SONY.

Troubleshooting and Recovery Guide

Important

Be sure to create recovery discs immediately after your computer is ready for use because there are no recovery discs provided with the computer. For instructions on how to create the recovery discs, see "Creating your own recovery discs" on page 14.

Recovery discs can also be purchased in case you cannot create them. Visit www.vaio-link.com for the contact details of your country/area.

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Introduction to this guide

This guide covers the following important areas:

Troubleshooting -

This section contains solutions to problems other than those you encounter during normal operation. See "Troubleshooting" on page 8.

For problems that are not described in this section, see the Troubleshooting section on the on-screen **User Guide**.

You can find more troubleshooting topics on the Sony online support web site at http://www.vaio-link.com.

Always read these sections before contacting VAIO-Link or your local Sony dealer directly.

You can also search for more information by using **Windows Help and Support**. **Windows Help and Support** is a comprehensive resource for practical advice, tutorials, and demonstrations to help you learn to use your computer. Use the Search feature, Index, or table of contents to view all Windows Help resources, including those that are on the Internet.

To access **Windows Help and Support**, click **Start** (1) and **Help and Support**, or press and hold the Microsoft Windows key and press the F1 key.

Recovering your VAIO system -

An important part of using your computer is being able to perform a recovery of the system and applications. This section explains everything you need to know about recovering your system. It is very important that you read this section before using your computer, and always before attempting to make a recovery of any kind. See "Before using your computer" on page 12.

Depending on the model you purchased, your computer may be equipped with solid state drives instead of hard disk drives. However, all built-in storage devices are referred to as a hard disk in this booklet.

Troubleshooting

Troubleshooting

What should I do if my computer does not start?

- Make sure your computer is securely plugged into a power source and turned on and the power indicator light is lit.
- □ Make sure the battery pack* is installed properly and charged.
- Disconnect all connected USB devices (if any), and then restart your computer.
- Remove any extra memory modules you may have installed since purchase, and then restart your computer.
- If your computer is plugged into a power strip or an uninterruptible power supply (UPS), make sure the power strip or UPS is plugged into a power source and turned on.
- If you are using an external display, make sure it is plugged into a power source and turned on. Make sure the brightness and contrast controls are adjusted correctly. See the manual that came with your display for more information.
- Unplug the power cord or the AC adapter, and remove the battery pack*. Wait three to five minutes. Reinstall the battery pack, plug the power cord or the AC adapter, and then press the power button or slide the power switch to turn on your computer.
- Condensation may cause your computer to malfunction. If this occurs, do not use the computer for at least one hour.
- Check that you are using the supplied Sony power cord or AC adapter. For your safety, use only the genuine Sony rechargeable battery pack* and power cord or AC adapter, which are supplied by Sony for your VAIO computer.
- * Applicable to notebook computers only.

What should I do if the green power indicator light turns on but my screen remains blank?

- □ Press the **Alt+F4** keys several times to close the application window. An application error may have occurred.
- Press the Ctrl+Alt+Delete keys and click the arrow next to the Shut down button and Restart.
- Press and hold the power button or slide and hold the power switch for more than four seconds to shut down your computer. Unplug the power cord or the AC adapter and leave the computer for about five minutes. Then, plug the power cord or the AC adapter and turn on the computer again.

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Turning off your computer with the **Ctrl+Alt+Delete** keys or the power button/switch may cause loss of unsaved data.

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

- □ If your computer stops responding while a software application is running, press the **Alt+F4** keys to close the application window.
- □ If the Alt+F4 keys do not work, click Start, the arrow Name next to the Lock button, and Shut Down to turn off your computer.
- If your computer does not turn off, press the Ctrl+Alt+Delete keys and click the arrow next to the Shut down button and Shut Down.
 If the Windows Security window appears, click Shut Down.
- □ If your computer still does not turn off, press and hold the power button or slide and hold the power switch until the computer turns off.

• Turning off your computer with the **Ctrl+Alt+Delete** keys or the power button/switch may cause loss of unsaved data.

- Unplug the power cord or the AC adapter, and remove the battery pack*. Wait three to five minutes. Reinstall the battery pack, plug the power cord or the AC adapter, and then press the power button or slide the power switch to turn on your computer.
- □ Try reinstalling the software.
- Contact the software publisher or designated provider for technical support.
- * Applicable to notebook computers only.

What should I do if the charge indicator light is blinking fast and my computer does not start?

