
HP Vectra PC Service Handbook

Volume 1:
Pentium, Pentium Pro,
and Pentium II
X and V Line Vectra PCs

12th Edition
December 1997

**HP Vectra PC
Service
Handbook
12th Edition**



**Volume 1:
Pentium and
Pentium Pro
Vectra PCs**



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Preface of Volume 1

This document provides quick reference information for the current HP Vectra product line. It is intended to be used by HP-qualified service personnel to help with the installation, servicing, and repair of HP Vectra personal computers.

HP Vectra products covered by this volume are listed below:

X-Line Vectra PCs

- HP Vectra XW PC Workstation Series W1
- HP Vectra XW PC Workstation Series U2
- HP Vectra XW PC Workstation
- HP Vectra XU 6/xxx PC Series
- HP Vectra XU 5/xx PC Series
- HP Vectra XA 6/xxx PC Series
- HP Vectra XA 6/xxx MT PC Series
- HP Vectra XA 5/xxx PC Series
- HP Vectra XA 5/xxx MT PC Series
- HP Vectra XM 5/xx Series 4 PC
- HP Vectra XM 5/xx Series 3 PC
- HP Vectra XP PC Series

V-Line Vectra PCs

- HP Vectra VT 6/xxx PC Series
- HP Vectra VA 6/xxx PC Series
- HP Vectra VA 6/xxx MT PC Series
- HP Vectra VL 6/xxx Series 6 PC
- HP Vectra VL 6/xxx MT Series 6 PC
- HP Vectra VL 5/xxx Series 5 PC
- HP Vectra VL 5/xxx MT Series 5 PC
- HP Vectra VL 5/xxx Series 4 PC
- HP Vectra VL 5/xxx MT Series 4 PC
- HP Vectra VL 5/xx Series 3 PC
- HP Vectra VL2/60 PC Series

- HP Vectra VE 5/xxx Series 4 PC
- HP Vectra VE 5/xxx MT Series 4 PC
- HP Vectra VE 5/xxx Series 3 PC
- HP Vectra VE 5/xx Series 2 PC
- HP Vectra VE 5/xx PC Series
- HP Net Vectra PC

What's in Volume 2?

HP Vectra products covered by Volume 2 (part number 5965-4076) are listed below:

286 Vectra PCs

- HP Vectra 286/12 PC

386 Vectra PCs

- HP Vectra QS PC Series
- HP Vectra 386/25 PC
- HP Vectra 386N PC Series
- HP Vectra 386/33N & NI PC Series
- HP Vectra 386s PC Series
- HP Vectra RS PC Series

486 Vectra PCs

- HP Vectra 486 & 486T PC Series
- HP Vectra 486ST PC Series
- HP Vectra 486s/20 PC
- HP Vectra 486U PC Series
- HP Vectra 486N PC Series
- HP Vectra 486N & NI PC Series
- HP Vectra N2 PC Series
- HP Vectra 486M & MI PC Series
- HP Vectra 486VL PC Series

- HP Vectra 486XM PC Series
- HP Vectra M2 PC Series
- HP Vectra VE 4/xx PC Series
- HP Vectra VL2 & VL2e PC Series
- HP Vectra XM2 PC Series



Information on HP Kayak PC Workstations

For information on HP Kayak PC Workstations and accessories, refer to the HP Kayak PC Workstations Service Handbook 5966-8261.

Information on Brio and Vectra 500 Series PCs

For information on Brio and Vectra 500 Series PCs and accessories, refer to the HP Brio and Vectra 500 Series Service Handbook. This document is available from the HP Electronic Services.

What's New in this Edition?

This edition is split into two separate volumes. This volume (Volume 1) contains the Pentium™ and Pentium™ Pro based Vectra PCs. Volume 2 contains the 286, 386 and 486 based Vectra PCs.

This volume includes six new Vectra PCs:

- HP Vectra XW PC Workstation Series W1
- HP Vectra XW PC Workstation Series U1
- HP Vectra VL 6/xxx Series 6 PC
- HP Vectra VL 6/xxx MT Series 6 PC
- HP Vectra VE 5/xxx Series 4 PC
- HP Vectra VE 5/xxx MT Series 4 PC
- HP Net Vectra PC

The new HP Vectra hardware diagnostic utility is in Appendix B.

Each Vectra is described in its own chapter. The contents of each chapter are organized as follows:

- Models and Accessories
- System Board, BIOS/Setup and Memory
- Part Numbers

There are four appendices that contain information that applies to all Vectras in this volume.

- A. HP Vectra Hardware IRQs and Memory Map
- B. HP Utilities and DOS Quick Reference
- C. HP Vectra PC Service Notes
- D. Beep, POST, and Error Codes

Service notes which have become inactive have been removed from this edition. For information on HP LAN Servers refer to their service documentation.

If you find an error or want to suggest an improvement, let us know by sending in the Reader Reply Card.

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Introduction

This chapter provides information on the tools required for servicing HP Vectra PCs, the HP Electronic Services, the ECTO program, and gives an overview of the Vectra PCs described in this volume. (To see which Vectras are described in each volume, refer to the quick reference lists on the back cover of each volume.)

A complete list of the Vectra model numbers is given in the last section of this chapter.

Tools Required for Servicing HP Vectra PCs

The tools required to service the equipment described in this manual include:

- Electrically Conductive Field Service Kit (P/N 9300-1155)
- CE Peripheral Exerciser Disk Kit (45935-63210)
- Datacomm Test Hood, 9-Pin (24540-60010)
- Datacomm Test Hood, 25-Pin parallel (24540-60011)
- Datacomm Test Hood, 25-Pin serial (02620-60062)
- 1/4-Inch Flat Blade Screwdriver
- ACX-15 Torx Screwdriver
- PLCC IC Extractor (5041-2553)

HP Electronic Services

HP operates electronic services that can be accessed by HP Support personnel. These services include an electronic bulletin board system (BBS) and World Wide Web site.

HP Electronic Services can be used to obtain patches, drivers, and system utilities. If a BIOS upgrade is available from HP Electronic Services, it is indicated in the handbook by 'Refer to HP Electronic Services' or 'Refer to HP internal BBS'. Contact your HP Support Organization for more information.

Connecting to the HP BBS:

Number:	+1 (208) 344-1691
Baud Rate:	300, 1200, 2400, 4800, 9600, 14400

Connecting to the HP World Wide Web:

World Wide Web:	http://www.hp.com/go/vectrasupport
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Overview of Vectra PCs in this Volume

X-Line Vectra PCs

Vectra Model	Micro-processor	Co-processor	Accessory Slots ¹	Disk Controller	Video Controller	Max. RAM
Mini-Tower Vectras (up to seven shelves for disks)						
XW PC Workstation Series W1						
XW 6/200	Pentium™ Pro -200	Integrated in Pentium™ Pro processor	Two 16-bit ISA slots, 1 combo (ISA or PCI), 3 PCI	Integrated SCSI/IDE	Open GL 3D hardware accelerator AccelEclipse	512 MB
XW PC Workstation Series U1						
XW 6/200	Pentium™ Pro -200	Integrated in Pentium™ Pro processor	Two 16-bit ISA slots, 1 combo (ISA or PCI), 3 PCI	Integrated SCSI/IDE	Open GL 3D hardware accelerator AccelPro TX2500)	512 MB
XW PC Workstation						
XW 6/200	Pentium™ Pro -200	Integrated in Pentium™ Pro processor	Two 16-bit ISA slots, 1 combo (ISA or PCI), 3 PCI	Integrated SCSI/IDE	Open GL 3D hardware accelerator AccelPro TX2500)	512 MB
XU 6/xxx PC Series²						
XU 6/150	Pentium™ Pro -150	Integrated in Pentium™ Pro processor	Three 16-bit ISA slots, 1 combo (ISA or PCI), 1 PCI	Integrated SCSI/IDE	Matrox Graphics Accelerator (2 MB, upgradable to 4 MB or 8 MB)	256 MB
XU 6/180	Pentium™ Pro -180					512 MB
XU 6/200	Pentium™ Pro -200					

1. Accessory slots may be occupied by a disk controller board and a video board
2. To order the appropriate main memory upgrade kit, check the PC memory configuration using the "HP Vectra XU 6/xxx & VT 6/xxx Memory Configuration Utility". This utility will indicate the supported accessories.

X-Line Vectra PCs

Vectra Model	Micro-processor	Co-processor	Accessory Slots ¹	Disk Controller	Video Controller	Max. RAM
Mini-Tower Vectras (up to six shelves for disks)						
XA 6/xxx MT						
XA 6/200	Pentium™ Pro -200	Integrated in Pentium™ Pro processor	Two 16-bit ISA slots, 2 combo (ISA or PCI), 2 PCI	Integrated IDE, SCSI board (on some models)	Matrox Graphics Accelerator (2 MB, upgradable to 4 or 8 MB)	192 MB
XA 5/xxx MT						
XA 5/166	Pentium™ -166 Pentium™ MMX-166	Integrated in Pentium™ processor	Two 16-bit ISA slots, 2 combo (ISA or PCI), 2 PCI	Integrated IDE	Matrox Graphics Accelerator (2 MB, upgradable to 4 or 8 MB)	192 MB
XA 5/200	Pentium™ -200 Pentium™ MMX-200					
XA 5/233	Pentium™ -200					
Full-Height Desktop Vectras (four shelves for disks)						
XU 5/xxx PC Series						
XU 5/75	Pentium™ -75	Integrated in Pentium™ processor	Three 16-bit ISA slots, 1 combo (ISA or PCI), 1 PCI	Integrated SCSI/IDE	Integrated Ultra VGA+ (2 MB)	256 MB
XU 5/90	Pentium™ -90					
XU 5/90C	Pentium™ -90					
XU 5/120C	Pentium™ -120					
XU 5/133C	Pentium™ -133					
					Matrox Graphics Accelerator (2 MB, upgradable to 4 MB)	

1. Accessory slots may be occupied by a disk controller board and a video board

X-Line Vectra PCs (Continued)

Vectra Model	Micro-processor	Co-processor	Accessory Slots¹	Disk Controller	Video Controller	Max. RAM
Medium-Profile Desktop Vectras (up to four shelves for disks)						
Vectra XA 6/xxx						
XA 6/180	Pentium™ Pro -180	Integrated in Pentium™ Pro processor	One 16-bit ISA slot, 1 combo (ISA or PCI), 2 PCI	Integrated IDE, SCSI board (on some models)	Matrox Graphics Accelerator (2 MB, upgradable to 4 or 8 MB)	192 MB
XA 6/200	Pentium™ Pro -200					
Medium-Profile Desktop Vectras (up to four shelves for disks)						
Vectra XA 5/xxx						
XA 5/133	Pentium™ -133	Integrated in Pentium™ processor	One 16-bit ISA slot, 1 combo (ISA or PCI), 2 PCI	Integrated IDE	Matrox Graphics Accelerator (2 MB, upgradable to 4 MB or 8 MB)	192 MB
XA 5/166	Pentium™ -166					
XA 5/166	Pentium™ MMX-166					
XA 5/200	Pentium™ -200					
XA 5/200	Pentium™ MMX-200					
XA 5/233	Pentium™ MMX-233					
Vectra XM 5/xxx PC Series 4						
XM 5/75	Pentium™ -75	Integrated in Pentium™ processor	Two 16-bit ISA slots, 1 combo (ISA or PCI), 1 PCI	Integrated Fast IDE controller	Integrated Ultra VGA 2 PCI (1 MB, upgradable to 2 MB)	128 MB
XM 5/100	Pentium™ -100					
XM 5/120	Pentium™ -120					

1. Accessory slots may be occupied by a disk controller board and a video board

X-Line Vectra PCs (Continued)

Vectra Model	Micro-processor	Co-processor	Accessory Slots¹	Disk Controller	Video Controller	Max. RAM
Vectra XM 5/xxx PC Series 4 (Continued)						
XM 5/133	Pentium™ -133	Integrated in Pentium™ processor	Two 16-bit ISA slots, 1 combo (ISA or PCI), 1 PCI	Integrated IDE	Integrated Ultra VGA 2 PCI (1 MB, upgradable to 2 MB) or Matrox Graphics Accelerator (2 MB, upgradable to 4 MB or 8 MB)	128 MB
XM 5/150	Pentium™ -150				Integrated Ultra VGA 2 PCI (1 MB, upgradable to 2 MB)	
XM 5/166	Pentium™ -166				Integrated Ultra VGA 2 PCI (1 MB, upgradable to 2 MB) or Matrox Graphics Accelerator (2 MB, upgradable to 4 MB or 8 MB)	
XM 5/200	Pentium™ -200				Matrox Graphics Accelerator (2 MB, upgradable to 4 MB or 8 MB)	

X-Line Vectra PCs (Continued)

Vectra Model	Micro-processor	Co-processor	Accessory Slots ¹	Disk Controller	Video Controller	Max. RAM
Vectra XM 5/xxx PC Series 3						
XM 5/75	Pentium™ -75	Integrated in	Two 16-bit ISA slots, 1 combo (ISA or PCI), 1 PCI	Integrated Fast IDE controller	Integrated Ultra VGA 2 PCI (1 MB, upgradable to 2 MB)	192 MB
XM 5/90	Pentium™ -90	Pentium™ processor				
XM 5/100	Pentium™ -100					
XM 5/120	Pentium™ -120					
XM 5/133	Pentium™ -133					
Vectra XP PC Series						
Vectra 60/XP	Pentium™ -60	Integrated in Pentium™ processor	Two 16-bit ISA slots, 1 combo (ISA or PCI), 1 PCI	Integrated IDE	Integrated Ultra VGA+ 2/PCI (2 MB, upgradable to 4 MB)	192 MB



- Accessory slots may be occupied by a disk controller board and a video board

V-Line Vectra PCs

Vectra Model	Micro-processor	Co-processor	Accessory Slots ¹	Disk Controller	Video Controller	Max. RAM
Mini-Tower Vectras (up to seven shelves for disks)						
VT 6/xxx PC Series²						
VT 6/150	Pentium™ Pro -150	Integrated in Pentium™ Pro processor	Two 16-bit ISA slots, 1 combo (ISA or PCI), 3 PCI	Integrated IDE	Matrox Graphics Accelerator (2 MB, upgradable to 4 MB or 8 MB)	256 MB

- Accessory slots may be occupied by a disk controller board and a video board
- To order the appropriate main memory upgrade kit, check the PC memory configuration using the "HP Vectra XU 6/xxx & VT 6/xxx Memory Configuration Utility". This utility will indicate the supported accessories.

V-Line Vectra PCs

Vectra Model	Micro-processor	Co-processor	Accessory Slots ¹	Disk Controller	Video Controller	Max. RAM
Mini-Tower Vectras (up to six shelves for disks)						
VA 6/xxx MT PC Series						
VA 6/200	Pentium™ Pro -200	Integrated in Pentium™ Pro processor	Two 16-bit ISA slots, 2 combo (ISA or PCI), 2 PCI	Integrated IDE	Matrox Graphics Accelerator (2 MB, upgradable to 4 MB or 8 MB)	192 MB
VL 6/xxx MT Series 6						
VL 6/233	Pentium™ II -233	Integrated in Pentium™ II processor	Two 16-bit ISA slots, 2 combo (ISA or PCI), 2 PCI	Integrated IDE	Matrox MGA Millennium II board, (4 or 8 MB, upgradable to 8 MB or 12 MB)	192 MB
VL 6/266	Pentium™ II -266					
VL 6/300	Pentium™ II -300					
Mini-Tower Vectras (up to six shelves for disks)						
VL 5/xxx MT Series 5						
VL 5/133	Pentium™ -133	Integrated in Pentium™ processor	Two 16-bit ISA slots, 2 combo (ISA or PCI), 2 PCI	Integrated IDE	Integrated Ultra VGA 2 PCI (1 MB, upgradable to 2 MB) or Matrox Graphics Accelerator (2 MB, upgradable to 4 MB or 8 MB)	192 MB
VL 5/166	Pentium™ -166					
VL 5/200	Pentium™ -200					

1. Accessory slots may be occupied by a disk controller board and a video board

V-Line Vectra PCs

Vectra Model	Micro-processor	Co-processor	Accessory Slots ¹	Disk Controller	Video Controller	Max. RAM
Vectra VL 5/xxx MT Series 4						
VL 5/90	Pentium™ -90	Integrated in	One short (16 cm/ 6.3") 16-bit ISA slot, two full-length 16-bit ISA slot, 1 combo (ISA or PCI), 2 PCI	Integrated Fast IDE controller	Integrated Ultra VGA 2 PCI (1 MB, upgradable to 2 MB) or Matrox Graphics Accelerator (2 MB, upgradable to 4 MB or 8 MB)	128 MB
VL 5/100	Pentium™ -100	Pentium™ processor				
VL 5/120	Pentium™ -120					
VL 5/133	Pentium™ -133					
VL 5/166	Pentium™ -166					
VL 5/200	Pentium™ -200					
Vectra VE 5/xxx MT Series 4						
VE 5/200	Pentium™ MMX -200	Integrated in	Two 16-bit ISA slots, 2 combo (ISA or PCI), 2 PCI	Integrated IDE	Integrated S3 Trio 64 V2 PCI (2 MB already fitted)	192 MB
VE 5/233	Pentium™ MMX -233	Pentium™ processor				
Medium-Profile Desktop Vectras (up to four shelves for disks)						
Vectra VA 6/xxx PC Series						
VA 6/180	Pentium™ Pro -180	Integrated in	One 16-bit ISA slots, 1 combo (ISA or PCI), 2 PCI	Integrated IDE	Integrated Cirrus 5446 PCI (1 MB, upgradable to 2 MB)	192 MB
VA 6/200	Pentium™ Pro -200	Pentium™ Pro processor			Integrated Cirrus 5446 PCI (2 MB already fitted)	

1. Accessory slots may be occupied by a disk controller board and a video board

V-Line Vectra PCs (Continued)

Vectra Model	Micro-processor	Co-processor	Accessory Slots¹	Disk Controller	Video Controller	Max. RAM
Medium-Profile Desktop Vectras (up to four shelves for disks)						
VL 6/xxx Series 6						
VL 6/233	Pentium™ II -233	Integrated in Pentium™ II processor	One 16-bit ISA slots, 2 combo (ISA or PCI), 2 PCI	Integrated IDE	Integrated Cirrus 5446 (2 MB video memory fitted or Matrox MGA Millennium II board, (4 or 8 MB, upgradeable to 8 MB or 12 MB)	192 MB
VL 6/266	Pentium™ II -266					
VL 6/300	Pentium™ II -300					
Vectra VL 5/xxx Series 5						
VL 5/120	Pentium™ -120	Integrated in Pentium™ processor	One half length 16-bit ISA slot, 1 combo (ISA or PCI), 2 PCI	Integrated Fast IDE controller	Integrated Ultra VGA 2 PCI (1 MB, upgradable to 2 MB) or Matrox Graphics Accelerator (2 MB, upgradable to 4 MB or 8 MB)	192 MB
VL 5/133	Pentium™ -133					
VL 5/150	Pentium™ -150					
VL 5/166	Pentium™ -166					
VL 5/200	Pentium™ -200					

1. Accessory slots may be occupied by a disk controller board and a video board

V-Line Vectra PCs (Continued)

Vectra Model	Micro-processor	Co-processor	Accessory Slots¹	Disk Controller	Video Controller	Max. RAM
Medium-Profile Desktop Vectras (up to four shelves for disks)						
Vectra VL 5/xxx Series 4						
VL 5/75	Pentium™ - 75	Integrated in Pentium™ processor	One short (16 cm/ 6.3") 16-bit ISA slot, one full-length 16-bit ISA slot, 1 combo (ISA or PCI), 1 PCI	Integrated Fast IDE controller	Integrated Ultra VGA 2 PCI (1 MB, upgradable to 2 MB) or Matrox Graphics Accelerator (2 MB, upgradable to 4 MB or 8 MB)	128 MB
VL 5/90	Pentium™ - 90					
VL 5/100	Pentium™ - 100					
VL 5/120	Pentium™ - 120					
VL 5/133	Pentium™ - 133					
VL 5/150	Pentium™ - 150					
VL 5/166	Pentium™ - 166					
VL 5/200	Pentium™ - 200					
Vectra VL 5/xxx PC Series 3						
VL 5/75	Pentium™ - 75	Integrated in Pentium™ processor	Two 16-bit ISA slots, 1 combo (ISA or PCI), 1 PCI	Integrated Fast IDE controller	Integrated Ultra VGA 2 PCI (1 MB, upgradable to 2 MB)	192 MB
VL 5/90	Pentium™ - 90					
VL 5/100	Pentium™ - 100					
VL 5/120	Pentium™ - 120					
Vectra VL2 5/60 PC						
5/60	Pentium™ - 60	Integrated in Pentium™ processor	Two 16-bit ISA slots, 1 combo (ISA or PCI), 1 PCI	Fast IDE controller on PCI bus	PCI video board (1 MB, upgradable to 2 MB)	192 MB

1. Accessory slots may be occupied by a disk controller board and a video board

V-Line Vectra PCs (Continued)

Vectra Model	Micro-processor	Co-processor	Accessory Slots¹	Disk Controller	Video Controller	Max. RAM
Medium-Profile Desktop Vectras (up to four shelves for disks)						
Vectra VE 5/xxx Series 4						
VE 5/200	Pentium™ MMX -200	Integrated in Pentium™ processor	One 16-bit ISA slots, 1 combo (ISA or PCI), 2 PCI	Integrated IDE	Integrated S3 Trio 64 V2 PCI (2 MB already fitted)	192 MB
VE 5/233	Pentium™ MMX -233					
Vectra VE 5/xxx Series 3						
VE 5/100	Pentium™ - 100	Integrated in Pentium™ processor	One half-length 16-bit ISA slots, one full-length 16-bit ISA slots, one combo (ISA or PCI), 1 PCI	Integrated Fast IDE controller	Integrated SiS 6205 (no VRAM, UMA; 1 or 2 MB allocated as a reserved area in system memory)	192 MB
VE 5/120	Pentium™ - 120					
VE 5/133	Pentium™ - 133					
VE 5/133	AMD-K5™ PR133					
VE 5/166	Pentium™ - 166					
Vectra VE 5/xxx PC Series 2						
VE 5/75	Pentium™ - 75	Integrated in Pentium™ processor	Two 16-bit ISA slots, 1 combo (ISA or PCI), 2 PCI	Integrated Fast IDE controller	Integrated Ultra VGA 2 PCI (1 MB, upgradable to 2 MB)	128 MB
VE 5/100	Pentium™ - 100					
VE 5/133	Pentium™ - 133					
Vectra VE 5/xx PC Series						
VE 5/75	Pentium™ - 75	Integrated in Pentium™ processor	Four 16-bit ISA slots	Integrated Fast IDE controller	Integrated Ultra VGA 2 PCI (1MB)	128 MB
VE 5/90	Pentium™ - 90					

1. Accessory slots may be occupied by a disk controller board and a video board

V-Line Vectra PCs (Continued)

Vectra Model	Micro-processor	Co-processor	Accessory Slots	Disk Controller	Video Controller	Max. RAM
Entry Level Desktop Vectras						
Net Vectra						
Net Vectra 5/166	Pentium™ - 166 MMX	Integrated in	Two PCI	Integrated IDE	Integrated S3 Trio 64	192 MB
Net Vectra 5/200	Pentium™ - 200	Pentium™ processor			V2 PCI (2 MB already fitted)	

Summary of Vectra Model Numbers

Refer to Volume 2 for model numbers D1000 to D2999.

Model Number	HP Vectra	Volume & Chapter
D3001A	HP Vectra XP	This Volume Chapter 12
D3002A		
D3003A, D3003B		
D3021A, D3021B		
D3022A	HP Vectra 486VL	Volume 2 Chapter 16
D3024A		
D3025A, D3025B		
D3026A		
D3028A		
D3031A		
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D3048A		
D3054A		
D3055A		
D3056A		

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D3380A	HP Vectra M2.	Volume 2 Chapter 18
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D3390A	HP Vectra VE 5/xx	This Volume Chapter 28
D3391A		
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D3393A/B	HP Vectra VL 5/xxx Series 3	This Volume Chapter 26
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D3395A/B/S		
D3396A/B		
D3397A/B		
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D3400A/B		
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D3406A	HP Vectra VE 5/xx	This Volume Chapter 28
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D3410A/B		
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D3481A		
D3483A		
D3484A		
D3485A		
D3486A		
D3487A		
D3488A	HP Vectra VE 4/xx	Volume 2 Chapter 19
D3491A		
D3492A		
D3493A		
D3494A		
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D3498A		
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D3510A/B	HP Vectra XU 5/xxx	This Volume Chapter 5
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D3520A	HP Vectra VT 6/xxx	This Volume Chapter 13
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D3523N		
D3528A/B	HP Vectra XU 6/xxx	This Volume Chapter 4
D3529B/N		
D3530B/N		
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D3565A		

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D3660A		
D3661A		
D3662A		
D3663A		
D3664A		
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D3685B		
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D3810B		
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Model Number	HP Vectra	Volume & Chapter
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D3949A		
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D3961A	HP Vectra XM 5/xxx Series 4	This Volume Chapter 10
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D3978A		
D3985A	HP Vectra XA 5/xxx	This Volume Chapter 8
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D3987A		
D3988A		
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D3991N		
D3992A		
D3993A/T		
D3994N	HP Vectra XA 5/xxx MT	This Volume Chapter 9
D3995N		

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Model Number	HP Vectra	Volume & Chapter
D4001A	HP Vectra VE 5/xxx Series 2	This Volume Chapter 27
D4002A		
D4002W		
D4003A		
D4004A		
D4005A		
D4006A		
D4021A		
D4022A		
D4022W		
D4025A		
D4027A		
D4041A		
D4042A		
D4045A		

Model Number	HP Vectra	Volume & Chapter
D4051A	HP Vectra VE 5/xxx Series 3	This Volume Chapter 26
D4052A		
D4053A		
D4054A		
D4055A		
D4059A		
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D4201A	HP Vectra VA 6/xxx	This Volume Chapter 14
D4202N/W		
D4203N		
D4204N/S/W		
D4205N		
D4211N/W		
D4212N		
D4213N		
D4214N/W		
D4215N		
D4216N		

Model Number	HP Vectra	Volume & Chapter
D4206A	HP Vectra VA 6/xxx MT	This Volume Chapter 15
D4207N		
D4208N		
D4209N		
D4217N		
D4218N		
D4220A	HP Vectra XM 5/xxx Series 4	This Volume Chapter 10
D4221A		
D4222A		
D4223A		
D4224A		
D4225A		
D4226A		
D4227A		
D4228A	HP Vectra XU 6/xxx	This Volume Chapter 4
D4340A/B		
D4341N		
D4342N		
D4343A		
D4344N		
D4345A/B		
D4346N		
D4347B/N		
D4348A		
D4349N		
D4350N		
D4352N		
D4353N		
D4354N		
D4360N		
D4361N		
D4362A		
D4363A		
D4364N		
D4365N		
D4366N		
D4367N		
D4368N		
D4505A		
D4510A		
D4515A	HP Vectra XW Series U1	This Volume Chapter 2
D4520A		

Model Number	HP Vectra	Volume & Chapter
D4530A	HP Vectra XA 6/xxx	This Volume Chapter 6
D4531N		
D4532N		
D4533A		
D4534N		
D4535N		
D4541N		
D4542N		
D4551A	HP Vectra VL 5/xxx Series 5	This Volume Chapter 18
D4552A		
D4553A		
D4554A		
D4555A		
D4556A		
D4557A		
D4558A		
D4559A		
D4560A		
D4561N		
D4562A		
D4563A		
D4566N		
D4567N		
D4568A		
D4569A		
D4571A	HP Vectra VL 5/xxx MT Series 5	This Volume Chapter 19
D4572A		
D4573A		
D4574A		
D4575A		
D4576N		
D4577A		
D4578A		
D4579A		
D4580E	HP Vectra VL 5/xxx Series 5	This Volume Chapter 18
D4581E		
D4582E		
D4583E	HP Vectra VL 5/xxx MT Series 5	This Volume Chapter 19
D4584E		
D4585E		
D4586E		

Model Number	HP Vectra	Volume & Chapter
D4590A	HP Vectra VL 5/xxx Series 5	This Volume Chapter 18
D4591A		
D4592A		
D4593A		
D4594A		
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D4596A		
D4597A	HP Vectra VL 5/xxx MT Series 5	This Volume Chapter 19
D4644B	HP Vectra VL 5/xxx Series 4	This Volume Chapter 20
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D4646B		
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D4659B		
D4687B		
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D4660B	HP Vectra VL 5/xxx MT Series 4	This Volume Chapter 21
D4661B		
D4662B		
D4663B		
D4664B		
D4665B		
D4666B		
D4667B		
D4668B		
D4669B		
D4680B		
D4681B		
D4682B		
D4683B		
D4684B		
D4685B		
D4686B		

Model Number	HP Vectra	Volume & Chapter
D4770N	HP Vectra XA 6/xxx	This Volume Chapter 6
D4771N		
D4772A		
D4773N		
D4774N		
D4775N		
D4776N	HP Vectra XA 6/xxx MT	This Volume Chapter 7
D4777N		
D4778N		
D5042N/W	HP Vectra VL 6/xxx Series 6	This Volume Chapter 16
D5043N/T/W		
D5044N		
D5045N		
D5051N	HP Vectra VL 6/xxx MT Series 6	This Volume Chapter 17
D5052C/N/T		
D5053N		
D5436N		
D5170A	HP Vectra VE 5/xxx Series 3	This Volume Chapter 26
D5171B		
D5173B		
D5174B		
D5175B		
D5176B		
D5177B		
D5178B		
D5179B		
D5200N		
D5205N		
D5210N		
D5220A	HP Vectra VL 5/xxx MT Series 5	This Volume Chapter 19
D5221A		
D5238B	HP Vectra VE 5/xxx Series 3	This Volume Chapter 26
D5239B		
D5370A	HP Vectra XA 5/xxx	This Volume Chapter 8
D5371A		
D5372A	HP Vectra XA 5/xxx MT	This Volume Chapter 9
D5373N	HP Vectra XA 5/xxx	This Volume Chapter 8
D5374N	HP Vectra XA 5/xxx MT	This Volume Chapter 9
D5375A	HP Vectra XA 5/xxx	This Volume Chapter 8

Model Number	HP Vectra	Volume & Chapter
D5376A	HP Vectra XA 5/xxx MT	This Volume Chapter 9
D5435N	HP Vectra VL 6/xxx Series 6	This Volume Chapter 16
D5436N	HP Vectra VL 6/xxx MT Series 6	This Volume Chapter 17
D5471N	HP Net Vectra	This Volume Chapter 29
D5473N		
D5490B	HP Vectra VE 5/xxx Series 3	This Volume Chapter 26
D5491B		
D5492B		
D5493B		
D5494B		
D5495B		
D5496B		
D5576E		
D5578E	HP Vectra VE 5/xxx MT Series 4	This Volume Chapter 25
D5579E		
D5576E	HP Vectra VE 5/xxx Series 4	This Volume Chapter 24
D5578E		
D5585E	HP Vectra VE 5/xxx MT Series 4	This Volume Chapter 25
D5590A	HP Vectra VE 5/xxx Series 4	This Volume Chapter 24
D5591A		
D5592A		
D5593A		
D5600A		
D5602A		
D5603A		
D5604A		
D5605A		
D5606N		
D5607A	HP Vectra VE 5/xxx MT Series 4	This Volume Chapter 25
D5612A	HP Vectra VE 5/xxx Series 4	This Volume Chapter 24
D5613A		
D5614A		
D5615A		
D5616N		

X-Line Vectra PCs

- 1. HP Vectra XW PC Workstation Series W1**
- 2. HP Vectra XW PC Workstation Series U1**
- 3. HP Vectra XW PC Workstation**
- 4. HP Vectra XU 6/xxx PC Series**
- 5. HP Vectra XU 5/xx PC Series**
- 6. HP Vectra XA 6/xxx PC Series**
- 7. HP Vectra XA 6/xxx MT PC Series**
- 8. HP Vectra XA 5/xxx PC Series**
- 9. HP Vectra XA 5/xxx MT PC Series**
- 10. HP Vectra XM 5/xxx Series 4 PC**
- 11. HP Vectra XM 5/xxx Series 3 PC**
- 12. HP Vectra XP PC Series**

X-Line Vectra PCs

X-Line Vectra PCs

HP Vectra XW PC Workstation Series W1

Models and Accessories

Product Number	Processors	Hard Drive	Video Controller	Std. RAM	Multi-media	LAN	OS
Vectra XW Series W1 HP Vectra XW 6/200 Series W1 (CPL: 5/97▶)							
D5200N	1 Pentium Pro with 256 KB of L2 cache memory	2 GB SCSI (D2796A)	OpenGL 3D hardware accelerator (Accel Graphics, AccelEclipse)	128 MB	16×MAX IDE CD-ROM (D4382X) and Sound Blaster16	10 / 100 BaseT	NT 4.0 WS
D5205N	1 Pentium Pro with 512 KB of L2 cache memory						
D5210N	2 Pentium Pros each with 256 KB of L2 cache memory						

Note

All models are supplied with a 1.44 MB (D2035B) Flexible Disk Drive, an integrated SCSI controller, and an integrated IDE controller.

Mini-Tower Vectras



HP Vectra XW PC Workstation Series W1 1-1

HP Vectra XW Series W1**Supported Accessories**

32-MB (2 × 16-MB), ECC 60-ns main memory upgrade kit (72-bit), Interleave 16	D3555A
64-MB (2 × 32-MB), ECC 60-ns main memory upgrade kit (72-bit), Interleave 16	D3554B
128-MB (2 × 64-MB), ECC 60-ns main memory upgrade kit (72-bit), Interleave 64	D3540A
<i>User's Guide</i> Manual Kit	D4521A

Dual Processor Kits¹

Pentium Pro containing 256 KB internal L2 cache (for the D5200N)	D4351B
Pentium Pro containing 512 KB internal L2 cache (for the D5205N)	D4353B

Input Devices

HP mouse	C3751B
HP keyboard for Windows® 95	C4725A

Video Displays

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

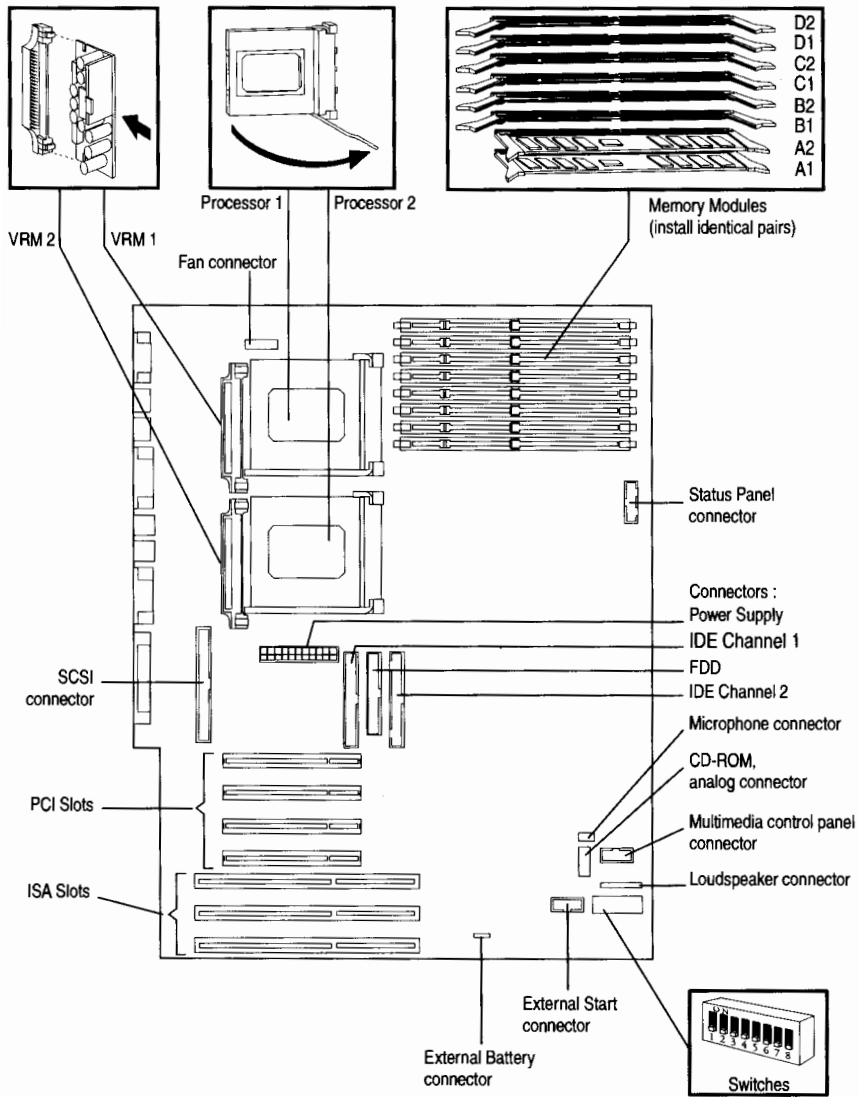
Mass Storage

1-GB Fast SCSI-2 hard disk	D2920A
2-GB Fast SCSI-2 hard disk	D2796A
4-GB Fast SCSI-2 hard disk	D2797A
1-GB IDE hard disk	D2919A
100-MB Iomega ZIP Drive	D4390A
2-GB HP SuperStore Tape 2000i Dat Drive	C1525G
4-GB HP SuperStore Tape 2000i Dat Drive	C1526G
8-GB HP SuperStore Tape 2000i Dat Drive	C1528F
Flexible disk 3.5-inch 1.44-MB (1-inch high)	D2035B
IDE 8× CD-ROM drive	D4381A
Rail kit (3.5-inch)	D3566A
Rail kit (5.25-inch)	D2880A

1. Dual Processor Kits include: processor, voltage regulator module and heatsink.



System Board, Memory and Interface Boards



Mini-Tower Vectras



HP Vectra XW PC Workstation Series W1 1-3

HP Vectra XW Series W1 System Board Switches

Switch		Function	Default
1	OFF	Retain configuration in EEPROM, normal position	OFF
	ON	Clears EEPROM	
2	OFF	Enables User and Administrator passwords	OFF
	ON	Clears User and Administrator passwords	
3	OFF	Disables secure switch (off position)	OFF
	ON	Enables secure switch (on position) - prevents modification of SETUP values and flashing of BIOS	
4		Local bus frequency, see following table	ON
5			OFF
6			ON
7		Processor : local bus frequency ratio, see following table	OFF
8			OFF

Switch		Local Bus Frequency	Switch			Frequency Ratio Processor : Local Bus	Processor Frequency
4	5		6	7	8		
ON	OFF	60 MHz	ON	OFF	OFF	2.5 : 1	150 MHz
OFF	OFF	66 MHz	ON	OFF	OFF	2.5 : 1	166 MHz
ON	OFF	60 MHz	OFF	ON	OFF	3 : 1	180 MHz
OFF	OFF	66 MHz	OFF	ON	OFF	3 : 1	200 MHz

BIOS History

The latest BIOS, the flasher utility program, and the BIOS history can each be obtained from the HP Electronic Services.

Installing a Dual Processor

Some models are already dual processor systems, with both processor sockets already filled. The other models can be upgraded dual processor systems by installing the second processor accessory in the vacant socket.

The second processor must be a Pentium Pro processor of the same speed and level-2 cache memory capacity as the first.



Every processor that is installed, or replaced, must be accompanied by the voltage regulator module (VRM) that was supplied with it. Each VRM is specific to the processor with which it was supplied, and should only be used with that processor.

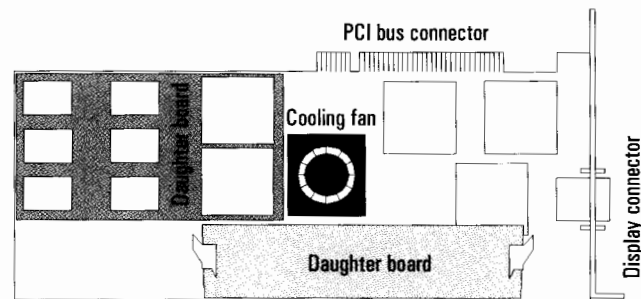
Main Memory

The computer has four banks on the system board for installing main memory; banks A, B, C and D. Each bank consists of two sockets. The computer is supplied with 128 MB of main memory (two memory modules installed in one bank, or four modules in two banks). The computer uses 60-ns ECC DRAM.

Memory modules must be installed in identical pairs, so that each bank with memory installed contains two memory modules of the same size and type (ECC). To order the appropriate main memory upgrade kit, check the computer memory configuration using the "HP Vectra XU 6/xxx & VT 6/xxx Memory Configuration Utility".

Graphics Controller Board

There is a total of 32 MB of memory, already supplied on the graphics controller board. There are no upgrades possible, and no switch or jumper settings to be changed (all jumpers should be left in the positions in which they were set by the manufacturer).

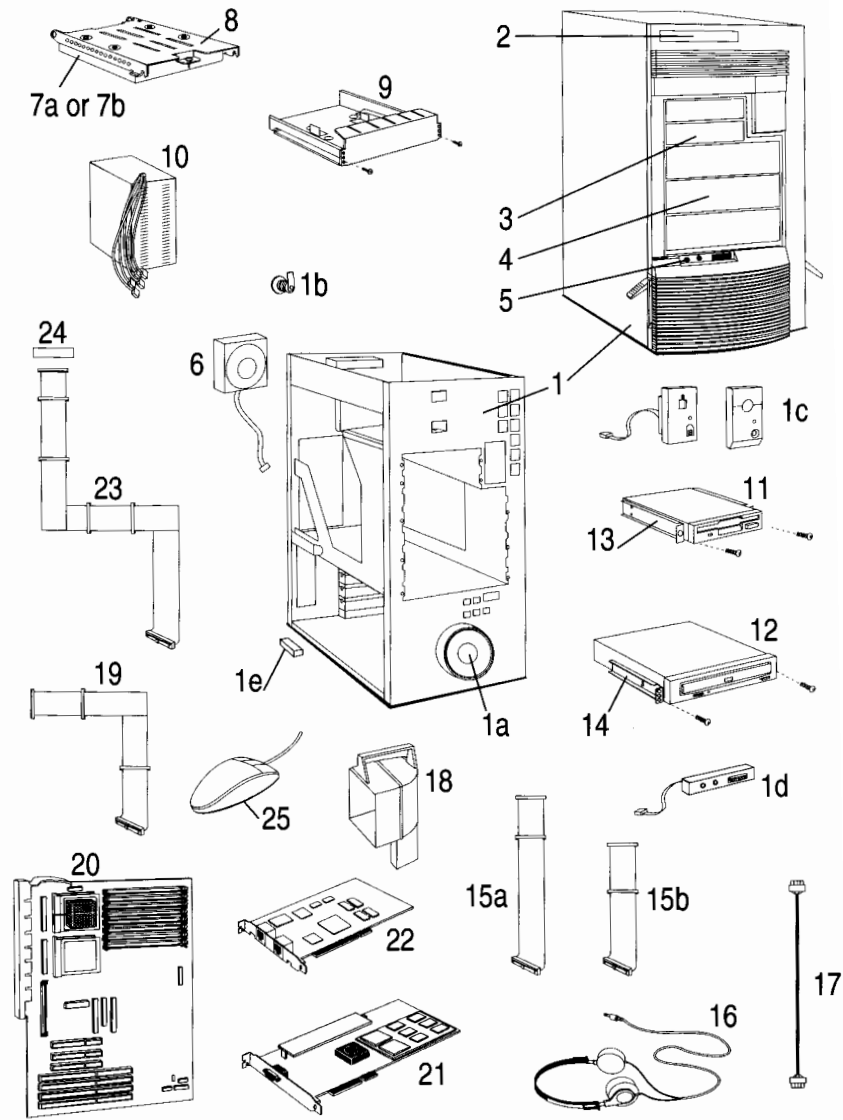


Network Controller Board

The board is autosensing between 10 and 100 BaseT connections. No upgrades are possible, and no switch or jumper settings should be changed.



Part Numbers



1-6 HP Vectra XW PC Workstation Series W1

Mini-Tower Vectras



Parts List for HP Vectra XW Series W1

Item	Description	Repl. Part Number	Exchange Part Number
1	Box assembly (grey/blue):	5064-2695	—
	a Speaker assembly	5063-4559	
	b Cover lock assembly	5062-5590	
	c Status panel kit (blue)	5064-2696	
	d Multimedia control panel	5063-9003	
	e Bumper foot	02225-00010	
2	HP Vectra XW logo	5042-2456	—
3	Filler panel 3.5 inch	5042-1405	—
4	Filler panel 5.25 inch	5042-1178	—
5	Multimedia bezel	5042-1421	—
6	Fan	5063-9004	—
7	Hard disk drive (standard) ¹ :		
	2-GB Fast SCSI-2	D2796-63001	D2796-69001
	4-GB Fast SCSI-2	D2797-63001	D2797-69001
8	HDD 3.5-inch bracket	5001-6864	—
9	HDD tray	5002-1946	—
10	Power supply assembly	5063-8799	—
11	Flexible disk drive	D2035-60152	—
12	CD-ROM drive (standard) :		
	16×MAX IDE	D4382-63001	D4382-69001
13	Rail kit (3.5-inch)	D3566A	—
14	Rail kit (5.25-inch)	D2880A	—
15	Ultra Fast IDE cable (for HDD)	5064-0284	—
	Ultra Fast IDE cable (for CD-ROM)	5182-3544	
16	Headphones	5063-8800	—
17	CD-ROM to audio cable	5182-1857	—
18	Airflow guide	5063-9005	—
19	Flexible disk cable	5182-3567	—
20	System board	See system board parts list	
21	OpenGL 3D board (AccelEclipse)	5064-2613	D5427-69301
22	HP 10/100 BT LAN board	J3171-61001	—
23	SCSI cable	5182-3540	—
24	SCSI terminator	0960-0888	—
25	3 button mouse	C4728-60101	—

1. For optional disk drive information, see the *Accessory Service Handbook*.



HP Vectra XW Series W1**System Board Parts List for HP Vectra XW Series W1**

Description	Repl. Part Number	Exchange Part Number
System board:	D4340-63002	D4340-69002
Processors:		
Intel Pentium Pro 200 MHz, 256 KB cache	5064-1805	—
Intel Pentium Pro 200 MHz, 512 KB cache	5064-0298	—
Heat-sink and clip	5063-8793	—
Voltage regulator module (VRM)	5063-8794	—
Main memory modules:		
1 × 32-MB main memory 60-ns ECC RAM, interleave 16	1818-6661	—

Support Manuals for HP Vectra XW Series W1

<i>Familiarization Guide</i>	D4514-90901
<i>Technical Reference Manual: hardware and BIOS</i>	electronic file only

Software for HP Vectra XW Series W1

<i>XW/XU Drivers and documentation CD-ROM</i>	5011-3864
<i>XU 6/xx & VT 6/xx Memory Configuration Utility</i>	Available via HP Electronic Services

Notes: _____



HP Vectra XW PC Workstation Series U1

Models and Accessories

Product Number	Processors	Hard Drive	Video Controller	Std. RAM	Multi-media	LAN	OS
Vectra XW Series U1 HP Vectra XW 6/200 Series U1 (CPL: 5/97▶)							
D4520N	1 Pentium Pro with 256 KB of L2 cache memory	2 GB SCSI (D2796A)	OpenGL 3D hardware accelerator (Accel Graphics, AccelPro TX2500)	128 MB	16×MAX IDE CD-ROM (D4382X) and Sound Blaster16	10 / 100 BaseT	NT 4.0 WS

Note

All models are supplied with a 1.44 MB (D2035B) Flexible Disk Drive, an integrated SCSI controller, and an integrated IDE controller.

Mini-Tower Vectras



HP Vectra XW PC Workstation Series U1 2-1

HP Vectra XW Series U1**Supported Accessories**

32-MB (2 × 16-MB), ECC 60-ns main memory upgrade kit (72-bit), Interleave 16	D3555A
64-MB (2 × 32-MB), ECC 60-ns main memory upgrade kit (72-bit), Interleave 16	D3554B
128-MB (2 × 64-MB), ECC 60-ns main memory upgrade kit (72-bit), Interleave 64	D3540A
<i>User's Guide</i> Manual Kit	D4521A

Dual Processor Kits¹

Pentium Pro containing 256 KB internal L2 cache	D4351B
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Input Devices

HP mouse	C3751B
HP keyboard for Windows® 95	C4725A

Video Displays

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

Mass Storage

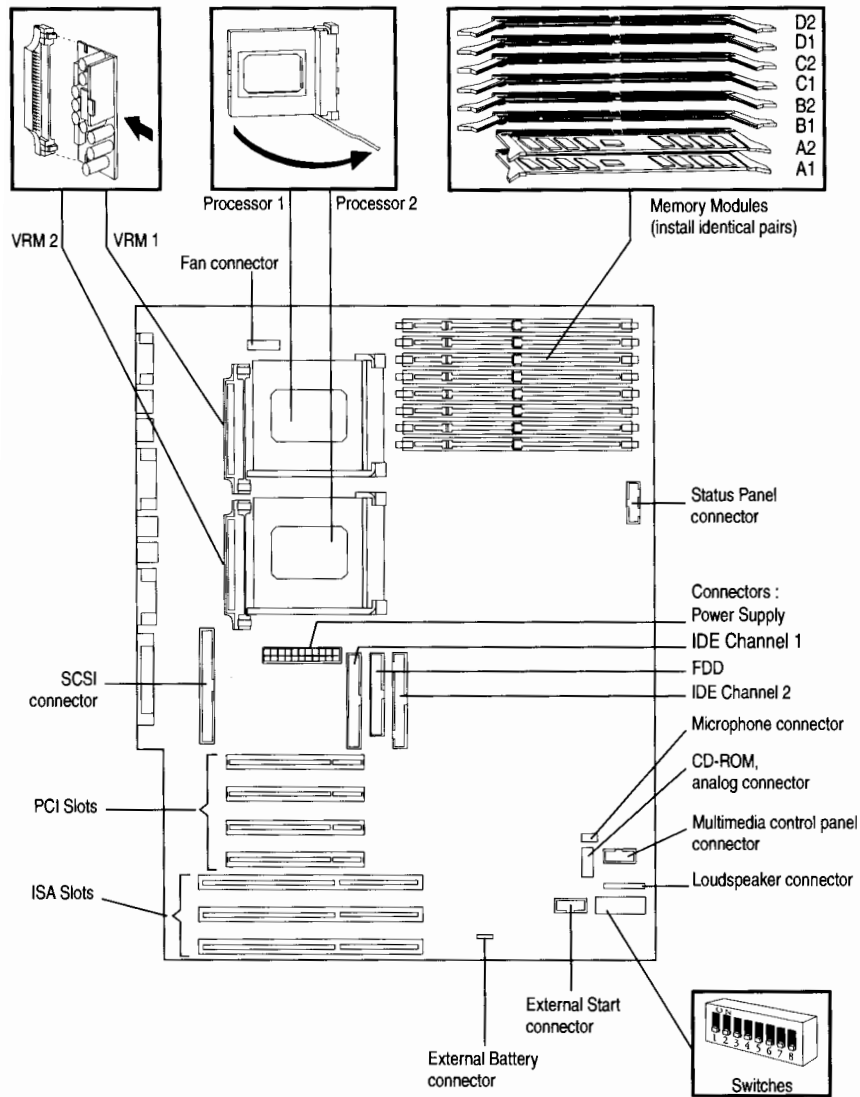
1-GB Fast SCSI-2 hard disk	D2920A
2-GB Fast SCSI-2 hard disk	D2796A
4-GB Fast SCSI-2 hard disk	D2797A
1-GB IDE hard disk	D2919A
100-MB Iomega ZIP Drive	D4390A
2-GB HP SuperStore Tape 2000i Dat Drive	C1525G
4-GB HP SuperStore Tape 2000i Dat Drive	C1526G
8-GB HP SuperStore Tape 2000i Dat Drive	C1528F
Flexible disk 3.5-inch 1.44-MB (1-inch high)	D2035B
IDE 8× CD-ROM drive	D4381A
Rail kit (3.5-inch)	D3566A
Rail kit (5.25-inch)	D2880A

1. Dual Processor Kits include: processor, voltage regulator module and heatsink.



System Board, Memory and Interface Boards

2



Mini-Tower Vectras



HP Vectra XW PC Workstation Series U1 2-3

HP Vectra XW Series U1 System Board Switches

2

Switch	Function	Default
1	OFF	Retain configuration in EEPROM, normal position
	ON	Clears EEPROM
2	OFF	Enables User and Administrator passwords
	ON	Clears User and Administrator passwords
3	OFF	Disables secure switch (off position)
	ON	Enables secure switch (on position) - prevents modification of SETUP values and flashing of BIOS
4	Local bus frequency, see following table	ON
5		OFF
6	Processor : local bus frequency ratio, see following table	ON
7		OFF
8		OFF

Switch		Local Bus Frequency	Switch			Frequency Ratio Processor : Local Bus	Processor Frequency
4	5		6	7	8		
ON	OFF	60 MHz	ON	OFF	OFF	2.5 : 1	150 MHz
OFF	OFF	66 MHz	ON	OFF	OFF	2.5 : 1	166 MHz
ON	OFF	60 MHz	OFF	ON	OFF	3 : 1	180 MHz
OFF	OFF	66 MHz	OFF	ON	OFF	3 : 1	200 MHz

BIOS History

The latest BIOS, the flasher utility program, and the BIOS history can each be obtained from the HP Electronic Services.

Installing a Dual Processor

Some models are already dual processor systems, with both processor sockets already filled. The other models can be upgraded dual processor systems by installing the second processor accessory in the vacant socket.

The second processor must be a Pentium Pro processor of the same speed and level-2 cache memory capacity as the first.



Every processor that is installed, or replaced, must be accompanied by the voltage regulator module (VRM) that was supplied with it. Each VRM is specific to the processor with which it was supplied, and should only be used with that processor.

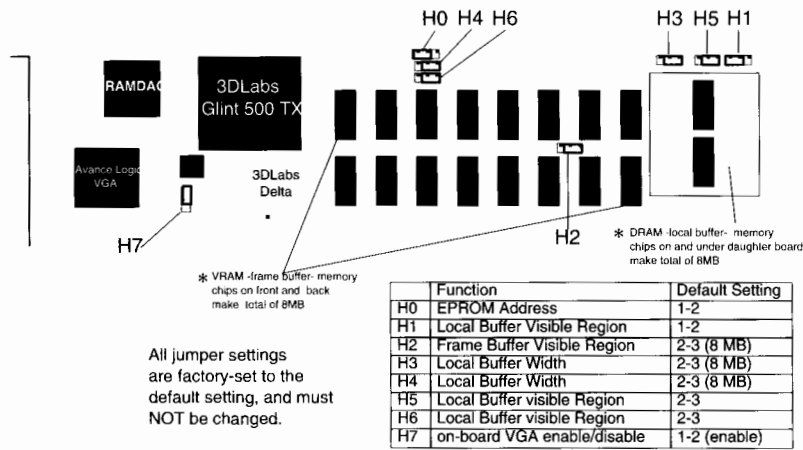
Main Memory

The computer has four banks on the system board for installing main memory; banks A, B, C and D. Each bank consists of two sockets. The computer is supplied with 128 MB of main memory (two memory modules installed in one bank, or four modules in two banks). The computer uses 60-ns ECC DRAM.

Memory modules must be installed in identical pairs, so that each bank with memory installed contains two memory modules of the same size and type (ECC). To order the appropriate main memory upgrade kit, check the computer memory configuration using the "HP Vectra XU 6/xxx & VT 6/xxx Memory Configuration Utility".

Graphics Controller Board

There is 8 MB of frame buffer, and 8 MB of local buffer, all on the graphics controller board. There are no upgrades possible, and no switch or jumper settings to be changed (all jumpers should be left in the positions in which they were set by the manufacturer).



* Neither the frame buffer nor the local buffer can be upgraded

Network Controller Board

The board is autosensing between 10 and 100 BaseT connections. No upgrades are possible, and no switch or jumper settings should be changed.

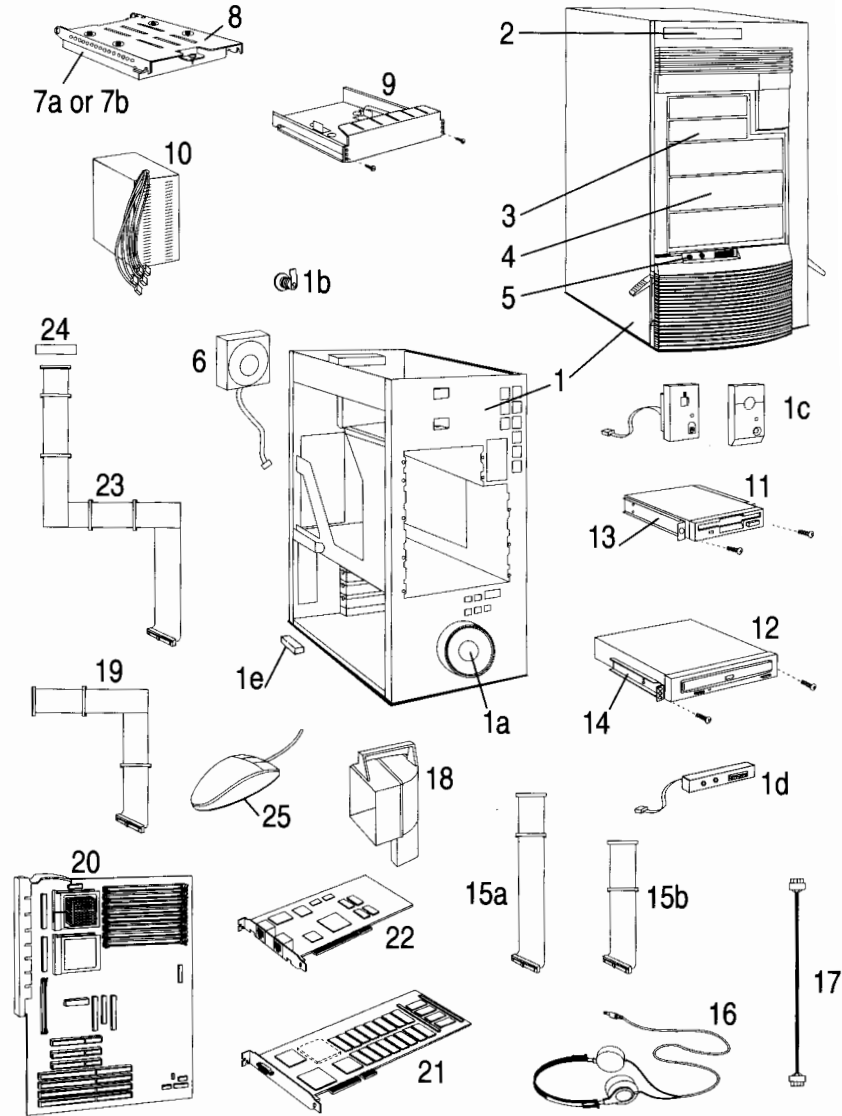
Mini-Tower Vectras



HP Vectra XW PC Workstation Series U1 2-5

Part Numbers

2



Parts List for HP Vectra XW Series U1

2

Item	Description	Repl. Part Number	Exchange Part Number
1	Box assembly (grey/blue):	5064-2695	—
	a Speaker assembly	5063-4559	
	b Cover lock assembly	5062-5590	
	c Status panel kit (blue)	5064-2696	
	d Multimedia control panel	5063-9003	
	e Bumper foot	02225-00010	
2	HP Vectra XW logo	5042-2456	—
3	Filler panel 3.5 inch	5042-1405	—
4	Filler panel 5.25 inch	5042-1178	—
5	Multimedia bezel	5042-1421	—
6	Fan	5063-9004	—
7	Hard disk drive (standard) ¹ : 2-GB Fast SCSI-2	D2796-63001	D2796-69001
8	HDD 3.5-inch bracket	5001-6864	—
9	HDD tray	5002-1946	—
10	Power supply assembly	5063-8799	—
11	Flexible disk drive	D2035-60152	—
12	CD-ROM drive (standard) : 16×MAX IDE	D4382-63001	D4382-69001
13	Rail kit (3.5-inch)	D3566A	—
14	Rail kit (5.25-inch)	D2880A	—
15	Ultra Fast IDE cable (for HDD) Ultra Fast IDE cable (for CD-ROM)	5064-0284 5182-3544	—
16	Headphones	5063-8800	—
17	CD-ROM to audio cable	5182-1857	—
18	Airflow guide	5063-9005	—
19	Flexible disk cable	5182-3567	—
20	System board	See system board parts list	
21	OpenGL 3D board (AccelPro TX2500)	5064-0241	5064-0296
22	HP 10/100 BT LAN board	J3171-61001	—
23	SCSI cable	5182-3540	—
24	SCSI terminator	0960-0888	—
25	3 button mouse	C4728-60101	—

1. For optional disk drive information, see the *Accessory Service Handbook*.



HP Vectra XW Series U1

System Board Parts List for HP Vectra XW Series U1

2

Description	Repl. Part Number	Exchange Part Number
System board:	D4340-63002	D4340-69002
Processors:		
Intel Pentium Pro 200 MHz, 256 KB cache	5064-1805	—
Heat-sink and clip	5063-8793	—
Voltage regulator module (VRM)	5063-8794	—
Main memory modules:		
1 × 32-MB main memory 60-ns ECC RAM, interleave 16	1818-6661	—

Support Manuals for HP Vectra XW Series U1

<i>Familiarization Guide</i>	D4514-90901
<i>Technical Reference Manual: hardware and BIOS</i>	electronic file only

Software for HP Vectra XW Series U1

<i>XW/XU Drivers and documentation</i> CD-ROM	5011-3828
XU 6/xx & VT 6/xx Memory Configuration Utility	Available via HP Electronic Services

Notes: _____



HP Vectra XW PC Workstation

Models and Accessories

Product Number	Processors	Hard Drive	Video Controller	Std. RAM	Multi-media	LAN	OS ¹
Vectra XW HP Vectra XW 6/200 (CPL: 9/96▶)							
D4505A	1 Pentium Pro with 256 KB of L2 cache memory	2 GB SCSI (D2796A)	OpenGL 3D hardware accelerator (Accel Graphics, AccelPro TX2500)	64 MB	8X IDE CD-ROM (D4381A) and Sound Blaster16	10 / 100 BaseT	NT 3.51 WS
D4510A	2 Pentium Pros each with 256 KB of L2 cache memory	4 GB SCSI (D2797A)		128 MB			
D4515A	1 Pentium Pro with 512 KB of L2 cache memory	2 GB SCSI (D2796A)					

1. Operating system supplied on CD-ROM, not pre-loaded.

Note

All models are supplied with a 1.44 MB (D2035B) Flexible Disk Drive, an integrated SCSI controller, and an integrated IDE controller.

Mini-Tower Vectras



HP Vectra XW PC Workstation 3-1

HP Vectra XW

Supported Accessories

32-MB (2 × 16-MB), ECC 60-ns main memory upgrade kit (72-bit), Interleave 16	D3555A
64-MB (2 × 32-MB), ECC 60-ns main memory upgrade kit (72-bit), Interleave 16	D3554B
128-MB (2 × 64-MB), ECC 60-ns main memory upgrade kit (72-bit), Interleave 64	D3540A
<i>User's Guide</i> Manual Kit	D4514A

3

Dual Processor Kits¹

Pentium Pro containing 256 KB internal L2 cache (for the D4505A)	D4351A
Pentium Pro containing 512 KB internal L2 cache (for the D4515A)	D4353A

Input Devices

HP mouse	C3751B
HP keyboard for Windows® 95	C4725A

Video Displays

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

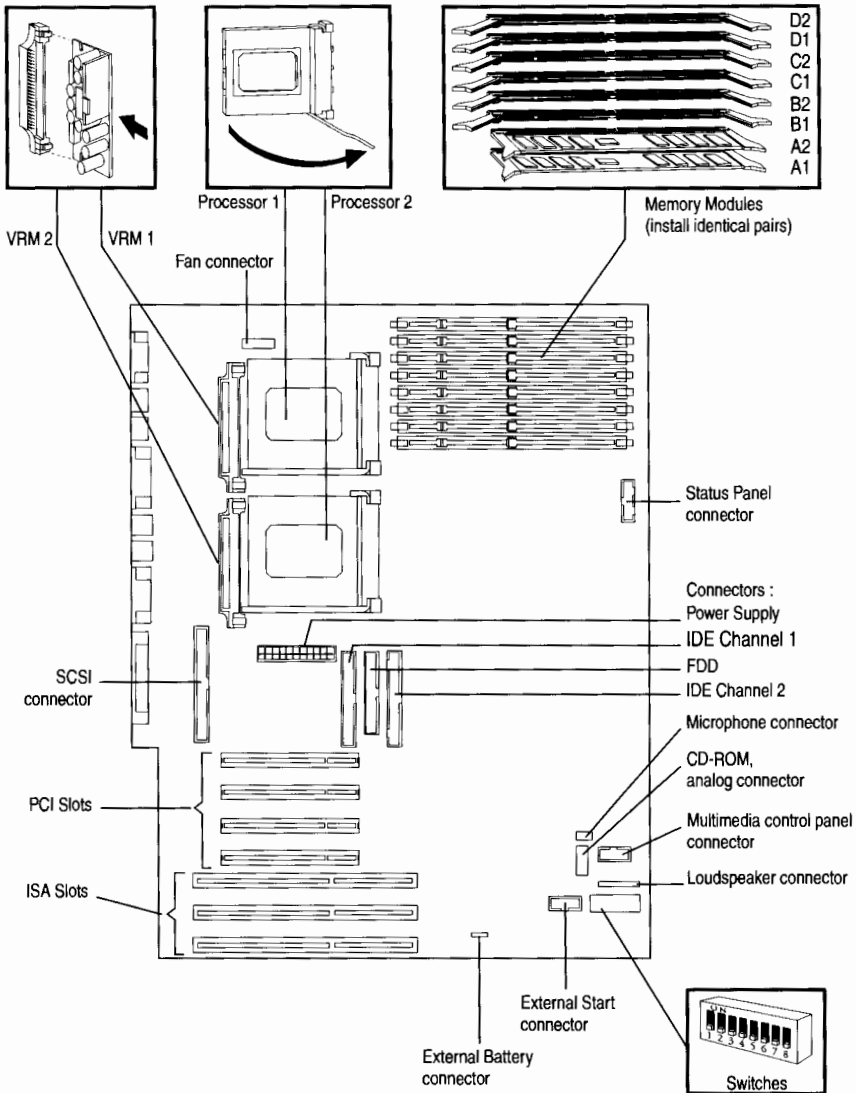
Mass Storage

1-GB Fast SCSI-2 hard disk	D2920A
2-GB Fast SCSI-2 hard disk	D2796A
4-GB Fast SCSI-2 hard disk	D2797A
1-GB IDE hard disk	D2919A
Flexible disk 3.5-inch 1.44-MB (1-inch high)	D2035B
SCSI 4× CD-ROM drive	D2992B
IDE 8× CD-ROM drive	D4381A
Rail kit (3.5-inch)	D3566A
Rail kit (5.25-inch)	D2880A

1. Dual Processor Kits include: processor, voltage regulator module and heatsink.



System Board, Memory and Interface Boards



3



System Board Switches

3

Switch		Function	Default
1	OFF	Retain configuration in EEPROM, normal position	OFF
	ON	Clears EEPROM	
2	OFF	Enables User and Administrator passwords	OFF
	ON	Clears User and Administrator passwords	
3	OFF	Disables secure switch (off position)	OFF
	ON	Enables secure switch (on position) - prevents modification of SETUP values and flashing of BIOS	
4	Local bus frequency, see following table		ON
5			OFF
6	Processor : local bus frequency ratio, see following table		ON
7			OFF
8			OFF

Switch		Local Bus Frequency	Switch			Frequency Ratio Processor : Local Bus	Processor Frequency
4	5		6	7	8		
ON	OFF	60 MHz	ON	OFF	OFF	2.5 : 1	150 MHz
OFF	OFF	66 MHz	ON	OFF	OFF	2.5 : 1	166 MHz
ON	OFF	60 MHz	OFF	ON	OFF	3 : 1	180 MHz
OFF	OFF	66 MHz	OFF	ON	OFF	3 : 1	200 MHz

BIOS History

The latest BIOS, the flasher utility program, and the BIOS history can each be obtained from the HP Electronic Services.

