICABLE PRODUCT ACTIVATION PROCEDURES. Product activation procedures and privacy policies will be detailed during initial launch of the software product(s), or upon certain reinstallations of the software product(s), or reconfigurations of the computer, and may be completed by Internet or telephone (toll charges may apply).

Updates and additions to software may require an additional charge. Subscriptions to online service providers may require a fee and credit card information. Financial services may require prior arrangements with participating financial institutions.
Important information for Canadian customers: Your new VAIO® computer includes certain software versions or upgrades, and Internet services or offers that are available to U.S. customers only.

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The Wireless LAN functionality, which is incorporated into selected models only, has passed Wi-Fi certification and complies with the interoperability specifications established by WFA (Wi-Fi Alliance).

Reverse engineering or disassembly is prohibited.

End User / Product Activation Requirements

Certain software product(s) included with this computer may include features such as copy protection and content management technology. Use of the software product(s) requires agreement to applicable end user agreements and full compliance with applicable product activation procedures. Product activation procedures and privacy policies will be detailed during initial launch of the software product(s), or upon certain reinstallations of the software product(s) or reconfiguration of the computer, and may be completed by Internet or telephone (toll charges may apply).
Safety Information and Caution

For questions regarding your product or for the Sony Service Center nearest you, visit the Sony online support web site at http://esupport.sony.com/US/VAIO/ for customers in USA or at http://www.sony.ca/support/ for customers in Canada.

For the State of California, USA only
Perchlorate Material - special handling may apply, See www.dtsc.ca.gov/hazardouswaste/perchlorate/
Perchlorate Material: Lithium battery contains perchlorate.

☒ To prevent fire or shock hazard, do not expose your computer to rain or moisture.
☒ To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.
☒ Turning off your computer with the (power) button does not disconnect the computer completely from mains voltage. To disconnect it completely, unplug the AC adapter or the power cable from mains. The socket-outlet shall be installed near the equipment and shall be easily accessible.
☒ Do not use your computer directly on your lap. The temperature of the base of the unit will rise during normal operation and over time could result in discomfort or burns.
☒ Do not place the AC adapter in contact with your skin. Remove the AC adapter away from your body if it becomes warm and causes discomfort.
☒ Do not block the air exhaust or intake vents while the computer is in operation.
☒ Blocking the air vents leads to restriction on air circulation, which can cause internal overheating, resulting in deformation of the computer, a malfunction, or a fire hazard.
☒ Observe the following precautions to provide adequate air circulation and to ensure normal reliable operation:
☒ Do not use the computer on any cloth covered surfaces such as rugs, cushion or blankets, near draperies, or on dusty surfaces that may block its air vents. Always use the computer on flat surfaces.
☒ Do not use the computer and/or the AC adapter while covered or wrapped in cloth. Ensure the AC adapter operates in a clear environment.
☒ Before putting your computer in a bag, turn off the computer or place it into Sleep mode. If the computer is equipped with the power indicator, make sure the power indicator light is off.
☒ When holding the computer, be sure to wait until it cools down. The surface around the air exhaust vent may be extremely hot.
☒ To prevent possible damage and risk of ignition to your computer during transportation, first attach any supplied connector covers and slot protectors in their appropriate locations, and secure the battery pack in the battery compartment if it is removable.
☒ Do not use or store your computer in a location subject to heat sources, such as radiators or air ducts; direct sunlight; excessive dust; moisture or rain; mechanical vibration or shock; strong magnets or speakers that are not magnetically shielded; excessively high and low temperatures; and high humidity.
☒ Do not charge the battery pack in any way other than as described in the user guide or as designated by Sony in writing.
☒ Sony recommends using the genuine Sony AC adapter that is provided with this product. If the item needs to be replaced during the life of the product, be sure to use a compatible genuine Sony AC adapter. Information about compatible models can be found at http://www.sony.net/.
☒ Sony disclaims and shall assume no responsibility in case of any losses and damages arising from:
  – the use of non-genuine Sony battery packs or AC adapters with your VAIO® computer.
  – the disassembly, alteration of, or tampering with any Sony battery pack.
Do not use wireless functionality on hospital premises. Doing so may cause medical devices to malfunction.

Check for and respect airline restrictions on use of wireless capabilities. If use of the wireless function is prohibited on the airline, disable all wireless connections before boarding.

For Windows 8 models, open the charms by pointing to the top right corner of the screen, then move the pointer down and select the Settings charm. Select the network icon and then turn on Airplane mode.

For Windows 7 models, right-click the VAIO Smart Network icon in the desktop notification area and select the option to disable all wireless connections.

If you urgently need to disable the wireless function, turn off the computer.

If using wireless functionality near a pacemaker, make sure it is at least 8 inches / 20 cm away from the pacemaker.

Sony is not responsible for any interference that you may experience or that may be caused when operating this device.

Do not clean your computer with aerosol products (air dusters, aerosol sprays, etc.) that contain flammable gas. Doing so may fill the inside of the computer with gas and if the motors, the switch contacts, or other internal parts of the computer spark, the gas may ignite and it could cause an explosion or fire.

**On viewing 3D images (for 3D-capable models only)**

Be sure to follow the instructions in the manuals that came with the 3D display you use when viewing 3D images.

