hp business pcs

quick user's guide

www.hp.com/go/support

hp vectra vl400
hp vectra vl410
hp vectra vl420
hp vectra vl800
hp vectra vl830
hp vectra xe310
hp vectra xe320
hp e-pc 40
hp e-pc 42

Use this guide to:
- set up your PC
- get warranty details

Go to
www.hp.com/go/vectrasupport
or www.hp.com/go/
e-pcsupport to download drivers
and manuals with information
on:
- using your PC
- troubleshooting your PC
- repairing your PC
- installing accessories

Notice

The information contained in this document is subject to change without notice.

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Important Safety Information

If you are in any doubt that you can lift the equipment safely, do not try to move it without help.

For your safety, never remove the PC's cover without first removing the power cord from the power outlet and any connection to a telecommunications network. If a Power Protection Device is fitted to your PC, you must shut down your computer using the on/off switch, then remove the power cord before removing the PC's cover. Remove the Power Protection Device cables before any servicing operation. Always replace the cover before switching the PC on again.

To avoid electric shock, do not open the Power Supply Unit. There are no serviceable parts inside. For your safety only replace with a Power Supply Unit provided by HP Support Services.

Ensure that the electrical power requirements of your PC (refer to the label on the Power Supply Unit) can be suitably provided by your electrical installation.

There is a danger of explosion if the battery is incorrectly installed (refer to "Replacing the Battery" on page 24). For your safety, never attempt to recharge, disassemble, or burn an old battery. Only replace the battery with the same or equivalent type, as recommended by the manufacturer. The battery in this PC is a lithium battery which does not contain any heavy metals. Nevertheless, in order to protect the environment, do not dispose of batteries in household waste. Please return used batteries either to the shop from which you bought them, to the dealer from whom you purchased your PC, or to HP so that they can either be recycled or disposed of in the correct way. Returned batteries will be accepted free of charge.

If you have a modem:

Do not attempt to connect this product to the phone line during a lightning storm. Never install telephone jacks in wet locations unless the telephone line has been disconnected at the network interface. Never touch uninsulated telephone wires or terminals unless the telephone line has been disconnected at the network interface. Use caution when installing or modifying telephone lines. Avoid using a telephone (other than a cordless type) during an lightning storm. There may be a risk from lightning.

Do not use the telephone to report a gas leak in the vicinity of the leak.

Never touch or remove the communications board without first removing the connection to the telephone network.

Use minimum N° 26 AWG wire for telephone cable.

Warning: Some parts inside the computer may be hot, please wait for them to cool down before touching them.

Setting Up and Using Your PC
Important Ergonomic Information

Improper and prolonged use of keyboards and input devices can be associated with repetitive strain injury (RSI) to soft tissues in the hands and arms. If you do experience discomfort or pain while using any computing equipment, discontinue use immediately and consult your physician as soon as possible.

Your comfort and safety are our primary concern. Consequently, we strongly recommend that you read HP's ergonomic information before using your PC. For detailed information, refer to HP's online version of "Working in Comfort" which is preloaded on your PC's hard disk or visit HP's Working in Comfort web site at: **www.hp.com/ergo**

A summary is provided in the "Comfort and Safety Checklist" on page 6.

Caution   HP Vectra Minitower PCs: must be placed vertically and not horizontally. HP Vectra XE310 and XE320: to ensure sufficient cooling and maximum performance, always keep the computer in an upright position and allow sufficient space around the unit. HP e-pc: do not place objects over ventilation holes.

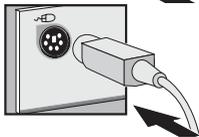## Connecting Devices to the Rear of the PC

Match the color-codes of the connectors. *The connectors are shaped to go in one way only.* Typical connectors are shown below:
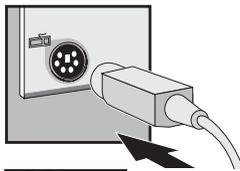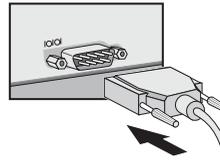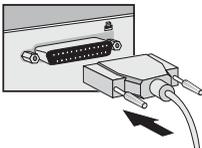

PS/2 Keyboard (purple)
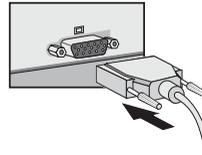
Monitor
To connect the monitor to your PC, refer to the manual that came with the monitor.
If you have a model with a graphics card, use the graphics card connector.

PS/2 Mouse (green)

Up to two 9-pin Serial Connectors (turquoise)

25-pin Parallel Connector (burgundy)
To connect the printer to your PC, refer to the manual that came with the printer

LAN
If you have a model with a LAN card, use the LAN card connector.

Rear USB Connectors (black) for USB keyboard, mouse.
Some models may also have USB connectors on the front for other USB devices

Note   To connect the optical mouse, refer to the User's Guide on HP's support web site at: **www.hp.com/go/vectrasupport** or **www.hp.com/go/e-pcsupport** depending on your model.

Setting Up and Using Your PC

Connecting Multimedia Accessories (if supplied)

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

Always turn the volume down before connecting the headphones or speakers. This avoids discomfort from unexpected noise or static. Listening to loud sounds for prolonged periods of time may permanently damage your hearing. Before putting on headphones, place them around your neck and turn the volume down. When you put the headphones on, slowly increase the volume until you find a comfortable listening level. When you are able to hear comfortably and clearly, without distortion, leave the volume in that position.

1 Connect the HP multimedia keyboard to the PC. *The connectors are color-coded for easy matching. The PC's audio out connector can be lime green (for line out) or orange (for speaker out) if the audio signal is amplified. If in doubt, check the icons on the jacks and sockets.*
2 Connect the microphone and headphones (or amplified speakers) to the keyboard.
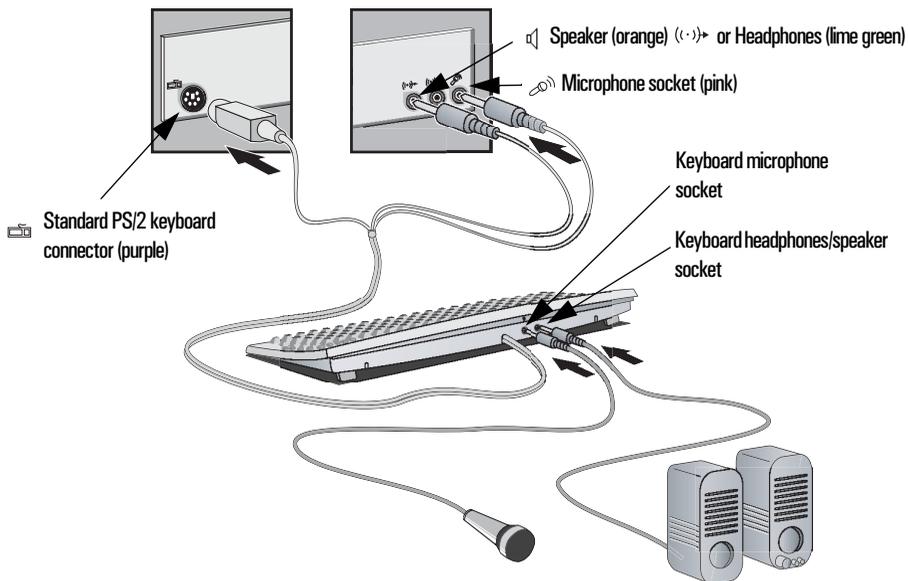
Note   Connect devices such as a smart card reader to both a serial connector and a mouse port. Depending on your model, do not use a keyboard port as it does not provide enough power.
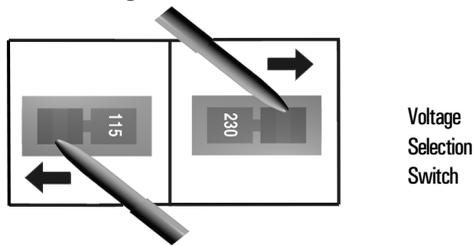
Connecting the Power Cord

WARNING **For your safety always connect equipment to a grounded wall outlet. Always use a power cord with a properly grounded plug, such as the one provided with the equipment, or one in compliance with your national safety standards. This equipment can be disconnected from the power by removing the power cord from the power outlet. This means the equipment must be located close to an easily accessible power outlet.**

If your PC has no rear voltage selection switch

If your PC has no voltage selection switch at the rear, this means that it is able to detect the voltage automatically. Automatic voltage selection is available only on some models, and in some countries.

If your PC is equipped with a rear voltage selection switch

1 Remove the warning label covering the PC's power connector, and *ensure that the voltage setting is correct for your country*. (The voltage is set during manufacture and should already be correct.)

Voltage Selection Switch

2 Connect the power cords to the rear of the monitor and the computer. (*The connectors are shaped to go in one way only*).