- This problem could be due to the battery pack not being installed properly. To resolve this problem, turn off your computer and remove the battery pack. Then reinstall the battery pack to the computer again. For details, see the on-screen **User Guide**.
- If the problem persists after performing the above, it means the installed battery pack is not compatible. Remove the battery pack and contact VAIO-Link.

What should I do if a message appears notifying of either incompatibility or the improper installation of the battery pack and my computer then enters Hibernate mode?

- This problem could be due to the battery pack not being installed properly. To resolve this problem, turn off your computer and remove the battery pack. Then reinstall the battery pack to the computer again. For details, see the on-screen **User Guide**.
- If the problem persists after performing the above, it means the installed battery pack is not compatible. Remove the battery pack and contact VAIO-Link.

What should I do if Windows does not accept my password and returns a message, Enter Onetime Password?

If you enter a wrong power-on password three times consecutively, the **Enter Onetime Password** message appears and Windows will not start.

Press and hold the power button or slide and hold the power switch for more than four seconds to check that the power indicator light turns off. Wait for 10 or 15 seconds, then restart your computer and enter the correct password.

When entering the password, check that the Num lock and Caps lock indicators are unlit. If both or either of the lights is lit, press the **Num Lk** (or **Num Lock**) key or the **Caps Lock** key to turn off the indicator before entering the password.

What should I do if I cannot remember the power-on password?

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

Recovering your VAIO system

Before using your computer

This section explains how to resolve problems, make a backup copy of your data, and recover your Sony VAIO[®] computer system with the following VAIO software and Windows features in case of computer malfunctions.

□ VAIO Recovery Center

Contains the following VAIO software, tools, and Windows features:

Rescue Data

Enables you to make a backup copy of your data stored on your hard disk.

Wipe and Erase Data

Enables you to erase all the data on your hard disk.

□ VAIO Hardware Diagnostics

Enables you to check your computer hardware (a CPU, memory module, hard disk, etc.).

Reinstall Programs or Drivers

Enables you to restore the preinstalled software or software drivers to the original factory condition.

Restore C: Drive

Enables you to restore the C drive on your computer to the original factory condition.

□ Restore Complete System

Enables you to restore your entire computer system to the original factory condition.

□ Create Recovery Discs

Enables you to create your own recovery discs to recover your computer system.

Backup and Restore Center

Windows backup feature that enables you to use the backup related capabilities.

To launch VAIO Recovery Center when Windows starts

Click Start, All Programs, VAIO Recovery Center, and VAIO Recovery Center.

VAIO Data Restore Tool

Enables you to restore the backup copies made with the Rescue Data software.

What to do first

In case of virus attacks, computer malfunctions, or accidental erasure, prepare the following in advance:

1 Create recovery discs

Be sure to create recovery discs immediately after your computer is ready for use because there are no recovery discs provided with the computer.

For instructions on how to create the recovery discs, see "Creating your own recovery discs" on page 14.

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Recovery discs can also be purchased. Visit www.vaio-link.com for the contact details in your country/area.

2 Make a backup copy of your data

Recovering your computer system will delete all the data previously stored on a hard disk. Be sure to make a backup copy of your data before recovering the computer system.

For instructions on how to make a backup copy of the data, see "Backing up and restoring your data using Backup and Restore Center" on page 16.

Creating your own recovery discs

Recovery discs enable you to recover your computer system to its original state. You can create the recovery discs with **VAIO Recovery Center**. Recover the computer system in the following cases:

- □ Your computer has been infected with a computer virus.
- □ Your computer has been unstable.
- □ Your computer system is experiencing problems which cannot be solved through troubleshooting.
- □ You have formatted the C drive on your computer by mistake.

Depending on your computer state, you may need recovery discs to recover your computer system.

Recovery discs are compatible only with the computer in which the discs are created. You cannot use the recovery discs for your computer with any other computer.

You may not be able to recover your computer system from the recovery partition in the following cases due to modifications of the recovery partition.

- □ You have used software to modify the recovery partition.
- You have installed an operating system different from the preinstalled operating system on your computer.
- **u** You have formatted your hard disk without using **VAIO Recovery Center**.

In these cases, recover your computer system with the recovery discs. If you have not yet created them, you need to purchase them or repair the computer at your expense.

To purchase recovery discs, visit www.vaio-link.com for the contact details in your country/area.

