

HP 9000 Series 300 Computer Systems



Pricing Information

Effective date: May 1988*

System Configurations

The Series 300 family of computing systems for technical applications consists of a variety of workstations and instrument controllers, as well as modular components that allow you to select a system matched to your needs. The pre-configured workstations include the components most likely needed for typical applications.

If you prefer to build your own system, we have a selection of processors with different performance levels, display systems, memory boards, interface cards, operating systems, and peripherals. Additional details on configuring your own system, beyond those covered in this document, are available in the *Series 300 Configuration Reference Manual*, Part Number 98561-90020. Refer to *HP 9000 Series 300 Hardware Technical Data* (Pub. No. 5951-6797) for the technical specifications of the Series 300 family.

The workstations come bundled with either HP-UX software license, AI Development Environment, or a combination of these operating system elements. The instrument controllers come bundled with BASIC, a language specifically suited to instrument-based applications. An assortment of interfaces are available for the various workstations and controllers, depending on the intended application. The detailed system descriptions will help you determine which system contains the components right for your application.

Hewlett-Packard offers various hardware and software support services. These services are described beginning on page 37 of this document.

Series 300 Modular Components

Custom ordering a Series 300 system is easy. The following guide is useful in successfully configuring a system that exactly meets your needs.

You Need:

- SPU (System Processing Unit) – includes box with power supply, processor board, memory, HP-IB, RS-232C, and HP-HIL interfaces, a battery-backed real-time clock, an HP-IB cable, and HP-HIL cable for the keyboard
- Keyboard
- Graphics board (to generate video signals for a matching monitor) – note that the 98561A SPU comes with 512 x 400 monochrome output standard (delete this feature using Opt. 003, adding in its place the desired graphics board if a different output is required)
- Monitor (to display signals generated by the graphics board)
- Data Storage – pick the data storage best suited to your needs
- An operating system
- HP-HIL ID Module (if you plan to use application software that requires it)

You May Want to Add:

- Additional RAM cards including Error-Checking and Correcting (ECC) RAM†
- Interface cards
- An expander box or boxes
- Plotter
- Modem
- Additional HP-HIL devices
- Additional graphics devices or terminals
- Printer
- Support services
- Networking
- Taboret cabinets, accessories or other furniture

* All data and prices are subject to change without notice.

† All RAM is parity-checking RAM unless otherwise specified.

System Processing Units (SPUs)

Model 310 System Processing Unit Standard Features

Product/Opt. Number	Description	Price
98561A	Model 310 SPU <ul style="list-style-type: none"> • MC68010 Processor, 10 MHz • 1 Mbyte on-board parity-checking RAM • 16 Mbytes virtual memory address space • 16-bit memory bus • 512 x 400 on-board monochrome graphics interface • IEEE-488 HP-IB interface • RS-232C serial interface • HP-HIL interface • Audio interface • 1-meter HP-IB cable, HP-HIL keyboard cable 	
Opt. 002*	Delete ½ Mbyte RAM, leaving ½ Mbyte on board	
Opt. 003*	Delete on-board graphics interface. Order appropriate graphics interface and monitor. CPU board will have 1 Mbyte RAM on-board but no graphics interface.	
Opt. 004	Delete 4-slot I/O card cage. SPU box will be delivered with slots for CPU board and optional graphics interface only. The I/O card cage upgrade can be ordered later as Product Number 98242A.	
Opt. W03	Convert 1 year return-to-HP warranty to 90-day on-site warranty	

* You cannot order Opt. 002 and Opt. 003 concurrently.

Model 320 System Processing Units Standard Features

Product/Opt. Number	Description	Price
98561B	Model 320 SPU <ul style="list-style-type: none"> • MC68020 Processor, 16.67 MHz • MC68881 Floating Point Coprocessor, 16.67 MHz • 1 Mbyte parity-checking RAM board • 4 Gbytes virtual memory address space • 16-bit memory bus • Human interface board containing: <ul style="list-style-type: none"> – IEEE-488 HP-IB interface – RS-232C serial interface – HP-HIL interface – Audio interface • 1-meter HP-IB cable, HP-HIL keyboard cable • DB9 to DB25 RS-232C adapter cable 	
Opt. W03	Convert 1 year return-to-HP warranty to 90-day on-site warranty	
98561C	Model 320U SPU <ul style="list-style-type: none"> • 98561B SPU plus: <ul style="list-style-type: none"> – 98568A expander – Three 1 Mbyte RAM boards (4 Mbytes total) – DMA Controller – LAN interface[†] – High-speed HP-IB disc interface 	
Opt. 002	Delete 2 Mbyte RAM, for a total of 2 Mbytes	
Opt. W03	Convert 1 year return-to-HP warranty to 90-day on-site warranty	

[†] Must also order MAU, AUI and LAN cable as well as LAN software for LAN hook-up.

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Model 330 System Processing Unit Standard Features

Product/Opt. Number	Description	Price
98562A	Model 330 SPU <ul style="list-style-type: none"> • MC68020 Processor, 16.67 MHz • MC68881 Floating Point Coprocessor, 16.67 MHz • Four Mbytes built-in parity-checking RAM • Four Gbytes virtual memory address space • 32-bit memory Bus • 32-bit DIO II Bus • System interface board with <ul style="list-style-type: none"> – IEEE-488 HP-IB interface – Audio interface – HP-HIL interface – RS-232C serial interface – IEEE 802.3/Ethernet LAN interface with ThinMAU and BNC “T” connector – Two-channel DMA Controller • HP-IB, HP-HIL, and RS-232C adapter cables <p><i>Note: Two out of four DIO-II slots available.</i></p>	
Opt. 006	Add 98242B 2-slot DIO Backplane	
Opt. 010*	Add 98262A High-speed HP-IB Disc Interface	
Opt. 011*	Add 98265A SCSI single-ended board with 1m cable and terminator	
Opt. 015	Substitute AUI LAN interface for ThinMAU and BNC “T” connector	
Opt. W03	Convert 1-year return-to-HP warranty to 90-day on-site warranty	



* Opt. 010 and Opt. 011 may not be ordered concurrently.

Model 350 System Processing Unit Standard Features

Product/Opt. Number	Description	Price
98562B	Model 350 SPU <ul style="list-style-type: none"> • MC68020 Processor, 25 MHz • MC68881 Floating Point Coprocessor, 20 MHz • Eight Mbytes parity-checking RAM, expandable to up to 32 Mbytes (48 Mbytes with ECC RAM) • Four Gbytes virtual memory address space • 32-bit system Bus • 32-bit DIO II Bus • System interface board with: <ul style="list-style-type: none"> – IEEE-488 HP-IB interface – RS-232C serial interface – Audio interface – IEEE 802.3/Ethernet LAN Interface with ThinMAU and BNC “T” connector – IEEE-488 High-speed HP-IB Disc Interface – Two-channel DMA Controller – HP-HIL interface • HP-IB, HP-HIL, and RS-232C adapter cables <p><i>Note: One out of four DIO-II slots available.</i></p>	
Opt. 011	Delete high-speed HP-IB; add 98265A SCSI single-ended board with 1m cable and terminator	
Opt. 015	Substitute AUI LAN interface for ThinMAU and BNC “T” connector	
Opt. 116	Converts 8 Mbytes RAM to 16 Mbytes RAM. Replaces the 4 Mbyte RAM add-on with a 12 Mbyte RAM add-on.	
Opt. 208	Substitute 8 Mbyte ECC RAM for 8 Mbytes parity-checking RAM	
Opt. 216	Substitute 16 Mbyte ECC RAM for 8 Mbytes parity-checking RAM	

Series 300 Workstations and Instrument Controllers

Localization for Series 300 Workstations and Controllers

The Models 310, 318, 319, 320, 330, and 350 workstations and instrument controllers are available in the following localized versions. The localized versions include localized keyboard, monitor, SPU, power cord, and applicable manuals. This localization scheme also applies to the HP-HIL keyboards on page 22. The price does not change. To order the localized version, include the appropriate option number. For example, to order a German version of the Model 310 Low-cost Color Instrument Controller, order 98581B + Opt. ABD (workstation product number plus Opt. ABD for the German version). The localization option is a must order option.

Option Language
 ABA . . . U.S. English
 ABC . . . Canadian French
 ABD . . . German
 ABE . . . European Spanish
 ABF . . . European French
 ABH . . . Dutch
 ABJ . . . Katakana
 ABK . . . ICON/European English
 ABM . . . Latin Spanish
 ABN . . . Norwegian

Option Language
 ABP . . . Swiss German
 ABQ . . . Swiss French
 ABS . . . Swedish
 ABU . . . U.K. English
 ABW . . . Belgian Dutch
 ABX . . . Finnish
 ABY . . . Danish
 ABZ . . . Italian
 ACA . . . Kanji (HP-UX only)

Cables

All Series 300 workstations come with a 1-meter HP-IB cable* and an HP-HIL cable. The appropriate video cable is shipped with each video or graphics board.

* Cable not included in Model 319C+.

Entry Level Workstations

The Models 318M and 319C+ are limited-expansion workstations and therefore have no accessory slots available for interface and accessory cards. On-board HP-IB and RS-232C interfaces are available to allow connection of printers, plotters and data storage devices to your system.