Installing a Dual Processor

Some models are already dual processor systems, with both processor sockets already filled. The other models can be upgraded dual processor systems by installing the second processor accessory in the vacant socket.

The second processor must be a Pentium Pro processor of the same speed and level-2 cache memory capacity as the first.



Every processor that is installed, or replaced, must be accompanied by the voltage regulator module (VRM) that was supplied with it. Each VRM is specific to the processor with which it was supplied, and should only be used with that processor.



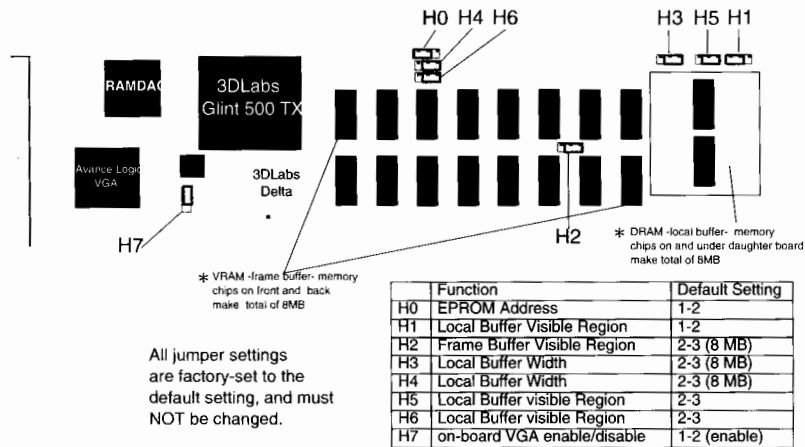
Main Memory

The computer has four banks on the system board for installing main memory; banks A, B, C and D. Each bank consists of two sockets. The computer is supplied with 64 or 128 MB of main memory (two memory modules installed in one bank, or four modules in two banks). The computer uses 60-ns ECC DRAM.

Memory modules must be installed in identical pairs, so that each bank with memory installed contains two memory modules of the same size and type (ECC). To order the appropriate main memory upgrade kit, check the computer memory configuration using the “HP Vectra XU 6/xxx & VT 6/xxx Memory Configuration Utility”.

Graphics Controller Board

There is 8 MB of frame buffer, and 8 MB of local buffer, already supplied on the graphics controller board. There are no upgrades possible, and no switch or jumper settings to be changed (all jumpers should be left in the positions in which they were set by the manufacturer).



* Neither the frame buffer nor the local buffer can be upgraded

Network Controller Board

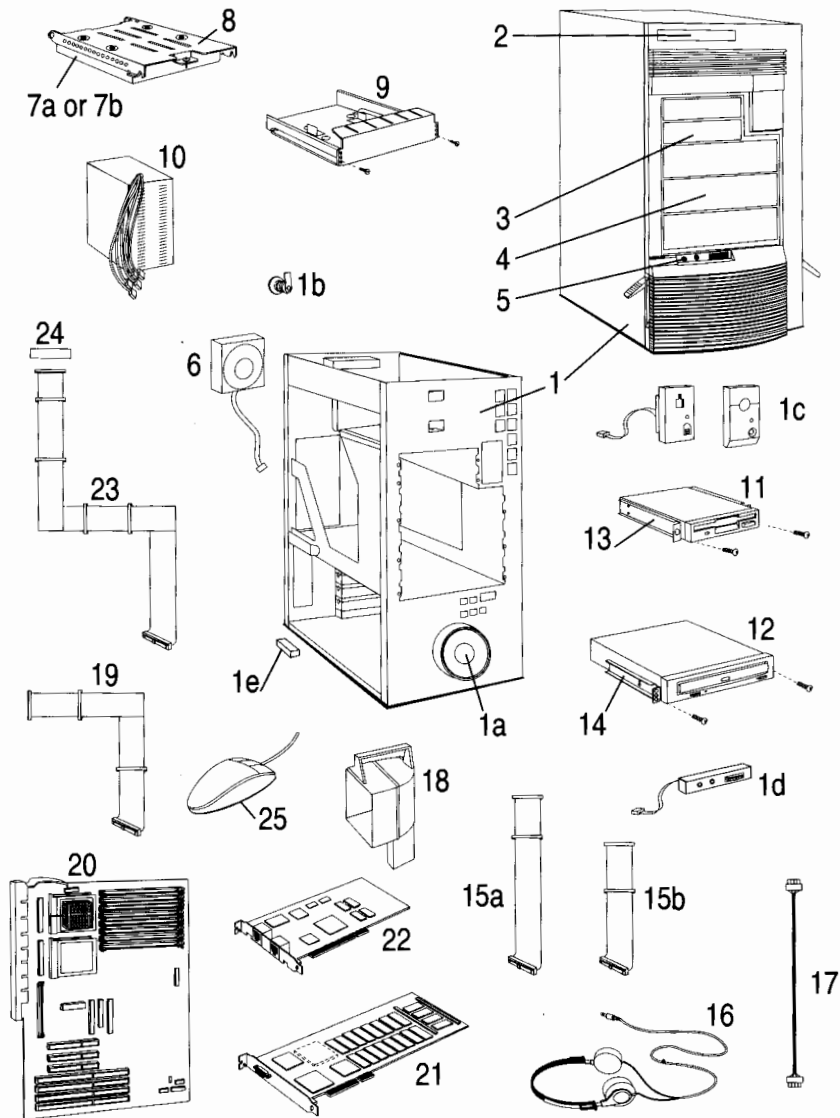
The board is autosensing between 10 and 100 BaseT connections. No upgrades are possible, and no switch or jumper settings should be changed.

Mini-Tower Vectras



Part Numbers

3



3-6 HP Vectra XW PC Workstation

Mini-Tower Vectras



Parts List for HP Vectra XW

Item	Description	Repl. Part Number	Exchange Part Number
1	Box assembly: a Speaker assembly b Cover lock assembly c Status panel kit d Multimedia control panel e Bumper foot	5063-9010 5063-4559 5062-5590 5063-9008 5063-9003 02225-00010	—
2	HP Vectra XW logo	5042-1491	—
3	Filler panel 3.5 inch	5042-1405	—
4	Filler panel 5.25 inch	5042-1178	—
5	Multimedia bezel	5042-1421	—
6	Fan	5063-9004	—
7	Hard disk drive (standard) ¹ : 2-GB Fast SCSI-2 4-GB Fast SCSI-2	D2926-63001 D2797-63001	D2926-69001 D2797-69001
8	HDD 3.5-inch bracket	5001-6864	—
9	HDD tray	5002-1946	—
10	Power supply assembly	5063-8799	—
11	Flexible disk drive	D2035-60152	—
12	CD-ROM drive (standard) : 8X IDE	D4381-63001	D4381-69001
13	Rail kit (3.5-inch)	D3566A	—
14	Rail kit (5.25-inch)	D2880A	—
15	Ultra Fast IDE cable (for HDD) Ultra Fast IDE cable (for CD-ROM)	5064-0284 5182-3544	—
16	Headphones	5063-8800	—
17	CD-ROM to audio cable	5182-1857	—
18	Airflow guide	5063-9005	—
19	Flexible disk cable	5182-3567	—
20	System board	See system board parts list	
21	OpenGL 3D board (AccelPro TX2500)	5064-0241	5064-0296
22	HP 10/100 BT LAN board	J3171-61001	—
23	SCSI cable	5182-3540	—
24	SCSI terminator	0960-0888	—
25	3 button mouse	C4728-60101	—

1. For optional disk drive information, see the *Accessory Service Handbook*.

Mini-Tower Vectras



HP Vectra XW PC Workstation 3-7

HP Vectra XW

System Board Parts List for HP Vectra XW

Description	Repl. Part Number	Exchange Part Number
System board:	D4340-63002	D4340-69002
Processors:		
Intel Pentium Pro 200 MHz, 256 KB cache	5064-1805	—
Intel Pentium Pro 200 MHz, 512 KB cache	5064-0298	—
Heat-sink and clip	5063-8793	—
Voltage regulator module (VRM)	5063-8794	—
Main memory modules:		
1 × 32-MB main memory 60-ns ECC RAM, interleave 16	1818-6661	—

Support Manuals for HP Vectra XW

<i>Familiarization Guide</i>	D4514-90901
<i>Technical Reference Manual: hardware and BIOS</i>	electronic file only

Software for HP Vectra XW

XW 6/xx Installation Boot Diskette	5064-0295
XW/XU Drivers and documentation CD-ROM	5011-3816
XU 6/xx & VT 6/xx Memory Configuration Utility	Available via HP Electronic Services

Notes: _____



3

HP Vectra XU 6/xxx PC

Models and Accessories

Product Number	Hard Drive (SCSI)	Processors	Video Controller	Std. RAM	Multi-media	LAN	OS ¹			
Vectra XU 6/xxx PC										
HP Vectra XU 6/150 PC (CPL: 12/95 ▶)										
D3528A	None	1 Pentium Pro with 256 KB of L2 cache	Matrox MGA Millennium board, (2 MB, upgradeable to 4 MB or 8 MB)	16 MB	4× SCSI CD-ROM (D2992B) and Sound Blaster16	10 / 100 VG (J2585A)	None			
D3528B	1 GB (D2920A)			32 MB			NT 3.51 WS			
D3529B				32 MB						
D3529N				16 MB						
D3530B				32 MB						
D3530N				16 MB						
HP Vectra XU 6/180 PC (CPL: 04/96 ▶)										
D4340A	None	1 Pentium Pro with 256 KB of L2 cache	Matrox MGA Millennium board, (2 MB, upgradeable to 4 MB or 8 MB)	16 MB	4× SCSI CD-ROM (D2992B) and Sound Blaster16	10 / 100 VG (J2585A)	None			
D4340B	1 GB (D2920A)			32 MB			NT 3.51 WS			
D4341N				2 GB (D2926A)				8× IDE CD-ROM (D4381A) and Sound Blaster16	10 / 100 VG (J2585B)	
D4342B								4× SCSI CD-ROM (D2992B) and Sound Blaster16		10 / 100 VG (J2585A)
D4342N										

1. Windows NT 3.51 WS is supplied on CD-ROM (not preloaded).

Mini-Tower Vectras



HP Vectra XU 6/xxx PC 4-1

HP Vectra XU 6/xxx PC Series

Product Number	Hard Drive (SCSI)	Processors	Video Controller	Std. RAM	Multi-media	LAN	OS ¹
HP Vectra XU 6/180 PC (continued)							
D4343A	None	1 Pentium Pro with 256 KB of L2 cache	Matrox MGA Millennium board, (2 MB, upgradeable to 4 MB or 8 MB)	32 MB	8× IDE CD-ROM (D4381A) and Sound Blaster16	None	NT 3.51 WS
D4344N	2 GB (D2926A)					10 / 100 BT	
HP Vectra XU 6/200 PC (CPL: 04/96 ▶)							
D4345A	None	1 Pentium Pro with 256 KB of L2 cache	Matrox MGA Millennium board, (2 MB, upgradeable to 4 MB or 8 MB)	16 MB	4× SCSI CD-ROM (D2992B) and Sound Blaster16	10 / 100 VG (J2585A)	None
D4345B				32 MB			
D4346N	1 GB (D2920A)	1 Pentium Pro with 256 KB of L2 cache	Matrox MGA Millennium board, (2 MB, upgradeable to 4 MB or 8 MB)	16 MB	8× IDE CD-ROM (D4381A) and Sound Blaster16	10 / 100 VG (J2585B)	NT 3.51 WS
D4347B	2 GB (D2926A)						
D4347N							
D4348A	None						
D4349N	2 GB (D2926A)	1 Pentium Pro with 256 KB of L2 cache	Matrox MGA Millennium board, (2 MB, upgradeable to 4 MB or 8 MB)	16 MB	4× SCSI CD-ROM (D2992B) and Sound Blaster16	10 / 100 VG (J2585A)	None
D4350N	4 GB (D2797A)						
					8× IDE CD-ROM (D4381A) and Sound Blaster16	None	None
					8× IDE CD-ROM (D4381A) and Sound Blaster16	10 / 100 BT (J3171A)	NT 3.51 WS

1. Windows NT 3.51 WS is supplied on CD-ROM (not preloaded); Windows NT 4.0 WS is preloaded.



HP Vectra XU 6/xxx PC Series

Product Number	Hard Drive (SCSI)	Processors	Video Controller	Std. RAM	Multi-media	LAN	OS ¹		
HP Vectra XU 6/200 PC (continued)									
D4352N	4 GB (D2797A)	2 Pentium Pro with 256 KB of L2 cache	Matrox MGA Millennium board, (2 MB, upgradeable to 4 MB or 8 MB)	64 MB	8X IDE CD-ROM (D4381A) and Sound Blaster16	10 / 100 BT (J3171A)	NT 3.51 WS		
D4353N	2 GB (D2926A)	1 Pentium Pro with 256 KB of L2 cache		32 MB			16XMAX IDE CD-ROM (D4382-6xxxx) and Sound Blaster16	None	NT 4.0 WS
D4354N	4 GB (D2797A)	1 Pentium Pro with 256 KB of L2 cache							10 / 100 VG (J2585B)
D4362A	None	1 Pentium Pro with 256 KB of L2 cache			10 / 100 BT (J3171A)	10 / 100 BT (J3171A)	NT 4.0 WS		
D4363A	2 GB (D2796A)								
D4364N									
D4365N									
D4366N	4 GB (D2797A)	2 Pentium Pro with 256 KB of L2 cache		64 MB	10 / 100 BT (J3171A)	10 / 100 BT (J3171A)	NT 4.0 WS		
D4367N									
D4368N		1 Pentium Pro with 512 KB of L2 cache							

4

1. Windows NT 3.51 WS is supplied on CD-ROM (not preloaded); Windows NT 4.0 WS is preloaded.

Note

All models are supplied with a 1.44 MB (D2035B) Flexible Disk Drive and integrated SCSI and IDE controller.

Mini-Tower Vectras



HP Vectra XU 6/xxx PC 4-3

HP Vectra XU 6/xxx PC Series

Supported Accessories

16-MB (2 × 8-MB), ECC 60-ns main memory upgrade kit (72-bit), Interleave 8	D3556A
32-MB (2 × 16-MB), ECC 60-ns main memory upgrade kit (72-bit), Interleave 8	D3555B
32-MB (2 × 16-MB), ECC 60-ns main memory upgrade kit (72-bit), Interleave 16	D3555A ^o
64-MB (2 × 32-MB), ECC 60-ns main memory upgrade kit (72-bit), Interleave 16	D3554B ^c
128-MB (2 × 64-MB), ECC 60-ns main memory upgrade kit (72-bit), Interleave 64	D3540A ^o

Note: To order the appropriate main memory upgrade kit, check the PC memory configuration using the "HP Vectra XU 6/xxx & VT 6/xxx Memory Configuration Utility". This utility will indicate the supported accessories.

2-MB video memory (WRAM) upgrade kit	D3557B
<i>User's Guide</i> Manual Kit	D3538B

Dual Processor Kits¹

150 MHz models	D3559A
180 MHz and 200 MHz models with 256 KB of integrated level-two cache memory	D4351A
200 MHz models with 512 KB of integrated level-two cache memory	D4353A

Input Devices

2-button HP mouse	C3751B
HP keyboard for Windows® 95	C4725A

Video Displays

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

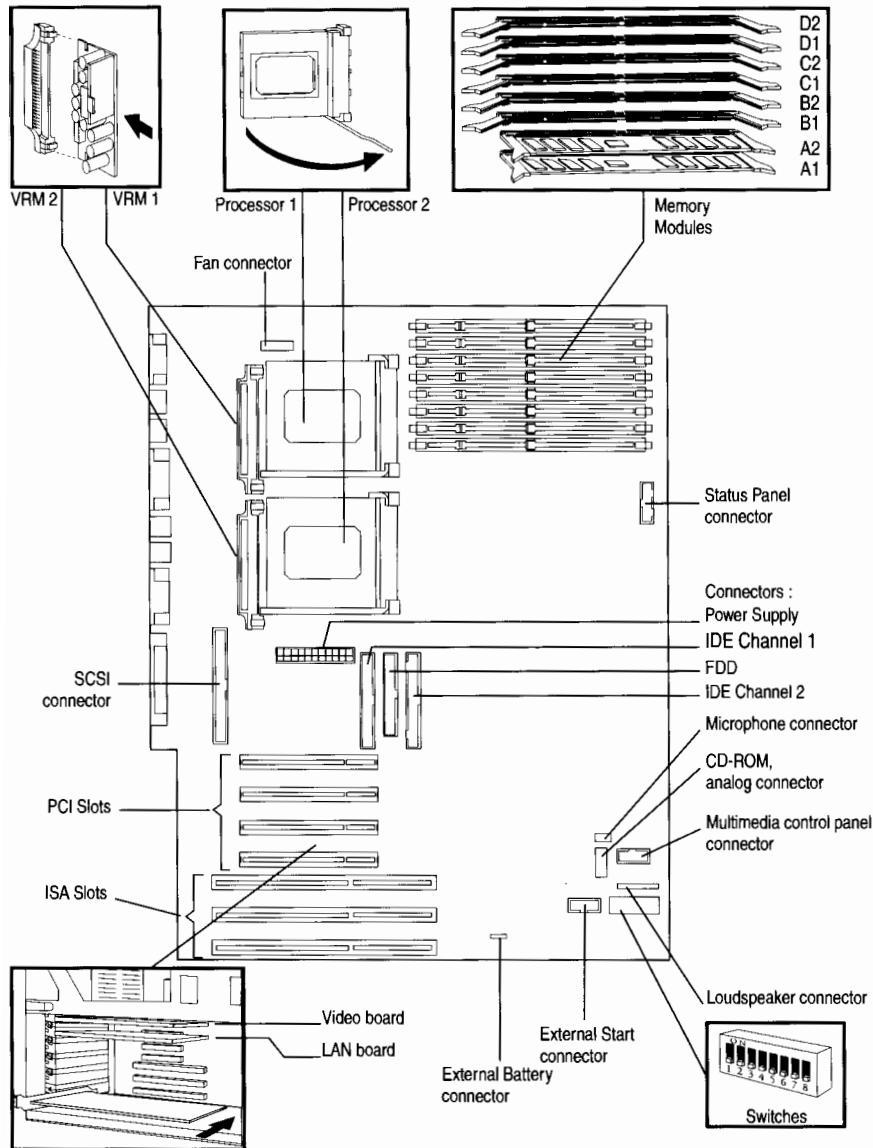
Mass Storage

2-GB Fast SCSI hard disk	D2796A
4-GB Fast SCSI hard disk	D2797A
540 MB IDE hard disk	D2918A
1-GB IDE hard disk	D2919A
100 MB Zip disk drive	D4390A
Flexible disk 3.5-inch 1.44-MB (1-inch high)	D2035B
SCSI 4× CD-ROM drive	D2992B
IDE 8× CD-ROM drive	D4381A
Rail kit (3.5-inch)	D3566A
Rail kit (5.25-inch)	D2880A

1. Dual Processor Kits include: processor, voltage regulator module and heatsink.



System Board, BIOS, and Memory



4

Mini-Tower Vectras



HP Vectra XU 6/xxx PC 4-5

HP Vectra XU 6/xxx PC Series

System Board Switches

4

Switch		Function	Default
1	OFF	Retain configuration in EEPROM, normal position	OFF
	ON	Clears EEPROM	
2	OFF	Enables User and Administrator passwords	OFF
	ON	Clears User and Administrator passwords	
3	OFF	Disables secure switch (off position)	OFF
	ON	Enables secure switch (on position) - prevents modification of SETUP values and flashing of BIOS	
4	Local bus frequency, see following table		ON
5			OFF
6	Processor : local bus frequency ratio, see following table		ON
7			OFF
8			OFF

Switch		Local Bus Frequency	Switch			Frequency Ratio Processor : Local Bus	Processor Frequency
4	5		6	7	8		
ON	OFF	60 MHz	ON	OFF	OFF	2.5 : 1	150 MHz
OFF	OFF	66 MHz	ON	OFF	OFF	2.5 : 1	166 MHz
ON	OFF	60 MHz	OFF	ON	OFF	3 : 1	180 MHz
OFF	OFF	66 MHz	OFF	ON	OFF	3 : 1	200 MHz

BIOS History

The latest BIOS, the flasher utility program, and the BIOS history can each be obtained from the HP Electronic Services.



Main Memory

The PC has four banks on the system board for installing main memory; banks A, B, C and D. Each bank consists of two sockets. The PC is supplied with 16, 32 or 64 MB of main memory (two memory modules installed in one bank). The PC uses 60-ns ECC DRAM.

Memory modules must be installed in identical pairs, so that each bank with memory installed contains two memory modules of the same size and type.

The PC is supplied with one bank of memory modules. This can be a pair of modules of type “interleave 8” or a pair of type “interleave 16”. These can be replaced or extended with memory modules of the same type.

Main memory on an “interleave 8” type of PC can be extended to a maximum of 128 MB by replacing the 16 MB base memory with four D3555B kits (32 MB each kit). Main memory can be extended to a maximum of 112 MB without replacing the base memory.

Main memory on an “interleave 16” type of PC can be extended to a maximum of 512 MB by replacing the 32 MB base memory with four D3540A kits (128 MB, “interleave 64” each kit). Main memory can be extended to a maximum of 416 MB without replacing the base memory.

To order the appropriate main memory upgrade kit, check the PC memory configuration using the “HP Vectra XU 6/xxx & VT 6/xxx Memory Configuration Utility”. This utility will indicate the supported accessories.

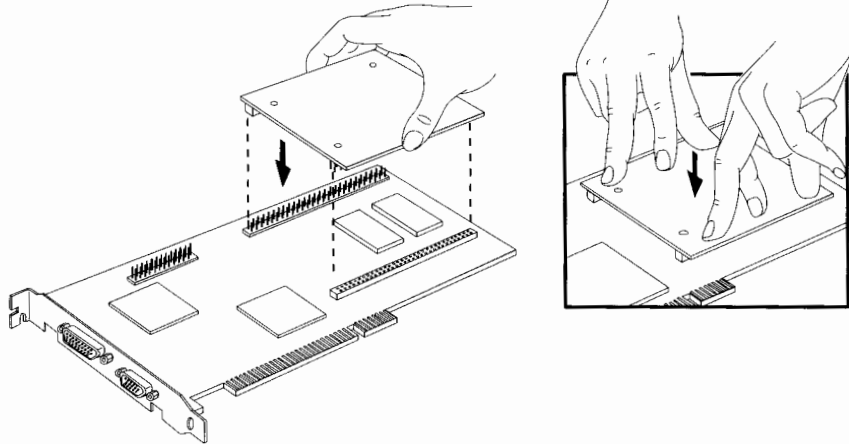


HP Vectra XU 6/xxx PC Series

Video Memory

The PC is supplied with 2 MB of video memory for 1600×1200 in 256 colors. An additional 2 MB of video memory can be installed by adding a D3557B module in the video memory socket; this will make a total of 4 MB for 1600×1200 in 64 K colors. Alternatively, an additional 6 MB of video memory can be installed by adding an MGA-MIL/MOD6 module in the video memory socket (ordered from Matrox); this will make a total of 8 MB for 1600×1200 in 16.7 M colors.

4



Matrox Video Board Switches

Switch	Function
1	<ul style="list-style-type: none">• OFF to prevent Video BIOS upgrades - DEFAULT• ON to allow Video BIOS upgrades
2	<ul style="list-style-type: none">• OFF for single-screen operation - DEFAULT• ON for dual-screen operation (with second VGA controller)

Installing a Dual Processor

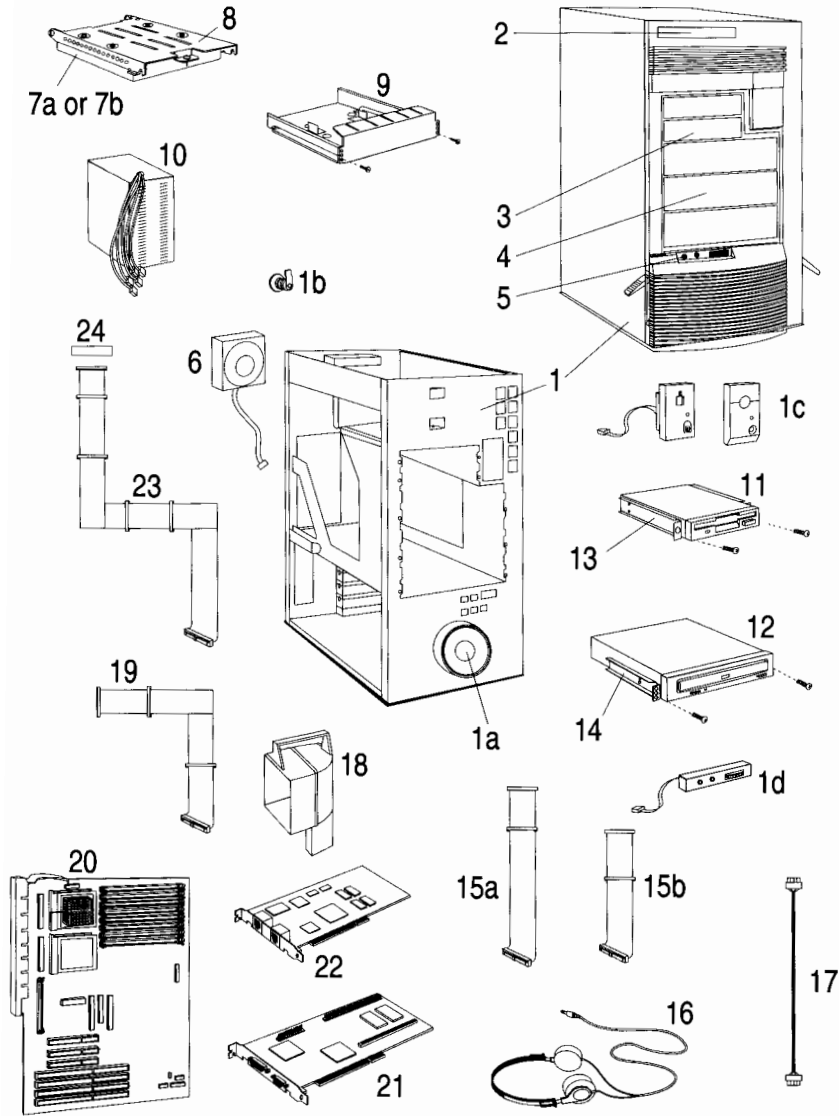
No jumper changes are involved when installing a second Pentium Pro processor.

Some models are already dual processor systems, with both processor sockets already filled. The other models can be upgraded dual processor systems by installing the second processor accessory in the vacant socket.

The second processor must be a Pentium Pro processor of the same speed and level-2 cache memory capacity as the first.



Part Numbers



4

Mini-Tower Vectras



HP Vectra XU 6/xxx PC 4-9

HP Vectra XU 6/xxx PC Series

Parts List for HP Vectra XU 6/xxx PC

Item	Description	Repl. Part Number	Exchange Part Number
1	Box assembly: a Speaker assembly b Cover lock assembly c Status panel kit d Multimedia control panel e Bumper foot	5063-9010 5063-4559 5062-5590 5063-9008 5063-9003 02225-00010	—
2	HP Vectra XU 6/150 logo HP Vectra XU 6/180 logo HP Vectra XU 6/200 logo	5042-1447 5042-1805 5042-1806	— — —
3	Filler panel 3.5 inch	5042-1405	—
4	Filler panel 5.25 inch	5042-1178	—
5	Multimedia bezel	5042-1421	—
6	Fan	5063-9004	—
7	Hard disk drive (standard) ¹ : 1-GB Fast SCSI-2 2-GB Fast SCSI-2 2-GB SCSI-3 4-GB SCSI-3	D2920-63001 D2926-63001 D2796-63001 D2797-63001	D2920-69001 D2926-69001 D2796-69001 D2797-69001
8	HDD 3.5-inch bracket	5001-6864	—
9	HDD tray	5002-1935	—
10	Power supply assembly	5063-8799	—
11	Flexible disk drive	D2035-60152	—
12	CD-ROM drive (standard) : 4× SCSI 8× IDE 16×MAX IDE	D2992-63032 D4381-63001 D4382-63001	— D4381-69001 D4382-69001
13	Rail kit (3.5-inch)	D3566A	—
14	Rail kit (5.25-inch)	D2880A	—
15	Ultra Fast IDE cable (for HDD) Ultra Fast IDE cable (for CD-ROM)	5064-0284 5182-3544	—
16	Headphones	5063-8800	—
17	SCSI CD-ROM to audio cable IDE CD-ROM to audio cable	5182-5412 5182-1857	—
18	Airflow guide	5063-9005	—
19	Flexible disk cable	5182-3567	—
20	System board	See PC's system board parts list	
21	Matrox MGA Millennium board Rev. 5.00 (D35xxX, D434xxX and D435xxX models)	5063-8798	D3568-69005
	Matrox MGA Millennium board Rev. 6.00 (D436xxX models)	5064-0285	D3568-69006

1. For optional disk drive information, see the *Accessory Service Handbook*.



HP Vectra XU 6/xxx PC Series

Parts List for HP Vectra XU 6/xxx PC (continued)

Item	Description	Repl. Part Number	Exchange Part Number
22	HP 10/100 VG LAN board (J2585B ¹) HP 10/100 BT LAN board	J2585-61011 J3171-61001	—
23	SCSI cable	5182-3540	—
24	SCSI terminator	0960-0888	—

1. If a J2585A is being replaced by a J2585B, new drivers must be installed.

System Board Parts List for HP Vectra XU 6/xxx PC

Description	Repl. Part Number	Exchange Part Number
System board:		
Vectra XU 6/150 models D3528A, D3529N, D3530N with serial number less than SG610xxxxx	D3528-63002	D3528-69002
Vectra XU 6/150 models D3528A, D3529N, D3530N with serial number ≥ SG610xxxxx D3528B, D3529B, D3530B (all serial numbers)	D4340-63001	D4340-69001
Vectra XU 6/180 and 6/200: models D4340A/B, D4341N, D4342N, D4345A/B, D4346N, D4347N)	D4340-63001	D4340-69001
Vectra XU 6/180 and 6/200: models D4342B, D4343A, D4344N, D4347B, D4348A, D4349N, D435xX, D436xX)	D4340-63002	D4340-69002
Processors:		
Intel Pentium Pro (P6) 150 MHz	5063-8791	—
Intel Pentium Pro (P6) 180 MHz	5064-1804	—
Intel Pentium Pro (P6) 200 MHz	5064-1805	—
Heat-sink and clip	5063-8793	—
Voltage regulator module (VRM)	5063-8794	—
Main memory modules:		
1 × 8-MB, 60-ns ECC RAM, interleave 8	5063-8795	—
1 × 16-MB, 60-ns ECC RAM, interleave 8	1818-6660	—
1 × 16-MB, 60-ns ECC RAM, interleave 16	5063-8796	—
1 × 32-MB, 60-ns ECC RAM, interleave 16	1818-6661	—
Video memory module:		
2 MB video memory module	D3557-63002	—

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Mini-Tower Vectras



HP Vectra XU 6/xxx PC 4-11

HP Vectra XU 5/xx PC Series

Models and Accessories

Product Number	Flexible Drive A:	Hard Drive C:	Disk Controller	Video Controller	Std. RAM	L 2 Cache	CD-ROM
Vectra XU 5/xx PC Series							
HP Vectra XU 5/75 PC (CPL: 04/95 ▶)							
D3081A	1.44 MB	None	Integrated	Integrated	8 MB	256 KB	None
D3083A	(D2035A)	540 MB IDE (D2395-6xxxx)	SCSI-2/IDE Interface	Ultra VGA+ (2 MB)			
HP Vectra XU 5/90 PC (CPL: 07/94 ▶)							
D3085A	1.44 MB	None	Integrated	Integrated	8 MB	256 KB	None
D3086A	(D2035A)	270 MB SCSI (D2385A)	SCSI-2/IDE Interface	Ultra VGA+ (2 MB)			
D3087A		540 MB SCSI (D2398-6xxxx or D2386A)					
D3088A (CPL: 04/95)		540 MB IDE (D2395-6xxxx)				256 KB	
HP Vectra XU 5/90C PC (CPL: 07/94 ▶)							
D3091A	1.44 MB (D2035A)	540 MB SCSI (D2386A)	Integrated SCSI-2/IDE Interface	Matrox Graphics Board PCI/2+ (2 MB, upgradable to 4 MB)	16 MB	256 KB	None

Full-Height Desktop Vectras



HP Vectra XU 5/xx PC Series 5-1

HP Vectra XU 5/xx PC Series

Product Number	Flexible Drive A:	Hard Drive C:	Disk Controller	Video Controller	Std. RAM	L 2 Cache	CD-ROM
HP Vectra XU 5/90C PC (continued)							
D3091B	1.44 MB (D2035A)	540 MB SCSI (D2398-6xxxx)	Integrated SCSI-2/IDE Interface	Matrox Graphics board Impression+ (2 MB, upgradable to 4 MB)	16 MB	256 KB	None
D3092A		1 GB SCSI (D2076B)		Matrox Graphics Board PCI/2+ (2 MB, upgradable to 4 MB)			
D3092B		1 GB SCSI (D2904-6xxxx)		Matrox Graphics board Impression+ (2 MB, upgradable to 4 MB)			
D3094A		540 MB IDE (D2891B)		Matrox Graphics Board PCI/2+ (2 MB, upgradable to 4 MB)			
D3094B		540 MB IDE (D2395-6xxxx)		Matrox Graphics board Impression+ (2 MB, upgradable to 4 MB)			

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HP Vectra XU 5/xx PC Series

Product Number	Flexible Drive A:	Hard Drive C:	Disk Controller	Video Controller	Std. RAM	L 2 Cache	CD-ROM
HP Vectra XU 5/120C PC (CPL: 10/95 ▶)							
D3510A	1.44 MB (D2035A)	None	Integrated SCSI-2/IDE Interface	Matrox Graphics board Impression+ (2 MB, upgradable to 4 MB)	16 MB	512KB	4× SCSI CD-ROM (A4325A)
D3510B				Matrox Millennium Graphics Board (2 MB, upgradable to 4 MB or 8 MB)			
D3511A		1 GB SCSI (D2920A)		Matrox Graphics board Impression+ (2 MB, upgradable to 4 MB)			
D3511B		1 GB SCSI (D2920A)		Matrox Millennium Graphics Board (2 MB, upgradable to 4 MB or 8 MB)			
D3512A		2 GB SCSI (D2926A)		Matrox Graphics board Impression+ (2 MB, upgradable to 4 MB)			

5

HP Vectra XU 5/xx PC Series

Product Number	Flexible Drive A:	Hard Drive C:	Disk Controller	Video Controller	Std. RAM	L 2 Cache	CD-ROM
HP Vectra XU 5/120C PC (continued)							
D3512B	1.44 MB (D2035A)	2 GB SCSI (D2926A)	Integrated SCSI-2/IDE Interface	Matrox Millennium Graphics Board (2 MB, upgradable to 4 MB or 8 MB)	16 MB	512 KB	4× SCSI CD-ROM (A4325A)
HP Vectra XU 5/133C PC (CPL: 10/95 ▶)							
D3515A	1.44 MB (D2035A)	None	Integrated SCSI-2/IDE Interface	Matrox Graphics board Impression+ (2 MB, upgradable to 4 MB)	16 MB	512 KB	4× SCSI CD-ROM (A4325A)
D3515B		None		Matrox Millennium Graphics Board (2 MB, upgradable to 4 MB or 8 MB)			
D3516A		1 GB SCSI (D2920A)		Matrox Graphics board Impression+ (2 MB, upgradable to 4 MB)			
D3516B		1 GB SCSI (D2920A)		Matrox Millennium Graphics Board (2 MB, upgradable to 4 MB or 8 MB)			

5



HP Vectra XU 5/xx PC Series

Product Number	Flexible Drive A:	Hard Drive C:	Disk Controller	Video Controller	Std. RAM	L 2 Cache	CD-ROM
HP Vectra XU 5/133C PC (continued)							
D3517A	1.44 MB (D2035A)	2 GB SCSI (D2926A)	Integrated SCSI-2/IDE Interface	Matrox Graphics board Impression+ (2 MB, upgradable to 4 MB)	16 MB	512 KB	4× SCSI CD-ROM (A4325A)
D3517B		2 GB SCSI (D2926A)		Matrox Millennium Graphics Board (2 MB, upgradable to 4 MB or 8 MB)			

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Note

Level two cache on the Vectra XU 5/xx is burst synchronous cache. All models have an integrated LAN adapter.

Supported Accessories

- 4 MB Memory Upgrade kit D2690A
- 8 MB Memory Upgrade kit D2691A
- 16 MB Memory Upgrade kit D2297A
- 32 MB Memory Upgrade kit D2298A
- Setup Kit (*Getting Started* and *Setting Up Your PC*) D3080B

Video Memory upgrades

- 2 MB Video RAM kit for PCI/2+ Matrox board D3095A
- 2 MB Video RAM kit for Impression+ Matrox board (Revision3) D3095B
- 2 MB Video upgrade kit for Matrox Millennium board D3557A

Processor upgrades

- Pentium/90 Dual Processor Upgrade D3096A
- Pentium/133 Dual Processor Upgrade D3509A

Video Displays

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

Multimedia Products

- HP Sound DSP 16 D2941A

Full-Height Desktop Vectras 

HP Vectra XU 5/xx PC Series 5-5

HP Vectra XU 5/xx PC Series

Mass Storage

Flexible Disk 1.44 MB 3-1/2 inch	D2035A
Flexible Disk 1.2 MB 5-1/4 inch	D2036A
Hard Disk 1 GB SCSI	D2076B
Hard Disk 2 GB SCSI	D2077A
Hard Disk 1 GB Fast SCSI-2 (for XU 120C and XU 133C only)	D2920B
Hard Disk 2 GB Fast SCSI-2 (for XU 120C and XU 133C only)	D2926A
CD-ROM Drive	D2992A

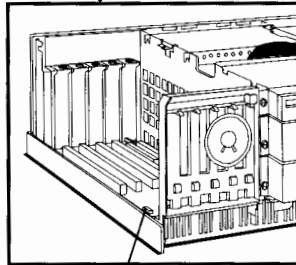
Input Devices

Mouse	C3751A
Keyboard	C3756A

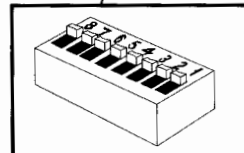
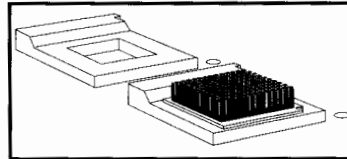
System Board, BIOS, and Memory

5

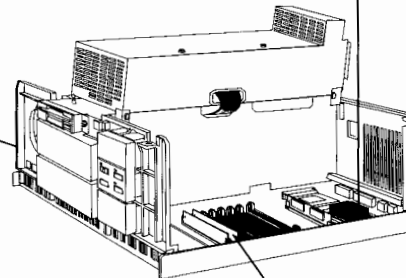
Accessory Boards



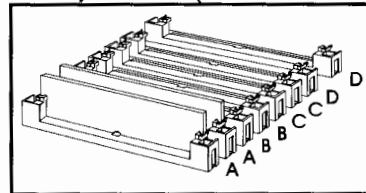
Processor Sockets



System Board Switches



Memory Sockets



Switch:	Use this switch to:
1 E/IBS	See table on next page.
2 PSWRD	Enable or clear (and disable) User and System Administrator passwords stored in EEPROM: <ul style="list-style-type: none"> • OFF to enable passwords • ON to clear passwords. Switch ON if you need to clear the current passwords.
3 SECUR	Disable or enable security mode. Security mode prevents changes to the PC's configuration using the PC's SETUP program: <ul style="list-style-type: none"> • OFF to disable security mode • ON to enable security mode. Switch ON if you don't want anyone to change the PC's configuration.
4 CONFIG	Retain or clear the configuration stored in EEPROM: <ul style="list-style-type: none"> • OFF to retain configuration • ON to clear configuration. Switch ON if you need to clear the PC's configuration information, for example the configuration is corrupted.
5	Reserved.
6 E/IBS	See table on next page.
7 E/IBS	See table on next page.
8	Reserved for models 5/75 and 5/90. See table on next page for models 5/120C and 5/133C.

5

Switch Settings for Processor Speeds for Models 5/75 and 5/90

Switch 1	Switch 6	Switch 7	External/Internal Bus Speed
OFF	OFF	OFF	60/90 (DEFAULT)
OFF	OFF	ON	50/75
OFF	ON	OFF	40/60
OFF	ON	ON	66.66/100
ON	OFF	OFF	60/120
ON	OFF	ON	50/100
ON	ON	OFF	40/80
ON	ON	ON	66.66/133

Switch 1 sets the External/Internal Bus Speed ratio. The default setting is OFF (ratio of 2:3). A ratio of 1:2 is set by setting switch 1 to ON.

HP Vectra XU 5/xx PC Series

Switch Settings for Processor Speeds for Models 5/120C and 5/133C

Processor Speed (Internal bus speed)	External bus speed	Switch 1	Switch 6	Switch 7	Switch 8
60	40	OFF	ON	OFF	OFF
75	50	OFF	OFF	ON	OFF
80	40	ON	ON	OFF	OFF
90	60	OFF	OFF	OFF	OFF
100	40	ON	ON	OFF	ON
100	50	ON	OFF	ON	OFF
100	66.66	OFF	ON	ON	OFF
120	40	OFF	ON	OFF	ON
120	60	ON	OFF	OFF	OFF
125	50	ON	OFF	ON	ON
133	66.66	ON	ON	ON	OFF
150	50	OFF	OFF	ON	ON
150	60	ON	OFF	OFF	ON
167	66.66	ON	ON	ON	ON
180	60	OFF	OFF	OFF	ON
200	66.66	OFF	ON	ON	ON

5

Cache Memory

The XU 5/75, 5/90 and XU 5/90C have 256 KB of integrated level-two cache memory. The XU 5/120C and XU 5/133C have 512KB of integrated level-two cache memory.

Video Memory

The HP Vectra XU 5/90 PC Series has an integrated video controller and is supplied with 2 MB of video memory for a resolution up to 1280 × 1024 in 256 colors.

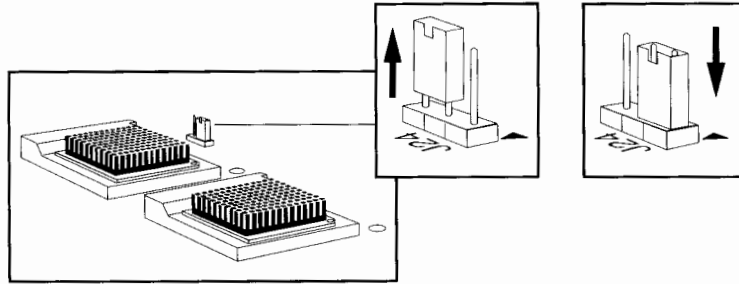
Main Memory

The HP Vectra XU 5/xx Series PC has eight sockets for main memory modules. Sockets are grouped into four banks of paired sockets labeled A to D. Memory modules can be installed in any combination of equally-sized pairs (for example, two 4 MB modules in bank A) up to a maximum of 256 MB.



Installing a Dual Processor

The position of jumper J24 must be changed as shown below when a second Pentium processor is installed.



The system board switches must be set for the correct processor speed, as shown in the table on the previous page. If you have installed a second (dual) Pentium processor that runs at a different speed from the other installed processor, the system board switches must be set for the *lower* processor speed.

5

Setup and BIOS History

The latest BIOS, the flasher utility program, and the BIOS history can each be obtained from the HP Electronic Services.

Voltage Regulator Module (VRM) for the 5/120C and 5/133C Models

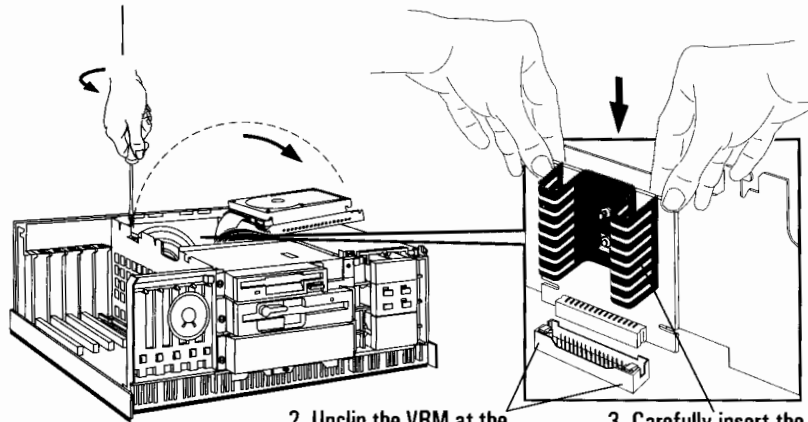
The HP Vectra XU PC 5/120C and 5/133C models have a VRM that helps regulate the voltage going to your Pentium processor. The VRM that comes with the computer supports VRE voltage. This is “non-split” voltage for the processor (the processor uses only one voltage level).



HP Vectra XU 5/xx PC Series

The VRM is located in a system board socket beneath the rear top-shelf hard disk drive. You will need to remove this hard disk drive to replace a defective VRM, as shown in the illustration below.

1. Remove the hard disk drive. See *Setting up Your PC* manual for details.



2. Unclip the VRM at the bottom on both sides to remove.

3. Carefully insert the new VRM until it clips in place.

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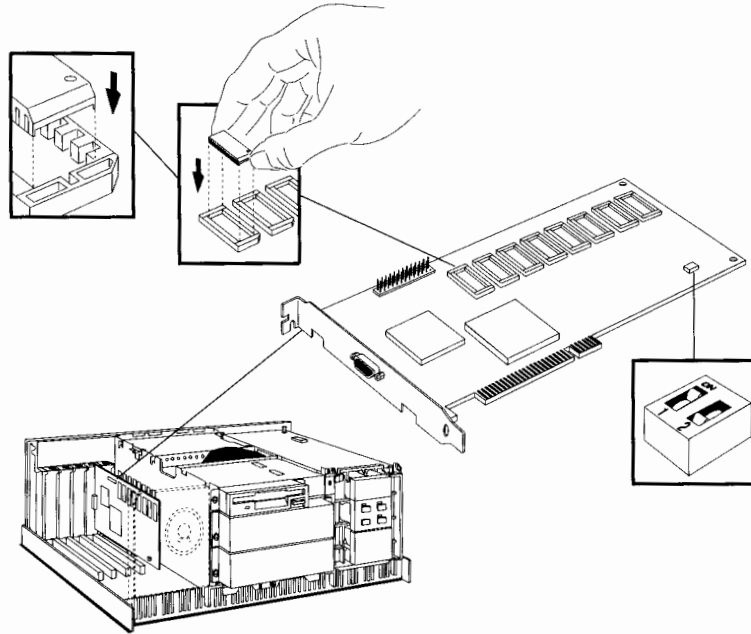
Matrox PCI Video Boards

The HP Vectra XU 5/xxC PC Series is supplied with a Matrox PCI Video board. The Matrox board is supplied with 2 MB of video memory for a resolution up to 1600×1200 in 256 colors. It can be upgraded to 4 MB for a resolution up to 1600×1200 in 64 K colors. The upgrade procedure depends on which Matrox board is installed.



MGA-PCI/2+ (Product Numbers: D3091A, D3092A or D3094A)

For these models, the upgrade (Part Number D3095A) is carried out as shown in the illustration below. When extra Video Memory is installed on any of these models, switch 2 must be set to **OFF** as shown.



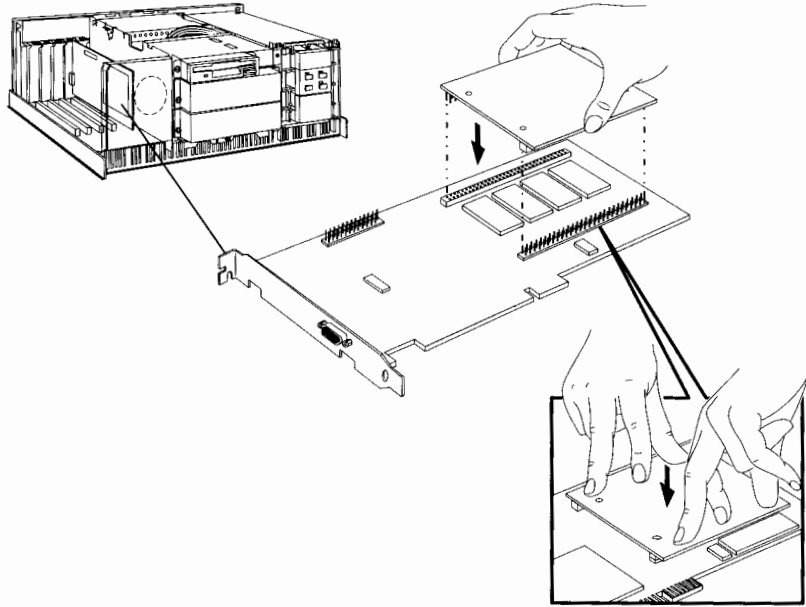
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MGA Impression+ (Product Numbers: D3091B, D3092B, D3094B, or D351xA)

For these models, the upgrade is carried out as described on the previous page.

On the Revision 3 board of MGA Impression+, the extra video memory is installed with one upgrade module (Part Number D3095B). Position the video memory module over the 2 MB RAM socket, with its components facing downwards, as shown in the illustration below. Slowly and evenly press the upgrade module into place. On this model the switch settings do not have to be changed.

5



MGA Millennium (Product Numbers: D351xB)

For these models, the 2 MB upgrade (D3557A) is carried out as described for the MGA Impression+, in the above diagram. The only difference is in the male-female pin position. The upgrade modules are *not* exchangeable.

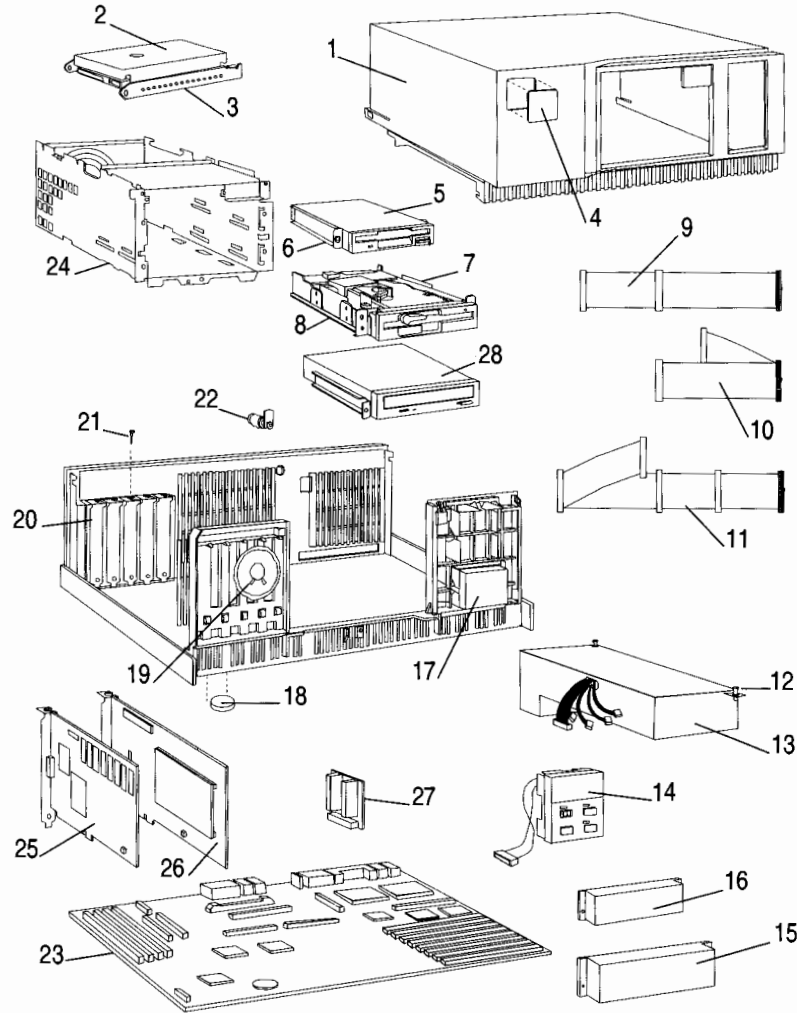
The Matrox Millennium board can also be upgraded using the 6 MB upgrade module (MGA-MIL/MOD6), available from Matrox. This will give a total of 8 MB video memory for 1600 × 1200 in 16.7 M colors.

MGA Millennium Board Switches

Switch	Function
1	<ul style="list-style-type: none"> • OFF to prevent Video BIOS upgrades - DEFAULT • ON to allow Video BIOS upgrades
2	<ul style="list-style-type: none"> • OFF for single-screen operation - DEFAULT • ON for dual-screen operation (with second VGA controller)



Part Numbers



5

HP Vectra XU 5/xx PC Series

Parts List for HP Vectra XU 5/xx PC Series

Item	Description	Replacement Part Number	Exchange Part Number
1	Box Assembly	5063-5735	—
2	Hard Disk Drives XU 5/75, XU 5/90, XU 5/90C: 540 MB IDE 270 MB SCSI 540 MB SCSI 1 GB SCSI XU 5/120C, XU 5/133C: 1 GB SCSI 2 GB SCSI	D2395-63001 D2385-63001 D2398-63001 D2904-63001 D2920-63001 D2926-63001	D2395-69001 D2385-69001 D2398-69001 D2904-69001 D2920-69001 D2926-69001
3	3.5-inch, h-h, Tray (5 pack) for non-HP hard disk drives	Order D2037A (bottom & rear positions) D2198A (front) includes HDD activity light	
4	Nameplate HP Vectra XU 5/75 Logo HP Vectra XU 5/90C Logo HP Vectra XU 5/90 Logo HP Vectra XU 5/120C Logo HP Vectra XU 5/133C Logo	5042-1142 5042-0585 5042-0598 5042-1407 5042-1408	— — — — —
5	Flexible Disk Drive	D2035-60052	—
6	Mounting Rails for 3.5-inch non-HP Disk Drives	5063-0309	—
7	Flexible Disk Drive	D2881-63001	—
8	5.25-inch, h-h, Tray (5 pack) for non-HP, flexible disk and tape drives	Order product number D2199A (updated version of D2038A)	
9	Flexible Disk Drive Cable, 3.5 & 5.25-inch	5182-1097	—
10	Hard Disk Cable (IDE drive)	5181-0392	—
11	Hard Disk Cable (SCSI drive)	5182-0047	—
	SCSI Terminator	0960-0888	—
12	Snap Fastener	1390-0882	—
13	Power Supply Assembly (120W)	5063-4569	—
14	Status (Control) Panel	5062-5600	—
15	Filler Panel, 5.25-inch	5062-5597	—
16	Filler Panel, 3.5-inch	5062-5595	—
17	Control Panel Filler Assembly	5063-0303	—
18	Bumper Foot	5181-0394	—
19	Speaker Assembly	02620-60016	—
20	I/O panel, Blank	45935-00004	—
21	Screw, 6-32 Pilot Point	0624-0727	—
22	Keylock Assembly	5062-5599	—

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HP Vectra XU 5/xx PC Series

Parts List for HP Vectra XU 5/xx PC Series (Continued)

Item	Description	Replacement Part Number	Exchange Part Number
23	System Board	See PC's system board parts list	
24	Fan Assembly	5063-0307	—
25	Matrox Video Board, PCI/2+	5063-5783	—
26	Matrox Video Board, Impression+ or Matrox Millennium Video Board	5063-7060	—
		5063-8798	—
27	See Voltage Regulator Module in System Board Parts List	—	—
28	4× SCSI CD-ROM	A4325-60001	

System Board Parts List for HP Vectra XU 5/xx PC Series

Description	Replacement Part Number	Exchange Part Number
System Board (includes integrated SCSI-2, IDE, and Ultra VGA controller) :		
Vectra XU System Board for 5/75 and 5/90 Models	D3081-63003	D3081-69002
Vectra XU System Board for 5/90C Models	D3084-63003	D3084-69002
Vectra XU System Board for 5/120C and 5/133C Models	D3099-63001	D3099-69001
Matrox Accessories:		
Matrox Video RAM kit (D3095A) for PCI/2+ Board	5063-4588	—
Matrox Video RAM kit (D3095B) for Impression+ Board (Revision 3)	5063-9058	—
Matrox 2 MB Video memory kit (D3557A) for Millennium Video Board	D3557-63001	—
Processors:		
Pentium (P54C/75)	5063-7058	—
Pentium (P54C/90)	5063-7065	—
Pentium (P54C/120)	5063-7973	—
Pentium (P54C/133)	5063-7974	—
Voltage Regulator Module:		
Voltage Regulator Module for 5/1xxC Models	5063-7975	—

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HP Vectra XU 5/xx PC Series

System Board Parts List for HP Vectra XU 5/xx PC Series (Continued)

Description	Replacement Part Number	Exchange Part Number
Cache Memory Modules:		
256 KB Level-Two (Burst Synchronous)	5063-4585	—
256 KB Level-Two (Asynchronous)	5063-4572	—
512 KB Level-Two (Burst synchronous)	5063-7070	—
Main Memory Modules:		
4 MB Main Memory Module	D2974-63001	—
8 MB Main Memory Module	D2975-63001	D2975-69001
16 MB Main Memory Module	D2297-63001	D2297-69001
32 MB Main Memory Module	D2298-63001	D2298-69001
BIOS Update disks ¹	—	—

1. BIOS update disks available via the HP Electronic Services.

5

Support Manuals for HP Vectra XU 5/xx PC Series

Familiarization Guide	D308xA+49A-90001
Technical Reference Manual: Hardware and BIOS	5962-3417 ¹

1. Electronic File only.

Notes: _____

HP Vectra XA 6/xxx PC

Models and Accessories

Product Number	Flexible Drive	Hard Drive	Video Controller	Std. RAM	Multi-media	LAN	OS ¹
Vectra XA 6/xxx PC							
HP Vectra XA 6/180 PC (CPL: 08/96, discontinued 10/97)							
D4530A	1.44 MB (D2035B)	None	Matrox MGA Millennium board, Rev. 5.00	16 MB	8 × IDE CD-ROM (D4381A)	Ethernet 10 BaseT PCI board	None NT 3.51 WS
D4531N		1.2 GB IDE (D2930A)	(2 MB, upgradeable to 4 MB or 8 MB)	32 MB			
D4532N		2.5 GB IDE (D2784-69001)					
D4541N							NT 4.0 WS
D4770N		1.6 GB IDE	Matrox MGA Millennium board, Rev. 6.00			Ethernet 10/100BT PCI board	
D4771N	2.5 GB IDE (D2784-69001)	(2 MB, upgradeable to 4 MB or 8 MB)					

1. Windows NT 3.51 WS is supplied on CD-ROM (not preloaded); Windows NT 4.0 WS is preloaded.

Medium-Profile
Desktop Vectras



HP Vectra XA 6/xxx PC 6-1

HP Vectra XA 6/xxx PC

Product Number	Flexible Drive	Hard Drive	Video Controller	Std. RAM	Multi-media	LAN	OS ¹
HP Vectra XA 6/200 PC (CPL: 08/96, discontinued 10/97)							
D4533A	1.44 MB (D2035B)	None	Matrox MGA Millennium board, Rev. 5.00 (2 MB, upgradeable to 4 MB or 8 MB)	16 MB	8 × IDE CD-ROM (D4381A)	Ethernet 10 BaseT PCI board	None
D4534N		1.2 GB IDE (D2930A)		32 MB			8 × IDE CD-ROM (D4381A) and ISA Sound Board
D4535N		2.5 GB IDE (D2784- 69001)	None		None	Ethernet 10/100BT PCI board	
D4542N				None			None
D4772A		1.6 GB IDE	Matrox MGA Millennium board, Rev. 6.00 (2 MB, upgradeable to 4 MB or 8 MB)		8 × IDE CD-ROM (D4381A) and ISA Sound Board	Ethernet 10/100BT PCI board	
D4773N		2.5 GB IDE (D2784- 69001)		None			None
D4774N	2.1 GB SCSI-3	None	None		None	None	
D4775N				None			None

1. Windows NT 3.51 WS is supplied on CD-ROM (not preloaded); Windows NT 4.0 WS is preloaded.

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Supported Accessories

8-MB kit (2 × 4-MB) 32-bit EDO, 60 ns main memory modules	D3646B
16-MB kit (2 × 8-MB) 32-bit EDO, 60 ns main memory modules	D3647B
32-MB kit (2 × 16-MB) 32-bit EDO, 60 ns main memory modules	D3648B
64-MB kit (2 × 32-MB) 32-bit EDO, 60 ns main memory modules	D4543A
2-MB video memory upgrade kit	D3557B

Documentation

HP Vectra XA <i>User's Guide</i> Manual Kit	D4544A
HP Vectra XA <i>User's Guide</i> Manual Kit (new models)	D4779A

Input Devices

HP mouse	C3751B
HP keyboard for Windows® 95	C4725A

Video Displays

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

Mass Storage

1.2-GB IDE hard disk	D2785A
2.5 GB IDE hard disk	D2786A
2.1 GB SCSI-3 hard disk	D2788A
4.5 GB SCSI-3 hard disk	D2794A
Flexible disk 3.5-inch 1.44-MB (1-inch high)	D2035B
IDE 8× CD-ROM drive	D4381A
Multimedia sound accessory kit (8× CD-ROM drive, Plug-and-Play ISA audio board, headphones)	D4179A
3.5-inch side mounting rails (packs of 5 pairs)	D3566A
5.25-inch side mounting rails (packs of 5 pairs)	D2880A

6



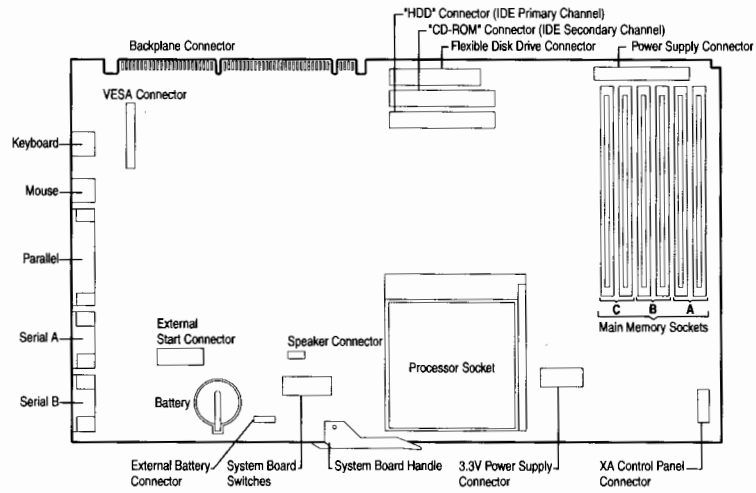
HP Vectra XA 6/xxx PC

System Board Switches

Processor:
Zero Insertion Force (ZIF)
socket.

Main Memory:
16 MB or 32 MB standard. Install pairs of identical modules in each bank, up to a maximum of 192 MB.

System Board



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System Board Switches

Switch		Function	Default
1-5	-	Processor frequency, see the table below	-
6	Open	Retain configuration	Open
	Closed	Clear the configuration data (in CMOS memory)	
7	Open	Normal operation	Open
	Closed	Clears all passwords	
8	Open	Disables keyboard power-on	Closed
	Closed	Enables the PC to be turned on from the space bar on the keyboard	
9	Open	Normal operation	Open
	Closed	Clears the Product Identification (XA) ¹	
10 ²	Open	Pentium Pro 3.3 V <ul style="list-style-type: none"> • All Pentium Pro 180 MHz • Pentium Pro 200 MHz with the following marked on the bottom: SY013, SY032, SY040, SL22T, and SL22V. 	Open
	Closed	Pentium Pro 3.5 V <ul style="list-style-type: none"> • Pentium Pro 200 MHz only with SL255 marked on the bottom. 	

1. If the the Ethernet Interface section does not appear in Setup (for example when replacing the system board), refer to the warning at the end of the Ethernet 10BaseT or 10/100 BT Network Connections section on page 8 .
2. This configuration is only available on system boards with part number D4205-6x002. Switch 10 is NOT used on system boards with part number D4205-6x001.



Switch					Processor Frequency	Frequency Ratio Processor : Local Bus	Local Bus Frequency
1	2	3	4	5			
Closed	Open	Open	Closed	Open	180 MHz	3 : 1	60 MHz
Open	Open	Open	Closed	Open	200 MHz	3 : 1	66 MHz

Main Memory

The PC has three banks on the system board for installing main memory; banks A, B and C. Each bank consists of two sockets. The PC is supplied with 16 or 32 MB of main memory (composed of two memory modules installed in any bank). The PC uses 60-ns EDO DRAM.

Memory modules must be installed in identical pairs, so that each bank with memory installed contains two memory modules of the same size and type.

Main memory can be installed up to a maximum of 192 MB.