Some people may experience discomfort (such as eye strain, fatigue, or nausea) while watching 3D video images or playing stereoscopic 3D games. Sony recommends that all viewers take regular breaks while watching 3D video images or playing stereoscopic 3D games. The length and frequency of necessary breaks will vary from person to person. You must decide what works best. If you experience any discomfort, you should stop watching the 3D video images or playing stereoscopic 3D games until the discomfort ends; consult a doctor if you believe necessary.

You should also see the instruction manual of any other device or software used with this computer.

The vision of young children (especially those under six years old) is still under development. Consult your doctor (such as a pediatrician or eye doctor) before allowing young children to watch 3D video images or play stereoscopic 3D games. Adults should supervise young children to ensure they follow the recommendations listed above.
Avertissement

Pour toute question concernant ce produit, veuillez écrire à Sony Customer Information Service Center au 12451 Gateway Blvd., Fort Myers, FL 33913, USA ou se trouve le Sony Customer Service (service consommateur de Sony) sur Internet à : http://fr.sony.ca/support/.

- Pour prévenir tout risque d’incendie ou d’électrocution, garder cet appareil à l’abri de la pluie et de l’humidité.
- Pour prévenir tout risque d’électrocution, ne pas ouvrir le châssis de cet appareil et ne confier son entretien qu’à une personne qualifiée.
- Si vous éteignez votre ordinateur à l’aide du bouton (bouton d’alimentation), vous ne le débranchez pas complètement de la tension de secteur. Pour le débrancher entièrement, déconnectez l’adaptateur c.a. ou le câble d’alimentation de la prise. L’appareil doit être le plus près possible d’une prise murale pour en faciliter l’accès.
- Ne posez pas l’ordinateur directement sur vos genoux. Durant le fonctionnement normal, la température augmente et cela pourrait créer un inconfort ou des brûlures.
- Ne mettez pas l’adaptateur c.a. en contact avec votre peau. Éloignez l’adaptateur c.a. de votre corps s’il devient chaud et qu’il cause un inconfort.
- Lorsque l’ordinateur fonctionne, ne bloquez pas la sortie d’air ou des évents d’aération.

- Si vous bloquez les événets d’aération, cela pourrait restreindre la circulation d’air et causer une surchauffe interne pouvant entraîner une déformation de l’ordinateur, une défaillance ou un risque d’incendie.
- Afin d’assurer une circulation d’air normale et un fonctionnement fiable standard, suivez les précautions suivantes :
  - N’utilisez pas l’ordinateur sur une surface couverte de tissu, comme un tapis, un coussin ou une couverture, près d’une draperie ou d’une surface poussiéreuse susceptible de bloquer les événets d’aération. Utilisez toujours l’ordinateur sur une surface plate.
  - N’utilisez pas l’ordinateur et/ou l’adaptateur c.a. lorsqu’il est recouvert d’une toile. Assurez-vous que l’adaptateur c.a. fonctionne dans un environnement dégagé.
  - Avant de ranger votre ordinateur dans une sacoche, éteignez l’ordinateur ou mettez-le en mode Veille. Si l’ordinateur est équipé d’un témoin d’alimentation, assurez-vous que le témoin d’alimentation est éteint.
- Lorsque vous tenez l’ordinateur, assurez-vous qu’il est refroidi. Il est possible que la surface autour d’un événet d’aération soit extrêmement chaude.
- Afin de prévenir des indemnités à votre ordinateur pendant le transport, attachez d’abord tous les volets de connecteurs et protecteurs d’emplacements comme il convient, et insérez la batterie dans le logement de la batterie si elle est amovible.
- N’utilisez pas votre ordinateur et ne le rangez pas dans un endroit exposé à des sources de chaleur, comme des radiateurs ou des conduits d’air ; le rayonnement solaire. Ne l’exposez pas non plus à une quantité excessive de poussière ; à l’humidité ou la pluie ; à une vibration mécanique ou à un choc ; à des aimants puissants ou à des haut-parleurs non protégés contre les champs magnétiques ; à des températures extrêmement basses ou hautes et à une humidité intense.
- N’essayez pas de charger le module batterie d’une autre façon que celle décrite dans le Guide de l’utilisateur ou dans la documentation écrite de Sony.
- Sony rejette toute responsabilité en cas de perte ou de dommages engendrés par l’utilisation de modules batterie ou d’adaptateurs secteur de marque autre que Sony avec votre ordinateur VAIO®, ou par le désassemblage ou l’altération des modules batterie Sony.
Ne pas utiliser la fonctionnalité sans fil dans les hôpitaux car cela risquerait de provoquer le mauvais fonctionnement des appareils médicaux.

Vérifiez et respectez les restrictions des compagnies aériennes concernant l’utilisation des fonctions sans fil. Si une compagnie interdit l’utilisation d’une fonction sans fil, coupez toutes les connexions de vos appareils sans fil avant d’embarquer.

Pour les modèles Windows 8, ouvrez les icônes en pointant le coin supérieur droit de l’écran, puis déplacez le curseur vers le bas et sélectionnez l’icône Paramètres, sélectionnez l’icône du réseau et activez le Mode Avion. Pour les modèles Windows 7, faites un clic droit sur l’icône VAIO Smart Network dans la zone de notification du bureau et sélectionnez l’option pour désactiver toutes les connexions sans fil.

Si vous avez besoin de désactiver la fonction sans fil de toute urgence, éteignez l’ordinateur.

Si vous utilisez la fonctionnalité sans fil à proximité d’un stimulateur cardiaque, assurez-vous qu’il est au moins à 8 pouces / 20 cm du stimulateur cardiaque.