3 Connect the monitor's power cord and the computer's power cord to a grounded outlet.

WARNING **Hewlett-Packard does not support power supply upgrades. Power supply installation information is only intended to assist with the replacement of a defective power supply unit. For your safety, only replace your power supply unit with the one provided by HP Support Services.**

Comfort and Safety Checklist

Preparing Your Work Environment

When using HP computing equipment, it is important that your work environment contributes to your comfort and productivity:
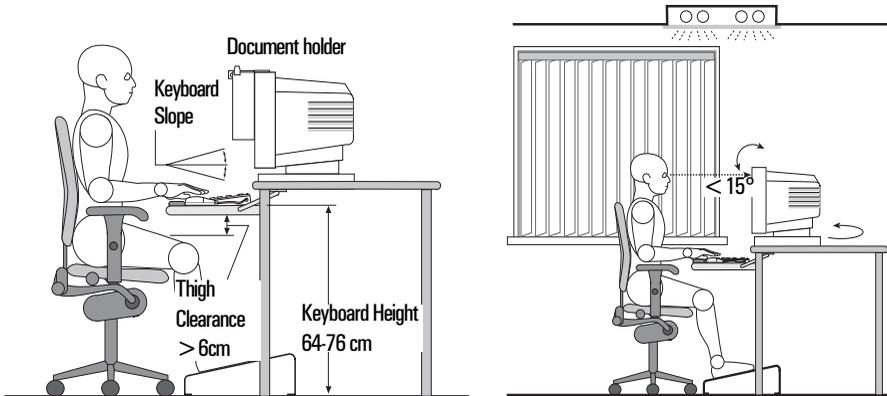
- *Work Surface Height* - Your work surface should be height adjustable. To ensure that your worksurface is at the correct height, first adjust the height of your chair so that your feet are firmly on the floor, then adjust the work surface height until your forearms are parallel to the floor when you have your fingers on the keyboard or other input devices.

- *Chair* - Your chair should provide a comfortable sitting position including features such as a height and tilt adjustment feature, curved seat edge, a stable base (for example, five legs and castors, adjustable back support, a freely rotating swivel, fully adjustable padded arm rests).

- *Monitor* - Place your monitor so that the top of the screen is at, or slightly below, eye level (up to 15 degrees).

- *Work Surface Arrangement* - Make sure that all elements of your HP PC system for example, monitor, document holder, keyboard, mice and other input devices, and headphones and speakers- are optimally arranged and adjusted to meet your personal requirements. For example, if you are primarily using the keyboard, place it directly in front of you, not to the side. If your work involves extensive use of a mouse or other pointing device, place that device directly in front of your left or right arm. If you are using both a mouse and keyboard, place them both at the same work surface height and close together. If a palm rest is used, the height should be flush with the front edge of the keyboard. Other items, such as your telephone or notepad, should also be considered.

| WARNING | **Various aspects of using mice, keyboards and other input devices may increase your risk of discomfort or injury. Optimize your comfort and safety by positioning these devices properly.** |

Your Work Posture

Sitting in one position for long periods can be uncomfortable. To minimize the potential risk for physical discomfort or injury, it's important that you maintain a proper posture.

- *Head* - When viewing your monitor, your head should not be tilted more than 15 degrees forward, and do not turn your head toward either side.

- *Back* - While sitting at your work surface, make sure your back is supported by the chair's backrest in an erect position or angled slightly backwards.

- *Arms* - Make sure your arms and elbows are relaxed and loose, with your upper arms perpendicular to the floor or tilted downward not more than 15 degrees. Keep your forearms and hands approximately parallel with the floor with elbows bent between 70 and 115 degrees. Keep your elbows close to your sides (less than 20 degrees away from your body).

- *Hands, Wrists, Forearms* - Try to keep your hands wrists and forearms in a relaxed neutral position when using your mouse keyboard or other input devices. For example, while using your keyboard and mouse, rest your forearms (flat) on your desktop.

- *Legs* - Your thighs should be horizontal or angled slightly downward. Your lower legs should be near a right angle to your thighs. Make sure there is sufficient room under the work surface for your legs.

- *Feet* - If after adjusting your chair you cannot rest your feet comfortably on the floor, use a footrest, preferably one that can be adjusted in height and angle.

Overall

- Look away from the screen from time-to-time to help reduce eyestrain. Focus on distant objects briefly, and blink periodically to lubricate your eyes. You also should have your eyes checked on a regular basis and ensure your eyeglass prescription is suitable for working on a computer monitor.

- Remember to occasionally shift position and move your body. Keeping your body in one position for long periods is unnatural and stressful. When prolonged work is required, take frequent short breaks. As a rule of thumb, a five or ten minute break every hour is a good idea. Short frequent breaks are more beneficial than longer less frequent breaks. Data show that people who work for long periods of time without a break may be more prone to ergonomic injury.

- Changing tasks frequently will help prevent muscle stiffness. Examples: alternating between keyboarding, reading, writing, filing, and moving around in your work environment, helps you maintain a relaxed posture. Occasionally stretch the muscles in your hands, arms, shoulders, neck and back. You should stretch at least as often as you take brief task breaks—at least once every hour.

- Discomfort may be alleviated by using alternative ergonomic designs and accessories such as ergonomically personalized chairs, palm rests, keyboard trays, alternative input devices, prescription eyeglasses, anti-glare screens, and more. Seek additional information from the sources available to you, including your employer, doctor, local office supply store, and the *Information Sources* listed in the online version of *Working in Comfort,* preloaded on the hard disk of your HP computing equipment or available on the HP web site: **www.hp.com/ergo**.

Using Your PC

Starting Your PC for the First Time

1 First turn on the monitor, then the PC.

2 The software initialization routine starts. If required, the product ID# is printed on the label which is found on your PC.

3 After the initialization has finished, click **OK** and the PC will restart.

Stopping Your PC

To stop the PC, first make sure that you have exited all applications and then use your operating system's shut down command in the **Start** menu (for Windows NT 4.0, Windows 95, Windows 98, Windows 2000 and Windows XP operating systems).

If you want to force your PC to shut down (for example, after your operating system has crashed), press and hold the power button for approximately 5 seconds.

For more information on using your PC, refer to:

www.hp.com/go/vectrasupport for HP Vectra PCs.

www.hp.com/go/e-pcsupport for HP e-pcs.

Solving Problems

If Your PC Does Not Start Properly

The PC Doesn't Power On

Have you checked that...		*How*
☐ The PC's power cord or AC/DC adapter is properly connected.	⇨	Connect the power cord or AC/DC adapter to a working power outlet and to the rear of the PC.

The Power-On Self Test Displays an Error

An on-screen error message or a beep code when the PC starts up means that there is a configuration problem.

Have you checked...		*How*
☐ The part of your configuration for which the Power-On Self Test has detected an error.	⇨	For more detailed help refer to the troubleshooting information which is available on HP's support web site at: **www.hp.com/go/vectrasupport** or **www.hp.com/go/e-pcsupport** depending on your model.
☐ If you still have a problem.	⇨	Run HP e-DiagTools (refer to page 13).

There is a Buzzing Noise

This is the pre-boot diagnostics capability feature. It detects problems with your PC.

☐ There is a buzzing noise.	⇨	1 Count the number of beeps after the buzzer.
		2 Contact Support (refer to page 17).

If Your PC Has a Hardware Problem

The Keyboard Doesn't Work...

Have you checked that...		*How*
☐ The keyboard cable is correctly connected.	⇨	Plug the cable into the correct connector on the back of the PC. Color coding is used for easy matching.
☐ The keyboard is clean and no keys are stuck down.	⇨	Check all keys are at the same height, and none are stuck.
☐ The keyboard itself is not defective.	⇨	Either replace the keyboard by a known working unit or try the keyboard with another PC.

Solving Problems

☐ You are using the correct driver. This driver is provided with all Windows NT 4.0, Windows 98, Windows 2000 and Windows XP preloaded systems. For other operating systems, refer to your operating system's documentation.	⇨	Download the latest driver from HP's Web at: **www.hp.com/go/vectrasupport** or **www.hp.com/go/e-pcsupport** depending on your model.
☐ You are using the latest BIOS	⇨	Download the latest BIOS from HP's Web at: **www.hp.com/go/vectrasupport** or **www.hp.com/go/e-pcsupport** depending on your model.
☐ Your keyboard uses batteries.	⇨	Replace the batteries.

The Monitor Doesn't Work...

The PC's power indicator light works but the monitor remains blank

Have you checked that...		*How*
☐ The monitor is switched ON (LED is on).	⇨	Refer to the monitor manual for an explanation of the LED signals (green, orange, or blinking).
☐ The monitor's power cord is correctly connected.	⇨	Connect the power cord – ensure it is plugged into a working grounded power outlet and into the monitor.
☐ The monitor (video) cable is correctly connected.	⇨	Connect the monitor (video) cable – ensure it is properly connected to both the PC and the monitor. If you have a model with a graphics card, ensure that the cable is connected to the graphics card's connector.
☐ The monitor's brightness and contrast settings are correctly set.	⇨	Check the settings using the monitor's OSD (on-screen display) or using controls on the front of the monitor.

There is an image during boot but then the screen goes blank

Have you checked that...		*How*
☐ The monitor settings in your PC are compatible with your monitor	⇨	• Windows NT: Enter VGA mode when prompted during start-up. • Windows 98 & Windows 2000: Restart the PC. The Startup screen is displayed. For Windows 98, when you hear a beep, press **F8** and then start the PC in safe mode. For Windows 2000, when prompted, press **F8** and then start the PC in VGA mode. When the PC has started double-click on the **Display** icon in your PC's **Control Panel**, then click on the **Settings** button. Use the sliding control to reset the resolution. For other operating systems, refer to your operating system's documentation.

