

Upgrading and Maintaining Your VAIO® Computer (PCV-RX450/PCV-RX460)

In the future you may want to increase the functionality of your computer. This section describes how to open your computer and insert add-on boards, add memory, replace the lithium battery, and install an additional hard disk drive. For more information on upgrading your Sony computer, see the *System Reference Manual*. You can download the *System Reference Manual* from the Sony Web site at <http://www.sony.com/pcsupport>

Overview

The procedures in this section assume that you are familiar with the general terminology associated with personal computers and with the regulatory compliance required for using and modifying electronic equipment. Observe proper safety precautions when you modify your computer. Read “Notes on Use” in the *VAIO® Computer User Guide (PCV-RX450/PCV-RX460)* before upgrading your Sony computer.



Always switch the power off before you open the system or connect your computer to peripheral equipment. Otherwise, damage may occur to the integrated circuits in your computer.



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

Removing the Side Cover

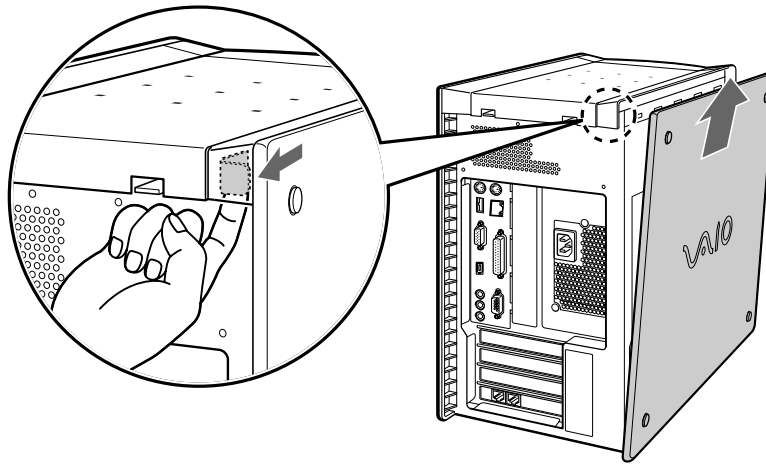


If you remove the side cover immediately after you shut down your computer, the components may be too hot to touch. Wait until the internal parts of the system unit cool down before you attempt to remove the side cover.

To remove the side cover


- 1 Shut down your computer and turn off all peripheral devices, such as your printer.
- 2 Unplug your computer and any peripheral devices.
- 3 Locate the tab on the upper right side of the rear panel, and pull it back until the side cover releases.
- 4 Lift the side cover away from the unit and set aside.

Removing the Side Cover (PCV-RX450/PCV-RX460)



Inserting a PCI Add-on Board

Your computer has two open PCI expansion slots. These slots enable you to install add-on boards to expand the functionality of your system. The length of the add-on board should not exceed 9.05 inches.

 Add-on board configuration varies by model. Some models, such as Configure-to-Order (CTO) systems, may contain preinstalled add-on cards, such as an ADSL modem.

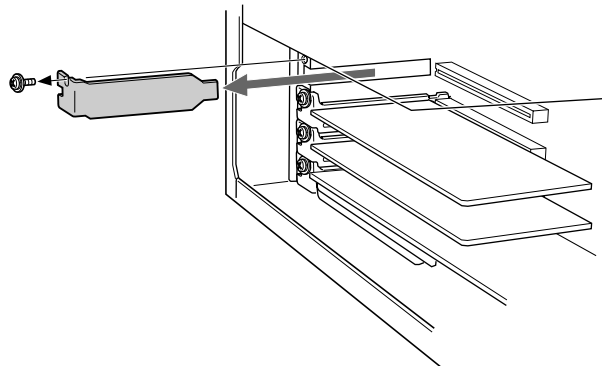
To insert an add-on board



Make sure you observe the proper safety precautions when you add boards to your Sony computer. See “Notes on Use” in the *VAIO® Computer User Guide (PCV-RX450/PCV-RX460)*.

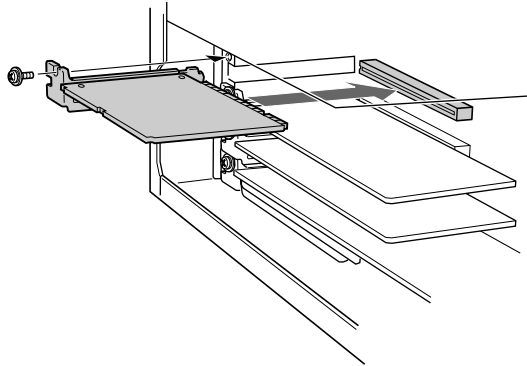
- 1 Shut down your computer and turn off all peripheral devices, such as your printer.
- 2 Unplug your computer and any peripheral devices.
- 3 Remove the side cover as described in “Removing the Side Cover.”
- 4 Locate one of the available expansion slots. Remove the screw, and then remove the slot cover.