Sony n’est pas responsable des interférences que vous risquez de rencontrer ou qui risquent d’être provoquées lors du fonctionnement de cet appareil.

Ne nettoyez pas votre ordinateur à l’aide de produits en aérosol (bombes d’air sec, sprays etc.) contenant des gaz inflammables, afin d’éviter toute pénétration de gaz dans l’ordinateur. En cas d’étincelle provenant des moteurs, des contacts de l'interrupteur ou d'autres pièces internes de l'ordinateur, le gaz risquerait de prendre feu et de causer une explosion ou un incendie.

Sur le visionnement d’images 3D (uniquement pour les modèles compatibles 3D)

Suivez les instructions contenues dans les manuels livrés avec l’affichage 3D que vous utilisez lorsque vous visualisez des images 3D.

Il est possible que certaines personnes ressentent un inconfort (comme une fatigue de l’œil ou des nausées) lorsqu’elles regardent des images vidéo 3D ou lorsqu’elles jouent à des jeux stéréoscopiques 3D. Sony recommande à tous les spectateurs de prendre régulièrement des pauses lorsqu’ils regardent des images vidéo 3D ou lorsqu’ils jouent à des jeux stéréoscopiques 3D. La longueur et la fréquence des pauses nécessaires varient d’une personne à l’autre. C’est à vous de déterminer ce qui convient le mieux. Si vous éprouvez un inconfort, vous devez cesser de regarder les images vidéo 3D ou de jouer à des jeux stéréoscopiques 3D jusqu’à la disparition de l’inconfort ; consultez un médecin si vous le jugez nécessaire.

Par ailleurs, vous devez consulter le mode d’emploi de tout autre périphérique ou logiciel utilisé avec cet ordinateur.

La vision des jeunes enfants (particulièrement ceux de moins de six ans) est toujours en développement. Consultez votre médecin (comme un pédiatre ou un ophtalmologue) avant de permettre aux jeunes enfants de regarder des images vidéo 3D ou de jouer à des jeux stéréoscopiques 3D. Les adultes doivent superviser les jeunes enfants afin de s’assurer qu’ils respectent les recommandations énumérées ci-dessus.
To change the backup battery, please contact your nearest Sony Service Center.

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

**Wireless LAN Security**

Creating security settings for a Wireless LAN is extremely important. Sony assumes no responsibility for any security problems that may arise from the use of a Wireless LAN.

**Sécurité du réseau local sans fil**

La création de paramètres de sécurité pour le réseau local sans fil est extrêmement importante. Sony n’est pas tenu responsable des problèmes de sécurité susceptibles de se produire lors de l’utilisation du réseau local sans fil.
The optical disc drive of your computer is classified as a CLASS 1 LASER PRODUCT and complies with the Laser Products Safety Standard IEC/EN 60825-1.

Caution - Repair and maintenance of this equipment should be made only by Sony authorized technicians. Improper repairs and use can create safety hazards.

Caution - Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

For incorporated optical disc drive:
Caution - Class 3B visible and invisible laser radiation when open. Avoid direct exposure to the beam.
- Maximum power: 390 μW (λ 650nm), 563 μW (λ 780nm), 39 μW (λ 405nm)
- Beam divergence: 0.6 (λ 650nm), 0.45 (λ 780nm), 0.85 (λ 405nm)
- Pulse duration: Continuous wave

Le lecteur de disque optique de votre ordinateur est classé comme étant un PRODUIT LASER de CLASSE 1. De plus, il est conforme à la norme de sécurité sur les produits laser IEC/EN 60825-1.

Avertissement - La réparation et l’entretien de ce produit ne doivent être effectués que par un technicien autorisé par Sony. Des réparations ainsi qu’une utilisation inadéquates peuvent entraîner un risque pour la sécurité.

Avertissement - L’utilisation des contrôles ou des réglages, ou la réalisation de procédures autres que celles spécifiées dans le présent document peut entraîner une exposition dangereuse à des radiations.

Lecteur de disque optique intégré :
Avertissement - Rayonnement laser visible et invisible de classe 3B en cas d’ouverture. Evitez toute exposition au faisceau.
- Puissance maximale : 390 μW (λ 650nm), 563 μW (λ 780nm),
  39 μW (λ 405nm)
- Divergence de faisceau : 0,6 (λ 650nm), 0,45 (λ 780nm), 0,85 (λ 405nm)
- Durée d’une impulsion : onde entretenue
The following FCC statements apply only to the version of this model manufactured for sale in the USA. Other versions may not comply with FCC technical regulations, and the FCC statements are not applicable in Canada, including the Province of QUEBEC.

L’avis suivant de la FCC s’applique uniquement à la version de ce modèle fabriqué pour être vendu aux É.-U. Il est possible que d’autres versions ne soient pas conformes aux règlements techniques de la FCC. Par ailleurs, l’avis de la FCC ne s’applique pas au Canada, y compris dans la province de QUEBEC.

FCC Information (USA)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

NOTE: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user’s authority to operate the equipment.

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

All cables used to connect peripherals must be shielded and grounded. Operation with cables connected to peripherals that are not shielded and grounded may result in interference to radio and television reception.
FCC/IC Radio Frequency Exposure

The available scientific evidence does not show that any health problems are associated with using low power wireless devices. There is no proof, however, that these low power wireless devices are absolutely safe. Low power Wireless devices emit low levels of radio frequency energy (RF) in the microwave range while being used. Whereas high levels of RF can produce health effects (by heating tissue), exposure to low level RF that does not produce heating effects causes no known adverse health effects. Many studies of low level RF exposures have not found any biological effects. Some studies have suggested that some biological effects might occur, but such findings have not been confirmed by additional research.