Solving Problems

10

☐ If the PC starts but you still have a problem... ⇨ Run HP e-DiagTools (refer to page 13).

The Mouse Doesn't Work...

Have you checked that...

How

☐ The mouse cable is correctly connected.

⇨
1 Switch off the PC (not necessary with a USB mouse).
2 Plug the cable into the correct connector on the back of the PC (color coding is used for easy matching).
3 Switch on the PC.

☐ You are using the correct driver. If you are using HP's enhanced mouse or optical mouse, ensure that the correct driver is installed. This driver is provided with all Windows NT 4.0, Windows 98, Windows 2000 and Windows XP preloaded systems.

⇨ Download the latest driver from HP's Web at:

www.hp.com/go/vectrasupport or **www.hp.com/go/e-pcsupport** depending on your model.

☐ You are using the latest BIOS.

⇨ Download the latest BIOS from HP's Web at:

www.hp.com/go/vectrasupport or **www.hp.com/go/e-pcsupport** depending on your model.

☐ The mouse is clean (does not apply to optical mouse).

⇨ Clean the mouse ball as shown below.

☐ The mouse itself is not defective.
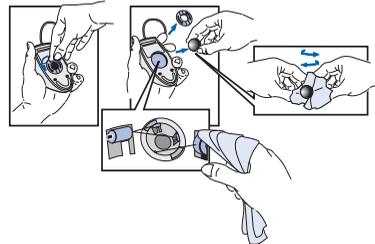
⇨ Replace the mouse by a known working unit or try the mouse with another PC.

☐ Your mouse uses batteries.

⇨ Replace the batteries.

☐ If the PC starts but you still have a problem...

⇨ Run HP e-DiagTools (refer to page 13)

Note   The USB mouse is not supported by Windows NT 4.0.

Solving Problems

11

Recovering Your PC's Hard Disk Contents

If you need to recover your PC's hard disk, as originally shipped with preloaded operating system, HP drivers and utilities, you can use the recovery CD-ROM(s) provided with the PC. These may be called HP Image Creation & Recovery CD-ROM, HP Image Library & Diagnostics CD-ROM or HP Assist CD-ROM depending on your model.

Recovering or Changing your Operating System

Some models allow you to select your operating system. If this option is available and you want to select your operating system, you must use the HP Image Creation & Recovery CD-ROM or HP Assist CD-ROM provided with your PC depending on your model.

Using HP Instant Support

The instant support tuner is a Web browser plug-in that it can automatically detect and repair problems on your PC. The tuner is either preloaded on your PC's hard drive or can be downloaded from the HP web.

If it is preloaded on your PC, you will see the instant support icon on your desktop.

If you do not see this icon, go to **www.hp.com/go/instantsupport** and if your model is supported (see *Products Supported List*), download the tuner.

Checking Your PC's Configuration

You can see detailed configuration information on your PC, update your PC's BIOS or receive hardware failure alerts if you set up the HP TopTools agent on your PC. To set up the HP TopTools agent:

• Follow the setup instructions that appear in the TopTools pop-up window when you first set up your PC or,

• Click on **Start** ⇨ **Programs** ⇨ **Hewlett-Packard TopTools** and follow the setup instructions.

Need More Help?

For more detailed help refer to the troubleshooting information which is available on HP's support web site at: **www.hp.com/go/vectrasupport** or **www.hp.com/go/e-pcsupport** depending on your model.

HP Hardware Diagnostics

Note   You are requested to run e-DiagTools before contacting HP for warranty service. This is to obtain information that will be requested by a support agent.

Most HP PC models include hardware diagnostic software called either HP Diagtools or HP e-Diagtools. The software can be used to diagnose hardware related problems on your PC. This diagnostic software is generally present on the HP Utility Partition of the hard disk. Do NOT delete the HP Utility Partition. For more information about this utility, refer to the e-Diagtools *User's Guide*, available on the HP support web.

Where Can I Get e-DiagTools?

HP e-DiagTools is supplied on the following media (depending on your PC):

- The Utility Partition pre-installed on your hard drive (recommended)
- The *HP PC Image Engineer - Image Library and Diagnostics System CD-ROM* that came with your PC
- The *HP DiagTools CD* available from HP's Support web site: **www.hp.com/go/e-diagtools**
- The *HP Diagtools CD-ROM* for Linux HP PCs.

Starting e-DiagTools from the Utility Partition on your Hard Drive

Note   This method will only work if the diagnostics partition on your hard disk drive is intact.

1 Restart your PC and, depending on your model:

- press the function key **F10** when you see the message **Press F10 to enter HP Utility Partition or any other key to proceed...** or
- press function key **F8**, then select Diagnostics.

2 In the e-Diagtools main menu, select the option to run e-DiagTools hardware diagnostics.

Starting e-DiagTools from the CD-ROM

To start e-DiagTools from the CD-ROM:

1 Select CD-ROM as the primary boot device.

2 Insert the CD-ROM in the CD-ROM drive and restart your computer.

3 Select the system to run e-Diag-Tools hardware diagnostics.

Note   If you are unable to boot from your CD-ROM drive, restart your PC and enter HP's Setup program by pressing F2 or F8 followed by F2 (depending on your model). Check the Boot device settings to ensure that your PC can boot from the CD-ROM.

HP Hardware Diagnostics

HP Hardware Warranty

General

This HP Hardware Warranty statement gives you, the customer, express warranty rights from HP, the Manufacturer. Please refer to HP's web site for an extensive description of your warranty entitlements. In addition, you may also have other legal rights under applicable local law or special written agreement with HP.

FOR CONSUMER TRANSACTIONS IN AUSTRALIA AND NEW ZEALAND, THE WARRANTY TERMS CONTAINED IN THIS STATEMENT, EXCEPT TO THE EXTENT LAWFULLY PERMITTED, DO NOT EXCLUDE, RESTRICT, OR MODIFY BUT ARE IN ADDITION TO THE MANDATORY STATUTORY RIGHTS APPLICABLE TO THE SALE OF THIS PRODUCT TO YOU. THE LAWS OF YOUR COUNTRY MAY PROVIDE FOR DIFFERENT WARRANTY RIGHTS. IF SO, YOUR HP AUTHORIZED SUPPORT PROVIDER OR HP SALES AND SERVICE OFFICE CAN PROVIDE YOU WITH DETAILS.

Warranty Repair or Replacement

HP Hardware

During the applicable warranty period, HP warrants that your HP Hardware, Accessory or Supply will be free from defects in materials and workmanship. Except as indicated above, however, HP does not warrant that any HP Hardware, Accessory or Supply will operate uninterrupted or error-free.

During the product warranty period, HP will, within a reasonable time, repair your product or if unable to repair, refund (in the amount of the product purchase price) upon prompt return of the product to your HP Authorized Support Provider or other HP designate. Unless otherwise stated or agreed upon in writing with HP, all hardware components must be returned for refund with the entire central processor unit.

The central processor unit (CPU), keyboard, mouse, and Hewlett-Packard accessories inside the system unit at time of purchase—such as video adapters, mass storage devices, and interface controllers—are covered by this warranty.

HP products external to the system unit—such as external storage subsystems, monitors, printers, and other peripherals and accessories added at a later stage—are covered by the applicable warranties for those products.

HP does NOT provide support for this product configured as a network server.

Unless otherwise stated, and to the extent permitted by local law, hardware products may contain remanufactured parts (equivalent to new in performance) or parts subject to prior incidental use. HP may repair or replace hardware products (i) with equivalent products to the products being repaired or replaced but which may have been subject to prior use, (ii) with products containing remanufactured parts equivalent to new in performance or parts which may have been used, or (iii) with equivalent products to an original product that has been discontinued.

Non-HP Hardware

All *non-HP* products or peripherals external to the central processor unit—such as external storage subsystems, monitors, printers, and other peripherals—are covered by the applicable vendor warranties for those products.

Proof of Purchase and Warranty Period

In order to receive support for your hardware and software product for the applicable warranty period, proof of the original purchase date may be required, otherwise the manufacturer's date (located on the product) becomes the beginning of the warranty period.

Exclusions

Warranty does not apply to defects resulting from: (a) improper or inadequate maintenance or calibration; (b) software, interfacing, parts or supplies not supplied by HP; (c) unauthorized repair, maintenance, modification or misuse; (d) operation outside of the published operating specifications for the product; (e) improper site preparation or maintenance; (f) virus infection; or (g) such other exclusions as may be expressly set forth in this Warranty Statement.

Limitation of Implied Warranties

TO THE EXTENT ALLOWED BY APPLICABLE LOCAL LAW, ANY IMPLIED WARRANTY BY THE MANUFACTURER OF MERCHANTABILITY FOR FITNESS FOR A PARTICULAR PURPOSE OR OTHER IMPLIED WARRANTIES ARE HEREBY LIMITED TO THE DURATION OF THE APPLICABLE WARRANTY.

