

HP Vectra VLi 8 MT PC

Models and Accessories

Product Number	Hard Drive	Video Controller	Std. RAM	Multi-media	LAN	OS ¹
Vectra VLi 8 MT PC Models with Intel Pentium II Processor, 100 MHz System Bus Speed, and 512 KB Level 2 Cache Memory						
HP Vectra VLi 8 MT PC 400/100 (CPL: 03/99 ▶)						
D7948A/T	6.4 GB IDE	Integrated Matrox MGA-G200 AGP (8 MB SGRAM fitted, not upgradeable)	64 MB SDRAM 100 MHz	32 × Max IDE CD-ROM	no	W95
D7949A/T	8.4 GB IDE				3COM 3C905B-TX	NT 4.0 WS
D8795A	6.4 GB IDE			no	no	DOS
Vectra VLi 8 MT PC Models with Intel Pentium III Processor, 100 MHz System Bus Speed, and 512 KB Level 2 Cache Memory						
HP Vectra VLi 8 MT PC 450/100 (CPL: 03/99 ▶)						
D7957T	13.5 GB IDE	Integrated Matrox MGA-G200 AGP (8 MB SGRAM fitted, not upgradeable)	64 MB SDRAM 100 MHz	32 × Max IDE CD-ROM	3COM 3C905B-TX	NT 4.0 WS
D7958A/T	6.4 GB IDE				no	W95
D7959A/T	8.4 GB IDE				3COM 3C905B-TX	NT 4.0 WS



HP Vectra VLi 8 MT PC

Product Number	Hard Drive	Video Controller	Std. RAM	Multi-media	LAN	OS ¹
HP Vectra VLi 8 MT PC 500/100 (CPL: 03/99 ▶)						
D7969A/T	8.4 GB IDE	Integrated Matrox MGA-G200 AGP (8 MB SGRAM fitted, not upgradeable)	64 MB SDRAM 100 MHz	32 × Max IDE CD-ROM	3COM 3C905B-TX	NT 4.0 WS
<div style="border: 1px solid black; border-radius: 10px; padding: 2px 10px; display: inline-block;">Vectra VLi 8 MT PC</div> Models with User Defined Processor, Main Memory, and Hard Disk						
HP Vectra VLi 6/xxx² MT Series 8 PC (CPL: 03/99 ▶)						
D7960E	User defined	Integrated Matrox MGA-G200 AGP (8 MB SGRAM fitted, not upgradeable)	User defined	User defined	User defined	None

1. Operating system preloaded on these models, as indicated in the table.
2. Channel Assembly Program (CAP) models: Processor speed, hard disk size, and memory is user defined.

Note

All model have an integrated full-duplex PCI audio controller.

Supported Accessories

32-MB kit 32-bit SDRAM, 100 MHz non-ECC main memory module	D6501A/T
32-MB kit 32-bit SDRAM, 100 MHz non-ECC main memory module (pack of 20)	D6504A/T
64-MB kit 32-bit SDRAM, 100 MHz non-ECC main memory module	D6502A/T
64-MB kit 32-bit SDRAM, 100 MHz non-ECC main memory module (pack of 20)	D6505A/T
128-MB, 32-bit SDRAM, 100 MHz non-ECC main memory module	D6503A/T
256-MB, 32-bit SDRAM, 100 MHz ECC main memory module	D6743A/T

Documentation

User's Guide Manual Kit D7940A

Input Devices

HP Standard Keyboard C4735A



HP Scrolling Mouse C4736A

Video Displays

All current HP Displays (see the *HP Vectra Accessory Service Handbook*)

Mass Storage

4.3-GB IDE hard disk	D8371A
6.4-GB IDE hard disk	D8372A
8.4-GB IDE hard disk	D8373A
HP 100 MB Atapi II Iomega ZIP drive	D6650A
HP 100 MB Atapi II Iomega ZIP drive (pack of 10)	D6651A

Multimedia

32X Max IDE CD-ROM drive (pack of 10)	D6656A
32X Max IDE CD-ROM drive	D4384A
Multimedia sound accessory kit (16-bit audio board, cables, and software) - pack of 10	D5183A
Multimedia sound accessory kit (32X Max CD-ROM drive, 16-bit audio board, headphones, cables, and software)	D6657A

Data Communications and LAN Adapter Boards

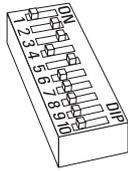
HP 56K V90 PCI Fax Modem	D7808A
HP 10/100 3Com 3C905B-TX, 10/100BT Ethernet card	D7504A
HP 10/100 3Com 3C905B-TX, 10/100BT Ethernet card (pack of 10)	D7505A
HP 10/100 Intel PRO/100+, 10/100BT Management adapter	D7506A
HP 10/100 Intel PRO/100+, 10/100BT Management adapter (pack of 10)	D7507A

Security

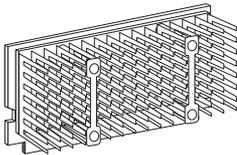
HP Master Pass Key System Kit	D6655A
HP Master Pass Key	D6658A
HP Locks for Master Pass Key System (pack of 50)	D6659A



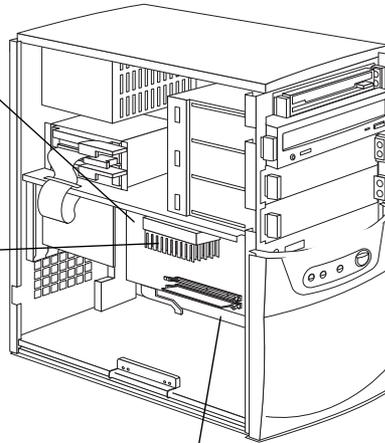
System Board, BIOS, and Memory



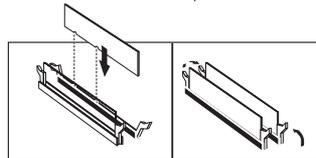
**System Board
Switches:** See the table
on the next page.



Processor: Pentium II or
Pentium III SECC2 package
with integrated heatsink and
level-2 cache memory.



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Main Memory:

Two DIMM sockets which support up to
a maximum of 512 MB.

Install 32 MB, 64 MB, 128 MB or
256 MB 100 MHz SDRAM modules.