To create recovery discs

1 Make sure you have blank discs ready beforehand.

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You cannot use Blu-ray Disc[™] media, DVD-RAM, CD-R, and CD-RW discs as recovery discs. To find out which types of media your optical disc drive supports, see the on-screen User Guide.

Do not touch or soil the surface of the disc. Fingerprints and dust on the surface may cause read/write errors.

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It is recommended that you download and install the latest updates on your computer using **VAIO Update** before creating recovery discs.

To download and install the updates on the computer, it must be connected to the Internet. For information on how to connect the computer to the Internet, see the on-screen **User Guide**.

- 2 If your computer is not equipped with a built-in optical disc drive, connect an external optical disc drive (not supplied).
- 3 Launch VAIO Recovery Center (see page 12).

4 Click Create Recovery Discs and Start.

If the **User Account Control** window appears, click **Continue**. If you are currently logged onto your computer as a standard user, you may be prompted to enter an administrator name and password.

5 Read the on-screen instructions carefully, and then click **Next**.

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You can confirm the number of necessary discs and types of media you can use for recovery disc creation in the **Choose your media** window.

6 Select the disc you want to use.

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By selecting the check box near the bottom of the window, you can verify whether the recovery disc is properly created at the end of the procedure. It is recommended to do so although the procedure takes more time.

7 Follow the on-screen instructions.

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It may take time to display the current status of the procedure.

If there is not enough free space on the hard disk, you cannot create recovery discs. Do not press the drive eject button while creating a recovery disc, as doing so may result in a failure of the process.

After creating the recovery discs, follow the on-screen instructions to write down the names of the discs on the disc labels. Use only soft-tipped pens with oil-based ink such as a felt pen. Hard-tipped pens may cause damage to the surface of the disc.

Backing up and restoring your data using Backup and Restore Center

You can make a backup copy of your data, restore the data, and create a restore point using **Backup and Restore Center**.

To back up your data

Making a backup copy of your data is extremely important. If you do not make the backup copy, you will lose various data stored on your hard disk, such as documents or pictures, due to unexpected events or computer viruses. It is strongly recommended to make the backup copy on a daily basis.

There are three options to make a backup copy of your data.

- Use the Back Up Files wizard. You can make a backup copy of your data to a CD, DVD or removal media, such as an external hard disk drive. For instructions on how to use this wizard, see "To make a backup copy of your file with the Back Up Files wizard" on page 17.
- Use the Windows Complete PC Backup and Restore feature (available on models with Windows Vista Ultimate or Windows Vista Business only).

You can make a backup copy of everything on your computer including the programs, system settings, and files on the computer. You can restore your computer system to the state when you made the backup copy.

For instructions on how to use this feature, see "To make a backup copy of your file with the Windows Complete PC Backup and Restore feature" on page 18.

Create a restore point.

Your computer may become unstable or slow after installing new software or changing the Windows settings. In such cases, you can use a restore point to restore your computer system to a previous state. For instructions on how to create a restore point, see "To create a restore point" on page 20.

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If an optical disc drive is not installed on your computer, you need an external hard disk drive or optical disc drive to make a backup copy of your data or need to create a new partition by changing the size of the C drive.

For instructions on how to create a hard disk partition, see "Creating a hard disk partition" on page 34.

Be sure to create recovery discs immediately after your computer is ready for use. In case you cannot make a backup copy of your data due to computer malfunctions, you can use the recovery discs to make the backup copy.

For instructions on how to create the recovery discs, see "To create recovery discs" on page 15.

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You can also make a backup copy of your data with the **Rescue Data** software. For instructions on how to make a backup copy of your data, see "To back up your data with Rescue Data" on page 22.

To make a backup copy of your file with the Back Up Files wizard

- 1 Launch VAIO Recovery Center (see page 12).
- 2 Select Windows Backup and Restore and click Start.
- 3 Click Back up files.
- 4 Click **Continue** in the **User Account Control** window. If you are currently logged onto your computer as a standard user, you may be prompted to enter an administrator name and password.
- **5** Follow the on-screen instructions.

To restore your data from the backup copy made with the Back Up Files wizard

- 1 Launch VAIO Recovery Center (see page 12).
- 2 Select Windows Backup and Restore and click Start.
- 3 Click Restore files.
- **4** Follow the on-screen instructions.

To make a backup copy of your file with the Windows Complete PC Backup and Restore feature

The Complete PC Backup and Restore feature is not available on models with Windows Vista Home Premium or Windows Vista Home Basic.