Exclusive Remedy

TO THE EXTENT ALLOWED BY APPLICABLE LOCAL LAW, THE REMEDIES IN THIS WARRANTY STATEMENT ARE YOUR SOLE AND EXCLUSIVE REMEDIES. EXCEPT AS INDICATED ABOVE, IN NO EVENT WILL HP BE LIABLE FOR LOSS OF DATA OR FOR DIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL (INCLUDING LOST PROFIT) OR OTHER DAMAGE, WHETHER BASED IN CONTRACT, TORT OR OTHERWISE.

HP Hardware Warranty Options

THESE HP HARDWARE WARRANTY OPTIONS ARE SPECIFIC TO THIS HP HARDWARE PRODUCT. THEY COMPLEMENT THE GENERAL HARDWARE AND SOFTWARE WARRANTY STATEMENTS FOUND ON HP'S WEB SITE AND SUPERSEDE ANY WARRANTY TERMS (APART FROM BIG DEAL TERMS ON A SEPARATE WARRANTY FLYER) THAT MAY BE FOUND ONLINE OR IN ANY DOCUMENTATION OR MATERIALS CONTAINED IN THE COMPUTER PRODUCT PACKAGING.

Warranty Entitlements
5-Year Limited Hardware Warranty: 5-Year Free Parts Exchange Service
3-Year Limited Hardware Warranty: 3-Year On-Site Service
3-Year Limited Hardware Warranty: 1st Year On-Site Service, 3-Year Free Parts Exchange Service.
3-Year Limited Hardware Warranty: 3-Year Free Parts Exchange Service
3-Year Limited Hardware Warranty: 3-Year Return to Bench Service
1-Year Limited Hardware Warranty: 1-Year On-Site Service
1-Year Limited Hardware Warranty: 1-Year Free Parts Exchange Service
30-Day Limited Hardware Warranty: 30-Day Free Parts Exchange or Product Return Service

HP warrants this hardware product against defects in materials and workmanship, for one *(1)* of the *Warranty Entitlements* above, from the date of purchase. **Please refer to the Warranty Entitlement Information provided on the back cover of this guide**. If you need more information on the content of there warranty entitlements as well as the way to obtain these services, please refer to the HP Warranty and Support Guide available on our web site www.hp.com/go/support.

Note Neither HP, nor any of its designates, guarantee that all of the above Warranty Entitlements will be available in your country. For details, consult your local HP Sales and Service Office or HP Authorized Support Provider.

HP Validation and Service Options

If HP receives notice of a defect in your HP hardware product during the hardware product's warranty period, HP or its designate may, at its option and depending on warranty entitlement:
1) Repair the parts which prove to be defective *OR,*
2) Replace the parts which prove to be defective *OR,*
3) Provide, the customer, with the appropriate part(s) required for repair. In this event, HP may:
   - Provide you with written instructions for replacing the defective part(s).
   - Provide free telephone assistance for installation of the replacement component.
   - Prepay shipping charges, duties, and taxes for replacement parts sent to you as well as for any parts that HP asks to be returned. You will be billed for any defective part(s) not returned as requested by HP.

Note HP reserves the right to validate any claims of defective products or components before repairing or replacing such products or components. IMPORTANT: Run HP e-DiagTools (HP Diagnostics Utility) before contacting HP for warranty service to obtain information that will be requested by a support agent.

Before contacting HP for warranty service for your HP product:

- Run HP's diagnostic software (refer to page 13) to diagnose your product and to obtain information that will be requested by a support agent.
- Troubleshoot your system using support information provided on the HP support web site at:

For HP Vectra PCs	**http://www.hp.com/go/vectrasupport**
For HP e-pcs	**http://www.hp.com/go/e-pcsupport**

- Locate your proof of purchase date, indicated on your receipt, invoice, etc.
- Have immediate access to the defective product for potential online or telephone troubleshooting by an HP service agent.

HP Hardware Warranty

Warranty entitlement description

ON-SITE SERVICE:

Description: On-site service for the central processing unit, including free parts exchange and labor, provided by an HP sales and Service Center representative or an HP Authorized Support Provider, during the product warranty period.

Obtaining On-site service. If your product is eligible for on-site warranty service:
- Contact your HP Customer Care Center, or an HP Sales and Service Office or an HP Authorized Support Provider. You may be required to supply proof of purchase.

- Verify that the latest version of the BIOS and drivers are installed on your product. You will be asked to install the latest version of the BIOS and drivers before an HP Sales and Service Center representative or an HP Authorized Support Provider representative is dispatched to your site.

FREE PARTS EXCHANGE SERVICE:

Description: Free Parts Exchange Service for the central processing unit, keyboard and mouse provided by an HP Sales and Service Center or an HP Authorized Support Provider, during the product warranty period.

Obtaining Free Parts Exchange. If your product is eligible for Free Parts Exchange:
- Contact your HP Customer Care Center, or an HP Sales and Service Office or an HP Authorized Support Provider. You will be sent the necessary replacement parts for performing any repairs yourself.
- HP is not responsible for, nor warrants your replacement parts or hardware product against, damage resulting from improper installation of replacement parts or the repair of your defective product by you or your designate.
- You will be billed for any additional replacement parts required as a result of improper installation parts by you or your designate.

RETURN TO BENCH SERVICE:

Description: Return to Bench Service for the central processing unit, including free parts exchange and labor, provided by an HP Sales and Service Center or an HP Authorized Support Provider during the product warranty period.

Obtaining Return to Bench. If your product is eligible for Return to Bench service:
- Return your complete product in acceptable and repairable condition, to an HP Repair Center or an HP Authorized Support Provider within the product warranty period. Once the product has been repaired, it will be returned free of charge to the address you designate.
- Return to Bench Service is limited to the repair of hardware failures only.
- Run the HP diagnostic software provided with your product before returning your product for repair service.
- Returned product failures caused by non-HP products - whether internal or external to the system processor unit - are subject to standard per-incident repair charges.
- If a hardware failure is not found, you will be billed for the service provided.
- You may be required to provide proof of the purchase date of your product before warranty service will be provided.

International Warranty

This warranty is extended worldwide under certain conditions to products which are reshipped by the original purchaser either for his own use or provided as an incidental part of systems integrated by the original purchaser. When available in the country of use, service is provided in the same manner as if the product was purchased in that country and can only be provided in countries where the product is designed to operate. Also, standard warranty service response time is subject to change due to local parts availability. *If the product is not normally sold by HP in the country of use, it may need to be returned to the country of purchase for service*. Please check with your local HP Sales and Service Office or HP Authorized Support Provider for more information.

HP Customer Care Center Phone Numbers

HP Customer Care Centers can help you solve issues related to HP products and, if necessary, initiate appropriate service procedures. In the U.S.A, telephone support is available 24 hours a day, 7 days a week. Elsewhere, it is available during normal office hours.

North & Latin America

Argentina	(+54 11) 4778 8380 (international and Buenos Aires area) 0810 555 5520 (other locations)
Brazil	(11) 7297 4998
Canada	(+1) (905) 206 4663
Chile	800 22 5547
Mexico	52 58 9922
United States	(+1) (970) 635-1000
Venezuela	(+1) (800) 4746 8368

Asia Pacific

Australia	(+61-3) 8877-8000
China	+86 (0) 10 6564 5959 (800) 810-5959
Hong Kong	(+852) 3002 8555
India	(+91-11) 682-6035
Indonesia	(+62-21) 350-3408
Japan	(+81-3) 5344 7181
Korea, Republic of	(+82-2) 3270 0700 (Seoul) (+82) 80 999 0700 (outside Seoul)
Malaysia	(+60-3) 2695 2566
Penang	1 300 88 00 28
New Zealand	(+64-9) 356-6640
Philippines	(+63-2) 867-3551
Singapore	(+65) 272-5300
Taiwan	(+886) 2- 2717-0055
Thailand	(+66-2) 661-4000
Viet Nam	(+84-8) 823-4530

Europe, Middle East & Africa

Austria	(+43) 810 00 6080
Belgium	Dutch (+32) 02 626 8806 French (+32) 02 626 8807
Denmark	(+45) 39 29 4099
Finland	(+358) 0203 47 288
France	(+33) 01 43 62 34 34
Germany	(+49) 0180 525 8143 (12 euro cents/min)
Israel	(+972) 09 830 4848
Italy	(+39) 02 264 10350
Middle-East	(+971) 4 883 8454
Netherlands	(+31) 020 606 8751
Norway	(+47) 22 11 62 99
Poland	(+48) 22 865 9800
Portugal	+(351) 21 317 6333
Russian Federation	(+7) 095 797 3520 (Moscow) (+7) 812 346 7997 (St Peter)
South Africa	(+27) 11 258 9301 (outside RSA) 086 000 1030 (inside RSA)
Spain	(+34) 90 232 1123
Sweden	(+46) 08 619 2170
Switzerland	(+41) 084 880 1111
Turkey	(+90) 216 579 7171
United Kingdom	(+44) 0207 512 5202

Go to **www.hp.com/go/support** and click on **contact hp** for the most up-to-date list of phone numbers.