Medium-Profile
Desktop Vectras

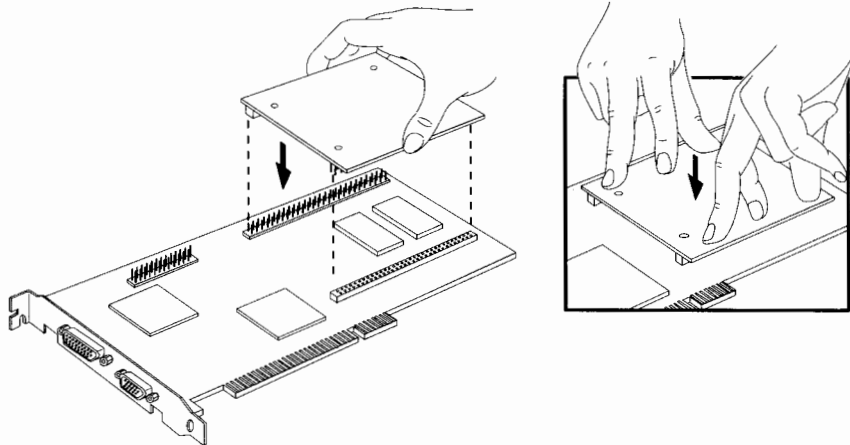


HP Vectra XA 6/xxx PC 6-5

HP Vectra XA 6/xxx PC

Video Memory

The PC is supplied with 2 MB of video memory for 1600×1200 in 256 colors. An additional 2 MB of video memory can be installed by adding a D3557B module in the video memory socket; this will make a total of 4 MB for 1600×1200 in 64 K colors. Alternatively, an additional 6 MB of video memory can be installed by adding an MGA-ML/MOD6 module in the video memory socket (ordered from Matrox); this will make a total of 8 MB for 1600×1200 in 16.7 M colors.



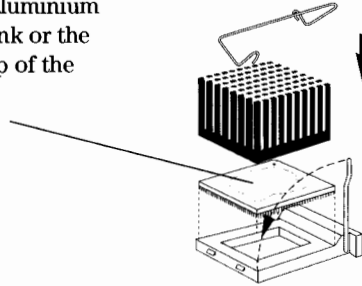
Matrox Video Board Switches

Switch	Function
1	<ul style="list-style-type: none">• OFF to prevent Video BIOS upgrades - DEFAULT• ON to allow Video BIOS upgrades
2	<ul style="list-style-type: none">• OFF for single-screen operation - DEFAULT• ON for dual-screen operation (with second VGA controller)



Replacing the Processor Chip

If any thermal interface material, such as aluminium foil or silicone, is supplied with the heat-sink or the processor chip, place it carefully on the top of the processor before installing the heat-sink.



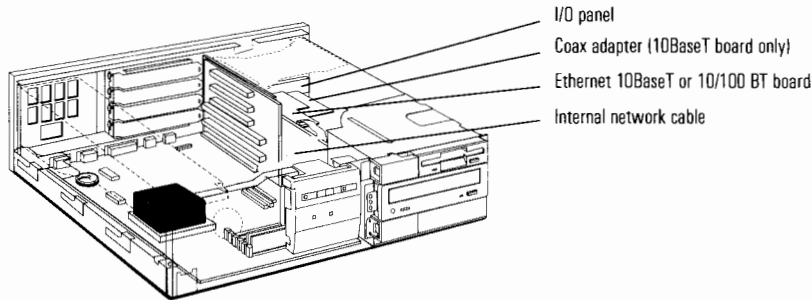
When replacing the processor, check for system board switch 10 position on page 5 .

Ethernet 10BaseT or 10/100 BT Network Connections

The Ethernet 10BaseT or 10/100 BT network board is installed underneath the internal, hard disk drive, rear-shelf. It is plugged into the PCI accessory slot that is situated on the right-hand side of the double-sided backplane board.

The **10 BaseT board** has an RJ-45 UTP network connector. This emerges through a dedicated I/O panel at the back of the computer, below the cover lock assembly. To install a BNC coax connection, a coax adapter (D3979A) is required as described in the *HP Vectra Accessories Service Handbook*. The I/O panel has a hole in it, for this BNC coax adapter accessory, which is covered by a metal plug when the adapter is not installed.

The **10/100 BT board** has two RJ-45 UTP connectors, one for 10BaseT networking (supporting remote power-on) and one for 100BT networking (supporting remote wake up, but not remote power-on).



HP Vectra XA 6/xxx PC

WARNING: If the the Ethernet Interface section does not appear in Setup (for example when replacing the system board), proceed as follows:

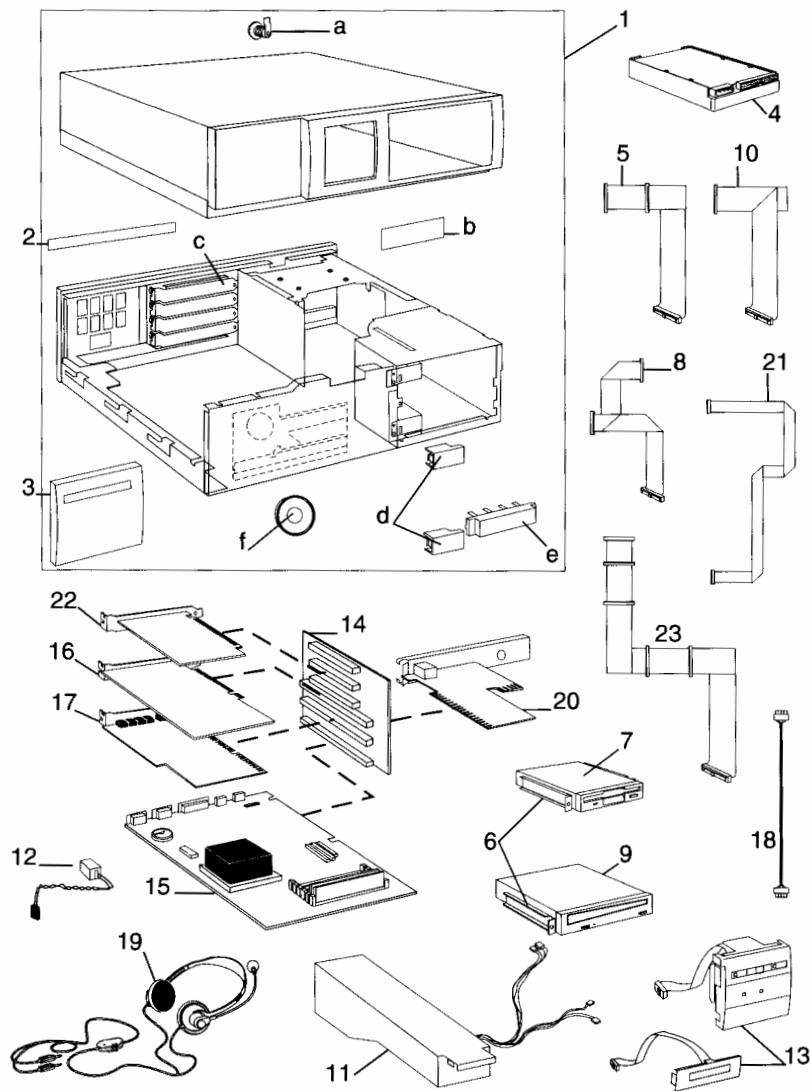
- Switch off the PC.
- Set the system board switch 9 to closed (clears the product identification field) and ensure that the Ethernet Interface is properly plugged in.
- Switch on the PC to clear the product identification field in the BIOS and then switch it off again.
- Set the system board switch 9 to open (normal operation) and switch on the PC.
- The PC prompts for new information. By identifying the product correctly, the BIOS is able to tailor itself for the particular product, and to enable the appropriate features.

BIOS History

The latest BIOS, the flasher utility program, and the BIOS history can each be obtained from the HP Electronic Services.



Part Numbers



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Medium-Profile
Desktop Vectras



HP Vectra XA 6/xxx PC 6-9

HP Vectra XA 6/xxx PC

Parts List for HP Vectra XA 6/xxx PC

Item	Description	Repl. Part Number	Exchange Part Number
1	Box assembly:	5064-0215	—
	a Cover lock assembly	5062-5590	
	b Serial number label	5182-0030	
	c I/O panel blank	45935-00004	
	d Filler panel 1.75 inch	5042-1155	
	e Filler panel 3.5 inch	5063-7067	
	f Internal speaker	5063-4559	
2	Rear bezel connector label	5042-1831	—
3	Left XA logo bezel	5042-1832	—
4	Hard disk drive (standard) ¹		
	1.2 GB IDE (D2985A)	D2785-63001	D2785-69001
	1.6 GB IDE	D4621-63001	D4621-69001
	2.5 GB IDE (D2786A)	D2784-63001	D2784-69001
	2.1 GB SCSI-3	D2788-63001	D2788-69001
5	IDE hard disk cable	5182-1862	—
6	Rail kit (1 × 3.5 inch, 1 × 5.25 inch)	5063-7922	—
7	Flexible disk drive	D2035-60152	—
8	Flexible disk drive cable	5182-1037	—
9	IDE 8× CD-ROM drive	D4381-63001	D4381-69001
10	IDE CD-ROM cable	5182-1856	—
11	Power supply	5063-7943	—
12	External battery	1420-0552	—
13	Status (control) panel	5063-9018	—
	Sound control panel	5064-0212	—
14	Double-sided backplane board	5063-9093	—
15	System board	See PC's system board parts list	
16	Matrox MGA Millennium video board Rev. 5.00 (D453x and D454x models)	5063-8798	D3568-69005
	Matrox MGA Millennium video board Rev. 6.00 (D477x models)	5064-0285	D3568-69006
17	Audio board	5063-9057	—
18	CD-ROM to Audio Board cable	5182-1857	—
19	Headphones	5182-3552	—
20	Ethernet 10 BaseT PCI network board (D453x and D454x models)	5063-8790	—
	Ethernet 10/100 BT PCI network board (D477x models)	5064-1802	
21	Internal network cable	5182-5403	—

1. For optional disk drive information, see the *Accessory Service Handbook*.



HP Vectra XA 6/xxx PC

Parts List for HP Vectra XA 6/xxx PC

Item	Description	Repl. Part Number	Exchange Part Number
22	SCSI interface board	5064-1823	
23	Internal SCSI cable	5183-0732	

System Board Parts List for HP Vectra XA 6/xxx PC

Description	Repl. Part Number	Exchange Part Number
System board:		
Vectra XA 6/xxx system board ¹	D4205-60001	D4205-69001
	D4205-60002	D4205-69002
Processors:		
Intel Pentium Pro (P6) 180 MHz (3.3 V)	5063-8755	—
Intel Pentium Pro (P6) 200 MHz (3.3 V)	5063-8756	—
Thermal interface material	6040-0939	—
Heatsink and clip	1205-1170	—
Main memory modules²:		
2 × 8-MB main memory 60-ns EDO RAM	D3647-69001	—
2 × 16-MB main memory 60-ns EDO RAM	D3648-69001	—
Video memory module:		
2 MB Matrox video memory (WRAM) upgrade kit (D3557A)	D3557-63002	—
Batteries:		
3 V system board battery (type CR2032)	1420-0356	—

1. D4205-6x001 supports Pentium Pro 3.3 V only. D4205-6x001 supports Pentium Pro 3.3 V and 3.5 V.
2. Memory modules must be installed in identical pairs, so that each bank with memory installed contains two memory modules of the same type and size.

Software for HP Vectra XA 6/xxx PC

NT, OS/2 and Windows 95 drivers: <i>HP Vectra VA and XA Drivers</i> CD-ROM	5011-3831
DOS and Windows 3.x drivers: available from HP BBS or WWW	—
Multimedia Software	5964-8365

**Medium-Profile
Desktop Vectras**



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HP Vectra XA 6/xxx PC

Manuals and Documentation for HP Vectra XA 6/xxx PC

<i>User's Guide</i> (Setting up the PC and Troubleshooting)	D4544A
<i>User's Guide</i> (Setting up the PC and Troubleshooting) new models	D4779A
<i>HP Help</i> (Using the PC and Technical information)	online ¹
<i>Familiarization Guide</i>	D4200-90901
<i>Technical Reference Manual: hardware and BIOS</i>	No number ¹

1. Electronic file only.

Notes: _____

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HP Vectra XA 6/xxx MT PC Series

Models and Accessories

Product Number	Flexible Drive A:	Hard Drive C:	Video Controller	Std. RAM	Multi-media	Network	OS ¹
Vectra XA 6/xxx MT PC							
HP Vectra XA 6/200 MT PC (CPL: 04/97, discontinued 10/97)							
D4776N	1.44 MB	2.5 GB IDE	Matrox MGA	32 MB	8 × IDE CD-ROM (D4381A) and ISA Sound Board	Ethernet 10/100BT PCI board	NT 4.0
D4777N		2.1 GB SCSI-3	Millennium board, (2 MB, upgradeable to 4 MB or 8 MB)				
D4778N		4.5 GB SCSI-3					

1. All models have Windows NT 4.0 preloaded.



HP Vectra XA 6/xxx MT PC Series

Supported Accessories

8-MB kit (2 × 4-MB) 32-bit EDO, 60 ns main memory modules	D3646B
16-MB kit (2 × 8-MB) 32-bit EDO, 60 ns main memory modules	D3647B
32-MB kit (2 × 16-MB) 32-bit EDO, 60 ns main memory modules	D3648B
64-MB kit (2 × 32-MB) 32-bit EDO, 60 ns main memory modules	D4543A
2-MB, 50 ns video memory upgrade kit	D3557B

Documentation

HP Vectra XA MT <i>User's Guide</i> Manual Kit	D4780A
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Input Devices

HP mouse	C3751B
HP keyboard for Windows® 95	C4725A

Video Displays

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

Mass Storage

1.2-GB IDE hard disk	D2785A
2.5-GB IDE hard disk	D2786A
2.1 GB SCSI-3 hard disk	D2788A
4.5 GB SCSI-3 hard disk	D2794A
Flexible disk 3.5-inch 1.44-MB (1-inch high)	D2035B
IDE 8× CD-ROM drive	D4381A
Multimedia sound accessory kit (8× CD-ROM drive, Plug-and-Play ISA audio board, headphones)	D4179A
3.5-inch side mounting rails (packs of 5 pairs)	D3566A
5.25-inch side mounting rails (packs of 5 pairs)	D2880A

7

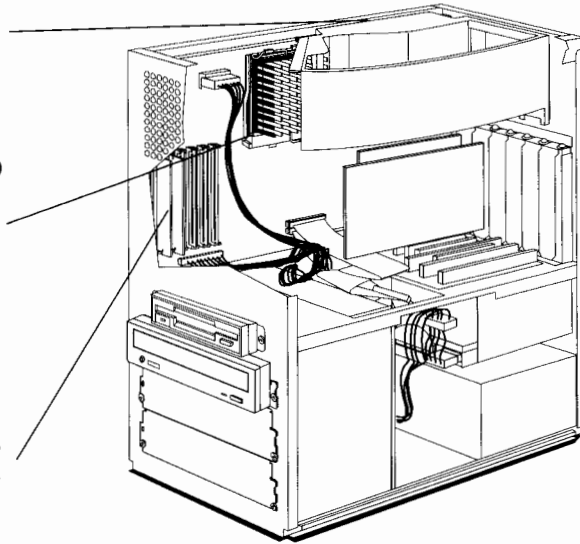


System Board, BIOS, and Memory

System Board Switches

Processor:
Zero Insertion Force (ZIF)
socket allows upgrades
using overdrive
processors.

Main Memory:
32 MB fitted as standard.
Install pairs of identical
modules in each bank, up
to a maximum of 192 MB.



HP Vectra XA 6/xxx MT PC Series

System Board Switches

Switch		Function	Default
1-5	-	Processor frequency, see the table below	-
6	Open	Normal operation	Open
	Closed	Clear the configuration data (in CMOS memory)	
7	Open	Normal operation	Open
	Closed	Clears all passwords	
8	Open	Disables keyboard power-on	Closed
	Closed	Enables the PC to be turned on from the space bar on the keyboard	
9	Open	Normal operation	Open
	Closed	Clears the Product Identification (XA) ¹	
10 ²	Open	Pentium Pro 3.3 V <ul style="list-style-type: none"> All Pentium Pro 180 MHz Pentium Pro 200 MHz with the following marked on the bottom: SY013, SY032, SY040, SL22T, and SL22V. 	Open
	Closed	Pentium Pro 3.5 V <ul style="list-style-type: none"> Pentium Pro 200 MHz only with SL255 marked on the bottom. 	

1. If the the Ethernet Interface section does not appear in Setup (for example when replacing the system board), refer to the warning at the end of the "Ethernet 10/100 BaseT Network Connections" section on page 5.
2. This configuration is only available on system boards with part number D4205-6x002. Switch 10 is NOT used on system boards with part number D4205-6x001.

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Switch					Processor Frequency	Frequency Ratio Processor : Local Bus	Local Bus Frequency
1	2	3	4	5			
Closed	Open	Open	Closed	Open	180 MHz	3 : 1	60 MHz
Open	Open	Open	Closed	Open	200 MHz	3 : 1	66 MHz

BIOS History

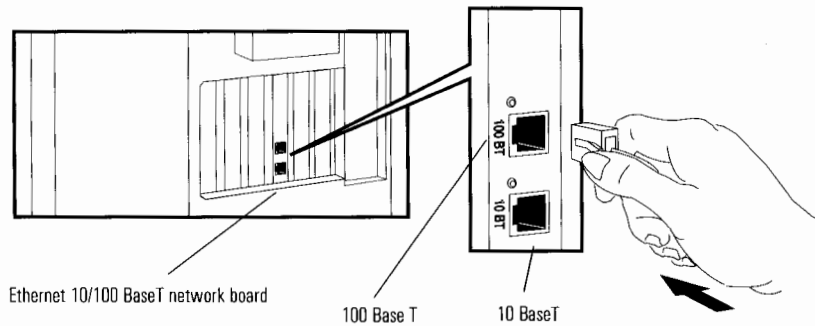
The latest BIOS, the flasher utility program, and the BIOS history can each be obtained from the World Wide Web:

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



Ethernet 10/100 BaseT Network Connections

The **10/100 BT board** has two RJ-45 UTP connectors, one for 10BaseT networking (supporting remote power-on) and one for 100BT networking (supporting remote wake up, but not remote power-on).



WARNING: If the the Ethernet Interface section does not appear in Setup (for example when replacing the system board), proceed as follows:

- Switch off the PC.
- Set the system board switch 9 to closed (clears the product identification field) and ensure that the Ethernet Interface is properly plugged in.
- Switch on the PC to clear the product identification field in the BIOS and then switch it off again.
- Set the system board switch 9 to open (normal operation) and switch on the PC.
- The PC prompts for new information. By identifying the product correctly, the BIOS is able to tailor itself for the particular product, and to enable the appropriate features.

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HP Vectra XA 6/xxx MT PC Series

Main Memory

The PC has three banks on the system board for installing main memory; banks A, B and C. Each bank consists of two sockets. The PC is supplied with 16 or 32 MB of main memory (composed of two memory modules installed in any bank). The PC uses 60-ns EDO DRAM.

Memory modules must be installed in identical pairs, so that each bank with memory installed contains two memory modules of the same size and type (both EDO, or both FPM).

Main memory can be installed up to a maximum of 192 MB.

Video Memory

The PC is supplied with 2 MB of video memory. An additional 2 MB of video memory can be installed by adding a D3557B module in the video memory socket. This will make a total of 4 MB. Alternatively, an additional 6 MB of video memory can be installed by adding an MGA-MIL/MOD6 module in the video memory socket (ordered from Matrox); this will make a total of 8 MB.

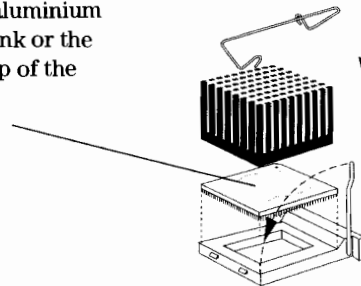
Matrox Video Board Switches

Switch	Function
1	<ul style="list-style-type: none">• OFF to prevent Video BIOS upgrades - DEFAULT• ON to allow Video BIOS upgrades
2	<ul style="list-style-type: none">• OFF for single-screen operation - DEFAULT• ON for dual-screen operation (with second VGA controller)

7

Replacing the Processor Chip

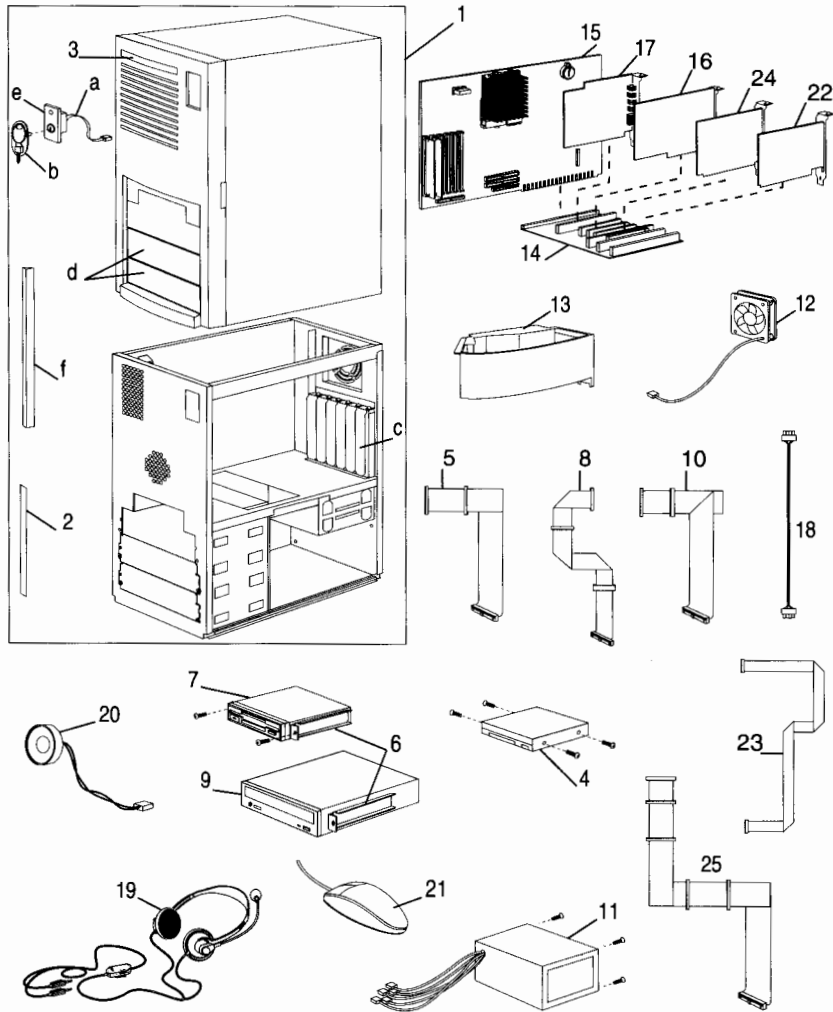
If any thermal interface material, such as aluminium foil or silicone, is supplied with the heat-sink or the processor chip, place it carefully on the top of the processor before installing the heat-sink.



When replacing the processor, check for system board switch 10 position on page 4 .



Part Numbers



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Mini-Tower Vectras



HP Vectra XA 6/xxx MT PC Series

Parts List for HP Vectra XA 6/xxx MT PC

Item	Description	Repl. Part Number	Exchange Part Number
1	Box assembly:	5064-0236	—
	a Status panel	5063-8737	
	b Cover lock assembly	5062-5590	
	c I/O panel blank	45935-00004	
	d Filler panel 5.25 inch	5042-1178	
	e Lock panel	5064-1880	
	f System board guide	5042-0507	
2	Rear bezel connector label	5042-1831	—
3	XA MT logo	5042-1498	—
4	Hard disk drive (standard) ¹		
	IDE 2.5 GB (D2786A)	D2784-63001	D2784-69001
	SCSI-3 2.1 GB (D2788A)	D2788-63001	D2788-69001
	SCSI-3 4.5 GB (D2794A)	D2794-63001	D2794-69001
5	IDE hard disk cable	5182-3507	—
6	Rail kit (3 × 5.25 inch)	5063-7961	—
7	Flexible disk drive	D2035-60152	—
8	Flexible disk drive cable	5182-3509	—
9	IDE 8× CD-ROM drive	—	D4381-69001
10	IDE CD-ROM cable	5182-3508	—
11	Power supply	5063-8760	—
12	Fan	3160-1054	—
13	Airflow guide	5042-1484	—
14	Backplane board	5064-0244	—
15	System board	See PC's system board parts list	
16	Matrox Millennium video board Rev. 6.00	5064-0285	D3568-69006
17	Audio board	5063-9057	—
18	CD-ROM to Audio Board cable	5182-1857	—
19	Headphones	5182-3552	—
20	Internal speaker	5063-4559	—
21	Mouse	C3751-60201	—
22	10/100 BT Ethernet PCI Network card	5064-1802	
23	Internal network cable	5182-5403	
24	SCSI-3 interface board	5064-1823	
25	Internal SCSI cable	5183-0731	
	Keyboard	C3758-602xx ²	—

- For optional disk drive information, see the *Accessory Service Handbook*.
- Where "xx" is the code for your national keyboard (see the *Accessory Service Handbook*).



HP Vectra XA 6/xxx MT PC Series

System Board Parts List for HP Vectra XA 6/xxx MT PC

Description	Repl. Part Number	Exchange Part Number
System board:		
Vectra XA 6/xxx system board ¹	D4205-60001 D4205-60002	D4205-69001 D4205-69002
Processors:		
Intel Pentium Pro (P6) 200 MHz (3.3 V)	5063-8756	—
Thermal interface material	6040-0939	—
Heatsink and clip	1205-1170	—
Main memory modules²:		
2 × 16-MB main memory 60-ns EDO RAM	D3648-63001	—
Video memory module:		
2 MB video memory module	D3557-63002	—
Batteries:		
External battery	1420-0552	—
3 V system board battery (type CR2032)	1420-0356	—

1. D4205-6x001 supports Pentium Pro 3.3 V only. D4205-6x001 supports Pentium Pro 3.3 V and 3.5 V.
2. Memory modules must be installed in identical pairs, so that each bank with memory installed contains two memory modules of the same type and size.

Software for HP Vectra XA 6/xxx MT PC

NT, OS/2 and Windows 95 drivers: <i>HP Vectra VA and XA Drivers</i> CD-ROM	5011-3831
Multimedia software	5964-8365
DOS and Windows 3.x drivers: available from HP BBS or WWW	—

Manuals and Documentation for HP Vectra XA 6/xxx MT PC

<i>User's Guide</i> (Setting up the PC and Troubleshooting)	D4708A
<i>HP Help</i> (Using the PC and Technical information)	online ¹
<i>Familiarization Guide</i>	D4200-90901
<i>Technical Reference Manual: hardware and BIOS</i>	No number ¹

1. Electronic file only.

Mini-Tower Vectras



HP Vectra XA 6/xxx MT PC Series 7-9

HP Vectra XA 5/xxx PC

Models and Accessories

Product Number	Hard Drive	Video Controller	Std. RAM ¹	Multi-media	LAN	OS
Vectra XA 5/xxx PC						
HP Vectra XA 5/133 PC (CPL: 3/97 ▶)						
D3985A	2.5 GB IDE (D2786A)	Matrox MGA Millennium board (2 MB, upgradeable to 4 or 8 MB)	16 MB EDO 60 ns	8× IDE CD-ROM (D4381A) + ISA Audio Board (D4179A)	no	WfW 3.11 or W'95
D3986A	1.6 GB IDE (D4621-60001)			no	Ethernet 10/100 BT PCI board	
D3987A	2.5 GB IDE (D2786A)			8× IDE CD-ROM (D4381A) + ISA Audio Board (D4179A)		
HP Vectra XA 5/166 PC (CPL: 3/97 ▶)						
D3988A	none	Matrox MGA Millennium board (2 MB, upgradeable to 4 or 8 MB)	16 MB EDO 60 ns	no	Ethernet 10/100 BT PCI board	none
D3989A	1.6 GB IDE (D4621-60001)			8× IDE CD-ROM (D4381A) + ISA Audio Board (D4179A)		
D3989A						
D3990A	2.5 GB IDE (D2786A)			24× IDE CD-ROM (D4383A) + ISA Audio Board	no	WfW 3.11 or W'95
D3990T						
D3991N				32 MB EDO 60 ns	8× IDE CD-ROM (D4381A) + ISA Audio Board (D4179A)	NT 4.0 WS
D3992A				16 MB EDO 60 ns		no

1. All models have 512 KB of level-two cache memory integrated on the system board.

Medium-Profile
Desktop Vectras



HP Vectra XA 5/xxx PC 8-1

HP Vectra XA 5/xxx PC

Product Number	Hard Drive	Video Controller	Std. RAM ¹	Multi-media	LAN	OS
HP Vectra XA 5/166 PC (continued)						
D5370A²	1.6 GB IDE (D4621-60001)	Matrox MGA Millennium board (2 MB, upgradeable to 4 or 8 MB)	16 MB EDO 60 ns	no	Ethernet 10/100 BT PCI board	WfW 3.11 or W'95
D5371A²	2.5 GB IDE (D2786A)			8× IDE CD-ROM (D4381A) + ISA Audio Board (D4179A)		
HP Vectra XA 5/200 MMX PC (CPL: 3/97 ▶)						
D3993A	2.5 GB IDE (D2786A)	Matrox MGA Millennium board (2 MB, upgradeable to 4 or 8 MB)	16 MB EDO 60 ns	8× IDE CD-ROM (D4381A) + ISA Audio Board (D4179A)	Ethernet 10/100 BT PCI board	WfW 3.11 or W'95
D3993T				24× IDE CD-ROM (D4383A) + ISA Audio Board		
HP Vectra XA 5/233 MMX PC (CPL: 06/97 ▶)						
D5373N	2.5 GB IDE (D2786A)	Matrox MGA Millennium board (2 MB, upgradeable to 4 or 8 MB)	16 MB EDO 60 ns	8× IDE CD-ROM (D4381A) + ISA Audio Board (D4179A)	Ethernet 10/100 BT PCI board	NT 4.0 WS

1. All models have 512 KB of level-two cache memory integrated on the system board.
2. D5370A and D5371A feature a P54C (non-MMX) processor. The other 166 and 200 MHz models feature a P55C MMX processor.



Supported Accessories

8 MB (2 × 4 MB), 32-bit EDO, 60 ns memory module	D3646B
16 MB (2 × 8 MB), 32-bit EDO, 60 ns memory module	D3647B
32 MB (2 × 16 MB), 32-bit EDO, 60 ns memory module	D3648B
64 MB (2 × 32 MB), 32-bit EDO, 60 ns memory module	D4543A
2-MB video memory upgrade kit	D3557B
512 KB synchronous cache memory module	D4599A

Documentation

<i>User's Guide</i> Manual Kit	D3984A
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Input Devices

HP mouse	C3751B
HP keyboard for Windows® 95	C4725A

Video Displays

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

Mass Storage

2.5-GB IDE hard disk	D2786A
1.2-GB IDE hard disk	D2785A
4.3-GB IDE hard disk	D2677A
2.5-GB IDE hard disk	D2678A
1.6-GB IDE hard disk	D2679A
100 MB Zip disk drive	D4390A
8× CD-ROM drive (IDE)	D4381A
24× CD-ROM drive (IDE)	D4383A
3.5-inch side mounting rails (packs of 5 pairs)	D3566A
5.25-inch side mounting rails (packs of 5 pairs)	D2880A

Multimedia

Multimedia sound accessory kit (8× CD-ROM drive, Plug-and-Play ISA audio board, headphones)	D4179A
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HP Vectra XA 5/xxx PC

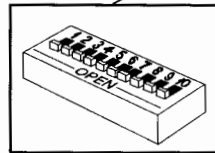
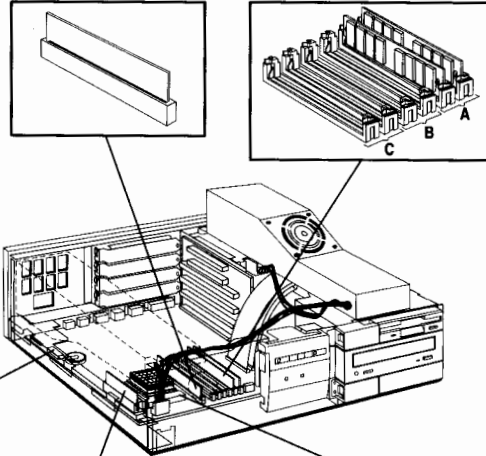
System Board, BIOS, and Memory

Cache Memory:

1 socket containing a 512 KB module.

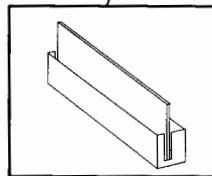
Main Memory:

1 bank containing a pair of 8 MB or 16 MB modules. Install pairs of identical modules in each bank, up to a maximum of 192 MB.



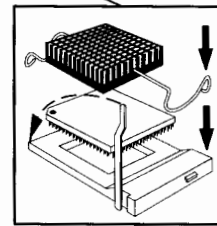
System Board Switches:

Toggle switch 10 to make the BIOS identify the product correctly after a system board repair.



VRM and Processor:

Always install the VRM that is supplied with the processor.



System Board Switches

Switch		Function	Default
1-4,8	-	Processor frequency, see the following table	-
5	Open	Normal operation	Open
	Closed	Clears User and Administrator passwords	
6	Open	Normal operation	Open
	Closed	Clears CMOS (to reload the <i>Setup</i> program defaults)	
7	Open	For processor bus speed of 50 MHz	Closed
	Closed	Normal operation	
9	Open	Disables keyboard power-on	Closed
	Closed	Normal operation	
10	Open	Normal operation	Open
	Closed	Clears product identification field	



Switch		Local Bus Frequency	Switch			Frequency Ratio Processor : Local Bus	Processor Frequency
1	2		3	4	8		
Open	Closed	66 MHz	Closed	Open	Closed	2 : 1	133 MHz
Closed	Open	60 MHz	Closed	Closed	Closed	2.5 : 1	150 MHz ¹
Open	Closed	66 MHz	Closed	Closed	Closed	2.5 : 1	166 MHz
Open	Closed	66 MHz	Open	Closed	Closed	3 : 1	200 MHz
Open	Closed	66 MHz	Open	Open	Open	3.5 : 1	233 MHz

1. The 150 MHz option is not yet available in any model of the HP Vectra XA 5/xxx PC at the time of printing. This information is provided for completeness only.

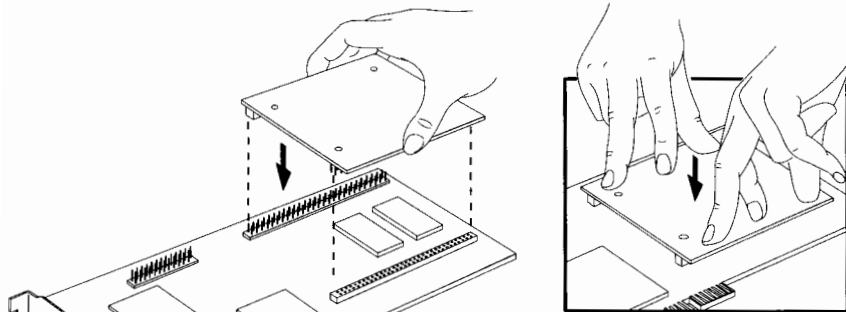
BIOS History

For the latest BIOS, the flasher utility program, and the BIOS history refer to the information that is provided on the HP Electronic Services.

1st release for XA 5/xxx	HA.07.03
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Video Memory Upgrade Installation

The PC is supplied with 2 MB of video memory. A 2 MB video memory upgrade module can be ordered from HP (D3557B), or a 6 MB module can be ordered from Matrox (MGA-MIL/MOD6).



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Switch	Function
1	· OFF to prevent Video BIOS upgrades - DEFAULT · ON to allow Video BIOS upgrades
2	· OFF for single-screen operation - DEFAULT · ON for dual-screen operation (with second VGA controller)

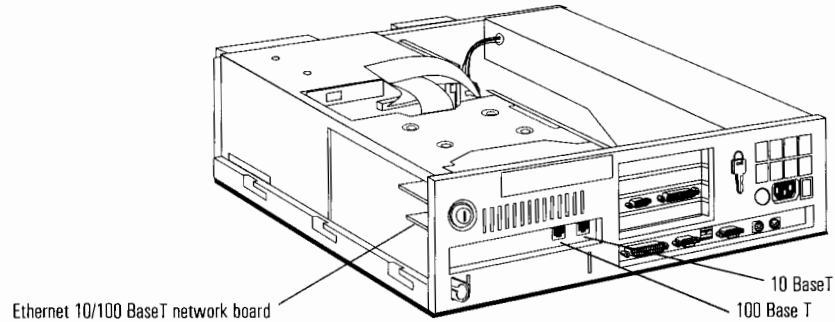
Medium-Profile Desktop Vectras



HP Vectra XA 5/xxx PC

Ethernet 10/100 BaseT Network Connections

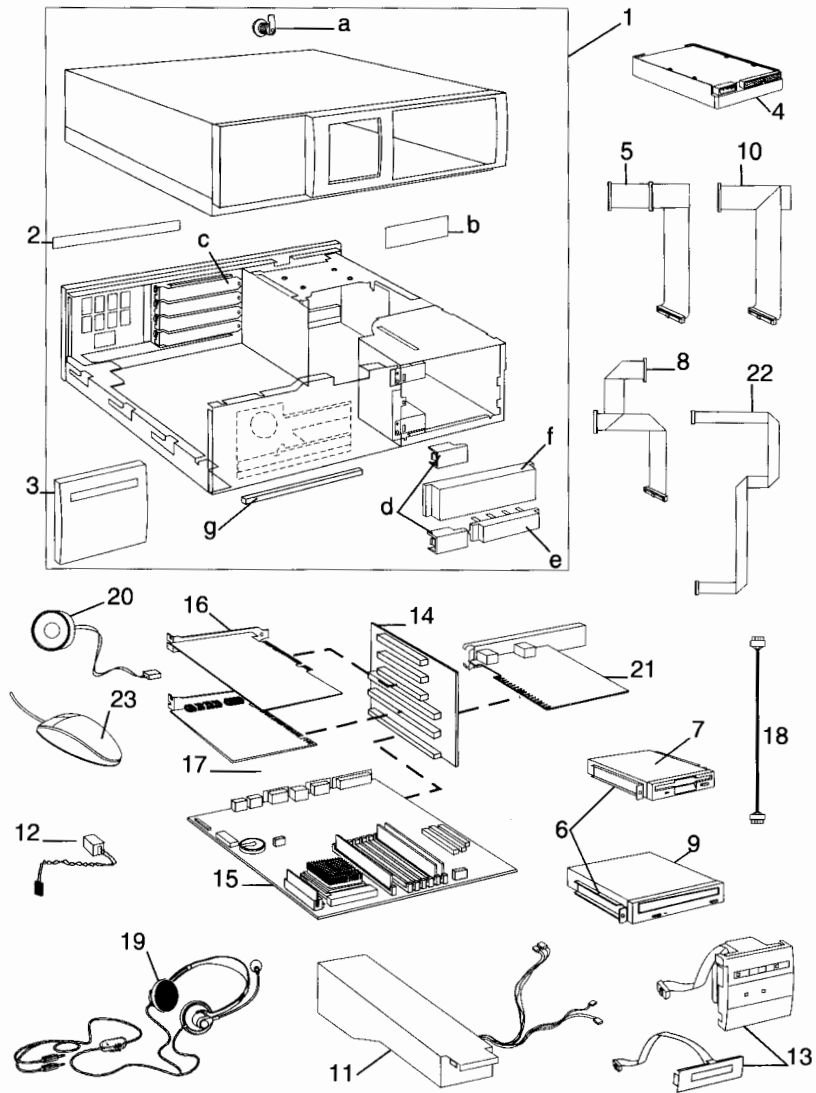
The Ethernet 10/100 BaseT network board is installed underneath the internal, hard disk drive, rear-shelf. It is plugged into the PCI accessory slot that is situated on the right-hand side of the double-sided backplane board.



The board has two RJ-45 UTP network connectors. One supports 10 Mbit/s operation over a 10 BaseT network, and supports Remote Power-On (RPO). The other supports 100 Mbit/s operation over a 100 BaseT network. The 100 BaseT connector is not supported for use on a 10 BaseT network.



Part Numbers



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Medium-Profile
Desktop Vectras



HP Vectra XA 5/xxx PC 8-7

HP Vectra XA 5/xxx PC

Parts List for HP Vectra XA 5/xxx PC

Item	Description	Repl. Part Number	Exchange Part Number
1	Box assembly:	5064-0215	—
	a Cover lock assembly	5062-5590	
	b Serial number label	5182-0030	
	c I/O panel blank	45935-00004	
	d Filler panel 1.75 inch	5042-1155	
	e Filler panel 3.5 inch	5063-7067	
	f Filler panel 5.25 inch	5063-7066	
	g System board guide	5042-0507	
2	Rear bezel connector label	5042-1480	—
3	XA logo	5042-1832	—
4	IDE hard disk drive (standard) ¹		
	1.6 GB	D4621-63001	D4621-69001
	2.5 GB	D2784-63001	D2784-69001
5	IDE hard disk cable	5182-1862	—
6	Rail kit (1 × 3.5 inch, 1 × 5.25 inch)	5063-7922	—
7	Flexible disk drive	D2035-60152	—
8	Flexible disk drive cable	5182-1037	—
9	IDE 8× CD-ROM drive	D4381-63001	D4381-69001
	IDE 24× CD-ROM drive	D4383-63001	D4383-69001
10	IDE CD-ROM cable	5182-1856	—
11	Power supply	5063-7943	—
12	4.5V external battery	1420-0513	—
13	Status panel	5063-9018	—
	Sound control panel	5064-0279	—
14	Double-sided backplane board	5063-9093	—
15	System board	See PC's system board parts list	
16	Matrox Millennium video board Rev.600	5064-0285	D3568-69006
17	Audio board	5063-9057	—
18	CD-ROM to Audio Board cable	5182-1857	—
19	Headphones	5182-3552	—
20	Internal speaker	5063-4559	—
21	Ethernet 10/100 BaseT PCI network board	5064-1802	—
22	Internal network cable	5183-0758	—
23	Mouse	C3751-60201	—
	Keyboard	C3758-602xx ²	—

1. For optional disk drive information, see the *Accessory Service Handbook*.
2. Where "xx" is the code for your national keyboard (see the *Accessory Service Handbook*).



System Board Parts List for HP Vectra XA 5/xxx PC

Description	Repl. Part Number	Exchange Part Number
System board:		
Vectra XA 5/xxx system board	D3835-60001	D3835-69001
Processors:		
Intel Pentium P54CS 133 MHz (VCC)	5063-7974	—
Intel Pentium P54C 166 MHz (VRE)	5063-9049	—
Intel Pentium P55C 166 MHz (MMX)	5064-1819	—
Intel Pentium P55C 200 MHz (MMX)	5064-1820	—
Intel Pentium P55C 233 MHz (MMX)	5064-2656	—
Voltage regulator module (VRM) P54 (VCC) shorting block	5063-7939	—
Voltage regulator module (VRM) P54 (VRE)	5064-1847	—
Voltage regulator module (VRM) P55 (MMX)	0950-3188	—
Thermal interface material	6040-0940	—
Heat-sink and clip	1205-0832	—
Cache memory modules (pipeline burst)		
512 KB synchronous cache memory	D4599-63001	—
Main memory modules:		
2 × 8-MB main memory 60-ns EDO RAM	D3647-63001	—
2 × 16-MB main memory 60-ns EDO RAM	D3648-63001	—
Video memory module:		
2 MB Matrox video memory (WRAM) upgrade kit (D3557B)	D3557-63002	—
Batteries:		
3 V system board battery (type 2335)	1420-0314	—

Manuals and Documentation for HP Vectra XA 5/xxx PC

<i>User's Guide</i> (order product number)	D3984A #ABA
<i>Familiarization Guide</i>	D3984-90901
<i>Technical Reference Manual: hardware and BIOS</i>	D3984-90911 ¹

1. Electronic file only.



HP Vectra XA 5/xxx PC

Software for HP Vectra XA 5/xxx PC

Multimedia CD-ROM	5964-8365
Video diskette kit (containing eight 3.5-inch diskettes)	5064-1855
Network diskette kit (containing two 3.5-inch diskettes)	5064-2614

Notes: _____

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HP Vectra XA 5/xxx MT PC Series

Models and Accessories

Product Number	Hard Drive	Video Controller	Std. RAM ¹	Multi-media	LAN	OS
Vectra XA 5/xxx MT PC						
HP Vectra XA 5/166 MT PC (CPL: 3/97 ▶)						
D3994N	2.5 GB IDE (D2786A)	Matrox MGA Millennium board (2 MB, upgradeable to 4 or 8 MB)	32 MB EDO 60 ns	8× IDE CD-ROM (D4381A) + ISA Audio Board (D4179A)	Ethernet 10/100 BT PCI board	NT 4.0 WS
D5372A				no		WfW 3.11 or W'95
D5376A						
HP Vectra XA 5/200 MT PC (CPL: 3/97 ▶)						
D3995N	2.5 GB IDE (D2786A)	Matrox MGA Millennium board (2 MB, upgradeable to 4 or 8 MB)	32 MB EDO 60 ns	8× IDE CD-ROM (D4381A) + ISA Audio Board (D4179A)	Ethernet 10/100 BT PCI board	NT 4.0 WS
HP Vectra XA 5/233 MT PC (CPL: 6/97 ▶)						
D5374N	2.5 GB IDE (D2786A)	Matrox MGA Millennium board (2 MB, upgradeable to 4 or 8 MB)	32 MB EDO 60 ns	8× IDE CD-ROM (D4381A) + ISA Audio Board (D4179A)	Ethernet 10/100 BT PCI board	NT 4.0 WS

1. All models have 512 KB of level-two cache memory integrated on the system board.

Note

Models with Windows NT 4.0 operating system feature a P55C MMX processor. Models with Windows 95 operating system feature a P54C standard processor.



HP Vectra XA 5/xxx MT PC Series

Supported Accessories

8 MB (2 × 4 MB), 32-bit EDO, 60 ns memory module	D3646B
16 MB (2 × 8 MB), 32-bit EDO, 60 ns memory module	D3647B
32 MB (2 × 16 MB), 32-bit EDO, 60 ns memory module	D3648B
64 MB (2 × 32 MB), 32-bit EDO, 60 ns memory module	D4543A
2-MB video memory upgrade kit	D3557B
512 KB synchronous cache memory module	D4599A

Documentation

<i>User's Guide</i> Manual Kit	D3985A
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Input Devices

HP mouse	C3751B
HP keyboard for Windows® 95	C4725A

Video Displays

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

Mass Storage

2.5-GB IDE hard disk	D2786A
4.3-GB IDE hard disk	D2677A
2.5-GB IDE hard disk	D2678A
1.6-GB IDE hard disk	D2679A
8× CD-ROM drive (IDE)	D4381A
24× CD-ROM drive (IDE)	D4383A
100 MB Zip disk drive	D4390A
3.5-inch side mounting rails (packs of 5 pairs)	D3566A
5.25-inch side mounting rails (packs of 5 pairs)	D2880A

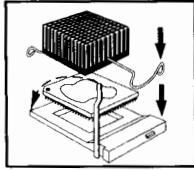
Multimedia

Multimedia sound accessory kit (8× CD-ROM drive, Plug-and-Play ISA audio board, headphones)	D4179A
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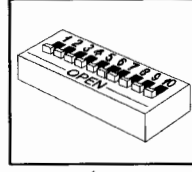
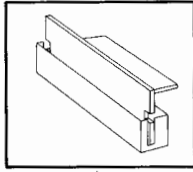


System Board, BIOS, and Memory

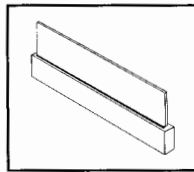
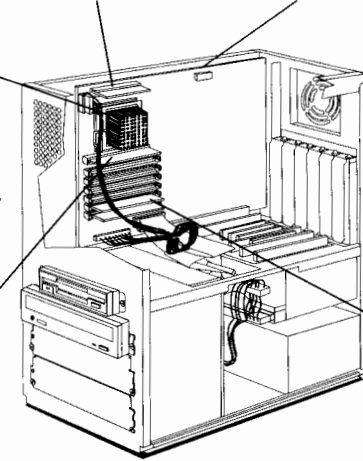
VRM: Always use the VRM that is supplied with the processor.



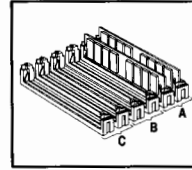
Processor: Never remove the thermal interface material between the processor and the heatsink.



System Board Switches: Toggle switch 10 to make the BIOS identify the product correctly after a system board repair.



Cache Memory: 1 socket containing a 512 KB module.



Main Memory: 1 bank containing a pair of 16 MB modules. Install pairs of identical modules in each bank, up to a maximum of 192 MB.

System Board Switches

Switch		Function	Default
1-4,8	-	Processor frequency, see the following table	-
5	Open	Normal operation	Open
	Closed	Clears User and Administrator passwords	
6	Open	Normal operation	Open
	Closed	Clears CMOS (to reload the <i>Setup</i> program defaults)	
7	Open	For processor bus speed of 50 MHz	Closed
	Closed	Normal operation	
9	Open	Disables keyboard power-on	Closed
	Closed	Normal operation	
10	Open	Normal operation	Open
	Closed	Clears product identification field	

Mini-Tower Vectras



HP Vectra XA 5/xxx MT PC Series 9-3

HP Vectra XA 5/xxx MT PC Series

Switch		Local Bus Frequency	Switch			Frequency Ratio Processor : Local Bus	Processor Frequency
1	2		3	4	8		
Open	Closed	66 MHz	Closed	Open	Closed	2 : 1	133 MHz ¹
Closed	Open	60 MHz	Closed	Closed	Closed	2.5 : 1	150 MHz ¹
Open	Closed	66 MHz	Closed	Closed	Closed	2.5 : 1	166 MHz
Open	Closed	66 MHz	Open	Closed	Closed	3 : 1	200 MHz
Open	Closed	66 MHz	Open	Open	Open	3.5 : 1	233 MHz

1. The 133 MHz, 150 MHz options are not yet available in any model of the HP Vectra XA 5/xxx MT PC at the time of printing. This information is provided for completeness only.

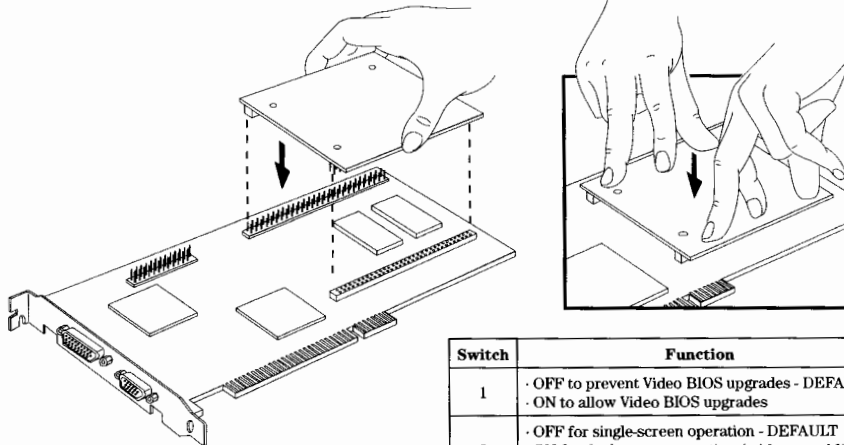
BIOS History

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/vectra/support>).

1st release for XA 5/xxx MT	HA.07.03
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Matrox Millennium Video Memory Upgrade

Some models of the PC are supplied with 2 MB of video memory. A 2 MB video memory upgrade module can be ordered from HP (**D3557B**), or a 6 MB module can be ordered from Matrox.

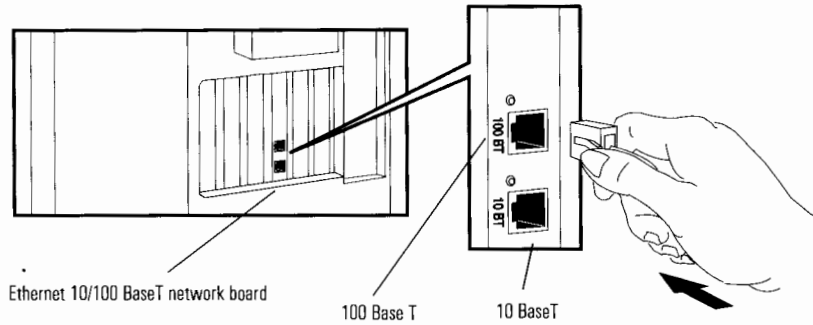


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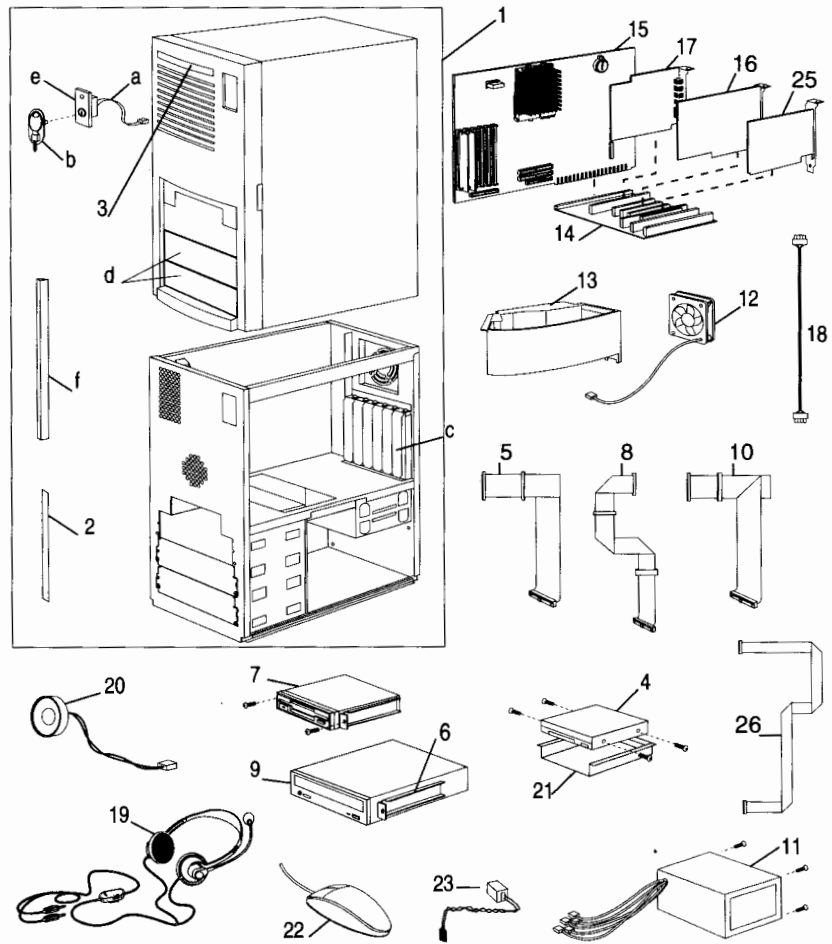


Ethernet 10/100 BaseT Network Connections

The Ethernet 10/100 BaseT network board is installed underneath the internal, hard disk drive, rear-shelf. It is plugged into the PCI accessory slot that is situated on the right-hand side of the double-sided backplane board. The board has two RJ-45 UTP network connectors.



Part Numbers



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HP Vectra XA 5/xxx MT PC Series

Parts List for HP Vectra XA 5/xxx MT PC

Item	Description	Repl. Part Number	Exchange Part Number
1	Box assembly:	5064-0236	—
	a Power switch and cable	5063-8737	
	b Cover lock assembly	5062-5590	
	c I/O panel blank	45935-00004	
	d Filler panel 5.25 inch	5042-1178	
	e Lock panel	5064-1880	
	f System board guide	5042-0507	
2	Rear bezel connector label	5042-1480	—
3	XA logo	5042-1498	—
4	IDE hard disk drive (standard) ¹ 2.5 GB	D2784-63001	D2784-69001
5	IDE hard disk cable	5182-3507	—
6	Rail kit (3 × 5.25 inch)	5063-7961	—
7	Flexible disk drive	D2035-60152	—
8	Flexible disk drive cable	5182-3509	—
9	IDE 8× CD-ROM drive	D4381-63001	D4381-69001
	IDE 24× CD-ROM drive	D4383-63001	D4383-69001
10	IDE CD-ROM cable	5182-3508	—
11	Power supply	0950-2998	—
12	Fan	3160-1054	—
13	Airflow guide	5042-2454	—
14	Backplane board	5064-0244	—
15	System board	See PC's system board parts list	
16	Matrox Millennium video board Rev. 6.00	5064-0285	D3568-69006
17	Audio board	5063-9057	—
18	CD-ROM to Audio Board cable	5182-1857	—
19	Headphones	5182-3552	—
20	Internal speaker	5063-4559	—
21	Hard disk drive tray	5002-1946	—
22	Mouse	C3751-60201	—
	Keyboard	C3758-602xx ²	—
23	4.5V external battery	1420-0513	—
25	Ethernet 10/100 BaseT PCI network board	5064-1802	—
26	Internal network cable	5183-0758	—

1. For optional disk drive information, see the *Accessory Service Handbook*.
2. Where "xx" is the code for your national keyboard (see the *Accessory Service Handbook*).

Mini-Tower Vectras



HP Vectra XA 5/xxx MT PC Series 9-7

HP Vectra XA 5/xxx MT PC Series

System Board Parts List for HP Vectra XA 5/xxx MT PC

Description	Repl. Part Number	Exchange Part Number
System board:		
Vectra XA 5/xxx system board	D3835-60001	D3835-69001
Processors:		
Intel Pentium P54C 166 MHz (VRE)	5063-9049	—
Intel Pentium P55C 166 MHz (MMX)	5064-1819	—
Intel Pentium P55C 200 MHz (MMX)	5064-1820	—
Intel Pentium P55C 233 MHz (MMX)	5064-2656	—
Voltage regulator module (VRM) P54 (VRE)	5064-1847	—
Voltage regulator module (VRM) P55 (MMX)	0950-3188	—
Thermal interface material	6040-0940	—
Heat-sink and clip	1205-0832	—
Cache memory modules (pipeline burst)		
512 KB synchronous cache memory	D4599-63001	—
Main memory modules:		
2 × 16-MB main memory 60-ns EDO RAM	D3648-63001	—
Video memory module:		
2 MB Matrox video memory (WRAM) upgrade kit (D3557B)	D3557-63002	—
Batteries:		
3 V system board battery (type 2335)	1420-0314	—

Manuals and Documentation for HP Vectra XA 5/xxx MT PC

<i>User's Guide</i> (order product number)	D3985A #ABA
<i>Familiarization Guide</i>	D3984-90901
<i>Technical Reference Manual: hardware and BIOS</i>	D3984-90911 ¹

1. Electronic file only.

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Software for HP Vectra XA 5/xxx MT PC

Multimedia CD-ROM	5964-8365
Video diskette kit (containing eight 3.5-inch diskettes)	5064-1855
Network diskette kit (containing two 3.5-inch diskettes)	5064-2614



HP Vectra XM 5/xxx Series 4 PC

Models and Accessories

Product Number	Flexible Drive A:	Hard Drive C:	Disk and Video Controllers ¹	Std. RAM	Cache	Multi-Media
Vectra XM 5/xx Series 4 PC						
HP Vectra XM 5/75 series 4 PC (CPL: 04/96; discontinued: 12/96)						
D3961A	1.44 MB (D2035B)	None	Enhanced IDE disk controller integrated on PCI bus	S3 Trio 64 Integrated Ultra VGA	8 MB	No
D3962A		840 MB (D2908-60103)				
D3963A		1.2 GB (D2930A)				
HP Vectra XM 5/100 Series 4 PC (CPL: 04/96; discontinued: 12/96)						
D3964A	1.44 MB (D2035B)	None	Enhanced IDE disk controller integrated on PCI bus	S3 Trio 64 Integrated Ultra VGA	8 MB	No
D3965A		840 MB (D2908-60103)				
D3966A		1.2 GB (D2930A)				
D4222A					16 MB	Yes
HP Vectra XM 5/120 Series 4 PC (CPL: 04/96; discontinued: 04/97)						
D3967A	1.44 MB (D2035B)	None	Enhanced IDE disk controller integrated on PCI bus	S3 Trio 64 Integrated Ultra VGA	16 MB	Yes
D3968A		840 MB (D2908-60103)				Yes
D3975A		1.2 GB (D2930A)				Yes
D3975S ²						Yes

- All models have an Enhanced IDE disk controller and an S3 Trio 64 Ultra VGA integrated on the system board, and an Ethernet 10 BaseT Network board installed on the right-hand side of the backplane board.
- Pre-loaded with OS/2 instead of Windows, discontinued in 12/96.

Medium-Profile
Desktop Vectras

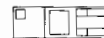


HP Vectra XM 5/xxx Series 4 PC 10-1

HP Vectra XM 5/xxx Series 4 PC

Product Number	Flexible Drive A:	Hard Drive C:	Disk and Video Controllers ¹	Std. RAM	Cache	Multi-Media	
HP Vectra XM 5/133 Series 4 PC (CPL: 04/96; discontinued: 04/97)							
D3970A	1.44 MB (D2035B)	None	Enhanced IDE disk controller integrated on PCI bus	S3 Trio 64 Integrated Ultra VGA	16 MB	Yes	No
D3977A		1.2 GB (D2930A)					
D4223A		850 MB (D2908-60103)					No
D4228A		1.2 GB (D2930A)					
HP Vectra XM 5/150 Series 4 PC (CPL: 04/96; discontinued: 04/97)							
D3972A	1.44 MB (D2035B)	None	Enhanced IDE disk controller integrated on PCI bus	S3 Trio 64 Integrated Ultra VGA	16 MB	Yes	No
D3978A		1.2 GB (D2930A)					

1. All models have an Enhanced IDE disk controller and an Ethernet 10 BaseT Network board installed on the right-hand side of the backplane board.
2. Includes PnP audio board, 8x IDE CD-ROM drive, headphones, audio software and audio documentation.

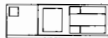


HP Vectra XM 5/xxx Series 4 PC

Product Number	Flexible Drive A:	Hard Drive C:	Disk and Video Controllers ¹		Std. RAM	Cache	Multi-Media
HP Vectra XM 5/166 Series 4 PC (CPL: 04/96; discontinued: 04/97)							
D4220A	1.44 MB (D2035B)	None	Enhanced IDE disk controller integrated on PCI bus	S3 Trio 64 Integrated Ultra VGA	16 MB	Yes	No
D4221A		1.2 GB (D2930A)		Matrox Graphics Accelerator (2 MB, upgradable to 4 MB or 8 MB)			
D4224A		2.5 GB (D2784-60001)					Yes ²
HP Vectra XM 5/200 Series 4 PC (CPL: 09/96; discontinued: 04/97)							
D4225A	1.44 MB (D2035B)	None	Enhanced IDE disk controller integrated on PCI bus	Matrox Graphics Accelerator (2 MB, upgradable to 4 MB or 8 MB)	16 MB	Yes	No
D4226A		1.2 GB (D2930A)					
D4227A		2.5 GB (D2784-60001)					Yes ²

1. All models have an Enhanced IDE disk controller and an Ethernet 10 BaseT Network board installed on the right-hand side of the backplane board.
2. Includes PnP audio board, 8x IDE CD-ROM drive, headphones, audio software and audio documentation.

Medium-Profile
Desktop Vectras



HP Vectra XM 5/xxx Series 4 PC 10-3

HP Vectra XM 5/xxx Series 4 PC

Supported Accessories

1 MB video memory upgrade kit	D3500A
2 MB video memory upgrade kit for Matrox MGA Millennium	D3557A/B
8 MB (2 × 4 MB), 32-bit EDO, 60 ns memory module	D3646B
16 MB (2 × 8 MB), 32-bit EDO, 60 ns memory module	D3647B
32 MB (2 × 16 MB), 32-bit EDO, 60 ns memory module	D3648B
64 MB (2 × 32 MB), 32-bit EDO, 60 ns memory module	D4543A
32 MB, 32-bit FPM, 70 ns memory module (install two of these at a time, so making 64 MB)	D3578A
512 KB synchronous cache memory module	D4599A
256 KB synchronous cache memory module	D3659A/B
256 KB asynchronous cache memory module	D4049A
<i>User's Guide</i> manual kit	D3960A

Multimedia Products

Audio/CD multimedia kit	D3567B
Multimedia sound accessory (PnP)	D4179A

Input Devices

HP mouse (HP/Logitech)	C3751B
HP keyboard for Windows® 95	C4725A

Video Displays

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

Mass Storage

540 MB IDE hard disk	D2918A
840 MB IDE hard disk	D2925A
1 GB IDE hard disk	D2919A
1.2 GB IDE hard disk	D2930A
Flexible disk 3.5-inch 1.44 MB (1-inch high)	D2035B
IDE 4× CD-ROM drive	D2896B
IDE 8× CD-ROM drive	D4381A
3.5-inch side mounting rails (packs of 5 pairs)	D3566A
5.25-inch side mounting rails (packs of 5 pairs)	D2880A
100 MB IDE Zip drive	D4390A

Datacomm and Network Boards

BNC Coax adapter for the Ethernet 10 BaseT Network board	D3979A
10/100 VG Selectable PCI LAN Adapter board	J2585B
10/100 VG Selectable ISA LAN Adapter board	J2573A

10

10-4 HP Vectra XM 5/xxx Series 4 PC

Medium-Profile
Desktop Vectras

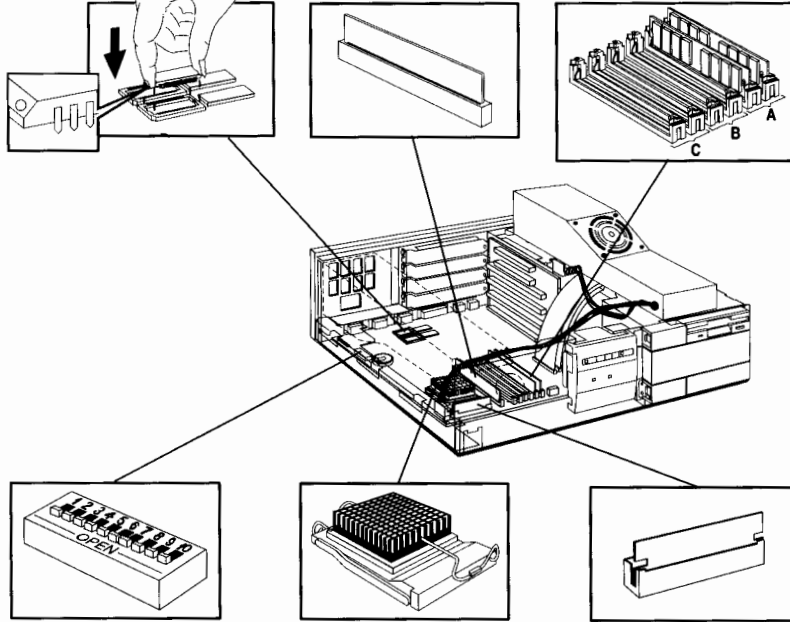


System Board, Memory, and Switches

Video Memory¹:
One pair of sockets for the 1 MB (D3500A) upgrade (taking the 1 MB already fitted to the maximum capacity of 2 MB).