- 1 Launch VAIO Recovery Center (see page 12).
- 2 Select Windows Backup and Restore and click Start.
- 3 Click Back up computer.
- 4 Click Continue in the User Account Control window. If you are currently logged onto your computer as a standard user, you may be prompted to enter an administrator name and password.
- **5** Follow the on-screen instructions.

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To restore your data using the **Windows Complete PC Backup and Restore** feature, you need your own recovery discs.

For instructions on how to create the recovery discs, see "To create recovery discs" on page 15.

You cannot select which files to restore when restoring the files from the backup copy you made with the **Windows Complete PC Backup and Restore** feature.

The files which you have changed or created after the backup cannot be restored.

To restore your data from the backup copy made with the Windows Complete PC Backup and Restore feature

• Your computer may not work properly after the restore process because restoring your data changes system files. Be sure to make a backup copy of your data before restoring the data.

- Insert a recovery disc to the drive while the computer is on, turn off your computer, and turn on the computer again. The Windows Boot Manager is displayed.
- 2 Press the ↑ or ↓ key to select **Repair Windows Vista** and press the **Enter** key.
- **3** Select a keyboard layout and click **Next**.

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If you are using **BitLocker Drive Encryption** on models with **Windows Vista Ultimate**, the **BitLocker Drive Encryption Recovery** window may appear. Follow the on-screen instructions to disable **BitLocker Drive Encryption** temporarily.

- 4 Select an operating system and click Next.
- **5** If you have saved a backup copy of your data to an external hard disk drive or discs with an external optical disc drive, connect the external device to your computer.
- 6 Select Windows Complete PC Restore. If you have saved the backup copy to CD or DVD discs, insert a disc to the (external) optical disc drive.
- 7 Follow the on-screen instructions.

To create a restore point

What is a restore point?

A restore point is created automatically, for example when installing a software driver, and used to restore your computer system files to a previous state. Even though the restore point is created automatically, it is recommended to create the restore point manually before installing software or a software driver on your computer because your computer may become unstable or slow after installing new software or changing the Windows settings. If you have created the restore point when the computer is working normally, use the restore point to restore the system files to the previous state.

To create a restore point manually

- 1 Launch VAIO Recovery Center (see page 12).
- 2 Select Windows Backup and Restore and click Start.
- 3 Click Create a restore point or change settings on the left pane.
- 4 Click Continue in the User Account Control window. If you are currently logged onto your computer as a standard user, you may be prompted to enter an administrator name and password.
- 5 Click the System Protection tab in the System Properties window.
- 6 Click to select the check box next to the drive for which you want to create a restore point under **Automatic restore points**.
- 7 Click Create.
- 8 Follow the on-screen instructions.

To use the restore point for restoring system files

If you can start Windows, follow these steps:

- 1 Follow the steps 1 to 4 in "To create a restore point manually" on page 20.
- 2 Click System Restore on the System Protection tab in the System Properties window.
- **3** Follow the on-screen instructions.

If you cannot start Windows, follow these steps:

 Insert a recovery disc to the drive while the computer is on, turn off your computer, and turn on the computer again. The Windows Boot Manager is displayed.

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If you have not yet created the recovery discs, follow these steps:

- 1 Turn on your computer.
- 2 Press the F8 key when the VAIO logo appears.
- **3** Make sure the option to repair the computer, which is listed on the top of the boot option window, is selected, and then press the **Enter** key.
- 4 Skip the following step 2 and go to step 3.
- 2 Press the ↑ or ↓ key to select **Repair Windows Vista** and press the **Enter** key.
- **3** Select a keyboard layout and click **Next**.

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If you are using **BitLocker Drive Encryption** on models with **Windows Vista Ultimate**, the **BitLocker Drive Encryption Recovery** window may appear. Follow the on-screen instructions to disable **BitLocker Drive Encryption** temporarily.

If you have displayed the **System Recovery Options** window by pressing the **F8** key, select the user name and enter the password, and then skip the following step 4 and go to step 5.

- 4 Select an operating system and click Next.
- 5 Select System Restore.
- **6** Follow the on-screen instructions.

Backing up and restoring your data with the VAIO software

You can also make a backup copy of your data with the **Rescue Data** software and restore the rescued data with the **VAIO Data Restore Tool** software.