Removing the Slot Cover (PCV-RX450/PCV-RX460)



- 5 Install the add-on board by plugging it into the expansion slot and secure it with the screw from the expansion slot.


Installing an add-on board (PCV-RX450/PCV-RX460)



- 6 Attach any internal cables that the board requires (see the manual that came with the add-on board).
- 7 Replace the side cover as described in “Replacing the Side Cover.”
- 8 Reconnect all peripheral devices and the power cord, and then turn on the computer.

Inserting an AGP add-on card

Your computer has one open AGP expansion slot. This slot enables you to install an AGP card, to enhance your system's graphics capabilities. The length of the AGP card should not exceed 9.05 inches.

 Installing an AGP card disables the internal graphics. Your system supports AGP 4x enabled graphics cards.

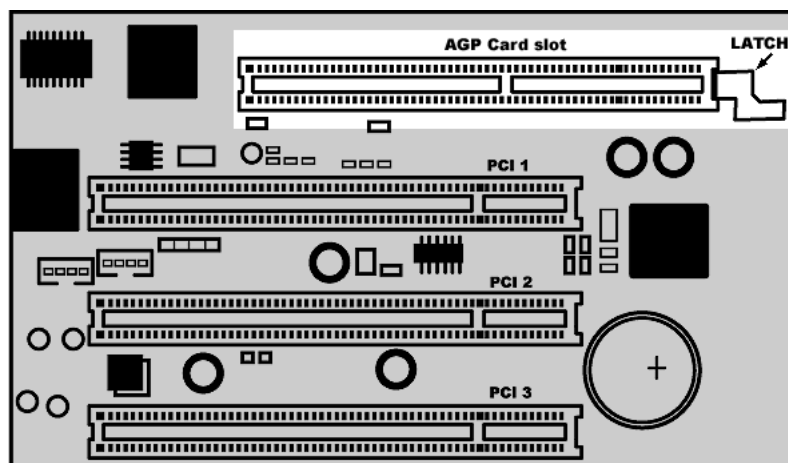
To insert an AGP Card



Make sure you observe the proper safety precautions when you upgrade your Sony computer. See "Notes on Use" in the *VAIO® Computer User Guide (PCV-RX450/PCV-RX460)*.

- 1 Shut down your computer and turn off all peripheral devices, such as your printer.
- 2 Unplug your computer and any peripheral devices.
- 3 Remove the side cover as described in "Removing the Side Cover".
- 4 Locate the AGP card slot and remove the slot cover. Press down on the end latch before inserting the AGP card.

Locating the AGP Card Slot (PCV-RX450/PCV-RX460)



- 5 Firmly insert the AGP card into the slot. Lift up the end latch, if the latch does not automatically lock back into place. Secure the AGP card with the screw.
- 6 Replace the side cover as described in “Replacing the Side Cover.”
- 7 Reconnect all peripheral devices and the power cord. The monitor cable needs to be connected to the monitor port on the new AGP card you have just installed.
- 8 Turn on the computer and install the driver for the AGP card. See the instructions that came with the AGP card.

Adding Memory

The computer has two memory slots. For memory upgrades, use only 3.3V 64-bit PC-133 SDRAM DIMM modules. You can purchase additional memory modules, accessories, and peripheral equipment from your local retailer.

To install memory



Make sure you observe the proper safety precautions when you add DIMMs to your Sony computer. See “Notes on Use” in the *VAIO® Computer User Guide (PCV-RX450/PCV-RX460)*.

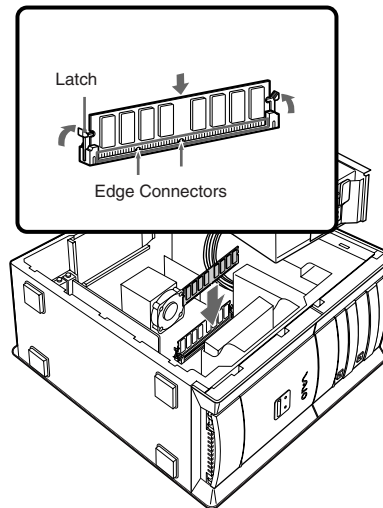
- 1 Shut down your computer and turn off all peripheral devices, such as your printer.
- 2 Unplug your computer and any peripheral devices. Wait for your computer to cool down.
- 3 Remove the side cover as described in “Removing the Side Cover”.
- 4 Gently place the unit on its side. If necessary, remove any cables, add-on cards, or other components to access the DIMM slots. You must remove the power supply before installing the memory modules.