Product/Opt. Number	Component	Description	Price
98563B		Model 318M Monochrome Workstation SPU consisting of: <ul style="list-style-type: none"> • MC68020 Processor, 16.67 MHz • MC68881 Floating Point Coprocessor, 16.67 MHz • 4 Mbytes Parity-checking RAM • 4 Gbytes virtual memory address space • 32-bit memory bus • 1024 x 768 on-board monochrome graphics interface with cable • IEEE-488 HP-IB interface with two-channel DMA controller • RS-232C serial interface with DB 25 connector • IEEE 802.3/Ethernet LAN interface with ThinMAU and BNC "T" connector • HP-HIL interface • Audio interface • HP-IB and HP-HIL cables 98786A 17-inch High-resolution Monochrome Monitor (1024 X 768) 98594L HP-UX License-to-Use AXE; PE; NS-ARPA, NFS Services/300† Keyboard <i>Note: Must specify one keyboard option (listed on page 4).</i>	
Opt. 060		Add 46060A HP-HIL 2-button Mouse	
Opt. 084		Add 48084A HP-HIL ID Module	

† Application Execution Environment (AXE), Programming Environment (PE), Network Services (NS) and Network File System (NFS).

Entry Level Workstations (cont'd)

Product/Opt. Number	Component	Description	Price
98564A		319C+ Color Workstation SPU consisting of: <ul style="list-style-type: none"> • MC68020 processor, 16.67 MHz • MC68881 Floating Point Coprocessor, 16.67 MHz • 4 Mbytes Parity-Checking RAM, expandable to 16 Mbytes • 6-plane graphics board with RGB cable • IEEE-488 HP-IB interface with two-channel DMA controller (order HP-IB cable separately) • RS-232C serial interface with DB25 connector • IEEE 802.3/Ethernet LAN interface with ThinMAU and BNC "T" connector • HP-HIL interface with cable • Built-in speaker 	
	98785A 98594L Keyboard	16-inch High-resolution Color Monitor (1024 x 768) HP-UX License-to-Use AXE; PE; NS-ARPA, NFS Services/300 <i>Note: Must specify one keyboard option (listed on page 4).</i>	
Opt. 010*		Add high-speed HP-IB disc interface capability	
Opt. 011*		SCSI single-ended board with 0.5m cable and terminator	
Opt. 060		Add 46060A HP-HIL 2-button Mouse	
Opt. 084		Add 46084A HP-HIL ID Module	
Opt. 108†		Add 4 Mbytes RAM for total of 8 Mbytes	
Opt. 112†		Add 8 Mbytes RAM for total of 12 Mbytes	
Opt. 116		Add 12 Mbytes RAM for total of 16 Mbytes	
Opt. 719		Substitute 19-inch color monitor (98751A) for 16-inch monitor (98785A)	

* Opt. 010 and Opt. 011 are not offered as a field upgrade. Opt. 010 and Opt. 011 cannot be ordered concurrently. † The 4 and 8 Mbyte RAM expansion boards are also offered as field upgrades.

RAM Upgrades

Product/Opt. Number	Component	Description	Price
		<i>Note: Upgrades must be installed by HP qualified personnel. The installation charge is included in the list price.</i>	
98266A		Model 319C+ 4 Mbyte RAM daughterboard upgrade	
98266B		Model 319C+ 8 Mbyte RAM daughterboard upgrade	

Model 330 Workstations

Product/Opt. Number	Component	Description	Price
98588S	98562A 98550A 98789A 46060A 46081A 46084A 98594L Keyboard	Model 330CH 2D Color Workstation Model 330 SPU plus: High-resolution Color Graphics Board with RGB cables 16-inch High-resolution Color Monitor (1280 x 1024) HP-HIL 2-button Mouse 2.4m HP-HIL Extension with audio HP-HIL ID Module HP-UX License-to-Use AXE; PE; NS-ARPA, NFS Services/300 <i>Note: One out of four DIO II slots available.</i> <i>Note: Must specify one keyboard option (listed on page 4).</i>	
Opt. 006		Add 98242B 2-slot DIO Backplane	
Opt. 010*		Add 98262A High-speed HP-IB Disc Interface	
Opt. 011*		Add 98265A SCSI single-ended board with 1m cable and terminator	
Opt. 015		Substitute AUI LAN interface for ThinMAU and BNC "T" connector	
Opt. 556		Add 98556A 2D integer-based graphics accelerator	
Opt. 719		Substitute 19-inch monitor (98752A) for 16-inch monitor (98789A)	

* Opt. 010 and Opt. 011 cannot be ordered concurrently.

Model 330 Workstations (cont'd)

Product/Opt. Number	Component	Description	Price
98588S Opt. 556	98562A 98550A 98789A 46060A 46081A 46084A 98594L Keyboard	Model 330CHX 2D Color Workstation (Model 330CH with 2D Integer-based Graphics Accelerator) Model 330CH 2D Color Workstation Add 98556A 2D Integer-based Graphics Accelerator Model 330 SPU plus: High-resolution Color Graphics Board with RGB cable 16-inch High-resolution Color Monitor (1280 x 1024) HP-HIL 2-button mouse 2.4m HP-HIL Extension with audio HP-HIL ID Module HP-UX License-to-Use AXE; PE; NS-ARPA, NFS Services/300 <i>Note: One out of four DIO II slots available.</i> <i>Note: Must specify one keyboard option (listed on page 4).</i>	
Opt. 006		Add 98242B 2-slot DIO Backplane	
Opt. 010*		Add 98262A High-speed HP-IB Disc Interface	
Opt. 011*		Add 98265A SCSI single-ended board with 1m cable and terminator	
Opt. 015		Substitute AUI LAN interface for ThinMAU and BNC "T" connector	
Opt. 719		Substitute 19-inch color monitor (98752A) for 16-inch monitor (98789A)	
98583S	98562A 98547A 98785A 46060A 46081A 46084A 98594L Keyboard	Model 330C Color Workstation Model 330 SPU plus: High-resolution Color Graphics Board with RGB cable 16-inch High-resolution Color Monitor (1024 x 768) HP-HIL 2-button Mouse 2.4m HP-HIL Extension with audio HP-HIL ID Module HP-UX License-to-Use AXE; PE; NS-ARPA, NFS Services/300 <i>Note: One out of four DIO II slots available.</i> <i>Note: Must specify one keyboard option (listed on page 4)</i>	
Opt. 006		Add 98242B 2-slot DIO Backplane	
Opt. 010*		Add 98262A High-speed HP-IB Disc Interface	
Opt. 011*		Add 98265A SCSI single-ended board with 1m cable and terminator	
Opt. 015		Substitute AUI LAN interface for ThinMAU and BNC "T" connector	
Opt. 719		Substitute 19-inch monitor (98751A) for 16-inch monitor (98785A)	
98589S	98562A 98548A 98788A 46060A 46081A 46084A 98594L Keyboard	Model 330MH 2D Monochrome Workstation Model 330 SPU plus: High-resolution Monochrome Graphics Board 19-inch High-resolution Monochrome Monitor (1280 x 1024) HP-HIL 2-button Mouse 2.4m HP-HIL Extension with audio HP-HIL ID Module HP-UX License-to-Use AXE; PE; NS-ARPA, NFS Services/300 <i>Note: One out of four DIO II slots available.</i> <i>Note: Must specify one keyboard option (listed on page 4).</i>	
Opt. 006		Add 98242B 2-slot DIO Backplane	
Opt. 010*		Add 98262A High-speed HP-IB Disc Interface	
Opt. 011*		Add 98265A SCSI single-ended board with 1m cable and terminator	
Opt. 015		Substitute AUI LAN interface for ThinMAU and BNC "T" connector	
98582S	98562A 98544B 98786A 46060A 46084A 98594L Keyboard	Model 330M Monochrome Workstation Model 330 SPU plus: High-resolution Monochrome Graphics Board 17-inch High-resolution Monochrome Monitor (1024 x 768) HP-HIL 2-button Mouse HP-HIL ID Module HP-UX License-to-Use AXE; PE; NS-ARPA, NFS Services/300 <i>Note: One out of four DIO II slots available.</i> <i>Note: Must specify one keyboard option (listed on page 4).</i>	
Opt. 006		Add 98242B 2-slot DIO Backplane	
Opt. 010*		Add 98262A High-speed HP-IB Disc Interface	
Opt. 011*		Add 98265A SCSI single-ended board with 1m cable and terminator	
Opt. 015		Substitute AUI LAN interface for ThinMAU and BNC "T" connector	

* Opt. 010 and Opt. 011 cannot be ordered concurrently.