System Board Switches

Switch		Function	Default
1	—	RESERVED — Do Not Use	Off
2	On	Crash recovery mode: forces booting in the BIOS boot block area	Off
	Off	Normal operation	
3	On	Normal operation (keyboard space-bar power-on enabled)	On
	Off	Disables keyboard power- on	
4	On	Clears User and Administrator passwords	Off
	Off	Normal operation	
5	On	Clears CMOS (to reload the <i>Setup</i> program defaults)	Off
	Off	Normal operation	
6-9	—	Processor frequency, see the following table	—
10	—	RESERVED — Do Not Use	Off

System Frequency ¹		Switch			
Bus 100 MHz	Bus 66 MHz	6	7	8	9
350 MHz ²	233 ² MHz	Off	On	Off	On
400 MHz	266 ² MHz	On	Off	On	On
450 MHz	300 ² MHz	Off	Off	On	On
500 MHz	333 ² MHz	On	Off	Off	On
Reserved	366 ² MHz	Off	Off	Off	On
Reserved	400 ² MHz	On	On	On	Off
Reserved	433 ² MHz	Off	On	On	Off

1. System and processor frequency is automatically determined by the type of processor.
2. These options are not yet available in any model of the HP Vectra VLi 8 at the time of printing. This information is provided for completeness only.

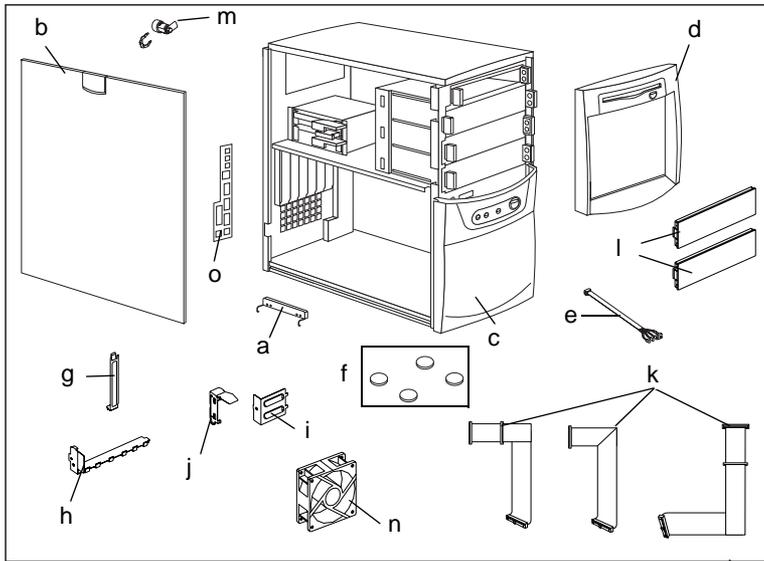
BIOS History

For the latest BIOS, the flasher utility program, and the BIOS history refer to the HP World Wide Web site.

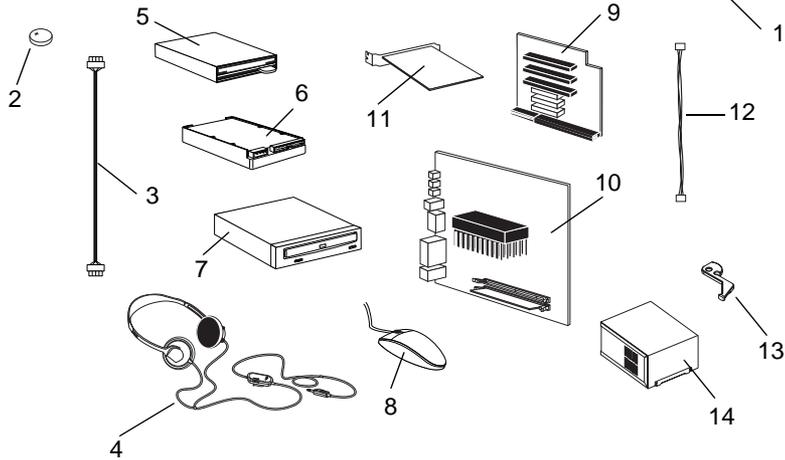
<http://www.hp.com/go/vectrasupport/>



Part Numbers



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Parts List for HP Vectra VLi 8 PC

Item	Description	Repl. Part Number	Exchange Part Number
1	Box assembly:	5064-6786	—
	a Base bottom handle assembly	5064-7487	—
	b Open side cover assembly	5064-7489	—
	c Fixed bezel assembly ¹	5064-7490	—
	d Bezel door assembly	5064-7493	—
	e Status panel	5064-9155	—
	f Bumper feet assembly	5064-7486	—
	g Blank I/O panel	5002-4799	—
	h I/O locker	5002-4800	—
	i Blank AGP panel	5002-4798	—
	j AGP locker	5002-6201	—
	k HDD, FDD and CD-ROM cable kit	5064-9136	—
	l Filler 5.25 inch	5042-3081	—
	m Master key lock	5064-9145	—
	n Fan assembly	5064-9149	—
	o Rear bezel	5064-9127	—
not shown	p Airflow guide	tbd	—
2	Battery type CR2032	1420-0356	—
3	CD-ROM to audio connector cable	5182-1857	—
4	Headphones	5182-3552	—
5	Floppy disk drive (bezel-less)	D2035-60391	—
6	IDE hard disk drive ²		
	6.4 GB	—	D8372-69001
	8.4 GB	—	D8373-69001
	13.5 GB	—	D8435-69001
7	32 X Max IDE CD-ROM drive	—	D4385-69001
8	Enhanced mouse with scroll/zoom wheel	C4736-60101	—
	Standard keyboard	C4735-603xx ³	—
	Standard keyboard (Japan)	C4732-60324	—
	Multimedia keyboard	C4734-605xx ³	—
9	Backplane board	5064-7456	—
10	System board	See PC's system board parts list	
11	3Com 3C905B-TX LAN board	5064-6787	—
or	Intel PRO/100+ LAN board	5064-7434	—
12	3COM Wake on LAN Cable	5183-2769	—
13	NLX board extractor	5042-3083	—
14	Power supply	0950-3472	—

1. Includes name plate and power switch.
2. For optional disk drive information, see the *Accessory Service Handbook*.
3. Where "xx" is the code for your national keyboard (see the *Accessory Service Handbook*).