To back up your data with Rescue Data

The **Rescue Data** software enables you to rescue (back up) your data on the hard disk even when you cannot start Windows.

There are two options to rescue your files.

- Normal data rescue Saves all the files which you can rescue on the hard disk to an external hard disk drive.
- Custom data rescue Saves files which you specified to an external hard disk drive, removal media, or an optical disc (CD, DVD, etc.).

Notes on using Rescue Data

- □ Handle rescued files with care to protect from unauthorized access.
- Keep recovery discs in a secure place to protect from unauthorized copying of your data on the hard disk because this software can be launched from the recovery discs.
- Rescued files which are not encrypted on the hard disk can be easily accessed by unauthorized users using recovery discs.
 To protect rescued files from unauthorized access, set the power-on or hard disk password or use the Windows hard disk drive encryption feature.
- Using this software does not guarantee to make backup copies of all data on your hard disk. Sony assumes no liabilities for any loss of your data arising out of the backup process.
- Disable the Windows hard disk drive encryption feature before using this software.
- Be sure to use the power cord or the AC adapter to power your computer when using this software.

To start the rescue process

 Insert a recovery disc to the drive while the computer is on, turn off your computer, and turn on the computer again. The Windows Boot Manager is displayed.

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If you have not yet created the recovery discs, follow these steps:

- 1 Turn on your computer.
- 2 Press the F10 key when the VAIO logo appears.
 - If the ${\bf Edit}~{\bf Boot}~{\bf Options}$ window is displayed, press the ${\bf Enter}$ key.
- **3** Skip the following step 2 and go to step 3.
- 2 Press the ↑ or ↓ key to select Start VAIO Recovery Center and press the Enter key.
- 3 Select Rescue Data and Start.
- 4 Follow the on-screen instructions.

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It is recommended to select an external hard disk drive as a location to save rescued files if you select **Custom data rescue**.

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You may not be able to select a Blu-ray Disc media as a location to save rescued files depending on your computer. To find out which types of media your optical disc drive supports, see the on-screen **User Guide**.

The backup process automatically stops and your computer restarts if the process has not completed within 64 hours. To resume the process, follow the steps 1 to 3, click to select the **Resume canceled process** check box, and **Next**.

Do not disconnect an external hard disk drive or optical disc drive during the rescue process.

You may need to install a software driver if you select removal media, such as a Memory Stick, an SD memory card, or a USB flash drive, as a location to save rescued files. The software driver is saved in the **VAIO** folder on each recovery disc. To install the software driver, click **Install Driver** in the window to select a location to save rescued data.

Rescued files may be divided into two or more files and saved on a location to save the rescued files or renamed depending on the location you selected. Use the **VAIO Data Restore Tool** software to restore the rescued files.

You cannot use a DVD-R DL disc as a location to save rescued files. To find out which types of media your optical disc drive supports, see the on-screen **User Guide**.

Use an external hard disk drive or optical disc drive that supports the i.LINK or USB connections to save rescued files.

You need to install a software driver if you use an external hard disk drive or optical disc drive that does not support an i.LINK or a USB connection.

To restore your data with VAIO Data Restore Tool

The VAIO Data Restore Tool software enables you to restore files which have been rescued with the **Rescue Data** software.

To start the restore process

- 1 Click Start, All Programs, VAIO Data Restore Tool, and VAIO Data Restore Tool.
- 2 Click **Continue** in the **User Account Control** window. If you are currently logged onto your computer as a standard user, you may be prompted to enter an administrator name and password. The **VAIO Data Restore Tool** window appears.

For instructions on how to use the software, see the help file included with the software.

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If necessary, move the restored files to an original location.

Restoring the preinstalled software or software drivers

You can restore the preinstalled software or software drivers to the original factory condition with the **Reinstall Programs or Drivers** program.

To use Reinstall Programs or Drivers

When the preinstalled software or software drivers do not work normally, follow these steps to restore the preinstalled software or software drivers to the original factory condition.

Some software and software drivers may not be restored.

The restoration using the **Reinstall Programs or Drivers** program may not work properly, depending on the configuration of your computer. You may also lose data that you created before the restoration process.

Before restoring, you must uninstall the preinstalled software or software drivers you are going to restore. Click **Start**, **Control Panel**, and **Uninstall a program** under **Programs**, and select the preinstalled software or software drivers to uninstall. If they are not uninstalled, you may not complete the restoration process successfully.