Model 350 Workstations

Product/Opt. Number	Component	Description	Price
98587E	98562B 98720A • Opt. 721 • Opt. 722 98725A 98752A 98290A 46060A 46081A 46084A 98594L Keyboard	Model 350SRX Solid Rendering Workstation Model 350 SPU plus: 3D Display Controller 3D Solid Rendering Graphics Accelerator Frame Buffer Board 16-bit Display Controller Interface to 98720A 19-inch High-resolution Color Monitor (1280 x 1024) RGB cable HP-HIL 2-button Mouse 2.4m HP-HIL Extension with audio HP-HIL ID Module HP-UX License-to-Use AXE; PE; NS-ARPA, NFS Services/300 <i>Note: Zero out of four DIO II slots available.</i> <i>Note: Must specify one keyboard option (listed on page 4).</i>	
Opt. 011		Delete high-speed HP-IB; add SCSI single-ended board with 1m cable and terminator	
Opt. 015		Substitute AUI LAN interface for ThinMAU and BNC "T" connector	
Opt. 016		Add one 8-plane frame buffer board (limit four 8-plane boards per 98720A)	
Opt. 024		Add two 8-plane frame buffer boards (limit four 8-plane boards per 98720A)	
Opt. 032		Add three 8-plane frame buffer boards (limit four 8-plane boards per 98720A)	
Opt. 116		Converts 8 Mbytes RAM to 16 Mbytes RAM. Replaces the 4 Mbyte RAM add-on with a 12 Mbyte RAM add-on	
Opt. 208		Substitute 8 Mbyte ECC RAM for 8 Mbyte Parity-checking RAM	
Opt. 216		Substitute 16 Mbyte ECC RAM for 8 Mbyte Parity-checking RAM	
98587F	98562B 98730A 98726A 98752A 98290A 46060A 46081A 46084A 98594L Keyboard	Model 350 TurboSRX Solid Rendering Workstation Model 350 SPU plus: 3D Display Controller with eight planes of frame buffer memory 32-bit Display Controller Interface to 98730A 19-inch High-resolution Color Monitor (1280 x 1024) RGB cable HP-HIL 2-button Mouse 2.4m HP-HIL Extension with audio HP-HIL ID Module HP-UX License-to-Use AXE; PE; NS-ARPA, NFS Services/300 <i>Note: Zero out of four DIO II slots available.</i> <i>Note: Must specify one keyboard option (listed on page 4).</i> <i>Note: Must order Option 608, 616, or 624. Options cannot be ordered concurrently.</i>	
Opt. 011		Delete high-speed HP-IB; add SCSI single-ended board with 1m cable and terminator	
Opt. 015		Substitute AUI LAN interface for ThinMAU and BNC "T" connector	
Opt. 116		Converts 8 Mbytes RAM to 16 Mbytes RAM. Replaces the 4 Mbyte RAM add-on with a 12 Mbyte RAM add-on	
Opt. 208		Substitute 8 Mbyte ECC RAM for 8 Mbyte Parity-checking RAM	
Opt. 216		Substitute 16 Mbyte ECC RAM for 8 Mbyte Parity-checking RAM	
Opt. 608		Add three accelerators for 3D solids and a full 16-bit Z-buffer	
Opt. 616		Add one frame buffer card (for a total of 16 planes of frame buffer memory), 3 accelerators for 3D solids and a full 16-bit Z-buffer	
Opt. 624		Add two frame buffer cards (for a total of 24 planes of frame buffer memory), 3 accelerators for 3D solids and a full 16-bit Z-buffer	
Opt. 716		Substitute 16-inch Monitor (98789A) for 19-inch monitor (98752A)	

Model 350 Workstations (cont'd)

Product/Opt. Number	Component	Description	Price
98588E	98562B 98550A 98752A 46060A 46081A 46084A 98594L Keyboard	Model 350CH 2D Color Workstation Model 350 SPU plus: High-resolution Color Graphics Board with RGB cables 19-inch High-resolution Color Monitor (1280 x 1024) HP-HIL 2-button Mouse 2.4m HP-HIL Extension with audio HP-HIL ID Module HP-UX License-to-Use AXE; PE; NS-ARPA, NFS Services/300 <i>Note: Zero out of four DIO II slots available.</i> <i>Note: Must specify one keyboard option (listed on page 4).</i>	
Opt. 011		Delete high-speed HP-IB; add SCSI single-ended board with 1m cable and terminator	
Opt. 015		Substitute AUI LAN interface for ThinMAU and BNC "T" connector	
Opt. 116		Converts 8 Mbytes RAM to 16 Mbytes RAM. Replaces the 4 Mbyte RAM add-on with a 12 Mbyte RAM add-on.	
Opt. 208		Substitute 8 Mbyte ECC RAM for 8 Mbyte Parity-checking RAM	
Opt. 216		Substitute 16 Mbyte ECC RAM for 8 Mbyte Parity-checking RAM	
Opt. 556		Add 98556A 2D Integer-based Graphics Accelerator	
Opt. 716		Substitute 16-inch Monitor (98789A) for 19-inch monitor (98752A)	
98588E Opt. 556	98562B 98550A 98752A 46060A 46081A 46084A 98594L Keyboard	Model 350CHX 2D Color Workstation (Model 350CH with 2D Integer-based Graphics Accelerator) Model 350CH 2D Color Workstation Add 98556A 2D Integer-based Graphics Accelerator Model 350 SPU plus: High-resolution Color Graphics Board with RGB cable 19-inch High-resolution Color Monitor (1280 x 1024) HP-HIL 2-button mouse 2.4m HP-HIL extension with audio HP-HIL ID Module HP-UX License-to-Use AXE; PE; NS-ARPA, NFS Services/300 <i>Note: Zero out of four DIO II slots available.</i> <i>Note: Must specify one keyboard option (listed on page 4).</i>	
Opt. 011		Delete high-speed HP-IB; add SCSI single-ended board with 1m cable and terminator	
Opt. 015		Substitute AUI LAN interface for ThinMAU and BNC "T" connector	
Opt. 116		Converts 8 Mbytes RAM to 16 Mbytes RAM; replaces the 4 Mbyte RAM add-on with a 12 Mbyte RAM add-on	
Opt. 208		Substitute 8 Mbyte ECC RAM for 8 Mbyte Parity-checking RAM	
Opt. 216		Substitute 16 Mbyte ECC RAM for 8 Mbyte Parity-checking RAM	
Opt. 716		Substitute 16-inch color monitor (98789A) for 19-inch monitor (98752A)	
98586E	98562B • Opt. 006 98700A 98710A 98701A 98287A 98751A 98290A 46060A 46081A 46084A 98594L Keyboard	Model 350CX Color Workstation with Graphics Accelerator Model 350 SPU plus: Add 2-slot DIO Backplane High-resolution Display Controller Graphics Accelerator for the 98700A 4-plane Graphic Memory Upgrade for 98700A Series 300 Interface Card for 98700A 19-inch High-resolution Color Monitor (1024 x 768) RGB Cable HP-HIL 2-button Mouse 2.4m HP-HIL Extension with audio HP-HIL ID Module HP-UX License-to-Use AXE; PE; NS-ARPA, NFS Services/300 <i>Note: Zero out of four DIO II slots available; one DIO accessory (does not support I/O cards) slot available.</i> <i>Note: Must specify one keyboard option (listed on page 4).</i>	
Opt. 011		Delete high-speed HP-IB; add SCSI single-ended board with 1m cable and terminator	
Opt. 015		Substitute AUI LAN interface for ThinMAU and BNC "T" connector	
Opt. 116		Converts 8 Mbytes RAM to 16 Mbytes RAM; replaces the 4 Mbyte RAM add-on with a 12 Mbyte RAM add-on	
Opt. 208		Substitute 8 Mbyte ECC RAM for 8 Mbyte Parity-checking RAM	
Opt. 216		Substitute 16 Mbyte ECC RAM for 8 Mbyte Parity-checking RAM	

Model 350 Workstations (cont'd)

Product/Opt. Number	Component	Description	Price
98583E	98562B 98547A 98751A 46060A 46081A 46084A 98594L Keyboard	Model 350C Color Workstation Model 350 SPU plus: High-resolution Color Graphics Board with RGB cable 19-inch High-resolution Color Monitor (1024 x 768) HP-HIL 2-button Mouse 2.4m HP-HIL Extension with audio HP-HIL ID Module HP-UX License-to-Use AXE; PE; NS-ARPA, NFS Services/300 <i>Note: Zero out of four DIO II slots available.</i> <i>Note: Must specify one keyboard option (listed on page 4).</i>	
Opt. 011		Delete high-speed HP-IB; add SCSI single-ended board with 1m cable and terminator	
Opt. 015		Substitute AUI LAN interface for ThinMAU and BNC "T" connector	
Opt. 116		Converts 8 Mbytes RAM to 16 Mbytes RAM; replaces the 4 Mbyte RAM add-on with a 12 Mbyte RAM add-on	
Opt. 208		Substitute 8 Mbyte ECC RAM for 8 Mbyte Parity-checking RAM	
Opt. 216		Substitute 16 Mbyte ECC RAM for 8 Mbyte Parity-checking RAM	
Opt. 716		Substitute 16-inch monitor (98785A) for 19-inch monitor (98751A)	
98585E	98562B 98550A 98752A 46060A 46081A 46084A 98594L 98594A 98794A 98678L 98678B Opt. 022 79232U Opt. 022 Keyboard	Model 350AIC Color AI Development System Model 350 SPU plus: High-resolution Graphics Board with RGB cable 19-inch High-resolution Color Monitor (1280 x 1024) HP-HIL 2-button Mouse 2.4m HP-HIL Extension with audio HP-HIL ID Module HP-UX License-to-Use AXE; PE; NS-ARPA, NFS Services/300 Media and documentation for 98594L; software on 1/4-inch tape cartridge HP-UX Programmer's Documentation Set Development Environment for Common LISP License-to-Use Development Environment for Common LISP; software on 1/4-inch tape cartridge Development Environment for HP PROLOG; software on 1/4-inch tape cartridge <i>Note: Zero out of four DIO-II slots available.</i> <i>Note: Must specify keyboard option (listed on page 4).</i>	
Opt. 011		Delete high-speed HP-IB; add SCSI single-ended board with 1m cable and terminator	
Opt. 015		Substitute AUI LAN interface for ThinMAU and BNC "T" connector	
Opt. 116		Converts 8 Mbytes RAM to 16 Mbytes RAM; replaces the 4 Mbyte RAM add-on with a 12 Mbyte RAM add-on	
Opt. 208		Substitute 8 Mbyte ECC RAM for 8 Mbyte Parity-checking RAM	
Opt. 216		Substitute 16 Mbyte ECC RAM for 8 Mbyte Parity-checking RAM	
Opt. 232		Delete Development Environment for HP PROLOG	
98589E	98562B 98548A 98788A 46060A 46081A 46084A 98594L Keyboard	Model 350MH Monochrome Workstation Model 350 SPU plus: High-resolution Monochrome Graphics Board 19-inch High-resolution Monochrome Monitor (1280 x 1024) HP-HIL 2-button Mouse 2.4m HP-HIL Extension with audio HP-HIL ID Module HP-UX License-to-Use AXE; PE; NS-ARPA, NFS Services/300 <i>Note: Zero out of four DIO II slots available.</i> <i>Note: Must specify one keyboard option (listed on page 4).</i>	
Opt. 011		Delete high-speed HP-IB; add SCSI single-ended board with 1m cable and terminator	
Opt. 015		Substitute AUI LAN interface for ThinMAU and BNC "T" connector	
Opt. 116		Converts 8 Mbytes RAM to 16 Mbytes RAM; replaces the 4 Mbyte RAM add-on with a 12 Mbyte RAM add-on	
Opt. 208		Substitute 8 Mbyte ECC RAM for 8 Mbyte Parity-checking RAM	
Opt. 216		Substitute 16 Mbyte ECC RAM for 8 Mbyte Parity-checking RAM	