Remove the power supply by following these steps:

- ☐ Remove the screw that secures the power supply to the rear of the chassis.
- ☐ Pull the tab that latches the power supply to the chassis.

- ❑ Slide the power supply up until the power supply clears the chassis.
 - ❑ Rotate the power supply to an upside down position and rest it on top of the chassis where the hard drive is located.
- 5 Handle the DIMM only by the edges, and remove it from its anti-static package.
 - 6 Locate the notches on the bottom edge of the DIMM.
 - 7 Align the DIMM over the slot.

Installing Memory (PCV-RX450/PCV-RX460)



To avoid damaging the DIMM slot, move the DIMM slot tabs slightly outward to relieve pressure. The module should click easily into place.

- 8 Firmly insert the bottom edge of the DIMM into the slot.
- 9 Press evenly against the DIMM's upper corners. The end latches snap into position automatically.

- 10 Reinstall the power supply and any add-on cards or components you removed.

Reinstall the power supply by following these steps:

- ☐ Rotate the power supply to its original position and slide it into the chassis until the tab snaps into position.
- ☐ Replace the screw that secures the power supply to the rear of the chassis.

- 11 Replace the side cover as described in “Replacing the Side Cover.”

Replacing the Lithium Battery

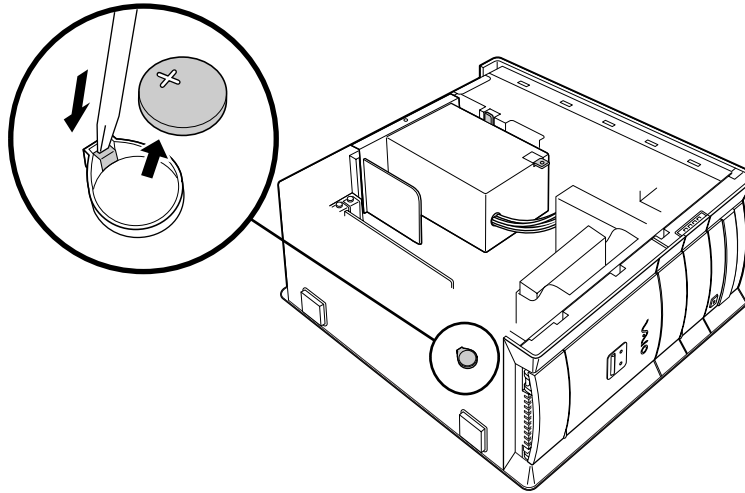
The lithium battery starts to weaken after several years and the system settings, such as the date and time stored in CMOS RAM, may become inaccurate. When this occurs, you need to replace the lithium battery.

To replace the lithium battery

- 1 Write down any changes you have made to the settings in the BIOS Setup utility. If you have not made any changes to the BIOS settings, proceed to step 2.
- 2 Shut down your computer and turn off all peripheral devices, such as your printer.
- 3 Unplug your computer and the peripheral devices.
- 4 Remove the side cover as described in “Removing the Side Cover.”
- 5 If necessary, remove any cables, add-on cards, or other components to access the lithium battery.

- 6 Remove the old battery and install the new battery with the plus (+) side up.

Installing a Lithium Battery (PCV-RX450/PCV-RX460)



There is danger of the battery exploding if it is replaced incorrectly. You must replace the battery only with a CR2032-type lithium battery. Discard used batteries according to the instructions in the *VAIO® Computer User Guide (PCV-RX450/PCV-RX460)*.

- 7 Replace the side cover as described in “Replacing the Side Cover.”



The values stored in the CMOS memory are now reset to the factory default values. You must run the Setup utility to reset the date, time, passwords, and other changes you may have made to the BIOS settings. If you do not wish to customize your BIOS settings, you do not need to run the Setup utility. If you simply wish to reset the date and time, see Windows Help for instructions.

Installing an Additional Hard Disk Drive

Your computer comes with an available internal bay to hold a second standard 3½-inch hard disk drive. Some models, such as Configure-to-Order (CTO) systems, may already have a second hard disk drive installed. Your system can support ATA-33, ATA-66, or ATA-100 hard disk drives. The hard disk drive access light blinks when either internal drive is active.

For information on how to install additional drives, see the *System Reference Manual*. You can download the *System Reference Manual* from the Sony Web site at <http://www.sony.com/pcsupport>.