Cache Memory:
1 socket containing a 256 KB module, on the 120 MHz, and faster, models; empty socket, for an upgrade module, on the 100 MHz, and slower, models.

Main Memory:
8 MB or 16 MB, depending on model, fitted as standard. Install pairs of identical modules in each bank, up to a maximum of 128 MB. Use only 4 MB or 16 MB modules in bank C.



System Board Switches:
Set switches 1,2,3,4 & 7 when upgrading the Pentium processor².

Processor:
Zero Insertion Force (ZIF) socket allows Pentium processor upgrades.

Voltage Regulator Module (VRM):
must match the Pentium processor voltage requirement, as indicated in the system board parts list.

¹ Applies only to models with integrated video controller.

² You do not need to change these switches when upgrading from a normal processor to an overdrive processor.



HP Vectra XM 5/xxx Series 4 PC

System Board Switches

Switch	Function	Default
1-4	-	Processor frequency, see following table
5	Open	Enables User and Administrator passwords
	Closed	Clears User and Administrator passwords
6	Open	Normal operation
	Closed	Clears CMOS
7	-	Processor frequency, see following table
8	Open	Disables secure mode
	Closed	Enables secure mode - prevents modification of <i>Setup</i> values and flashing of BIOS
9	Open	Disables keyboard power-on
	Closed	Enables keyboard power-on
10	Open	Not used

Switch		Local Bus Frequency	Switch			Frequency Ratio Processor : Local Bus	Processor Frequency
1	2		3	4	7		
Closed	Closed	50 MHz	Open	Open	Open	1.5 : 1	75 MHz
Closed	Open	60 MHz	Open	Open	Closed	1.5 : 1	90 MHz ¹
Open	Closed	66 MHz	Open	Open	Closed	1.5 : 1	100 MHz
Closed	Open	60 MHz	Closed	Open	Closed	2 : 1	120 MHz
Open	Closed	66 MHz	Closed	Open	Closed	2 : 1	133 MHz
Closed	Open	60 MHz	Closed	Closed	Closed	2.5 : 1	150 MHz
Open	Closed	66 MHz	Closed	Closed	Closed	2.5 : 1	166 MHz
Closed	Open	60 MHz	Open	Closed	Closed	3 : 1	180 MHz ¹
Open	Closed	66 MHz	Open	Closed	Closed	3 : 1	200 MHz

1. The 90 MHz and the 180 MHz models are not available for the HP Vectra XM 5/xx series 4 PCs at the time of printing. This information is provided for completeness only.

BIOS History

The latest BIOS, the flasher utility program, and the BIOS history can each be obtained from the HP Electronic Services.



Video Memory

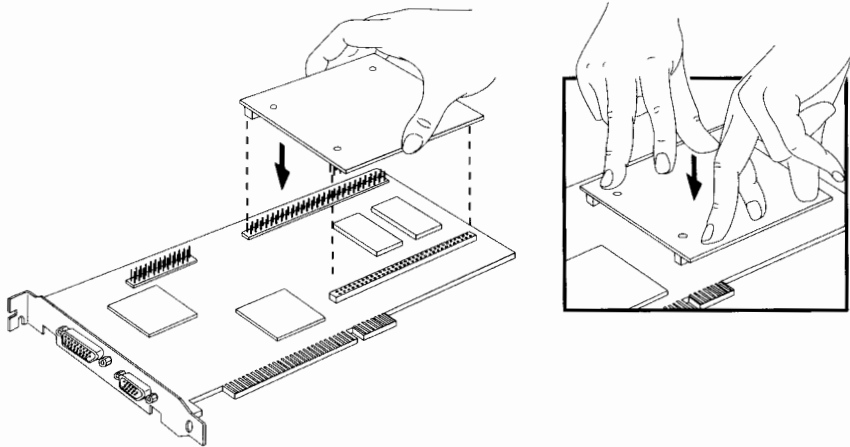
XM 5/xx Series 4 models can have an integrated video controller or a Matrox Millennium video board.

Models with integrated video controller

See the diagram on page 4-5 for 1 MB upgrade kit (D3500A) installation.

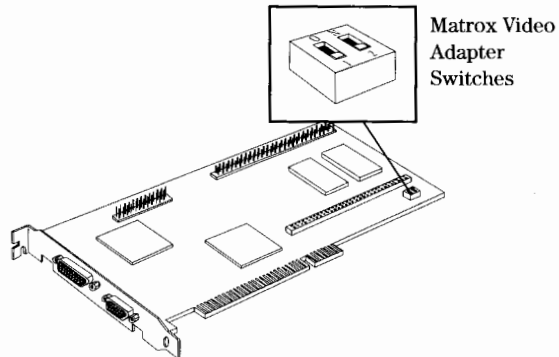
Models with Matrox Millennium board

The models with Matrox Millennium video board have 2 MB of video memory for 1600×1200 in 256 colors. An additional 2 MB of video memory can be installed by adding a D3557A module in the video memory socket; this will make a total of 4 MB for 1600×1200 in 64 K colors. Alternatively, an additional 6 MB of video memory can be installed by adding an MGA-MIL/MOD6 module in the video memory socket (ordered from Matrox); this will make a total of 8 MB for 1600×1200 in 16.7 M colors.



Matrox Video Adapter Flash BIOS and Switches

The Matrox MGA Millennium video adapter board has a Flash BIOS. The video BIOS can therefore be upgraded when updates are made available by Matrox.



Switch	Function
1	<ul style="list-style-type: none">• OFF to prevent Video BIOS upgrades - DEFAULT• ON to allow Video BIOS upgrades
2	<ul style="list-style-type: none">• OFF for single-screen operation - DEFAULT• ON for dual-screen operation (with second VGA controller)

Main Memory

The PC uses 32-bit 60ns EDO main memory modules. Memory modules must be *installed in pairs of identical modules*, otherwise data will be corrupted when stored in the unbalanced parts of the memory. Use only 4 MB and 16 MB modules in bank C; 8 MB or 32 MB modules *can* be installed in bank C, but would only function as 4 MB or 16 MB modules, respectively.

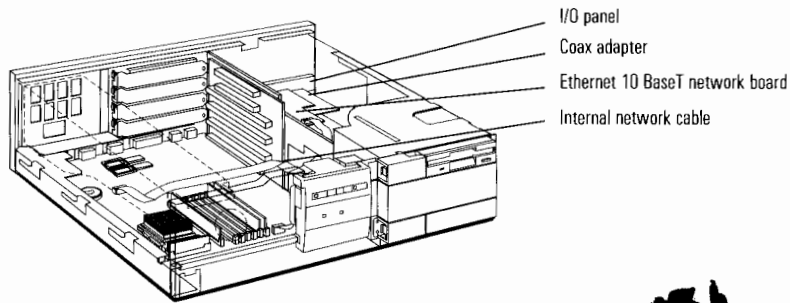
The PC is supplied with 8 MB or 16 MB of main memory (2 × 4 MB or 2 × 8 MB memory modules installed in bank A). The maximum memory capacity is 128 MB.



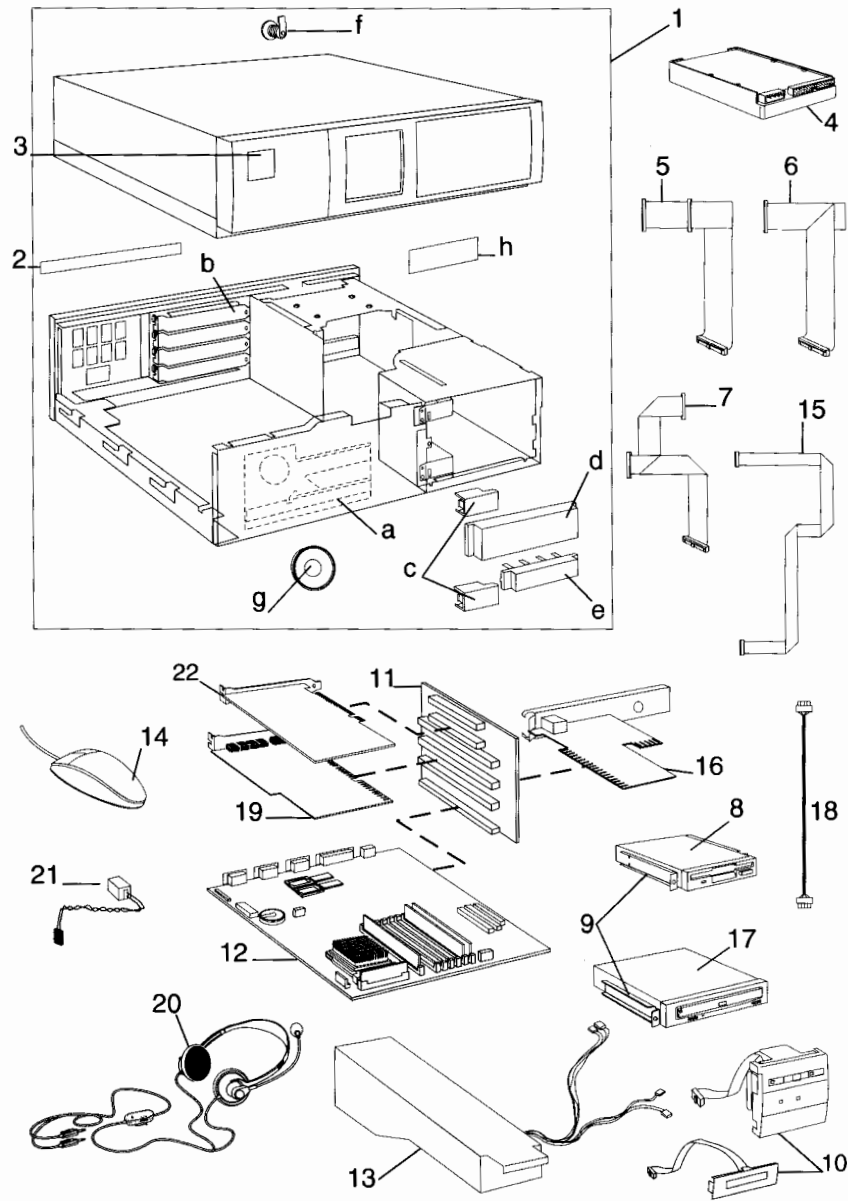
Ethernet 10 BaseT Network Connections

The Ethernet 10 BaseT network board is installed underneath the internal, hard disk drive, rear-shelf. It is plugged into the PCI accessory slot that is situated on the right-hand side of the double-sided backplane board.

The board has an RJ-45 UTP network connector. This emerges through a dedicated I/O panel at the back of the computer, below the cover lock assembly. To install a BNC coax connection, a coax adapter (D3979A) is required as described in the *HP Vectra Accessories Service Handbook*. The I/O panel has a hole in it, for this BNC coax adapter accessory, which is covered by a metal plug when the adapter is not installed.



Part Numbers



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HP Vectra XM 5/xxx Series 4 PC

Parts List for HP Vectra XM 5/xx series 4 PC

Item	Description	Repl. Part Number	Exchange Part Number
1	Box assembly:	5064-0215	—
	a System board side guide	5042-0507	
	b I/O panel blank	45935-00004	
	c Filler panel 1.75 inch	5042-1155	
	d Filler panel 5.25 inch	5063-7066	
	e Filler panel 3.5 inch	5063-7067	
	f Cover lock assembly	5062-5590	
	g Internal speaker (multimedia models)	5063-4559	
	h Serial number label	5182-0030	
	i Bumper foot	02225-00010	
2	Rear bezel connector label	5042-1177	—
3	HP Vectra XM 5/75 series 4 logo	5042-1453	—
	HP Vectra XM 5/100 series 4 logo	5042-1454	—
	HP Vectra XM 5/120 series 4 logo	5042-1455	—
	HP Vectra XM 5/133 series 4 logo	5042-1456	—
	HP Vectra XM 5/150 series 4 logo	5042-1457	—
	HP Vectra XM 5/166 series 4 logo	5042-1809	—
	HP Vectra XM 5/200 series 4 logo	5042-1486	—
4	IDE Hard disk drive (standard) ¹		
	840 MB (D2908-60013)	D2393-63003	D2393-69003
	1.2 GB (D2930A)	D2930-63001	D2930-69001
	2.5 GB	D2784-63001	D2784-69001
5	Hard disk cable (IDE drive)	5182-1862	—
6	CD-ROM cable (IDE drive)	5182-1856	—
7	Flexible disk drive cable	5182-1037	—
8	Flexible disk drive	D2035-60152	—
9	Rail kit (1 × 3.5 inch, 1 × 5.25 inch)	5063-7922	—
10	Status (control) panel	5063-9018	—
	Sound Control Panel	5064-0279	—
11	Double-sided backplane board	5063-9020	—
12	System board	See PC's system board parts list	
13	Power supply assembly (100 W, 3.3 V)	5063-7943	—
14	Mouse	C3751-60201	—
15	Internal network cable	5183-0758	—
16	Ethernet 10 BaseT PCI network board	5063-8790	—

1. For optional disk drive information, see the *Accessory Service Handbook*.

Medium-Profile
Desktop Vectras



HP Vectra XM 5/xxx Series 4 PC 10-11

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HP Vectra XM 5/xxx Series 4 PC

Parts List for HP Vectra XM 5/xx series 4 PC (Continued)

Item	Description	Repl. Part Number	Exchange Part Number
17	IDE 8 × CD-ROM drive ¹	D4381-63001	D4381-69001
18	CD-ROM to sound card audio cable ¹	5182-1857	—
19	SoundBlaster 16 audio board ¹	5063-9057	—
20	Headphones ¹	5182-3552	—
21	4.5V external battery	1420-0513	—
22	Matrox MGA Millennium Video board Rev. 5.00	5063-8798	D3568-69005

1. For the D4381A multimedia kit

System Board Parts List for HP Vectra XM 5/xx series 4 PC

Description	Repl. Part Number	Exchange Part Number
System Board:		
Vectra XM 5/xx series 4 system board <i>with</i> S3 Trio 64 integrated video controller	D3961-63001	D3961-69001
Vectra XM 5/xx series 4 system board <i>without</i> integrated video controller	D3660-63001	D3660-69001
Processors:		
Intel Pentium P54C 75 MHz (VCC)	5063-8786	—
Intel Pentium P54C 100 MHz (VCC)	5063-8787	—
Intel Pentium P54C 120 MHz (VRE)	5063-7089	—
Intel Pentium P54CS 133 MHz (VCC)	5063-7974	—
Intel Pentium P54CS 150 MHz (VCC)	5063-9019	—
Intel Pentium P54CS 166 MHz (VRE)	5063-9049	—
Intel Pentium P54CS 200 MHz (VRE)	5064-0246	—
Heatsink	1205-0832	—
Voltage regulator module shorting block (75/100/133/150 MHz)	5063-7939	—
Voltage regulator module VRE (120/166/200 MHz)	5063-7940	—
Main Memory Module Kits:		
8 MB (2 × 4 MB) main memory 60ns EDO memory kit (32-bit)	D3646-63001	—
16 MB (2 × 8 MB) main memory 60ns EDO memory kit (32-bit)	D3647-63001	—
Cache Memory (D3659B) Module Kit:		
256 KB synchronous cache module	D3659-63002	—



HP Vectra XM 5/xxx Series 4 PC

System Board Parts List for HP Vectra XM 5/xx series 4 PC (Continued)

Description	Repl. Part Number	Exchange Part Number
Video Memory Upgrades:		
1 MB Video Memory Upgrade kit for integrated video controller	D3500-63001	—
2 MB Video Memory Upgrade Kit for Matrox MGA Millennium video adapter board	D3557-63001	—
Batteries:		
3V system board battery	1420-0314 ¹	—

1. You can replace this battery with a Panasonic/Rayovac/Mitsubishi BR2325/BR2335 battery.

Software for HP Vectra XM 5/xx series 4 PC

<i>Drivers and Utilities</i> disk kit (Windows/DOS drivers for models without a hard disk drive)	5063-9021
<i>Matrox video driver</i> disk kit	5063-8719
Sound drivers and utilities CD-ROM	5964-8365

Support Manuals for HP Vectra XM 5/xx series 4 PC

<i>Familiarization Guide</i>	D3960-90901 ¹
<i>Technical Reference Manual: Hardware and BIOS</i>	5964-1466 ¹

1. Printable electronic file only.

Notes: _____



HP Vectra XM 5/xxx Series 3 PC

Models and Accessories

Product Number	Flexible Drive A:	Hard Drive C:	Disk Controller	Video Controller	Std. RAM	Video RAM	Multi-media
Vectra XM 5/xx PC Series 3							
HP Vectra XM 5/75 Series 3 PC (CPL: 07/95; discontinued: 06/96)							
D3480A	1.44 MB (D2035B)	None	Integrated IDE Controller on PCI bus	Integrated Ultra VGA 2, (1 MB, upgradeable to 2 MB)	8 MB	1 MB	No
D3481A		420 MB (D2392- 6xxxx)					
D3482A		840 MB (D2393- 6xxxx)			16 MB		
D3945A							
HP Vectra XM 5/90 Series 3 PC (CPL: 07/95; discontinued: 05/96)							
D3483A	1.44 MB (D2035B)	None	Integrated IDE Controller on PCI bus	Integrated Ultra VGA 2, (1 MB, upgradeable to 2 MB)	8 MB	1 MB	No
D3484A		420 MB (D2392- 6xxxx)					
D3485A		840 MB (D2393- 6xxxx)					
D3487A					Yes		
D3946A		No					
HP Vectra XM 5/100 Series 3 PC (CPL: 07/95; discontinued: 05/96)							
D3486A	1.44 MB (D2035B)	None	Integrated IDE Controller on PCI bus	Integrated Ultra VGA 2, (1 MB, upgradeable to 2 MB)	8 MB	1 MB	No
D3488A		840 MB (D2393- 6xxxx)					
D3947A							
HP Vectra XM 5/120 Series 3 PC (CPL: 07/95; discontinued: 05/96)							
D3560A	1.44 MB (D2035B)	None	Integrated IDE Controller on PCI bus	Integrated Ultra VGA 2, (1 MB, upgradeable to 2 MB)	8 MB	1 MB	No
D3562A		840 MB (D2393- 6xxxx)					
D3565A					Yes		
D3948A					No		

Medium-Profile
Desktop Vectras



HP Vectra XM 5/xxx Series 3 PC 11-1

HP Vectra XM 5/xxx Series 3 PC

Product Number	Flexible Drive A:	Hard Drive C:	Disk Controller	Video Controller	Std. RAM	Video RAM	Multi-media
HP Vectra XM 5/133 Series 3 PC (CPL: 11/95; discontinued: 05/96 ▶)							
D3949A	1.44 MB	None	Integrated	Integrated	8 MB	1 MB	No
D3950A	(D2035B)	840 MB (D2393-6xxxx)	IDE Controller on PCI bus	Ultra VGA 2, (1 MB, upgradeable to 2 MB)	16 MB		

Note

The HP Vectra XM 5/xx PC Series 3 has 256 KB of level-two cache memory, and PCI LAN controller, both integrated on the system board.

Multimedia models have 4×IDE CD-ROM and audio card.

All 16 MB models have dual operating systems preloaded (Windows for Workgroups and Windows 95).



Supported Accessories

1 MB Video Memory Upgrade Kit	D3404A
4 MB Main Memory Upgrade Kit (32-bit)	D2690A
4 MB Main Memory Upgrade Kit (36-bit)	D2974A
8 MB Main Memory Upgrade Kit (32-bit)	D2691A
8 MB Main Memory Upgrade Kit (36-bit)	D2975A
16 MB Main Memory Upgrade Kit (32-bit)	D2899A
16 MB Main Memory Upgrade Kit (36-bit)	D2297A
32 MB Main Memory Upgrade Kit (36-bit)	D2298A
<i>User's Guide</i> manual	D3489A

Multimedia Products

Audio/CD MM Upgrade	D2941B
HP Integrated Office	D2887A
16-bit Audio Board	D3567A

Input Devices

Mouse (HP/Logitech)	C3751B
Keyboard	C3756A
Keyboard for Windows 95	C4725A

Video Displays

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

Mass Storage

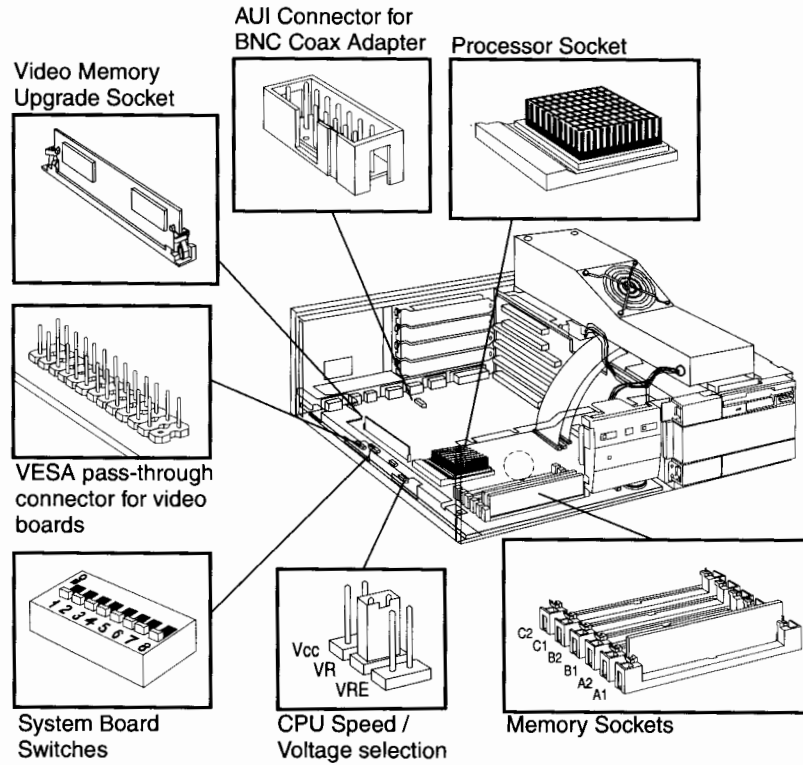
Flexible Disk 1.44 MB 3-1/2 inch	D2035B
Flexible Disk 1.2 MB 5-1/4 inch	D2881B
IDE 540 MB Hard Disk Drive	D2389A
IDE 840 MB Hard Disk Drive	D2925A
IDE 1 GB Hard Disk Drive	D2919A
SCSI CD-ROM Drive	D2886B
IDE 2× CD-ROM Drive	D2889A
IDE 4× CD-ROM Drive	D2896A
5-1/4 inch Rail Kit	D2880A
3-1/2 inch Rail Kit	D3566A

Datacomm and LAN Boards

Selectable ISA Adapter 10/100 VG	J2573A
PCI Ethernet adapter 10/100 VG	J2585B
Coax Module	D2746A

**Medium-Profile
Desktop Vectras**

System Board, BIOS, and Memory



CPU Speed/Voltage Selection Jumpers

Model	Processor Part No.	Jumper Setting
XM 5/75	5063-8786	V _{CC}
XM 5/90	5063-8787	V _R
XM 5/100	5063-7024	V _{RE}
XM 5/120	5063-7089	V _{RE}
XM 5/133	5063-7974	V _{CC}

Warning: Pentium Overdrive processors have the same voltage as the original processor.



System Board Switches

Switch #		Function	Default
1	OFF	Flash ROM Updates - enabled	OFF
	ON	Flash ROM Updates - disabled	
2	OFF	Allows changes to CMOS (Setup program configuration)	OFF
	ON	Prevents changes to CMOS	
3	OFF	EEPROM stored configuration information - valid	OFF
	ON	EEPROM stored configuration information - erased	
4	OFF	Passwords - enabled	OFF
	ON	Passwords - disabled (erased)	
5	OFF	Memory parity - disabled	OFF
	ON	Memory parity - enabled	
6	OFF	75 MHz, 90 MHz or 100 MHz processor speed	-
	ON	120 MHz or 133 MHz processor speed	
7	OFF	Not used	OFF
8	OFF	Not used	OFF

Setup and BIOS History

The latest BIOS, the flasher utility program, and the BIOS history can each be obtained from the HP Electronic Services. BIOS revisions are of the form GM.05.xx.

Video Memory

The PC is supplied with 1 MB of video memory for 1280 × 1024 in 256 colors. An additional 1 MB of video memory can be installed in the video memory socket (to make a total of 2 MB) for 1280 × 1024 in 64 K colors.

Main Memory

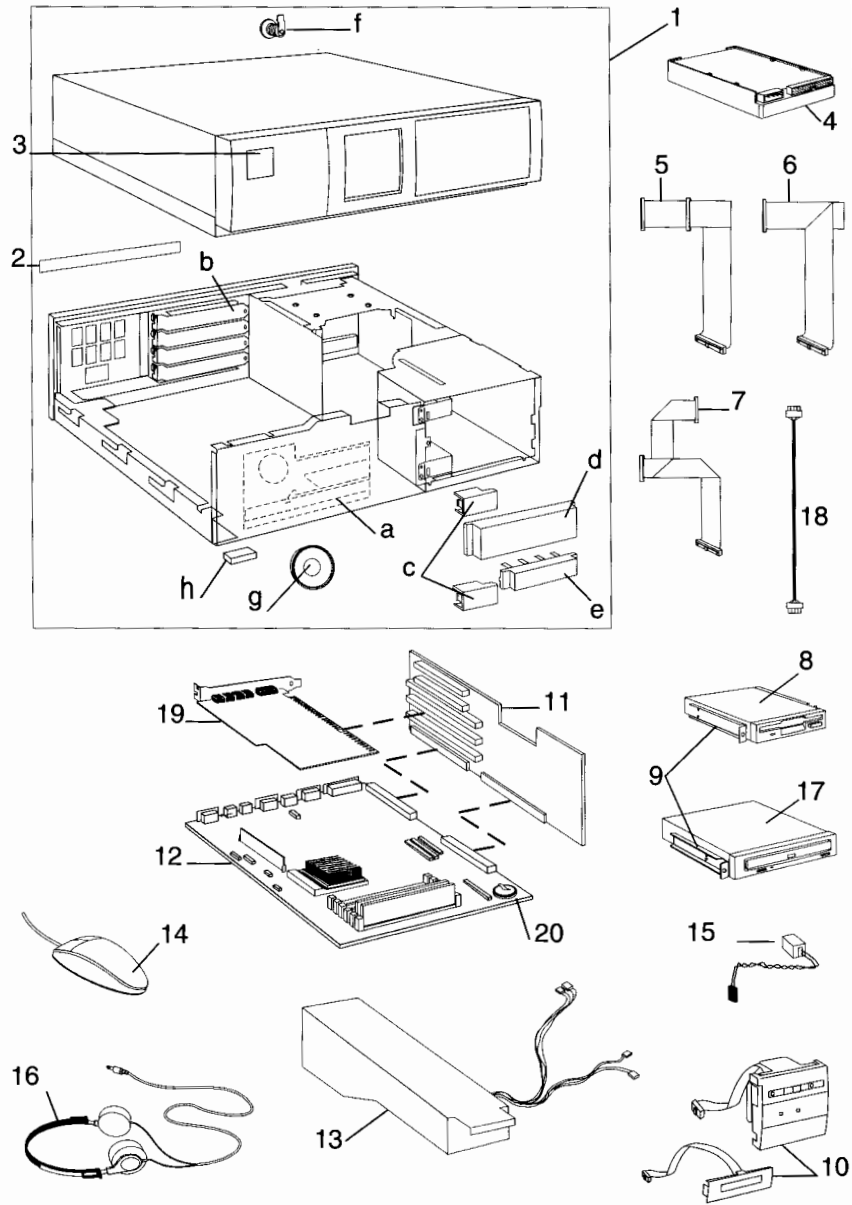
The HP Vectra XM 5/xx PC has six sockets on the system board labeled A1, A2, B1, B2, C1 and C2. The PC is supplied with 8 MB of main memory (two 4 MB memory modules) in sockets A1 and A2. Main memory can be installed up to a maximum of 192 MB. Any memory module can be placed in any socket. However, for optimum performance slots with the same letter should have modules of the same size.

Medium-Profile
Desktop Vectras



HP Vectra XM 5/xxx Series 3 PC 11-5

Part Numbers



Parts List for HP Vectra XM 5/xxx PC Series 3

Item	Description	Repl. Part Number	Exchange Part Number list
1	Box Assembly:	5063-7007	
	a System board guide	-	
	b I/O Panel Blank	45935-00004	
	c Filler panel 1.75 inch	5042-1155	
	d Filler Panel 5.25 inch	5063-7066	
	e Filler Panel 3.5 inch	5063-7067	
	f Cover Lock Assembly	5062-5590	
	g Internal Speaker (Multimedia models)	5063-4559	
	h Bumper foot	02225-00010	
2	Rear Bezel Connector Label	5042-1113	—
3	Nameplate:		
	XM 5/75	5042-1139	—
	XM 5/90	5042-1140	—
	XM 5/100	5042-1141	—
	XM 5/120	5042-1165	—
	XM 5/133	5042-1437	—
4	Hard Disk Drive (standard)		
	420 MB	D2392-63001	D2392-69001
	840 MB	D2393-63003	D2393-69001
5	Hard Disk Cable (IDE drive)	5182-1862	—
6	Standard IDE Cable	5182-1856	—
7	Flexible Disk Drive Cable	5182-3538	—
8	Flexible Disk Drive	D2035-60152	—
9	Mounting Rails Kit (for 1×3.5-inch, 1×5.25-inch non-HP Drives)	5063-7922	—
10	Status (Control) Panel	5063-7923	—
	Sound Control Panel	5063-9050	
11	Backplane AT/PCI notched	5063-7970	—
12	System Board	See PC's system board parts list	
13	Power Supply Assembly	5063-4553	—
14	Mouse	C3751-60201	—
15	Battery	1420-0513	—
16	Audio Headset	5182-3552	—
17	4× CD-ROM Drive	D2896-63001	—
18	CD-ROM Drive to Audio Board connector cable	5182-1857	—
19	Audio Board	5063-7913	—
20	Battery (on-board)	1420-0356	—

Medium-Profile Desktop Vectras



HP Vectra XM 5/xxx Series 3 PC 11-7

HP Vectra XM 5/xxx Series 3 PC

System Board Parts List for HP Vectra XM 5/xxx Series 3 PC

Description	Repl. Part Number	Exchange Part Number
System Board (includes integrated IDE disk, PCI LAN and Ultra VGA controllers) ¹		
Vectra XM 5/75	D3480-63001	D3480-69001
Vectra XM 5/90, 5/100, 5/120, and 5/133	D3486-63001	D3486-69001
Processors:		
Intel Pentium 75 MHz (Vcc)	5063-8786	—
Intel Pentium 90 MHz (Vr)	5063-8787	—
Intel Pentium 100 MHz (Vre)	5063-7024	—
Intel Pentium 120 MHz (Vre)	5063-7089	—
Intel Pentium 133 MHz (Vcc)	5063-7974	—
Heatsink	1205-0812	—
Main Memory Modules:		
4 MB Main Memory DRAM Kit (no parity)	5063-4548	—
8 MB Main Memory DRAM Kit (no parity)	5063-4549	—
Video Memory Modules (D3404A):		
1 MB Video Memory Module kit	5063-7056	—

1. These assemblies are supplied without main memory modules or processor.

Support Manuals for HP Vectra XM 5/xxx Series 3 PC

Familiarization Guide	D348X+49A-90001
Technical Reference Manual: Hardware and BIOS	Electronic file
Drivers Disk kit	5063-8758
Audio software on CD-ROM	5963-8020

Notes: _____



HP Vectra XP PC Series

Models and Accessories

Product Number	Flexible Drive A:	Hard Drive C:	Disk Controller	Video Controller	Std. RAM	CD-ROM	L 2 Cache
Vectra XP PC Series							
HP Vectra 60/XP PC (CPL: 12/93 ▶)							
D3001A	1.44 MB (D2035A)	None	Integrated IDE/ISA controller	Integrated Ultra VGA 2/PCI (2 MB, upgradeable to 4 MB)	8 MB	No	256 KB
D3002A		270 MB (D2894B)					
D3003A		450 MB (D2884A)					
D3003B		540 MB (D2891B)					

Supported Accessories

1 MB Video Memory Upgrade	D2942B
4 MB Main Memory (70 ns) Upgrade kit	D2974A
8 MB Main Memory (70 ns) Upgrade kit	D2975A
16 MB Main Memory (70 ns) Upgrade kit	D2297A
32 MB Main Memory (70 ns) Upgrade kit	D2298A
<i>Setting Up Your PC and Using Your PC manuals</i>	D3000A

Video Displays

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

Multimedia Products

HP Sound DSP 16	D2941A
HP Integrated Office	D2887A

**Medium-Profile
Desktop Vectras**



HP Vectra XP PC Series 12-1

HP Vectra XP PC Series

Mass Storage

Flexible Disk 1.44 MB 3-1/2 inch	D2035A
Flexible Disk 1.2 MB 5-1/4 inch	D2881A
IDE 240 MB Hard Disk	D1697A
IDE 450 MB Hard Disk	D2884A
IDE 340 MB Hard Disk	D2890A
IDE 540 MB Hard Disk	D2891A/B
IDE 270 MB Hard Disk	D2894A/B
SCSI 430 MB Hard Disk	D1699A
SCSI 1035 MB Hard Disk	D2076B
CD-ROM Drive	D2886A/B

Datacomm and LAN Boards

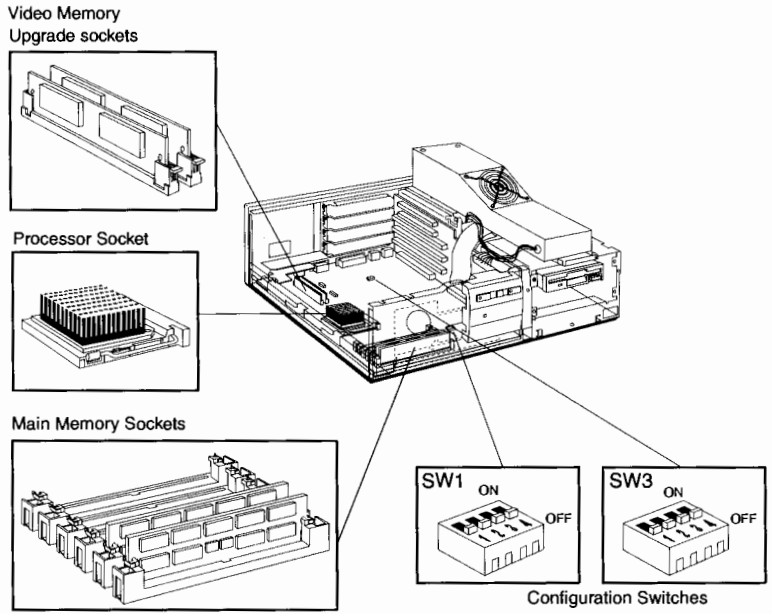
Serial Parallel Board	24540B
Dual Serial Board	24541B
Ethertwist PC Link Adapter	27245A
Ethertwist Adapter/16	27247A
Ethertwist Adapter/16	27247B
HP Thin LAN Board	27250A
Token-Ring Adapter	D2378A
Coaxial LAN Adapter Board	D2746A

Input Devices

Keyboard	C1405B
Keyboard - new style (recomended)	C3756A
Mouse (PS/2 - Microsoft)	C1413A
Mouse (PS/2 - Logitech)	C3751A



System Board, BIOS, and Memory



System Board Switch Block SW1-SW2

Switch #		Function	Default
SECU	OFF	Disables security mode to allow changes to the PC's configuration	OFF
	ON	Enables security mode to prevent changes to the PC's configuration	
CCFG	OFF	Retain the configuration stored in CMOS	OFF
	ON	Clear the configuration stored in CMOS. Switch ON if you need to clear the PC's configuration information, for example, if the configuration is corrupted.	
FLSH	OFF	Enables System ROM updates using the HPROMInit utility	OFF
	ON	Disables System ROM updates	
1_4	OFF	Not used	OFF

Medium-Profile Desktop Vectras



HP Vectra XP PC Series

System Board Switch Block SW3-SW4

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Switch #		Function	Default
MHZ	OFF	Sets the processor bus speed to 66.6 MHz (for the PENTIUM™ Processor-66)	ON
	ON	Sets the processor bus speed to 60 MHz (for the PENTIUM™ Processor-60)	
3_2	OFF	Not used	OFF
PWRD	OFF	Enables passwords to be set and stored in EEPROM	OFF
	ON	Disables passwords Switch ON if you need to clear the current passwords.	
MIRQ	OFF	Enables IRQ 12 for the mouse interrupt	OFF
	ON	Disables the mouse Switch to ON if you install an accessory that uses IRQ 12 (this disables the mouse).	

Cache Memory

The PC has 256 KB of integrated level-two cache memory.

Video Memory

The PC is supplied with 2 MB of video memory for 1600 × 1280 in 256 colors. An additional 2 MB of video memory (two 1 MB video memory modules) can be installed in the video memory sockets (to make a total of 4 MB). If additional video memory is added, both sockets must be filled.



Main Memory

The PC is supplied with 8 MB of main memory (two 4 MB main memory modules) in Bank 1 (slots 1 and 2). The system board has three banks (six sockets) for 70 ns main memory modules. The same size main memory modules must be installed in pairs within banks.

Main memory configurations

For a TOTAL memory of:	Install Main Memory Modules in These Banks (each bank has two sockets):						Using These Modules
	Bank 1		Bank 2		Bank 3		
	1	2	3	4	5	6	
8 MB	4 MB	4 MB					Standard
16 MB	4 MB	4 MB	4 MB	4 MB			Two 4 MB modules
24 MB	4 MB	4 MB	8 MB	8 MB			Two 8 MB modules
32 MB	4 MB	4 MB	8 MB	8 MB	4 MB	4 MB	Two 4 MB modules and two 8 MB modules
40 MB	4 MB	4 MB	8 MB	8 MB	8 MB	8 MB	Four 8 MB modules
56 MB	4 MB	4 MB	16 MB	16 MB	8 MB	8 MB	Two 16 MB modules and two 8 MB modules
72 MB	4 MB	4 MB	16 MB	16 MB	16 MB	16 MB	Four 16 MB modules
96 MB	16 MB	16 MB	16 MB	16 MB	16 MB	16 MB	Six 16 MB modules
128 MB	16 MB	16 MB	16 MB	16 MB	32 MB	32 MB	Two 32 MB modules and four 16 MB modules
160 MB	16 MB	16 MB	32 MB	32 MB	32 MB	32 MB	Four 32 MB modules and two 16 MB modules
192 MB	32 MB	32 MB	32 MB	32 MB	32 MB	32 MB	Six 32 MB modules

Medium-Profile
Desktop Vectras



HP Vectra XP PC Series 12-5

Parts List for HP Vectra XP PC Series

Item	Description	Repl. Part Number	Exchange Part Number list
1	Box Assembly:	5063-4597	—
	a Rear Bezel Label	5041-2589	
	b Bumper Foot	02225-00010	
	c System Board Guide	-	
	d Security Bracket	-	
	e Side panel	-	
	f I/O Panel Blank	-	
	g Filler Panel 5.25-inch	5041-2578	
	h Filler Panel 1.75-inch	5063-0877	
	i Infrared Filter	5042-0504	
	j Key lock Assembly	5062-5590	
2	Battery	1420-0513	—
3	3.5-inch, h-h, Tray (5 pack) for non-supported hard disk drives	Order product number D2037A	
4	Hard Disk Drive (standard) ¹		
	240 MB	D1697-60009	D1697-69007
	270 MB	D2894-63003	D2894-69003
	450 MB	D2884-63003	D2884-69003
	540 MB	D2395-63001	D2395-69001
5	Hard Disk Cable (IDE drive)	5182-0311	—
6	Flexible Disk Drive Cable	5082-1089	—
7	Flexible Disk Drive	D2035-60052	—
8	Mounting Rails for 3.5-inch non-HP Flexible Disk Drives	5063-0309	—
9	Status (Control) Panel	5063-0876	—
10	Infrared Assembly	5063-0850	—
11	Backplane Assembly	5182-1082	—
12	System Board	See PC's system board parts list	
13	Power Supply Assembly 100 W	5063-4553	—
	Mounting Rails for 5.25-inch non-HP Disk Drives	Order product number D2880A	
	Nameplate HP Vectra 60/XP Logo	5042-0515	—

1. For optional disk drive information, see the *Accessory Service Handbook*.



HP Vectra XP PC Series

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System Board Parts List for HP Vectra XP PC Series

Description	Repl. Part Number	Exchange Part Number
System Board (includes integrated IDE disk and Ultra VGA 2/PCI controllers, and integrated Ethernet)		
Vectra XP	D3001-63001 ¹	D3001-69001 ¹
LAN Adapter:		
Coaxial Adapter Board (D2746A)	D2746-63001	—
Processor:		
PENTIUM™-60	5183-1889	—
Main Memory Modules:²		
4 MB Main Memory Module kit (36-bit) 70ns	D2974-63001	—
8 MB Main Memory Module kit (36-bit) 70ns	D2975-63001	—
16 MB Main Memory Module kit (36-bit) 70ns	D2297-63001	D2297-69001
32 MB Main Memory Module kit (36-bit) 70ns	D2298-63001	D2298-69001
Video Memory Modules:²		
1 MB Video Memory Module kit (D2942B)	5063-4519	—

1. These replacement assemblies are supplied without a processor chip.
2. Memory modules must be installed in matching pairs.

Support Manuals for HP Vectra XP PC Series

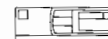
Familiarization Guide	D300xA+49A-90001
Technical Reference Manual: Hardware and BIOS	None ¹

1. Electronic File only.

Part Numbers for HP Utility Diskettes

Description	Rev	Date Code	Part #	Info.
Windows & DOS Video Drivers	3.17E	—	5063-0898	Kit

Notes: _____



V-Line Vectra PCs

13. **HP Vectra VT 6/xxx PC Series**
14. **HP Vectra VA 6/xxx PC Series**
15. **HP Vectra VA 6/xxx MT PC Series**
16. **HP Vectra VL 6/xxx Series 6 PC**
17. **HP Vectra VL 6/xxx MT Series 6 PC**
18. **HP Vectra VL 5/xxx Series 5 PC**
19. **HP Vectra VL 5/xxx MT Series 5 PC**
20. **HP Vectra VL 5/xxx Series 4 PC**
21. **HP Vectra VL 5/xxx MT Series 4 PC**
22. **HP Vectra VL 5/xxx Series 3 PC**
23. **HP Vectra VL2/60 PC Series**
24. **HP Vectra VE 5/xxx Series 4 PC**
25. **HP Vectra VE 5/xxx MT Series 4 PC**
26. **HP Vectra VE 5/xxx Series 3 PC**
27. **HP Vectra VE 5/xxx Series 2 PC**
28. **HP Vectra VE 5/xx PC Series**
29. **HP Net Vectra PC**

V-Line Vectra PCs

V-Line Vectra PCs

HP Vectra VT 6/xxx PC Series

Models and Accessories

Product Number	Flexible Drive	Hard Drive	Disk Controller	Video Controller	Std. RAM	Multi-media	OS
Vectra VT 6/xxx PC							
HP Vectra VT 6/150 PC (CPL: 12/95 ▶)							
D3520A	1.44 MB (D2035A)	None	Integrated IDE controller	Matrox MGA Millennium board, (2 MB, upgradeable to 4 MB or 8 MB)	16 MB	CD-ROM (D2896A) and Sound Blaster16	None
D3521N		1 GB (D2919A)					NT 3.51 WS
D3521S							OS/2 Warp connect
D3523N		2 × 1 GB (D2919A)					NT 3.51 WS

Note

The Intel™ Pentium Pro processor has 256 KB of integrated level-two cache memory.

Mini-Tower Vectras



HP Vectra VT 6/xxx PC Series

Supported Accessories

16-MB (2 × 8-MB) non-ECC 70-ns main memory upgrade kit (64-bit), Interleave 8	D3553A
32-MB (2 × 16-MB), ECC 60-ns main memory upgrade kit (72-bit), Interleave 8	D3555B
32-MB (2 × 16-MB), ECC 60-ns main memory upgrade kit (72-bit), Interleave 16	D3555A
64-MB (2 × 32-MB), ECC 60-ns main memory upgrade kit (72-bit), Interleave 16	D3554B

Note: To order the appropriate main memory upgrade kit, check the PC memory configuration using the "HP Vectra XU 6/xxx & VT 6/xxx Memory Configuration Utility". This utility will indicate the supported accessories.

2-MB video memory upgrade kit	D3557A
<i>User's Guide</i> Manual Kit	D3539A

Input Devices

HP mouse	C3751B
HP keyboard for Windows® 95	C4725A

Video Displays

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

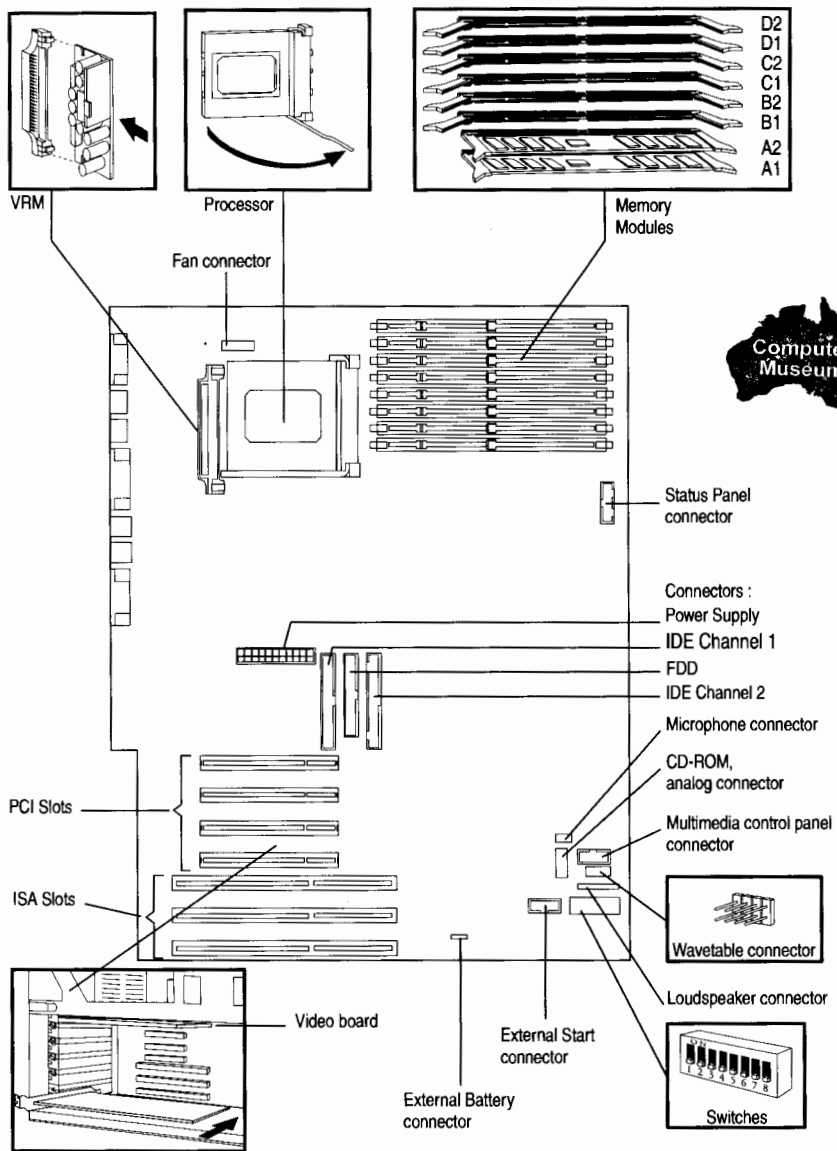
Mass Storage

540 MB IDE hard disk	D2918A
1 GB IDE hard disk	D2919A
Flexible disk drive 3.5-inch 1.44-MB (1-inch high)	D2035B
Rail kit (3.5-inch)	D3566A
Rail kit (5.25-inch)	D2880A
IDE 4× CD-ROM Drive	D2896A

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System Board, BIOS, and Memory



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Mini-Tower Vectras



System Board Switches

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Switch		Function	Default
1	OFF	Retain configuration in EEPROM, normal position	OFF
	ON	Clears EEPROM	
2	OFF	Enables User and Administrator passwords	OFF
	ON	Clears User and Administrator passwords	
3	OFF	Disables secure switch (off position)	OFF
	ON	Enables secure switch (on position) - prevents modification of SETUP values and flashing of BIOS	
4	Local bus frequency, see following table		ON
5			OFF
6	Processor : local bus frequency ratio, see following table		ON
7			OFF
8			OFF

Switch		Local Bus Frequency	Switch			Frequency Ratio Processor : Local Bus	Processor Frequency
4	5		6	7	8		
ON	OFF	60 MHz	ON	OFF	OFF	2.5 : 1	150 MHz
OFF	OFF	66 MHz	ON	OFF	OFF	2.5 : 1	166 MHz
ON	OFF	60 MHz	OFF	ON	OFF	3 : 1	180 MHz
OFF	OFF	66 MHz	OFF	ON	OFF	3 : 1	200 MHz

BIOS History

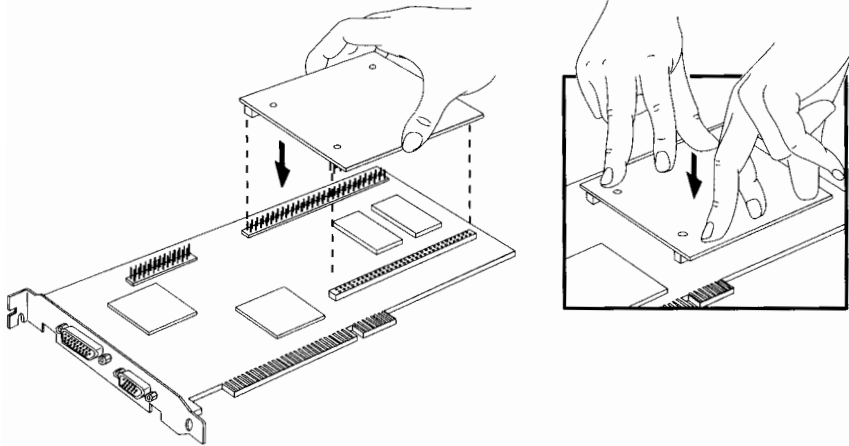
The latest BIOS, the flasher utility program, and the BIOS history can each be obtained from the HP Electronic Services.



Video Memory

The PC is supplied with 2 MB of video memory for 1600×1200 in 256 colors. An additional 2 MB of video memory can be installed by adding a D3557A module in the video memory socket; this will make a total of 4 MB for 1600×1200 in 64 K colors. Alternatively, an additional 6 MB of video memory can be installed by adding an MGA-MIL/MOD6 module in the video memory socket (ordered from Matrox); this will make a total of 8 MB for 1600×1200 in 16.7 M colors.

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Matrox Video Board Switches

Switch	Function
1	<ul style="list-style-type: none"> • OFF to prevent Video BIOS upgrades - DEFAULT • ON to allow Video BIOS upgrades
2	<ul style="list-style-type: none"> • OFF for single-screen operation - DEFAULT • ON for dual-screen operation (with second VGA controller)

Mini-Tower Vectras



Main Memory

The PC has four banks on the system board for installing main memory; banks A, B, C and D. Each bank consists of two sockets. The PC is supplied with 16 MB of main memory (two 8-MB memory modules installed in any bank).

Memory modules must be installed in identical pairs, so that each bank with memory installed contains two memory modules of the same size and type.

The PC is supplied with one bank of memory modules. This can be a pair of modules of type "interleave 8" or a pair of type "interleave 16". These can be replaced or extended with memory modules of the same type.

Main memory on an "interleave 8" type of PC can be extended to a maximum of 128 MB by replacing the 16 MB base memory with four D3555B kits (32 MB each). Main memory can be extended to a maximum of 112 MB without replacing the base memory

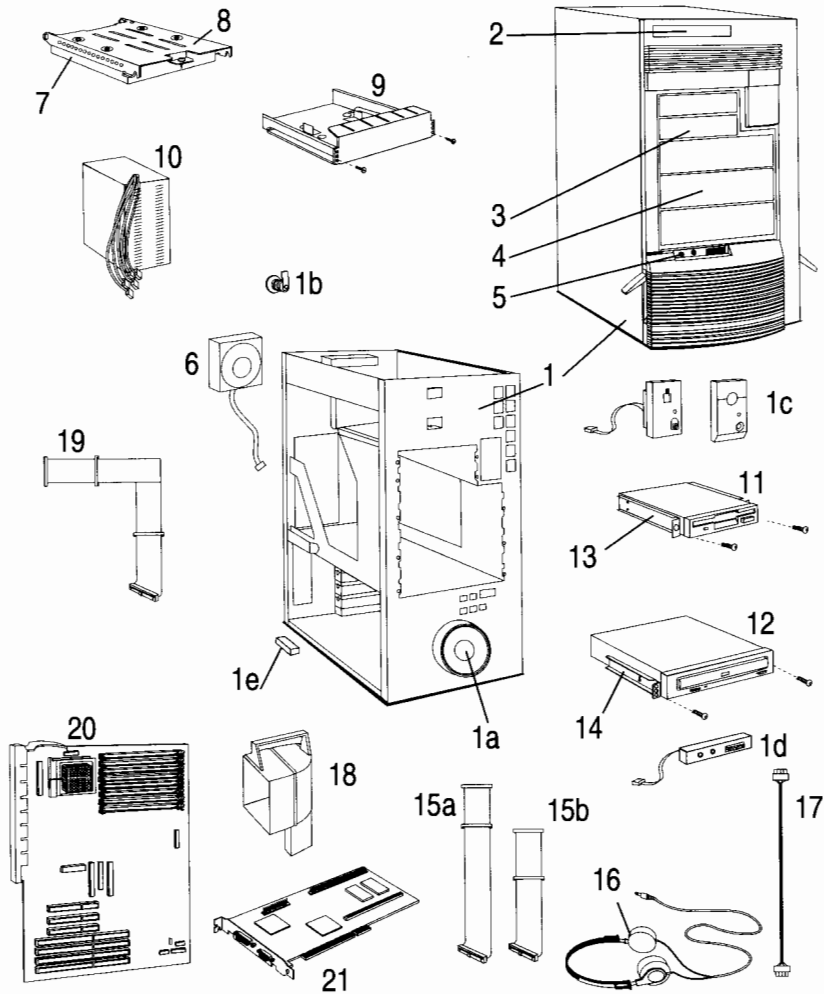
Main memory on an "interleave 16" type of PC can be extended to a maximum of 256 MB by replacing the 32 MB base memory with four D3554B kits (64 MB each). Main memory can be extended to a maximum of 224 MB without replacing the base memory.

To order the appropriate main memory upgrade kit, check the PC memory configuration using the "HP Vectra XU 6/xxx & VT 6/xxx Memory Configuration Utility". This utility will indicate the supported accessories.

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Part Numbers



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Mini-Tower Vectras



HP Vectra VT 6/xxx PC Series 13-7

HP Vectra VT 6/xxx PC Series

Parts List for HP Vectra VT 6/xxx PC

Item	Description	Repl. Part Number	Exchange Part Number
1	Box assembly:	5063-9010	—
	a Speaker assembly	5063-4559	
	b Cover lock assembly	5062-5590	
	c Status panel kit	5063-9008	
	d Multimedia control panel	5063-9003	
	e Bumper foot	02225-00010	
2	HP Vectra VT 6/150 logo	5042-1446	—
3	Filler panel 3.5 inch	5042-1405	—
4	Filler panel 5.25 inch	5042-1178	—
5	Multimedia bezel	5042-1421	—
6	Fan	5063-9004	—
7	Hard disk drive (standard) ¹ 1 GB IDE	D2919-63001	D2919-69001
8	HDD tray 3.5-inch	5001-6864	—
9	HDD bracket	5002-1935	—
10	Power supply assembly	5063-8799	—
11	Flexible disk drive	D2035-60152	—
12	Quadruple speed CD-ROM drive IDE	D2896-63301	—
13	Rail kit (3.5-inch)	D3566A	—
14	Rail kit (5.25-inch)	D2880A	—
15	Pack of IDE cables:	5063-9016	—
	a Ultra Fast IDE cable (grey, recommended for HDD)		
	b Ultra Fast IDE cable (red, recommended for CD-ROM)		
16	Headphones	5063-8800	—
17	CD-ROM audio cable	5182-1857	—
18	Airflow guide	5063-9005	—
19	Flexible disk cable	5182-3567	—
20	System board	See PC's system board parts list	
21	Matrox MGA Millennium board	5063-8798	—

1. For optional disk drive information, see the *Accessory Service Handbook*.



HP Vectra VT 6/xxx PC Series

System Board Parts List for HP Vectra VT 6/xxx PC

Description	Repl. Part Number	Exchange Part Number
System board:		
Vectra VT 6/xxx	D3520-63001	D3520-69001
Processors:		
Intel Pentium Pro (P6) 150 MHz	5063-8791	—
Heat-sink and clip	5063-8793	—
Voltage regulator module	5063-8794	—
Main memory modules:		
1x8 MB main memory 70 ns non-ECC RAM	5063-9006	—
Video memory module:		
2 MB video memory module	D3557-63001	—

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Support Manuals for HP Vectra VT 6/xxx PC

<i>Familiarization Guide</i>	D3538-90901
<i>Technical Reference Manual: Hardware and BIOS</i>	D3538-90911 ¹

1. Electronic file only.

Software for HP Vectra VT 6/xxx PC

<i>XU/VT Drivers and documentation CD-ROM</i>	5063-7925
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Notes: _____

Mini-Tower Vectras



HP Vectra VT 6/xxx PC Series 13-9

HP Vectra VA 6/xxx PC Series

Models and Accessories

Product Number	Flexible Drive A:	Hard Drive C:	Video Controller	Std. RAM	Multi-media	Network	OS ¹		
Vectra VA 6/xxx PC									
HP Vectra VA 6/180 PC (CPL: 08/96 ▶)									
D4201A	1.44 MB	None	Integrated Cirrus 5446 (1 MB video memory fitted, upgradable to 2 MB)	16 MB	None	None	None		
D4202N		1.2 GB IDE					8 × IDE CD-ROM (D4381A)	NT 3.51 WS	
D4202W								Win 95	
D4211N		1.6 GB IDE						NT 4.0 WS	
D4211W								Win 95	
D4212N								10 BT	NT 4.0 WS
D4203N		2.5 GB IDE						None	NT 3.51 WS
D4213N									NT 4.0 WS
HP Vectra VA 6/200 PC (CPL: 08/96 ▶)									
D4204N	1.44 MB	1.2 GB IDE	Integrated Cirrus 5446 on system board, (maximum 2 MB video memory already fitted)	32 MB	8 × IDE CD-ROM (D4381A)	None	NT 3.51 WS		
D4204S								OS/2	
D4204W								Win 95	
D4214N		1.6 GB IDE						NT 4.0 WS	
D4214W		2.5 GB IDE						Win 95	
D4205N								NT 3.51 WS	
D4215N								NT 4.0 WS	
D4216N								10 BT	WS

1. For Windows NT 3.51 WS, the operating system is supplied on CD-ROM. For Windows NT 4.0 WS and Windows 95, the operating system is preloaded.

Medium-Profile Desktop Vectras



HP Vectra VA 6/xxx PC Series 14-1

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HP Vectra VA 6/xxx PC Series

Supported Accessories

8-MB kit (2 × 4-MB) 32-bit EDO, 60 ns main memory modules	D3646B
16-MB kit (2 × 8-MB) 32-bit EDO, 60 ns main memory modules	D3647B
32-MB kit (2 × 16-MB) 32-bit EDO, 60 ns main memory modules	D3648B
64-MB kit (2 × 32-MB) 32-bit EDO, 60 ns main memory modules	D4543A
1 MB, 50 ns video memory upgrade kit	D4219A

Documentation

HP Vectra VA <i>User's Guide</i> Manual Kit	D4200A
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Input Devices

HP mouse	C3751B
HP keyboard for Windows® 95	C4725A

Video Displays

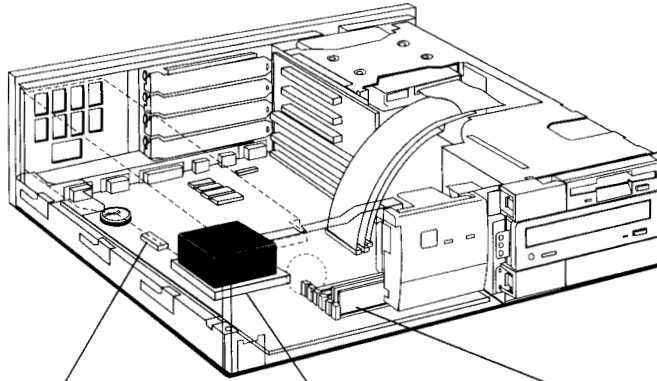
All current HP Displays (see the *HP Vectra Accessory Service Handbook*)

Mass Storage

1.2-GB IDE hard disk	D2785A
Flexible disk 3.5-inch 1.44-MB (1-inch high)	D2035B
IDE 8× CD-ROM drive	D4381A
Multimedia sound accessory kit (8× CD-ROM drive, Plug-and-Play ISA audio board, headphones)	D4179A
3.5-inch side mounting rails (packs of 5 pairs)	D3566A
5.25-inch side mounting rails (packs of 5 pairs)	D2880A



System Board, BIOS, and Memory



System Board Switches

Processor:

Zero Insertion Force (ZIF) socket allows upgrades using overdrive processors.

Main Memory:

16 MB or 32 MB, depending on model, fitted as standard.
Install pairs of identical modules in each bank, up to a maximum of 192 MB.

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HP Vectra VA 6/xxx PC Series

System Board Switches

Switch	Function	Default
1-5	-	-
6	Open	Normal operation
	Closed	Clear the configuration data (in CMOS memory)
7	Open	Normal operation
	Closed	Clears all passwords
8	Open	Disables keyboard power-on
	Closed	Enables the PC to be turned on from the space bar on the keyboard
9	Open	Normal operation
	Closed	Clears the Product Identification (VA)
10	Open	Pentium Pro 3.3 V
	Closed	Pentium Pro 3.5 V

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Processor Frequency	Switch				
	1	2	3	4	5
150 MHz	Closed	Open	Open	Open	Closed
166 MHz	Open	Open	Open	Open	Closed
180 MHz	Closed	Open	Open	Closed	Open
200 MHz	Open	Open	Open	Closed	Open
233 MHz	Open	Open	Open	Closed	Closed
266 MHz	Open	Open	Closed	Open	Open

BIOS History

The latest BIOS, the flasher utility program, and the BIOS history can each be obtained from the World Wide Web:

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

Main Memory

The PC has three banks on the system board for installing main memory; banks A, B and C. Each bank consists of two sockets. The PC is supplied with 16 or 32 MB of main memory (composed of two memory modules installed in any bank). The PC uses 60-ns EDO DRAM.

Memory modules must be installed in identical pairs, so that each bank with memory installed contains two memory modules of the same size and type (both EDO, or both FPM).

Main memory can be installed up to a maximum of 192 MB.

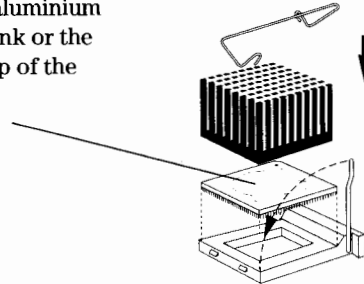


Video Memory

Vectra 6/180 PCs are supplied with 1 MB of video memory. An additional 1 MB of video memory (D4219A) can be installed in the video memory sockets (to make a total of 2 MB).

Replacing the Processor Chip

If any thermal interface material, such as aluminium foil or silicone, is supplied with the heat-sink or the processor chip, place it carefully on the top of the processor before installing the heat-sink.

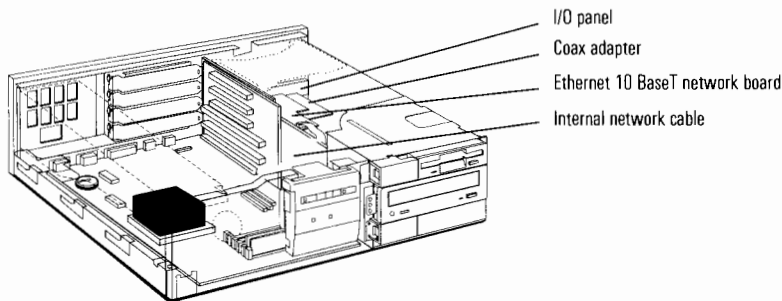


14

Ethernet 10 BaseT Network Connections

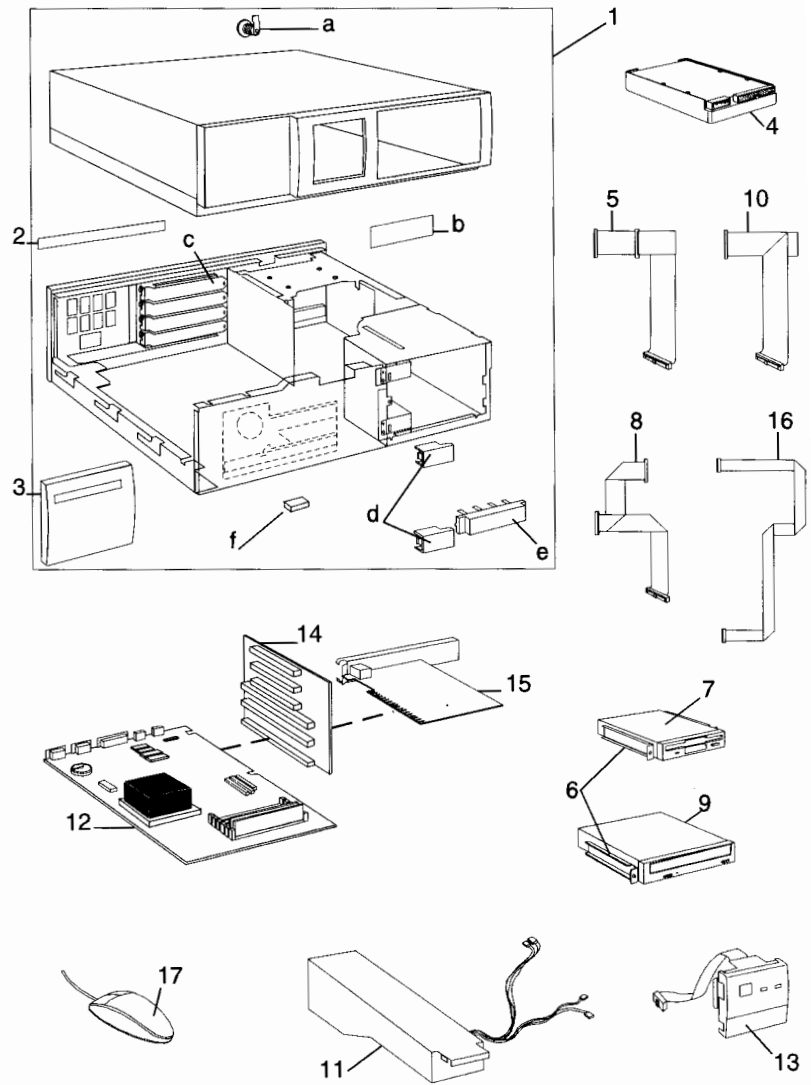
The Ethernet 10 BaseT network board is installed underneath the internal, hard disk drive, rear-shelf. It is plugged into the PCI accessory slot that is situated on the right-hand side of the double-sided backplane board.