System Board Parts List for HP Vectra VLi 8 MT PC

Description	Repl. Part Number	Exchange Part Number
System board: Vectra VLi 8 system board with Matrox MGA-G200 video controller and audio subsystem	—	D4066-69001
Processors (SECC2 package): Intel Pentium II 400/100 512KB L2 cache Intel Pentium III 450/100 512KB L2 cache Intel Pentium III 500/100 512KB L2 cache	— — —	D7645-69001 D7946-69001 D7957-69001
Main memory modules: 1 × 64-MB, 100 MHz non-ECC SDRAM	D6502-63001	—

Manuals and Documentation for HP Vectra VLi 8 MT PC

<i>User's Guide Manual Kit</i>	D7940A
<i>Troubleshooting and Upgrade Guide</i>	no number ¹
<i>Technical Reference Manual: hardware and BIOS</i>	no number ¹

1. Electronic file available on HP's Web site.

Notes:



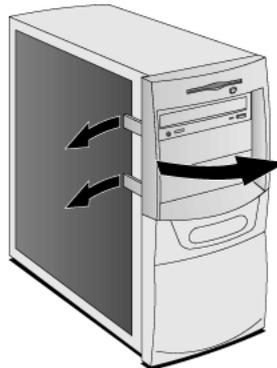
Removing and Replacing the Cover

Removing the Cover

- 1 Switch off the monitor and PC, disconnect all power cords and any telecommunication cables.
- 2 If necessary, unlock the cover (with the key) at the rear of the PC.
- 3 Open the latch and remove the side panel.

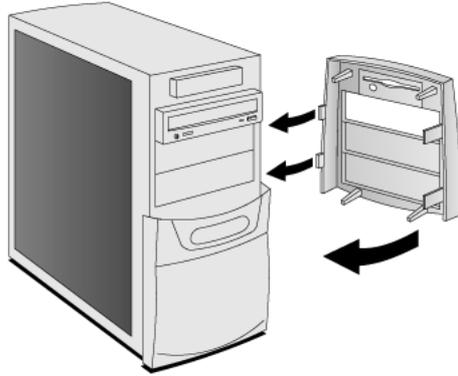


- 4 Remove the front panel.



Replacing the Cover

- 1 Ensure that all internal cables are properly connected and safely routed.
- 2 Replace the front panel.



- 3 Replace the side panel, making sure you align the hinges first.

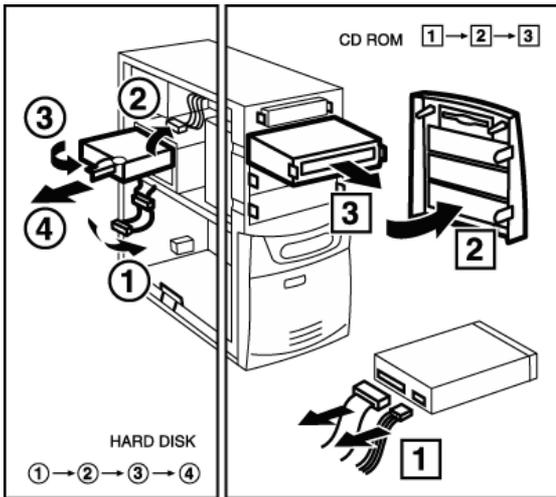


- 4 If required, lock the cover (with the key) at the rear of the PC.

The Label Inside Your PC

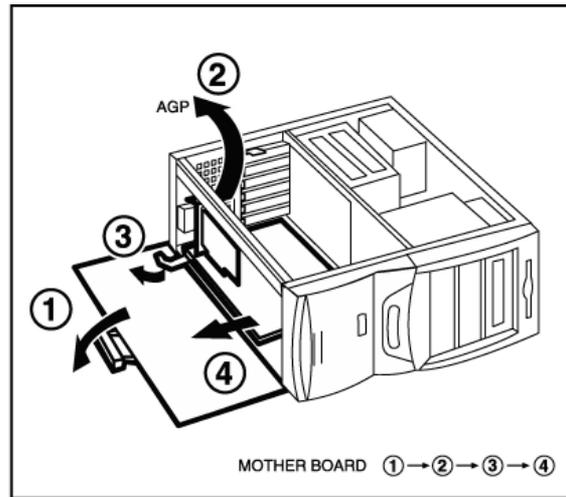
Inside, your PC contains a label that can be used as a simplified guide to help you install accessories and replace components.

Shows how to
remove the
hard disk drive



Shows how to remove
the CD-ROM drive

Shows how to remove the system board
(step 2 does not apply to your PC model)

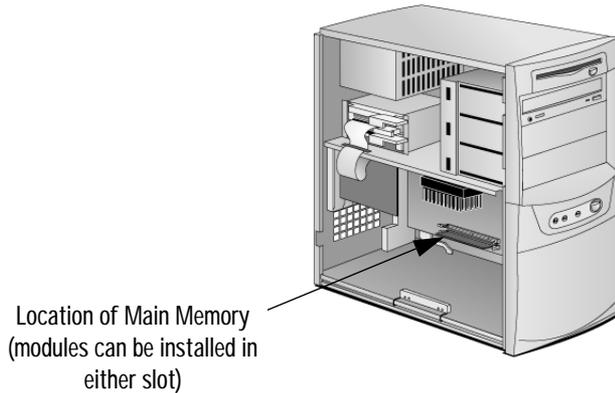


Upgrading the Main Memory

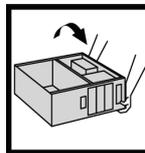
NOTE

Use only HP memory modules provided for your PC model. The use of other memory modules is not supported. For information about supported HP accessories, connect to the web site www.hp.com/go/vectraaccessories.

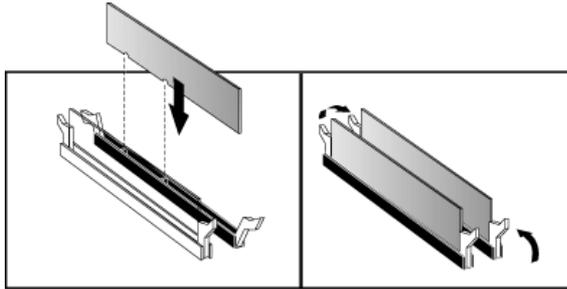
You can install up to a total of 512 MB (two 256 MB modules). Main memory is available in 100 MHz modules of 32 MB, 64 MB, 128 or 256 MB. (Although the 256 MB memory modules are ECC, the ECC feature is not used by this PC.)



- 1 Remove the PC's cover (described in this chapter).
- 2 Lay the minitower on its side.



- 3 Line up the two side notches correctly and insert the new memory module. (You can use either slot.)