This equipment has been tested and found to comply with FCC/IC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines in Supplement C to OET65 and RSS-102 of the IC radio frequency (RF) Exposure rules.

Exposition aux radiofréquences FCC/IC

Selon les preuves scientifiques disponibles, aucun problème de santé n’est associé à l’utilisation d’appareils sans fil de faible puissance. Rien ne prouve cependant que ces appareils sont absolument sans danger. Lorsqu’ils sont utilisés, les appareils sans fil de faible puissance émettent de faibles niveaux d’énergie radiofréquence (RF) dans la gamme des hyperfréquences. Bien que les niveaux élevés de radiofréquence puissent avoir un effet sur la santé (réchauffement des tissus), l’exposition à de faibles niveaux n’ayant pas d’effet thermique n’a aucun impact négatif connu sur la santé. De nombreuses études sur l’exposition aux radiofréquences de faible niveau n’ont révélé aucun effet biologique. Certaines d’entre elles ont sous-entendu qu’il pourrait y avoir de tels effets, mais leurs résultats n’ont pas été confirmés par des recherches supplémentaires.

Cet équipement a été testé et s’est avéré conforme aux limites d’exposition aux rayonnements définies par la FCC et IC pour l’environnement non contrôlé ; il répond aux règles sur l’exposition aux rayonnements RF (radiofréquence) figurant dans le Supplement C de la norme OET65 de la FCC et a celles de la norme RSS-102 d’IC.

IC RSS (Canada)

This device complies with Industry Canada license-exempt RSS standard(s).

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

Le présent appareil est conforme aux CNR d’Industrie Canada applicables aux appareils radio exempts de licence.

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

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<tr>
<td>Maximum Charge Voltage</td>
<td>12.66 V</td>
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<table>
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<tr>
<td>Maximum Charge Voltage</td>
<td>13.11 V</td>
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For customers in USA

Regulatory Information

If you have questions about this product, you can write to the Sony Customer Information Service Center at 12451 Gateway Blvd., Fort Myers, FL 33913, USA or find Sony Customer Service on the Web site at: http://esupport.sony.com/US/VAIO/ for customers in USA or http://www.sony.ca/support/ for customers in Canada.

Declaration of Conformity

<table>
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<tr>
<td>Model No.:</td>
<td>SVF14AC1QL, SVF14AA1QL, SVF15AC1QL, SVF15AA1QL</td>
</tr>
<tr>
<td>Responsible Party:</td>
<td>Sony Electronics Inc.</td>
</tr>
<tr>
<td>Address:</td>
<td>16530 Via Esprillo, San Diego, CA 92127, U.S.A.</td>
</tr>
<tr>
<td>Telephone No.:</td>
<td>858-942-2230</td>
</tr>
</tbody>
</table>

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) this device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.
Para clientes en países o regiones de América Latina

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Quedan prohibidos la ingeniería inversa y el desmontaje.

Requisitos de usuario final / activación del producto

Ciertos productos de software instalados en la computadora pueden incluir funciones, tales como, protección de copias y tecnología de gestión de contenidos. Para poder utilizar los productos de software es necesario aceptar los términos y condiciones de los contratos de usuario final y el total cumplimiento de los procedimientos de activación del producto que correspondan. Los procedimientos de activación de productos y las políticas de confidencialidad se detallarán durante el lanzamiento inicial de los productos de software o después de ciertas reconfiguraciones de los mismos o reconfiguraciones de la computadora y se pueden completar por Internet o por teléfono (es posible que se apliquen cargos por llamada).
Registro del propietario

El número de modelo y el número de serie se indican en la parte inferior de la computadora VAIO® de Sony. Anote los números de modelo y de serie en el espacio provisto a continuación y conserve la información en un lugar seguro. Cuando llame al Centro de Servicio Sony, mencione los números de modelo y de serie.

Número de modelo: SVF14AC1QU (SVF14A15CLB, SVF14A15CLS)
SVF14AA1QU (SVF14A15CLB, SVF14A15CLS)
SVF15AC1QU (SVF15A17CLB)
SVF15AA1QU (SVF15A17CLB)

Número de serie: ______________________

AVISO IMPORTANTE PARA COFETEL (Solo para clientes de México)

La operación de este equipo está sujeta a las siguientes dos condiciones: (1) es posible que este equipo o dispositivo no cause interferencia perjudicial y (2) este equipo o dispositivo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operación no deseada.

Para consultar la información relacionada al número del certificado de COFETEL, refiérase a la etiqueta del empaque y/o del producto.