HP Customer Care Center Phone

HP Software Limited Warranty

THIS HP SOFTWARE LIMITED WARRANTY SHALL COVER ALL SOFTWARE, INCLUDING OPERATING SYSTEM SOFTWARE, THAT IS PROVIDED TO YOU AS PART OF THE HP PRODUCT. IN CASE OF CONFLICT BETWEEN HP AND NON-HP WARRANTY TERMS THESE HP WARRANTY TERMS SHALL PREVAIL.

Software

• HP Software warranty

HP warrants for a period of ninety (90) days from the date of purchase that all pre-installed HP software will execute their programming instructions when all files are properly installed. HP does not warrant that the software will be uninterrupted or error free. In case of software failure to execute its programming instructions during the warranty period, customer's remedy will be the replacement of software provided by HP or a refund upon return of the product and all copies of software.

• Other Software (if supplied)

All other software is warranted by the software vendor and is *not* warranted by HP.

Operating System

• Microsoft Operating Systems and Software

HP warrants for a one (1) year period from the date of the purchase the installation and configuration of the pre-installed version of the Microsoft operating system and software. HP does not warrant that the functionality of the Microsoft operating system and software will be uninterrupted or error free. During the warranty period, in the event of a software failure to execute its programming instructions during the installation and/or configuration, HP will provide customers with remote assistance (by phone and/or by email) for re-installation and configuration.

• All other Operating Systems

Other Operating Systems are warranted by the Operating System vendor and are *not* warranted by HP.

Removable Media (if supplied)

HP warrants the removable media, if supplied, upon which this product is recorded to be free from defects in materials and workmanship under normal use for a period of ninety (90) days from the date of purchase. Customer's remedy in case of defect will be the replacement of media provided by HP or a refund upon return of the product and destruction of all other non-removable media copies of the software.

HP Service Procedures

Notice of Warranty Claims Customer must notify HP in writing of any warranty claim not later than thirty (30) days after the expiration of the warranty period.

Limitation of Warranty HP makes no other express software warranty, whether written or oral with respect to this hardware product. Any implied warranty of merchantability or fitness for a particular purpose is limited to the ninety (90) days duration of this written warranty for pre-installed HP software and one (1) year duration of this written warranty for pre-installed version of the Microsoft operating system and software.
HP is not liable in case of misuse, unauthorized modification, improper maintenance, or defects resulting from unauthorized use with non HP equipment.

Limitation of Liability and Remedies THE REMEDIES PROVIDED ABOVE ARE CUSTOMER'S SOLE AND EXCLUSIVE REMEDIES. IN NO EVENT SHALL HP BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING LOST PROFIT) WHETHER BASED ON WARRANTY, CONTRACT, TORT OR ANY OTHER LEGAL THEORY. This warranty in no way effects Customers right under statutory law.

Obtaining Warranty Service Warranty Service may be obtained from the nearest HP sales office or in other locations indicated on HP's web site.

HP Software License Agreement

Your HP product contains software programs.
CAREFULLY READ THIS LICENSE AGREEMENT AND LIMITED WARRANTY STATEMENT BEFORE PROCEEDING TO OPERATE THIS EQUIPMENT. RIGHTS IN THE SOFTWARE ARE OFFERED ONLY ON THE CONDITION THAT THE CUSTOMER AGREES TO ALL TERMS AND CONDITIONS OF THE LICENSE AGREEMENT. PROCEEDING TO OPERATE THE EQUIPMENT INDICATES YOUR ACCEPTANCE OF THESE TERMS AND CONDITIONS. IF YOU DO NOT AGREE WITH THE TERMS OF THE LICENSE AGREEMENT, YOU MUST NOW EITHER REMOVE THE SOFTWARE FROM YOUR HARD DISK DRIVE AND DESTROY THE MASTER DISKETTES, OR RETURN THE COMPLETE HP PRODUCT AND SOFTWARE FOR A FULL REFUND. PROCEEDING WITH CONFIGURATION SIGNIFIES YOUR ACCEPTANCE OF THE LICENSE TERMS. UNLESS OTHERWISE STATED BELOW, THIS HP SOFTWARE LICENSE AGREEMENT SHALL GOVERN THE USE OF ALL SOFTWARE THAT IS PROVIDED TO YOU AS PART OF THE HP PRODUCT AND SHALL SUPERSEDE ANY OTHER SOFTWARE WARRANTY STATEMENT THAT MAY BE INCLUDED IN THIS HP PRODUCT OR MAY BE FOUND ONLINE.
Operating system and software applications by Microsoft are licensed to you under the Microsoft License Agreement contained in the Microsoft documentation or displayed on your screen when Microsoft Software Products are launched. For a PC supplied with a Microsoft operating system: When you start the PC and accept the Microsoft End-user License Agreement ("EULA"), your license rights are valid only if a Certificate of Authenticity ("COA") label corresponding to your Microsoft operating system is provided with your PC. The COA label can usually be found on the right-hand side of the computer. If the COA label does not correspond to your Microsoft operating system or is missing, contact your HP reseller for details. 'Other non-HP Software and Operating Systems are covered by the appropriate vendor license.
The following License Terms govern the use of the HP software:
USE. Customer may use the software on any one HP product. Customer may not network the software or otherwise use it on more than one HP product. Customer may not reverse assemble or decompile the software unless authorized by law.
COPIES AND ADAPTATIONS. Customer may make copies or adaptations of the software a) for archival purposes or (b) when copying or adaptation is an essential step in the use of the software with an HP product so long as the copies and adaptations are used in no other manner.
OWNERSHIP. Customer agrees that he/she does not have any title or ownership of the software, other than ownership of the physical media. Customer acknowledges and agrees that the software is copyrighted and protected under the copyright laws. Customer acknowledges and agrees that the software may have been developed by a third party software supplier named in the copyright notices included with the software, who shall be authorized to hold the Customer responsible for any copyright infringement or violation of this Agreement.
PRODUCT RECOVERY CD-ROM. If your HP product was shipped with a product recovery CD-ROM: (i) The product recovery CD-ROM and/or support utility software may only be used for restoring the hard disk of the HP product with which the product recovery CD-ROM was originally provided. (ii) The use of any operating system software by Microsoft contained in any such product recovery CD-ROM shall be governed by the Microsoft License Agreement.
TRANSFER OF RIGHTS IN SOFTWARE. Customer may transfer rights in the software to a third party only as part of the transfer of all rights and only if Customer obtains the prior agreement of the third party to be bound by the terms of this License Agreement. Upon such a transfer, Customer agrees that his/her rights in the software are terminated and that he/she will either destroy his/her copies and adaptations or deliver them to the third party.
SUBLICENSING AND DISTRIBUTION. Customer may not lease, sublicense the software or distribute copies or adaptations of the software to the public in physical media or by telecommunication without the prior written consent of Hewlett-Packard.
TERMINATION. Hewlett-Packard may terminate this software license for failure to comply with any of these terms provided Hewlett-Packard has requested Customer to cure the failure and Customer has failed to do so within thirty (30) days of such notice.
UPDATES AND UPGRADES. Customer agrees that the software does not include updates and upgrades which may be available from Hewlett-Packard under a separate support agreement.
EXPORT CLAUSE. Customer agrees not to export or re-export the software or any copy or adaptation in violation of the U.S. Export Administration regulations or other applicable regulation.
U.S. GOVERNMENT RESTRICTED RIGHTS. Use, duplication, or disclosure is subject to HP standard commercial license terms and for non-DOD Departments and Agencies of the U.S. Government, the restrictions set forth inFAR 52.227-19(c)(1-2) (June 1987) Hewlett-Packard Company, 3000 Hanover Street, Palo Alto, CA 94304 U.S.A. Copyright (c) 2000 Hewlett-Packard Company. All Rights Reserved. Customer further agrees that Software is delivered and licensed as "Commercial computer software" as defined in DFARS 252-227-7014 (June 1995) or as a "commercial item" as defined in FAR 2.101(a), or as "Restricted computer software" as defined in FAR 52.227-19 (or any equivalent agency regulation or contract clause), whichever is applicable. The Customer agrees that it has only those rights provided for such Software by the applicableFAR or DFARS clause or the HP standard software agreement for the product involved.

Support Policy for Microsoft Operating Systems Service Pack

HP will provide end user support for HP PCs that use Microsoft Operating Systems, including its latest service packs. This support will be available 30 days after the service pack being released by Microsoft.

November 08, 2001

Regulatory Information

Declaration of Conformity
According to ISO/IEC Guide 22 and CEN/CENELEC EN 45014

Manufacturer's Name: HEWLETT-PACKARD France
Manufacturer's Address: 5 Avenue Raymond Chanas - Eybens - 38053 Grenoble Cedex 09 - FRANCE

Declares that the product(s):
Product Name: Personal Computer
Model Number: HP Vectra VL400 DT, MT, SFF
                  HP Vectra VL410 DT, SFF
                  HP Vectra VL420 DT, MT, SFF
                  HP Vectra VL800 DT, MT
                  HP Vectra VL830 MT
                  HP Vectra XE310
                  HP Vectra XE320
                  HP e-pc (40)
                  HP e-pc (42)

Conform(s) to the following Product Specifications:

SAFETY:

International:IEC 60950:1991 +A1 +A2 +A3 +A4 / GB4943-1995
Europe   : EN 60950:1992 +A1 +A2 +A3 +A4 +A11

ELECTROMAGNETIC COMPATIBILITY:

CISPR 22:1997 / EN 55022:1998 Class B
CISPR24:1997 / EN55024 :1998
IEC 61000-3-3:1994 / EN 61000-3-3:1995
GB9254-1998
FCC Title 47 CFR, Part 15 Class B 1)
ICES-003, Issue 3
VCCI-B (for all models except Vectra VL410 DT)
AS/NZ 3548:1995 (for all models except Vectra VL410 SF)

Products bearing the CE marking[2] also comply with:

IEC 61000-3-2:1995 + A14 / EN 61000-3-2:1995 + A14.