Model 350 Workstations (cont'd)

Product/Opt. Number	Component	Description	Price
98582E	98562B 98544B 98786A 46060A 46084A 98594L Keyboard	Model 350M Monochrome Workstation Model 350 SPU plus: High-resolution Monochrome Graphics Board 17-inch High-resolution Monochrome Monitor (1024 x 768) HP-HIL 2-button Mouse HP-HIL ID Module HP-UX License-to-Use AXE; PE; NS-ARPA, NFS Services/300 <i>Note: Zero out of four DIO II slots available.</i> <i>Note: Must specify one keyboard option (listed on page 4).</i>	
Opt. 011		Delete high-speed HP-IB; add SCSI single-ended board with 1m cable and terminator	
Opt. 015		Substitute AUI LAN interface for ThinMAU and BNC "T" connector	
Opt. 116		Converts 8 Mbytes RAM to 16 Mbytes RAM; replaces the 4 Mbyte RAM add-on with a 12 Mbyte RAM add-on	
Opt. 208		Substitute 8 Mbyte ECC RAM for 8 Mbyte Parity-checking RAM	
Opt. 216		Substitute 16 Mbyte ECC RAM for 8 Mbyte Parity-checking RAM	
98584E	98562B 98548A 98788A 46060A 46084A 98594L 98594A 98794A 98678L 98678B Opt. 022 79232U Opt. 022 Keyboard	Model 350AIM Monochrome AI Development System Model 350 SPU plus: High-resolution Monochrome Graphics Board with cable 19-inch High-resolution Monochrome Monitor (1280 x 1024) HP-HIL 2-button Mouse HP-HIL ID Module HP-UX License-to-Use AXE; PE; NS-ARPA, NFS Services/300 Media and documentation for 98549L; software on 1/4-inch tape cartridge HP-UX Programmer's Documentation Kit Development Environment for Common LISP License-to-Use Development Environment for Common LISP; software on 1/4-inch tape cartridge Development Environment for HP PROLOG; software on 1/4-inch tape cartridge <i>Note: Zero out of four DIO-II slots available.</i> <i>Note: Must specify one keyboard option (listed on page 4).</i>	
Opt. 011		Delete high-speed HP-IB; add SCSI single-ended board with 1m cable and terminator	
Opt. 015		Substitute AUI LAN interface for ThinMAU and BNC "T" connector	
Opt. 116		Converts 8 Mbytes RAM to 16 Mbytes RAM; replaces the 4 Mbyte RAM add-on with a 12 Mbyte RAM add-on	
Opt. 208		Substitute 8 Mbyte ECC RAM for 8 Mbyte Parity-checking RAM	
Opt. 216		Substitute 16 Mbyte ECC RAM for 8 Mbyte Parity-checking RAM	
Opt. 232		Delete Development Environment for HP PROLOG	

Model PC-305 and PC-308 Instrument Controllers

The PC-305 and PC-308 instrument controllers are based on the HP Vectra Personal Computer with the BASIC Language Processor plug-in card. Within Series 300, they are instrument and measurement control computers, but they also run all the

PC-DOS software of the IBM-PC compatible HP Vectra. For information on interfaces and accessories, please consult the *Office Workstation Products Direct Price Guide*, Pub. No. 5956-4314D.

Product/Opt. Number	Component	Description	Price
82316AB 82316AD 82316AE 82316AF 82316AK 82316AS 82316AU 82316AZ	35731A 45981A 82300B 82304B 45951C	PC-305M BASIC Controller HP Vectra CS SPU, 8086-compatible, 7.16 MHz. Includes 640 Kbytes RAM, 3½-inch 1.44 Mbyte microfloppy disc drive, Vectra CS PC Kit with AT2/DIN keyboard, Vectra CS manuals, serial/parallel interface. 12-inch Monochrome Monitor Multimode Video Adapter BASIC Language Processor Card (512 Kbyte RAM, HP-IB interface) and BASIC 5.0 (single 3½-inch, 1.44 Mbyte, overlays, BASIC Reference Manual) BASIC 5.0 ROM and Installation Guide Vectra Disc Operating System with MS-DOS 3.2, Personal Applications Manager, File Manager and Utilities, 3½-inch discs Localized options include power cords, monitors, PC kits and MS-DOS. For localized option, order the appropriate product number below. U.S. English German European Spanish European French ICON Swedish/Finnish U.K. English Italian	
82317AB 82317AD 82317AE 82317AF 82317AK 82317AS 82317AU 82317AZ	35731A 45981A 82300B 82304B 45951C	PC-305ML BASIC Controller HP Vectra CS SPU, 8086-compatible, 7.16 MHz. Includes 640 Kbytes RAM, 3½-inch 1.44 Mbyte microfloppy disc drive, 20 Mbyte hard disc, Vectra CS PC Kit with AT2/D IN keyboard, Vectra CS manuals, serial/parallel interface. 12-inch Monochrome Monitor Multimode Video Adapter BASIC Language Processor Card (512 Kbyte RAM, HP-IB interface) and BASIC 5.0 Language System (single 3½-inch, 1.44 Mbyte, overlays, BASIC Reference Manual) BASIC 5.0 ROM and Installation Guide Vectra Disc Operating System with MS-DOS 3.2, Personal Applications Manager, File Manager and Utilities, 3½-inch discs Localized options include power cords, monitors, PC kits and MS-DOS. For localized option, order the appropriate product number below. U.S. English German European Spanish European French ICON Swedish/Finnish U.K. English Italian	



Model PC-305 and PC-308 Instrument Controllers (cont'd)

Product/Opt. Number	Component	Description	Price
<p>82318AB 82318AD 82318AE 82318AF 82318AK 82318AS 82318AU 82318AZ</p>	<p>35743A 45983A 82959S 82300B 82304B 45951C</p>	<p>PC-305CL BASIC Controller HP Vectra CS SPU, 8086 compatible, 7.16 MHz. Includes 640 Kbytes RAM, 3½-inch 1.44 Mbyte microfloppy disc drive, 20 Mbyte hard disc drive, Vectra CS PC Kit with AT2/DIN keyboard, Vectra CS manuals, serial/parallel interface. 13-inch EGA Color Monitor EGA Video Adapter Tilt/swivel Base BASIC Language Processor Card (512 Kbyte RAM, HP-IB interface) and BASIC 5.0 Language System (single 3½-inch, 1.44 Mbyte, overlays, BASIC Reference Manual) BASIC 5.0 ROM and Installation Guide Vectra Disc Operating System with MS-DOS 3.2, Personal Applications Manager, File Manager and Utilities, 3½-inch discs Localized options include power cords, monitors, PC kits and MS-DOS. For localized option, order the appropriate product number below. U.S. English German European Spanish European French ICON Swedish/Finnish U.K. English Italian</p>	
<p>82314BB 82314BD 82314BE 82314BF 82314BK 82314BS 82314BU 82314BZ</p>	<p>35731A 45981A 82300B 82304B 45951C</p>	<p>PC-308ML BASIC Controller HP Vectra ES/12 SPU, Intel 80286, 12 MHz. Includes 640 Kbytes RAM, 3½-inch 1.44 Mbyte microfloppy disc drive, 20 Mbyte hard disc drive, Vectra ES/12 PC Kit with AT2/DIN keyboard, Vectra ES/12 manuals, serial/parallel interface. 12-inch Monochrome Monitor Multimode Video Adapter BASIC Language Processor Card (512 Kbyte RAM, HP-IB interface) and BASIC 5.0 Language System (single 3½-inch, 1.44 Mbyte, overlays, BASIC Reference Manual) BASIC 5.0 ROM and Installation Guide Vectra Disc Operating System with MS-DOS 3.2, Personal Applications Manager, File Manager and Utilities, 3½-inch discs Localized options include power cords, monitors, PC kits and MS-DOS. For localized option, order the appropriate product number below. U.S. English German European Spanish European French ICON Swedish/Finnish U.K. English Italian</p>	
<p>82315BB 82315BD 82315BE 82315BF 82315BK 82315BS 82315BU 82315BZ</p>	<p>35743A 45983A 82959S 82300B 82304B 45951C</p>	<p>PC-308CL BASIC Controller HP Vectra ES/12 SPU, Intel 80286, 12 MHz. Includes 640 Kbytes RAM, 3½-inch 1.44 Mbyte microfloppy disc drive, 20 Mbyte hard disc drive, Vectra ES/12 PC Kit with AT2/DIN keyboard, Vectra ES manuals, serial/parallel interface. 13-inch EGA Color Monitor EGA Video Adapter Tilt/swivel Base BASIC Language Processor (512 Kbyte RAM, HP-IB interface) and BASIC 5.0 Language System (single 3½-inch, 1.44 Mbyte, overlays, BASIC Reference Manual) BASIC 5.0 ROM and Installation Guide Vectra Disc Operating System with MS-DOS 3.2, Personal Applications Manager, File Manager and Utilities, 3½-inch discs Localized options include power cords, monitors, PC kits and MS-DOS. For localized option, order the appropriate product number below. U.S. English German European Spanish European French ICON Swedish/Finnish U.K. English Italian</p>	