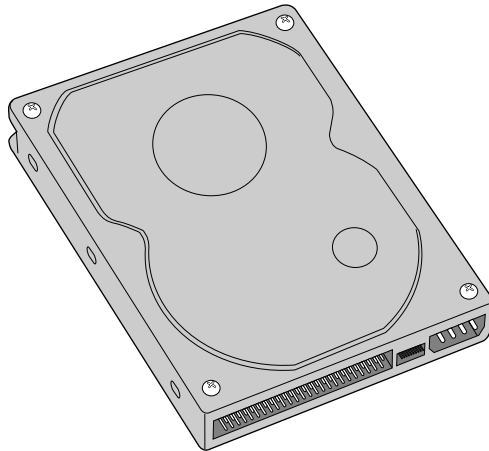


Before opening the system unit, save any open files, exit Windows, turn off the power to the computer and all attached peripherals, and then unplug the power cord.

To install an additional hard disk drive

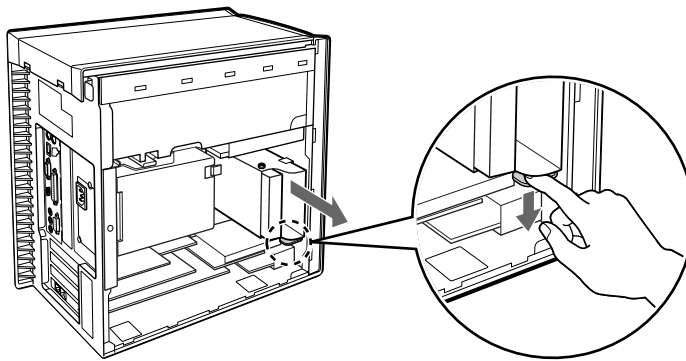
- 1 Configure the jumpers on the new drive as a slave (see the manual that came with your drive for configuration instructions).

Installing a Hard Drive (PCV-RX450/PCV-RX460)



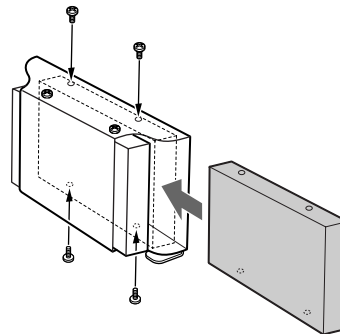
- 2 Remove the side cover as described in “Removing the Side Cover.”
- 3 Detach the power and drive cables from the hard disk drive that is already installed in your computer.
- 4 Unlock the drive holder from the chassis by pulling down on the tab located at the bottom of the drive holder and then slide it out.

Removing the Drive Holder (PCV-RX450/PCV-RX460)



- 5 Slide the new drive into the drive holder and align the holes on each side of the drive bay.

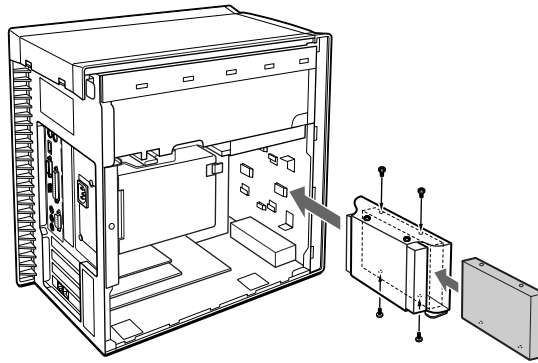
Attaching the Drive Screws



- 6 Secure the drive to the drive holder using the two holes on each side of the drive holder (screws are provided with the new drive). Do not overtighten the screws.

- 7 Align the drive holder with the slots on the inside of the chassis. Slide the drive holder in completely and push up on the bottom tab to lock it in position.
- 8 Connect the second drive connector to the new drive. Be sure to orient the connector so that pin 1 (the red side of the ribbon cable) is aligned with pin 1 of the new drive.
- 9 Connect the second power connector to the new drive (see the manual that came with your drive for detailed instructions).

Replacing the Drive Holder (PCV-RX450/PCV-RX460)



- 10 Replace the side cover as described in “Replacing the Side Cover”

Your computer automatically recognizes the new drive and configures itself accordingly when you turn it on. Partition and format the new drive following the instructions provided with the drive.

Replacing the Side Cover

To replace the side cover

- 1 Align the tabs on the side cover to the chassis rim.
- 2 Press the side cover firmly against the unit until it snaps into place.

Replacing the Side Cover (PCV-RX450/PCV-RX460)