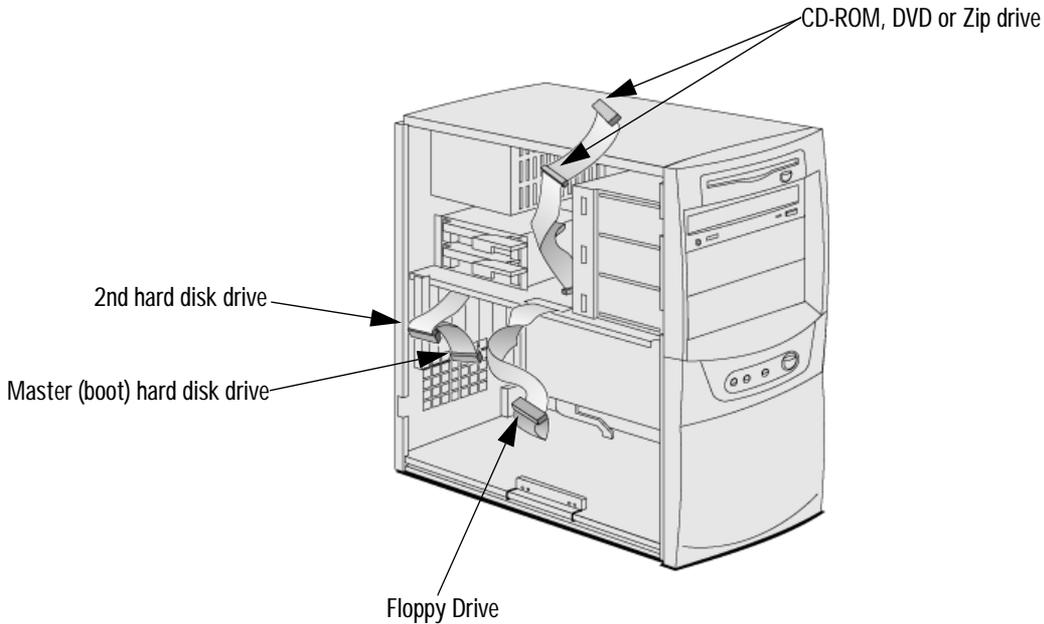


- 4 Replace the cover (described in this chapter).

Upgrading Mass Storage Devices

Drive Connectors

Internal drives, such as hard disk drives, DVD drives, and CD-ROM drives, must be connected to data and power cables. When replacing these drives, ensure you use the correct data and power connectors.



Power Connectors	Number	Use for
	5	Hard disk drives, DVD drives, CD-ROM drives, Zip drives
	1	Floppy disk drive

Which Data Connectors to Use	<p>There are three data cables inside your PC. Two of these are for IDE devices.</p> <ul style="list-style-type: none"><li data-bbox="324 189 1192 255">• An Enhanced Ultra ATA IDE (Integrated Drive Electronics) hard disk drive cable. <p data-bbox="364 278 1214 344">For optimum performance, use this cable to connect IDE hard disk drives that are Ultra ATA compatible.</p> <ul style="list-style-type: none"><li data-bbox="324 368 1214 463">• A second IDE drive cable that supports two IDE devices. If you install a CD-ROM drive, a DVD drive or a Zip drive, connect it to this cable.<li data-bbox="324 486 1214 522">• The third cable is non-IDE and has one connector for a floppy drive. <p data-bbox="324 540 1214 605">Up to four IDE devices can be connected to the system board using the IDE data cables.</p>
Selecting the Bootable Hard Disk Drive	<p>To select the IDE hard disk drive to start (boot) from, you must enter the <i>Setup</i> program and go to the “Hard Disk Drives” submenu of the Boot menu.</p>
<hr/> <i>NOTE</i> <hr/>	<p>Connecting a hard disk drive to the IDE master connector <i>does not</i> ensure that the PC will boot on that hard disk drive.</p>
Before Installing an IDE Hard Disk	<p>Refer to the drive’s installation guide to see if you must set jumpers or if there is a special installation procedure to follow.</p>

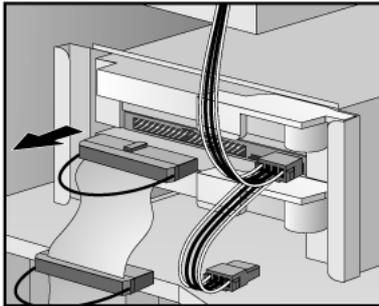
Installing a Second Hard Disk Drive

CAUTION

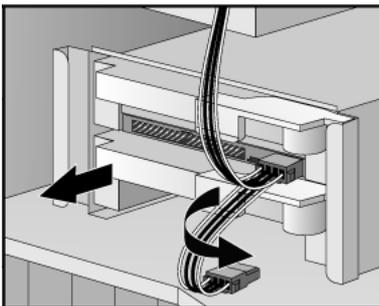
Handle the hard disk drive with care. Avoid shocks and violent movement as this can cause damage to the hard disk drive's internal components.

Make sure that you back up your files before you install a hard disk drive. Refer to your operating system documentation for information on how to do this.

- 1 Remove the computer's cover (described in this chapter).
- 2 To allow access to the empty drive shelf, remove the IDE connector from the already installed hard disk drive.

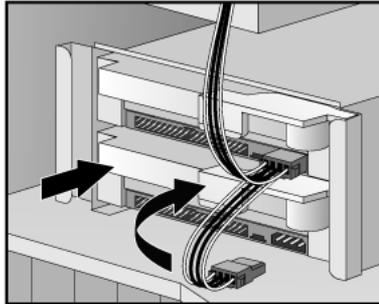


- 3 On the empty drive shelf, open the lever and slide out the drive tray.

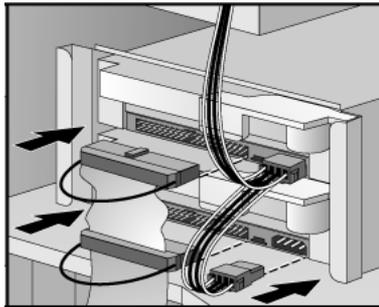


- 4 Align the new hard drive in the tray (with the correct orientation) and tighten the self-retaining screws.

- 5 Slide the drive tray back into the bay and close the lever.



- 6 Attach an IDE data connector to each hard disk drive and a power connector to the new hard disk drive.



CAUTION

Ensure that you route the hard drive power cable correctly. Do not pinch the cable when closing the hard drive tray's lever.

- 7 Replace the cover (described in this chapter).
- 8 Verify the new configuration by checking the HP Summary Screen. To access the HP Summary Screen, press **Esc** when the *Vectra* logo appears during startup.

NOTE

If you intend to boot from the newly installed drive, ensure that you have configured *Setup* to do this. Also ensure that you have installed all the required operating system and HP drivers on the newly installed drive. To reinstall operating system and HP drivers, use the *Diagnostics & Recovery CD-ROM* provided with the PC. In addition, you can find the most up-to-date versions of HP drivers on HP's Web site at: www.hp.com/go/vectrasupport.