Those products comply with the requirements of the following Directives and carry the CE-marking accordingly: EMC Directive 89/336/EEC and Low Voltage Directive 73/23/EEC, both amended by the Directive 93/68/EEC.

1)This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:
      (1) This device may not cause harmful interference, and
      (2)This device must accept any interference received, including interference that may cause undesired operation.
2)All products sold in the European Economic Area (EEA) bear the CE marking.

Didier CABARET
Quality Manager

Grenoble, January 2002:

For Compliance Information ONLY, contact:
USA Contact: Hewlett-Packard Company,
Corporate Product Regulations Manager,
3000 Hanover Street, Palo Alto, CA 94304.

FCC for USA only

Federal Communications Commission Radio Frequency Interference Statement

Warning:
HP computer systems are classified by the Federal Communications Commission (FCC) as class B digital devices. However, the inclusion of certain sub-systems such as additional cards, can change this configuration to class A.
If any one of the labels located on your computer, as well as on all sub-systems themselves, carries a class A rating, your entire computer system is considered as a class A.
If all labels carry a class B rating, your entire computer is considered as a class B.

Class A:
This equipment has been tested and found to comply with the limits for a class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Class B:
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the installation manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to correct the interference by one or more of the following measures:
• Reorient or relocate the receiving antenna.
• Increase the distance between the equipment and the receiver.
• Connect the equipment to an outlet on a different circuit to the one the receiver is connected to.
• Consult your dealer or an experienced radio/TV technician for help.
Hewlett-Packard's FCC Compliance Tests were conducted using HP-supported peripheral devices and HP shielded cables, such as those you receive with your system. Changes or modifications not expressly approved by Hewlett-Packard could void the user's authority to operate the equipment.

For Canada only

This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la Class B est conforme à la norme NMB-003 du Canada.

PART 68 FCC Compliance Statement

This equipment complies with Part 68 of the FCC Rules. A label is attached to the equipment that contains, among other information, its FCC registration number and ringer equivalence number (REN). If requested, this information must be provided to the telephone company.

An FCC compliant telephone cord and modular plug is provided with this equipment. This equipment is designed to be connected to the telephone network or premises wiring using a compatible modular jack, which is FCC part 68 compliant.

Connection to the telephone network should be made by using standard modular telephone jack of type RJ11.

The REN is useful to determine the quantity of devices that may be connected to the telephone line and still have all of those devices ring when your telephone number is called. In most, but not all areas, the sum of the RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to the line, as determined by the total RENs, contact the telephone company to determine the maximum REN for the calling area.

If this equipment causes harm to the telephone network, the telephone company may discontinue your service temporarily. If advance notice is not practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of the equipment. If this happens, the telephone company will provide advance notice in order for you to make the necessary modifications in order to maintain uninterrupted service.

In the event this equipment should fail to operate properly, disconnect the unit from the telephone line. Try using another FCC approved telephone in the same telephone jack. If the trouble persists, call the telephone company repair service bureau. If the trouble does not persist and appear s to be with this unit, disconnect the unit from the telephone line and discontinue use of the unit until it is repaired. Please note that the telephone company may ask that you disconnect the equipment from the telephone network until the problem has been corrected or until you are sure that the equipment is not malfunctioning.
The user must use the accessories and cables supplied by the manufacturer to get optimum performance from the product.

No repairs may be done by the customer.
If trouble is experienced with this equipment, please contact your authorized support provider for repair and warranty information. If the trouble is causing harm to the telephone network, the telephone company may request you remove the equipment from the network until the problem is resolved.
This equipment cannot be used on telephone company provided coin service. Connection to Party Line Service is subject to state tariffs.
When programming and/or making test calls to emergency numbers:
- Remain on the line and briefly explain to the dispatcher the reason for the call.
- Perform such activities in the off-peak hours such as early morning or late evenings.
The Telephone Consumer Protection Act of 1991 makes it unlawful for any person to use a computer or other electronic device to send any message via a telephone facsimile machine unless such message clearly contains, in a margin at the top or bottom of each transmitted page or on the first page of the transmission, the date and time it is sent and an identification of the business, other entity, or individual sending the message and the telephone number of the sending machine of such business, other entity, or individual.
In order to program this information into your facsimile, refer to your communications software user manual.

Canadian Department of Communications Notice

The Industry of Canada label identifies certified equipment. This certification means that the equipment meets certain telecommunications network prospective, operational and safety requirements. The department does not guarantee the equipment will operate to the user's satisfaction.
Before installing this equipment, make sure you are permitted to connect it to the facilities of the local Telecommunications Company. You must install the equipment using an acceptable method of connection. In some cases you may also extend the company's inside wiring for single line individual service by means of certified connector assembly (telephone extension cord). You should be aware, however, that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designed by the supplier. Any repairs or alterations made by a user to this equipment or equipment malfunctions, may give the telephone communications company cause to request the user to disconnect the equipment.

For your own protection, make sure that the electrical ground connections of the power utility, telephone lines and internal metallic water pipes systems, if present, are connected together. This precaution may be particularly important in rural areas.

Caution: Do not attempt to make electrical ground connections yourself, contact the appropriate electric inspection authority or an electrician.

The Ringer Equivalence Number (REN) assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all devices does not exceed 5.

NEW ZEALAND TELECOM WARNINGS

General

The grant of a Telepermit for any item of terminal equipment indicates only that Telecom has accepted that the item complies with minimum conditions for connection to its network. It indicates no endorsement of the product by Telecom, nor does it provide any sort of warranty. Above all, it provides no assurance that any item will work correctly in all respects with another item of Telepermitted equipment of a different make or model, nor does it imply that any product is compatible with all of Telecom's network services.

This equipment does not fully meet Telecom's impedance requirements. Performance limitations may occur when used in conjunction with some parts of the network. Telecom will accept no responsibility should difficulties arise in such circumstances.

This equipment shall not be set up to make automatic calls to the Telecom '111' Emergency Service.

If a charge for local calls is unacceptable, the 'Dial' button should NOT be used for local calls. Only the 7-digits of the local number should be dialled from your telephone. DO NOT dial the area code digit or the '0' prefix.

This equipment may not provide for the effective hand-over of a call to another device connected to the same line.

Important Notice

Under power failure conditions, this telephone may not operate. Please ensure that a separate telephone, not dependent on local power, is available for emergency use.

Some parameters required for compliance with Telecom's Telepermit requirements are dependent on the equipment (PC) associated with this device. The associated equipment shall be set to operate within the following limits for compliance with Telecom's Specification:-

1. (a) There shall be no more than 10 call attempts to the same number within any 30 minute period for any single manual call initiation, and
   (b) The equipment shall go on-hook for a period of not less than 30 seconds between the end of one attempt and the beginning of the next attempt.
2. Where automatic calls are made to different numbers, the equipment shall go on-line for a period of not less than 5 seconds between the end of one attempt and the beginning of the next attempt.
3. The equipment shall be set to ensure that calls are answered between 3 and 30 seconds of receipt of ringing.

All persons using this device for recording telephone conversations shall comply with New Zealand law. This requires that at least one party to the conversation is to be aware that it is being recorded. In addition, the Principles enumerated in the Privacy Act 1993 shall be complied with in respect to the nature of the personal information collected, the purpose for its collection, how it is used and what is disclosed to any other party.

Safety Warning for the USA and Canada

If the power cord is not supplied with the computer, select the proper power cord according to your local national electric code.

USA: use a UL listed type SVT detachable power cord.

USA: utiliser un cordon secteur "UL listed", de type SVT.

Canada: use a CSA certified detachable power cord.

Notice for the Netherlands

Bij dit apparaat zijn batterijen geleverd. Wanneer deze leeg zijn, moet U ze niet weggooien maar inleveren als KCA.

Notice for Germany

Hinweis für Deutschland: Geräuschemission

Lärmangabe nach Maschinenlärmverordnung - 3 GSGV (Deutschland):

LpA < 70 dB am Arbeitsplatz bei normalem Betrieb nach DIN 45635 T19 (under normal use in the workplace as per ISO 7779).

Notice for Japan

この装置は，情報処理装置等電波障害自主規制協議会（ＶＣＣＩ）の基準に基づく クラスＢ情報技術装置です。この装置は，家庭環境で使用することを目的としていますが，この装置がラジオやテレビジョン受信機に近接して使用されると，受信障害を引き起こすことがあります。
取り扱い説明書に従って正しい取り扱いをして下さい。
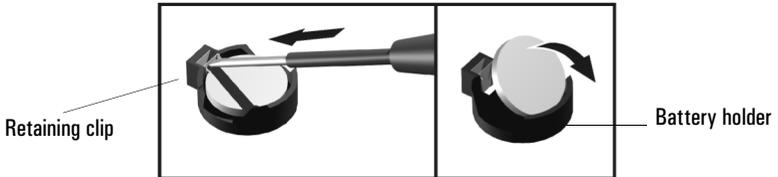
Notice for Korea

사용자 안내문 (B급 기기)

이 기기는 비업무용으로 전자파장해검정을 받은
기기로서, 주거지역에서는 물론 모든 지역에서
사용할 수 있습니다.