Especificaciones

| Computadora | cc 19.5 V 2.3 A (Para SVF14AC1QU, SVF15AC1QU) |
| Adaptador ca/cc | cc 19.5 V 3.3 A (Para SVF14AA1QU, SVF15AA1QU) |
| Modelo(s): | VGP-AC19V67, VGP-AC19V48 |
| Entrada: | ca 100-240 V 50/60 Hz 1.2 A (Para VGP-AC19V67) |
| | ca 100-240 V 50/60 Hz 1.5 A (Para VGP-AC19V48) |
| Salida: | cc 19.5 V 2.3 A (Para VGP-AC19V67) |
| | cc 19.5 V 3.3 A (Para VGP-AC19V48) |
| Batería recargable integrada | |
| Especificaciones eléctricas: | cc 11.1 V 3 650 mAh |

Para evitar cualquier peligro, el adaptador ca incluido se debe utilizar correctamente, según las instrucciones de funcionamiento suministradas.
Información de seguridad

Advertencia

- Para prevenir incendios y peligros de descargas eléctricas, no exponga la computadora a la lluvia ni a la humedad.
- Para evitar descargas eléctricas, no abra la carcasa. Acuda únicamente a personal calificado para realizar cualquier tipo de reparación.
- Apagar el equipo mediante el botón \( \text{(botón de encendido)} \) no lo desconecta completamente de la red de suministro eléctrico. Para hacerlo, desenchufe el adaptador de ca o el cable de alimentación de dicha red. La toma de corriente debe estar instalada cerca del equipo y debe ser de fácil acceso.
- No use la computadora directamente sobre sus piernas. La temperatura de la base de la unidad aumentará durante el funcionamiento normal, y un contacto prolongado puede resultar incómodo o provocar quemaduras.
- No ponga el adaptador de ca en contacto con su piel. Aparte el adaptador de ca de su cuerpo si se calienta o le causa incomodidad.
- No bloquee la salida de aire ni las tomas de aire mientras la computadora está en funcionamiento.
- Para evitar posibles daños y el riesgo de que se incendie la computadora durante el transporte, primero coloque correctamente todos los protectores que se suministran para los conectores y para las ranuras, y asegure la batería en el compartimiento de la batería si esto es extrable.
- No use ni almacene su computadora en lugares expuestos a fuentes de calor, como radiadores o conductos de aire; luz solar directa; cantidades excesivas de polvo; humedad o lluvia; vibración mecánica o golpes; imanes potentes o altavoces que no están protegidos magnéticamente; temperaturas extremadamente altas o bajas; y alto nivel de humedad.
- Recargue la batería únicamente como se describe en la guía del usuario o según haya acordado Sony por escrito.
- Sony recomienda usar el adaptador de ca original de Sony proporcionado con este producto. Si el artículo necesita ser reemplazado durante la vida útil del producto, asegúrese de usar un adaptador de ca Sony original. En http://www.sony.net/ encontrará información sobre los modelos compatibles.
- Sony renuncia y no asume ninguna responsabilidad sobre daños o pérdidas de datos causados por el uso de paquetes de baterías o adaptadores de ca no originales de Sony en su ordenador VAIO®; o por la descompilación, la alteración o el desmontaje de cualquier paquete de batería de Sony.
- No utilice la funcionalidad inalámbrica en los hospitales, ya que podría ocasionar fallos en los dispositivos médicos.
- Compruebe y respete las restricciones de la aerolínea acerca del uso de las funciones inalámbricas. Si el uso de la función inalámbrica está prohibido en la aerolínea, desactive todas las conexiones inalámbricas antes de embarcar. Para los modelos de Windows 8, abra los charms apuntando a la esquina superior derecha de la pantalla. Luego mueva el puntero hacia abajo y seleccione el acceso **Configuración**, seleccione el icono de red y, a continuación, encienda el **Modo de avión**. Para los modelos de Windows 7, haga clic con el botón derecho en el icono de VAIO Smart Network en el área de notificación del escritorio y seleccione la opción para desactivar todas las conexiones inalámbricas. Si necesita con urgencia deshabilitar la función inalámbrica, apague la computadora.
- Si va a utilizar la funcionalidad inalámbrica cerca de un marcapasos, asegúrese de que se encuentra a una distancia de al menos 20 cm del mismo.
- Sony no es responsable de las interferencias que pudiera experimentar o que se pudieran ocasionar cuando esté utilizando este dispositivo.
- No limpie la computadora con productos en aerosol (pulverizadores, aerosoles, etc.) que contengan gases inflamables. Si lo hace, se puede llenar el interior de la computadora de gas y, si el motor, los contactos de los interruptores u otras piezas internas de la computadora producen chispas, el gas puede provocar fuego y ocasionar una explosión o un incendio.

**Mirar imágenes en 3D (únicamente para modelos con capacidad 3D)**
- Asegúrese de seguir las instrucciones de los manuales incluidos con su pantalla 3D al ver las imágenes en 3D.
- Es posible que algunas personas sientan molestias (cansancio en la vista, fatiga o náuseas) cuando miran imágenes de video en 3D o practican juegos en 3D estereoscópico. Sony recomienda que todas las personas realicen descansos periódicos cuando miran imágenes en 3D o practican juegos en 3D estereoscópico. Tanto la duración como la frecuencia de dichos descansos dependerán de cada persona. Usted debe decidir qué frecuencia es la mejor. Si siente algún tipo de molestias, debe dejar de mirar imágenes de video en 3D o practicar juegos en 3D estereoscópico hasta que las molestias desaparezcan; si lo considera necesario, consulte a su médico. Asimismo, debe consultar el manual de instrucciones de cualquier otro dispositivo o software que se utilice con esta computadora. En el caso de los niños pequeños (en especial aquellos menores de 6 años) la visión se encuentra todavía en desarrollo. Consulte al médico (un pediatra o un oftalmólogo) antes de permitir que los niños pequeños miren imágenes de video en 3D o practiquen juegos en 3D estereoscópico. Las personas adultas deben supervisar a los niños pequeños para garantizar que respeten las recomendaciones que se enumeran anteriormente.
Para cambiar la batería de reserva, póngase en contacto con el Centro de servicio Sony más cercano.