Configuring an IDE Device After Installation

After installing any drive, you will need to verify that your PC has correctly identified the new configuration, by viewing the HP Summary Screen. If the configuration is not correct, run the *Setup* program to configure the device. To enter the *Setup* program, press **F2** during startup.

IDE drives are automatically detected by the *Setup* program. However, a newly installed device may require that you install an appropriate device driver. Refer to your operating system documentation for details. You can obtain the latest drivers from HP's Web site at:

www.hp.com/go/vectrasupport.

Upgrading Removable Media

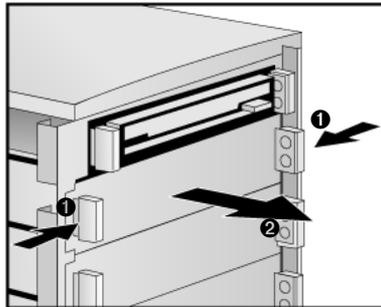
WARNING

To avoid electric shock and harm to your eyes by laser light, do not open the laser module. The laser module should be serviced by service personnel only. Do not attempt to make any adjustment to the laser unit. Refer to the label on the CD-ROM drive for power requirements and wavelength. This product is a class 1 laser product.

The PC has an integrated Enhanced IDE controller which supports up to four IDE devices. Removable media IDE devices, such as CD-ROM drives, DVD drives, tape drives and Zip drives, require front access. You can install a removable media IDE drive in an empty front shelf.

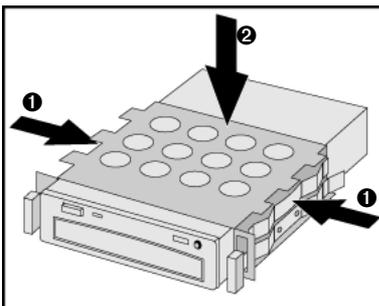
Refer to the drive's manual to see if you must set jumpers or if there is a special installation procedure to follow.

- 1 Remove the computer's cover and front panel (described in this chapter).
- 2 Select an empty front drive shelf. Press the two latches inward **1** and slide out the shelf **2**.

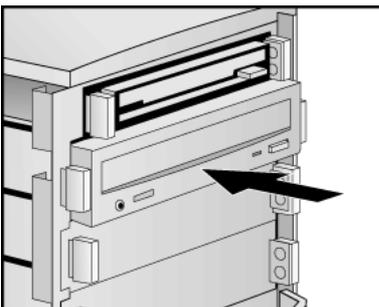


- 3 Remove the tray's RFI shield.

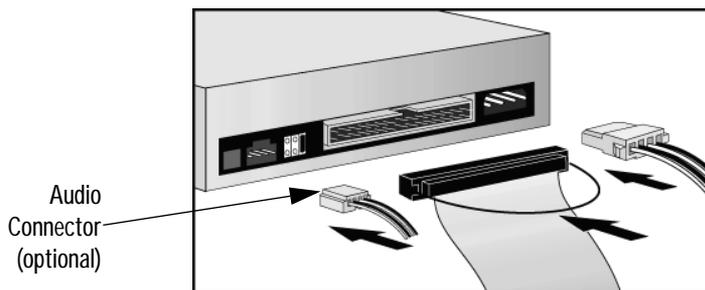
- 4 Place the new device upside down, press the metal strips ❶, and lower the tray into position ❷. Ensure the tray clicks into place.



- 5 Slide the device into the PC.



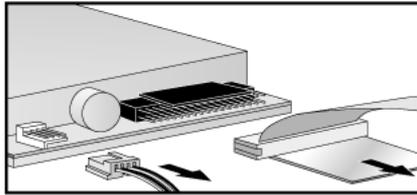
- 6 Attach the data and power connectors. If you are installing a CD-ROM or DVD drive, connect the audio cable too.



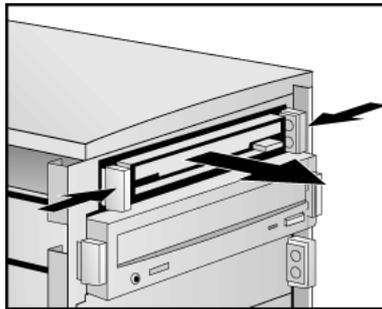
- 7 Replace the cover (described in this chapter).
- 8 Verify the new configuration by checking the HP Summary Screen. To access the HP Summary Screen, press **Esc** when the *Vectra* logo appears during startup.

Replacing the Floppy Drive

- 1 Remove the computer's cover and front panel (described in this chapter).
- 2 Remove the drive's connectors.

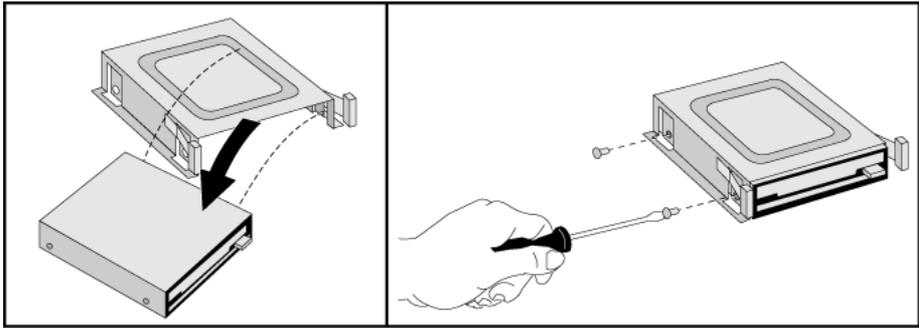


- 3 Press the two latches inward **1** and slide out the floppy drive **2**.

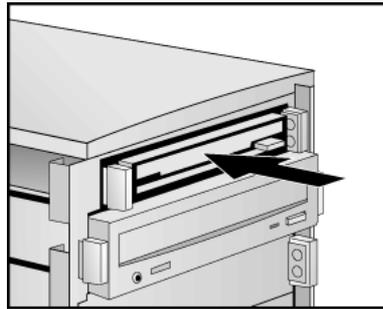


- 4 Place the drive upside down, remove the two side screws, and lift out the drive.

- 5 Insert the new floppy drive (pin side first) then replace the two side screws.



- 6 Slide the floppy drive back into the PC.



- 7 Attach the data and power connectors.
- 8 Replace the cover (described in this chapter).