Technical Characteristics

Replacing the Battery

To change the battery:

1 Disconnect the PC's power cord and remove the cover.

2 Remove the old battery by sliding it from under the retaining clip.

Retaining clip

Battery holder

3 Place the new battery in the battery holder ensuring it is correctly seated with the clips in place.

4 Replace the PC's cover and connect the power cord.

5 Run the *Setup* program to reconfigure the PC.

Notes	The battery in this PC is a lithium battery which does not contain any heavy metals. Nevertheless, in order to protect the environment, do not dispose of batteries in household waste. Please return used batteries either to the shop from which you bought them, to the dealer from whom you purchased your PC, or to HP so that they can either be recycled or disposed of in the correct way. Returned batteries will be accepted free of charge.

Note	Operating temperature and humidity ranges may vary depending on the mass storage devices installed. High humidity levels can cause improper operation of disk drives. Low humidity ranges can aggravate static electricity problems and cause excessive wear of the disk surface.
	The power consumption and acoustics figures given in the tables below are valid for the standard configuration as shipped. These figures will vary if some components are changed or added to in the initial configuration. For more information, refer to the product's data sheet at HP's web site: **www.hp.com/go/library**
	When the computer is turned off with the power button on the front panel, the power consumption falls below 5 W, but it is not zero. The special on/off method used by these computers considerably extends the lifetime of the power supply. To reach zero power consumption in "off" mode, either unplug the power outlet or use a power block with a switch.

Contact your dealer for product availability in your country.

Characteristics	HP Vectra vl400 Desktop PC	HP Vectra vl400 Minitower PC	HP Vectra vl400 SFF PC
Weight (configuration with 1 CD-ROM drive, excluding keyboard and display)	10kg (22 pounds)	13.4kg (29.5 pounds)	8kg (17.6 pounds)
Dimensions	Width: 43.5cm (17.13in.) Height: 13.5cm (5.32in.) Depth: 43cm (16.93in.)	Width: 20.6cm (8.15in.) Height: 46.9cm (18.46in.) Depth: 45.5cm (17.9in.)	Width: 36.6cm (14.4in.) Height: 10.1cm (3.98in.) Depth: 40.7cm (16.14in.)
Acoustic noise emission (ISO 7779) • Idle (typical) • Operating with hard disk access • Operating with floppy disk access • Operating with CD access	Sound power level LwA ≤ 3.8B(A) LwA ≤ 4.2B(A) LwA ≤ 5.0B(A) LwA ≤ 4.9B(A)	Sound pressure level at operator position LpA ≤ 29dB(A) LpA ≤ 34dB(A) LpA ≤ 41dB(A) LpA ≤ 44dB(A)	
Power Supply Input voltage (voltage selection switch): Input frequency:	100-127V 4A, 200-240V 2A 50Hz/60Hz	100-127V 7A, 200-240V 4A 50Hz/60Hz	100-127V 2.5A, 200-240V 1.3A 50Hz/60Hz
Power consumption - Windows 98/2000 • Max. operating • Idle (typical) • Sleep (suspend)[1] • Off	115V / 60Hz and 230V / 50Hz 51.4W 34.7W 3.3W 2.8W		
Storage Humidity	8% to 85% (relative)		

(1) As an ENERGY STAR partner, HP has determined that this product meets the ENERGY STAR guidelines for energy efficiency (Windows 98 and 2000 only). This value is only achieved when "Suspend to RAM" (S3 mode) is enabled. To enable Suspend to RAM, enter the PC's Setup program by pressing F2 during startup and select the Power menu.

Contact your dealer for product availability in your country.

Characteristics	HP Vectra vl410 Desktop PC		HP Vectra vl410 SFF PC	
Weight (configuration with 1 CD-ROM drive, excluding keyboard and display)	10kg (22 pounds)		8kg (17.6 pounds)	
Dimensions	Width: 43.5cm (17.13in.) Height: 13.5cm (5.32in.) Depth: 43cm (16.93in.)		Width: 36.6cm (14.4in.) Height: 10.1cm (3.98in.) Depth: 40.7cm (16.1in.)	
Acoustic noise emission (ISO 7779) • Idle (typical) • Operating with hard disk access • Operating with floppy disk access • Operating with CD access	Sound power level[1] $LwA \leq 3.3B(A)$ $LwA \leq 3.6B(A)$ $LwA \leq 4.5B(A)$ $LwA \leq 4.6B(A)$	Sound pressure level at operator position $LpA \leq 25dB(A)$ $LpA \leq 28dB(A)$ $LpA \leq 37dB(A)$ $LpA \leq 40dB(A)$	Sound power level[1] $LwA \leq 3.4B(A)$ $LwA \leq 3.6B(A)$ $LwA \leq 4.7B(A)$ $LwA \leq 4.7B(A)$	Sound pressure level at operator position $LpA \leq 27dB(A)$ $LpA \leq 28dB(A)$ $LpA \leq 37dB(A)$ $LpA \leq 42dB(A)$

Power Supply
    Input voltage
    (voltage selection switch):
    Input frequency:
	100-127V 4A, 200-240V 2A
	50Hz/60Hz
			100-127V 2.5A, 200-240V 1.3A
			50Hz/60Hz	

Power consumption - Windows 98/2000 • Max. operating • Idle (typical) • Sleep (suspend)[2] • Off	115V / 60Hz and 230V / 50Hz 52W 36W 4W 4W			
Storage Humidity	8% to 85% (relative)			

(1) Declared values LwAd = LwA + 0.3B(A).

(2) As an ENERGY STAR partner, HP has determined that this product meets the ENERGY STAR guidelines for energy efficiency. This value is only achieved when "Suspend to RAM" (S3 mode) is enabled. To enable Suspend to RAM, enter the PC's Setup program by pressing F2 during startup and select the Power menu.

Contact your dealer for product availability in your country.

Characteristics	HP Vectra vl420 Desktop PC		HP Vectra vl420 Minitower PC		HP Vectra vl420 Small Form Factor PC	
Weight (configuration with 1 CD-ROM drive, excluding keyboard and display)	10kg (22 pounds)		13.5kg (29.76 pounds)		9.2kg (20.3 pounds)	
Dimensions	Width: 43.5cm (17.13in.) Height: 13.5cm (5.31in.) Depth: 43 cm (16.92in.)		Width: 20.5cm (8.07in.) Height: 47.6cm (18.74in.) Depth: 44.7cm (17.6in.)		Width: 34.0cm (13.38in.) Height: 9.5cm (3.74in.) Depth: 40.5cm (15.95in.)	
Acoustic noise emission (ISO 7779)	Sound power level[1]	Sound pressure level at operator position	Sound power level[1]	Sound pressure level at operator position	Sound power level[1]	Sound pressure level at operator position
• Idle (typical)	$LwA \leq 3.5B(A)$	$LpA \leq 28dB(A)$	$LwA \leq 3.6B(A)$	$LpA \leq 22dB(A)$	$LwA \leq 3.6B(A)$	$LpA \leq 29dB(A)$
• Operating with hard disk access	$LwA \leq 3.6B(A)$	$LpA \leq 28dB(A)$	$LwA \leq 3.7B(A)$	$LpA \leq 22dB(A)$	$LwA \leq 3.8B(A)$	$LpA \leq 29dB(A)$
• Operating with floppy disk access	$LwA \leq 4.7B(A)$	$LpA \leq 41dB(A)$	$LwA \leq 4.7B(A)$	$LpA \leq 34dB(A)$	$LwA \leq 4.4B(A)$	$LpA \leq 38dB(A)$
• Operating with CD access	$LwA \leq 4.7B(A)$	$LpA \leq 39dB(A)$	$LwA \leq 4.7B(A)$	$LpA \leq 36dB(A)$	$LwA \leq 4.5B(A)$	$LpA \leq 40dB(A)$
Power Supply Input voltage (voltage selection switch): Input frequency:	100-127V 5A, 200-240V 3A ∼ 50Hz/60Hz		100-127V 5A, 200-240V 3.5A ∼ 50Hz/60Hz		100-127V 4A, 200-240V 2A ∼ 50Hz/60Hz	
Power consumption - Windows 2000 • Max. operating • Idle (typical) • Sleep (suspend)[2] • Off	115V / 60Hz and 230V / 50Hz 110W 45W 3.5W 3.2W					
Storage Humidity	8% to 85% (relative)					

(1) Declared values LwAd = LwA + 0.3B(A).

(2) As an ENERGY STAR partner, HP has determined that this product meets the ENERGY STAR guidelines for energy efficiency. This value is only achieved when "Suspend to RAM" (S3 mode) is enabled.

Technical Characteristics

Contact your dealer for product availability in your country.