La unidad de disco óptico de su computadora ha sido clasificado como PRODUCTO LÁSER CLASE 1 y cumple con el estándar de seguridad de productos láser IEC/EN 60825-1.

Precaución - Las reparaciones y el mantenimiento sólo pueden ser autorizados por técnicos de Sony. Las reparaciones y el uso incorrectos pueden crear peligros de seguridad.

Precaución - La utilización de controles o ajustes, o la realización de procedimientos distintos de los aquí especificados pueden ocasionar una exposición peligrosa a la radiación.

Para unidad de disco óptico incorporada:
Precaución - Radiación láser visible e invisible de Clase 3B cuando está abierto. Evite la exposición directa al haz.
- Potencia máxima: 390 μW (λ 650nm), 563 μW (λ 780nm), 39 μW (λ 405nm)
- Divergencia del haz: 0,6 (λ 650nm), 0,45 (λ 780nm), 0,85 (λ 405nm)
- Duración del impulso: onda continua

Se aplican condiciones restrictivas en Chile.
Chile: Las funciones red local inalámbrica y BLUETOOTH son solo para uso en interiores.
Cuidado de la pantalla LCD (Pantalla de Cristal Líquido)

- La exposición directa a los rayos del sol puede dañar la pantalla LCD (Pantalla de Cristal Líquido). Tenga cuidado cuando utilice la computadora cerca de una ventana.
- No raye la pantalla LCD (Pantalla de Cristal Líquido) ni ejerza presión sobre ella ya que esto podría provocar un funcionamiento defectuoso.
- El uso de la computadora a bajos niveles de temperatura puede producir una imagen residual en la pantalla. Esto no implica un funcionamiento defectuoso. Cuando la computadora vuelva a temperatura normal, la pantalla funcionará normalmente.
- La suba de temperatura de la pantalla durante su funcionamiento es normal y no indica anomalía ni defecto en el equipo.
- La pantalla LCD (Pantalla de Cristal Líquido) ha sido fabricado utilizando tecnología de alta precisión. Sin embargo, podrían aparecer continuamente unos diminutos puntos negros o puntos brillantes (rojos, azules o verdes) en la pantalla LCD (Pantalla de Cristal Líquido). Esto es el resultado normal del proceso de fabricación y no indica una anomalía.
Para clientes no Brasil

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Este produto contém um software de propriedade da Sony e licenciado por terceiros. O uso deste software está sujeito aos termos e condições dos contratos de licença fornecidos junto com o produto. As especificações do software estão sujeitas a alterações sem aviso prévio e podem não ser necessariamente idênticas às versões de varejo atuais.

Alguns produtos fornecidos com este computador podem incluir recursos tais como proteção contra cópia e tecnologia para gestão de conteúdo. O USO DOS PRODUTOS DO SOFTWARE REQUER UM ACORDO PARA OS CONTRATOS APLICÁVEIS AOS USUÁRIOS FINAIS E TOTAL CONFORMIDADE COM OS PROCEDIMENTOS APLICÁVEIS A ATIVAÇÃO DO PRODUTO. Os procedimentos para ativação do produto e as diretrizes de privacidade serão detalhados durante o lançamento inicial do produto de software ou durante algumas reinstalações do software ou reconfigurações do computador e poderão ser concluídos pela Internet ou pelo telefone (despesas de chamada poderão ser cobradas).

As atualizações e adições ao software poderão estar sujeitas a uma cobrança adicional. A assinatura de provedores de serviços on-line necessitará de uma taxa e informações de cartão de crédito. Os serviços financeiros requerem acordos antecipados com as instituições financeiras.

Sony, VAIO, e o logotipo VAIO são marcas comerciais ou marcas registadas da Sony Corporation.

Todas as demais marcas são marcas comerciais ou registradas de seus respectivos proprietários.
A funcionalidade Wireless LAN, incorporada apenas nos modelos selecionados, obteve a certificação Wi-Fi e está em conformidade com as especificações de interoperabilidade estabelecidas pela WFA (Wi-Fi Alliance).

A engenharia reversa ou a desmontagem não são permitidas.

**Requisitos para o usuário final / ativação do produto**

Alguns produtos de software fornecidos com este computador podem incluir recursos tais como proteção contra cópia e tecnologia para gestão de conteúdo. O uso dos produtos do software requer um acordo para os contratos aplicáveis aos usuários finais e total conformidade com os procedimentos aplicáveis à ativação do produto. Os procedimentos para ativação do produto e as diretrizes de privacidade serão detalhados durante o lançamento inicial do produto de software ou durante algumas reinstalações do software ou reconfigurações do computador e poderão ser concluídos pela Internet ou pelo telefone (despesas de chamada poderão ser cobradas).
Informações sobre segurança e cuidados

Em caso de dúvidas a respeito do seu produto ou para obter o endereço do Centro de Serviços da Sony mais próximo, visite o site de suporte on-line da Sony no seguinte endereço http://esupport.sony.com/BR/VAIO/.