Model 310 Instrument Controllers

Product/Opt. Number	Component	Description	Price
98581B	98561A 98543A 35741A 98616A Opt. 044 Keyboard	Model 310 Low-cost Color Instrument Controller Model 310 SPU plus: Medium-resolution Color Graphics Board with RGB cable 12-inch Medium-resolution Color Monitor (512 x 400) BASIC Language System software on 3½-inch microfloppy discs <i>Note: Must specify one keyboard option (listed on page 4).</i> <i>Note: This system does not include the HP-HIL ID Module. The module must be purchased separately if you plan to use application software which requires ID.</i>	
Opt. 042		Substitute BASIC software on 5¼-inch floppy for BASIC on 3½-inch microfloppy	
Opt. 613		Delete BASIC Language System	
Opt. 008		Add 98546A Display Compatibility Interface	
Opt. W03		Convert 1 year return-to-HP warranty to 90-day on-site warranty	
Opt. 05A Opt. 05C Opt. 05D Opt. 05E Opt. 05F Opt. 05K Opt. 05M Opt. 05Z		To delete the keyboard, specify a delete keyboard option: English version without keyboard; 120V Canadian French version without keyboard; 120V German version without keyboard; 220V European Spanish version without keyboard; 220V European French version without keyboard; 220V ICON/European English version without keyboard, 220V Latin Spanish version without keyboard, 120V Italian version without keyboard, 220V	
98580B	98561A 35731A 98616A Opt. 044 Keyboard	Model 310 Low-cost Monochrome Instrument Controller Model 310 SPU plus: 12-inch Medium-resolution Monochrome Monitor (512 x 400) BASIC Language System software on 3½-inch microfloppy discs <i>Note: Must specify one keyboard option (listed on page 4).</i> <i>Note: This system does not include the HP-HIL ID Module. The module must be purchased separately if you plan to use application software which requires ID.</i>	
Opt. 042		Substitute BASIC software on 5¼-inch floppy for BASIC on 3½-inch microfloppy	
Opt. 613		Delete BASIC	
Opt. 002		Substitute ½ Mbyte (512 Kbyte) on-board RAM for standard 1 Mbyte	
Opt. 008		Add 98546A Display Compatibility Interface	
Opt. W03		Convert 1 year return-to-HP warranty to 90-day on-site warranty	
Opt. 05A Opt. 05C Opt. 05D Opt. 05E Opt. 05F Opt. 05K Opt. 05M Opt. 05Z		To delete the keyboard, specify a delete keyboard option: English version without keyboard; 120V Canadian French version without keyboard; 120V German version without keyboard; 220V European Spanish version without keyboard; 220V European French version without keyboard; 220V ICON/European English version without keyboard, 220V Latin Spanish version without keyboard, 120V Italian version without keyboard, 220V	

Model 330 Instrument Controllers

Product/Opt. Number	Component	Description	Price
98581S	98562A • Opt. 006 • Opt. 010 98543A 35741A 98616A Opt. 045 Keyboard	Model 330CMA Color Instrument Controller Model 330 SPU plus: 98242B 2-slot DIO Backplane 98262A High-speed HP-IB Disc Interface Medium-resolution Color Graphics Board with RGB cable 12-inch Medium-resolution Color Monitor (512 x 400) BASIC Language System software on 3½-inch microfloppy discs <i>Note: Must specify one keyboard option (listed on page 4).</i> <i>Note: This system does not include the HP-HIL ID Module. The module must be purchased separately if you plan to use application software which requires ID.</i>	
Opt. 042		Substitute BASIC on 5¼-inch floppy discs for BASIC on 3½-inch microfloppy discs	
Opt. 015		Substitute AUI LAN interface for ThinMAU and BNC "T" connector	
Opt. 613		Delete BASIC Language System	
Opt. W03		Convert 1 year return-to-HP warranty to 90-day on-site warranty	
Opt. 05A Opt. 05C Opt. 05D Opt. 05E Opt. 05F Opt. 05K Opt. 05M Opt. 05Z		Keyboard can be deleted by specifying the appropriate delete keyboard option: English version without keyboard, 120V Canadian French version without keyboard, 120V German version without keyboard, 220V European Spanish version without keyboard, 220V European French version without keyboard, 220V ICON/European English version without keyboard, 220V Latin Spanish version without keyboard, 120V Italian version without keyboard, 220V	
98580S	98562A • Opt. 006 • Opt. 010 98542A 35731A 98616A Opt. 045 Keyboard	Model 330MMA Monochrome Instrument Controller Model 330 SPU plus: 98242B 2-slot DIO Backplane 98262A High-speed HP-IB Disc Interface Medium-resolution Monochrome Graphics Board 12-inch Medium-resolution Monochrome Monitor (512 x 400) BASIC Language System software on 3½-inch microfloppy discs <i>Note: Must specify one keyboard option (listed on page 4).</i> <i>Note: This system does not include the HP-HIL ID Module. The module must be purchased separately if you plan to use application software which requires ID.</i>	
Opt. 042		Substitute BASIC on 5¼-inch floppy discs for BASIC on 3½-inch microfloppy discs	
Opt. 015		Substitute AUI LAN interface for ThinMAU and BNC "T" connector	
Opt. 613		Delete BASIC Language System	
Opt. W03		Convert 1 year return-to-HP warranty to 90-day on-site warranty	
Opt. 05A Opt. 05C Opt. 05D Opt. 05E Opt. 05F Opt. 05K Opt. 05M Opt. 05Z		Keyboard can be deleted by specifying the appropriate delete keyboard option: English version without keyboard, 120V Canadian French version without keyboard, 120V German version without keyboard, 220V European Spanish version without keyboard, 220V European French version without keyboard, 220V ICON/European English version without keyboard, 220V Latin Spanish version without keyboard, 120V Italian version without keyboard, 220V	

SPU Accessories

Product/Opt. Number	Description	Price
98242A	4-slot DIO Backplane. Converts two DIO II slots to two pairs of DIO slots (a total of four DIO slots) in 98570A Opt. 004 expander, 98561A Opt. 004 SPU, or 98562A SPU.	
98242B	2-slot DIO Backplane. Converts one DIO II slot to one pair of DIO slots (a total of two DIO slots) in 98562A/B SPU or 98570A Opt. 004 expander.	
98568A Opt. 132	Direct Connect 8-slot I/O Expander. Attaches directly to a Series 300 SPU. Required option for first 98568A attached to Model 330 or 350. Connect 98568A directly to Model 330 or 350 motherboard, using no system slots. (Option not required for second 98568A.)	
98570A Opt. 004	Direct Connect DIO II Expander. Adds two DIO II slots and four DIO slots to a Model 330 or 350 SPU. Delete 4-slot DIO backplane for a total of four DIO II system slots. For Models 330 and 350 only.	
9888A	16-slot DIO Expander. Maximum of two allowed in system. Uses one DIO interface slot.	
98258A Opt. 004 Opt. 005	4 Mbyte Parity-Checking RAM Controller. Accepts either a 98258B or 98258C RAM add-on board (Model 350 only) or can be used stand-alone (Models 330 and 350). Occupies one system slot. Includes 3-slot system bus connector. Delete 3-slot system bus connector (for use with Model 330). Substitute 4-slot system bus connector (for use with Model 350 with two out of RAM controllers or FPA installed)	
98258B	4 Mbyte Parity-Checking RAM Add-on. For Model 350 only. Plugs into 98258A for a total of 8 Mbytes RAM.	
98258C	12 Mbyte Parity-Checking RAM Add-on. For Model 350 only. Plugs into 98258A for a total of 16 Mbytes RAM.	
98257A	1 Mbyte RAM Card (DIO). For Models 310 and 320 only.	
98264A Opt. 004 Opt. 005	8 Mbyte Error-Checking and Correcting (ECC) RAM. Occupies one system slot. For Model 350 only. Includes 3-slot system bus connector. Delete 3-slot system bus connector Substitute 4-slot system bus connector (for use with Model 350 with two out of RAM controllers or FPA installed)	
98264B Opt. 004 Opt. 005	16 Mbyte Error-Checking and Correcting RAM. Occupies one system slot. Includes 3-slot system bus connector. Delete 3-slot system bus connector Substitute 4-slot system bus connector (for use with Model 350 with two out of RAM controllers or FPA installed)	
98248A Opt. 004 Opt. 005	Floating Point Accelerator for Models 330 and 350. Includes 3-slot system bus connector. Delete 3-slot system bus connector (for use with Model 330) Substitute 4-slot system bus connector (for use with Model 350 with two RAM controllers installed)	
98262A	High-speed HP-IB Disc Interface for Model 330 system interface board. Maximum one per system. Uses no DIO II or DIO slots. Includes 2m HP-IB cable.	
98265A	SCSI Single-ended Board for Models 330 and 350. Maximum one per system. Uses no DIO II or DIO slots. Includes 1m cable and terminator.	