Characteristics	HP Vectra vl800 Desktop PC		HP Vectra vl800 Minitower PC		HP Vectra vl830 Minitower PC	
Weight (configuration with 1 CD-ROM drive, excluding keyboard and display)	10kg (22 pounds)		14kg (30.86 pounds)		14.5kg (32 pounds)	
Dimensions	Width: 42cm (16.53in.) Height: 16.2cm (6.37in.) Depth: 45.7cm (17.99in.)		Width: 20.6cm (8.1in.) Height: 46.9cm (18.5in.) Depth: 45.5cm (17.9in.)		Width: 20.5cm (8.07in.) Height: 47.6cm (18.74in.) Depth: 44.7cm (17.6in.)	
Acoustic noise emission (ISO 7779) • Idle (typical) • Operating with hard disk access • Operating with floppy disk access • Operating with CD access	Sound power level[1] LwA ≤ 3.8B(A) LwA ≤ 4.6B(A) LwA ≤ 4.5B(A) LwA ≤ 5.0B(A)	Sound pressure level at operator position LpA ≤ 30dB(A) LpA ≤ 38dB(A) LpA ≤ 37dB(A) LpA ≤ 44dB(A)	Sound power level[1] LwA ≤ 3.8B(A) LwA ≤ 3.9B(A) LwA ≤ 4.5B(A) LwA ≤ 4.6B(A)	Sound pressure level at operator position LpA ≤ 24dB(A) LpA ≤ 25dB(A) LpA ≤ 32dB(A) LpA ≤ 34dB(A)	Sound power level[1] LwA ≤ 3.8B(A) LwA ≤ 4.0B(A) LwA ≤ 4.7B(A) LwA ≤ 4.7B(A)	Sound pressure level at operator position LpA ≤ 25dB(A) LpA ≤ 27dB(A) LpA ≤ 36dB(A) LpA ≤ 34dB(A)

Power Supply
  Input voltage (voltage selection switch):
  Input frequency:
	100-127V, 200-240V 7A max or 7A/4A 50Hz/60Hz				100-127V, 200-240V 3.5A ∼ 50Hz/60Hz	

Power consumption - Windows 2000 • Max operating • Idle (typical) • Sleep (suspend)[2] • Off	115V / 60Hz and 230V / 50Hz 115W 70W 4.8W 4.8W				115V / 60Hz and 230V / 50Hz 120W 70W 5W 5W	
Storage Humidity	8% to 85% (relative)					

(1) Declared values LwAd = LwA + 0.3B(A).

(2) As an ENERGY STAR partner, HP has determined that this product meets the ENERGY STAR guidelines for energy efficiency. This value is only achieved when "Suspend to RAM" (S3 mode) is enabled. To enable Suspend to RAM, enter the PC's Setup program by pressing F2 during startup and select the Power menu.

Contact your dealer for product availability in your country.

Characteristics	HP e-pc (40)	HP e-pc (42)
Weight (configuration with 1 CD-ROM drive, excluding keyboard and display)	4.5kg (9.9pounds)	4.8kg (10.6 pounds)
Dimensions	Width: 9.5cm (3.7in.) Height: 25cm (9.8in.) Depth: 28cm (11.0in.)	
Acoustic noise emission (ISO 7779) • Idle (typical) • Operating with hard disk access	Sound power level $LwA \leq 3.1B(A)$ $LwA \leq 3.3B(A)$	Sound pressure level at operator position $LpA \leq 24dB(A)$ $LpA \leq 25dB(A)$
Power consumption • Max operating • Idle (typical) • Sleep (suspend)[1] • Off	Windows 98/2000 115V / 60Hz and 230V / 50Hz 65W 43W 7W 7W	Windows 2000/NT4/XP 115V / 60Hz and 230V / 50Hz 120W 45W 9W 9W
Power source (AC/DC adapter)	Input Rating: 100-240V $\sim$, 1.5A, 50Hz/60Hz Output Rating: 19V $---$, 2.95A, 12V $---$, 4.5A	Input Rating: 100-240V $\sim$, 2.5A, 50Hz/60Hz Output Rating: 19V $---$, 2.8A, 12V $---$, 7.65A
Storage Humidity	8% to 85% (relative)	

(1) As an ENERGY STAR partner, HP has determined that this product meets the ENERGY STAR guidelines for energy efficiency. This value is only achieved when "Suspend to RAM" (S3 mode) is enabled. Suspend to RAM is the default mode for the e-pc 42. To enable Suspend to RAM for other PCs, enter the PC's Setup program by pressing F2 during startup and select the Power menu.

Technical Characteristics

Contact your dealer for product availability in your country.

Characteristics	HP Vectra xe310 PC		HP Vectra xe320 PC
Weight (configuration with 1 CD-ROM drive, excluding keyboard and display)	10kg (22 pounds)		
Dimensions	Width: 21cm (8.27in.) Height: 39cm (15.35in.) Depth: 38cm (14.96in.)		
Acoustic noise emission (ISO 7779) • Idle (typical)	Sound pressure level at operator position LpA $\leq$ 35dB(A)		Sound pressure level at operator position LpA $\leq$ 35dB(A)
Power Supply 　　Input voltage 　　(voltage selection switch): 　　Input frequency:	100-127V 6A max, 200-240V 3A max 50Hz/60Hz		100-127V 6A, 200-240V 3A 50Hz/60Hz
Power consumption • Max operating • Idle (typical) • Sleep (suspend)[1] • Off	Windows 98 115V / 60Hz and 230V / 50Hz 70W 35W $\leq$ 25W $\leq$ 5W	Windows XP 115V / 60Hz and 230V / 50Hz 62W 40W $\leq$ 5W $\leq$ 5W	Windows XP 115V / 60Hz and 230V / 50Hz 110W 45W < 4W < 4W
Storage Humidity	8% to 85% (relative)		

(1) As an ENERGY STAR partner, HP has determined that this product meets the ENERGY STAR guidelines for energy efficiency. This value is only achieved when "Suspend to RAM" (S3 mode) is enabled. To enable Suspend to RAM for other PCs, enter the PC's Setup program by pressing F2 during startup and select the Power menu.
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Recycling your PC

HP has a strong commitment towards the environment. Your HP Personal Computer has been designed to respect the environment as much as possible. HP guarantees the availability of spare parts for a period of 5 years after production stop of a given model. HP can also take-back your old PC for recycling when it reaches the end of its useful life. HP has a product take-back program in several countries. The collected equipment is sent to HP's recycling facilities. As many parts as possible are reused. The remainder is recycled. Special care is taken for batteries and other potentially toxic substances, which are reduced into non-harmful components through special chemical process. If you require more details about HP's product take-back program contact your nearest HP Sales Office.

Warranty Entitlement Information as of January 2002			
Product	**Region of Purchase**	**Warranty Terms and Conditions**	
HP Vectra and e-pc **models ending with B**	Worldwide	Vectra VL400, VL410, VL420, VL800, VL830, XE310, XE320, e-pc 40, e-pc 42	1-year Next Business Day Onsite
HP e-pc **models not ending with B**	Europe, Middle East, Africa, North America, Latin America and Japan	e-pc 40, e-pc 42	3-year Next Business Day Onsite
	Vietnam, Hong Kong, India, Indonesia, Korea and rest of Asia Pacific	e-pc 40, e-pc 42	1-year Next Business Day Onsite
HP Vectra **models not ending with B**	North America	Vectra VL400, VL420, VL800, VL830	3-year Next Business Day Onsite
		Vectra XE310, XE320	**First year**: Next Business Day Onsite **Second and Third year**: Free Parts Exchange
	Europe, Middle East, Africa	Vectra VL400, VL410, VL420, VL800, VL830	3-year Next Business Day Onsite
		Vectra XE310	**First year**: Next Business Day Onsite **Second and Third year**: Free Parts Exchange
	Latin America	Vectra VL400, VL410, VL420, VL800, VL830, XE310, XE320	**First year**: Next Business Day Onsite **Second and Third year**: Free Parts Exchange
	China	Vectra VL420, VL800, XE310, XE320	**First year**: Next Business Day Onsite **Second and Third year**: Return to Bench
	Japan	Vectra VL410, VL420, VL800	**First year**: Next Business Day Onsite **Second and Third year**: Free Parts Exchange
		Vectra XE310, XE320	1-year Next Business Day Onsite
	New Zealand, Thailand	Vectra VL410, VL420, VL800, XE310, XE320	3-year Next Business Day Onsite
	Australia, Philippines, Singapore, Malaysia	Vectra VL410, VL420, VL800	3-year Next Business Day Onsite
		Vectra XE310, XE320	**First year**: Next Business Day Onsite **Second and Third year**: Free Parts Exchange
	Vietnam, Hong Kong, India, Indonesia, Korea and rest of Asia Pacific	Vectra VL410, VL420, VL800, XE310, XE320	**First year**: Next Business Day Onsite **Second and Third year**: Free Parts Exchange

The information contained in this warranty is subject to change without notice.

If You Have a Problem:

- Check you have your product receipt
- Run HP e-DiagTools (refer to page 13)
- Check your Warranty Entitlement (see above)
- Contact your local Customer Care Center (refer to page 17) or your HP Authorized Service Provider

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