- Para evitar risco de incêndio ou de choque, não exponha o computador a chuva ou umidade.
- Para evitar choque elétrico, não abra o gabinete. Confie os serviços necessários somente a pessoal qualificado.
- Desligar o computador com o botão (botão de alimentação) não o desconecta completamente da tensão da rede elétrica. Para desconectá-lo completamente, retire o adaptador de CA ou o cabo de energia da rede elétrica. O soquete da tomada deve estar instalado próximo ao equipamento e acessado facilmente.
- Não use o computador diretamente sobre as pernas. A temperatura da base da unidade aumentará durante a operação normal e, ao longo do tempo, poderá resultar em desconforto ou até queimaduras.
- Não coloque o adaptador CA em contato com sua pele. Coloque o adaptador CA longe de seu corpo à medida que ele ficar quente e causar desconforto.
- Não bloqueeie as saídas de ar ou aberturas de ventilação enquanto o computador estiver em funcionamento.
- Bloquear as aberturas de ventilação leva à restrição de circulação do ar, o que pode causar superaquecimento interno, resultando em deformação no computador, mal funcionamento ou risco de incêndio.

Observe as seguintes precauções para proporcionar circulação de ar adequada e para garantir uma operação normal confiável:

- Não utilize o computador em qualquer superfície coberta de pano, como tapetes, almofadas ou cobertores, próximo a cortinas ou sobre superfícies empoeiradas que possam bloquear as aberturas de ventilação. Sempre use o computador em superfícies planas.
- Não use o computador e/ou adaptador de CA enquanto ele estiver coberto ou envolvido em tecido. Assegure-se de que o adaptador de CA opere em um ambiente limpo.
- Antes de guardar o computador em uma bolsa, desligue o computador ou colocá-lo em modo de suspensão. Se o computador está equipado com a indicadora de alimentação, verifique se a luz do indicadora de alimentação esteja desligada.
- Ao segurar o computador, certifique-se de que ele esteja frio. A superfície ao redor da abertura de ventilação pode estar extremamente quente.
- Para evitar possíveis danos ao computador durante o transporte, primeiro fixe as tampas dos conectores fornecidos e os protetores de slots nos locais adequados e prenda o conjunto de baterias no seu compartimento caso ela seja removível.
- Não use ou armazene o seu computador em um local exposto a fontes de calor, como aquecedores ou dutos de ar, luz solar direta, poeira excessiva, umidade ou chuva, vibração ou choque mecânicos, imãs fortes ou alto-falantes sem proteção contra imã, temperaturas excessivamente altas ou baixas e alta umidade.
- Não carregue a bateria de qualquer outro modo que não seja o descrito no manual do utilizador ou indicado pela Sony por escrito.
- A Sony recomenda o uso do adaptador CA original da Sony que é fornecido com este produto. Se o item precisar ser substituído durante o ciclo de vida do produto, certifique-se de usar um adaptador CA original da Sony compatível. Informações sobre modelos compatíveis podem ser encontradas em: http://www.sony.net/.
- A Sony desresponsabiliza-se e não assumirá quaisquer responsabilidades por perdas e danos resultantes:
  - da utilização de baterias ou transformadores não genuínos com o computador VAIO®; ou
  - da desmontagem, alteração ou adulteração de qualquer bateria Sony.
Não use a funcionalidade sem fio em instalações hospitalares. Isso poderá causar o funcionamento incorreto dos dispositivos médicos.

Verifique e respeite as restrições das linhas aéreas em relação à utilização de dispositivos sem fio. Se o uso da função sem fio for proibido, desative todas as suas conexões sem fio antes de embarcar.

Para modelos com Windows 8, abra os charms no canto superior direito da tela, mova o cursor para baixo e selecione o botão **Configurações**, selecione o ícone da rede e ative o **Modo Avião**.

Para modelos com Windows 7, clique com o botão direito no ícone **VAIO Smart Network** na área de notificação da área de trabalho e selecione a opção para desativar todas as conexões sem fio.

Caso precise urgentemente desativar a função sem fio, desligue o computador.

Se usar a funcionalidade sem fio próximo a um marca-passo, certifique-se de que ela esteja no mínimo a uma distância de 20 cm / 8 polegadas do dispositivo.

A Sony não se responsabiliza por qualquer interferência que possa existir ou que possa ser causada quando for operar este dispositivo.

Não limpe seu computador com produtos aerosóis (borrifadores, sprays etc.) que contenham gás inflamável. Fazer isso pode encher o interior do computador de gás e, se os motores, os contatos do interruptor ou outras peças internas faiscarem, o gás pode inflamar causando explosão ou incêndio.

**Sobre assistir imagens em 3D (somente para modelos preparados para 3D)**

Certifique-se de seguir as instruções nos manuais que acompanham o monitor 3D usado para assistir a imagens 3D.

Algumas pessoas podem apresentar desconforto (como vista cansada, fadiga ou náusea) ao assistir imagens de vídeo em 3D ou jogar jogos estereoscópicos 3D. A Sony recomenda que todos os espectadores façam intervalos regulares ao assistir imagens de vídeo em 3D ou jogarem jogos estereoscópicos 3D. A duração ou frequência dos intervalos variam de pessoa para pessoa. Você deve decidir o que funciona melhor no seu caso. Se você apresentar algum desconforto, você deve parar de assistir imagens de vídeo em 3D ou jogar jogos estereoscópicos 3D até que o desconforto cesse; consulte um médico se você julgar necessário.

Você também deve consultar o manual de instruções de qualquer dispositivo ou software usado neste computador.