The board has an RJ-45 UTP network connector. This emerges through a dedicated I/O panel at the back of the computer, below the cover lock assembly. To install a BNC coax connection, a coax adapter (D3979A) is required as described in the *HP Vectra Accessories Service Handbook*. The I/O panel has a hole in it, for this BNC coax adapter accessory, which is covered by a metal plug when the adapter is not installed.



Part Numbers

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HP Vectra VA 6/xxx PC Series

Parts List for HP Vectra VA 6/xxx PC

Item	Description	Repl. Part Number	Exchange Part Number
1	Box assembly:	5064-0215	—
	a Cover lock assembly	5062-5590	
	b Serial number label	5182-0030	
	c I/O panel blank	45935-00004	
	d Filler panel 1.75 inch	5042-1155	
	e Filler panel 3.5 inch	5063-7067	
	f Bumper foot	02225-00010	
2	Rear bezel connector label	5042-1828	—
3	Left VA logo bezel	5042-1483	—
4	IDE hard disk drive (standard) ¹		
	1.2 GB	—	D2930-69001
	1.6 GB	—	D4621-69001
	2.5 GB	—	D2784-69001
5	IDE hard disk cable	5182-1862	—
6	Rail kit (1 × 3.5 inch, 1 × 5.25 inch)	5063-7922	—
7	Flexible disk drive	D2035-60152	—
8	Flexible disk drive cable	5182-1037	—
9	IDE 8× CD-ROM drive	—	D4381-69001
10	IDE CD-ROM cable	5182-1856	—
11	Power supply	5063-7943	—
12	System board	See PC's system board parts list	
13	Status panel	5063-7956	—
14	Backplane board	5063-9093	—
15	Ethernet 10 BaseT PCI network board	5063-8790	—
	Coax network adapter	D3979-63001	—
16	Internal network cable	5182-5403	—
17	Mouse	C3751-60201	—
	Keyboard	C3758-602xx ²	—

1. For optional disk drive information, see the *Accessory Service Handbook*.
2. Where "xx" is the code for your national keyboard (see the *Accessory Service Handbook*).

**Medium-Profile
Desktop Vectras**



HP Vectra VA 6/xxx PC Series 14-7

HP Vectra VA 6/xxx PC Series

System Board Parts List for HP Vectra VA 6/xxx PC

Description	Repl. Part Number	Exchange Part Number
System board:		
Vectra VA 6/xxx system board	—	D4201-69001
Processors:		
Intel Pentium Pro (P6) 180 MHz	5063-8755 or 5064-1804	—
Intel Pentium Pro (P6) 200 MHz	5063-8756 or 5064-1805	—
Thermal interface material	6040-0939	—
Heatsink and clip	1205-1170	—
Main memory modules:		
2 × 4-MB main memory 60-ns EDO RAM	D3646-63001	—
2 × 8-MB main memory 60-ns EDO RAM	D3647-63001	—
2 × 16-MB main memory 60-ns EDO RAM	D3648-63001	—
2 × 32-MB main memory 60-ns EDO RAM	D4543-63001	—
1 MB Video Memory (D4219A) Upgrade Kit:		
512 KB video memory module 50-ns	1818-6527	—
Batteries:		
3 V system board battery (type CR2032)	1420-0356	—

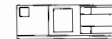
Software for HP Vectra VA 6/xxx PC

NT, OS/2 and Windows 95 drivers: <i>HP Vectra VA and XA Drivers</i> CD-ROM	5011-3831
DOS and Windows 3.x drivers: available from HP BBS or WWW	—

Manuals and Documentation for HP Vectra VA 6/xxx PC

<i>User's Guide</i> (Setting up the PC and Troubleshooting)	D4200A
<i>HP Help</i> (Using the PC and Technical information)	online ¹
<i>Familiarization Guide</i>	D4200-90901
<i>Technical Reference Manual: hardware and BIOS</i>	No number ¹

1. Electronic file only.



HP Vectra VA 6/xxx MT PC Series

Models and Accessories

Product Number	Flexible Drive A:	Hard Drive C:	Video Controller	Std. RAM	Multi-media	Network	OS ¹		
Vectra VA 6/xxx MT PC									
HP Vectra VA 6/200 MT PC (CPL: 08/96 ▶)									
D4206A	1.44 MB	None	Matrox MGA Millennium board, (2 MB, upgradeable to 4 MB or 8 MB)	16 MB	None	None	None		
D4207N		1.2 GB IDE		32 MB			8 × IDE CD-ROM (D4381A) and ISA Sound Board	NT 3.51 WS	
D4208N		2.5 GB IDE							
D4209N									
D4217N									NT 4.0 WS
D4218N		4 GB IDE							

1. Windows NT 3.51 is supplied on CD-ROM (not preloaded); Windows NT 4.0 is preloaded.

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Mini-Tower Vectras



HP Vectra VA 6/xxx MT PC Series

Supported Accessories

8-MB kit (2 × 4-MB) 32-bit EDO, 60 ns main memory modules	D3646B
16-MB kit (2 × 8-MB) 32-bit EDO, 60 ns main memory modules	D3647B
32-MB kit (2 × 16-MB) 32-bit EDO, 60 ns main memory modules	D3648B
64-MB kit (2 × 32-MB) 32-bit EDO, 60 ns main memory modules	D4543A
2-MB, 50 ns video memory upgrade kit	D3557B

Documentation

HP Vectra VA MT <i>User's Guide</i> Manual Kit	D4210A
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Input Devices

HP mouse	C3751B
HP keyboard for Windows® 95	C4725A

Video Displays

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

Mass Storage

1.2-GB IDE hard disk	D2785A
Flexible disk 3.5-inch 1.44-MB (1-inch high)	D2035B
IDE 8× CD-ROM drive	D4381A
Multimedia sound accessory kit (8× CD-ROM drive, Plug-and-Play ISA audio board, headphones)	D4179A
3.5-inch side mounting rails (packs of 5 pairs)	D3566A
5.25-inch side mounting rails (packs of 5 pairs)	D2880A

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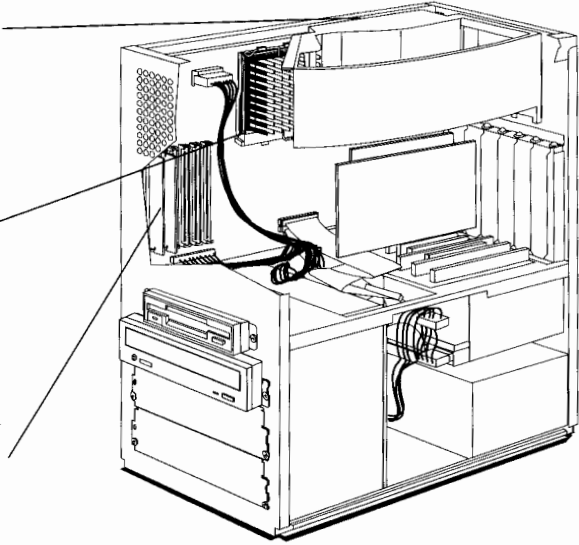


System Board, BIOS, and Memory

System Board Switches

Processor:
Zero Insertion Force (ZIF)
socket allows upgrades
using overdrive
processors.

Main Memory:
16 MB or 32 MB,
depending on model, fitted
as standard.
Install pairs of identical
modules in each bank, up
to a maximum of 192 MB.



HP Vectra VA 6/xxx MT PC Series

System Board Switches

Switch	Function		Default
1-5	-	Processor frequency, see the table below	-
6	Open	Normal operation	Open
	Closed	Clear the configuration data (in CMOS memory)	
7	Open	Normal operation	Open
	Closed	Clears all passwords	
8	Open	Disables keyboard power-on	Closed
	Closed	Enables the PC to be turned on from the space bar on the keyboard	
9	Open	Normal operation	Open
	Closed	Clears the Product Identification (VA)	
10	Open	Pentium Pro 3.3 V	Open
	Closed	Pentium Pro 3.5 V	

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Processor Frequency	Switch				
	1	2	3	4	5
150 MHz	Closed	Open	Open	Open	Closed
166 MHz	Open	Open	Open	Open	Closed
180 MHz	Closed	Open	Open	Closed	Open
200 MHz	Open	Open	Open	Closed	Open
233 MHz	Open	Open	Open	Closed	Closed
266 MHz	Open	Open	Closed	Open	Open

BIOS History

The latest BIOS, the flasher utility program, and the BIOS history can each be obtained from the World Wide Web:

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



Main Memory

The PC has three banks on the system board for installing main memory; banks A, B and C. Each bank consists of two sockets. The PC is supplied with 16 or 32 MB of main memory (composed of two memory modules installed in any bank). The PC uses 60-ns EDO DRAM.

Memory modules must be installed in identical pairs, so that each bank with memory installed contains two memory modules of the same size and type (both EDO, or both FPM).

Main memory can be installed up to a maximum of 192 MB.

Video Memory

The PC is supplied with 2 MB of video memory. An additional 2 MB of video memory can be installed by adding a D3557B module in the video memory socket. This will make a total of 4 MB. Alternatively, an additional 6 MB of video memory can be installed by adding an MGA-MIL/MOD6 module in the video memory socket (ordered from Matrox); this will make a total of 8 MB.

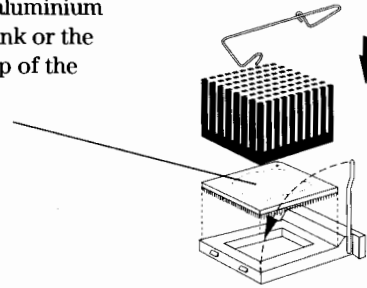
Matrox Video Board Switches

Switch	Function
1	<ul style="list-style-type: none"> • OFF to prevent Video BIOS upgrades - DEFAULT • ON to allow Video BIOS upgrades
2	<ul style="list-style-type: none"> • OFF for single-screen operation - DEFAULT • ON for dual-screen operation (with second VGA controller)

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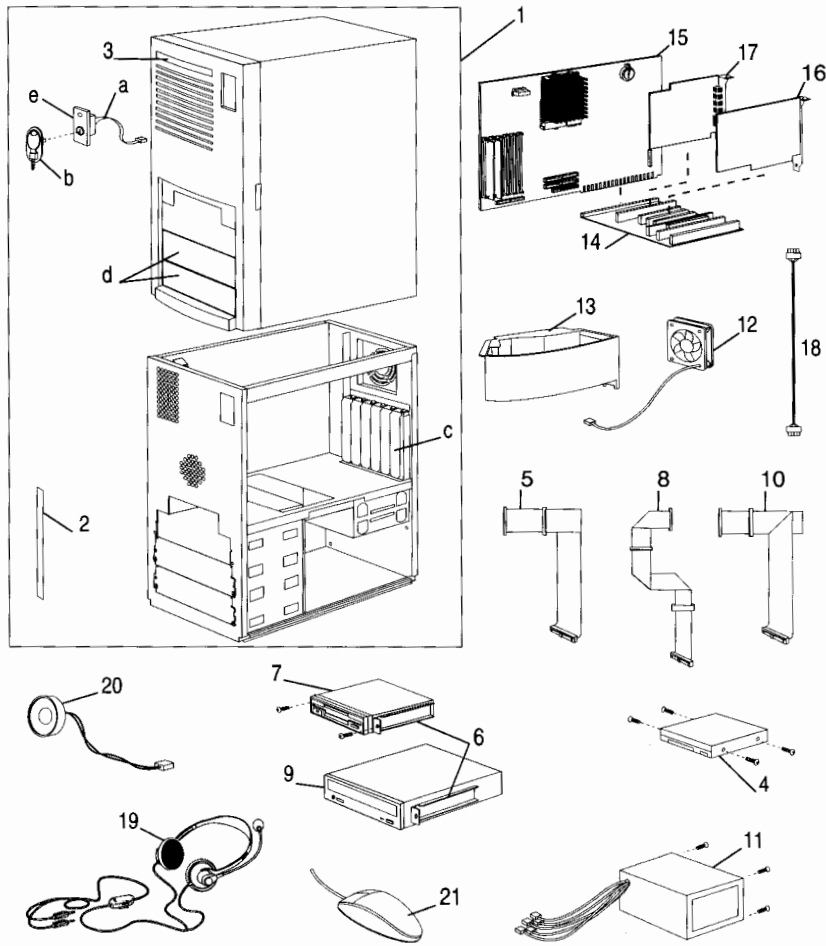
Replacing the Processor Chip

If any thermal interface material, such as aluminium foil or silicone, is supplied with the heat-sink or the processor chip, place it carefully on the top of the processor before installing the heat-sink.



Part Numbers

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HP Vectra VA 6/xxx MT PC Series

Parts List for HP Vectra VA 6/xxx MT PC

Item	Description	Repl. Part Number	Exchange Part Number
1	Box assembly:	5064-0236	—
	a Power switch and cable	5063-8737	
	b Cover lock assembly	5062-5590	
	c I/O panel blank	45935-00004	
	d Filler panel 5.25 inch	5042-1178	
	e Lock panel	5064-1880	
2	Rear bezel connector label	5042-1831	—
3	VA MT logo	5042-1826	—
4	IDE hard disk drive (standard) ¹		
	1.2 GB	—	D2930-69001
	1.6 GB	—	D4621-69001
	2.5 GB	—	D2784-69001
	4 GB	—	D2687-69001
5	IDE hard disk cable	5182-3507	—
6	Rail kit (3 × 5.25 inch)	5063-7961	—
7	Flexible disk drive	D2035-60152	—
8	Flexible disk drive cable	5182-3509	—
9	IDE 8× CD-ROM drive	—	D4381-69001
10	IDE CD-ROM cable	5182-3508	—
11	Power supply	5063-8760	—
12	Fan	3160-1054	—
13	Airflow guide	5042-1484	—
14	Backplane board	5064-0244	—
15	System board	See PC's system board parts list	
16	Matrox Millennium video board Rev. 6.00	—	D3568-69006
17	Audio board	5063-9057	—
18	CD-ROM to Audio Board cable	5182-1857	—
19	Headphones	5182-3552	—
20	Internal speaker	5063-4559	—
21	Mouse	C3751-60201	—
	Keyboard	C3758-602xx ²	—

1. For optional disk drive information, see the *Accessory Service Handbook*.
2. Where "xx" is the code for your national keyboard (see the *Accessory Service Handbook*).

Mini-Tower Vectras



HP Vectra VA 6/xxx MT PC Series 15-7

HP Vectra VA 6/xxx MT PC Series

System Board Parts List for HP Vectra VA 6/xxx MT PC

Description	Repl. Part Number	Exchange Part Number
System board:		
Vectra VA 6/xxx MT system board	—	D4205-69001
Processors:		
Intel Pentium Pro (P6) 200 MHz	5063-8756 or 5064-1805	—
Thermal interface material	6040-0939	—
Heatsink and clip	1205-1170	—
Main memory modules:		
2 × 4-MB main memory 60-ns EDO RAM	D3646-63001	—
2 × 8-MB main memory 60-ns EDO RAM	D3647-63001	—
2 × 16-MB main memory 60-ns EDO RAM	D3648-63001	—
2 × 32-MB main memory 60-ns EDO RAM	D4543-63001	—
Video memory module:		
2 MB video memory module	D3557-63002	—
Batteries:		
3 V system board battery (type CR2032)	1420-0356	—

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Software for HP Vectra VA 6/xxx MT PC

NT, OS/2 and Windows 95 drivers: <i>HP Vectra VA and XA Drivers</i> CD-ROM	5011-3831
Multimedia software	5964-8365
DOS and Windows 3.x drivers: available from HP BBS or WWW	—

Manuals and Documentation for HP Vectra VA 6/xxx MT PC

<i>User's Guide</i> (Setting up the PC and Troubleshooting)	D4210A
<i>HP Help</i> (Using the PC and Technical information)	online ¹
<i>Familiarization Guide</i>	D4200-90901
<i>Technical Reference Manual: hardware and BIOS</i>	No number ¹

1. Electronic file only.



HP Vectra VL 6/xxx Series 6 PC

Models and Accessories

Product Number	Cache Memory	Hard Drive	Video Controller	Std. RAM	Multi-media	LAN	OS ¹
Vectra VL 6/xxx Series 6 PC HP Vectra VL 6/233 Series 6 PC (CPL: 7/97 ▶)							
D5042N	512 KB	2.5 GB IDE	Integrated Cirrus 5446 (2 MB video memory fitted, not upgradable)	32 MB EDO 60 ns	no	no	Win 95
D5042W							NT 4.0 WS
HP Vectra VL 6/266 Series 6 PC (CPL: 7/97 ▶)							
D5043N/T	512 KB	2.5 GB IDE	Integrated Cirrus 5446 (2 MB video memory fitted, not upgradable)	32 MB EDO 60 ns	no	no	NT 4.0 WS
D5043W							Win 95
D5044N		4 GB IDE	Matrox MGA Millennium II board, (4 MB, upgradeable to 8 MB)	24 × Max IDE CD-ROM and ISA Plug-n-Play Audio Board	NT 4.0 WS		
D5045N	512 KB	2.5 GB IDE	Integrated Cirrus 5446 (2 MB video memory fitted, not upgradable)			yes	NT 4.0 WS

1. Windows NT 4.0 WS or Windows 95 operating system is preloaded on those models indicated in the table. Models with Windows NT 4.0 WS operating system come with a downgrade coupon for Windows NT 3.51 or Windows 95.

Medium-Profile
Desktop Vectras



HP Vectra VL 6/xxx Series 6 PC 16-1

HP Vectra VL 6/xxx Series 6 PC

Product Number	Cache Memory	Hard Drive	Video Controller	Std. RAM	Multi-media	LAN	OS ¹
HP Vectra VL 6/300 Series 6 PC (CPL: 7/97 ▶)							
D5435N	512 KB	4 GB IDE	Integrated Cirrus 5446 (2 MB video memory fitted, not upgradable)	32 MB EDO 60 ns	no	no	NT 4.0 WS

1. Windows NT 4.0 WS or Windows 95 operating system is preloaded on those models indicated in the table. Models with Windows NT 4.0 WS operating system come with a downgrade coupon for Windows NT 3.51 or Windows 95.

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Supported Accessories

32-MB kit (2 × 16-MB) 32-bit EDO, 60 ns main memory modules	D3648B
64-MB kit (2 × 32-MB) 32-bit EDO, 60 ns main memory modules	D4543A
128-MB kit (2 × 64-MB) 32-bit EDO, 60 ns main memory modules	D5188A ¹
20 × 16-MB, 32-bit EDO, 60 ns main memory modules	D3649A
4 MB, 50 ns video memory upgrade kit for Matrox Millennium II board	D5487A

Documentation

<i>User's Guide</i> Manual Kit	D5040A
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Input Devices

HP mouse	C3751B
HP keyboard for Windows® 95	C4725A



Video Displays

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

Mass Storage

ZIP 100 MB IDE Disk Drive	D4390A
2.5-GB IDE hard disk	D2778A
4.3-GB IDE hard disk	D2677A
24× Max IDE CD-ROM drive	D4383A



Multimedia

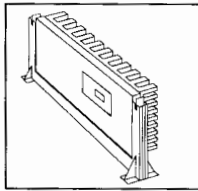
Multimedia sound accessory kit (24× Max CD-ROM drive, Plug-and-Play ISA audio board, headphones, cables, CD-ROM drive tray)	D5182A
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1. The PC's BIOS must be of version HD.07.03 or later for the D5188A memory accessory to work correctly. The version number is displayed when you start your PC. If necessary, download the latest version of the HP Vectra VL6 Series 6 BIOS from <http://www.hp.com/go/vectrasupport>.

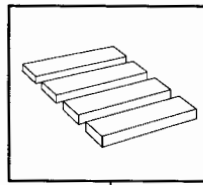


HP Vectra VL 6/xxx Series 6 PC

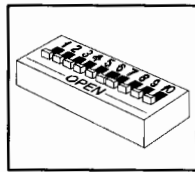
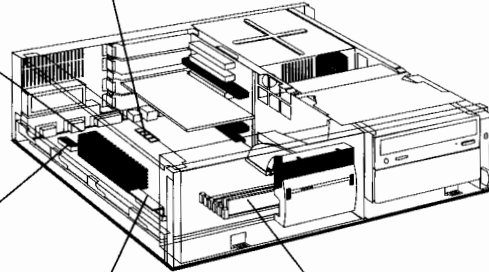
System Board, BIOS, and Memory



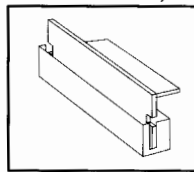
Processor: Pentium II module with integrated heatsink, level-1 and level-2 cache memory.



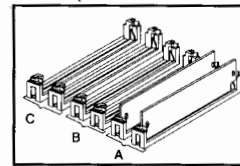
Video Memory: 2 MB on models with integrated graphics. This is not upgradeable since it is fully populated already.



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



VRM: Always use the VRM that is supplied with the processor.



Main Memory: 1 bank containing a pair of 16 MB modules. Install pairs of identical modules in each bank, up to a maximum of 192 MB.

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System Board Switches

Switch	Function		Default
1-5	-	Processor frequency, see the following table	-
6	Open	Normal operation	Open
	Closed	Clears CMOS (to reload the <i>Setup</i> program defaults)	
7	Open	Normal operation	Open
	Closed	Clears User and Administrator passwords	
8	Open	Disables keyboard power-on	Closed
	Closed	Normal operation	
9	Open	Not used	Open
10	Open	Normal operation	Open
	Closed	Clears product identification field	

Processor Frequency	Switch		Local Bus Frequency	Switch			Frequency Ratio Processor : Local Bus
	1	2		3	4	5	
200 MHz ¹	Open	Open	66 MHz	Open	Closed	Open	3 : 1
233 MHz	Open	Open	66 MHz	Open	Closed	Closed	3.5 : 1
266 MHz	Open	Open	66 MHz	Closed	Open	Open	4 : 1
300 MHz ¹	Open	Open	66 MHz	Closed	Open	Closed	4.5 : 1
333 MHz ¹	Open	Open	66 MHz	Closed	Closed	Open	5 : 1

1. Switch settings if these processor frequencies become available.

BIOS History

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

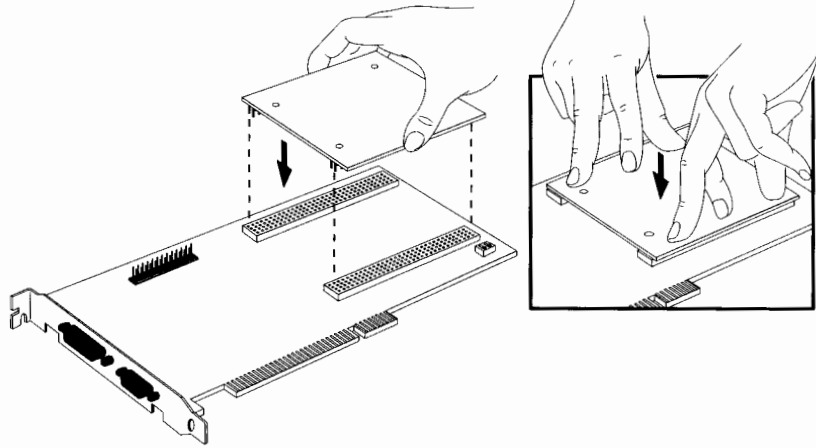
<http://www.hp.com/go/vectrasupport>



HP Vectra VL 6/xxx Series 6 PC

Matrox Millennium II Video Memory Upgrade

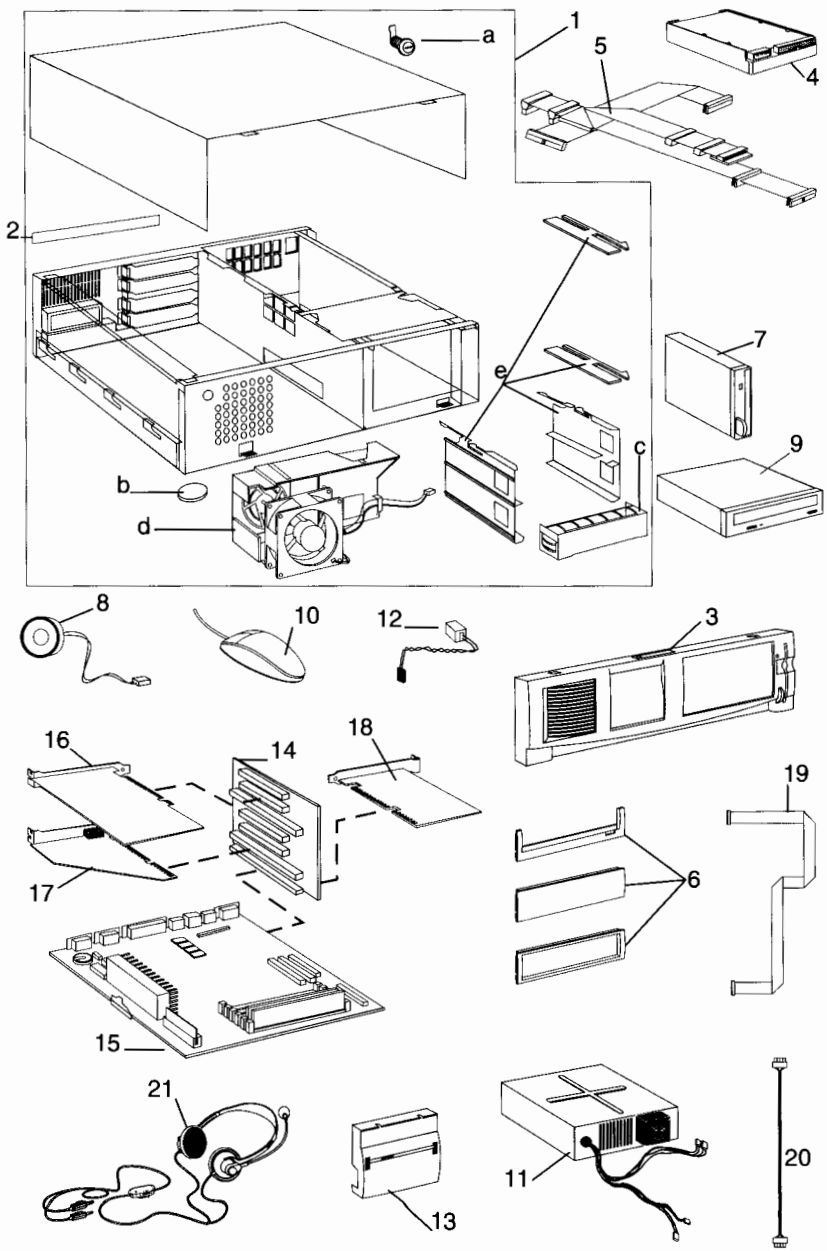
Models with the Matrox MGA Millennium Pro graphics controller are supplied with 4 or 8 MB of video memory. A 4 MB video memory upgrade module can be ordered from HP (D5487A).



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Part Numbers



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Medium-Profile
Desktop Vectras



HP Vectra VL 6/xxx Series 6 PC 16-7

HP Vectra VL 6/xxx Series 6 PC

Parts List for HP Vectra VL 6/xxx Series 6 PC

Item	Description	Repl. Part Number	Exchange Part Number
1	Box assembly:	5064-3609	—
	a Cover lock assembly	5062-5590	
	b Bumper foot	5181-0394	
	c RFI filler plate (5.25 inch)	5002-1970	
	d Fan / HP holder assembly	5064-0247	
	e CD-ROM drive/FDD holder kit	5064-2664	
2	Rear bezel connector label	5042-2420	—
3	Bezel assembly	5464-0259	—
4	IDE hard disk drive (standard) ¹		
	2.5 GB	—	D2678-69001
	2.5 GB	—	D2686-69001
	2.5 GB	—	D2686-69003
	4.3 GB	—	D2677-69001
	4.0 GB	—	D2687-69001
	6.4 GB	—	D5191-69001
5	IDE and FDD cable kit	5064-2676	—
6	Filler kit	5064-2667	—
7	Flexible disk drive (bezelless)	D2035-60172	—
8	Internal speaker	5063-4559	—
9	24X Max IDE CD-ROM drive	D4383-63001	D4383-69001
10	Mouse	C3751-60201	—
	Keyboard	C3758-602xx ²	—
11	Power supply	0950-3211	—
12	3 V external battery	1420-0552	—
13	Status panel	5064-0260	—
	Multimedia control panel	5064-0261	—
14	Double-sided backplane board	5064-0243	—
15	System board	See PC's system board parts list	
16	Matrox Millennium II graphics board	5064-2610	D3568-69102
17	Audio board	D5182-63001	—
18	10/100BT LAN board (10BT Remote Power On, 100BT Remote Wake Up)	5064-1802	
	10/100BT LAN board, full RPO	5064-2605	
19	Internal network cable	5183-0785	
20	CD-ROM to audio board cable	5182-1857	—
21	Headphones	5182-3552	—

- For optional disk drive information, see the *Accessory Service Handbook*.
- Where "xx" is the code for your national keyboard (see the *Accessory Service Handbook*).



HP Vectra VL 6/xxx Series 6 PC

System Board Parts List for HP Vectra VL 6/xxx Series 6 PC

Description	Repl. Part Number	Exchange Part Number
System board:		
Vectra VL 6/xxx system board with video	—	D5041-69001
Vectra VL 6/xxx system board without video	—	D5051-69001
Processors:		
Intel Pentium II 233/512	5064-2651	—
Intel Pentium II 266/512	5064-2652	—
Intel Pentium II 300/512	5064-3330	—
VRM, Voltage regulator module	5064-2655	—
Main memory modules:		
2 × 16-MB main memory 60-ns EDO RAM	D3648-63001	—
2 × 32-MB main memory 60-ns EDO RAM	D4543-63001	—
Video memory module:		
4 MB Matrox video memory (WRAM) upgrade kit	D5487-63001	—
Batteries:		
3 V system board battery (type 2032)	1420-0314	—

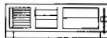
Manuals and Documentation for HP Vectra VL 6/xxx Series 6 PC

<i>User's Guide</i>	D5040-90001
<i>Familiarization Guide</i>	D5040-90901
<i>Technical Reference Manual: hardware and BIOS</i>	no number ¹

1. Electronic file only.

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Notes: _____



HP Vectra VL 6/xxx MT Series 6 PC

Models and Accessories

Product Number	Cache Memory	Hard Drive	Video Controller	Std. RAM	Multi-media	LAN	OS ¹
Vectra VL 6/xxx MT Series 6 PC HP Vectra VL 6/233 MT Series 6 PC (CPL: 7/97 ▶)							
D5051N	512 KB	4 GB IDE	Matrox MGA Millennium II board, (4 MB, upgradeable to 8 MB)	32 MB EDO 60 ns	24 × Max IDE CD-ROM and ISA Plug-n-Play Audio Board	no	NT 4.0 WS
D5053N		2.5 GB IDE					
HP Vectra VL 6/266 MT Series 6 PC (CPL: 7/97 ▶)							
D5052C	512 KB	4.3 GB IDE	Matrox MGA Millennium II board, (4 MB, upgradeable to 8 MB)	64 MB EDO 60 ns	24 × Max IDE CD-ROM and ISA Plug-n-Play Audio Board	yes	Win 95
D5052NT		4 GB IDE					
HP Vectra VL 6/300 MT Series 6 PC (CPL: 7/97 ▶)							
D5436N	512 KB	6.4 GB IDE	Matrox MGA Millennium II board, (8 MB, upgradeable to 12 MB)	64 MB EDO 60 ns	24 × Max IDE CD-ROM and ISA Plug-n-Play Audio Board	yes	NT 4.0 WS

1. Windows NT 4.0 WS or Windows 95 operating system is preloaded on those models indicated in the table. Models with Windows NT 4.0 WS operating system come with a downgrade coupon for Windows NT 3.51 or Windows 95.

Mini-Tower Vectras



HP Vectra VL 6/xxx MT Series 6 PC 17-1

HP Vectra VL 6/xxx MT Series 6 PC Series

Supported Accessories

32-MB kit (2 × 16-MB) 32-bit EDO, 60 ns main memory modules	D3648B
64-MB kit (2 × 32-MB) 32-bit EDO, 60 ns main memory modules	D4543A
128-MB kit (2 × 64-MB) 32-bit EDO, 60 ns main memory modules	D5188A ¹
20 × 16-MB, 32-bit EDO, 60 ns main memory modules	D3649A
4 MB, 50 ns video memory upgrade kit for Matrox Millennium II board	D5487A

Documentation

<i>User's Guide</i> Manual Kit	D5050A
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Input Devices

HP mouse	C3751B
HP keyboard for Windows® 95	C4725A

Video Displays

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

Mass Storage

ZIP 100 MB IDE Disk Drive	D4390A
2.5-GB IDE hard disk	D2778A
4.3-GB IDE hard disk	D2677A
24× Max IDE CD-ROM drive	D4383A

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Multimedia

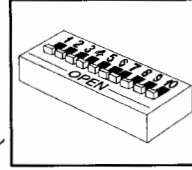
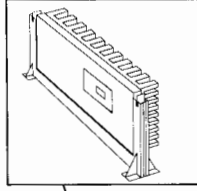
Multimedia sound accessory kit (24× Max CD-ROM drive, Plug-and-Play ISA audio board, headphones, cables, CD-ROM drive tray) D5182A

1. The PC's BIOS must be of version HD.07.03 or later for the D5188A memory accessory to work correctly. The version number is displayed when you start your PC. If necessary, download the latest version of the HP Vectra VL6 Series 6 BIOS from <http://www.hp.com/go/vectrasupport>.

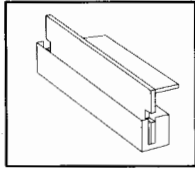


System Board, BIOS, and Memory

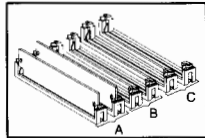
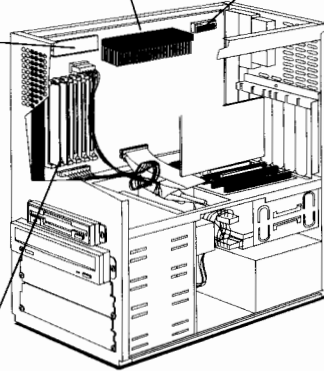
Processor: Pentium II module with integrated heatsink, level-1 and level-2 cache memory.



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



VRM: Always use the VRM that is supplied with the processor.



Main Memory: 1 bank containing a pair of 16 MB or 32 MB modules. Install pairs of identical modules in each bank, up to a maximum of 192 MB.



HP Vectra VL 6/xxx MT Series 6 PC Series

System Board Switches

Switch	Function		Default
1-5	-	Processor frequency, see the following table	-
6	Open	Normal operation	Open
	Closed	Clears CMOS (to reload the <i>Setup</i> program defaults)	
7	Open	Normal operation	Open
	Closed	Clears User and Administrator passwords	
8	Open	Disables keyboard power-on	Closed
	Closed	Normal operation	
9	Open	Not used	Open
10	Open	Normal operation	Open
	Closed	Clears product identification field	

Processor Frequency	Switch		Local Bus Frequency	Switch			Frequency Ratio Processor : Local Bus
	1	2		3	4	5	
200 MHz ¹	Open	Open	66 MHz	Open	Closed	Open	3 : 1
233 MHz	Open	Open	66 MHz	Open	Closed	Closed	3.5 : 1
266 MHz	Open	Open	66 MHz	Closed	Open	Open	4 : 1
300 MHz ¹	Open	Open	66 MHz	Closed	Open	Closed	4.5 : 1
333 MHz ¹	Open	Open	66 MHz	Closed	Closed	Open	5 : 1

1. Switch settings if these processor frequencies become available.

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BIOS History

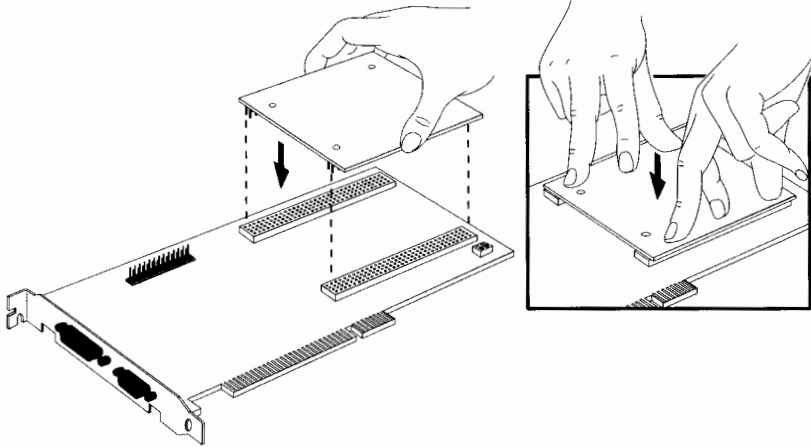
For the latest BIOS, the flasher utility program, and the BIOS history refer to the HP World Wide Web site.

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

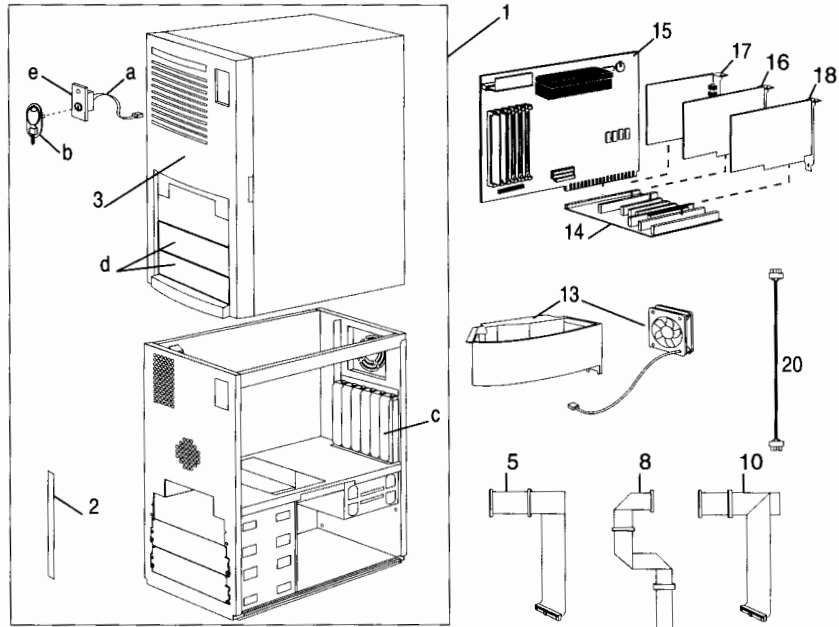


Matrox Millennium II Video Memory Upgrade

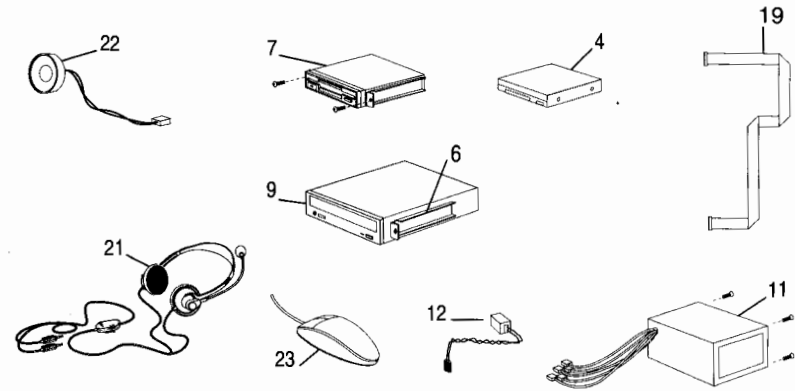
Models with the Matrox MGA Millennium Pro graphics controller are supplied with 4 or 8 MB of video memory. A 4 MB video memory upgrade module can be ordered from HP (D5487A).



Part Numbers



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HP Vectra VL 6/xxx MT Series 6 PC Series

Parts List for HP Vectra VL 6/xxx MT Series 6 PC

Item	Description	Repl. Part Number	Exchange Part Number
1	Box assembly:	5064-1842	—
	a Power switch and cable	5063-8737	
	b Cover lock assembly	5062-5590	
	c I/O panel blank	45935-00004	
	d Filler panel 5.25 inch	5042-1178	
	e Lock panel	5064-1880	
2	Rear bezel connector label	5024-2672	—
3	Bezel assembly	5063-7959	—
4	IDE hard disk drive (standard) ¹		
	2.5 GB	—	D2678-69001
	2.5 GB	—	D2686-69001
	2.5 GB	—	D2686-69003
	4.3 GB	—	D2677-69001
	4.0 GB	—	D2687-69001
	6.4 GB	—	D5191-69001
5	IDE hard disk cable	5183-2103	—
6	Rail kit (3 × 5.25 inch)	5063-7961	—
7	Flexible disk drive	D2035-60152	—
8	Flexible disk drive cable	5182-3509	—
9	24× Max IDE CD-ROM drive	—	D4383-69001
10	IDE CD-ROM cable	5183-2104	—
11	Power supply 160W	0950-3233	—
	Power supply 150W	0950-2694	—
12	3 V external battery	1420-0552	—
13	Airflow guide and fan	5064-1886	—
14	Backplane board	5064-1843	—
15	System board	See PC's system board parts list	
16	Matrox Millennium II board 4 MB 220 MHz	5064-2610	D3568-69102
	Matrox Millennium II board 8MB 250 MHz		D3568-69201
17	Audio board	D5182-63001	—
18	10/100BT LAN board (10BT Remote Power On, 100BT Remote Wake Up)	5064-1802	
	10/100BT LAN board, full RPO	5064-2605	
19	Internal network cable	5183-0785	
20	CD-ROM to audio board cable	5182-1857	—

1. For optional disk drive information, see the *Accessory Service Handbook*.

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HP Vectra VL 6/xxx MT Series 6 PC Series

Parts List for HP Vectra VL 6/xxx MT Series 6 PC (continued)

Item	Description	Repl. Part Number	Exchange Part Number
21	Headphones	5182-3552	—
22	Internal speaker	5063-4559	—
23	Mouse	C3751-60201	—
	Keyboard	C3758-602xx ¹	—

1. Where "xx" is the code for your national keyboard (see the *Accessory Service Handbook*).

System Board Parts List for HP Vectra VL 6/xxx MT Series 6 PC

Description	Repl. Part Number	Exchange Part Number
System board: Vectra VL 6/xxx system board without video	—	D5051-69001
Processors: Intel Pentium II 233/512	5064-2651	—
Intel Pentium II 266/512	5064-2652	—
Intel Pentium II 300/512	5064-3330	—
VRM, Voltage regulator module	5064-2655	—
Main memory modules: 2 × 16-MB main memory 60-ns EDO RAM	D3648-63001	—
2 × 32-MB main memory 60-ns EDO RAM	D4543-63001	—
Video memory module: 4 MB Matrox video memory (WRAM) upgrade kit	D5487-63001	—
Batteries: 3 V system board battery (type 2032)	1420-0314	—

Manuals and Documentation for HP Vectra VL 6/xxx MT Series 6 PC

<i>User's Guide</i>	D5050-90001
<i>Familiarization Guide</i>	D5040-90901
<i>Technical Reference Manual: hardware and BIOS</i>	no number ¹

1. Electronic file only.

Notes: _____



HP Vectra VL 5/xxx Series 5 PC

Models and Accessories

Product Number	Hard Drive	Video Controller	Std. RAM ¹	Multi-media	LAN	OS ²	
Vectra VL 5/xxx Series 5 PC							
HP Vectra VL 5/120 Series 5 PC (CPL: 3/97 ▶)							
D4591A	1.6 GB IDE	S3 Trio 64 V2 Integrated Ultra VGA (1 MB, upgradeable to 2 MB)	16 MB EDO 60 ns	no	no	WfW 3.11 or W'95	
HP Vectra VL 5/133 Series 5 PC (CPL: 3/97 ▶)							
D4551A	none	S3 Trio 64 V2 Integrated Ultra VGA (1 MB, upgradeable to 2 MB)	8 MB EDO 60 ns	no	no	none	
D4552A	1.6 GB IDE						
D4565A							Ethernet 10 BT PCI board
D4553A							
D4554A							16 MB EDO 60 ns
D4555A	2.5 GB IDE	Matrox MGA Millennium board (2 MB, upgradeable to 4 or 8 MB)	8× IDE CD-ROM (D4381A) + ISA Audio Board (D4179A)	no	no	no	
D4568A							
D4566N	1.6 GB IDE	S3 Trio 64 V2 Integrated Ultra VGA (1 MB, upgradeable to 2 MB)	32 MB EDO 60 ns	8× IDE CD-ROM (D4381A)		NT 4.0 WS	

Medium-Profile
Desktop Vectras



HP Vectra VL 5/xxx Series 5 PC 18-1

HP Vectra VL 5/xxx Series 5 PC

Product Number	Hard Drive	Video Controller	Std. RAM ¹	Multi-media	LAN	OS ²
HP Vectra VL 5/150 Series 5 PC (CPL: 3/97 ▶)						
D4556A	2.5 GB IDE	S3 Trio 64 V2 Integrated Ultra VGA (1 MB, upgradeable to 2 MB)	16 MB EDO 60 ns	no	no	WfW 3.11 or W'95
HP Vectra VL 5/166 Series 5 PC (CPL: 3/97 ▶)						
D4557A	1.6 GB IDE	S3 Trio 64 V2 Integrated Ultra VGA (1 MB, upgradeable to 2 MB)	16 MB EDO 60 ns	no	no	WfW 3.11 or W'95
D4558A					Ethernet 10 BT PCI board	
D4559A	2.5 GB IDE	S3 Trio 64 V2 Integrated Ultra VGA (2 MB)	no	8×IDE CD-ROM (D4381A) + ISA Audio Board (D4179A)	no	NT 4.0 WS
D4560A						
D4569A					Matrox MGA Millennium board (2 MB, upgradeable to 4 or 8 MB)	
D4567N	1.6 GB IDE	S3 Trio 64 V2 Integrated Ultra VGA (1 MB, upgradeable to 2 MB)	32 MB EDO 60 ns	8×IDE CD-ROM (D4381A)		NT 4.0 WS
D4561N	2.5 GB IDE	S3 Trio 64 V2 Integrated Ultra VGA (2 MB)				

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HP Vectra VL 5/xxx Series 5 PC

Product Number	Hard Drive	Video Controller	Std. RAM ¹	Multi-media	LAN	OS ²
HP Vectra VL 5/166 MMX Series 5 PC (CPL: xx/97 ▶)						
D4592A/T³	1.6 GB IDE	S3 Trio 64 V2 Integrated Ultra VGA (2 MB)	16 MB EDO 60 ns	no	no	WfW 3.11 or W'95
D4593A/T³	2.5 GB IDE					
D4594A						
D4594B/T³				24× IDE CD- ROM (D4383A) + ISA PnP Audio Board		
D5630A	1.6 GB IDE			no	Ethernet 10/100 BT PCI board	
D5632N	2.5 GB IDE		32 MB EDO 60 ns			NT 4.0 WS
HP Vectra VL 5/200 Series 5 PC (CPL: 3/97 ▶)						
D4562A	2.5 GB IDE	S3 Trio 64 V2 Integrated Ultra VGA (2 MB)	16 MB EDO 60 ns	no	Ethernet 10 BT PCI board	WfW 3.11 or W'95
D4563A			32 MB EDO 60 ns	8×IDE CD-ROM (D4381A) + ISA Audio Board (D4179A)	no	
D4590A		Matrox MGA Millennium board (2 MB, upgradeable to 4 or 8 MB)	16 MB EDO 60 ns			

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**Medium-Profile
Desktop Vectras**



HP Vectra VL 5/xxx Series 5 PC 18-3

HP Vectra VL 5/xxx Series 5 PC

Product Number	Hard Drive	Video Controller	Std. RAM ¹	Multi-media	LAN	OS ²
HP Vectra VL 5/200 MMX Series 5 PC (CPL: 3/97 ▶)						
D4595A/T ³	2.5 GB IDE	S3 Trio 64 V2 Integrated Ultra VGA (2 MB)	16 MB EDO 60 ns	no	no	WfW 3.11 or W'95
D4596A			32 MB EDO 60 ns	8× IDE CD-ROM (D4381A) + ISA Audio Board (D4179A)		
D4596B/T ³				24× IDE CD-ROM (D4383A) + ISA PnP Audio Board		
D5628N				no		NT 4.0 WS
D5631A				16 MB EDO 60 ns		Ethernet 10/100 BT PCI board
D5910A	2.1 GB IDE				no	
HP Vectra VL 5/233 MMX Series 5 PC (CPL: xx/97 ▶)						
D5222A/T ³	2.5 GB IDE	S3 Trio 64 V2 Integrated Ultra VGA (2 MB)	32 MB EDO 60 ns	no	no	WfW 3.11 or W'95
D5622A/T ³					Ethernet 10/100 BT PCI board	
D5629N						no

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HP Vectra VL 5/xxx Series 5 PC

Product Number	Hard Drive	Video Controller	Std. RAM ¹	Multi-media	LAN	OS ²
HP Vectra VL 5/xxx⁴ Series 5 PC (CPL: 3/97 ▶)						
D4580E D5634E	1.6 GB IDE or 2.5 GB IDE or 4 GB IDE	S3 Trio 64 V2 Integrated Ultra VGA (1 MB or 2 MB)	16 MB or more EDO 60 ns	none or 24× IDE CD-ROM (D4383A)	no	WfW 3.11 or W'95 or NT 4.0 WS
D4581E				no	Ethernet 10 BT PCI board	
D4581F				none or 24× IDE CD-ROM (D4383A)	Ethernet 10/100 BT PCI board	
D4582E		S3 Trio 64 V2 Integrated Ultra VGA (2 MB)		8× IDE CD-ROM (D4381A)	no	
D4583E				8× IDE CD-ROM (D4381A) + ISA Audio Board (D4179A)		
D4583F D5636E				24× IDE CD- ROM (D4383A) + ISA PnP Audio Board		

1. All models have 256 KB of level-two cache memory integrated on the system board.
2. Includes preloaded online HP Help
3. T models are for US market only.
4. Can be supplied with a 133, 150, 166, 200, 166 MMX, 200 MMX or 233 MMX MHz Pentium processor.



**Medium-Profile
Desktop Vectras**



HP Vectra VL 5/xxx Series 5 PC 18-5

HP Vectra VL 5/xxx Series 5 PC

Supported Accessories

8 MB (2 × 4 MB), 32-bit EDO, 60 ns memory module	D3646B
16 MB (2 × 8 MB), 32-bit EDO, 60 ns memory module	D3647B
32 MB (2 × 16 MB), 32-bit EDO, 60 ns memory module	D3648B
64 MB (2 × 32 MB), 32-bit EDO, 60 ns memory module	D4543A ○
1-MB, 50 ns video memory upgrade kit for integrated S3 Trio 64 V2	D4219A
2-MB, 50 ns video memory upgrade kit for Matrox MGA Millennium board	D3557B
512 KB synchronous cache memory module	D4599A

Documentation

<i>User's Guide</i> Manual Kit	D4550A
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Input Devices

HP mouse	C3751B
HP keyboard for Windows® 95	C4725A ✓
HP keyboard for OS/2	C3757B

Video Displays

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

Mass Storage

2.5-GB IDE hard disk	D2786A
1.2-GB IDE hard disk	D2785A
8× CD-ROM drive (IDE)	D4381A
3.5-inch side mounting rails (packs of 5 pairs)	D3566A
5.25-inch side mounting rails (packs of 5 pairs)	D2880A

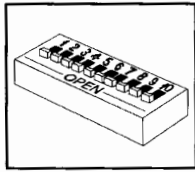
Multimedia

Multimedia sound accessory kit (8× CD-ROM drive, Plug-and-Play ISA audio board, headphones)	D4179A
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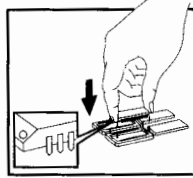
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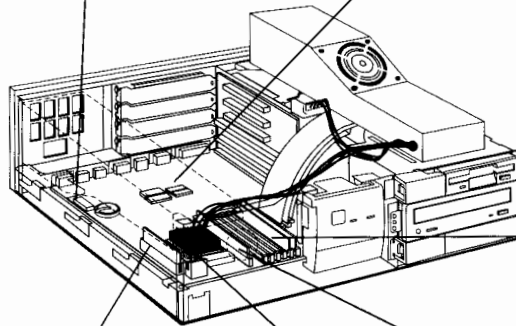
System Board, BIOS, and Memory



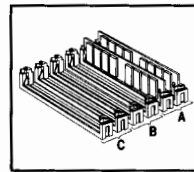
System Board Switches.



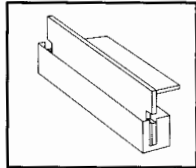
Video Memory:
Some models.
1 MB, 2 sockets to take two 512 KB upgrade chips.



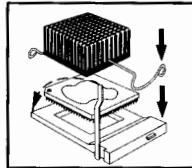
Main Memory: 1 bank containing a pair of 8 MB or 16 MB modules. Install pairs of identical modules in each bank, up to a maximum of 192 MB.



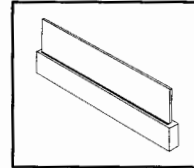
VRM: Always use the VRM that is supplied with the processor.



Processor: Never remove the thermal interface material between the processor and the heatsink.



Cache Memory: 1 socket containing a 256 KB module.



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HP Vectra VL 5/xxx Series 5 PC

System Board Switches

Switch		Function	Default
1-4, 7-8	-	Processor frequency, see the following table	-
5	Open	Normal operation	Open
	Closed	Clears User and Administrator passwords	
6	Open	Normal operation	Open
	Closed	Clears CMOS (to reload the <i>Setup</i> program defaults)	
9	Open	Disables keyboard power-on	Closed
	Closed	Normal operation	
10	Open	Normal operation	Open
	Closed	Clears product identification field	

Switch		Switch				Processor Frequency
1	2	3	4	7	8	
Closed	Open	Closed	Open	Closed	Closed	120 MHz
Open	Closed	Closed	Open	Closed	Closed	133 MHz
Closed	Open	Closed	Closed	Closed	Closed	150 MHz
Open	Closed	Closed	Closed	Closed	Closed	166 MHz
Open	Closed	Open	Closed	Closed	Closed	200 MHz
Open	Closed	Open	Open	Closed	Open	233 MHz ¹

1. The 233 MHz option is not yet available in any model of the HP Vectra VL 5/xxx Series 5 PC 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.

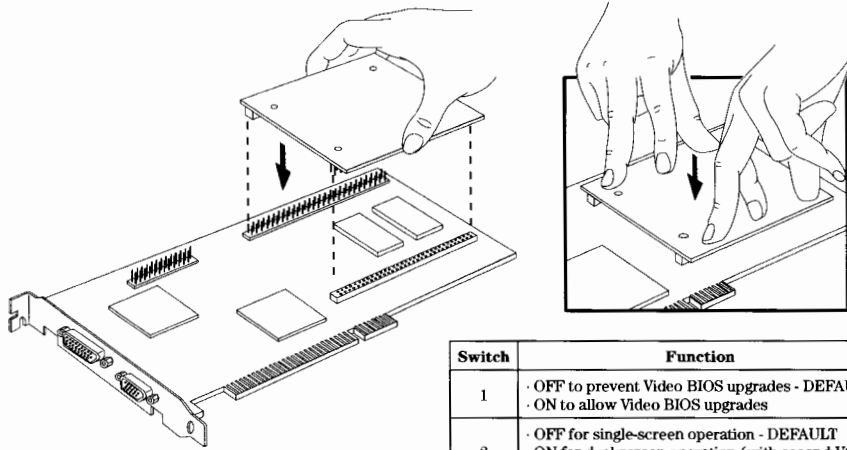
<http://www.hp.com/go/vectra/support>

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Matrox Millennium Video Memory Upgrade

Models with the Matrox MGA Millennium graphics controller are supplied with 2 MB of video memory. A 2 MB video memory upgrade module can be ordered from HP (**D3557B**), or a 6 MB module can be ordered from Matrox.

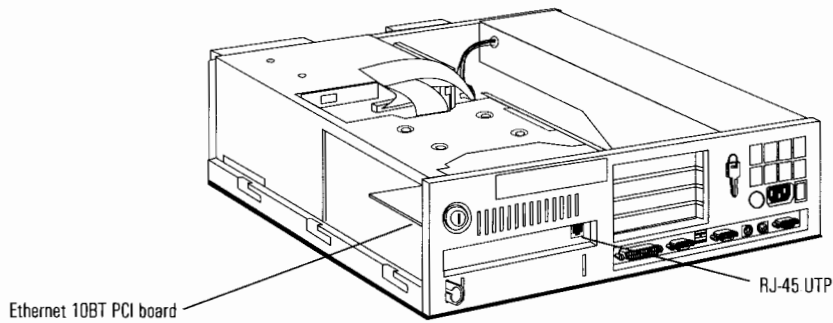




Switch	Function
1	· OFF to prevent Video BIOS upgrades - DEFAULT · ON to allow Video BIOS upgrades
2	· OFF for single-screen operation - DEFAULT · ON for dual-screen operation (with second VGA controller)

Ethernet 10BT PCI Board

The Ethernet 10BT PCI board is installed underneath the internal, hard disk drive, rear-shelf (some models only). It is plugged into the PCI accessory slot that is situated on the right-hand side of the double-sided backplane board. The board has one RJ-45 UTP network connector for 10 BaseT working.

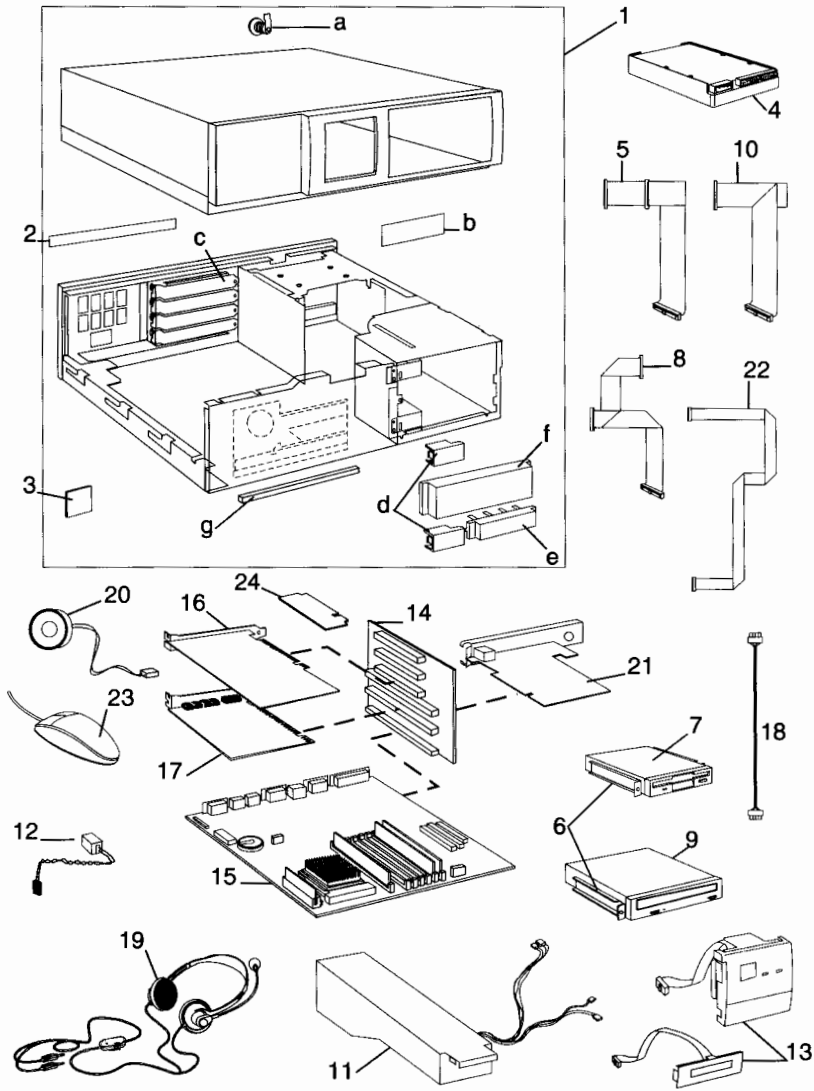


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Medium-Profile
Desktop Vectras



Part Numbers



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HP Vectra VL 5/xxx Series 5 PC

Parts List for HP Vectra VL 5/xxx Series 5 PC

Item	Description	Repl. Part Number	Exchange Part Number
1	Box assembly:	5064-0215	—
	a Cover lock assembly	5062-5590	
	b Serial number label	5182-0030	
	c I/O panel blank	45935-00004	
	d Filler panel 1.75 inch	5042-1155	
	e Filler panel 3.5 inch	5063-7067	
	f Filler panel 5.25 inch	5063-7066	
	g System board guide	5042-0507	
2	Rear bezel connector label (without video)	5042-1480	—
	Rear bezel connector label (with video)	5042-1481	
3	Logo	5042-1495	—
4	IDE hard disk drive (standard) ¹		
	1.6 GB	—	D4621-69001
	2.1 GB	—	D5193-69001
	2.5 GB	—	D2784-69001
	3.2 GB	—	D5194-69001
	4 GB	—	D2787-69001
5	IDE hard disk cable	5182-1862	—
6	Rail kit (1 × 3.5 inch, 1 × 5.25 inch)	5063-7922	—
7	Flexible disk drive	D2035-60152	—
8	Flexible disk drive cable	5182-1037	—
9	IDE 8× CD-ROM drive	—	D4381-69001
	IDE 24× CD-ROM drive	—	D4383-69001
10	IDE CD-ROM cable	5182-1856	—
11	Power supply	5063-7943	—
12	4.5V external battery	1420-0513	—
13	Status panel	5064-1870	—
	Sound control panel filler	5064-0288	—
14	Double-sided backplane board	5063-9093	—
15	System board	See PC's system board parts list	
16	Matrox Millennium video board Rev. 6.00	—	D3568-69006
17	Audio board (Sound Blaster)	5063-9057	—
	Audio Board (Atzec)	5064-2620	—
18	CD-ROM to Audio Board cable	5182-1857	—
19	Headphones	5182-3552	—
20	Internal speaker	5063-4559	—

1. For optional disk drive information, see the *Accessory Service Handbook*.



HP Vectra VL 5/xxx Series 5 PC

Parts List for HP Vectra VL 5/xxx Series 5 PC (continued)

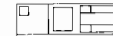
Item	Description	Repl. Part Number	Exchange Part Number
21	Ethernet 10 BaseT PCI network board	5063-8790	—
	Coax network adapter	D3979-63001	—
	Ethernet 10/100 BaseT PCI network board	5064-1802	—
22	Internal network cable	5182-5403	—
23	Mouse	C3751-60201	—
	Keyboard	C3758-602xx ¹	—
24	PCI terminator	5064-0289	—

1. Where "xx" is the code for your national keyboard (see the *Accessory Service Handbook*).

System Board Parts List for HP Vectra VL 5/xxx Series 5 PC

Description	Repl. Part Number	Exchange Part Number
System board:		
Vectra VL 5/xxx system board with video	—	D3830-69003
Vectra VL 5/xxx system board without video	—	D3835-69001
Processors:		
Intel Pentium P54CS 120 MHz (VCC)	5063-8765	—
Intel Pentium P54CS 133 MHz (VCC)	5063-7974	—
Intel Pentium P54CS 150 MHz (VCC)	5063-9019	—
Intel Pentium P54C 166 MHz (VRE)	5063-9049	—
Intel Pentium P54C 200 MHz (VRE)	5064-0246	—
Intel Pentium P55 166 MHz MMX	5064-1819	—
Intel Pentium P55 200 MHz MMX	5064-1820	—
Intel Pentium P55 233 MHz MMX	5064-2656	—
VRM, Voltage regulator module (for VRE)	5064-1847	—
VRM shorting block (for VCC)	5063-7939	—
Thermal interface material	6040-0940	—
VRM, Voltage regulator module (for MMX models)	0950-3188	—
Heat-sink and clip	1205-0832	—
Cache memory modules (pipeline burst)		
256 KB synchronous cache memory	D3659-63002	—
512 KB synchronous cache memory	D4599-63001	—
Main memory modules:		
2 × 4-MB main memory 60-ns EDO RAM	D3646-63001	—
2 × 8-MB main memory 60-ns EDO RAM	D3647-63001	—
2 × 16-MB main memory 60-ns EDO RAM	D3648-63001	—
2 × 32-MB main memory 60-ns EDO RAM	D4543-63001	—

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HP Vectra VL 5/xxx Series 5 PC

System Board Parts List for HP Vectra VL 5/xxx Series 5 PC (continued)

Description	Repl. Part Number	Exchange Part Number
Video memory module:		
1 MB S3 Trio 64 V2, 50 ns video memory upgrade	1818-6527	
2 MB Matrox video memory (WRAM) upgrade kit (D3557B)	D3557-63002	—
Batteries:		
3 V system board battery (type 2335)	1420-0314	—

Manuals and Documentation for HP Vectra VL 5/xxx Series 5 PC

<i>User's Guide</i>	D4550-90001
<i>Familiarization Guide</i>	D4550-90901
<i>Technical Reference Manual: hardware and BIOS</i>	D3984-90911 ¹

1. Electronic file only.

Software for HP Vectra VL 5/xxx Series 5 PC

Multimedia CD-ROM	5964-8365
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Notes: _____



HP Vectra VL 5/xxx MT Series 5 PC

Models and Accessories

Product Number	Hard Drive	Video Controller	Std. RAM ¹	Multi-media	LAN	OS ²
Vectra VL 5/xxx MT Series 5 PC HP Vectra VL 5/133 MT PC (CPL: 10/96 ▶)						
D4571A	none	S3 Trio 64 V2 Integrated Ultra VGA (2 MB)	16 MB EDO 60 ns	no	no	none
D4572A	1.6 GB IDE					WfW3.11 or W'95
D4573A	2.5 GB IDE	Matrox MGA Millennium board (2 MB, upgradeable to 4 or 8 MB)		8× IDE CD- ROM (D4381A) + ISA Audio Board (D4179A)		
HP Vectra VL 5/166 MT Series 5 PC (CPL: 3/97 ▶)						
D4574A	2.5 GB IDE	S3 Trio 64 V2 Integrated Ultra VGA (2 MB)	16 MB EDO 60 ns	no	no	WfW3.11 or W'95
D4579A		Matrox MGA Millennium board (2 MB, upgradeable to 4 or 8 MB)		8× IDE CD- ROM (D4381A) + ISA Audio Board (D4179A)		
D4575A						
D4576N		S3 Trio 64 V2 Integrated Ultra VGA (2 MB)	32 MB EDO 60 ns	8× IDE CD- ROM (D4381A)		NT 4.0 WS

Mini-Tower Vectras



HP Vectra VL 5/xxx MT Series 5 PC 19-1

HP Vectra VL 5/xxx MT Series 5 PC Series

Product Number	Hard Drive	Video Controller	Std. RAM ¹	Multi-media	LAN	OS ²
HP Vectra VL 5/166 MMX MT Series 5 PC (CPL: xx/97 ▶)						
D4597A/T³	2.5 GB IDE	S3 Trio 64 V2 Integrated Ultra VGA (2 MB)	16 MB EDO 60 ns	no	no	WfW3.11 or W'95
D5220A				8× IDE CD-ROM (D4381A) + ISA Audio Board (D4179A)		
D5220B/T³				24× IDE CD-ROM (D4383A) + ISA Audio Board		
HP Vectra VL 5/200 MT Series 5 PC (CPL: 3/97 ▶)						
D4577A	2.5 GB IDE	S3 Trio 64 V2 Integrated Ultra VGA (2 MB)	16 MB EDO 60 ns	8× IDE CD-ROM (D4381A) + ISA Audio Board (D4179A)	no	WfW3.11 or W'95
D4577B				24× IDE CD-ROM (D4383A) + ISA Audio Board		
D4578A				Matrox MGA Millennium board (2 MB, upgradeable to 4 or 8 MB)		
D5621A		S3 Trio 64 V2 Integrated Ultra VGA (2 MB)	16 MB EDO 60 ns			
D5626N			32 MB EDO 60 ns			NT 4.0 WS

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HP Vectra VL 5/xxx MT Series 5 PC Series

Product Number	Hard Drive	Video Controller	Std. RAM ¹	Multi-media	LAN	OS ²	
HP Vectra VL 5/200 MMX MT Series 5 PC (CPL: xx/97 ▶)							
D5221A	2.5 GB IDE	S3 Trio 64 V2 Integrated Ultra VGA (2 MB)	32 MB EDO 60 ns	8× IDE CD-ROM (D4381A) + ISA Audio Board (D4179A)	no	WfW3.11 or W'95	
D5221B/T³				24× IDE CD-ROM (D4383A) + ISA Audio Board			
D5633N				no			NT 4.0 WS
HP Vectra VL 5/233 MMX MT Series 5 PC (CPL: xx/97 ▶)							
D5223A	4 GB IDE	S3 Trio 64 V2 Integrated Ultra VGA (2 MB)	32 MB EDO 60 ns	8× IDE CD-ROM (D4381A) + ISA Audio Board (D4179A)	no	WfW3.11 or W'95	
D5223B/T³				24× IDE CD-ROM (D4383A) + ISA Audio Board			
D5623A				no			Ethernet 10/100 BT
D5624N				64 MB EDO 60 ns			no
D5911B	3.2 GB IDE		32 MB EDO 60 ns	24× IDE CD-ROM (D4383A) + ISA Audio Board		W'95	

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Mini-Tower Vectras



HP Vectra VL 5/xxx MT Series 5 PC 19-3

HP Vectra VL 5/xxx MT Series 5 PC Series

Product Number	Hard Drive	Video Controller	Std. RAM ¹	Multi-media	LAN	OS ²
HP Vectra VL 5/xxx⁴ Series 5 PC (CPL: 3/97 ▶)						
D4584E D5637E	1.6 GB IDE or 2.5 GB IDE or 4 GB IDE	S3 Trio 64 V2 Integrated Ultra VGA (1 MB or 2 MB)	16 MB or more EDO 60 ns	none or 24× IDE CD-ROM (D4383A)	no	WfW3.11 or W'95 or NT 4.0 WS
D4585E		S3 Trio 64 V2 Integrated Ultra VGA (2 MB)		8× IDE CD-ROM (D4381A)		
D4586E				8× IDE CD-ROM (D4381A) + ISA Audio Board (D4179A)		
D4586F				24× IDE CD-ROM (D4383A) + ISA Audio Board		
D5626E				no		

1. All models have 512 KB of level-two cache memory integrated on the system board.
2. Includes preloaded online HP Help
3. T models are for US market only.
4. Can be supplied with a 133, 150, 166, 200, 166 MMX, 200 MMX or 233 MMX MHz Pentium processor.