SPU Upgrades

Field Upgrades

Product/Opt. Number	Description	Price
98243B Opt. 002	Model 310 CPU Field Upgrade to Model 320. Model 310 processor board must be returned to HP. Upgrade includes: <ul style="list-style-type: none"> • Model 320 processor board • HP-IB/HP-HIL/RS-232C, battery-backed real-time clock interface card • 1 Mbyte RAM card Delete 1 Mbyte RAM board	
98244A Opt. 001 Opt. 002 Opt. 003 Opt. 116 Opt. 570	Model 330 CPU Field Upgrade to Model 350. Model 330 processor board must be returned to HP. Upgrade includes: <ul style="list-style-type: none"> • Model 350 processor board • 98258A 4 Mbyte RAM Controller • 98258B 4 Mbyte RAM Add-on • 98262A High-Speed HP-IB Disc Interface • 2-high System bus Delete 98258A and 98258B. Allows conversion to ECC RAM or re-use of previously owned 4 Mbyte RAM Controller. Requires either ECC RAM, HP 98258B 4 Mbyte RAM Add-on, or HP 98258C 12 Mbyte RAM Add-on. (Model 350 requires minimum 8 Mbyte RAM.) Delete 98262A High-Speed HP-IB Disc Interface. Allows re-use of previously owned 98262A. (Model 350 requires High-Speed HP-IB Disc Interface.) Substitute 3-high for 2-high system bus (allows re-use of previously owned 98248A Floating Point Accelerator) Add 8 Mbyte Parity-Checking RAM (for a total of 16 Mbytes RAM) Add 98570A Direct Connect DIO II Expander	

Trade-in Programs

Product/Opt. Number	Description	Price
	<i>Note: Replaced SPU, Expander, interfaces and accessories must be returned to HP for proper credit.</i>	
98562A Opt. 0H0 98257N 98620N 98625N 98635N 98643N	Model 310 SPU trade-in allowance when purchasing Model 330 SPU Return credit for Model 310 SPU Return credit for 98257A (up to three 98257N allowed)* Return credit for 98620A/B (one allowed) Return credit for 98625A/B (one allowed) Return credit for 98635A (one allowed) Return credit for 98643A (one allowed) <i>Note: Each return credit (N-suffix product numbers) must be ordered with the 98562A Opt. 0H0 trade-in.</i>	
98562B Opt. 600 Opt. 601 Opt. 602 Opt. 603 Opt. 604 Opt. 605 Opt. 606	Model 320 SPU trade-in allowance for purchasing Model 350 SPU Return credit for 98562B Model 320 SPU Return credit for 98568A Direct Connect 8-slot I/O Expander Return credit for 3-board set (98620A/B, 98625A/B, 98643A) Return credit for 98257A 1 Mbyte RAM Card Return credit combination for 98562B, 98568A, 98620A/B, 98625A/B, 98643A and three 98257A products Add 98242B 2-slot DIO Backplane to allow re-use of 98287A display interface Exchange 98724A for new 98725A 16-bit Display Controller Interface to 98720A 3D Display Controller	

* If ordered concurrently with 98258A 4 Mbyte RAM Controller, up to seven 98257N products are allowed.

Boot ROM/Processor Board Updates

Product/Opt. Number	Description	Price
98563-67001	<p>Rev. B Boot ROM for Model 310/320/330/350 to support the discless node feature of HP-UX 6.0. The following models which were shipped prior to 1 January 1988 require the Boot ROM update in order to use the discless node feature. <i>Note: HP-UX 6.0 does not require the Rev. B Boot ROM. Use of the discless node feature of HP-UX 6.0 requires the newer revision of Boot ROM.</i></p> <ul style="list-style-type: none"> • Model 310 systems with serial number prefixes prior to 2751Axxxxx, 2801Gxxxxx, or 2751Jxxxxx • Model 320 systems with serial number prefixes prior to 2752Axxxxx, 2801Gxxxxx, or all xxxxJxxxxx • Model 330 systems with serial number prefixes prior to 2740Axxxxx, 2752Gxxxxx, or 2740Jxxxxx • Model 350 systems with serial number prefixes prior to 2747Axxxxx, 2801Gxxxxx, or 2747Jxxxxx • 98243A/B Model 310 to Model 320 Field Upgrade which included a 98561-66516 processor board <p><i>Note: The Boot ROM must be installed by HP qualified personnel. Installation assistance may be purchased separately.</i></p> <p><i>Note: Model 310 systems with serial numbers less than 2522A02500 and Model 320 systems with serial numbers less than 2543A02300 require another update procedure. Please contact your local HP service office for more details.</i></p>	
98562-69013	<p>Model 330 Processor Board Update. Model 330 systems with serial number prefixes prior to 2740Axxxxx, 2801Gxxxxx, or 2740Jxxxxx which were shipped prior to 1 January 1988 require this update to support the 2D Integer-Based Graphics Accelerator or SCSI. This update includes a new processor board with Rev. C Boot ROM, which is a superset of the Rev. B Boot ROM, and a new system interface board. Old processor board and system interface board must be returned to HP.</p>	
98562-69517	<p>Model 350 Processor Board Update. Model 350 systems with serial number prefixes prior to 2747Axxxxx, 2801Gxxxxx, or 2747Jxxxxx which were shipped prior to 1 January 1988 require this update to support the 2D Integer-Based Graphics Accelerator or SCSI. This update includes a new processor board with Rev. C Boot ROM which is a superset of the Rev. B Boot ROM. Old processor board must be returned to HP.</p>	

DOS Coprocessor System

Pre-Configured Products

Product/Opt. Number	Description	Price
98286S	<p>DOS Coprocessor System. Includes DOS Coprocessor interface card and 98531A DOS Coprocessor Software. Requires DIO I-based accessory slot and the latest revision of HP-UX, minimum Application Execution Environment. Available options include the 9127A 5¼-inch disc drive and the D1387A 80287 numeric coprocessor. (Must order one media option below.)</p> <p>Opt. 022 Software on ¼-inch tape cartridge Opt. 045 Software on 3½-inch double-sided discs Opt. W03 Convert 1 year return-to-HP warranty to 90-day on-site repair</p>	
98286T	<p>DOS Coprocessor Memory Enhancement Kit for Models 310 and 320. Includes a 98286S DOS Coprocessor System and one 98257A 1 Mbyte RAM card. Requires two DIO I-based accessory slots and the latest revision of HP-UX, minimum Application Execution Environment. (Must order one media option below.)</p> <p>Opt. 022 Software on ¼-inch tape cartridge Opt. 045 Software on 3½-inch double-sided discs Opt. W03 Convert 1 year return-to-HP warranty to 90-day on-site repair</p>	
98286D	<p>DOS Coprocessor Discless Node Kit. Includes 98286A DOS Coprocessor interface card, license-to-use 98531A DOS Coprocessor Software, and complete documentation kit. Requires one DIO I-based accessory slot and the current revision of HP-UX, minimum Application Execution Environment.</p> <p>Opt. 100 Delete manuals Opt. W03 Convert 1 year return-to-HP warranty to 90-day on-site repair</p>	

Stand-alone Products

Product/Opt. Number	Description	Price
98531A	DOS Coprocessor Software. Includes media, license-to-use, and complete documentation. For use with DOS Coprocessor interface card. Requires latest revision of HP-UX, minimum Application Execution Environment. (Must order one media option below.)	
Opt. 022	Software on ¼-inch tape cartridge	
Opt. 045	Software on 3½-inch double-sided discs	
98531K	Series 300 DOS Coprocessor Documentation Kit for 98531A Software	
9127A	360 Kbyte Single 5¼-inch Flexible Disc Drive (also supports HP 270 Kbyte format). For use with Series 300 DOS Coprocessor System.	
D1387A	80287 Numeric Coprocessor. For use on the Series 300 DOS Coprocessor Interface Card.	

BASIC Language Processor System*

Product/Opt. Number	Description	Price
82300B	BASIC Language Processor. Includes Vectra PC/IBM PC AT plug-in processor board, 512 Kbytes RAM, HP-IB interface, BASIC Language Processor Software and BASIC 5.0 on 5¼-inch and 3½-inch media.	
82301B	BASIC Language Processor Software only	
82303A	RAM Expansion Kit. Upgrades 82308B from .5 Mbytes RAM to 1 Mbyte RAM. Up to five 82303As can be added to the 82305A.	
82304B	BASIC ROM for Language Processor	
82305A	RAM Expansion Board. Includes 512 Kbytes RAM. Requires prior purchase of one 82303A.	
82306A	GPIO Interface for Language Processor	
82307A	GPIO Cable (unterminated)	
50963A	SRM Interface for Language Processor. Includes BNC "T" connector.	