A visão de uma criança (especialmente abaixo de seis anos) ainda está sob desenvolvimento. Consulte seu médico (um pediatra ou oftalmologista) antes de permitir que a criança assista imagens de vídeo em 3D ou jogue jogos estereoscópicos 3D. Adultos devem supervisionar as crianças para garantir que as recomendações listadas acima sejam seguidas.
Para trocar a bateria reserva, entre em contato com o Centro de Serviços Sony mais próximo.

A unidade de disco óptico de seu computador é classificada como PRODUTO A LASER DE CLASSE 1 e está em conformidade com o Padrão de Segurança de Produtos a Laser da IEC/EN 60825-1.

Atenção - O conserto e a manutenção deste equipamento só devem ser efetuados por técnicos autorizados pela Sony. Consertos e uso inapropriados podem gerar riscos à segurança.

Atenção - O uso de controles ou ajustes ou a execução de procedimentos além dos que estão especificados neste documento podem resultar em exposição perigosa à radiação.

Para a unidade de disco óptico incorporada:
Atenção - Radiação laser Classe 3B visível e invisível quando aberto. Evite a exposição ao feixe.
- Potência máxima: 390 μW (λ 650nm), 563 μW (λ 780nm), 39 μW (λ 405nm)
- Divergência do raio: 0,6 (λ 650nm), 0,45 (λ 780nm), 0,85 (λ 405nm)
- Duração da pulsação: onda contínua

Segurança da LAN sem fio
A criação de definições de segurança para a LAN sem fio é extremamente importante. A Sony não assume nenhuma responsabilidade pelos problemas de segurança que possam resultar do uso da LAN sem fio.
NOVO PADRÃO DE PLUGUES E TOMADAS

Somente para produtos que utilizam cabo de alimentação de 3 pinos


Caso seja necessário, recomendamos a substituição da tomada antiga de sua residência para o novo padrão por um técnico habilitado.

Os benefícios do novo padrão de plugues e tomadas são:
- Maior segurança contra risco de choque no momento da conexão do plugue à tomada;
- Melhoria na conexão entre o plugue e tomada, reduzindo problemas por falha de contato;
- Melhoria na eficiência energética (economia de energia)

Para aproveitar os benefícios que a nova padronização traz, é necessário o aterramento da tomada conforme norma técnica de instalações (NBR 5410).

Para mais informações sobre esta nova regulamentação entre no site:
ADVERTÊNCIA
Evite o uso prolongado do aparelho com volume alto (potência superior a 85 decibéis), pois isto poderá prejudicar a sua audição (Lei Federal No 11.291/06).

Recomendações Importantes Sobre o Nível de Volume

Caro(a) consumidor(a)
Maximize o prazer de ouvir a música com este aparelho lendo estas recomendações que ensinam você a tirar o máximo proveito do aparelho quando reproduzir um som a um nível seguro. Um nível que permite que o som seja alto e claro, sem distorção e sem causar desconforto e, o mais importante, de uma forma que proteja a sua sensibilidade auditiva.

Para estabelecer um nível seguro:
- Ajuste o controle de volume a um nível baixo.
- Aumente lentamente o som até poder ouvi-lo confortavelmente e claramente, sem distorções.

Uma vez estabelecido um nível de som confortável:
Ajuste o controle de volume e deixe-o nesta posição. O minuto gasto para fazer este ajuste agora protegerá a sua audição no futuro. Afinal de contas, nós queremos que você ouça durante toda a vida.

A seguir, incluímos uma tabela com os níveis de intensidade sonora em decibéis e os exemplos de situações correspondentes para a sua referência.

<table>
<thead>
<tr>
<th>Nível de Decibéis</th>
<th>Exemplos</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>Biblioteca silenciosa, susurros leves</td>
</tr>
<tr>
<td>40</td>
<td>Sala de estar, refrigerador, quarto longe do trânsito</td>
</tr>
<tr>
<td>50</td>
<td>Trânsito leve, conversação normal, escritório silencioso</td>
</tr>
<tr>
<td>60</td>
<td>Ar condicionado a uma distância de 6 m, máquina de costura</td>
</tr>
<tr>
<td>70</td>
<td>Aspirador de pó, secador de cabelo, restaurante ruidoso</td>
</tr>
<tr>
<td>80</td>
<td>Tráfego médio de cidade, coletor de lixo, alarme de despertador a uma distância de 60 cm</td>
</tr>
</tbody>
</table>

Os ruidos acima podem ser perigosos em caso de exposição constante.
- 90: Metrô, motocicleta, tráfego de caminhão, cortador de gramas
- 100: Caminhão de lixo, serras elétricas, furadeiro pneumático
- 120: Show de banda de rock em frente às caixas acústicas, trovão
- 140: Tiro de arma de fogo, avião a jato
- 180: Lagarote de foguete

Informação cedida pela Deafness Research Foundation, por cortesia.
DESCARTE DE PILHAS E BATERIAS
Este produto contém bateria de alimentação integrada(não removível pelo usuário) que só deve ser substituída por profissionais qualificados.
Ao fim da vida útil do equipamento, disponha-o em um ponto de coleta na Rede Autorizada Sony ou nas lojas Sony, de forma a garantir o tratamento adequado da bateria.

Para modelos com pacote de bateria removível e/ou baterias secas

Após o uso, as pilhas e/ou baterias deverão ser entregues ao estabelecimento comercial ou rede de assistência técnica autorizada.