- 1 Launch VAIO Recovery Center (see page 12).
- 2 Select Reinstall Programs or Drivers and click Start.
- 3 Read the information about software or features to resolve the problems, select Skip if you have already tried all of them, and click Next.

If the User Account Control window appears, click Continue.

- 4 Click Next.
- 5 Select the desired software or software driver check box and click **Next**.
- **6** Follow the on-screen instructions.

Finding out what to do in case of computer malfunctions

This section describes how to get your computer back to normal before recovering your computer system in case of computer malfunctions.

If your computer does not work properly

Your computer may become unstable or slow in the following cases:

- □ Your computer has been infected with a computer virus.
- □ You have changed the Windows settings.
- □ You have installed software or a software driver which is not compatible with your computer.

You may need to apply different procedures to get your computer back to normal, depending on whether Windows starts or not. If you can start Windows, follow the steps on page 27. If not, follow the steps on page 28.

If Windows starts

1 Create your recovery discs if you have not yet created them (see page 14).



2 Make backup copies of your valuable files (see page 16).



- **3** Try any of the following:
 - □ Restore system files from the latest restore point when your computer was working normally (see page 21).
 - Uninstall software or software drivers which are not compatible with your computer if you have installed such software or software drivers, or restore the preinstalled software or software drivers to the originally factory condition (see page 25).
 - Restore your data from the backup copy made with the Windows Complete PC Backup and Restore feature (available on models with Windows Vista Ultimate or Windows Vista Business only) (see page 19).

You cannot restore your files which you have changed or created after the backup.



4 If your computer still does not work properly, recover the computer system. See "Recovering your VAIO system when you can start Windows" on page 31.

• Recovering your computer system will delete all the data previously stored on the hard disk.

It is recommended that you update your computer after the system recovery using **VAIO Update**.

If Windows does not start

- **1** Try any of the following:
 - Restore system files from the latest restore point when your computer was working normally (see page 21).

Restore your data from the backup copy made with the Windows Complete PC Backup and Restore feature (available on models with Windows Vista Ultimate or Windows Vista Business only) (see page 19).

You cannot restore your files which you have changed or created after the backup. If you have such files and want to restore them, make backup copies of them with the **Rescue Data** software.

For instructions on how to use the software, see "To back up your data with Rescue Data" on page 22.



2 Make backup copies of your files with the **Rescue Data** software if you have not yet made them (see page 22).



3 Examine your computer hardware (a CPU, memory module, hard disk, etc.) with the VAIO Hardware Diagnostics software. For instructions on how to use the software, see the help file included with the software.



4 If you still cannot start Windows, recover your computer system. See "Recovering your VAIO system when you cannot start Windows" on page 33.

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It is recommended that you update your computer after the system recovery using **VAIO Update**.

Recovering your VAIO system

This section describes how to recover your computer system.

Before starting the recovery process

What is a system recovery?

A system recovery is to restore your computer to its factory state. Perform a system recovery in the following cases:

- □ Your computer has been infected with a computer virus.
- □ Your computer has been unstable.
- □ Your computer system is experiencing problems which cannot be solved through troubleshooting.
- □ You have formatted the C drive on your computer by mistake.

You can recover your computer system from the hard disk (recovery partition) or recovery discs.

What is a recovery partition?

A recovery partition contains data for a system recovery and an application recovery on the hard disk. Normally, you cannot modify or delete the data on this partition. You can, however, modify or delete the data with commercially available software applications designed to modify partition information. The data modification or deletion may disable a system recovery.

Recovering your computer system can restore the preinstalled software only (except certain software). It cannot restore software applications that were installed on your own or the data you created after purchase.

Recovering your computer system cannot restore only the Windows operating system.

Certain preinstalled software applications include options to uninstall or install them. The software applications installed or uninstalled by using such options may not work properly on your computer.

Installing a software application to modify partition sizes may disable a system recovery or recovery disc creation. Be sure to create recovery discs immediately after the computer is ready for use. See "Creating your own recovery discs" on page 14.

Recovering your computer system will delete all the data on the hard disk even if the hard disk is encrypted with the **Windows BitLocker Drive Encryption** (**BitLocker**) feature.

It may take several hours to complete the recovery process.

About the recovery options

There are two recovery options you can select.

Normally, we recommend that you perform the **Restore C: Drive** procedure.

Restore C: Drive

All the current data on your C drive will be deleted and the C drive will be restored to its original factory state.