* Additional PC and software products are available as listed in the Office Workstation Products Direct Price Guide, Pub. No. 5956-4314D.

Pascal Language Processor System*

Product/Opt. Number	Description	Price
82310A	Pascal Language Processor. Includes Vectra PC/IBM PC AT plug-in processor board, 512 Kbytes RAM, HP-IB interface, Pascal Language Processor Software, and Pascal 3.2 on 5¼-inch or 3½-inch media. (Must order one option below.)	
Opt. 042	Software on 5¼-inch floppy disc	
Opt. 044	Software on 3½-inch single-sided disc	
82311A	Pascal Language Processor Software only. (Must order one option below.)	
Opt. 042	Software on 5¼-inch floppy disc	
Opt. 044	Software on 3½-inch single-sided disc	
82312A	Pascal Language Processor board with right-to-execute, for application software end-users	
82313A	Hierarchical File System Software for use with BASIC or Pascal Language Processors. Provides access to HP-UX file systems; software on both 5¼-inch and 3½-inch media	

* Note: For Language Processor RAM memory and other accessory products, see the listings under BASIC Language Processor System, above.

VMEbus Connection

Product/Opt. Number	Description	Price
98577A* Opt. 100	VMEbus Expander (4 slots). Includes <i>Series 300 HP-UX Driver Development Guide</i> and <i>VME Accessory Development Guide</i> . Delete manuals	
98646A	HP 9000 VMEbus Adapter . Includes DIO interface card, VME card, interconnecting cable, and hardware manual. (98358X software driver required for BASIC 4.0/5.0.)	
98358A Opt. 244 Opt. 242 Opt. 322 Opt. 344	VMEbus Software Drivers for 98646A Pascal Driver on 3½-inch microfloppy with manual Pascal Driver on 5¼-inch floppy disc with manual HP-UX Driver on ¼-inch tape cartridge HP-UX Driver on 3½-inch microfloppy with manual	
98358R Opt. 200 Opt. 300 Opt. 400	Right-to-Reproduce VMEbus Software Drivers for 98646A Right-to-reproduce Pascal Driver and manual Right-to-reproduce HP-UX Driver and manual Right-to-reproduce BASIC 4.0/5.0 Driver and manual	

* Model 330 systems shipped prior to 1 January 1988 require a processor upgrade for use with 98577A. See service note #98562A-1.

PCIB System

Product/Opt. Number	Description	Price
98647A Opt. 042 Opt. 044 Opt. 045 Opt. 001	PC Instruments Bus (PC-IB) Interface and System Software Software on 5¼-inch floppy disc Software on 3½-inch single-sided disc Software on 3½-inch double-sided disc Delete system software and manuals	

Graphics Boards

Product/Opt. Number	Description	Price
98542A	Medium-resolution Monochrome Graphics Board , 512 x 400 (order 35731A/B monitor)	
98543A	Medium-resolution 4-plane Color Graphics Board , 512 x 400 (order 35741A/B monitor)	
98544B	High-resolution Monochrome Graphics Board , 1024 x 768 (order 98786A monitor)	
98546A	Display Compatibility Interface , 512 x 400. Medium-resolution monochrome alpha/graphics board set with cables for Series 200 display compatibility (order 35731A/B or 35741A/B monitor).	
98547A	High-resolution 6-plane Color Graphics Board , 1024 x 768 (order 98751A or 98785A monitor)	
98548A*	High-resolution, High-performance Monochrome Graphics Board , 1280 x 1024 (order 98788A monitor)	
98549A*	High-resolution, High-performance Color Graphics Board , 1024 x 768, 6-plane (order 98751A or 98785A monitor)	
98550A*	High-resolution, High-performance Color Graphics Board , 1280 x 1024, 8 planes plus 2 overlay planes (order 98789A or 98752A monitor).	

* Not operational on Model 310.

Monitors

Product/Opt. Number	Description	Price
35731A	12-inch Medium-resolution Monochrome Monitor (512 x 400), 60 Hz, 115 Vac (for use with 98542A graphics board or 98561A/98546A display output).	
35731B*	12-inch Medium-resolution Monochrome Monitor (512 x 400), 60 Hz, 115/230 Vac (for use with 98542A graphics board or 98561A/98546A display output).	
35741A	12-inch Medium-resolution Color Monitor (512 x 400), 60 Hz, 115 Vac (for use with 98543A graphics board).	
35741B*	12-inch Medium-resolution Color Monitor (512 x 400), 60 Hz, 115/230 Vac (for use with 98543A graphics board).	
98751A	19-inch High-resolution Color Monitor (1024 x 768), 60 Hz, 115/230 Vac (for use with 98700A display controller, 98547A or 98549A graphics board). Tilt/swivel available (order 98787B below).	

* 'B' versions are preset to local country power setting and have local product regulatory approval.

Monitors (cont'd)

Product/Opt. Number	Description	Price
98752A	19-inch High-resolution Color Monitor (1280 x 1024), 60 Hz, 115/230 Vac (for use with 98550A graphics board or the 98720A/98730A display controller). Tilt/swivel available (order 98787B below).	
98785A	16-inch High-resolution Color Monitor (1024 x 768), 60 Hz, 115/230 Vac (for use with the 98700A display controller or 98547A graphics board). Tilt/swivel available (order 98787B below).	
98786A	17-inch High-resolution Monochrome Monitor (1024 x 768), 60 Hz, 115/230 Vac (for use with 98544B graphics board).	
98788A	19-inch High-resolution Monochrome Monitor (1280 x 1024), 60 Hz, 115/230 Vac (for use with 98548A graphics board). Tilt/swivel available (order 98787B below).	
98789A	16-inch High-resolution Color Monitor (1280 x 1024), 60 Hz, 115/230 Vac (for use with 98550A graphics board or the 98720A/98730A display controller). Tilt/swivel available (order 98787B below).	
98787B	Tilt/swivel for 98751A, 98752A, 98785A, 98788A, 98789A monitors.	

Graphics Accessories

Product/Opt. Number	Description	Price
98556A	2D Integer-Based Graphics Accelerator. For use with Model 330CH and 350CH color workstations. Model 330 and 350 systems shipped prior to 1 January 1988 require processor board exchange for use of HP 98556A graphics accelerator. Refer to page 17, "Boot ROM/Processor Updates" or <i>Series 300 Hardware Technical Data</i> , Pub. No. 5951-6797, or contact your local HP service office to determine if this exchange is required.	
98700A	High-resolution Display Controller. For use with the 98785A or 98751A monitor and the 98287A interface.	
98701A	4-plane Graphic Memory Upgrade for 98700A	
98710A	Graphics Accelerator for the 98700A	
98287A	Series 300 Interface Card for the 98700A	
98720A	SRX 3D Display Controller. Includes four planes which are used as frame buffer if no other frame buffer boards are installed. When frame buffer boards are added, these planes become alpha overlay planes. Also included are a power cord and keyboard cable. RGB cable (98290A), Series 300 Display Controller interface (98724A for Model 320 or 98725A for Model 330/350), and monitor (98789A or 98752A) are not included.	
98721A	3D Solid Rendering Graphics Accelerator for use with 98720A	
98722A	Frame Buffer Board. Adds eight planes frame buffer memory. Order additional power supply as described below (maximum four 98722As per 98720A, three 98722As per 98730A).	
98723A	Additional Power Supply, required for use with a 16-, 24-, or 32-plane 98720A system, or when upgrading a 98730A system from 8 planes to any other configuration.	
98724A	16-bit Display Controller Interface to 98720A. Includes LGB cable (for Model 320 only).	
98725A	16-bit Display Controller Interface to 98720A (for Models 330 and 350 only).	
98726A	32-bit Display Controller Interface to 98730A (for Model 350 only)	
98730A	TurboSRX 3D Display Controller. For use with the Model 350 SPU. Includes four overlay planes and eight planes of frame buffer memory. Also included are a power cord, RGB cable (98290A) and keyboard cable. 32-bit Display Controller Interface (98726A) and monitor (98789A or 98752A) are not included.	
98732A	Three 3D Solid Rendering Graphics Accelerators and full 16-bit Z-buffer for use with the 98730A (requires 2 power supplies)	
98733A	Upgrade to TurboSRX from 8-plane Series 300 SRX. Includes high-resolution display controller, 98726A interface, one power supply, two frame buffer boards, 3D graphics accelerator, and 16-bit Z-buffer. Must return 98720A, 98721A, 98724/5A. No trade discounts apply.	
Opt. 016	Upgrade for 16-plane SRX. Delete one frame buffer board and one power supply.	
Opt. 024	Upgrade for 24-plane SRX. Delete two frame buffer boards and one power supply.	
Opt. 032	Upgrade for 32-plane SRX. Delete two frame buffer boards and one power supply. Must return one 98722A frame buffer board.	
98734A	Upgrade to TurboSRX from 8-plane Series 800 SRX. Includes high-resolution display controller, one power supply, two frame buffer boards, 3D graphics accelerator, 16-bit Z-buffer, new IODC ROM. Must return 98720A, 98721A, IODC ROM. No trade discounts apply.	
Opt. 016	Upgrade for 16-plane 825SRX. Delete one frame buffer board and one power supply.	
Opt. 024	Upgrade for 24-plane 825SRX. Delete two frame buffer boards and one power supply.	
Opt. 032	Upgrade for 32-plane 825SRX. Delete two frame buffer boards and one power supply. Must return one 98722A frame buffer board.	