Supported Accessories

8 MB (2 × 4 MB), 32-bit EDO, 60 ns memory module	D3646B
16 MB (2 × 8 MB), 32-bit EDO, 60 ns memory module	D3647B
32 MB (2 × 16 MB), 32-bit EDO, 60 ns memory module	D3648B
64 MB (2 × 32 MB), 32-bit EDO, 60 ns memory module	D4543A
1-MB, 50 ns video memory upgrade kit for integrated S3 Trio 64 V2	D4219A
2-MB, 50 ns video memory upgrade kit for Matrox MGA Millennium board	D3557B
512 KB synchronous cache memory module	D4599A

Documentation

<i>User's Guide</i> Manual Kit	D4570A
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Input Devices

HP mouse	C3751B
HP keyboard for Windows® 95	C4725A
HP keyboard for OS/2	C3757B

Video Displays

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

Mass Storage

2.5-GB IDE hard disk	D2786A
1.2-GB IDE hard disk	D2785A
8× CD-ROM drive (IDE)	D4381A
3.5-inch side mounting rails (packs of 5 pairs)	D3566A
5.25-inch side mounting rails (packs of 5 pairs)	D2880A

Multimedia

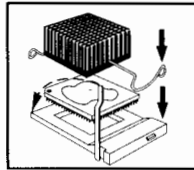
Multimedia sound accessory kit (8× CD-ROM drive, Plug-and-Play ISA audio board, headphones)	D4179A
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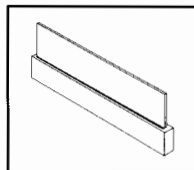
HP Vectra VL 5/xxx MT Series 5 PC Series

System Board, BIOS, and Memory

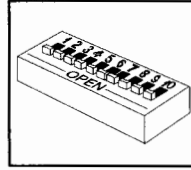
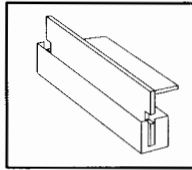
VRM: Always use the VRM that is supplied with the processor.



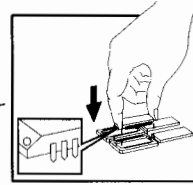
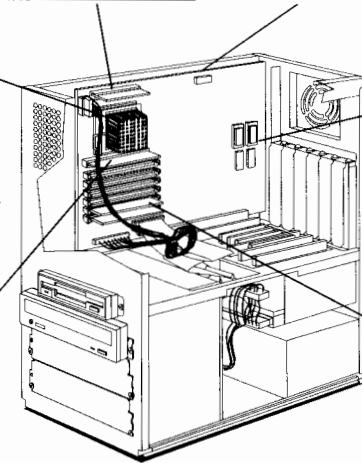
Processor: Never remove the thermal interface material between the processor and the heatsink.



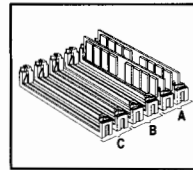
Cache Memory: 1 socket containing a 512 KB module.



System Board Switches.



Video Memory: Some models. 1 MB, 2 sockets to take two 512 KB upgrade chips.



Main Memory: 1 bank containing a pair of 8 MB or 16 MB modules. Install pairs of identical modules in each bank, up to a maximum of 192 MB.

System Board Switches

Switch		Function	Default
1-4, 7-8	-	Processor frequency, see the following table	-
5	Open	Normal operation	Open
	Closed	Clears User and Administrator passwords	
6	Open	Normal operation	Open
	Closed	Clears CMOS (to reload the <i>Setup</i> program defaults)	
9	Open	Disables keyboard power-on	Closed
	Closed	Normal operation	
10	Open	Normal operation	Open
	Closed	Clears product identification field	

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HP Vectra VL 5/xxx MT Series 5 PC Series

Switch		Switch				Processor Frequency
1	2	3	4	7	8	
Closed	Open	Closed	Open	Closed	Closed	120 MHz
Open	Closed	Closed	Open	Closed	Closed	133 MHz
Closed	Open	Closed	Closed	Closed	Closed	150 MHz
Open	Closed	Closed	Closed	Closed	Closed	166 MHz
Open	Closed	Open	Closed	Closed	Closed	200 MHz
Open	Closed	Open	Open	Closed	Open	233 MHz ¹

1. The 233 MHz option is not yet available in any model of the HP Vectra VL 5/xxx MT Series 5 PC at the time of printing. This information is provided for completeness only.

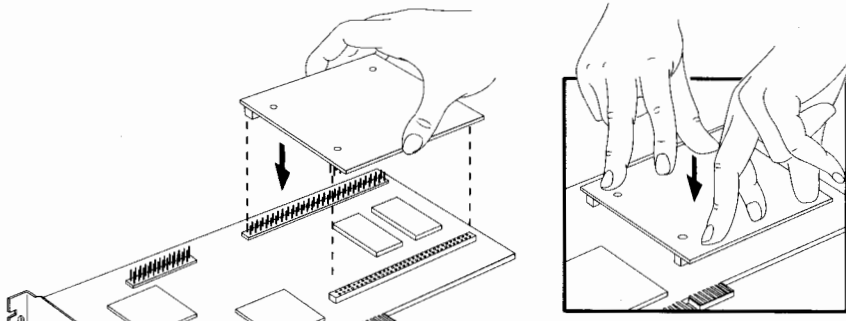
BIOS History

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/vectra/support>

Matrox Millennium Video Memory Upgrade

Some models of the PC are supplied with 2 MB of video memory. A 2 MB video memory upgrade module can be ordered from HP (D3557B), or a 6 MB module can be ordered from Matrox.



Switch	Function
1	<ul style="list-style-type: none"> · OFF to prevent Video BIOS upgrades - DEFAULT · ON to allow Video BIOS upgrades
2	<ul style="list-style-type: none"> · OFF for single-screen operation - DEFAULT · ON for dual-screen operation (with second VGA controller)

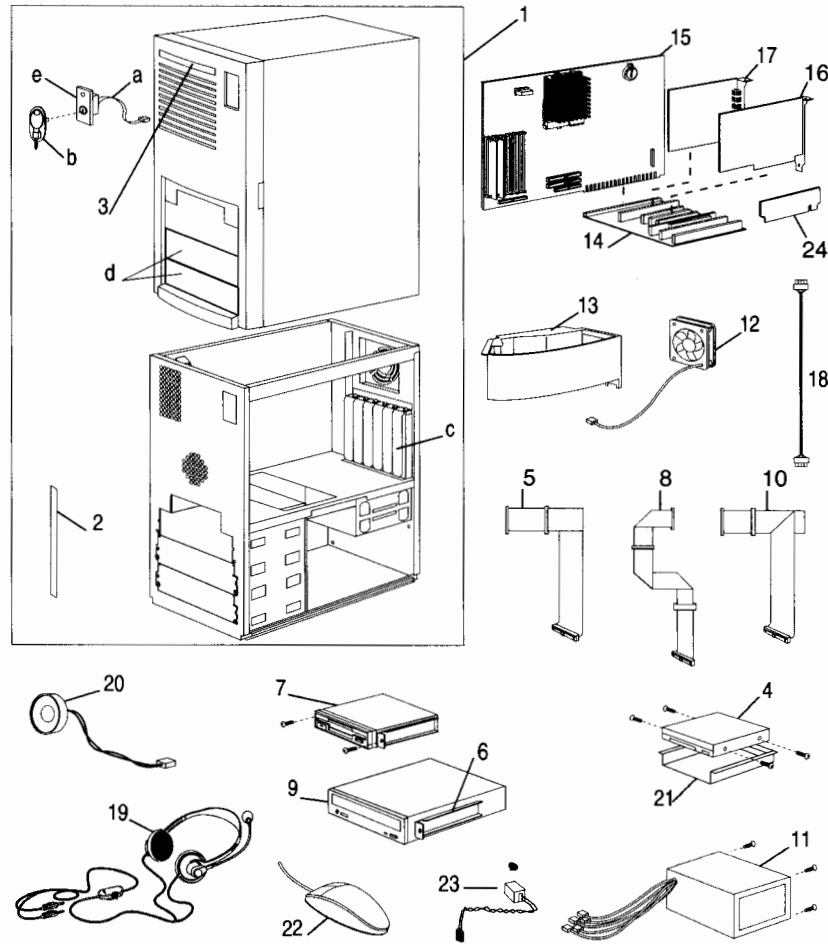
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Mini-Tower Vectras



HP Vectra VL 5/xxx MT Series 5 PC 19-7

Part Numbers



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HP Vectra VL 5/xxx MT Series 5 PC Series

Parts List for HP Vectra VL 5/xxx MT Series 5 PC

Item	Description	Repl. Part Number	Exchange Part Number
1	Box assembly:	5064-0236	—
	a Power switch and cable	5063-8737	
	b Cover lock assembly	5062-5590	
	c I/O panel blank	45935-00004	
	d Filler panel 5.25 inch	5042-1178	
	e Lock panel	5064-1880	
2	Rear bezel connector label (without video)	5042-1480	—
	Rear bezel connector label (with video)	5042-1481	
3	Logo	5042-1494	—
4	IDE hard disk drive (standard) ¹		
	1.6 GB	—	D4621-69001
	2.1 GB	—	D5193-69001
	2.5 GB	—	D2784-69001
	3.2 GB	—	D5194-69001
	4 GB	—	D2787-69001
5	IDE hard disk cable	5182-3507	—
6	Rail kit (3 × 5.25 inch)	5063-7961	—
7	Flexible disk drive	D2035-60152	—
8	Flexible disk drive cable	5182-3509	—
9	IDE 8× CD-ROM drive	—	D4381-69001
	IDE 24× CD-ROM drive	—	D4383-69001
10	IDE CD-ROM cable	5182-3508	—
11	Power supply	0950-2998	—
12	Fan	3160-1054	—
13	Airflow guide	5042-1484	—
14	Backplane board	5064-0244	—
15	System board	See PC's system board parts list	
16	Matrox Millennium video board Rev. 6.00	—	D3568-69006
17	Audio board (Sound Blaster)	5063-9057	—
	Audio Board (Atzec)	5064-2620	—
18	CD-ROM to Audio Board cable	5182-1857	—
19	Headphones	5182-3552	—
20	Internal speaker	5063-4559	—
21	Hard disk drive tray	5002-1946	—

1. For optional disk drive information, see the *Accessory Service Handbook*.

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HP Vectra VL 5/xxx MT Series 5 PC Series

Parts List for HP Vectra VL 5/xxx MT Series 5 PC (continued)

Item	Description	Repl. Part Number	Exchange Part Number
22	Mouse	C3751-60201	—
	Keyboard	C3758-602xx ¹	—
23	4.5V external battery	1420-0513	—
24	PCI terminator	5064-0289	—
not shown	Ethernet 10/100 BaseT PCI network board	5064-1802	—

1. Where "xx" is the code for your national keyboard (see the *Accessory Service Handbook*).

System Board Parts List for HP Vectra VL 5/xxx MT Series 5 PC

Description	Repl. Part Number	Exchange Part Number
System board:		
Vectra VL 5/xxx system board with video	—	D3830-69003
Vectra VL 5/xxx system board without video	—	D3835-69001
Processors:		
Intel Pentium P54CS 133 MHz (VCC)	5063-7974	—
Intel Pentium P54CS 150 MHz (VCC)	5063-9019	—
Intel Pentium P54C 166 MHz (VRE)	5063-9049	—
Intel Pentium P54C 200 MHz (VRE)	5064-0246	—
Intel Pentium P55 166 MHz MMX	5064-1819	—
Intel Pentium P55 200 MHz MMX	5064-1820	—
Intel Pentium P55 233 MHz MMX	5064-2656	—
VRM, Voltage regulator module (for VRE)	5064-1847	—
VRM shorting block (for VCC)	5063-7939	—
VRM, Voltage regulator module (for MMX models)	0950-3188	—
Thermal interface material	6040-0940	—
Heat-sink and clip	1205-0832	—
Cache memory modules (pipeline burst)		
256 KB synchronous cache memory	D3659-63002	—
512 KB synchronous cache memory	D4599-63001	—
Main memory modules:		
2 × 4-MB main memory 60-ns EDO RAM	D3646-63001	—
2 × 8-MB main memory 60-ns EDO RAM	D3647-63001	—
2 × 16-MB main memory 60-ns EDO RAM	D3648-63001	—
2 × 32-MB main memory 60-ns EDO RAM	D4543-63001	—

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HP Vectra VL 5/xxx MT Series 5 PC Series

System Board Parts List for HP Vectra VL 5/xxx MT Series 5 PC (continued)

Description	Repl. Part Number	Exchange Part Number
Video memory module:		
1 MB S3 Trio 64 V2, 50 ns video memory upgrade	1818-6527	
2 MB Matrox video memory (WRAM) upgrade kit (D3557B)	D3557-63002	—
Batteries:		
3 V system board battery (type 2335)	1420-0314	—

Manuals and Documentation for HP Vectra VL 5/xxx MT Series 5 PC

<i>User's Guide</i>	D4570-90001
<i>Familiarization Guide</i>	D4550-90901
<i>Technical Reference Manual: hardware and BIOS</i>	D3984-90911 ¹

1. Electronic file only.

Software for HP Vectra VL 5/xxx MT Series 5 PC

Multimedia CD-ROM	5964-8365
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Notes: _____



HP Vectra VL 5/xxx Series 4 PC 20

Models and Accessories

Product Number	Flexible Drive A:	Hard Drive C:	Disk Controller	Video Controller	Std. RAM	Integ. LAN	Multi-media
Vectra VL 5/xxx series 4 PC							
HP Vectra VL 5/75 series 4 PC (CPL: 09/96 ▶)							
D3651A	1.44 MB (D2035B)	540 MB (D2918A)	Integrated IDE Controller	Integrated ¹ S3 Trio 765 64 V+, (1 MB, upgradeable to 2 MB)	16 MB	None	None
D3651B ²		1.2 GB (D2930A)			8 MB		
D3652B ²		640 MB (D2929A)			8 MB		
HP Vectra VL 5/90 series 4 PC (CPL: 01/96 ▶)							
D3660A	1.44 MB (D2035B)	None	Integrated IDE Controller	Integrated ¹ S3 Trio 765 64 V+, (1 MB, upgradeable to 2 MB)	8 MB	None	None
D3661A		540 MB (D2918A)			16 MB		
D3662A		1 GB (D2919A)					
D3663A					Yes ³		
D3664A					None		

1. Integrated video controller means that it is mounted on the system board.
2. These models have no level-two cache memory.
3. Includes Creative Labs Vibra16 SoundBlaster (non-PnP) audio board, 4× CD-ROM drive, headphones, audio software and audio documentation.

Medium-Profile
Desktop Vectras



HP Vectra VL 5/xxx Series 4 PC 20-1

HP Vectra VL 5/xxx Series 4 PC

Product Number	Flexible Drive A:	Hard Drive C:	Disk Controller	Video Controller	Std. RAM	Integ. LAN	Multi-media	
HP Vectra VL 5/100 series 4 PC (CPL: 01/96 ▶)								
D3670A	1.44 MB (D2035B)	None	Integrated IDE Controller	Integrated ¹ S3 Trio 765 64 V+, (1 MB, upgradeable to 2 MB)	8 MB	None	None	
D3670B				Integrated ¹ S3 Trio 64 PnP, (1 MB, upgradeable to 2 MB)				
D3671A	1.44 MB (D2035B)	540 MB (D2918A)	Integrated IDE Controller	Integrated ¹ S3 Trio 765 64 V+, (1 MB, upgradeable to 2 MB)	8 MB	None	None	
D3671B		640 MB (D2929A)		Integrated ¹ S3 Trio 64 PnP, (1 MB, upgradeable to 2 MB)				
D3672A		1 GB (D2919A)		Integrated ¹ S3 Trio 765 64 V+, (1 MB, upgradeable to 2 MB)				16 MB
D3672B		1.2 GB (D2930A)		Integrated ¹ S3 Trio 64 PnP, (1 MB, upgradeable to 2 MB)				16 MB
D3672S²	1.44 MB (D2035B)	None	Integrated IDE Controller	Integrated ¹ S3 Trio 64 PnP, (1 MB, upgradeable to 2 MB)	8 MB or more	None	Yes ³	
D3673B							None	
D3675B⁴	1.44 MB (D2035B)	None	Integrated IDE Controller	Integrated ¹ S3 Trio 64 PnP, (1 MB, upgradeable to 2 MB)	8 MB or more	None	None	
							User defined	

1. Integrated video controller means that it is mounted on the system board.
2. 'S' models are OS/2 bundles.
3. Includes Creative Labs Vibra16 SoundBlaster (non-PnP) audio board, 4× CD-ROM drive, headphones, audio software and audio documentation.
4. ECTO program



HP Vectra VL 5/xxx Series 4 PC

Product Number	Flexible Drive A:	Hard Drive C:	Disk Controller	Video Controller	Std. RAM	Integ. LAN	Multi-media
HP Vectra VL 5/120 series 4 PC (CPL: 01/96 ▶)							
D3680A	1.44 MB (D2035B)	None	Integrated IDE Controller	Integrated ¹ S3 Trio 765 64 V+, (1 MB, upgradeable to 2 MB)	8 MB	None	None
D3680B							
D3681A		540 MB (D2918A)		Integrated ¹ S3 Trio 765	16 MB		
D3682A		1 GB (D2919A)		64 V+, (1 MB, upgradeable to 2 MB)			
D3682B		1.2 GB (D2930A)		Integrated ¹ S3 Trio 64	16 MB		
D3684B²		User defined		PnP, (1 MB, upgradeable to 2 MB)	16 MB or more		
D4659B		1.2 GB (D2930A)			8 MB		

1. Integrated video controller means that it is mounted on the system board.
2. ECTO program.

Medium-Profile
Desktop Vectras



HP Vectra VL 5/xxx Series 4 PC 20-3

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HP Vectra VL 5/xxx Series 4 PC

Product Number	Flexible Drive A:	Hard Drive C:	Disk Controller	Video Controller	Std. RAM	Integ. LAN	Multi-media
HP Vectra VL 5/133 series 4 PC (CPL: 12/95 ▶)							
D3685B¹	1.44 MB (D2035B)	User defined	Integrated IDE Controller	Integrated ² S3 Trio 64 PnP, (1 MB, upgradeable to 2 MB)	16 MB or more	None	None
D3686B¹				Matrox MGA Millennium board (2 MB, upgradeable to 4 MB or 8 MB)			Yes ³
D3690A		None		Integrated ² S3 Trio 765 64 V+, (1 MB, upgradeable to 2 MB)	8 MB		None
D3690B				Integrated ² S3 Trio 64 PnP, (1 MB, upgradeable to 2 MB)			
D3692A		1 GB (D2919A)		Integrated ² S3 Trio 765 64 V+, (1 MB, upgradeable to 2 MB)	16 MB		
D3692B		1.2 GB (D2930A)		Integrated ² S3 Trio 64 PnP, (1 MB, upgradeable to 2 MB)			
D3692S⁴							
D3693A		1 GB (D2919A)		Matrox MGA Millennium board (2 MB, upgradeable to 4 MB or 8 MB)			Yes ³

1. ECTO program.
2. Integrated video controller means that it is mounted on the system board.
3. Includes Creative Labs Vibra16 SoundBlaster (non-PnP) audio board, 4x CD-ROM drive, headphones, audio software and audio documentation.
4. 'S' models are OS/2 bundles.

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20-4 HP Vectra VL 5/xxx Series 4 PC

Medium-Profile
Desktop Vectras



HP Vectra VL 5/xxx Series 4 PC

Product Number	Flexible Drive A:	Hard Drive C:	Disk Controller	Video Controller	Std. RAM	Integ. LAN	Multi-media
HP Vectra VL 5/133 series 4 PC (continued)							
D3693B	1.44 MB (D2035B)	1.2 GB (D2930A)	Integrated IDE Controller	Matrox MGA Millennium board (2 MB, upgradeable to 4 MB or 8 MB)	16 MB	None	Yes ¹
D4644B		2.5 GB (D2784-69001)		Integrated ² S3 Trio 64 PnP, (1 MB, upgradeable to 2 MB)			None
D4650B				Matrox MGA Millennium board (2 MB, upgradeable to 4 MB or 8 MB)			Yes ³
D4654B		1.6 GB (D2927-69001)		Integrated ² S3 Trio 64 PnP, (1 MB, upgradeable to 2 MB)			None
D4657B⁴		User defined		Matrox MGA Millennium board (2 MB, upgradeable to 4 MB or 8 MB)			Yes ³
D4688B		1.2 GB (D2930A)		Integrated ² S3 Trio 64 PnP, (1 MB, upgradeable to 2 MB)			8 MB

1. Includes Creative Labs Vibra16 SoundBlaster (non-PnP) audio board, 4× CD-ROM drive, headphones, audio software and audio documentation.
2. Integrated video controller means that it is mounted on the system board.
3. Includes a PnP audio board, 8× CD-ROM drive, headphones, audio software and audio documentation.
4. ECTO program.

Medium-Profile
Desktop Vectras



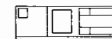
HP Vectra VL 5/xxx Series 4 PC 20-5

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HP Vectra VL 5/xxx Series 4 PC

Product Number	Flexible Drive A:	Hard Drive C:	Disk Controller	Video Controller	Std. RAM	Integ. LAN	Multi-media	
HP Vectra VL 5/150 series 4 PC (CPL: 03/96 ▶)								
D3687B¹	1.44 MB (D2035B)	User defined	Integrated IDE Controller	Integrated ² S3 Trio 64 PnP, (1 MB, upgradeable to 2 MB)	16 MB or more	None	None	
D3694B		None						8 MB
D3695B		1.2 GB (D2930A)			16 MB			
D4645B		2.5 GB (D2784-69001)						
HP Vectra VL 5/166 series 4 PC (CPL: 03/96 ▶)								
D3688B¹	1.44 MB (D2035B)	User defined	Integrated IDE Controller	Integrated ² S3 Trio 64 PnP, (1 MB, upgradeable to 2 MB)	16 MB or more	None	None	
D3689B¹		User defined						Matrox MGA Millennium board (2MB, upgradeable to 4 MB or 8 MB)
D3696B		None		Integrated ² S3 Trio 64 PnP, (1 MB, upgradeable to 2 MB)	8 MB			None
D3697B		1.2 GB (D2930A)			16 MB			
D3698B		1.6 GB (D2927-69001)		Matrox MGA Millennium board (2 MB, upgradeable to 4 MB or 8 MB)				Yes ³
D4646B		2.5 GB (D2784-69001)						Yes ⁴

1. ECTO program.
2. Integrated video controller means that it is mounted on the system board.
3. Includes Creative Labs Vibra16 SoundBlaster (non-PnP) audio board, 4× CD-ROM drive, headphones, audio software and audio documentation.
4. Includes a PnP audio board, 8× CD-ROM drive, headphones, audio software and audio documentation.



HP Vectra VL 5/xxx Series 4 PC

Product Number	Flexible Drive A:	Hard Drive C:	Disk Controller	Video Controller	Std. RAM	Integ. LAN	Multi-media
HP Vectra VL 5/166 series 4 PC (continued)							
D4655B	1.44 MB (D2035B)	2.5 GB (D2784-69001)	Integrated IDE Controller	Integrated ¹ S3 Trio 64 PnP, (1 MB, upgradeable to 2 MB)	16 MB	None	None
D4658B²		User defined		Matrox MGA Millennium board (2 MB, upgradeable to 4 MB or 8 MB)			Yes ³
HP Vectra VL 5/200 series 4 PC (CPL: 09/96 ▶)							
D4647B	1.44 MB (D2035B)	None	Integrated IDE Controller	Integrated ¹ S3 Trio 64 PnP, (1 MB, upgradeable to 2 MB)	8 MB	None	None
D4648B		1.6 GB (D2927-69001)		16 MB	None		
D4649B		2.5 GB (D2784-69001)		16 MB			
D4652B²		User defined		16 MB or more	None		
D4653B²				Matrox MGA Millennium board (2 MB, upgradeable to 4 MB or 8 MB)	Yes ³		

1. Integrated video controller means that it is mounted on the system board.
2. ECTO program.
3. Includes a PnP audio board, 8x CD-ROM drive, headphones, audio software and audio documentation.

**Medium-Profile
Desktop Vectras**



HP Vectra VL 5/xxx Series 4 PC 20-7

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HP Vectra VL 5/xxx Series 4 PC

Product Number	Flexible Drive A:	Hard Drive C:	Disk Controller	Video Controller	Std. RAM	Integ. LAN	Multi-media
HP Vectra VL 5/200 series 4 PC (continued)							
D4687B	1.44 MB (D2035B)	2.5 GB (D2784-69001)	Integrated IDE Controller	Integrated ¹ S3 Trio 64 PnP, (1 MB, upgradeable to 2 MB)	16 MB	None	None

1. Integrated video controller means that it is mounted on the system board.

Note

All models have 256 KB of level-two synchronous cache memory, except where otherwise stated.

Integrated Ultra VGA Video Controllers

All **D3xxxA** models with integrated video controller have the **S3 Trio 765 64 V+** video controller chip.

All **D3xxxB** models with integrated video controller have the **S3 Trio 64 PnP** video controller chip.

The latest video drivers for S3 Trio 765 64 V+ and S3 Trio 64 PnP *are now compatible.*

Supported Accessories

1 MB Video Memory Upgrade Kit for S3 Trio 64 integrated video controller	D3500A
2 MB Video Memory Upgrade Kit for Matrox MGA Millennium	D3557B
8 MB (pair of 4 MB) EDO 60ns Main Memory Upgrade Kit (32-bit)	D3646B
16 MB (pair of 8 MB) EDO 60ns Main Memory Upgrade Kit (32-bit)	D3647B
32 MB (pair of 16 MB) EDO 60ns Main Memory Upgrade Kit (32-bit)	D3648B
64 MB (pair of 32 MB) EDO 60ns Main Memory Upgrade Kit (32-bit)	D4543A
10 Pairs of 4 MB EDO 60ns Main Memory Upgrade Bundle (32-bit)	D2878A
10 Pairs of 8 MB EDO 60ns Main Memory Upgrade Bundle (32-bit)	D2879A
10 Pairs of 16 MB EDO 60ns Main Memory Upgrade Bundle (32-bit)	D3649A
256 KB synchronous cache memory module	D3659B
512 KB synchronous cache memory module	D4599A
<i>User's Guide</i> Manual Kit	D3645B

Multimedia Products

Audio/CD MM Upgrade	D2941B
HP Integrated Office	D2887A
HP Multimedia Sound 16 (non-PnP audio board, 4× CD-ROM)	D3567A
HP Multimedia Sound (PnP audio board, 8× CD-ROM)	D4179A

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20-8 HP Vectra VL 5/xxx Series 4 PC

Medium-Profile
Desktop Vectras



HP Vectra VL 5/xxx Series 4 PC

Input Devices

HP Mouse	C3751B
HP Keyboard	C3756A
HP Keyboard for Windows® 95	C4725A
HP Keyboard for OS/2	C3757B

Video Displays

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

Mass Storage

Flexible Disk 3.5-inch 1.44 MB (1-inch High)	D2035B
Flexible Disk 5.25-inch 1.2 MB (1.5-inch High)	D2881B
540 MB IDE Hard Disk	D2918A
640 MB IDE Hard Disk	D2929A
850 MB IDE Hard Disk	D2925A
1 GB IDE Hard Disk	D2919A
1.2 GB IDE Hard Disk	D2930A
1.2 GB IDE Hard Disk	D2785A
2.5 GB IDE Hard Disk	D2786A
1 GB SCSI-2 Hard Disk	D2076B
IDE 4× CD-ROM Drive (new color)	D2896B
IDE 8× CD-ROM Drive	D4381A
100 MB Zip IDE Disk Drive	D4390A



LAN Boards

ISA LAN Adapter NC/16TP (Single)	J2405A
Selectable ISA Adapter 10/100 VG	J2573A
PCI Ethernet adapter 10/100 VG	J2585B
Ethertwist Adapter/16 TP Plus	27247B

Rails and trays

3.5-inch 1/3 height mounting rails (5 pack)	D3566A
5.25-inch 1/2 height mounting rails (5 pack)	D2880A
3.5-inch 1/3 height mounting rails	5063-0309
Mounting rails kit for non-HP drives: 1×3.5-inch rail, 1×5.25-inch rail	5063-7922

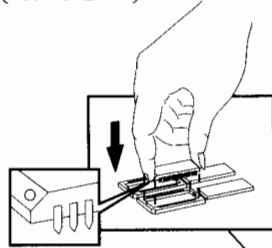
Medium-Profile
Desktop Vectras



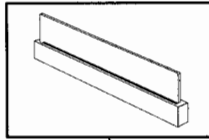
HP Vectra VL 5/xxx Series 4 PC 20-9

System Board, Memory, and Switches

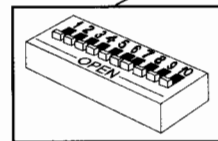
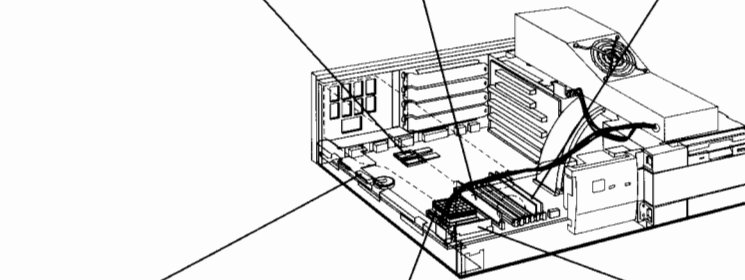
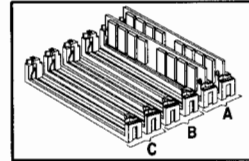
Video Memory:¹
2 sockets for 1 MB upgrade.
(Total of 2 MB)



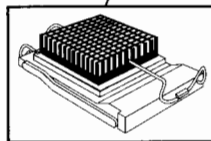
256 KB Cache Memory



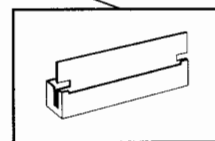
Main Memory:
Install pairs of identical modules in each bank.
Use only 4 MB or 16 MB modules in bank C.
(Maximum of 128 MB)



System Board Switches:
Set switches 1,2,3,4 & 7 to correspond to processor frequency.
(Refer to next page)

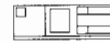


Processor:
Zero Insertion Force (ZIF) socket allows Pentium processor upgrades.



Voltage Regulator Module (VRM):
Install with Pentium processor upgrade.

¹ Applies only to models with integrated video controller.



System Board Switches

Switch	Function	Default
1-4	-	Processor speed, see following table
5	OPEN	Enables User and Administrator passwords
	CLOSED	Clears User and Administrator passwords
6	OPEN	Normal operation
	CLOSED	Clears CMOS
7	-	Processor speed, see following table
8	OPEN	Disables secure mode
	CLOSED	Enables secure mode - prevents modification of SETUP values and flashing of BIOS
9	OPEN	Disables keyboard power-on
	CLOSED	Enables keyboard power-on
10	OPEN	Not used

Pentium Processor Frequency	Switch				
	1	2	3	4	7
75 MHz	Closed	Closed	Open	Open	Open
90 MHz	Closed	Open	Open	Open	Closed
100 MHz	Open	Closed	Open	Open	Closed
120 MHz	Closed	Open	Closed	Open	Closed
133 MHz	Open	Closed	Closed	Open	Closed
150 MHz	Closed	Open	Closed	Closed	Closed
166 MHz	Open	Closed	Closed	Closed	Closed
200 MHz	Open	Closed	Open	Closed	Closed



HP Vectra VL 5/xxx Series 4 PC

IRQs and I/O Addresses

IRQ	Function	I/O Port Hex
IRQ 3	Free if not used for serial port	2E8h - 2EFh
IRQ 4	Free if not used for serial port	2F8h - 2FFh
IRQ 5	Free if not used for parallel port	278h - 27Fh, 678h - 67Bh ECP mode
IRQ 6	Integrated flexible disk drive controller	3F0h - 3F5h, 3F7h
IRQ 7	Free if not used for parallel port	378h - 37Fh, 778h - 77Bh ECP mode
IRQ 9	Available for PCI devices, if not used by ISA board	—
IRQ 10	Available for PCI devices, if not used by ISA board	—
IRQ 11	Available for PCI devices, if not used by ISA board	—
IRQ 14	Integrated IDE controller primary channel	1F0h - 1F7h, 3F6h
IRQ 15	Free if not used by secondary IDE channel	170h - 177h, 376h
—	Integrated I/O controller	370h - 371h
—	Integrated video controller	3B0h - 3DFh
—	HP Reserved	496h - 497h

Setup and BIOS History

The latest BIOS, the flasher utility program, and the BIOS history can each be obtained from the HP Electronic Services. BIOS revisions are of the form GT.07.xx.



POST Error Messages

The following error messages apply to the Vectra VL 5/xxx series 4 desktop and Vectra VL 5/xxx MT series 4 mini-tower only.

Message	Corrective Action and/or Explanation
Operating system not found	Check whether the disk, HDD, FDD or CD-ROM disk drive is connected. If it is connected, check that it is detected by <i>Setup</i> . Check that your boot device is enabled on the <i>Setup</i> Security menu. If the problem persists, check that the boot device contains the operating system.
Missing operating system	If you have configured HDD user parameters, check that they are correct. Otherwise, use HDD type "Auto" parameters.
Failure fixed disk (preceded by a 30" time-out)	Check that HDD is connected. Check that HDD is detected in <i>Setup</i> . Check that boot on hard disk drive is enabled in <i>Setup</i> .
Diskette Drive A (or B) error	Check whether the diskette drive is connected. Check <i>Setup</i> for the configuration.
System battery is dead	You may get this message if the PC is disconnected for a few days. When you Power-on the PC, run <i>Setup</i> to update the configuration information. The message should no longer be displayed. Should the problem persist, replace the battery.
Keyboard error	Check that the keyboard is connected.
Resource Allocation Conflict -PCI device 0079 on motherboard	Clear CMOS.
Video Plug and Play interrupted or failed Re-enable in Setup and try again	You may have powered your PC Off/On too quickly and the PC turned off Video plug and play as a protection.
System CMOS checksum bad - run Setup	CMOS contents have changed between 2 power-on sessions. Run <i>Setup</i> for configuration.
I/O device IRQ conflict	Serial ports A and B may have been assigned the same IRQ. Assign a different IRQ to each serial port and save the configuration.



HP Vectra VL 5/xxx Series 4 PC

Message	Corrective Action and/or Explanation
No message, system "hangs" after POST	Check that cache memory and main memory are correctly set in their sockets.
Other	An error message may be displayed and the PC may "hang" for 20 seconds and then beep. The POST is probably checking for a mass storage device which it cannot find and the PC is in Timeout Mode. After Timeout, run <i>Setup</i> to check the configuration.

Cache Memory

PCs with 256 KB of level-two cache memory use synchronous pipeline burst cache, which is faster than traditional asynchronous cache.

Video Memory

The models with integrated video controller are supplied with 1 MB of video memory for 1024 × 768 in 256 colors. An additional 1 MB of video memory can be installed by adding a pair of 512 KB modules in surface mount technology sockets. This will make a total of 2 MB for 1024 × 768 in 64 K colors. You will need the PLLC Extraction Tool (part number 5041-2553) to remove the video upgrade chips from their sockets.

The models with Matrox MGA Millennium video card have 2 MB of video memory for 1600 × 1200 in 256 colors. Additional memory can be installed on this card for a total of 4 MB or 8 MB of video memory. (The 6 MB upgrade is available from Matrox.)

Main Memory

The PC uses 32-bit 60ns EDO main memory modules. Memory modules must be *installed in pairs of identical modules*. Use only 4 MB and 16 MB modules in bank C.

The PC is supplied with 8 MB or 16 MB of main memory (2 × 4 MB or 2 × 8 MB memory modules installed in bank A). The maximum memory supported is 128 MB.

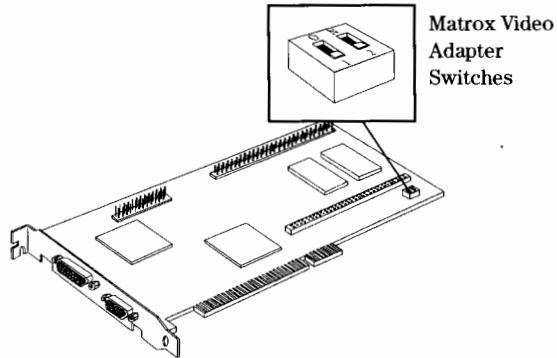
Installing an IDE CD-ROM

It is recommended that the IDE CD-ROM drive be connected to the CD-ROM data cable rather than to the HDD data cable. Connecting the CD-ROM drive to the HDD data cable can reduce the performance of the hard disk drive connected to it. The CD-ROM data cable has a red connector and is marked "CD-ROM" next to the system board connector.



Matrox Video Adapter Flash BIOS and Switches

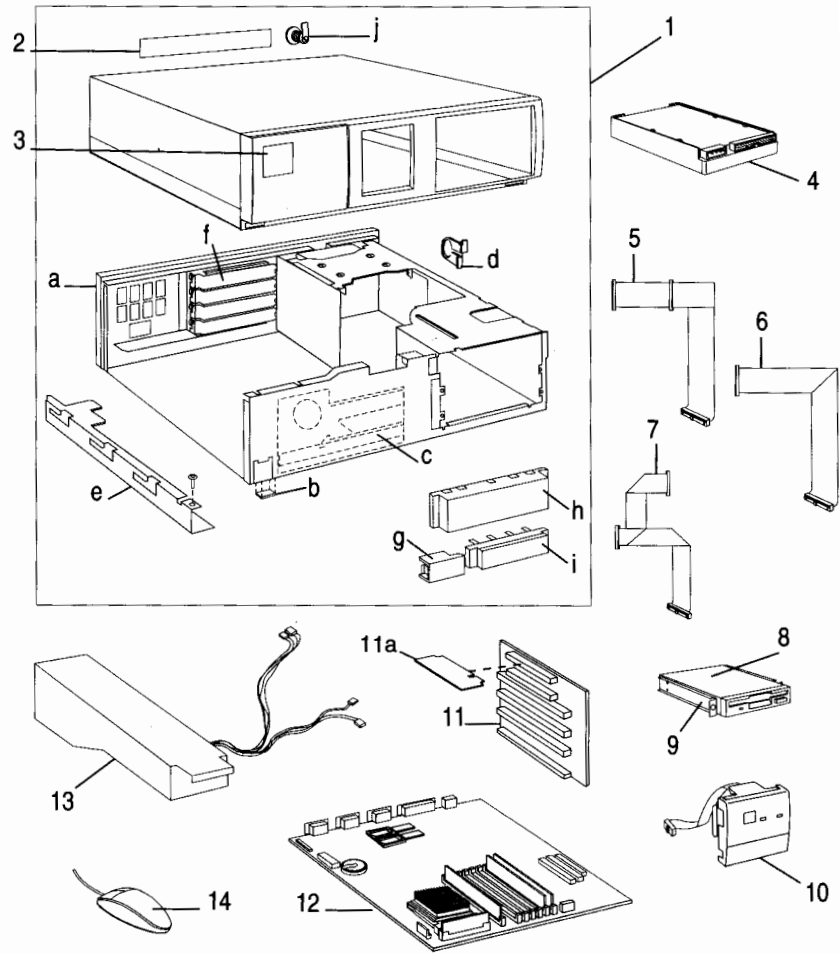
The Matrox MGA Millennium video adapter card has a Flash BIOS. The video BIOS can therefore be upgraded when updates are made available by Matrox.



Switch	Function
1	<ul style="list-style-type: none"> • OFF to prevent Video BIOS upgrades - DEFAULT • ON to allow Video BIOS upgrades
2	<ul style="list-style-type: none"> • OFF for single-screen operation - DEFAULT • ON for dual-screen operation (with second VGA controller)



Part Numbers



* The system board is shown with the integrated video controller, supplied on all models not having the Matrox MGA Millennium video card.



HP Vectra VL 5/xxx Series 4 PC

Parts List for HP Vectra VL 5/xxx series 4 PC

Item	Description	Repl. Part Number	Exchange Part Number
1	Box Assembly:	5064-0215	—
	a Rear Bezel	-	
	b Bumper Foot	02225-00010	
	c System Board Side Guide	5042-0507	
	d Security Bracket	-	
	e Side Panel	-	
	f I/O Panel Blank	45935-00004	
	g Filler panel 1.75 inch	5042-1155	
	h Filler Panel 5.25 inch	5063-7066	
	i Filler panel 3.5 inch	5063-7067	
	j Cover Lock Assembly	5062-5590	
2	Rear Bezel Label	5042-1177	—
3	Nameplate:		
	HP Vectra VL Series 4	5042-1829	
	HP Vectra VL 5/90 series 4	5042-1410	—
	HP Vectra VL 5/100 series 4	5042-1411	—
	HP Vectra VL 5/120 series 4	5042-1412	—
	HP Vectra VL 5/133 series 4	5042-1428	—
	HP Vectra VL 5/150 series 4	5042-1429	—
	HP Vectra VL 5/166 series 4	5042-1811	—
	HP Vectra VL 5/200 series 4	5042-1488	—
4	Hard Disk Drive (standard) ¹		
	540 MB IDE	D2918-63001	D2918-69001
	640 MB IDE	D2929-63001	D2929-69001
	840 MB IDE	D2749-63001	D2749-69001
	1 GB IDE	D2919-63001	D2919-69001
	1.2 GB IDE	D2930-63001	D2930-69001
	1.6 GB IDE	D2927-63001	D2927-69001
	2.5 GB IDE	D2784-63001	D2784-69001
5	Hard Disk Cable (IDE drive)	5182-1862	—
6	CD-ROM Cable (IDE drive)	5182-1856	—
7	Flexible Disk Drive Cable	5182-1037	—
8	Flexible Disk Drive	D2035-60152	—
9	Rail kit (1 × 3.5 inch, 1 × 5.25 inch)	5063-7922	
10	Status (Control) Panel		
	Standard Models	5063-7956	—
	Multimedia Models	5064-0294	—
11	Backplane Assembly	5063-8733	—

1. For optional disk drive information, see the *Accessory Service Handbook*.

**Medium-Profile
Desktop Vectras**



HP Vectra VL 5/xxx Series 4 PC 20-17

HP Vectra VL 5/xxx Series 4 PC

Parts List for HP Vectra VL 5/xxx series 4 PC (Continued)

Item	Description	Repl. Part Number	Exchange Part Number
11a	PCI terminator module ¹	5064-0289	
12	System Board	See PC's system board parts list	
13	Power Supply Assembly	5063-7943	—
14	Mouse	C3751-60201	—

1. To be used only when no PCI boards are installed (e.g. Matrox video board or PCI network boards).

System Board Parts List for HP Vectra VL 5/xxx series 4 PC

Description	Repl. Part Number	Exchange Part Number
System Board (includes integrated IDE disk controller) ¹		
Vectra VL 5/xxx series 4 System Board <i>with Trio 765 64 V+</i> integrated video controller (<i>DxxxxA</i> models) ²	D3652-63001	D3652-69001
Vectra VL 5/xxx series 4 System Board <i>with Trio 64 PnP</i> integrated video controller (<i>DxxxxB</i> models) ²	D3655-63001	D3655-69001
Vectra VL 5/xxx series 4 System Board <i>without</i> integrated video controller (Matrox models)	D3651-63001	D3651-69001
Processors:		
Pentium P54C 75 MHz (VCC standard)	5063-8586	
Pentium P54C 90 MHz (VCC standard)	5063-8787	—
Pentium P54C 100 MHz (VCC standard)	5063-7059	—
Pentium P54C 120 MHz (VCC standard)	5063-8765	—
Pentium P54CS 133 MHz (VCC standard)	5063-7974	—
Pentium P54CS 150 MHz (VCC standard)	5063-9019	—
Pentium P54CS 166 MHz (VRE)	5063-9049	—
Pentium P54CS 200 MHz (VRE)	5064-0246	—
Heatsink	1205-0832	—
Voltage Regulator Module 75/90/100/133/150 MHz (VCC standard)	5063-7939	—
Voltage Regulator Module 120/166/200 MHz (VRE)	5063-7940	—
Main Memory Modules:		
8 MB kit (2 × 4 MB) Main Memory 60ns EDO DRAM (32-bit)	D3646-63001	—
16 MB kit (2 × 8MB) Main Memory 60ns EDO DRAM (32-bit)	D3647-63001	—

1. These assemblies are supplied without main memory modules, cache memory, processor and Voltage Regulator Module.
2. Make sure to replace the system board with the appropriate integrated video controller.

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Medium-Profile
Desktop Vectras



HP Vectra VL 5/xxx Series 4 PC

System Board Parts List for HP Vectra VL 5/xxx series 4 PC (Continued)

Description	Repl. Part Number	Exchange Part Number
Cache Memory Module:		
256 KB Synchronous Cache Memory Module	D3659-63002	—
256 KB Asynchronous Cache Memory Module	5063-7947	—
Video Adapter Board:		
Matrox MGA Millennium Video Adapter	D3568-69005	—
Video Memory Upgrades:		
1 MB Video Memory Upgrade kit for integrated video controller	D3500-63001	—
2 MB Video Memory Upgrade Kit for Matrox MGA Millennium video adapter board	D3557-63002	—
Batteries:		
3V System Board Battery ¹	1420-0314	—
4.5V Battery	1420-0513	—

1. You can replace this battery with a Panasonic/Rayovac BR2325 battery, or with the equivalent HP battery (1420-0314).

Software for HP Vectra VL 5/xxx series 4 PC

Drivers and Utilities Disk kit (Windows/DOS drivers for models without a hard disk drive)	5063-7921
Multimedia S/W, utilities and drivers CD-ROM (non-PnP audio board D3567A)	5963-8032
Multimedia S/W (PnP audio board D4179A)	5964-8365

HP Vectra VL 5/xxx series 4 Multimedia PC Parts List

IDE 4× CD-ROM Drive	D2896-63401
IDE 8× CD-ROM Drive	D4381-63001
CD-ROM to Sound Card Audio Cable	5182-1857
Speaker	5063-4559
Audio Board	5063-9057
Headphones	5182-3552

Support Manuals for HP Vectra VL 5/xxx series 4 PC

Familiarization Guide	D3645-90901
Technical Reference Manual: Hardware and BIOS	N/A ¹

1. Printable electronic file only.

**Medium-Profile
Desktop Vectras**



HP Vectra VL 5/xxx Series 4 PC 20-19

HP Vectra VL 5/xxx MT Series 4 PC

Models and Accessories

Product Number	Flexible Drive A:	Hard Drive C:	Disk Controller	Video Controller	Std. RAM	Integ. LAN	Multi-media
Vectra VL 5/xxx MT series 4 PC							
HP Vectra VL 5/90 MT series 4 PC (CPL: 11/95 ▶)							
D3801A	1.44 MB (D2035B)	None	Integrated IDE Controller	Integrated ¹ S3 Trio 765 64 V+, (1 MB, upgradeable to 2 MB)	8 MB	None	None
D3802A		1 GB (D2919A)			16 MB		
HP Vectra VL 5/100 MT series 4 PC (CPL: 11/95 ▶)							
D3803A	1.44 MB (D2035B)	None	Integrated IDE Controller	Integrated ¹ S3 Trio 765 64 V+, (1 MB, upgradeable to 2 MB)	8 MB	None	None
D3803B				Integrated ¹ S3 Trio 64 PnP, (1 MB, upgradeable to 2 MB)			
D3804A		1 GB (D2919A)		Integrated ¹ S3 Trio 765 64 V+, (1 MB, upgradeable to 2 MB)	16 MB		
D3804B		1.2 GB (D2930A)		Integrated ¹ S3 Trio 64 PnP, (1 MB, upgradeable to 2 MB)	16 MB		
D3810B		1.6 GB (D2927-69001)					

1. Integrated video controller means that it is mounted on the system board.

Mini-Tower Vectras



HP Vectra VL 5/xxx MT Series 4 PC 21-1

HP Vectra VL 5/xxx MT Series 4 PC

Product Number	Flexible Drive A:	Hard Drive C:	Disk Controller	Video Controller	Std. RAM	Integ. LAN	Multi-media	
HP Vectra VL 5/120 MT series 4 PC (CPL: 11/95 ▶)								
D3805A	1.44 MB (D2035B)	None	Integrated IDE Controller	Integrated ¹ S3 Trio 765 64 V+, (1 MB, upgradeable to 2 MB)	8 MB	None	None	
D3806A		1 GB (D2919A)		Matrox MGA Millennium board (2 MB, upgradeable to 4 or 8 MB)				16 MB
D4684B		1.2 GB (D2930A)		Integrated ¹ S3 Trio 64 PnP, (1 MB, upgradeable to 2 MB)	None			
D4685B		1.6 GB (D2927-69001)						
HP Vectra VL 5/133 MT series 4 PC (CPL: 03/95 ▶)								
D3807A	1.44 MB (D2035B)	None	Integrated IDE Controller	Integrated ¹ S3 Trio 765 64 V+, (1 MB, upgradeable to 2 MB)	8 MB	None	None	
D3807B				Integrated ¹ S3 Trio 64 PnP, (1 MB, upgradeable to 2 MB)				
D3808A		1 GB (D2919A)		Matrox MGA Millennium board (2 MB, upgradeable to 4 or 8 MB)	16 MB			Yes ²
D3811B		1.2 GB (D2930A)		Integrated ¹ S3 Trio 64 PnP, (1 MB, upgradeable to 2 MB)				None

1. Integrated video controller means that it is mounted on the system board.
2. Includes Creative Labs Vibra16 SoundBlaster (non PnP) audio board, 4× CD-ROM drive, headphones, audio software and audio documentation.



Product Number	Flexible Drive A:	Hard Drive C:	Disk Controller	Video Controller	Std. RAM	Integ. LAN	Multi-media
HP Vectra VL 5/133 MT series 4 PC (continued)							
D3812B	1.44 MB (D2035B)	1.6 GB (D2927-69001)	Integrated IDE Controller	Matrox MGA Millennium board (2 MB, upgradeable to 4 or 8 MB)	16 MB	None	Yes ¹
D4660B		2.5 GB (D2784-69001)		Integrated ² S3 Trio 64 PnP, (1 MB, upgradeable to 2 MB)			None
D4666B				Matrox MGA Millennium board (2 MB, upgradeable to 4 or 8 MB)			Yes ³
HP Vectra VL 5/166 MT series 4 PC (CPL: 03/95 ▶)							
D3809B	1.44 MB (D2035B)	1.2 GB (D2930A)	Integrated IDE Controller	Integrated ² S3 Trio 64 PnP, (1 MB, upgradeable to 2 MB)	16 MB	None	None
D3813B		None			8 MB		
D3814B		1.6 GB (D2927-69001)		Matrox MGA Millennium board (2 MB, upgradeable to 4 or 8 MB)	16 MB		Yes ¹
D4661B				Integrated ² S3 Trio 64 PnP, (1 MB, upgradeable to 2 MB)			None
D4662B		2.5 GB (D2784-69001)		Matrox MGA Millennium board (2 MB, upgradeable to 4 or 8 MB)			Yes ³

1. Includes Creative Labs Vibra16 SoundBlaster (non-PnP) audio board, 4x CD-ROM drive, headphones, audio software and audio documentation.
2. Integrated video controller means that it is mounted on the system board.
3. Includes a PnP audio board, 8x CD-ROM drive, headphones, audio software and audio documentation.



HP Vectra VL 5/xxx MT Series 4 PC

Product Number	Flexible Drive A:	Hard Drive C:	Disk Controller	Video Controller	Std. RAM	Integ. LAN	Multi-media	
HP Vectra VL 5/200 MT series 4 PC (CPL: 09/96 ▶)								
D4663B	1.44 MB (D2035B)	None	Integrated IDE Controller	Integrated ¹ S3 Trio 64 PnP, (1 MB, upgradeable to 2 MB)	8 MB	None	None	
D4664B		1.6 GB (D2927-69001)			16 MB			
D4665B		2.5 GB (D2784-69001)		Matrox MGA Millennium board (2 MB, upgradeable to 4 or 8 MB)	None			Yes ²
D4686B				Integrated ¹ S3 Trio 64 PnP, (1 MB, upgradeable to 2 MB)				None

1. Integrated video controller means that it is mounted on the system board.
2. Includes a PnP audio board, 8× CD-ROM drive, headphones, audio software and audio documentation.

Note

All models have 256 KB of level-two synchronous cache memory.

Integrated Ultra VGA Video Controllers

All **DxxxxA** models with integrated video controller have the **S3 Trio 765 64 V+** video controller chip.

All **DxxxxB** models with integrated video controller have the **S3 Trio 64 PnP** video controller chip.

The latest video drivers for S3 Trio 765 64 V+ and S3 Trio 64 PnP *are now compatible.*



Supported Accessories

1 MB Video Memory Upgrade Kit for S3 Trio 64 integrated video controller	D3500A
2 MB Video Memory Upgrade Kit for Matrox MGA Millennium	D3557B
8 MB (pair of 4 MB) EDO 60ns Main Memory Upgrade Kit (32-bit)	D3646B
16 MB (pair of 8 MB) EDO 60ns Main Memory Upgrade Kit (32-bit)	D3647B
32 MB (pair of 16 MB) EDO 60ns Main Memory Upgrade Kit (32-bit)	D3648B
64 MB (pair of 32 MB) EDO 60ns Main Memory Upgrade Kit (32-bit)	D4543A
10 Pairs of 4 MB EDO 60ns Main Memory Upgrade Bundle (32-bit)	D2878A
10 Pairs of 8 MB EDO 60ns Main Memory Upgrade Bundle (32-bit)	D2879A
10 Pairs of 16 MB EDO 60ns Main Memory Upgrade Bundle (32-bit)	D3649A
256 KB synchronous cache memory module	D3659B
512 KB synchronous cache memory module	D4599A
<i>User's Guide Manual Kit</i>	D3800B

Multimedia Products

Audio/CD MM Upgrade	D2941B
HP Integrated Office	D2887A
HP Multimedia Sound 16 (non-PnP audio board, 4× CD-ROM)	D3567A
HP Multimedia Sound (PnP audio board, 8× CD-ROM)	D4179A

Input Devices

HP Mouse	C3751B
HP Keyboard	C3756A
HP Keyboard for Windows® 95	C4725A
HP Keyboard for OS/2	C3757B

Video Displays

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



HP Vectra VL 5/xxx MT Series 4 PC**Mass Storage**

Flexible Disk 3.5-inch 1.44 MB (1-inch High)	D2035B
Flexible Disk 5.25-inch 1.2 MB (1.5-inch High)	D2881B
540 MB IDE Hard Disk	D2918A
640 MB IDE Hard Disk	D2929A
850 MB IDE Hard Disk	D2925A
1 GB IDE Hard Disk	D2919A
1.2 GB IDE Hard Disk	D2930A
1.2 GB IDE Hard Disk	D2785A
2.5 GB IDE Hard Disk	D2786A
1 GB SCSI-2 Hard Disk	D2076B
IDE 4× CD-ROM Drive (new color)	D2896B
IDE 8× CD-ROM Drive	D4381A
100 MB Zip IDE Disk Drive	D4390A

LAN Boards

ISA LAN Adapter NC/16TP (Single)	J2405A
Selectable ISA Adapter 10/100 VG	J2573A
PCI Ethernet adapter 10/100 VG	J2585B
Ethertwist Adapter/16 TP Plus	27247B

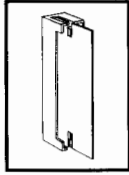
Rails and trays

3.5-inch 1/3 height mounting rails (5 pack)	D3566A
5.25-inch 1/2 height mounting rails (5 pack)	D2880A
3.5-inch 1/3 height mounting rails	5063-0309
Mounting rails kit for non-HP drives: 1×3.5-inch rail, 1×5.25-inch rail	5063-7922
5.25-inch mounting rails (3 pairs)	5063-7961
5.25-inch tray for 3.5-inch devices	5002-1946

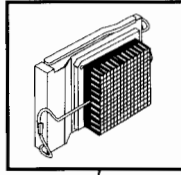


System Board, Memory, and Switches

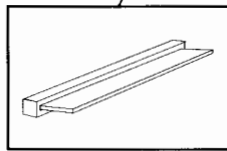
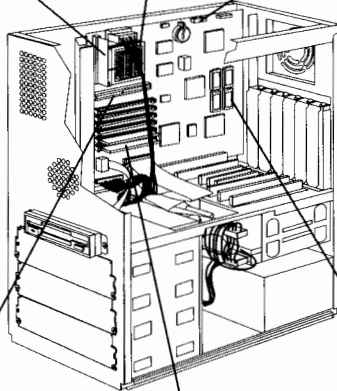
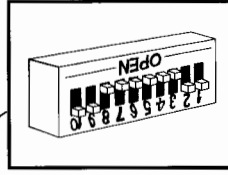
Voltage Regulator Module (VRM):
Install with Pentium processor upgrade.



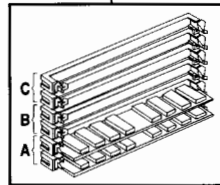
Processor:
Zero Insertion Force (ZIF) socket allows Pentium processor upgrades.



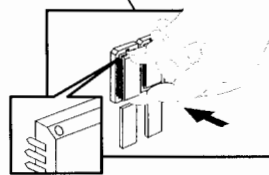
System Board Switches:
Set switches 1,2,3,4 & 7 to correspond to processor frequency (see next page).



256 KB Cache Memory



Main Memory:
Install identical pairs of 4, 8 and 16 MB modules in each bank. Use only 4 MB or 16 MB modules in bank C. (Total of 128 MB)



Video Memory¹:
2 sockets for 1 MB upgrade. (Total of 2 MB)

¹ Applies only to models with integrated video controller.



System Board Switches

Switch	Function	Default
1-4	-	Processor speed, see following table
5	OPEN	Enables User and Administrator passwords
	CLOSED	Clears User and Administrator passwords
6	OPEN	Normal operation
	CLOSED	Clears CMOS
7	-	Processor speed, see following table
8	OPEN	Disables secure mode
	CLOSED	Enables secure mode - prevents modification of SETUP values and flashing of BIOS
9	OPEN	Disables keyboard power-on
	CLOSED	Enables keyboard power-on
10	OPEN	Not used

Pentium Processor Frequency	Switch				
	1	2	3	4	7
75 MHz	Closed	Closed	Open	Open	Open
90 MHz	Closed	Open	Open	Open	Closed
100 MHz	Open	Closed	Open	Open	Closed
120 MHz	Closed	Open	Closed	Open	Closed
133 MHz	Open	Closed	Closed	Open	Closed
150 MHz	Closed	Open	Closed	Closed	Closed
166 MHz	Open	Closed	Closed	Closed	Closed
200 MHz	Open	Closed	Open	Closed	Closed



IRQs and I/O Addresses

IRQ	Function	I/O Port Hex
IRQ 3	Free if not used for serial port	2E8h - 2EFh
IRQ 4	Free if not used for serial port	2F8h - 2FFh
IRQ 5	Free if not used for parallel port	278h - 27Fh, 678h - 67Bh ECP mode
IRQ 6	Integrated flexible disk drive controller	3F0h - 3F5h, 3F7h
IRQ 7	Free if not used for parallel port	378h - 37Fh, 778h - 77Bh ECP mode
IRQ 9	Available for PCI devices, if not used by ISA board	—
IRQ 10	Available for PCI devices, if not used by ISA board	—
IRQ 11	Available for PCI devices, if not used by ISA board	—
IRQ 14	Integrated IDE controller primary channel	1F0h - 1F7h, 3F6h
IRQ 15	Free if not used by secondary IDE channel	170h - 177h, 376h
—	Integrated I/O controller	370h - 371h
—	Integrated video controller	3B0h - 3DFh
—	HP Reserved	496h - 497h

Setup and BIOS History

The latest BIOS, the flasher utility program, and the BIOS history can each be obtained from the HP Electronic Services. BIOS revisions are of the form GT.xx.xx.

POST Error Messages

For a list of the POST error messages for the Vectra VL 5/xxx MT series 4, refer to the Vectra VL 5/xxx series 4 Desktop chapter.



Cache Memory

The PC has 256 KB of level-two cache memory. This cache is synchronous pipeline burst cache, which is faster than traditional asynchronous cache.

Video Memory

The models with integrated video controller are supplied with 1 MB of video memory for 1024 × 768 in 256 colors. An additional 1 MB of video memory can be installed by adding a pair of 512 KB modules in surface mount technology sockets. This will make a total of 2 MB for 1024 × 768 in 64 K colors. You will need the PLLC Extraction Tool (part number 5041-2553) to remove the video upgrade chips from their sockets.

The models with Matrox MGA Millennium video card have 2 MB of video memory for 1600 × 1200 in 256 colors. Additional memory can be installed on this card for a total of 4 MB or 8 MB of video memory. (The 6 MB upgrade is available from Matrox dealers.)

Main Memory

The PC uses 32-bit 60ns EDO main memory modules. Memory modules must be *installed in identical pairs*, from bank A up to bank C. Use only 4 MB and 16 MB modules in bank C.

The PC is supplied with 8 MB or 16 MB of main memory (two 4 MB or two 8 MB memory modules installed in bank A). Main memory can be installed up to a maximum of 128 MB.

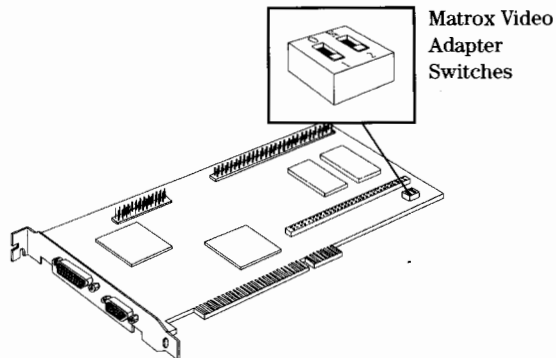
Installing an IDE CD-ROM

It is recommended that the IDE CD-ROM drive be connected to the CD-ROM data cable rather than to the HDD data cable. Connecting the CD-ROM drive to the HDD data cable can reduce the performance of the hard disk drive connected to it. The CD-ROM data cable has red connectors and is marked "CD-ROM" next to the system board connector.