Installing Accessory Boards

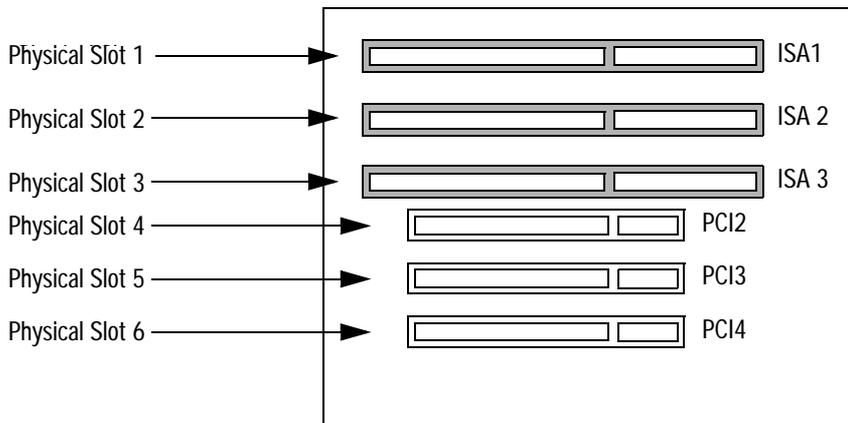
CAUTION

Static electricity can damage electronic components. Turn all equipment off. Don't let your clothes touch the accessory. To equalize the static electricity, rest the accessory bag on top of the computer while you are removing the accessory from the bag. Handle the accessory as little as possible and with care.

Accessory Board Slots

The PC has six accessory board slots.

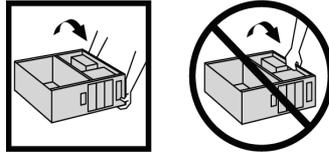
Accessory Board Connectors



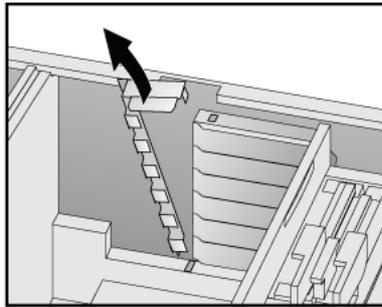
- Physical slot 1 (the outermost slot) can be used for a full-length 16-bit ISA board.
- Physical slot 2 can be used for a full-length 16-bit ISA board.
- Physical slot 3 can be used for a full-length 16-bit ISA board.
- Physical slot 4 can be used for a full-length 32-bit PCI board.
- Physical slot 5 can be used for a full-length 32-bit PCI board.
- Physical slot 6 (the innermost slot) can be used for a full-length 32-bit PCI board.

Installing an Accessory Board

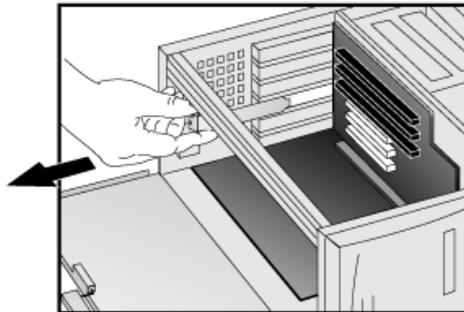
- 1 Remove the computer's cover (described in this chapter).
- 2 Lay the minitower on its side.



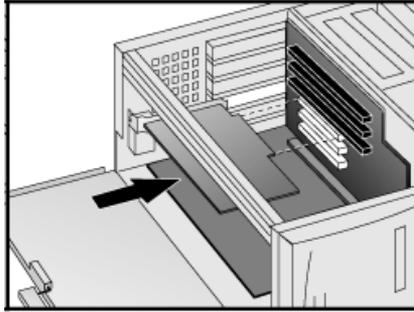
- 3 Remove the retaining bracket.



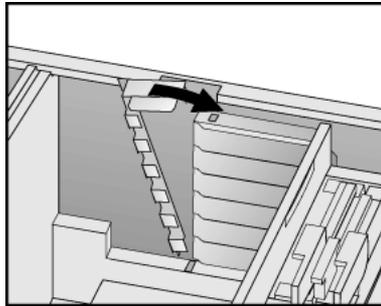
- 4 If the selected accessory board slot is located behind the processor, you may need to slide out the system board to allow access (refer to see "Replacing the System Board" on page 103 for information on how to do this).
- 5 Remove the slot cover.



- 6 Aligning the board carefully, slide it into position and press it firmly into the slot.

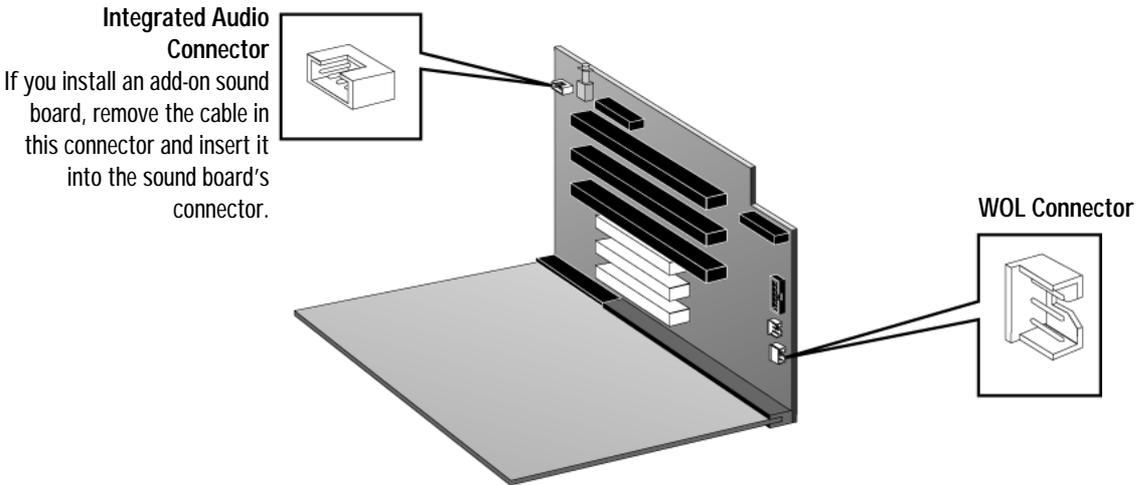


- 7 If you slid out the system board to allow access to a lower slot, replace it.
- 8 Replace the retaining bracket.



9 The accessory board may need a special connection, such as:

- WOL (Wake on LAN) connector to the Network board.
- CD-ROM drive to the sound board (if you no longer want to use the integrated audio).



For more information, refer to the documentation that came with the accessory board. The necessary cables are usually provided with the accessory board.