The data on the recovery partition and the partition you have created will not be deleted.

Restore Complete System

All the current data on your computer will be deleted and all the partition including the recovery partition will be restored to its original factory state. Select this recovery option when you want to change the partition sizes or when you are not able to restore the C drive.

Before starting the recovery process

- Recovering your computer system will delete all the data on the hard disk. Make sure you have the backup copy of your valuable data.
- On models with a fingerprint sensor, recovering your computer system will delete all the fingerprint templates on the hard disk. See the specifications to see whether your model is equipped with a fingerprint sensor.
- Disconnect all peripherals from the computer except the power cord or the AC adapter before recovering your computer system.
- Recovering your computer system restores all the settings to the factory default settings.
- Make sure that you perform both a system recovery and an application recovery. Your computer may become unstable without performing the application recovery.
- If you have set the password to protect your data, you may not start the recovery process without entering the password. Be sure to write down the password not to forget the password.
 If you have forgotten the password and cannot start the recovery

process, contact VAIO-Link to reset it. A reset fee will be charged.

Recovering your VAIO system when you can start Windows

You can recover your computer system from the hard disk if you can start Windows. There are two options to recover the computer system: to restore the C drive or to restore your entire computer system. If you cannot start Windows, see "Recovering your VAIO system when you cannot start Windows" on page 33.

• Be sure to remove an optical disc from the optical disc drive before following the steps below.

To restore the C drive

Follow these steps to restore the C drive to the original factory condition:

- 1 Launch VAIO Recovery Center (see page 12).
- 2 Select Restore C: Drive and click Start.
- 3 Read the information about software or features to resolve the problems, select Skip if you have already tried all of them, and click Next.

If the User Account Control window appears, click Continue.

- 4 Read the warnings thoroughly, select the **I understand** check box, and click **Start**.
- **5** Follow the on-screen instructions.

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If you have changed partition sizes and created another partition other than the C drive on your hard disk, the data on the partition will remain unchanged even after recovering your computer system.

For instructions on how to create a hard disk partition, see "Creating a hard disk partition" on page 34.

To restore your entire computer system

Follow these steps to restore the entire data on your hard disk to the original factory condition:

- 1 Launch VAIO Recovery Center (see page 12).
- 2 Select Restore Complete System and click Start.
- 3 Read the information about software or features to resolve the problems, select Skip if you have already tried all of them, and click Next.
- 4 Select Skip and click Next if you have created the recovery discs. If you have not, create recovery discs (see page 14). If the User Account Control window appears, click Continue.
- **5** Follow the on-screen instructions.

After completing the recovery process, restore your data from the backup copy you have made. To restore the data from the backup copy, see "Backing up and restoring your data using Backup and Restore Center" on page 16.

Recovering your VAIO system when you cannot start Windows

If Windows does not start, you can select from the following two options:

- Recover your computer system using recovery discs. You can recover your computer system using recovery discs when you have damaged or erased the recovery partition data. However, it takes more time than recovering it from the recovery partition.
- Recover your computer system from the recovery partition. You can recover your computer system faster than recovering it using recovery discs, because the recovery partition on the hard disk is used.

To recover your computer system using recovery discs

- Insert a recovery disc to the drive while the computer is on, turn off your computer, and turn on the computer again. The Windows Boot Manager is displayed.
- 2 Press the ↑ or ↓ key to select Start VAIO Recovery Center and press the Enter key.
- **3** Follow the steps after step 1 in "To restore the C drive" on page 31 or steps 2, 3, and 5 in "To restore your entire computer system" on page 32, depending on your computer state.

To recover your computer system from recovery partition

- **1** Turn on your computer.
- Press the F10 key when the VAIO logo appears.
 If the Edit Boot Options window is displayed, press the Enter key.
- **3** Follow the steps after step 1 in "To restore the C drive" on page 31 or steps 2, 3, and 5 in "To restore your entire computer system" on page 32, depending on your computer state.

After completing the recovery process, restore your data from the backup copy made with the **Rescue Data** software. To restore the data from the backup copy, see "Backing up and restoring your data with the VAIO software" on page 22.

Changing the partition sizes

This section describes how to change the partition sizes.

About hard disk partitioning

Hard disk partitioning is to divide a hard disk into multiple partitions. It allows you to organize your data or software on each hard disk partition more effectively.