Matrox Video Adapter Flash BIOS and Switches

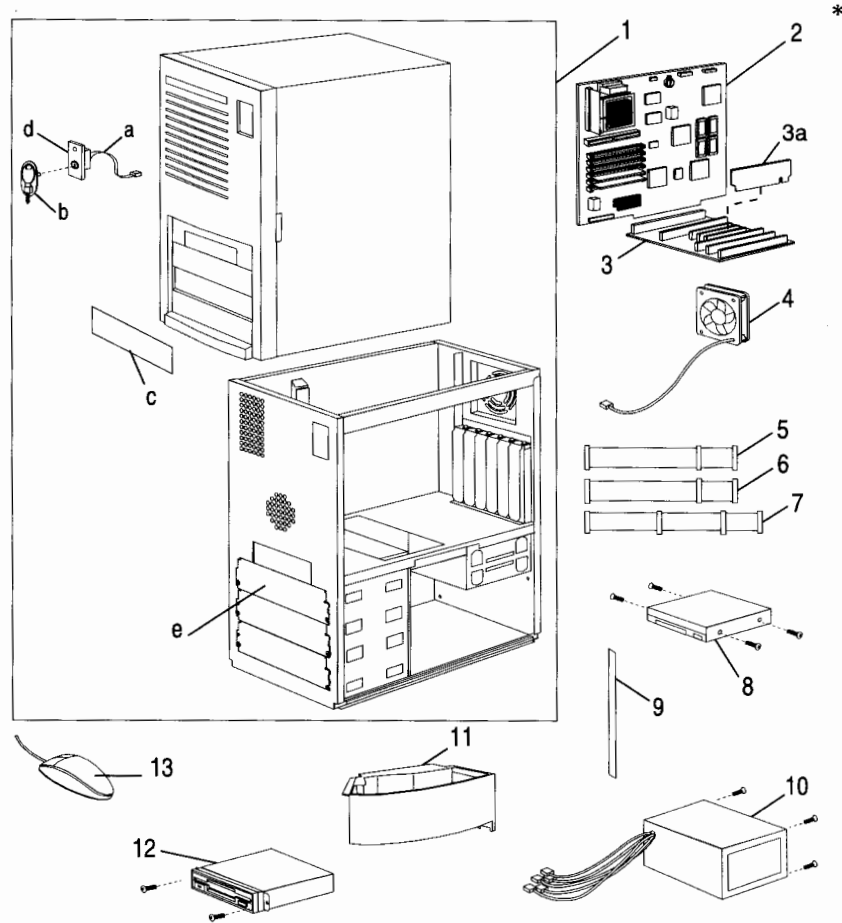
The Matrox MGA Millennium video adapter card had a Flash BIOS. The video BIOS can therefore be upgraded when updates are made available by Matrox.



Switch	Function
1	<ul style="list-style-type: none"> • OFF to prevent Video BIOS upgrades - DEFAULT • ON to allow Video BIOS upgrades
2	<ul style="list-style-type: none"> • OFF for single-screen operation - DEFAULT • ON for dual-screen operation (with second VGA controller)



Part Numbers



* The system board is shown with the integrated video controller, supplied on all models not having the Matrox MGA Millennium video card.



HP Vectra VL 5/xxx MT Series 4 PC

Parts List for HP Vectra VL 5/xxx MT series 4 PC

Item	Description	Repl. Part Number	Exchange Part Number list
1	Box Assembly	5064-0236	—
	a Power switch and cable	5063-8737	
	b Cover Lock Assembly	5062-5590	
	c Filler Panel 5.25 inch	5042-1178	
	d Lock panel	5064-1880	
2	System Board	See PC's system board parts list	
3	Backplane Assembly	5063-8782	—
3a	PCI terminator module ¹	5064-0289	
4	Fan Assembly	3160-1054	—
5	Hard Disk Cable (IDE drive)	5182-3507	—
6	CD-ROM Cable (IDE drive)	5182-3508	—
7	Flexible Disk Drive Cable	5182-3509	—
8	Hard Disk Drive (standard) ²		
	840 MB IDE	D2749-63001	D2749-69001
	1 GB	D2919-63001	D2919-69001
	1.2 GB	D2930-63001	D2930-69001
	1.6 GB	D2927-63001	D2927-69001
	2.5 GB IDE	D2784-63001	D2784-69001
9	Rear Bezel Label	5042-1177	—
10	Power Supply Assembly	5063-8760	—
11	Airflow Guide for 200 MHz processors	5042-1484	
12	Flexible Disk Drive	D2035-60152	—
13	Mouse	C3751-60201	—
	Nameplate:		
	HP Vectra 5/90 MT series 4	5042-1439	—
	HP Vectra 5/100 MT series 4	5042-1440	—
	HP Vectra 5/120 MT series 4	5042-1441	—
	HP Vectra 5/133 MT series 4	5042-1442	—
	HP Vectra 5/166 MT series 4	5042-1815	—
	HP Vectra 5/200 MT series 4	5042-1489	
	Rail kit (3×5.25")	5063-7961	

1. To be used only when no PCI boards are installed (e.g. Matrox video board or PCI network boards).
2. For optional disk drive information, see the *Accessory Service Handbook*.

Mini-Tower Vectras



HP Vectra VL 5/xxx MT Series 4 PC 21-13

HP Vectra VL 5/xxx MT Series 4 PC

System Board Parts List for HP Vectra VL 5/xxx MT series 4 PC

Description	Repl. Part Number	Exchange Part Number
System Board (includes integrated IDE disk controller) ¹		
Vectra VL 5/xxx series 4 System Board <i>with Trio 765 64 V+</i> integrated video controller (<i>DxxxxA</i> models) ²	D3652-63001	D3652-69001
Vectra VL 5/xxx series 4 System Board <i>with Trio 64 PnP</i> integrated video controller (<i>DxxxxB</i> models) ²	D3655-63001	D3655-69001
Vectra VL 5/xxx series 4 System Board <i>without</i> integrated video controller (Matrox models)	D3651-63001	D3651-69001
Processors:		
Pentium P54C 90 MHz (VCC standard)	5063-8787	—
Pentium P54C 100 MHz (VCC standard)	5063-7059	—
Pentium P54C 120 MHz (VCC standard)	5063-8765	—
Pentium P54CS 133 MHz (VCC standard)	5063-7974	—
Pentium P54CS 166 MHz (VRE)	5063-9049	—
Pentium P54CS 200 MHz (VRE)	5042-0246	—
Heatsink	1205-0832	—
Voltage Regulator Module 90/100/133 MHz (VCC standard)	5063-7939	—
Voltage Regulator Module 120/166/200 MHz (VRE)	5063-7940	—
Main Memory Modules:		
8 MB kit (2 × 4 MB) Main Memory 60ns EDO DRAM (32-bit)	D3646-63001	—
16 MB kit (2 × 8MB) Main Memory 60ns EDO DRAM (32-bit)	D3647-63001	—
Cache Memory Module:		
256 KB Synchronous Cache Memory Module	D3659-63002	—
256 KB Asynchronous Cache Memory Module	5063-7947	—
Video Adapter Board:		
Matrox MGA Millennium Video Adapter	D3568-69005	—

1. These assemblies are supplied without main memory modules, cache memory, processor and Voltage Regulator Module.
2. Make sure to replace the system board with the appropriate integrated video controller.



HP Vectra VL 5/xxx MT Series 4 PC

System Board Parts List for HP Vectra VL 5/xxx MT series 4 PC (Cont.)

Description	Repl. Part Number	Exchange Part Number
Video Memory Upgrades:		
1 MB Video Memory Upgrade kit for integrated video controller	D3500-63001	—
2 MB Video Memory Upgrade Kit for Matrox MGA Millennium video adapter board	D3557-63002	—
Batteries:		
3V System Board Battery ¹	1420-0314	—
4.5V Battery	1420-0513	—

- You can replace this battery with a Panasonic/Rayovac BR2325 battery, or with the equivalent HP battery (1420-0314).

Software for HP Vectra VL 5/xxx MT series 4 PC

Drivers and Utilities Disk kit (Windows/DOS drivers for models without a hard disk drive)	5063-7921
Multimedia S/W, utilities and drivers CD-ROM (non-PnP audio board D3567A)	5963-8032
Multimedia S/W (PnP audio board D4179A)	5064-8365

HP Vectra VL 5/xxx MT series 4 Multimedia PC Parts List

IDE 4× CD-ROM Drive	D2896-63401
IDE 8× CD-ROM Drive	D4381-63001
CD-ROM Audio Cable	5182-1857
Internal Speaker	5063-4559
Audio Board	5063-9057
Headphones	5182-3552
Video Adapter (Matrox MGA Millennium)	5063-8798
External Loudspeakers (pair of)	5182-3502

Support Manuals for HP Vectra VL 5/xxx series 4 PC

Familiarization Guide	D3645-90901
Technical Reference Manual: Hardware and BIOS	N/A ¹

- Printable electronic file only.

Mini-Tower Vectras



HP Vectra VL 5/xxx MT Series 4 PC 21-15

HP Vectra VL 5/xx Series 3 PC

Models and Accessories

Product Number	Flexible Drive A:	Hard Drive C:	Disk Controller	Video Controller	Std. RAM	Integ. LAN	Multi-media
Vectra VL 5/xx PC Series							
HP Vectra VL 5/75 PC (old color, CPL: 04/95 ▶)							
D3393A	1.44 MB	None	Integrated IDE Controller	Integrated Ultra VGA 2, (1 MB, upgradeable to 2 MB)	8 MB	None	None
D3394A	(D2035A)	420 MB (D2392-69001)					
D3395A		840 MB (D2393-69001)					
HP Vectra VL 5/75 PC (new color, CPL: 10/95 ▶)							
D3393B	1.44 MB	None	Integrated IDE Controller	Integrated Ultra VGA 2, (1 MB, upgradeable to 2 MB)	8 MB	None	None
D3394B	(D2035A)	420 MB (D2392-6xxxx)					
D3395B		840 MB (D2393-69001)					
D3395S							
D3448B					16 MB		
HP Vectra VL 5/90 PC (old color, CPL: 04/95 ▶)							
D3396A	1.44 MB	None	Integrated IDE Controller	Integrated Ultra VGA 2, (1 MB, upgradeable to 2 MB)	8 MB	None	None
D3397A	(D2035A)	420 MB (D2392-69001)					
D3398A		840 MB (D2393-69001)					
D3407A					16 MB		
HP Vectra VL 5/90 PC (new color, CPL: 10/95 ▶)							
D3396B	1.44 MB	None	Integrated IDE Controller	Integrated Ultra VGA 2, (1 MB, upgradeable to 2 MB)	8 MB	None	None
D3397B	(D2035A)	420 MB (D2392-69001)					
D3398B		840 MB (D2393-69001)					
D3398S							
D3407B					16 MB		

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Desktop Vectras



HP Vectra VL 5/xx Series 3 PC 22-1

HP Vectra VL 5/xx Series 3 PC

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Product Number	Flexible Drive A:	Hard Drive C:	Disk Controller	Video Controller	Std. RAM	Integ. LAN	Multi-media
HP Vectra VL 5/100 PC (old color, CPL: 04/95 ▶)							
D3399A	1.44 MB (D2035A)	None	Integrated IDE Controller	Integrated Ultra VGA 2, (1 MB, upgradeable to 2 MB)	8 MB	None	None
D3400A		420 MB (D2392- 69001)					
D3401A		840 MB (D2393- 69001)					
D3408A					16 MB		
HP Vectra VL 5/100 PC (new color, CPL: 10/95 ▶)							
D3399B	1.44 MB (D2035A)	None	Integrated IDE Controller	Integrated Ultra VGA 2, (1 MB, upgradeable to 2 MB)	8 MB	None	None
D3400B		420 MB (D2392- 69001)					
D3401B		840 MB (D2393- 69001)					
D3408B					16 MB		
D3408S							
HP Vectra VL 5/120 PC (old color, CPL: 04/95 ▶)							
D3409A	1.44 MB (D2035A)	None	Integrated IDE Controller	Integrated Ultra VGA 2, (1 MB, upgradeable to 2 MB)	8 MB	None	None
D3410A		420 MB (D2392- 69001)					
D3411A		840 MB (D2393- 69001)					
D3416A					16 MB		
HP Vectra VL 5/120 PC (new color, CPL: 04/95 ▶)							
D3409B	1.44 MB (D2035A)	None	Integrated IDE Controller	Integrated Ultra VGA 2, (1 MB, upgradeable to 2 MB)	8 MB	None	None
D3410B		420 MB (D2392- 69001)					
D3411B		840 MB (D2393- 69001)					
D3416B					16 MB		

Note

The Vectra VL 5/xx Series 3 PC has 256 KB of level-two cache memory.



Supported Accessories

1 MB Video Memory Upgrade Kit	D3404A
4 MB Main Memory Upgrade Kit (32-bit)	D2690A
4 MB Main Memory Upgrade Kit (36-bit)	D2974A
8 MB Main Memory Upgrade Kit (32-bit)	D2691A
8 MB Main Memory Upgrade Kit (36-bit)	D2975A
16 MB Main Memory Upgrade Kit (36-bit)	D2297A
32 MB Main Memory Upgrade Kit (36-bit)	D2298A
<i>User's Guide</i> manual	D3405A

Multimedia Products

Audio/CD MM Upgrade	D2941B
HP Integrated Office	D2887A

Input Devices

Mouse (HP/Logitech)	C3751A
Keyboard	C3756A
Keyboard for Windows 95	C4725A

Video Displays

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

Mass Storage

Flexible Disk 1.44 MB 3-1/2 inch	D2035A
Flexible Disk 1.2 MB 5-1/4 inch	D2881A
IDE 540 MB Hard Disk Drive	D2389A
IDE 840 MB Hard Disk Drive	D2925A
IDE 1 GB Hard Disk Drive	D2919A
SCSI CD-ROM Drive	D2886B
IDE CD-ROM Drive	D2889A

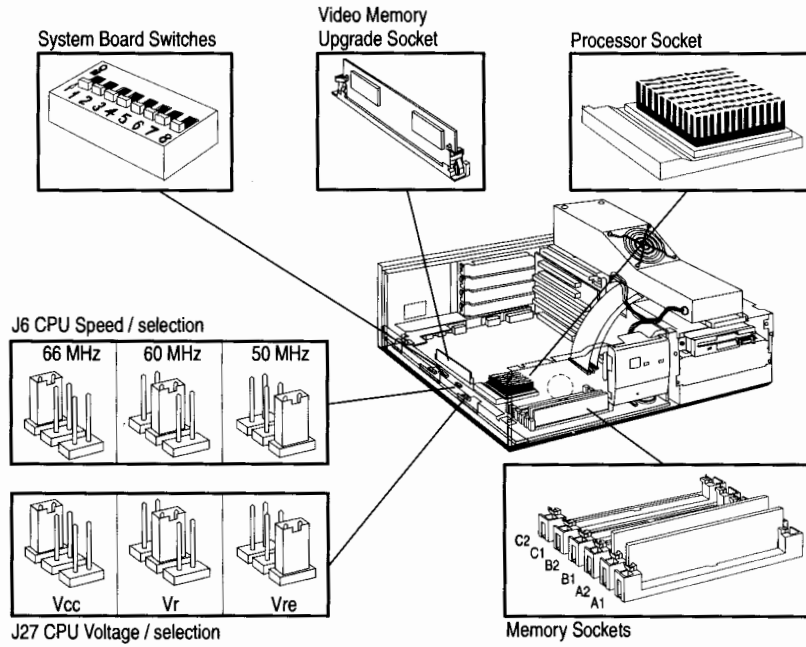
Datacomm and LAN Boards

Ethertwist Adapter/16	27247B
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**Medium-Profile
Desktop Vectras**

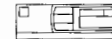


System Board, BIOS, and Memory



CPU Speed/Voltage Selection Jumpers

Vectra Model	VL 5/75	VL 5/90	VL 5/100	VL 5/120
CPU Voltage Selection Jumper (J27)	Vcc	Vr	Vre	Vre
CPU Speed Selection Jumper (J6)	50 MHz	60 MHz	66 MHz	60 MHz



System Board Switches

Switch #	Function		Default
1	OFF	Flash ROM Updates - enabled	OFF
	ON	Flash ROM Updates - disabled	
2	OFF	Not used	OFF
3	OFF	EEPROM stored configuration information - valid	OFF
	ON	EEPROM stored configuration information - erased	
4	OFF	Passwords - enabled	OFF
	ON	Passwords - disabled (erased)	
5	OFF	Memory parity - disabled	OFF
	ON	Memory parity - enabled	
6	OFF	Select 75 MHz, 90 MHz or 100 MHz processor speed	See footnote ¹
	ON	Select 120 MHz processor speed	
7	OFF	Not used	OFF
8	OFF	Not used	OFF

1. Default setting dependent on model.

Setup and BIOS History

The latest BIOS, the flasher utility program, and the BIOS history can each be obtained from the HP Electronic Services. BIOS revisions are of the form GK.xx.xx.

Cache Memory

The PC has 256 KB of integrated level-two cache memory.



Video Memory

The PC is supplied with 1 MB of video memory for 1024 × 768 in 256 colors. An additional 1 MB of video memory can be installed in the video memory socket (to make a total of 2 MB) for 1024 × 768 in 64 K colors.

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Desktop Vectras



HP Vectra VL 5/xx Series 3 PC 22-5

HP Vectra VL 5/xx Series 3 PC

Main Memory

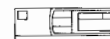
The HP Vectra VL 5/xx PC has three banks on the system board for installing main memory; banks A, B and C. Each bank consists of two sockets. The PC is supplied with 8 MB or 16 MB of main memory (two 4 MB or two 8 MB memory modules installed in bank A).

It is recommended to install memory modules in pairs, so that each bank with memory installed contains two memory modules of the same size. This enables the bank to be accessed as 64-bit memory, and offers better performance than a bank containing only one memory module (accessed as 32-bit memory). Main memory can be installed up to a maximum of 192 MB.

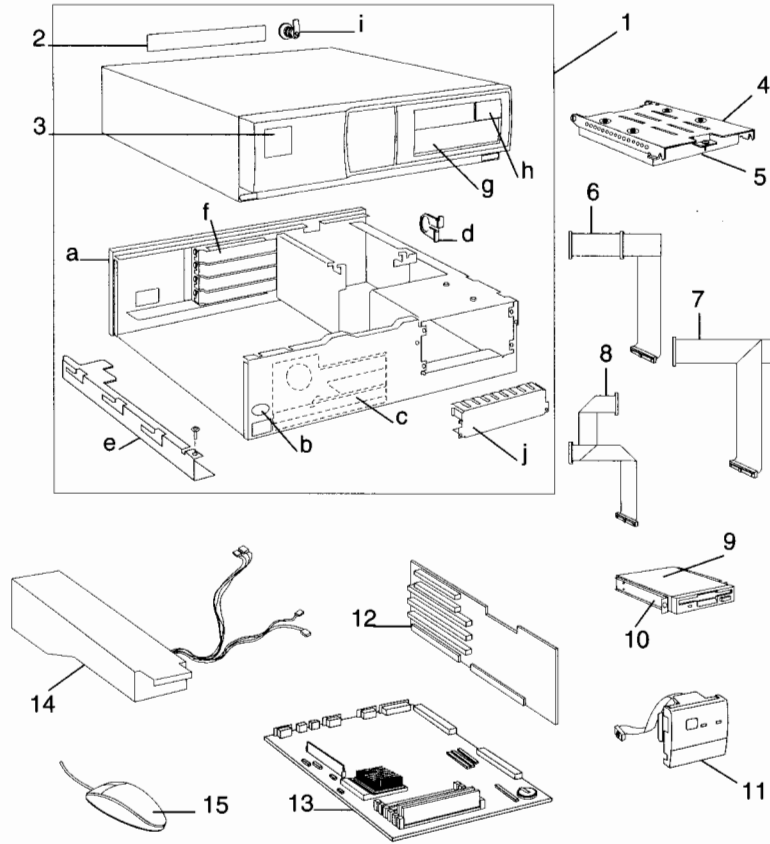
The HP Vectra VL 5/xx PC supports memory interleaving when four memory modules of the same size are installed in either banks A and B or banks B and C. Configurations using memory interleaving will provide the best memory performance.

Recommended memory configurations

For a TOTAL memory of:	Install memory modules in these banks:						Inter- leaving
	Bank A		Bank B		Bank C		
	A1	A2	B1	B2	C1	C2	
8 MB	4 MB	4 MB	-	-	-	-	No
16 MB	4 MB	4 MB	4 MB	4 MB	-	-	Yes
16 MB	8 MB	8 MB	-	-	-	-	Yes
24 MB	4 MB	4 MB	4 MB	4 MB	4 MB	4 MB	Yes
24 MB	4 MB	4 MB	8 MB	8 MB	-	-	No
32 MB	8 MB	8 MB	8 MB	8 MB	-	-	Yes
48 MB	16 MB	16 MB	8 MB	8 MB	-	-	No
64 MB	16 MB	16 MB	16 MB	16 MB	-	-	Yes
80 MB	32 MB	32 MB	8 MB	8 MB	-	-	No
96 MB	16 MB	16 MB	16 MB	16 MB	16 MB	16 MB	Yes
128 MB	16 MB	16 MB	16 MB	16 MB	32 MB	32 MB	Yes
128 MB	32 MB	32 MB	32 MB	32 MB	-	-	Yes
144 MB	32 MB	32 MB	32 MB	32 MB	8 MB	8 MB	Yes
160 MB	32 MB	32 MB	32 MB	32 MB	16 MB	16 MB	Yes
192 MB	32 MB	32 MB	32 MB	32 MB	32 MB	32 MB	Yes



Part Numbers



Medium-Profile
Desktop Vectras



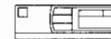
HP Vectra VL 5/xx Series 3 PC 22-7

HP Vectra VL 5/xx Series 3 PC

Parts List for HP Vectra VL 5/xx PC Series

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Item	Description	Repl. Part Number	Exchange Part Number list
1	Box Assembly:		
	Old Color	5063-4597	
	New Color (Quartz)	5063-7025	
	a Rear Bezel	-	
	b Bumper Foot	02225-00010	
	c System Board Side Guide	-	
	d Security Bracket	-	
	e Side Panel	-	
	f I/O Panel Blank	-	
	g Filler Panel 5.25 in. (old color)	5041-2587	
	Filler Panel 5.25 in. (new color)	5042-1178	
	h Filler panel 1.75 in. (old color)	5041-2579	
	Filler panel 1.75 in. (new color)	5041-1179	
i Cover Lock Assembly	5062-5590		
j L/R cover panel (old color)	5042-0505		
L/R cover panel (new color)	5042-1176		
2	Rear Bezel Label	5042-1406	
3	Nameplates Old Color:		
	VL 5/75	5042-1115	
	VL 5/90	5042-1116	
	VL 5/100	5042-1117	
	VL 5/120	5042-1183	
	Nameplates New Color (Quartz):		
	VL 5/75	5042-1448	
	VL 5/90	5042-1445	
	VL 5/100	5042-1450	
	VL 5/120	5042-1471	
4	3.5 inch, h-h, Tray (5 pack) for non-supported hard disk drives	Order product number D2037A	
5	Hard Disk Drive (standard) ¹		
	420 MB	D2392-63001	D2392-69001
	840 MB	D2925-63001	D2925-69001
6	Hard Disk Cable (IDE drive)	5182-1862	
7	Standard IDE Cable	5182-1856	
8	Flexible Disk Drive Cable	5182-3538	
9	Flexible Disk Drive:		
	Old Color	D2035-60052	
New Color (Quartz)	D2035-60152		



Parts List for HP Vectra VL 5/xx PC Series

10	Mounting Rails for 3.5 inch, non-HP Disk Drives	5063-0309	—
11	Status (Control) Panel: Old Color New Color (Quartz)	5063-0889 5063-7016	—
12	Backplane Assembly	5063-7970	—
13	System Board	See PC's system board parts list	
14	Power Supply Assembly	5063-4553	—
15	Mouse: Old Color New Color (Quartz)	C3751-60101 C3751-60201	—

1. For optional disk drive information, see the *Accessory Service Handbook*.

System Board Parts List for HP Vectra VL 5/xx PC Series

Description	Repl. Part Number	Exchange Part Number
System Board (includes integrated IDE disk and Ultra VGA 2 controllers) ¹		
Vectra VL 5/75 System Board (75 MHz)	D3393-63003 ¹	D3393-69003 ¹
Vectra VL 5/xx System Board (90 MHz, 100 MHz and 120 MHz)	D3399-63003 ¹	D3399-69003 ¹
Processors:		
Intel Pentium 75 MHz (Vcc)	5063-7022	—
Intel Pentium 90 MHz (Vr)	5063-7023	—
Intel Pentium 100 MHz (Vre)	5063-7024	—
Intel Pentium 120 MHz (Vre)	5063-7089	—
Heatsink Assembly	1205-0832	—
Main Memory Modules:		
4 MB Main Memory DRAM Kit	D2974-63001	—
4MB Main Memory DRAM Kit (no parity)	5063-4548	—
8 MB Main Memory DRAM Kit	D2975-63001	—
8 MB Main Memory DRAM Kit (no parity)	5063-4549	—
16 MB Main Memory DRAM Kit	D2297-63001	D2297-69001
32 MB Main Memory DRAM Kit	D2298-63001	D2298-69001
Video Memory Modules:		
1 MB Video Memory Module kit	5063-7056	—

1. These assemblies are supplied without main memory modules or processor.

Medium-Profile
Desktop Vectras



HP Vectra VL2 5/60 PC Series

Models and Accessories

Product Number	Flexible Drive A:	Hard Drive C:	Disk Controller	Video Controller	Std. RAM	Integ. LAN	L 2 Cache
Vectra VL2 5/60 PC Series HP Vectra VL2 5/60 PC (CPL: 06/94 ▶)							
D3175A	1.44 MB (D2035A)	None	Fast IDE controller on PCI bus	VGA/PCI (1 MB, upgradeable to 2 MB)	8 MB	No	256 KB
D3176A		210 MB (D2387A)					
D3177A		340 MB (D2890A)					
D3178A		540 MB (D2891B) or (D2395-6xxxx)					

Supported Accessories

1 MB Video Memory Upgrade kit	D3179A
4 MB Main Memory (70ns) Upgrade kit	D2974A
8 MB Main Memory (70 ns) Upgrade kit	D2975A
16 MB Main Memory (70 ns) Upgrade kit	D2297A
32 MB Main Memory (70 ns) Upgrade kit	D2298A
<i>Setting Up Your PC</i> and <i>Using Your PC</i> manuals	D3190A

Input Devices

Mouse (PS/2 / Microsoft)	C1413A
Keyboard - New Style	C3756A
Mouse (PS/2 / Logitech)	C3751A

Medium-Profile
Desktop Vectras



HP Vectra VL2 5/60 PC Series 23-1

HP Vectra VL2 5/60 PC Series

Video Displays

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

Multimedia Products

HP Sound DSP 16	D2941A
HP Integrated Office	D2887A

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Mass Storage

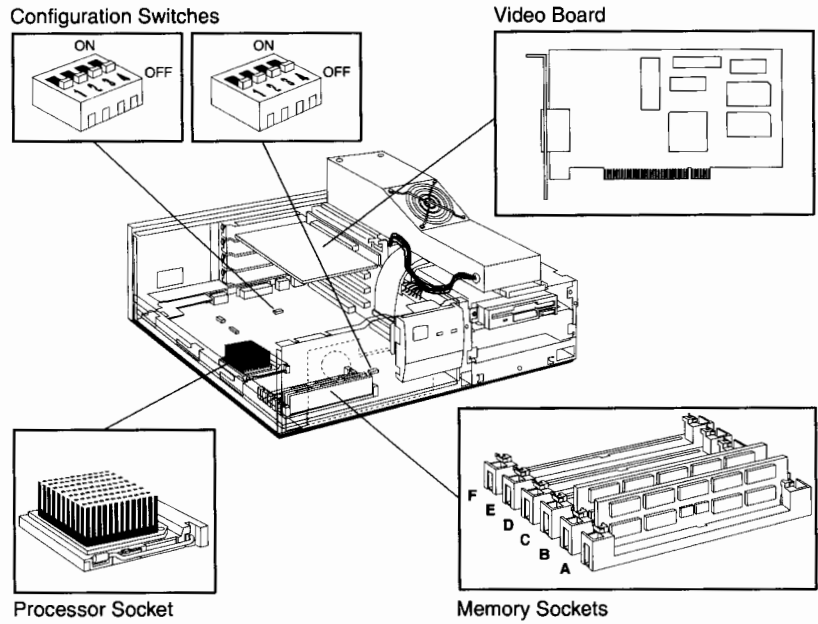
Flexible Disk 1.44 MB 3-1/2 inch	D2035A
Flexible Disk 1.2 MB 5-1/4 inch	D2881A
IDE 170 MB Hard Disk	D2330B
IDE 210 MB Hard Disk	D2387A
IDE 450 MB Hard Disk	D2884A
IDE 340 MB Hard Disk	D2890A
IDE 540 MB Hard Disk	D2388A
IDE 270 MB Hard Disk	D2389A
CD-ROM Drive	D2886B

Datacomm and LAN Boards

Ethertwist PC Link Adapter	27245A
Ethertwist Adapter/16	27247B
Token-Ring Adapter	D2378A



System Board, BIOS, and Memory



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System Board Switch Block SW1

Switch #	Function	Default
1_1 SECU	OFF Disables security mode to allow changes to the PC's configuration	OFF
	ON Enables security mode to prevent changes to the PC's configuration	
1_2 CCFG	OFF Retain the configuration stored in CMOS	OFF
	ON Clear the configuration stored in CMOS. Switch ON if you need to clear the PC's configuration information, for example, if the configuration is corrupted.	
1_3	OFF Not used, always OFF	OFF
1_4	OFF Not used, always OFF	OFF

Medium-Profile
Desktop Vectras



HP Vectra VL2 5/60 PC Series 23-3

HP Vectra VL2 5/60 PC Series

System Board Switch Block SW3

Switch #		Function	Default
3_1	ON	Identifies the system board's speed. Always ON, do not change.	ON
3_2	OFF	Not used always OFF	OFF
3_3 PWRD	OFF	Enables the User Password to be set and stored in CMOS	OFF
	ON	Disables the User Password Switch ON if you need to clear the current password.	
3_4 MIRQ	OFF	Enables IRQ 12 use for the mouse interrupt	OFF
	ON	Disables the mouse Switch to ON if you install an accessory that uses IRQ 12 (this disables the mouse).	

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Setup and BIOS History

The latest BIOS, the flasher utility program, and the BIOS history can each be obtained from the HP Electronic Services.

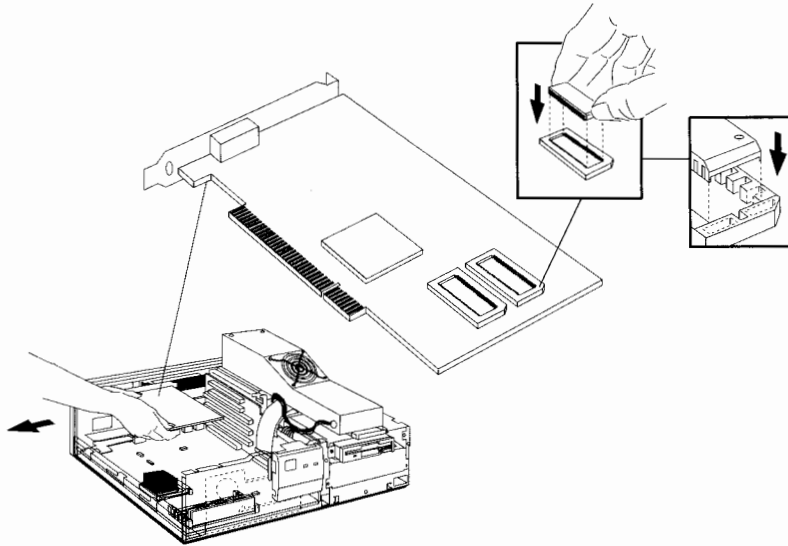
Cache Memory

The PC has 256 KB of integrated level-two cache memory.



Video Memory

The video board is supplied with 1 MB of video memory for 1024 × 768 in 256 colors. An additional 1 MB of video memory (two 512 KB video memory modules) can be installed in the video memory sockets (to make a total of 2 MB for 1024 × 768 in 64 K colors).



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Main Memory

The system board has three banks (six sockets, labeled A through F) for 70 ns main memory modules. The PC is supplied with 8 MB of main memory (two 4 MB main memory modules) in Bank 1 (slots A and B). The same size main memory modules must be installed in pairs within banks.

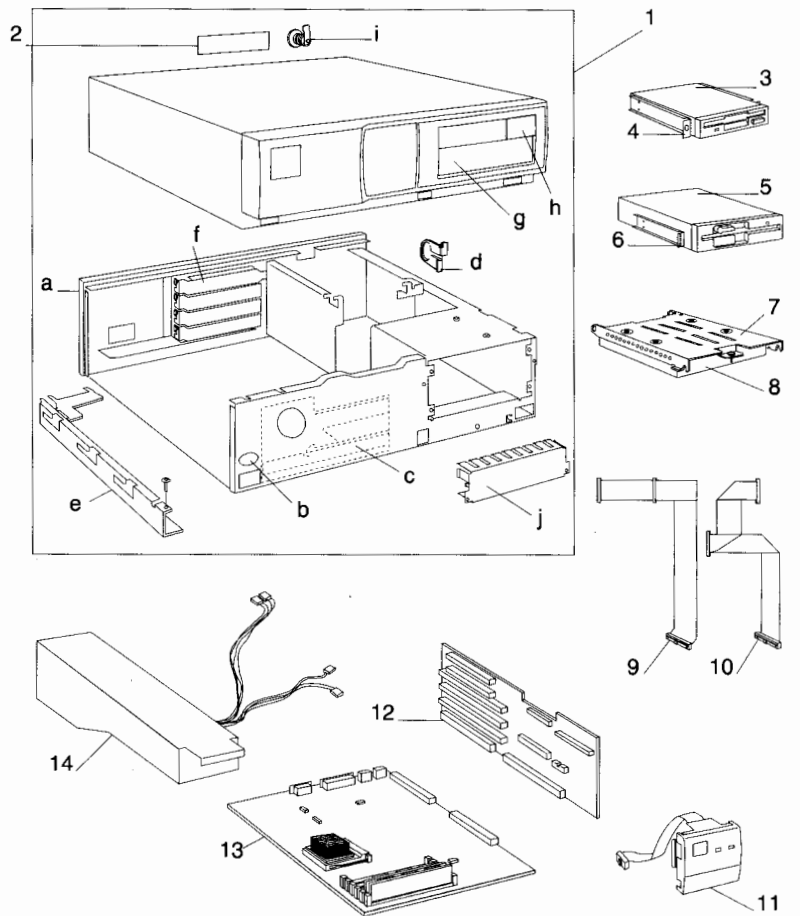
Medium-Profile
Desktop Vectras



HP Vectra VL2 5/60 PC Series 23-5

Part Numbers

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HP Vectra VL2 5/60 PC Series

Parts List for HP Vectra VL2 5/60 PC Series

Item	Description	Repl. Part Number	Exchange Part Number list
1	Box Assembly:	5063-4597	—
	a Rear Bezel	-	
	b Bumper Foot	02225-00010	
	c System Board Guide	-	
	d Security Bracket	-	
	e Side panel	-	
	f I/O Panel Blank	-	
	g Filler panel 5.25-inch	5041-2578	
	h Filler panel 1.75-inch	5063-0877	
	i Cover lock Assembly	5062-5590	
	j RFI filler panel	-	
2	Rear Bezel Label	5042-0587	—
3	3.5-inch flexible Disk Drive	D2035-60152	—
4	Mounting Rails for 3.5-inch non-HP Flexible Disk Drives	5063-0309	—
5	5.25-inch flexible Disk Drive	See disk drive parts list	
6	Mounting Rails for 5.25-inch non-HP Disk Drives	Order product number D2880A	
7	3.5-inch, h-h, Tray (5 pack) for non-supported hard disk drives	Order product number D2037A	
8	Hard Disk Drive (standard) ¹		
	210 MB	D2387-63001	D2387-69001
	340 MB	D2890-63021	D2890-69021
	540 MB	D2395-63001	D2395-69001
9	Hard Disk Cable (IDE drive)	5182-0311	—
10	Flexible Disk Drive Cable	5182-1089	—
11	Status (Control) Panel	5063-0889	—
12	Backplane Assembly	5063-5729	—
13	System Board	See PC's system board parts list	
14	Power Supply Assembly 100 W	5063-4553	—
	Nameplate		
	HP Vectra VL2 5/60 Logo	5042-0586	—

1. For optional disk drive information, see the *Accessory Service Handbook*.



HP Vectra VL2 5/60 PC Series

System Board Parts List for HP Vectra VL2 5/60 PC Series

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Description	Repl. Part Number	Exchange Part Number
System Board (includes integrated IDE disk controller)		
Vectra VL 2 5/60	D3175-63001 ¹	D3175-69001 ¹
Processor	5182-1889	—
Main Memory Modules: ²		
4 MB Main Memory DRAM kit (36-bit, 70ns)	D2974-63001	—
8 MB Main Memory DRAM kit (36-bit, 70ns)	D2975-63001	—
16 MB Main Memory DRAM kit (36-bit, 70ns)	D2297-63001	D2297-69001
32 MB Main Memory DRAM kit (36-bit, 70ns)	D2298-63001	D2298-69001
Video Adapter	5063-5771	—
Video Memory Modules: ²		
1 MB Video Memory Module kit (D3179A)	5063-5727	—

1. These replacement assemblies are supplied without a processor chip.
2. Memory modules must be installed in matching pairs.

Support Manuals for HP Vectra VL2 5/60 PC Series

Familiarization Guide	D3175A+49A-90001
Technical Reference Manual: Hardware and BIOS	None ¹

1. Electronic file only.

Part Numbers for HP Utility Diskettes

Description	Rev	Date Code	Part #	Info.
Windows & DOS Video Drivers			5063-7977	Kit

Notes: _____



HP Vectra VE 5/xxx Series 4 PC

Models and Accessories

Product Number	Hard Drive	Video Controller ¹	Std. RAM ²	Multi-media	Network	OS	
Vectra VE 5/xxx Series 4 PC HP Vectra 5/166 MMX Series 4 PC (CPL: 11/97 ▶)							
D5590A	none	S3 Trio 64 V2	16 MB SDRAM 100 MHz	no	no	none	
D5591A	1.0 GB IDE Ultra ATA					Win 95 SR 2.1	
D5592A	2.1 GB IDE Ultra ATA					Ethernet 10/100BT PCI board	
D5593A							
HP Vectra 5/200 MMX Series 4 PC (CPL: 11/97 ▶)							
D5600A	none	S3 Trio 64 V2	16 MB SDRAM 100 MHz	no	no	none	
D5602A	2.1 GB IDE Ultra ATA					Ethernet 10/100BT PCI board	Win 95 SR 2.1
D5603A							
D5604A			32 MB SDRAM 100 MHz	CD-ROM 24 × Max IDE and ISA Plug-n-Play Audio Board	no		
D5605A	3.2 GB IDE Ultra ATA			no			
D5606N					NT 4.0 WS		

1. All models have an S3 Trio 64 V2 Ultra VGA video controller, and 2 MB of video memory soldered on the system board (and therefore not upgradeable)
2. All models have 256KB of level-2 cache memory soldered on the system board.

Medium-Profile
Desktop Vectras



HP Vectra VE 5/xxx Series 4 PC 24-1

HP Vectra VE 5/xxx Series 4 PC

Product Number	Hard Drive	Video Controller ¹	Std. RAM ²	Multi-media	Network	OS	
HP Vectra 5/233 MMX Series 4 PC (CPL: 11/97 ▶)							
D5612A	2.1 GB IDE Ultra ATA	S3 Trio 64 V2	16 MB SDRAM 100 MHz	no	no	Win 95 SR 2.1	
D5613A							Ethernet 10/100BT PCI board
D5614A	3.2 GB IDE Ultra ATA	S3 Trio 64 V2	32 MB SDRAM 100 MHz	CD-ROM 24 × Max IDE and ISA Plug-n-Play Audio Board	no	NT 4.0 WS	
D5615A							no
D5616N							
HP Vectra 5/xxx³ Series 4 PC (CPL: 11/97 ▶)							
D5576E	User defined	S3 Trio 64 V2	User defined	no	no	Win 95 SR 2.1	
D5578E							CD-ROM 24 × Max IDE and ISA Plug-n-Play Audio Board

1. All models have an S3 Trio 64 V2 Ultra VGA video controller, and 2 MB of video memory soldered on the system board (and therefore not upgradeable)
2. All models have 256KB of level-2 cache memory soldered on the system board.
3. ECTO models: Processor speed and type is user defined.

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Supported Accessories

16-MB, 64-bit SDRAM, 100-MHz main memory modules	D5361A
32-MB, 64-bit SDRAM, 100-MHz main memory modules	D5362A
64-MB, 64-bit SDRAM, 100-MHz main memory modules	D5363A

Documentation

<i>User's Guide</i> Manual Kit	D5570A
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Input Devices

HP mouse	C3751B
HP keyboard for Windows® 95	C4725A

Video Displays

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

Mass Storage

1.6-GB Ultra-ATA hard disk	D2679A
2.5-GB Ultra-ATA hard disk	D2678A
4.5-GB Ultra-ATA hard disk	D2677A
24× Max IDE CD-ROM drive	D4383A

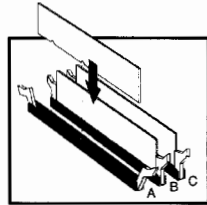
Multimedia

Multimedia sound accessory kit (24× Max CD-ROM drive, Plug-and-Play ISA audio board, headphones, cables, CD-ROM drive tray)	D5182A
Batch of 10 Audio Boards (for resellers only)	D5183A
Batch of 10 Ethernet 10/100BT Nighthunter/100 Boards	D3999A

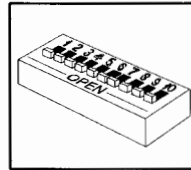


System Board, BIOS, and Memory

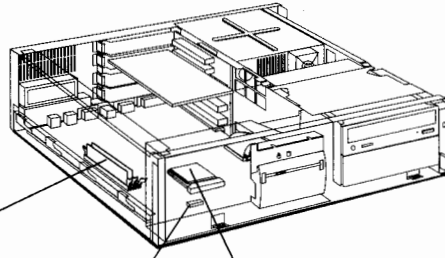
24



Main Memory: 3 banks of SIMMs.



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



Processor: Pentium module with heat-sink.

BIOS History

The latest BIOS, the flasher utility program, and the BIOS history can be obtained from HP World Wide Web site. BIOS version numbers are of the form HH.xx.xx.

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



System Board Switches

Switch		Function	Default
1-4	-	Processor frequency, see the following table	-
5,6	Open	Not used	Open
7 ¹	Open	Normal operation	Open
	Closed	Clears User and Administrator passwords	
8 ¹	Open	Normal operation	Open
	Closed	Clears CMOS (to reload the <i>Setup</i> program defaults)	
9	Open	Disables keyboard power-on	Closed
	Closed	Normal operation	
10		Reserved	

1. If the system BIOS becomes corrupted (for example due to a problem during the flashing process), the PC can be restarted with both SW-7 and SW-8 closed. This forces the PC to start the crash recovery procedure, and to boot from the flexible disk drive, ready for the system BIOS to be reflashed.

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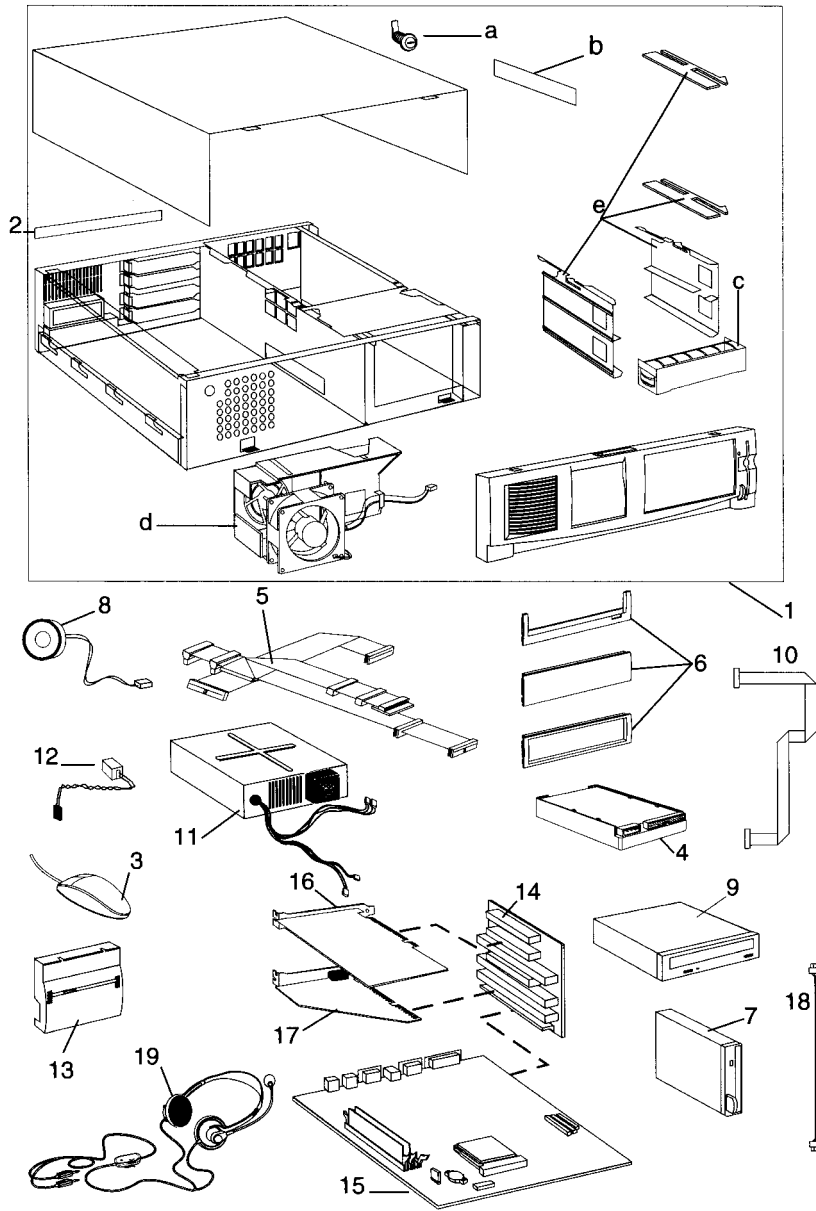
Processor Frequency	Switch		Local Bus Frequency	Switch		Frequency Ratio Processor : Local Bus
	1	2		3	4	
166 MHz	Closed	Open	66 MHz	Closed	Closed	2.5 : 1
200 MHz	Closed	Open	66 MHz	Open	Closed	3 : 1
233 MHz	Closed	Open	66 MHz	Open	Open	3.5 : 1



HP Vectra VE 5/xxx Series 4 PC

Part Numbers

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24-6 HP Vectra VE 5/xxx Series 4 PC

Medium-Profile
Desktop Vectras



HP Vectra VE 5/xxx Series 4 PC

Parts List for HP Vectra VE 5/xxx Series 4 PC

Item	Description	Repl. Part Number	Exchange Part Number
1	Box assembly:	5064-3609	—
	a Cover lock assembly	5062-5590	
	b Serial number label	5182-0030	
	c RFI filler plate (5.25 inch)	5002-1970	
	d Fan / HP holder assembly	5064-0247	
	e CD-ROM drive/FDD holder kit	5064-2664	
2	Rear bezel connector label	5042-2476	—
3	Mouse	C3751-60201	—
	Keyboard (all countries except US)	C4735-601xx ¹	—
	Keyboard (US only)	C4732-60101	—
4	IDE hard disk drive (standard) ²		
	3.2 GB	—	D5194-69001
	2.1 GB	—	D5193-69001
	1.0 GB	—	D5192-69001
5	IDE and FDD cable kit	5064-3326	—
6	Filler kit	5064-2667	—
7	Flexible disk drive (bezelless)	D2035-60172	—
8	Internal speaker	5063-4559	—
9	24X Max IDE CD-ROM drive	—	D4383-69001
10	Internal network cable	5183-0758	—
11	Power supply	0950-3303	—
12	3 V external battery	1420-0552	—
13	Status panel	5064-2697	—
	Multimedia control panel	5064-2698	—
14	Double-sided backplane board	5064-2612	—
15	System board	See PC's system board parts list	
16	Ethernet 10/100BT PCI board	5064-1897	—
17	Audio board	5064-2620	—
18	CD-ROM to audio board cable	5182-1857	—
19	Headphones	5182-3552	—

1. Where "xx" is the code for your national keyboard (see the *Accessory Service Handbook*).
2. For optional disk drive information, see the *Accessory Service Handbook*.

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Medium-Profile
Desktop Vectras



HP Vectra VE 5/xxx Series 4 PC 24-7

HP Vectra VE 5/xxx Series 4 PC

System Board Parts List for HP Vectra 5/xxx VE Series 4 PC

Description	Repl. Part Number	Exchange Part Number
System board: Vectra VE 5/xxx Series 4 system board with integrated video controller	—	D5571-69001
Processors: Intel Pentium 5/166 MMX Intel Pentium 5/200 MMX Intel Pentium 5/233 MMX	5064-1819 5064-1820 5064-2656	— — —
Main memory modules: 1 × 16-MB main memory 100-MHz SDRAM 1 × 32-MB main memory 100-MHz SDRAM	D5361-63001 D5362-63001	— —
Batteries: 3 V system board battery (type 2032)	1420-0356	—

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Manuals and Documentation for HP Vectra 5/xxx VE Series 4 PC

<i>User's Guide</i>	D5570-90001
<i>Familiarization Guide</i>	no number ¹
<i>Technical Reference Manual: hardware and BIOS</i>	no number ¹

1. Electronic file only. All guides and manuals are available at the HP World Wide Web site.

Notes: _____



HP Vectra VE 5/xxx MT Series 4 PC

Models and Accessories

Product Number	Hard Drive	Video Controller ¹	Std. RAM ²	Multi-media	Network	OS
Vectra VE 5/xxx Series 4 PC HP Vectra 5/200 MT Series 4 PC (CPL: 11/97 ▶)						
D5607A	3.2 GB IDE Ultra ATA	S3 Trio 64 V2	32 MB SDRAM 100 MHz	no	no	Win 95 SR 2.1
HP Vectra 5/233 MT Series 4 PC (CPL: 11/97 ▶)						
D5617A	3.2 GB IDE Ultra ATA	S3 Trio 64 V2	32 MB SDRAM 100 MHz	no	no	Win 95 SR 2.1
HP Vectra 5/xxx³ MT Series 4 PC (CPL: 11/97 ▶)						
D5579E	User defined	S3 Trio 64 V2	User defined	no	no	Win 95 SR 2.1
D5585E				CD-ROM 24 X Max IDE and ISA Plug-n-Play Audio Board		

1. All models have an S3 Trio 64 V2 Ultra VGA video controller, and 2 MB of video memory soldered on the system board (and therefore not upgradeable)
2. All models have 256KB of level-2 cache memory soldered on the system board.
3. ECTO models: Processor speed and type is user defined.

Mini-Tower Vectras



HP Vectra VE 5/xxx MT Series 4 PC 25-1

HP Vectra VE 5/xxx MT Series 4 PC

Supported Accessories

16-MB, 64-bit SDRAM, 100-MHz main memory modules	D5361A
32-MB, 64-bit SDRAM, 100-MHz main memory modules	D5362A
64-MB, 64-bit SDRAM, 100-MHz main memory modules	D5363A

Documentation

<i>User's Guide</i> Manual Kit	D5570A
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Input Devices

HP mouse	C3751B
HP keyboard for Windows® 95	C4725A

Video Displays

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

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Mass Storage

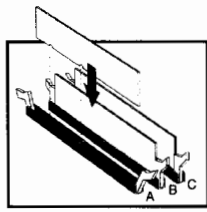
1.6-GB Ultra-ATA hard disk	D2679A
2.5-GB Ultra-ATA hard disk	D2678A
4.3-GB Ultra-ATA hard disk	D2677A
24× Max IDE CD-ROM drive	D4383A

Multimedia

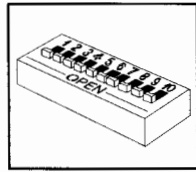
Multimedia sound accessory kit (24× Max CD-ROM drive, Plug-and-Play ISA audio board, headphones, cables, CD-ROM drive tray)	D5182A
Batch of 10 Audio Boards (for resellers only)	D5183A
Batch of 10 Ethernet 10/100BT Nighthdirector/100 Boards	D3999A



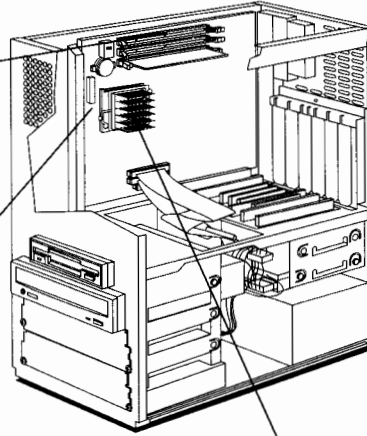
System Board, BIOS, and Memory



Main Memory: 3 banks of SIMMs.



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



Processor: Pentium module with heat-sink.

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BIOS History

The latest BIOS, the flasher utility program, and the BIOS history can be obtained from HP World Wide Web site. BIOS version numbers are of the form HH.xx.xx.

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

Mini-Tower Vectras



HP Vectra VE 5/xxx MT Series 4 PC 25-3

System Board Switches

Switch	Function		Default
1-4	-	Processor frequency, see the following table	-
5,6	Open	Not used	Open
7 ¹	Open	Normal operation	Open
	Closed	Clears User and Administrator passwords	
8 ¹	Open	Normal operation	Open
	Closed	Clears CMOS (to reload the <i>Setup</i> program defaults)	
9	Open	Disables keyboard power-on	Closed
	Closed	Normal operation	
10		Reserved	

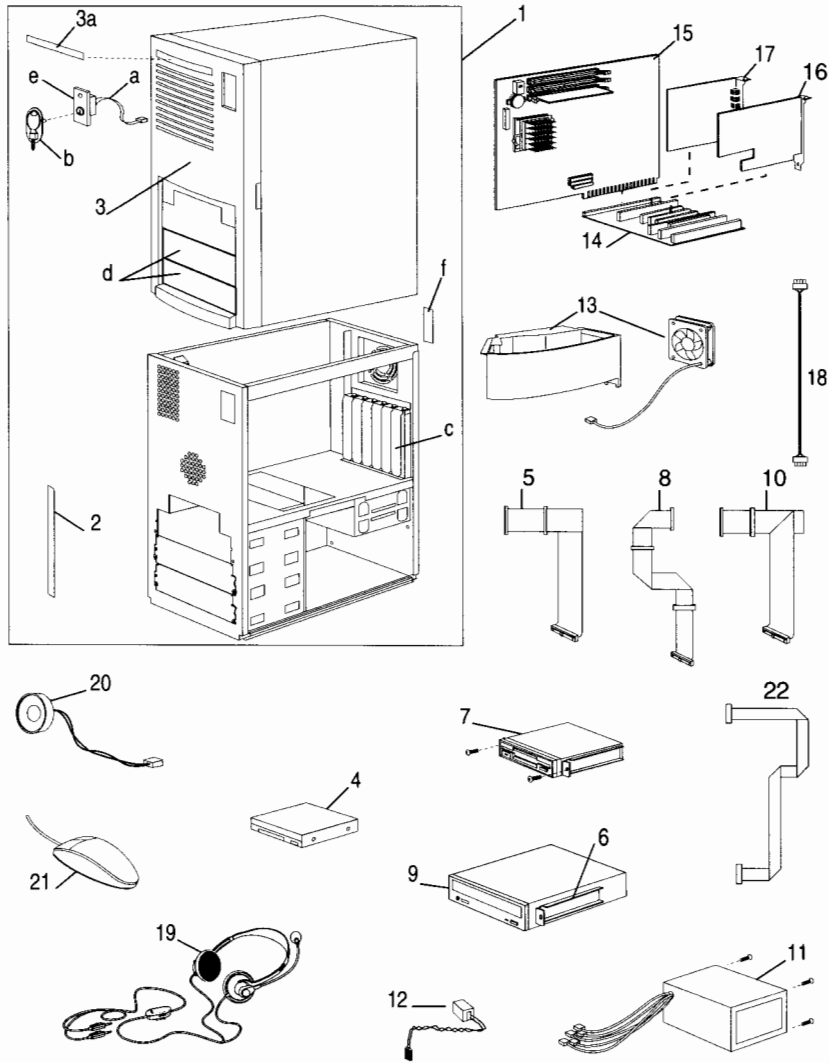
1. If the system BIOS becomes corrupted (for example due to a problem during the flashing process), the PC can be restarted with both SW-7 and SW-8 closed. This forces the PC to start the crash recovery procedure, and to boot from the flexible disk drive, ready for the system BIOS to be reflashed.

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Processor Frequency	Switch		Local Bus Frequency	Switch		Frequency Ratio Processor : Local Bus
	1	2		3	4	
166 MHz	Closed	Open	66 MHz	Closed	Closed	2.5 : 1
200 MHz	Closed	Open	66 MHz	Open	Closed	3 : 1
233 MHz	Closed	Open	66 MHz	Open	Open	3.5 : 1



Part Numbers



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Mini-Tower Vectras



HP Vectra VE 5/xxx MT Series 4 PC 25-5

HP Vectra VE 5/xxx MT Series 4 PC

Parts List for HP Vectra VE 5/xxx MT Series 4 PC

Item	Description	Repl. Part Number	Exchange Part Number
1	Box assembly:	5064-1842	—
	a Power switch and cable	5064-3331	
	b Cover lock assembly	5062-5590	
	c I/O panel blank	45935-00004	
	d Filler panel 5.25 inch	5042-1178	
	e Lock panel	5064-1880	
	f Serial Number label	5182-0030	
2	Rear bezel connector label	5042-2476	—
3	Bezel assembly	5064-3320	—
3a	Logo minitower	5042-1845	
4	IDE hard disk drive (standard) ¹		
	3.2 GB	—	D5194-69001
	2.1 GB	—	D5193-69001
	1.0 GB	—	D5192-69001
5	IDE hard disk cable	5183-2708	—
6	Rail kit (3 × 5.25 inch)	5063-7961	—
7	Flexible disk drive	D2035-60152	—
8	Flexible disk drive cable	5182-3509	—
9	24× Max IDE CD-ROM drive	—	D4383-69001
10	IDE CD-ROM cable	5183-2104	—
11	Power supply 150W	0950-2694	—
12	3 V external battery	1420-0552	—
13	Airflow guide and fan	5064-1886	—
14	Backplane board	5064-3361	—
15	System board	See PC's system board parts list	
16	Ethernet 10/100BT PCI board	5064-1897	—
17	Audio board	5064-2620	—
18	CD-ROM to audio board cable	5182-1857	—
19	Headphones	5182-3552	—
20	Internal speaker	5063-4559	—
21	Mouse	C3751-60201	—
	Keyboard (all countries except US)	C4735-601xx ²	—
	Keyboard (US only)	C4732-60101	—
22	Internal network cable	5183-0758	

1. For optional disk drive information, see the *Accessory Service Handbook*.
2. Where "xx" is the code for your national keyboard (see the *Accessory Service Handbook*).



HP Vectra VE 5/xxx MT Series 4 PC

System Board Parts List for HP Vectra 5/xxx VE MT Series 4 PC

Description	Repl. Part Number	Exchange Part Number
System board: Vectra VE 5/xxx Series 4 system board with integrated video controller	—	D5571-69001
Processors: Intel Pentium 5/166 MMX Intel Pentium 5/200 MMX Intel Pentium 5/233 MMX	5064-1819 5064-1820 5064-2656	— — —
Main memory modules: 1 × 16-MB main memory 100-MHz SDRAM 1 × 32-MB main memory 100-MHz SDRAM	D5361-63001 D5362-63001	— —
Batteries: 3 V system board battery (type 2032)	1420-0356	—

Manuals and Documentation for HP Vectra 5/xxx VE MT Series 4 PC

<i>User's Guide</i>	D5575-90001
<i>Familiarization Guide</i>	no number ¹
<i>Technical Reference Manual: hardware and BIOS</i>	no number ¹

1. Electronic file only. All guides and manuals are available at the HP World Wide Web site.

Notes: _____



HP Vectra VE 5/xxx Series 3 PC

Models and Accessories

Product Number	Flexible Drive A:	Hard Drive C:	Video Controller	Cache	Std. RAM	Multi-media	LAN	OS	
Vectra VE 5/xxx Series 3 PC									
HP Vectra VE 5/100 Series 3 PC (CPL: 09/96 ▶)									
D4051A	1.44 MB	None	SiS 6205	None	8 MB	None	None	None	
D4052A		850 MB IDE	(Unified Memory Architecture: no dedicated video RAM)		16 MB			Yes ¹	
D4053A		1 GB IDE			8 MB				
D4054A					16 MB				
D4055A					256 KB			8 MB or more	
D4059A ²	User defined		User defined						
HP Vectra VE 5/120 Series 3 PC (CPL: 09/96 ▶)									
D4061A	1.44 MB	None	SiS 6205	None	8 MB	None	None	None	
D4062A		850 MB IDE	(Unified Memory Architecture: no dedicated video RAM)		16 MB			Yes ¹	
D4063A		1 GB IDE			8 MB				
D4064A					16 MB				
D4065A					256 KB			8 MB or more	
D4069A ²	User defined		User defined						
HP Vectra VE 5/133 Series 3 PC (CPL: 09/96 ▶)									
D4071A	1.44 MB	None	SiS 6205	None	8 MB	None	None	None	
D4072A		850 MB IDE	(Unified Memory Architecture: no dedicated video RAM)		16 MB			Yes ¹	
D4073A		1 GB IDE			8 MB				
D4074A					16 MB				
D4075A ³					256 KB			8 MB	10 BT
D4076B					None			16 MB	None
D4077A									

1. Dual loading Windows for Workgroups 3.11 or Windows 95.
2. ECTO program.
3. The D4075G has the same specification, but is a demonstration unit for HP use only.

Medium-Profile
Desktop Vectras



HP Vectra VE 5/xxx Series 3 PC 26-1

HP Vectra VE 5/xxx Series 3 PC

Product Number	Flexible Drive A:	Hard Drive C:	Video Controller	Cache	Std. RAM	Multi-media	LAN	OS			
HP Vectra VE 5/133 Series 3 PC (continued)											
D4078A	1.44 MB	1.6 GB IDE	SiS 6205 (Unified Memory Architecture: no dedicated video RAM)	None	16 MB	None	None	Yes ¹			
D4079A ²		User defined			8 MB or more						
D5170A ³		1.6 GB IDE		256 KB	20 MB						
D5232A		1 GB IDE		None	8 MB			Yes ⁴			
D5236A					16 MB			Yes ¹			
HP Vectra VE 5/150 Series 3 PC (CPL: 04/97 ▶)											
D4082A	1.44 MB	1 GB IDE	SiS 6205 (Unified Memory Architecture: no dedicated video RAM)	None	16 MB	None	None	Yes ¹			
D4083A		1.6 GB IDE									
HP Vectra VE 5/166 Series 3 PC (CPL: 04/97 ▶)											
D4092B	1.44 MB	1 GB IDE	SiS 6205 (Unified Memory Architecture: no dedicated video RAM)	None	16 MB	None	None	Yes ¹			
D4093B		1.6 GB IDE									
D4094B ³		2.5 GB IDE									
D4095B		1.6 GB IDE		256 KB					Yes		
D4096B		1 GB IDE		None					None	10 BT	
D5173B ³		None							None	None	None
D5174B ³		2.5 GB IDE		256 KB					20 MB	Yes ¹	
D5176B ³									32 MB		
D5233B		1 GB IDE		None					8 MB	Yes ⁴	
D5237B									16 MB	Yes ¹	

1. Dual loading Windows for Workgroups 3.11 or Windows 95.
2. ECTO program
3. Brazil only
4. MS-DOS 6.22 preloaded. This model is sold only in selected countries of the Asia-Pacific area.

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HP Vectra VE 5/xxx Series 3 PC

Product Number	Flexible Drive A:	Hard Drive C:	Video Controller	Cache	Std. RAM	Multi-media	LAN	OS		
HP Vectra VE 5/166 MMX Series 3 PC (CPL: xx/97 ▶)										
D5177B ¹	1.44 MB	None	SiS 6205	None	16 MB	None	None	Yes ²		
D5178B ¹		2.5 GB IDE	(Unified Memory Architecture: no dedicated video RAM)	256 KB	32 MB					
D5238B		1 GB IDE		None	16 MB					
D5239B		1.6 GB IDE		256 KB	None				16 MB	
D5493B										Yes
D5494B										None
D5496B										Yes
HP Vectra VE 5/200 Series 3 PC (CPL: xx/97 ▶)										
D5175B ¹	1.44 MB	None	SiS 6205	None	16 MB	None	None	Yes ²		
D5490B		1.6 GB IDE	(Unified Memory Architecture: no dedicated video RAM)	None	16 MB					
D5491B		1 GB IDE							8 MB	
D5492B		1.6 GB IDE							None	16 MB
D5492B	16 MB									
HP Vectra VE 5/200 MMX Series 3 PC (CPL: xx/97 ▶)										
D5171B ¹	1.44 MB	None	SiS 6205	None	16 MB	None	None	Yes ²		
D5179B ¹		2.5 GB IDE	(Unified Memory Architecture: no dedicated video RAM)	256 KB	32 MB					
D5495B		1.6 GB IDE		None	16 MB					

1. Brazil only
2. Dual loading Windows for Workgroups 3.11 or Windows 95.

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Desktop Vectras



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HP Vectra VE 5/xxx Series 3 PC

Product Number	Flexible Drive A:	Hard Drive C:	Video Controller	Cache	Std. RAM	Multi-media	LAN	OS
HP Vectra VE 5/xxx¹ Series 3 PC (CPL: 04/97 ▶)								
D4084E	1.44 MB	User defined	SiS 6205 (Unified Memory Architecture: no dedicated video RAM)	User defined	User def.	Yes	None	Yes ²
D4085E						None	Yes	
D4086E					None	None		
D4087F					16 MB or more	Yes	None	
D4088F					None	Yes	None	
D4089E						8 MB or more	None	
D4090E					16 MB			
D4090F								

1. Can be supplied with a 133, 150 or 166 MHz Pentium processor (ECTO program).
2. Dual loading Windows for Workgroups 3.11 or Windows 95.