NOTE

If you install a network board and connect it to the WOL connector, you must enable the **Suspend Wake-Up/Integrated Network** and/or **Integrated Network** fields in the Power menu of the PC's *Setup* program. This only applies if the network board supports these modes. To enter the *Setup* program, press **F2** during startup.

If you install an add-on sound board (and you no longer want to use the integrated audio), you must set the **Integrated Audio Interface** in the **Advanced** menu of the *Setup* program to **Disabled**.

10 Replace the cover (described in this chapter).

Configuring Accessory Boards with Plug and Play

Plug and Play is an industry standard for automatically configuring your PC's hardware resources and the accessory boards installed in it. Your PC has configurable support for Plug and Play in the BIOS.

All PCI accessory boards are Plug and Play, although not all ISA boards are. Check the accessory board's documentation if you are unsure.

When you start your PC after installing an accessory board, the Plug and Play BIOS automatically detects which hardware resources (IRQs, DMAs, memory ranges, and I/O addresses) are used by PC components (such as the keyboard, the communications ports, network adapters, and accessory boards).

Windows 95 and
Windows 98

Operating systems that support Plug and Play, such as Windows 95 and Windows 98, will automatically detect a newly installed Plug and Play accessory board and install the driver for this device, if the driver is available.

Windows NT 4.0

For operating systems that do not support Plug and Play, such as Windows NT 4.0, refer to the operating system documentation for information about installing accessory boards.

In Windows NT 4.0, click the **Start** button then click **Help**. You can use the contents or index to find information about installing devices. Windows NT 4.0 helps you through the installation of devices such as modems and sound boards.

NOTE

After installing a new device in Windows NT 4.0, you must re-install the Microsoft Service Pack to update the operating system for your PC. To do this, click the **Start** button then select **Programs - Windows NT Update**.

Configuring non-Plug and Play ISA Accessory Boards

If you install an ISA accessory board that is not Plug and Play, you will need to configure the board before your PC can use it. For instructions about configuring the board, refer to the documentation that came with the board.

For guidelines on available IRQs and I/O addresses in your PC, refer to page 119. Some operating systems, such as Windows 95, can display the IRQs and I/O addresses currently used by your PC. Refer to the operating system documentation for more information.

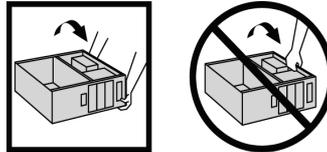
Refer to the documentation supplied with the operating system for details on your operating system's capabilities and restrictions concerning non-Plug and Play accessory boards.

Resetting the PC's Configuration Data

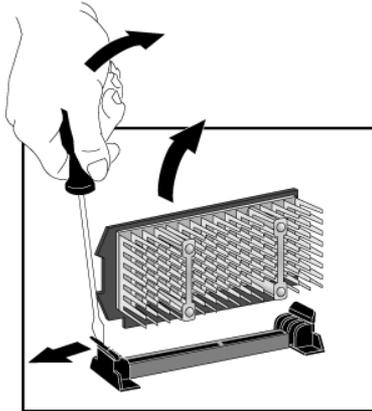
If your PC is having difficulty recognizing the ISA board, try resetting the PC's data configuration. This will clear any old configuration data that is no longer used. To do this, enter the PC's *Setup* program, set the **Reset Configuration Data** parameter to **Yes**, and restart the PC. To enter the *Setup* program, press **F2** during startup.

Replacing the Processor

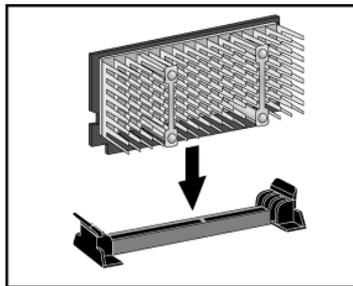
- 1 Remove the computer's cover (described in this chapter).
- 2 Lay the minitower on its side.



- 3 Remove the old processor.



- 4 Install the new processor and clip it into place.

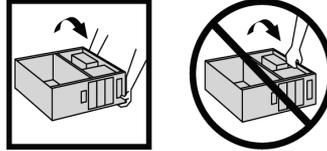


- 5 If the new processor is a different speed, ensure that the system board switches are correctly set for your processor speed. (The correct switch settings are indicated on the system board.)

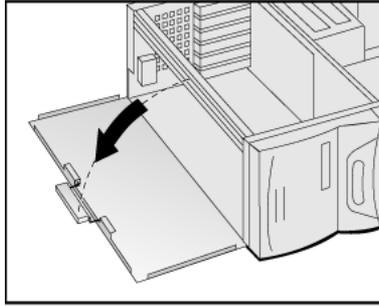
- 6 Replace the cover (described in this chapter).
- 7 Ensure that the latest version of BIOS is installed on your PC. To learn which version of BIOS is currently installed on your PC, press **ESC** during startup. To get the latest BIOS version for your PC, connect to the web site **www.hp.com/go/vectrasupport**.

Replacing the System Board

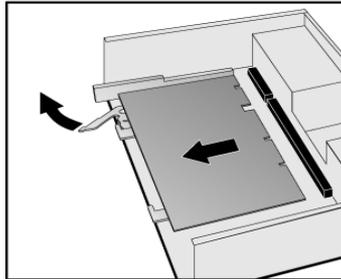
- 1 Remove the computer's cover (described in this chapter).
- 2 Lay the minitower on its side.



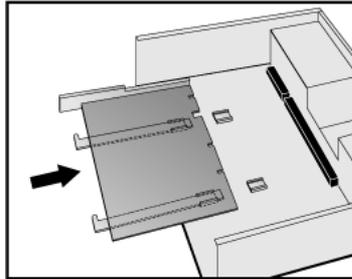
- 3 Open the bottom plate.



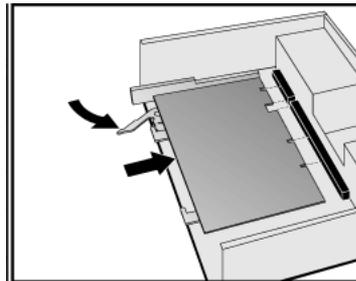
- 4 Remove the main memory and processor from the old system board (described in this chapter).
- 5 Remove the old system board. First lift the lever to release it before pulling it open.



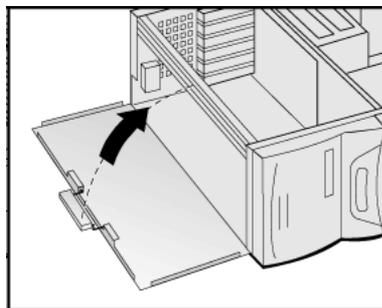
- 6 First ensure the lever is open, then carefully slide in the new system board, aligning the rails and the rear connector bracket correctly.