The computer has a partition (C drive) only with the default settings^{*}. You can repartition the hard disk into two partitions: C drive and D drive, and use the D drive as a location to back up your data. For information on how to create a partition, see "Creating a hard disk partition" described below.

* The D drive may be already configured at the time of purchase, depending on the model.

Creating a hard disk partition

The steps described here take as an example the hard disk partitioning to change the size of the C drive and create another partition.

There are two options to create a partition:

- Create a partition using the Windows feature.
- Create a partition in the recovery process.

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If you reduce the volume of the C drive partition, you may not create recovery discs or complete the recovery process successfully because the free space on the hard disk is not enough.

If you create a partition in the recovery process, all the data previously stored on a hard disk will be deleted.

If you want to create a partition using the recovery discs on models without a built-in optical disc drive, you need to connect an external optical disc drive (not supplied).

To create a partition with the Windows feature

1 Click Start, Control Panel, System and Maintenance, and Create and format hard disk partitions under Administrative Tools.

2 Click Continue in the User Account Control window. If you are currently logged onto your computer as a standard user, you may be prompted to enter an administrator name and password.

- **3** Right-click the C drive and select **Shrink Volume**.
- 4 Specify the amount of space to shrink and click **Shrink** in the **Shrink** C: window.

You can assign a hard disk space created by shrinking the volume of the C drive as a new partition.

Total size before shrink in MB: Indicates the current volume of the C drive.

□ Size of available shrink space in MB: Indicates the available space in the C drive, which you can assign as a new partition.

Enter the amount of space to shrink in MB: Enter the desired volume of the new partition. You cannot specify the volume exceeding the amount of Size of available shrink space in MB.

 Total size after shrink in MB: Indicates the volume of the C drive after you shrink the volume.

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While you use your computer for a certain period of time, the unallocated hard disk space is getting smaller. In this case, it is recommended to defragment the hard disk. To defragment the hard disk, click **Start**, **All Programs**, **Accessories**, **System Tools**, and **Disk Defragmenter**.

The maximum volume to shrink is determined by the system, and you cannot shrink the C drive smaller than indicated.

- 5 Right-click Unallocated and select New Simple Volume.
- **6** Follow the on-screen instructions.

To create a partition in the recovery process

1 Insert a recovery disc to the drive while the computer is on, turn off your computer, and turn on the computer again.

The Windows Boot Manager is displayed.

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If using an external optical disc drive (not supplied), restart the computer and press the **F11** key several times.

If you have not yet created the recovery discs, follow these steps:

- 1 Turn on your computer.
- 2 Press the F10 key when the VAIO logo appears. If the Edit Boot Options window is displayed, press the Enter key.
- **3** Skip the following step 2 and go to step 3.
- 2 Press the ↑ or ↓ key to select Start VAIO Recovery Center and press the Enter key.
- 3 Click Restore Complete System and Start.
- 4 Select Skip and click Next. Follow the on-screen instructions until the window to divide your hard disk is displayed.
- 5 Select Customized drive size from the Divide your hard disk's storage space into C and D drives drop-down list.
- 6 Enter the desired C drive size and click Next.
- 7 Follow the on-screen instructions.

Erasing everything on your hard disk

It is strongly recommended to erase all the data on your hard disk before you dispose of your computer or give it to others.

Erasing all of your data on your hard disk with Wipe and Erase Data

Use the **Wipe and Erase Data** software to wipe out your data on your hard disk. The erased data cannot be restored.

You need recovery discs to use this software. Create the recovery discs if you have not yet created.

For instructions on how to create the recovery discs, see "To create recovery discs" on page 15.

The erasing process automatically stops and your computer restarts if the process has not completed within 71 hours. The process will resume after the computer restarts.

Be sure to connect and use the power cord or the AC adapter to power your computer when using this software.

1 Make backup copies of your valuable files.

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Make a backup copy of your data using the **Back Up Files** wizard if you can start Windows.

Make a backup copy of your data with the **Rescue Data** software if you cannot start Windows. You can launch this software with recovery discs.

2 Insert a recovery disc to the drive while the computer is on, turn off your computer, and turn on the computer again. The Windows Boot Manager is displayed.

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If using an external optical disc drive (not supplied), turn on the computer and press the **F11** key several times.

- 3 Press the ↑ or ↓ key to select Start VAIO Recovery Center and press the Enter key.
- 4 Select Wipe and Erase Data and click Start.
- **5** Follow the on-screen instructions.

http://www.vaio-link.com

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