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Supported Accessories

8-MB kit (2 × 4-MB) 32-bit EDO, 60 ns main memory modules	D3646B
16-MB kit (2 × 8-MB) 32-bit EDO, 60 ns main memory modules	D3647B
32-MB kit (2 × 16-MB) 32-bit EDO, 60 ns main memory modules	D3648B
64-MB kit (2 × 32-MB) 32-bit EDO, 60 ns main memory modules	D4543A
20 × 4-MB, 32-bit EDO, 60 ns main memory modules	D2878A
20 × 8-MB, 32-bit EDO, 60 ns main memory modules	D2879A
20 × 16-MB, 32-bit EDO, 60 ns main memory modules	D3649A
256 KB synchronous pipeline burst cache memory modules	D3659B

Documentation

HP Vectra VE 5/xxx Series 3 <i>User's Guide</i> Manual Kit	D4050B
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Input Devices

HP mouse	C3751B
HP keyboard for Windows® 95	C4725A
HP keyboard for OS/2 (recommended)	C3757B

Video Displays

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

Mass Storage

640-MB IDE hard disk	D2929A
1.2-GB IDE hard disk	D2930A
1.2-GB IDE hard disk (introduction planned 01-Oct-1996)	D2785A
2.5-GB IDE hard disk (introduction planned 01-Oct-1996)	D2786A
Flexible disk 3.5-inch 1.44-MB (1-inch high)	D2035B
IDE 8× CD-ROM drive	D4381A
IDE CD-ROM data cable (pack of 10 cables)	D4099A
3.5-inch side mounting rails (packs of 5 pairs)	D3566A
5.25-inch side mounting rails (packs of 5 pairs)	D2880A
100 MB Zip IDE Disk Drive	D4390A

Multimedia

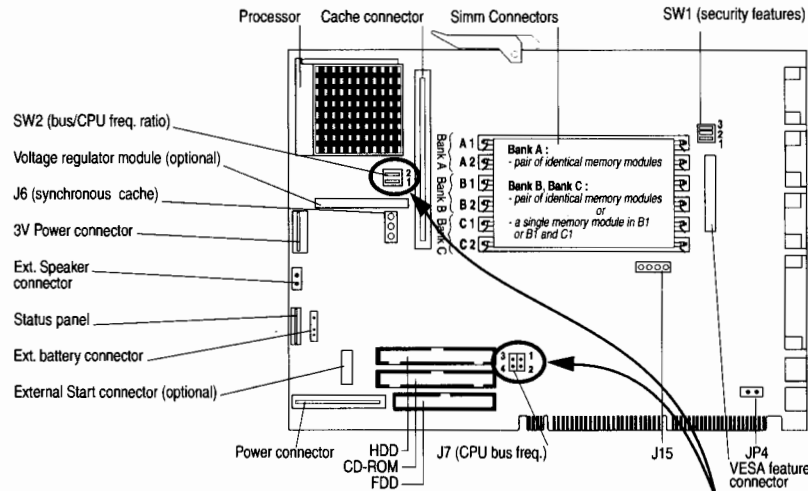
PnP Sound controller board + 8× CD-ROM drive	D4179A
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BIOS History

The latest BIOS, the flasher utility program, and the BIOS history can each be obtained from HP Electronic Services. BIOS revisions are of the form GX.07.xx.



System Board



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SW1	Sw1-1 : bios flash	OFF = enable (Default) ON = disable
	Sw1-2 : CMOS	OFF = normal (Default) ON = clear
	Sw1-3 : password	OFF = normal (Default) ON = clear
JP4	Keyboard Power-On	jumper-on = enable (Default) no jumper = disable
J6	Cache Memory Type	2-3 = synchronous (Default)
J15	Serial EProm flag	jumper-on (1-2) = normal (Default) no jumper = clear (reserved HP)

Refer to PC User's Guide for more information

Processor frequency (MHz)	J7 (local bus frequency)	SW2 (ratio bus/CPU frequency)	
		SW2-1	SW2-2
75	short pins 2-4	OFF	OFF
90	short pins 1-3	OFF	OFF
100	short pins 3-4	OFF	OFF
120	short pins 1-3	ON	OFF
133	short pins 3-4	ON	OFF
150	short pins 1-3	ON	ON
166	short pins 3-4	ON	ON
200	short pins 3-4	OFF	ON

Main Memory

A pair of identical modules must always be installed in bank A (two memory modules of the same size and type).

In banks B and C, it is alternatively permissible to install a single module (in B1 or C1, with the other socket of the bank, B2 or C2, unfilled) or a pair of identical modules.

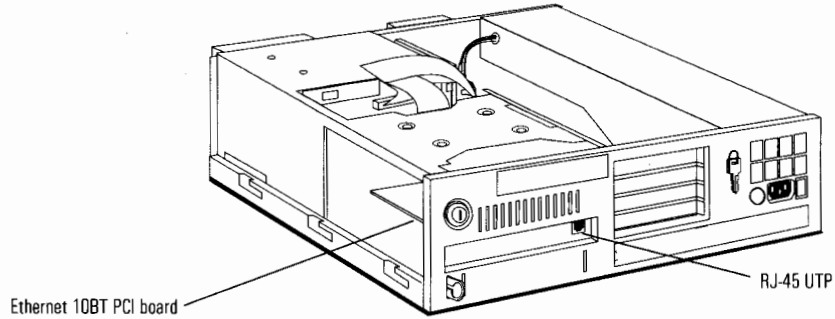
Main memory can be installed up to a maximum of 192 MB. The banks must be filled in order: Bank A, Bank B, Bank C. When Bank C is used, the lowermost ISA slot becomes blocked, and cannot be used.

Video memory is allocated as part of the main memory, using the HP Dynamic Video utility under Windows 95, or HP BIOS Setup for other operating systems.



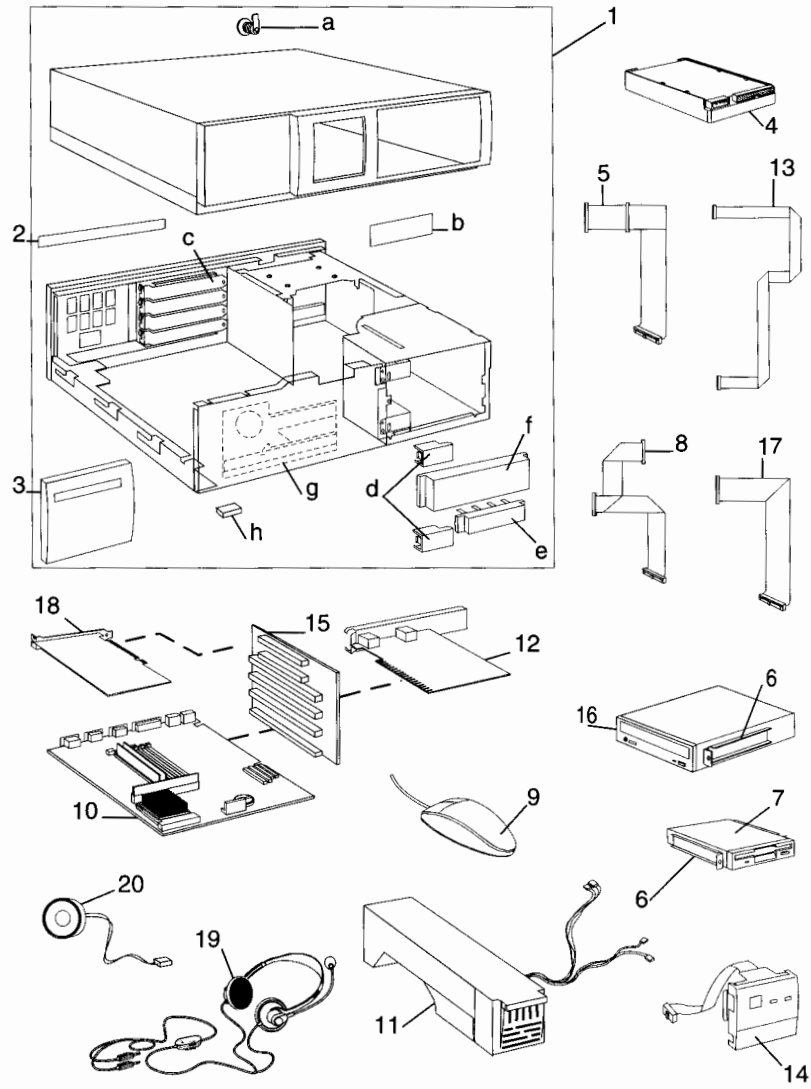
Ethernet 10Base-T PCI Board

The Ethernet 10BT PCI board is installed underneath the internal, hard disk drive, rear-shelf (some models only). It is plugged into the PCI accessory slot that is situated on the right-hand side of the double-sided backplane board. The board has one RJ-45 UTP network connector for 10Base-T working.



Part Numbers

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HP Vectra VE 5/xxx Series 3 PC

Parts List for HP Vectra VE 5/xxx Series 3 PC

Item	Description	Repl. Part Number	Exchange Part Number
1	Box assembly:	5064-0215	—
	a Cover lock assembly	5062-5590	
	b Serial number label	5182-0030	
	c I/O panel blank	45935-00004	
	d Filler panel 1.75 inch	5042-1155	
	e Filler panel 3.5 inch	5063-7067	
	f Filler panel 5.25 inch	5063-7066	
	g System board guide	5042-0507	
	h Bumper foot	02225-00010	
2	Rear bezel connector label	5042-1177	—
3	Left VE logo bezel	5042-1485	—
4	IDE hard disk drive (standard) ¹		
	640 MB		D2929-69001
	850 MB		D2749-69001
	1 GB		D5192-69001
	1.6 GB		D2684-69003
	2.5 GB		D2784-69001
5	IDE hard disk cable	5182-1862	—
6	Rail kit		
	1 × 3.5 inch plus 1 × 5.25 inch	5063-7922	—
	1 × 3.5 inch	5063-0309	—
7	Flexible disk drive	D2035-60152	—
8	Flexible disk drive cable	5182-1037	—
9	Mouse	C3751-60201	—
10	System board	See PC's system board parts list	
11	Power supply ²	0950-3220	—
12	Ethernet 10Base-T PCI network board	5063-8790	—
13	Internal network cable	5182-5403	
14	Status (control) panel	5063-7956	—
15	Backplane board	5064-1811	—
	Double-sided backplane board (LAN models)	5064-1836	

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- For optional disk drive information, see the *Accessory Service Handbook*.
- If the power supply or fan appear to be not working, make sure first that it is not because they have gone into self-protection mode. Unplug the power cord from the mains supply for 60 seconds, and then plug it back in and attempt to restart the PC.

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Desktop Vectras



HP Vectra VE 5/xxx Series 3 PC 26-9

HP Vectra VE 5/xxx Series 3 PC

Parts List for HP Vectra VE 5/xxx Series 3 PC continued)

Item	Description	Repl. Part Number	Exchange Part Number
16	24 X CD-ROM drive	D4383-63001	
17	IDE CD-ROM cable	5182-1856	
18	Audio board	5064-2620	
19	Headphones	5182-3552	
20	Internal Speaker	5063-4559	

System Board Parts List for HP Vectra VE 5/xxx Series 3 PC

Description	Repl. Part Number	Exchange Part Number
System board:		
VE 5/xxx Series 3 models: D4051A, D4052A, D4053A, D4054A, D4055A, D4059A, D4061A, D4062A, D4063A, D4064A, D4065A, D4069A, D4071A, D4072A, D4073A, D4074A, D4075A, D4077A, D4078A, D4079A, D4082A, D4083A, D4089E, D4090E, D5170A, D5232A, D5236A	D4051-63001	D4051-69001
VE 5/xxx Series 3 models: D4086E, D4090F, D4092B, D4093B, D4094B, D4095B, D5171B, D5173B, D5174B, D5175B, D5176B, D5177B, D5178B, D5179B, D5233B, D5237B, D5238B, D5239B, D5490B, D5491B, D5493B, D5495B, D5496B	D4051-63051	D4051-69051
VE 5/xxx Series 3 models: D4076B, D4084E, D4085E, D4087F, D4088F, D4096B, D5494B		D4051-69061
Processors:		
Pentium P54C 100 MHz (VCC)	5063-7059	—
Pentium P54C 120 MHz (VCC)	5063-8765	—
Pentium P54CS 133 MHz (VCC)	5063-7974	—
Pentium P54C 150 MHz (VCC)	5063-9019	—
Pentium P54C 166 MHz (VRE)	5063-9049	—
Pentium P55 166 MHz MMX	5064-1819	—
Pentium P55 200 MHz MMX	5064-1820	—
Pentium P54C 200 MHz (VRE)	5064-0246	—
Heatsink and clip	1205-0830	—

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HP Vectra VE 5/xxx Series 3 PC

System Board Parts List for HP Vectra VE 5/xxx Series 3 PC (continued)

Description	Repl. Part Number	Exchange Part Number
Processors (continued):		
Voltage Regulator Module for Pentium 100/120/133/150 MHz (shorting block VCC)	5063-7939	—
Voltage Regulator Module for Pentium 166 and 200 MHz	5064-1847	—
Voltage Regulator Module for Pentium MMX 166 and 200 MHz	0950-3188	—
Cache memory modules (pipeline burst)		
256 KB synchronous cache memory	D3659-63002	—
Main memory modules:		
2 × 4-MB main memory 60-ns EDO RAM	D3646-63001	—
2 × 8-MB main memory 60-ns EDO RAM	D3647-63001	—
2 × 16-MB main memory 60-ns EDO RAM	D3648-63001	—
2 × 32-MB main memory 60-ns EDO RAM	D4543-63001	—
Batteries:		
3 V system board battery (type CR2032)	1420-0356	—

Software for HP Vectra VE 5/xxx Series 3 PC

DOS and Windows 3.x drivers: disk kit also available from HP BBS or WWW	5063-9036	—
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Manuals and Documentation for HP Vectra VE 5/xxx Series 3 PC

<i>User's Guide</i> (Setting up the PC and Troubleshooting)	D4050-90001
<i>HP Help</i> (Using the PC and Technical information)	online ¹
<i>Familiarization Guide</i>	D4050-90902
<i>Technical Reference Manual: hardware and BIOS</i>	D4050-90911 ¹

1. Electronic file only.



HP Vectra VE 5/xx Series 2 PC

Models and Accessories

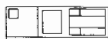
Product Number	Flexible Drive A:	Hard Drive C:	Disk Controller	Video Controller	Std. RAM	Integ. LAN	Multi-media
Vectra VE 5/xx series 2 PC							
HP Vectra VE 5/75 series 2 PC (CPL: 03/96 ▶)							
D4001A	1.44 MB (D2035B)	None	Integrated IDE Controller	Integrated Ultra VGA, (1 MB, upgradeable to 2 MB)	8 MB	None	None
D4002A		640 MB (D2929A)					
D4002W					16 MB		
D4005A							
D4006A		1.2 GB (D2930A)			8 MB		
HP Vectra VE 5/100 series 2 PC (CPL: 03/96 ▶)							
D4021A	1.44 MB (D2035B)	None	Integrated IDE Controller	Integrated Ultra VGA, (1 MB, upgradeable to 2 MB)	8 MB	None	None
D4022A		640 MB (D2929A)					
D4022W					16 MB		
D4025A							
D4027A		1.2 GB (D2930A)					
HP Vectra VE 5/133 series 2 PC (CPL: 03/96 ▶)							
D4041A	1.44 MB (D2035B)	None	Integrated IDE Controller	Integrated Ultra VGA, (1 MB, upgradeable to 2 MB)	8 MB	None	None
D4042A		1.2 GB (D2930A)					
D4045A					16 MB		

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Note

These models do not have any level-two cache memory installed. An optional 256 KB module is available.

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Desktop Vectras



HP Vectra VE 5/xx Series 2 PC 27-1

HP Vectra VE 5/xx Series 2 PC

Supported Accessories

1 MB Video Memory Upgrade Kit	D3500A
8 MB (pair of 4 MB) EDO 60ns Main Memory Upgrade Kit (32-bit)	D3646B
16 MB (pair of 8 MB) EDO 60ns Main Memory Upgrade Kit (32-bit)	D3647B
32 MB (pair of 16 MB) EDO 60ns Main Memory Upgrade Kit (32-bit)	D3648B
10 Pairs of 4 MB EDO 60ns Main Memory Upgrade Bundle (32-bit)	D2878A
10 Pairs of 8 MB EDO 60ns Main Memory Upgrade Bundle (32-bit)	D2879A
256 KB Synchronous Cache Memory Module	D3659B
256 KB Asynchronous Cache Memory Module	D4049A
<i>User's Guide</i> Manual Kit	D4000A

Multimedia Products

Audio/CD MM Upgrade	D3567B
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Input Devices

HP Mouse	C3751B
HP Keyboard for Windows® 95	C4725A

Video Displays

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

Mass Storage

Flexible Disk 3.5-inch 1.44 MB (1-inch high)	D2035B
Flexible Disk 5.25-inch 1.2 MB (1.5-inch high)	D2881B
640 MB IDE Hard Disk	D2929A
1.2 GB IDE Hard Disk	D2930A
IDE quad-speed (4×) CD-ROM Drive	D2896B

LAN Boards

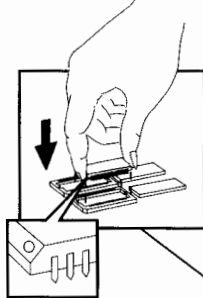
ISA LAN Adapter NC/16TP (Single)	J2405A
10/100 VG Selectable ISA LAN Adapter	J2573A
10/100 VG Selectable PCI LAN Adapter	J2585B
16 TP Plus Ethertwist LAN Adapter	27247B
16 TL Plus LAN Adapter	27252A

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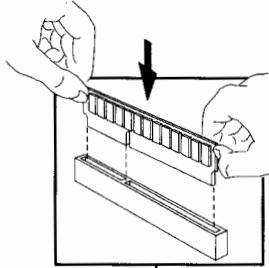


System Board, Memory, and Switches

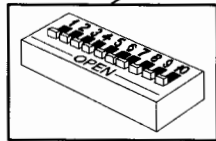
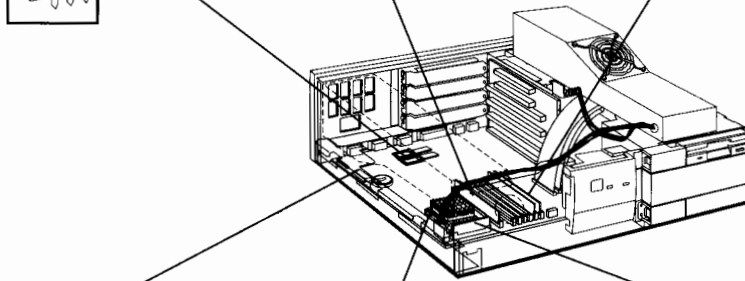
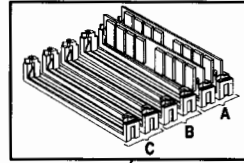
Video Memory:
2 sockets for 1 MB
upgrade.
(Total of 2 MB)



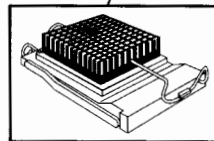
**Optional 256 KB
Cache Memory**



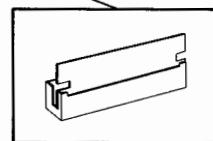
Main Memory:
Install *pairs of identical
modules* in each bank.
Use only 4 MB or 16 MB
modules in bank C.
(Maximum of 128 MB)



System Board Switches:
Set switches 1,2,3,4 & 7
when upgrading Pentium
processor.
(Refer to next page)



Processor:
Zero Insertion Force
(ZIF) socket allows
Pentium processor
upgrades.



**Processor Voltage
Shorting Block**

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HP Vectra VE 5/xx Series 2 PC

System Board Switches

Switch	Function	Default
1-4	-	Processor speed, see following table
5	OPEN	Enables User and Administrator passwords
	CLOSED	Clears User and Administrator passwords
6	OPEN	Normal operation
	CLOSED	Clears CMOS
7	-	Processor speed, see following table
8	OPEN	Disables secure mode
	CLOSED	Enables secure mode - prevents modification of <i>Setup</i> values and flashing of BIOS
9	OPEN	Disables keyboard power-on
	CLOSED	Enables keyboard power-on
10	OPEN	Not used

Pentium Processor Frequency	Switch				
	1	2	3	4	7
75 MHz	Closed	Closed	Open	Open	Open
100 MHz	Open	Closed	Open	Open	Closed
133 MHz	Open	Closed	Closed	Open	Closed
150 MHz	Closed	Open	Closed	Closed	Closed
166 MHz	Open	Closed	Closed	Closed	Closed

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Setup and BIOS

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>

Installing an IDE CD-ROM

It is recommended that the IDE CD-ROM drive be connected to the CD-ROM data cable rather than to the HDD data cable. Connecting the CD-ROM drive to the HDD data cable can reduce the performance of the hard disk drive connected to it. The CD-ROM data cable has a red connector and is marked "CD-ROM" next to the system board connector.



IRQs and I/O Addresses

IRQ	Function	I/O Port Hexadecimal
IRQ 3	Free if not used for serial port	2E8h-2EFh, 2F8h-2FFh
IRQ 4	Free if not used for serial port	3F8h-3FFh, 3E8h-3EFh
IRQ 5	Free if not used for parallel port	278h-27Fh, 378h-37Fh
IRQ 6	Integrated flexible disk drive controller	3F0h-3F5h, 3F7h
IRQ 7	Free if not used for parallel port	278h-27Fh, 378h-37Fh
IRQ 9	Available for PCI devices, if not used by ISA board	—
IRQ 10	Available for PCI devices, if not used by ISA board	—
IRQ 11	Available for PCI devices, if not used by ISA board	—
IRQ 14	Integrated IDE controller primary channel	1F0h-1F7h, 3F6h
IRQ 15	Free if not used by secondary IDE channel (CD-ROM)	170h-177h, 376h
—	Integrated I/O controller	370h-371h
—	Integrated video controller	3B0h-3DFh
—	HP Reserved	496h-497h

Cache Memory

The PC has a socket for the installation of an optional level-two cache memory module. This module provides 256 KB cache.

Video Memory

The PC is supplied with 1 MB of video memory for 1024 × 768 in 256 colors. An additional 1 MB of video memory can be installed by adding a pair of 512 KB modules in surface mount technology sockets. This will make a total of 2 MB for 1024 × 768 in 64 K colors. You will need the PLLC Extraction Tool (part number 5041-2553) to remove the video upgrade chips from their sockets.

Main Memory

The PC uses 32-bit 60ns EDO main memory modules. Memory modules must be *installed in pairs of identical modules*. Use only 4 MB and 16 MB modules in bank C.

The PC is supplied with 8 MB or 16 MB of main memory (2 × 4 MB or 2 × 8 MB memory modules installed in bank A). The maximum memory supported is 128 MB.



HP Vectra VE 5/xx Series 2 PC

Parts List for HP Vectra VE 5/xx series 2 PC

Item	Description	Repl. Part Number	Exchange Part Number list
1	Box Assembly:	5063-7007	—
	a Rear Bezel	-	
	b Bumper Foot	02225-00010	
	c System Board Side Guide	5042-0507	
	d Security Bracket	-	
	e Side Panel	-	
	f I/O Panel Blank	45935-00004	
	g Filler panel 1.75 inch	5042-1155	
	h Filler Panel 5.25 inch	5063-7066	
	i Filler panel 3.5 inch	5063-7067	
	j Cover Lock Assembly	5062-5590	
2	Rear Bezel Connector Label	5042-1177	—
3	Nameplate:		
	HP Vectra VE 5/75 series 2	5042-1460	—
	HP Vectra VE 5/100 series 2	5042-1462	—
	HP Vectra VE 5/133 series 2	5042-1464	—
4	Hard Disk Drive (standard) ¹		
	640 MB	D2929-63001	D2929-69001
	1.2 GB	D2930-63001	D2930-69001
5	Hard Disk Cable (IDE drive)	5182-1862	—
6	CD-ROM Cable (IDE drive)	5182-1856	—
7	Flexible Disk Drive Cable	5182-1037	—
8	Flexible Disk Drive	D2035-60152	—
9	Rail kit (1 × 3.5 inch, 1 × 5.25 inch)	5063-7922	—
10	Status (Control) Panel		
	Standard Models	5063-7956	—
11	Backplane Assembly	5063-8733	—
12	System Board	See PC's system board parts list	
13	Power Supply Assembly	5063-7943	—
14	Mouse	C3751-60201	—

1. For optional disk drive information, see the *Accessory Service Handbook*.

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**Medium-Profile
Desktop Vectras**



HP Vectra VE 5/xx Series 2 PC 27-7

HP Vectra VE 5/xx Series 2 PC

System Board Parts List for HP Vectra VE 5/xx series 2 PC

Description	Repl. Part Number	Exchange Part Number
System Board (includes integrated video controller and IDE disk controller) ¹		
Vectra VE 5/xx series 2 System Board	D3653-63001	
Processors:		
Intel Pentium P54C 75 MHz (Vcc)	5063-8786	—
Intel Pentium P54C 100 MHz (Vcc)	5063-7059	—
Intel Pentium P54CS 133 MHz (Vcc)	5063-7974	—
Heatsink	1205-0832	—
Voltage Shorting Block Module	5063-7939	—
Main Memory Modules:		
4 MB Main Memory 60ns EDO RAM (32-bit)	5063-7941	—
8 MB Main Memory 60ns EDO DRAM (32-bit)	5063-7944	—
Cache Memory Module:		
256 KB Synchronous Cache Memory Module	5063-7942	—
256 KB Asynchronous Cache Memory Module	5063-7947	—
Video Memory Upgrade:		
1 MB Video Memory Upgrade kit	D3500-63001	—
Batteries:		
3V System Board Battery ²	1420-0314	—
4.5V Battery	1420-0513	—

1. These assemblies are supplied without main memory modules, cache memory, and processor.
2. You can replace this battery with a Panasonic/Rayovac BR2325 battery.

Software for HP Vectra VE 5/xx series 2 PC

Drivers and Utilities Disk kit (Windows/DOS drivers for models without a hard disk drive)	5063-8781
--	-----------

Manuals for HP Vectra VE 5/xx series 2 PC

User's Guide	D4000A
Familiarization Guide	D4000-90901
Technical Reference Manual: Hardware and BIOS	N/A ¹

1. Printable electronic file only.



HP Vectra VE 5/xx PC Series

Models and Accessories

Product Number	Flexible Drive A:	Hard Drive C:	Disk Controller	Video Controller	Std. RAM	Integ. LAN	Multi-media
Vectra VE 5/xx PC Series							
HP Vectra VE 5/75 PC (CPL: 04/95 ▶)							
D3390A	1.44 MB (D2035A)	None	Integrated IDE Controller	Integrated Ultra VGA 2, (1 MB)	4 MB	None	None
D3406A		270 MB (D2388A)			8 MB		
D3391A		540 MB (D2389A)					
D3392A							
HP Vectra VE 5/90 PC (CPL: 04/95 ▶)							
D3413A	1.44 MB (D2035A)	None	Integrated IDE Controller	Integrated Ultra VGA 2, (1 MB)	4 MB	None	None
D3414A		270 MB (D2388A)			8 MB		
D3415A		540 MB (D2389A)					

Supported Accessories

4 MB Main Memory Upgrade Kit (32-bit)	D2690A
4 MB Main Memory Upgrade Kit (36-bit)	D2974A
8 MB Main Memory Upgrade Kit (32-bit)	D2691A
8 MB Main Memory Upgrade Kit (36-bit)	D2975A
16 MB Main Memory Upgrade Kit (36-bit)	D2297A
32 MB Main Memory Upgrade Kit (36-bit)	D2298A
256-KB Cache Memory Upgrade Kit	D3403A
<i>User's Guide</i> manual	D3402A

Medium-Profile
Desktop Vectras



HP Vectra VE 5/xx PC Series 28-1

HP Vectra VE 5/xx PC Series

Multimedia Products

Audio/CD MM Upgrade	D2941B
HP Integrated Office	D2887A

Input Devices

Mouse (HP/Logitech)	C3751A
Keyboard	C3756A

Video Displays

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

Mass Storage

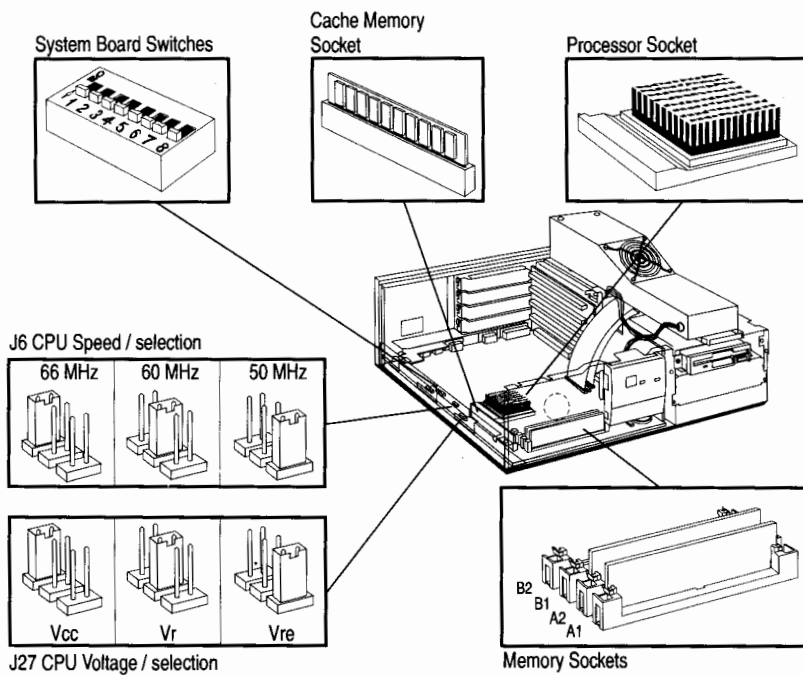
Flexible Disk 1.44 MB 3-1/2 inch	D2035A
Flexible Disk 1.2 MB 5-1/4 inch	D2881A
IDE 270 MB Hard Disk	D2388A
IDE 540 MB Hard Disk	D2389A
IDE 840 MB Hard Disk	D2925A
SCSI CD-ROM Drive	D2886B
IDE CD-ROM Drive	D2889A

Datacomm and LAN Boards

Ethertwist Adapter/16	27247B
-----------------------	--------



System Board, BIOS, and Memory



CPU Speed/Voltage Selection Jumpers

Vectra Model	VE 5/75	VE 5/90
CPU Voltage Selection Jumper (J27)	Vcc	Vr
CPU Speed Selection Jumper (J6)	50 MHz	60 MHz

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Medium-Profile
Desktop Vectras



HP Vectra VE 5/xx PC Series 28-3

HP Vectra VE 5/xx PC Series

System Board Switches

Switch #		Function	Default
1	OFF	Flash ROM Updates - enabled	OFF
	ON	Flash ROM Updates - disabled	
2	OFF	Not used	OFF
3	OFF	EEPROM stored configuration information - valid	OFF
	ON	EEPROM stored configuration information - erased	
4	OFF	Passwords - enabled	OFF
	ON	Passwords - disabled (erased)	
5	OFF	Memory parity - disabled	OFF
	ON	Memory parity - enabled	
6	OFF	Not used	OFF
7	OFF	Not used	OFF
8	OFF	Not used	OFF

Setup and BIOS History

The latest BIOS, the flasher utility program, and the BIOS history can each be obtained from the HP Electronic Services. BIOS revisions are of the form GL.xx.xx.

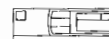
Cache Memory

The PC has a cache memory socket for installing a 256 KB level-two cache memory upgrade kit.

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Video Memory

The PC is supplied with 1 MB of video memory for 1024 × 768 in 256 colors. No additional video memory can be added.



Main Memory

The HP Vectra VE 5/xx PC has two banks on the system board for installing main memory; banks A and B. Each bank consists of two sockets. The PC is supplied with 4 MB or 8 MB of main memory (one or two 4 MB memory modules installed in bank A).

It is recommended to install memory modules in pairs, so that each bank with memory installed contains two memory modules of the same size. This enables the bank to be accessed as 64-bit memory, and offers better performance than a bank containing only one memory module (accessed as 32-bit memory). Main memory can be installed up to a maximum of 192 MB.

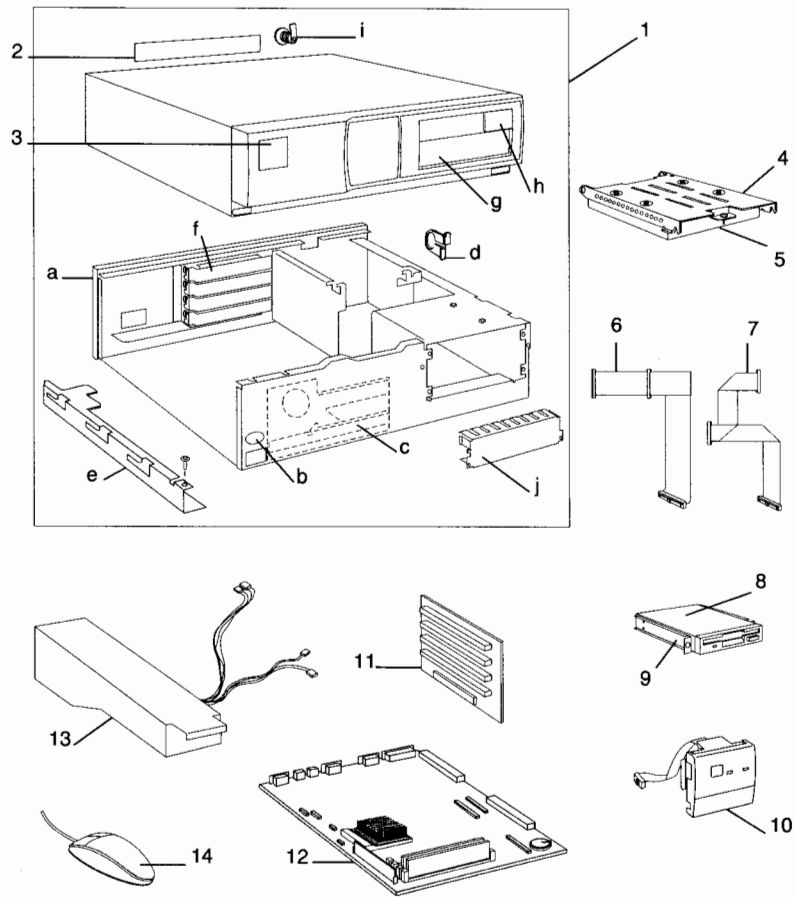
The HP Vectra VE 5/xx PC supports memory interleaving when four memory modules of the same size are installed. Configurations using interleaving will provide the best memory performance.

Recommended memory configurations

For a TOTAL memory of:	Install memory modules in these banks:				Inter- leaving
	Bank A		Bank B		
	A1	A2	B1	B2	
4 MB	4 MB	-	-	-	No
8 MB	4 MB	4 MB	-	-	No
16 MB	4 MB	4 MB	4 MB	4 MB	Yes
16 MB	8 MB	8 MB	-	-	No
24 MB	4 MB	4 MB	8 MB	8 MB	No
32 MB	8 MB	8 MB	8 MB	8 MB	Yes
48 MB	16 MB	16 MB	8 MB	8 MB	No
64 MB	16 MB	16 MB	16 MB	16 MB	Yes
80 MB	32 MB	32 MB	8 MB	8 MB	No
96 MB	32 MB	32 MB	16 MB	16 MB	No
128 MB	32 MB	32 MB	32 MB	32 MB	Yes



Part Numbers



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HP Vectra VE 5/xx PC Series

Parts List for HP Vectra VE 5/xx PC Series

Item	Description	Repl. Part Number	Exchange Part Number list
1	Box Assembly: a Rear Bezel b Bumper Foot c System Board Side Guide d Security Bracket e Side Panel f I/O Panel Blank g Filler Panel 5.25 inch h Filler panel 1.75 inch i Cover Lock Assembly j I/R cover panel	5063-4597 - 02225-00010 - - - 5041-2578 5041-2579 5062-5590 5042-0505	—
2	Rear Bezel Label	5182-1847	—
3	Nameplate: VE 5/75 VE 5/90	5042-1114 5042-1181	— —
4	3.5 inch, h-h, Tray (5 pack) for non-supported hard disk drives	Order product number D2037A	
5	Hard Disk Drive (standard) ¹ 270 MB 540 MB	D2388-63001 D2391-63001	D2388-69001 D2391-69001
6	Hard Disk Cable (IDE drive)	5182-1862	—
7	Flexible Disk Drive Cable	5182-3538	—
8	Flexible Disk Drive	D2035-60052	—
9	Mounting Rails for 3.5 inch, non-HP Disk Drives	5063-0309	—
10	Status (Control) Panel	5063-0889	—
11	Backplane Assembly	5063-0887	—
12	System Board	See PC's system board parts list	
13	Power Supply Assembly	5063-4553	—
14	Mouse	C3751-60101	—

1. For optional disk drive information, see the *Accessory Service Handbook*.

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**Medium-Profile
Desktop Vectras**



HP Vectra VE 5/xx PC Series 28-7

HP Vectra VE 5/xx PC Series

System Board Parts List for HP Vectra VE 5/xx PC Series

Description	Repl. Part Number	Exchange Part Number
System Board (includes integrated IDE disk and Ultra VGA 2 controllers) ¹		
Vectra VE 5/xx (75 MHz and 90 MHz)	D3390-63006 ¹	D3390-69006 ¹
Processors:		
Intel Pentium 75 MHz (Vcc)	5063-7022	—
Intel Pentium 90MHz (Vr)	5063-7023	—
Heatsink	1205-0832	
Main Memory Modules:		
4 MB Main Memory DRAM Kit	D2974-63001	—
4 MB Main Memory DRAM Kit (no parity)	5063-4548	—
8 MB Main Memory DRAM Kit	D2975-63001	—
8 MB Main Memory DRAM Kit (no parity)	5063-4549	—
16 MB Main Memory DRAM Kit	D2297-63001	D2297-69001
32 MB Main Memory DRAM Kit	D2298-63001	D2298-69001
Cache Memory Modules:		
Cache Socket Protector (90 MHz Terminator Module)	D3390-63002	—
Cache Socket Protector (75 MHz)	D3390-63003	—
256 KB Cache Memory Module kit	5063-7055	—

1. These assemblies are supplied without main memory modules or processor.

Support Manuals for HP Vectra VE 5/xx PC Series

Familiarization Guide	D339X+49A+90001
Technical Reference Manual: Hardware and BIOS	None ¹

1. Electronic File only.

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Notes: _____



HP Net Vectra PC

Models and Accessories

Product Number	Hard Drive	Video Controller	Std. RAM ¹	Network	OS ²
Net Vectra PC HP Net Vectra 5/166 MMX PC (CPL: 10/97 ▶)					
D5473N	1.6 GB IDE Ultra DMA	S3 Trio 64 V2 Integrated Ultra VGA (2 MB video memory fitted, not upgradeable)	32 MB SDRAM 60 ns	Ethernet 10BT / 100TX PCI board	NT 4.0 WS
HP Net Vectra 5/200 PC (CPL: 10/97 ▶)					
D5471N	1 GB IDE Ultra DMA	S3 Trio 64 V2 Integrated Ultra VGA (2 MB video memory fitted, not upgradeable)	16 MB SDRAM 60 ns	Ethernet 10 BT PCI board	NT 4.0 WS

1. All models have 256KB of level-2 cache memory soldered on the system board.
2. Windows NT 4.0 WS operating system is preloaded until the Windows NT 5.0 WS operating system becomes available.



HP Net Vectra PC

Supported Accessories

16-MB, 64-bit SDRAM, 60 ns main memory modules	D5361A
32-MB, 64-bit SDRAM, 60 ns main memory modules	D5362A
64-MB, 64-bit SDRAM, 60 ns main memory modules	D5363A

Documentation

User's Guide Manual Kit

Available
from HP
Electronic
Services

Input Devices

HP mouse	C3751B
HP keyboard for Windows® 95	C4725A

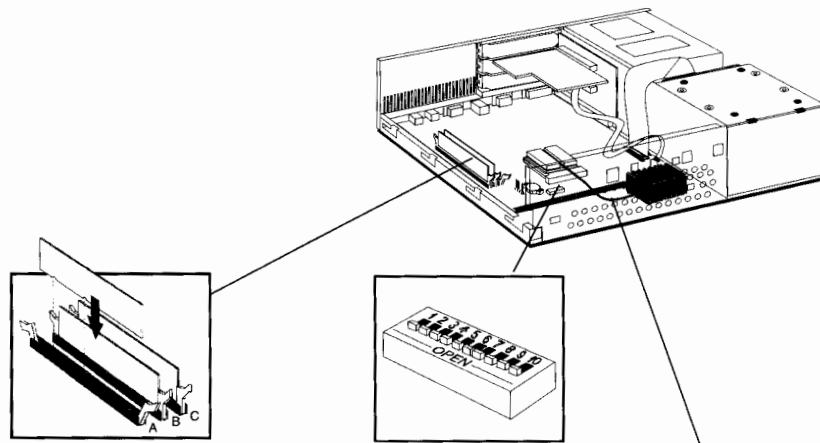
Video Displays

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

Mass Storage

1-GB IDE hard disk	D5190A
1.6-GB IDE hard disk	D2679A

System Board, BIOS, and Memory



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Main Memory: 1 bank containing one or two 16 MB modules.

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

Processor: Pentium module with heat-sink and heat-pipe.



System Board Switches

Switch	Function	Default
1-5	-	Processor frequency, see the following table
6	Open	Not used
7	Open	Normal operation
	Closed	Clears User and Administrator passwords
8	Open	Normal operation
	Closed	Clears CMOS (to reload the <i>Setup</i> program defaults)
9	Open	Disables keyboard power-on
	Closed	Normal operation
10	Open	Not used

Processor Frequency	Switch		Local Bus Frequency	Switch			Frequency Ratio Processor : Local Bus
	1	2		3	4	5	
166 MHz	Closed	Open	66 MHz	Closed	Closed	Open	2.5 : 1
200 MHz	Closed	Open	66 MHz	Open	Closed	Open	3 : 1
233 MHz ¹	Closed	Open	66 MHz	Open	Open	Open	3.5 : 1

1. Switch settings if these processor frequencies become available.

BIOS History

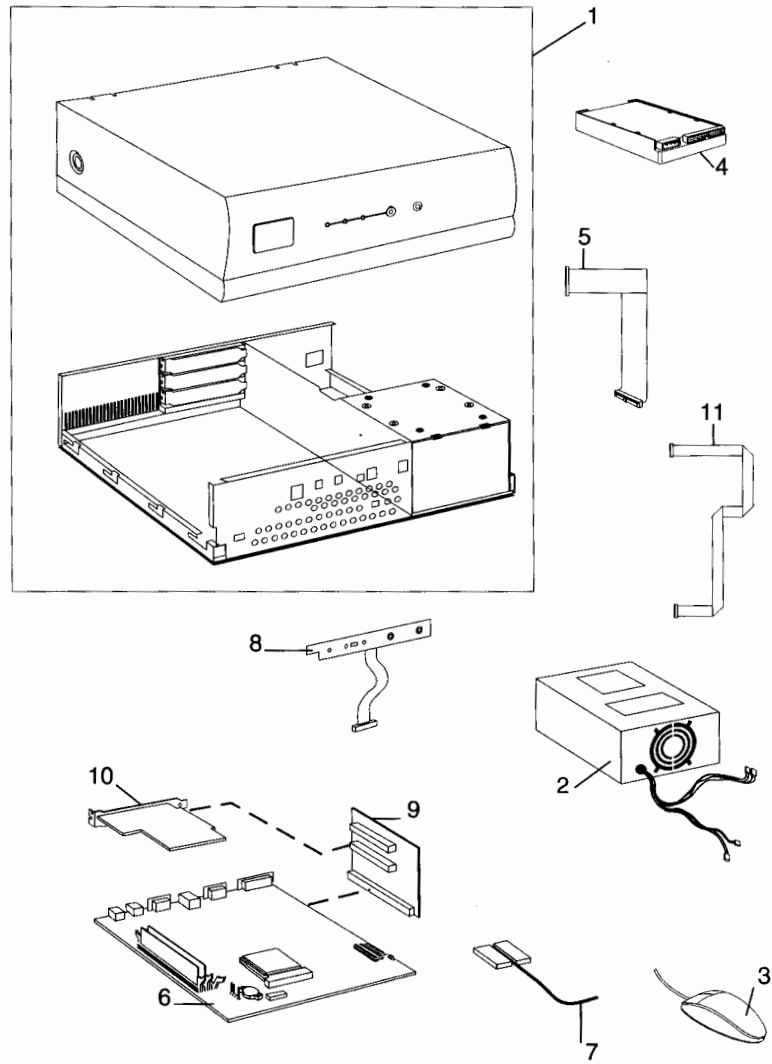
The latest BIOS, the flasher utility program, and the BIOS history can be obtained from HP World Wide Web site. Since the PC does not have a flexible disk drive, this file must be run from a PC that is on the same local area network (LAN) as the target PC. BIOS version numbers are of the form HE.07.xx.

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



HP Net Vectra PC

Part Numbers



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Parts List for HP Net Vectra PC

Item	Description	Repl. Part Number	Exchange Part Number
1	Box assembly	5064-2650	—
2	Power supply	0950-3283	—
3	Mouse	C3751-60201	—
	Keyboard	C3758-602xx ¹	—
		C4732-60101	—
4	IDE hard disk drive (standard) ²		
	1.6 GB	D4621-63001	D2679-69001
	1 GB	D2787-63001	D2787-69001
5	IDE cable	5183-2135	—
6	System board	See PC's system board parts list	
7	Heat-pipe assembly	5064-2657	—
8	Status panel	5064-2629	—
9	Backplane board	5064-2609	—
10	Ethernet 10BT PCI network board	5064-1869	—
	Ethernet 10BT/100TX PCI network board	5064-1802	—
11	Internal network cable	5183-0758	—

1. Where "xx" is the code for your national keyboard (see the *Accessory Service Handbook*).
2. For optional disk drive information, see the *Accessory Service Handbook*.



HP Net Vectra PC

System Board Parts List for HP Net Vectra PC

Description	Repl. Part Number	Exchange Part Number
System board:		
Net Vectra system board with video	D5471-60001	D5471-69001
Processors:		
Intel Pentium 5/166 MMX	5064-1819	—
Intel Pentium 5/200	5064-0246	—
Main memory modules:		
1 × 16-MB main memory 60-ns SDRAM	D5361-63001	—
1 × 32-MB main memory 60-ns SDRAM	D5362-63001	—
Batteries:		
3 V system board battery (type 2032)	1420-0356	—

Manuals and Documentation for HP Net Vectra PC

<i>User's Guide</i>	D5470-90001
<i>Upgrade Guide</i>	no number ¹
<i>Recovery and Maintenance Guide</i>	no number ¹
<i>Familiarization Guide</i>	no number ¹
<i>Technical Reference Manual: hardware and BIOS</i>	no number ¹

1. Electronic file only. All guides and manuals are available at the HP World Wide Web site.

Notes: _____



Appendices

- A. **HP Vectra Hardware IRQs and Memory Map**
- B. **HP Utilities and DOS Quick Reference**
- C. **HP Vectra PC Service Notes**
- D. **Beep, POST, and Error Codes**

Appendices

Appendices

HP Vectra Hardware IRQs and Memory Map

Interrupts (IRQs) and I/O Addresses

These Interrupts and I/O addresses are common to most HP Vectras. The exceptions for each Vectra are described in the Vectras individual chapter. For example, see chapter 20 for the interrupts and I/O address of the HP Vectra VL 5/xxx Series 4 PC.

Interrupt Vector # Hex	Interrupt Vector Address Hex	IRQ	Typical Function	I/O Port Hex
08	20-23	IRQ 0	Timer	040-043
09	24-27	IRQ 1	Keyboard controller chip	060, 064
0A	28-2B	IRQ 2	Cascade from INTC2 ¹	-
0B	2C-2F	IRQ 3 ²	Serial Port 1 ³ (COM2)	2F8-2FF
0C	30-33	IRQ 4	Serial Port 0 ³ (COM1)	3F8-3FF
0D	34-37	IRQ 5 ²	Parallel Port 1 ⁴ (LPT2)	278-27F
0E	38-3B	IRQ 6	Flexible Disk Controller	3F0 — 3F7
0F	3C-3D	IRQ 7	Parallel Port 0 ⁴ (LPT1)	378-37F

1. INTC2: interrupt controller 2, also known as PIC #2 (programmable interrupt controller 2).
2. By default the network software may configure your LAN board to use IRQ3. If Serial port 1 is being used by a printer/plotter then the LAN board must be re-configured to use IRQ5 (if this is available).
3. The BIOS references serial ports as Serial Port 0 to Serial Port 3. MS-DOS references the serial ports as COM1 to COM4. In addition, MS-DOS only counts the serial ports that are present. For example, if Serial Ports 0, 1 and 2 are present, MS-DOS calls them COM1, COM2, and COM3 respectively. If only Serial Port 3 is present, MS-DOS calls it COM1.
4. The BIOS references parallel ports as Parallel Port 0 and Parallel Port 1. MS-DOS references the parallel ports as LPT1 and LPT2. In addition, MS-DOS only counts the parallel ports that are present. For example, if Parallel Ports 0 and 1 are present, MS-DOS calls them LPT1 and LPT2 respectively. If only Parallel Port 1 is present, MS-DOS calls it LPT1.

Interrupt Vector # Hex	Interrupt Vector Address Hex	IRQ	Typical Function	I/O Port Hex
70	1C0-1C3	IRQ 8	Real-time Clock	070-071
71	1C4-1C7	IRQ 9	VGA controller	

A

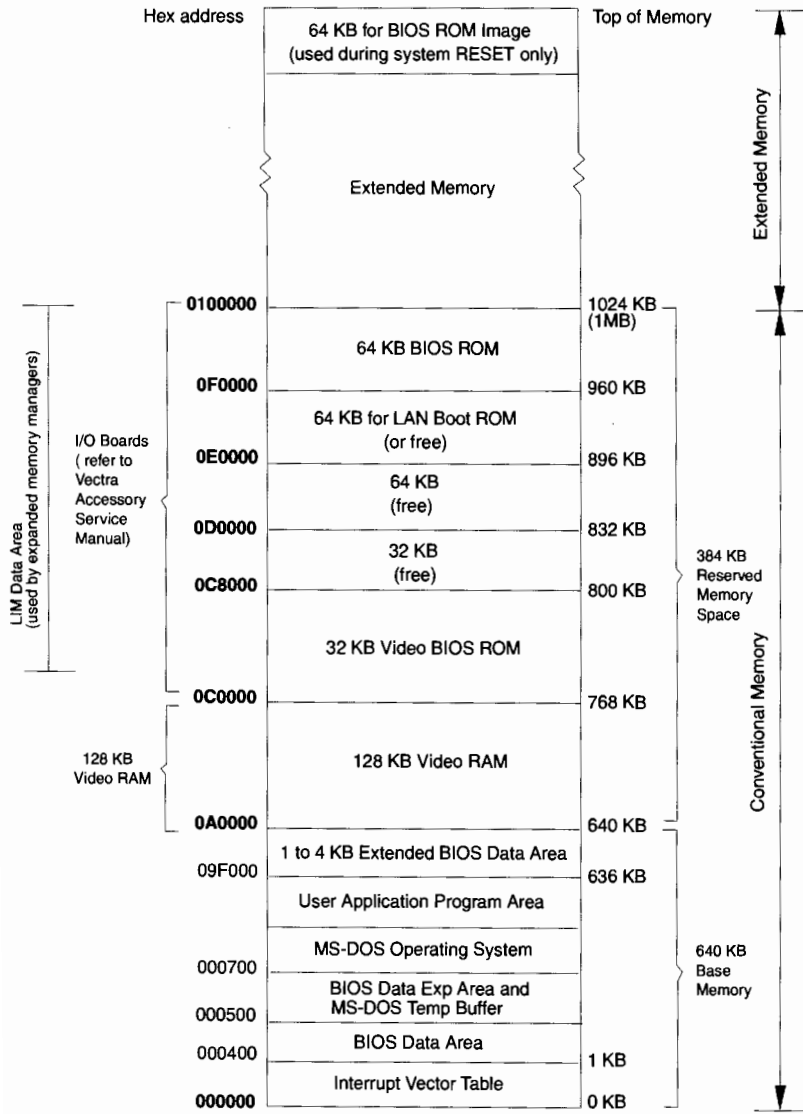
Interrupt Vector # Hex	Interrupt Vector Address Hex	IRQ	Typical Function	I/O Port Hex
72	1C8-1CB	IRQ 10	Serial Port 2 (COM3)	3E8-3EF
73	1CC-1CF	IRQ 11	Serial Port 3 (COM4)	2E8-2EF
74	1D0-1D3	IRQ 12	mini-DIN Mouse or HIL	Mouse: 060, 064 HP-HIL: 068, 06C to 06F
75	1D4-1D7	IRQ 13	Math coprocessor	0F0-0FF
76	1D8-1DB	IRQ 14	Hard Disk Controller	1F0-1F7
77	1DC-1DF	IRQ 15	Reserved	-

For more information on a PC's address space, memory map, a list of the interrupts, the IRQ numbers and I/O addresses currently used by a PC you can use the Microsoft Diagnostic utility supplied with Windows version 3.1, MS-LAN Manager version 2.10 or more recently MS-DOS version 6.0.

To start the utility, type MSD .

For more information about the Microsoft diagnostic utility (MSD.EXE), refer to Appendix C of this handbook.

Memory Map



HP Utilities and DOS Quick Reference

This chapter provides information on some useful MS-DOS commands and HP utilities. For the latest information about commands for your version of MS-DOS refer to the *MS-DOS User Reference* manual.

Microsoft Diagnostic Utility (MS-DOS 6.0, MS-Windows 3.1, MS-LAN Manager 2.10 and above)

The Microsoft diagnostic utility provides detailed technical information about the PC under the following categories.

B

Computer	Displays computer manufacturer, processor type, and bus type; ROM BIOS manufacturer, version and date; keyboard type; DMA controller configuration; and math coprocessor status.
Memory	Displays a map of the upper memory area (UMA)-the memory region from 640K to 1024K.
Video	Shows your video card manufacturer, model, and type; video BIOS version and date; and current video mode.
Network	Displays network-specific configuration information.
Operating System	Displays the operating system version, location of MS-DOS in memory, the drive the computer was started from, the current environment settings, and the path from which MSD was run.
Mouse	Shows the MS-DOS mouse driver version, mouse type, mouse interrupt request line (IRQ) number, and other information specific to the configuration of the mouse.
Other Adapters	Displays the game card status for up to two game devices or joysticks.
Disk Drives	Displays the size and number of bytes free on local and remote drives.
LPT Ports	Displays the port addresses of all installed parallel ports, and displays the status of each port.
COM Ports	Displays the port addresses and current communications parameters of all installed serial ports, and displays the status of each port.
IRQ Status	Displays the configuration of the hardware IRQs.
TSR Programs	Displays the name, location in memory, and size of each program loaded in memory at the time MSD was run.
Device Drivers	Displays the names of all device drivers installed at the time MSD was run.

Starting the diagnostic utility

If you want to examine some technical information about the PC, start the diagnostic utility by typing the following at the command prompt:

MSD

The utility has an interface that makes it easy for you to access detailed technical information about the PC.

Creating a report

If you want to create a file called REPORT.TXT that contains a detailed technical report about the PC. To do this, you could type the following at the command prompt:

MSD /P REPORT.TXT

If you want to create a detailed report about the PC and you wanted the report to include such information as your name, company, address, and phone number, you would type the following at the command prompt:

MSD /F REPORT.TXT



MSD.EXE Switches

Description

<i>/I</i>	Specifies that MSD does not initially detect hardware. Use the /I switch if you are having problems starting MSD or if MSD is not running properly.
<i>/F[drive:][path]filename</i>	Prompts you for name, company, address, country, phone number, and comments, then writes a complete MSD report to the file you specify.
<i>/P[drive:][path]filename</i>	Writes a complete MSD report to the file you specify, without prompting you for information.
<i>/S[drive:][path]filename</i>	Writes a summary MSD report to the file you specify, without prompting you for information. If you do not specify any of the parameters, MSD writes the report to the screen.
<i>/B</i>	Runs MSD in black and white instead of color. Use the /B switch when you have a monitor that does not correctly display MSD in color.

Diagnostic Utility (AMI)

The following OEM software package has been tested and is therefore recommended to use on Vectra PCs.

- AMIDdiag 5.0 (and later) by American Megatrends Inc.

AMIDdiag can be purchased from the following WWW site:

<http://www.megatrens.com/utilities/AMIDdiag50.html>

The cost of the package is currently 149\$ (US).

B

Part Numbers for Diagnostic Tools

Description	Part Number
HP Vectra PC Diagnostic Utility Kit (ver. B.00.03)	Available on HP internal BBS
9-pin Datacomm Test Hood	24540-60010
25-pin Serial Datacomm Test Hood	02620-60062
25-pin Parallel Datacomm Test Hood	24540-60011
Memory Module Extractor Tool (Vectra 386/25)	5181-4810
Peripheral Exerciser Disk Kit	45935-63210
Electrically Conductive Field Service Grounding Kit	9300-1609
Vectra RS Cache Memory Board Removal Tool	D2010-40001
PLCC IC extractor tool	5041-2553
486 Microprocessor Removal Tool	8710-1944

DOS Help (MS-DOS 5.0 and above)

For information on MS-DOS 5.0 (and above) command syntax, type:

```
help command.
```

For example, for help on the *format* command, type:

```
help format.
```

List of useful Commands:

```
help edit
help format
help mem
help mode
```

B

Memory Managers

MemMaker (DOS 6.0 and above)

For PCs with DOS 6.0 and above use MemMaker to optimize extended memory. This automatically detects the available memory and modifies the CONFIG.SYS, AUTOEXEC.BAT and WIN.INI files make the best use of it.

The MemMaker syntax is:

```
MEMMAKER [/B] [/BATCH] [/T] [/UNDO] [W:n,m]
```

For example, to run MemMaker in batch mode and direct it not to reserve any upper memory for Windows translation buffers, use the following command.

```
MEMMAKER /BATCH /W:0,0
```

If you wish to return to the previous configuration before running MemMaker, use the following command.

```
MEMMAKER /UNDO
```

For more information relevant to your version of MS-DOS, refer to the *MS-DOS User Reference* manual.

EMM386.EXE (DOS 5.0 and above)

EMM386.EXE is the MS-DOS 5.0 expanded memory manager for 386 and 486 PCs. It converts extended memory to expanded memory for programs that need expanded memory. If it is on the hard disk, it can be activated by including these default commands in the CONFIG.SYS file:

```
DEVICE=HIMEM.SYS  
DEVICE=EMM386.EXE
```

Once activated it can be turned on/off by typing: *EMM386.EXE [ON/OFF]*

You will need to customize the EMM386.EXE syntax if you have an accessory board that uses reserved memory address space (such the ScanJet board). The EMM386.EXE syntax is:

```
DEVICE= [drive:] [path] EMM386.EXE [ON/OFF/AUTO] [MEMORY]  
[W=ON/W=OFF] [Mx|FRAME=address/Pmmmm] [Pn=address]  
[X=mmmm-nnnn] [I=mmmm-nnnn] [B=address] [L=minXMS] [A=altregs]  
[H=handles] [D=nnn] [RAM] [NOEMS]
```

The RAM and NOEMS options allow you to use lost upper memory bytes.

For more information relevant to your version of MS-DOS, refer to the *MS-DOS User Reference* manual.

HIMEM.SYS (DOS 5.0 and above)

HIMEM.SYS is the MS-DOS 5.0 extended memory manager. If it is on the hard disk, it can be activated by including this default command in the CONFIG.SYS file:

```
DEVICE=HIMEM.SYS
```

HIMEM.SYS must be the first driver that uses extended or expanded memory in your CONFIG.SYS file.

The HIMEM.SYS syntax is:

```
DEVICE=[drive:] [path] HIMEM.SYS [/HMAMIN=m] [/NUMHANDLES=n]  
[/INT15=xxxx] [/MACHINE:xxxx] [/A20CONTROL:ON|OFF]  
[/SHADOWRAM:ON|OFF] [/CPUCLOCK:ON|OFF]
```

For more information relevant to your version of MS-DOS, refer to the *MS-DOS User Reference* manual.

B

SSTOR.SYS Utility (DOS 5.0 and above)

You cannot use the Volume Expansion disk partitioning utility HARDRIVE.SYS (which was designed for MS-DOS 3.3) to partition your hard disk when you are running MS-DOS 5.0.

If, however, you have already partitioned the hard disk drive using the partitioning utility, you can still use the hard disk drive partitions with MS-DOS 5.0. To do this, you must add the following command to the CONFIG.SYS file:

DEVICE=[drive:]\[DOS5.0 path]\SSTOR.SYS

For example, DEVICE=C:\DOS\SSTOR.SYS

B

UNDELETE Command (DOS 5.0 and above)

The UNDELETE command attempts to restore files previously deleted using the DEL command.

UNDELETE [drive:] [path] [filename] [/listall] [/dos|dt]

- list lists the deleted files available for recovery but does not recover any files.
- all recovers deleted files without asking for confirmation.
- dos recovers files deleted by DOS, prompts for confirmation.
- dt recovers files listed in the deletion-tracking file produced by the mirror command.

HP Vectra Hardware Diagnostics Utility

The Vectra Hardware Diagnostics utility helps you to diagnose hardware-related problems on HP Vectra PCs and PC Workstations. It is a series of tools designed to help you to:

- Check the configuration of your system and verify that it is functioning correctly.
- Diagnose hardware-related problems.

It is important that you use the latest version of this utility to diagnose hardware-related problems.

The latest version of this utility can be obtained from HP Electronic Services, available 24 hours per day, 7 days per week.

To access these services you should connect to the HP World Wide Web Site at <http://www.hp.com/go/vectrasupport/>

B

Starting This Diagnostics Utility

To start the Vectra Hardware Diagnostics utility:

- 1 Quit all applications, shut down the operating system and restart the PC.
 - a If you are going to run this utility from a diskette, insert it into the flexible disk drive before you restart the PC. On restarting, this utility will run automatically, displaying the Welcome screen.
 - b If you are going to run this utility from the hard disk drive, the PC will restart with the option to choose between your usual operating system and this utility. Select the Vectra Hardware Diagnostics option and it will start automatically, displaying the Welcome screen.
- 2 Press **F2** to continue and follow the instructions on-screen to carry out the diagnostic tests.

This utility will automatically detect the complete hardware configuration of the PC before any tests can be performed.

Basic System Tests

To verify the correct operation of the system's hardware, you will need to carry out the Basic System Tests.

Advanced System Tests

To perform more in-depth testing of the PC's individual components, you will need to carry out the Advanced System Tests.

Utilities-Diagnostics

More Information on the Hardware Diagnostics Utility

For more information on how to use this utility, refer to the Vectra Hardware Diagnostics *User's Guide*, available on the HP World Wide Web Site, at <http://www.hp.com./go/vectrasupport/>

B

HP Vectra PC Service Notes

This appendix contains the current *Service Notes* for the HP Vectra product line in product/chronological order.

The Service Notes are available on a System Support Division server that is updated fortnightly. To access this server from a connected DOS-based Vectra using MS LAN Manager, type the following:

C:\> ADDNAME WCSOLMX 15.24.176.18

C:\> NET USE J: \WCSOLMX\SNOTES

The new J: drive contains an index and subdirectories for the service note issues. There are only a limited number of connections to the server. So copy the information you require and then disconnect by typing:

C:\> NET USE J: /D this will free the connection for someone else.

Unix users can use the FTP protocol to log onto the server. When you make the connection type SNOTES and press the carriage return key as the password.

Note: FTP from DOS does not work because of password restrictions.

To print the Service Note

Use the DOS copy command to print the service note. For example,

C:\> COPY *notename.C00* LPT1 /B where *notename.C00* is the service note laserjet image.

Service Note Summary

Vectra XU 6/150, 6/180, 6/200

Problem:	Service Note:	Page:
Depending on the model and the serial number range, different exchange part numbers have to be ordered for the system board	D35xxx-01 D434xx-01	C-6

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**Service Note: D3528A-01 D3528B-01
 D3529B-01 D3529N-01 D3530B-01 D3530N-01
 D4340A-01 D4340B-01 D4341N-01 D4342N-01
 D4345A-01 D4345B-01 D4346N-01 D4347N-01**

HP Vectra XU 6/150, 6/180, 6/200 Personal Computers SUPERSEDES:
NONE

Serial Numbers: All

Board Exchange Part Numbers

Situation:
 Depending on the model and the serial number range, different exchange part numbers have to be ordered for the system board.

DATE: May 1996

Model	Replacemnt P/N	Exchange P/N
XU 6/150 D3528A, D3529N, D3530N with serial number less than SG610xxxxx	D3528-63001	D3528-69001
XU 6/150 D3528A, D3529N, D3530N with serial number greater/equal SG10xxxxx or prefix FR, US, MX and D3528B, D3529B, D3530B all serial numbers	D4340-63001	D4340-69001
XU 6/180 D4340A/B, D4341N, D4342N all serial numbers	D4340-63001	D4340-69001
XU 6/230 D4345A/B, D4346N, D4347N all serial numbers	D4340-63001	D4340-69001



ADMINISTRATIVE INFORMATION

Service note classification:		
INFORMATION ONLY		
Author: UB	Entity: 6300	Additional information:

Beep, POST, and Error Codes

Beep Codes

If a terminal error occurs during POST, the system issues a beep code before attempting to display the error in the upper left corner of the screen. Beep codes are useful for identifying the error when the system is unable to display the error message.


Beep Pattern	Beep Code	Numeric Code	Description
— — — — —	1-2-2-3	16h	BIOS ROM check-sum failure
— — — — —	1-3-1-1	20h	DRAM refresh test failure
— — — — —	1-3-1-3	22h	8742 Keyboard controller test failure
— — — — —	1-3-4-1	2Ch	RAM failure on address line <i>xxxx</i> ¹
— — — — —	1-3-4-3	2Eh	RAM failure on data bits <i>xxxx</i> ¹ of low byte of memory bus
-- — — — —	2-1-2-3	46h	ROM copyright notice check failure
-- — — — —	2-2-3-1	58h	Unexpected interrupts test failure
— — —	1-2	98h	Video configuration failure or option ROMs check-sum failure
-	1	B4h	This does not indicate an error. There is one short beep before system startup.

1. If the BIOS detects error 2C or 2E (base 512K RAM error), it displays an additional word-bitmap (*xxxx*) indicating the address line or bits that failed. For example, "2C 0002" means address line 1 (bit one set) has failed. "2E 1020" means data bits 12 and 5 (bits 12 and 5 set) have failed in the lower 16 bits.

Beep, POST, and Error Codes

POST and Error Codes

A list of all POST (Power-On Self-Test) and error codes are available through electronic files from the Support Center.

If you wish to view the POST details, press the  key when the Kayak logo is being displayed at power on, and the checkpoint code of the test currently in progress will appear in the upper right corner of the screen. When POST is completed, the HP Summary Screen will appear.

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6. HP Vectra XA 6/xxx PC Series
7. HP Vectra XA 6/xxx MT PC Series
8. HP Vectra XA 5/xxx PC Series
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11. HP Vectra XM 5/xx Series 3 PC
12. HP Vectra XP PC Series

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27. HP Vectra VE 5/xx Series 2 PC
28. HP Vectra VE 5/xx PC Series
29. HP Net Vectra PC

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