- 7 Pushing on the lever and on the system board edge, slide the system board firmly into place. Ensure the connectors are well aligned and fully engaged.



- 8 Replace the main memory and processor in the new system board (described in this chapter).
- 9 Close the bottom plate.



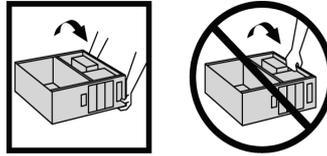
- 10 Replace the cover (described in this chapter).

Replacing the Power Supply

WARNING

To avoid electric shock, do not open the power supply. There are no user-serviceable parts inside.

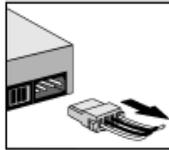
- 1 Remove the computer's cover (described in this chapter).
- 2 Lay the minitower on its side.



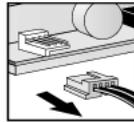
- 3 Remove *all* internal power supply connectors.



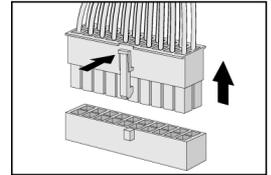
Hard drive(s)



DVD/CD-ROM
drive(s)

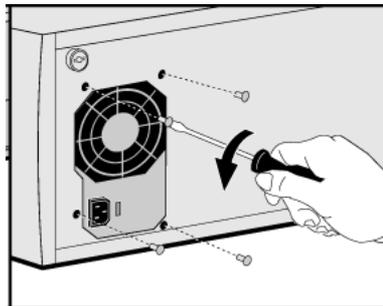


Floppy drive



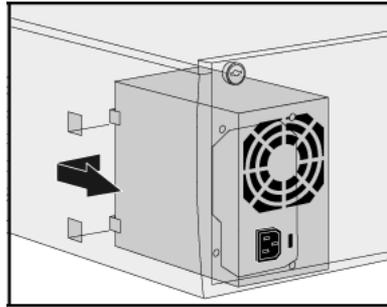
Main power
(located on backplane near
power supply)

- 4 Remove the four screws securing the power supply.

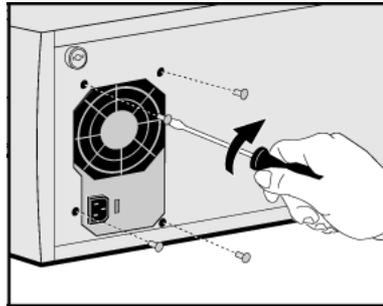


- 5 Slide the old power supply forward and remove it.

- 6 Insert the new power supply (lining up the metal catches).



- 7 Replace the four screws to secure the power supply.



- 8 Reconnect *all* internal power supply connectors.
- 9 Replace the cover (described in this chapter).
- 10 Select the correct voltage setting for your country.

Changing the Battery

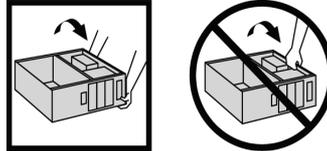
WARNING

There is a danger of explosion if the battery is incorrectly installed. For your safety, never attempt to recharge, disassemble, or burn the old battery. Replace the battery only with the same or equivalent type recommended by the manufacturer. The battery in this PC is a lithium battery which does not contain heavy metals, nevertheless, in order to protect the environment, do not dispose of batteries in household waste. Please return used batteries to the shop from which you bought them, or to the dealer from which you purchased your PC, or to HP, so that they can either be recycled or disposed of in an environmentally sound way. Returned used batteries will be accepted free of charge.

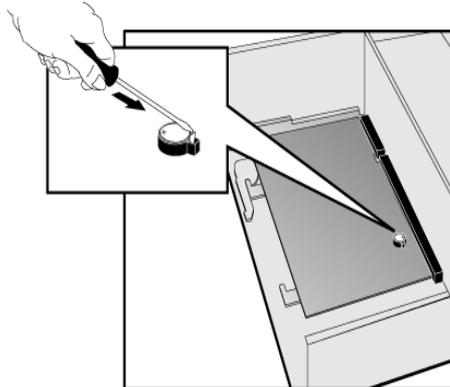
You should order replacement battery HP 1420-0356 from your local Sales and Service office, or a "CR2032 type" battery, which is available from most local stores.

After removing the computer's cover:

- 1 Lay the minitower on its side.



- 2 Remove the old battery by lifting it clear of the battery holder with a screwdriver.



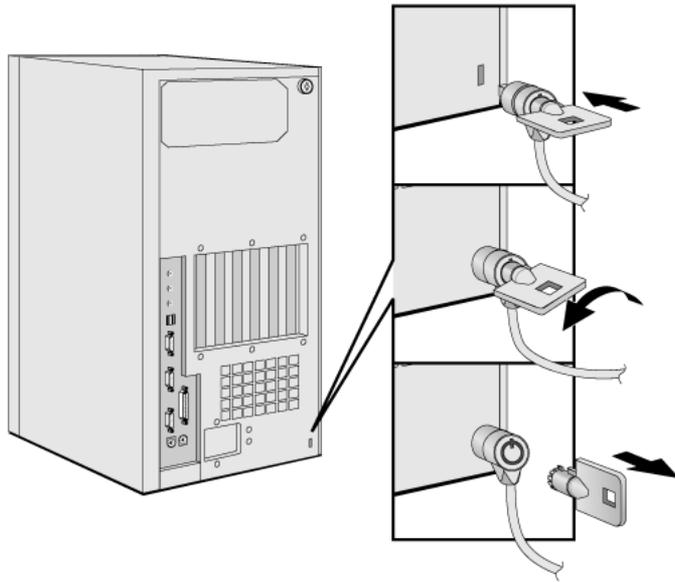
- 3 Place the new battery in the battery holder, with the “+” sign on top, and ensure it is properly seated.

After installing a replacement battery, replace the computer's cover and run the *Setup* program to reconfigure the computer. You enter *Setup* by pressing **F2** at startup.

Installing a Security Cable

You can secure the PC to your desk, or any other fixed object, using a Kensington™ security cable. The PC has a slot at the rear for securing the cable.

- 1 Insert the lock into the slot located at the rear of the PC.
- 2 Turn the key to lock the cable to the PC.
- 3 Remove the key and store it in a safe place.



NOTE

The Kensington™ security cable is not an HP accessory. It cannot be ordered from HP. Contact your reseller for more information.