Graphics Upgrades

Trade-in Programs

Product/Opt. Number	Description	Price
	<i>Note: Replaced graphics component must be returned to HP for proper credit. One return credit allowed for each comparable new component ordered.</i>	
98542N	Return credit for Monochrome Graphics Board (98542A). Must be ordered with 98544A, 98547A, 98548A, 98549A, 98550A, 98720A, or 98730A.	
98543N	Return credit for 4-plane Graphics Board (98543A). Must be ordered with 98544A, 98547A, 98548A, 98549A, 98550A, 98720A, or 98730A.	
98544N	Return credit for Monochrome Graphics Board (98544A/B). Must be ordered with 98547A, 98548A, 98549A, 98550A, 98720A, or 98730A.	
98547N	Return credit for 6-plane Color Graphics Board (98547A/98545A). Must be ordered with 98548A, 98549A, 98550A, 98720A, or 98730A.	
98548N	Return credit for Monochrome Graphics Board (98548A). Must be ordered with 98549A, 98550A, 98720A, or 98730A.	
98549N	Return credit for Color Graphics Board (98549A). Must be ordered with 98720A, 98722A, and 98730A.	
98550N	Return credit for Color Graphics Board (98550A). Must be ordered with 98720A, 98722A, and 98730A.	
35731N	Return credit for 12-inch Monochrome Monitor (35731A/B). Must be ordered with 98751A, 98752A, 98786A, 98788A, or 98789A.	
35741N	Return credit for 12-inch Color Monitor (35741A/B). Must be ordered with 98751A, 98752A, 98785A, 98786A, 98788A, or 98789A.	
98751N	Return credit for 19-inch Color Monitor (98751A). Must be ordered with 98752A.	
98782N	Return credit for 19-inch Color Monitor (98782A). Must be ordered with 98752A.	
98785N	Return credit for 16-inch Color Monitor (98785A). Must be ordered with 98751A, 98752A, or 98789A.	
98786N	Return credit for 17-inch Monochrome Monitor (98786A/98781A). Must be ordered with 98751A, 98752A, 98785A, 98788A, or 98789A.	
98788N	Return credit for 19-inch Monochrome Monitor (98788A). Must be ordered with 98751A, 98752A, 98785A, or 98789A.	
98789N	Return credit for 16-inch Color Monitor (98789A). Must be ordered with 98752A.	
98287N	Return credit for 98700A Interface to Series 300 (98287A). Must be ordered with 98725A, 98724A, or A1017A.	
98288N	Return credit for Display Station Buffer (98288A). Must be ordered with 98725A, 98724A, or A1017A.	
98556N	Return credit for 2D Integer-based Graphics Accelerator (98556A). Must be ordered with 98721A or 98732A.	
98700N	Return credit for Display Controller (98700A). Must be ordered with 98549A, 98550A, 98720A, or 98730A.	
98701N	Return credit for 4-plane Graphic Memory Upgrade (98701A). Must be ordered with 98700N and 98722A, or 98700N and 98550A.	
98710N	Return credit for Graphics Accelerator (98710A). Must be ordered with 98556A, 98721A, or 98732A.	
98733A Opt. 016 Opt. 024 Opt. 032	Upgrade from 8-plane SRX to 24-plane TurboSRX. Includes three accelerators and full Z-buffer. Must return 98720A, 98721A, and either 98724A or 98725A. No Discounts Apply. Opt. 016 Upgrade for 16-plane SRX Opt. 024 Upgrade for 24-plane SRX Opt. 032 Upgrade for 32-plane SRX. Must also return one 98722A frame buffer board.	

HP-HIL Input Devices*

Product/Opt. Number	Description	Price
45911A	HP-HIL Digitizer, 11" x 11", 12 lines per inch resolution	
46021A	HP-HIL Keyboard (U.S. English version). Cable comes with SPU or can be ordered separately.	
98203C Opt. 001	HP-HIL Keyboard with rotary knob for BASIC and Pascal systems. US ASCII. Field Upgrade Kit for Series 300 models shipped before 1 September 1988	
46060A	HP-HIL 2-button Mouse	
46060B	HP-HIL 3-button Mouse	
46080A	2.4 meter HP-HIL Extension	
46081A	2.4 meter HP-HIL Extension with audio	
46082A	15 meter HP-HIL Remote Extension with audio and RGB video	
46082B	30 meter HP-HIL Remote Extension with audio and RGB video	
46083A	HP-HIL Knob	
46084A	HP-HIL ID Module	
46085A	HP-HIL Control Dial Module	
46086A	HP-HIL 32-button Box with 32 user-definable special-function keys and one user programmable LED	
46087B Opt. 001	HP-HIL Digitizer, ANSI A/ISO A4-size Adds the 46089A 4-button Cursor with crosshair	
46088B Opt. 001	HP-HIL Digitizer, ANSI B/ISO A3-size Adds the 46089A 4-button Cursor with crosshair	
46089A/B	4-button cursor with crosshair for 46087/88	
46094A	Quadrature Port allows devices using Logitech quadrature signals to be connected to HP-HIL interface	
46095A	3-button Mouse interfaces to HP-HIL via 46094A Quadrature Port	
35723A	HP-HIL Touchscreen bezel for 12-inch monitors 35731A and 35741A	
92916A	HP-HIL Bar Code Reader for commercial and industrial bar code applications	

* For detailed information on model numbers and operating system revisions that support these peripherals, please refer to the Series 300 Configuration Reference Manual, Part Number 98561-90020. All devices (except keyboard) include cable.

Interface Products for Series 300 (DIO)

Part/Option Number	Description	DIO Slot		Price
		Accessory /Memory	Interface	
36593A Opt. 003 Opt. 004	HP-UX Gateway/SNALink for Series 300 Gateway System RS-232C V.35		X	
50955A Opt. 042 Opt. 045	3278 Display Station Emulator (interface and software) Software on 5¼-inch floppy disc Software on 3½-inch microfloppy disc		X	
50962A	SRM Coax Interface for Series 200 and 300 systems		X	
98253A	EPROM Programmer Interface (98255A)		X	
98255A	EPROM Card, 16 sockets for 2764 or 27128 EPROM ICs	X		
98256A	256 Kbyte RAM Card for Models 310 and 320	X		
98257A	1 Mbyte RAM Card with parity check for Models 310 and 320	X		
98259A	128 Kbyte Magnetic Bubble Memory Card	X		
98546A	Display Compatibility Interface, 512 x 400. Medium-resolution monochrome alpha/graphics board set with cables for Series 200 display compatibility (order 35731A/B or 35741A/B monitor).		X	
98620B	Two-channel DMA Controller Card for Models 310 and 320	X		
98622A Opt. 001 Opt. 002 Opt. 003 Opt. 004	16-bit GPIO Interface Card Provides 4.6m unterminated cable (P/N 5061-4209) Provides 0.8m terminated cable for 9885M Flexible Disc Drive (P/N 5061-4211) Provides 4.6m terminated cable for 6940A/B Multiprogrammer (P/N 5061-4210) Provides 2.5m terminated cable for 9866A/B Thermal Printer (P/N 5061-4212)		X	

Interface Products for Series 300 (DIO) (cont'd)

Part/Option Number	Description	DIO Slot		Price
		Accessory /Memory	Interface	
98623A Opt. 001	43-line BCD Interface Card 4.6m unterminated cable (P/N 5061-4217)		X	
98624A 10833A 10833B 10833C 10833D	HP-IB Interface , standard speed 1m HP-IB cable 2m HP-IB cable 4m HP-IB cable 0.5m HP-IB cable		X	
98625B	HP-IB Disc Interface , high speed		X	
98626A Opt. 001 Opt. 002	RS-232C (Serial) Interface DTE (male) RS-232C cable (P/N 5061-4215) DCE (female) RS-232C cable (P/N 5061-4216)		X	
98627A	RGB Color Video Output Interface with cables		X	
98628A Opt. 001 Opt. 002 Opt. 003	Datacomm Interface , RS-423 and RS-232C DTE (male) RS-232C cable (P/N 5061-4215) DCE (female) RS-232C cable (P/N 5061-4216) DCE (female) RS-449/423 cable (P/N 5061-4250)	\$ 700 \$ 100	X	
98630A Opt. 001	Breadboard Interface Service Extender	X		
98633A	6944A Multiprogrammer Interface . For use with 6944A Multiprogrammer.		X	
98635A	Floating Point Math Card for Model 310	X		
98640A Opt. 001 Opt. 630 Opt. 655	7-channel Analog-to-Digital Interface Delete diagnostic software and test hood Diagnostic software on 3½-inch microfloppy Diagnostic software on 5¼-inch floppy		X	
98641A Opt. 001	RJE 2780/3780 Interface . For use with HP-UX and 50967A RJE software. V.35		X X	
98642A Opt. 001	4-port RS-232C Multiplexer Delete all cables		X	
98643A Opt. 241	LAN/300 Link with ThinMAU . For use with Models 310 and 320, or for additional LAN interfaces. Requires 50952L/C. Delete ThinMAU and BNC "T" connector		X	
98644A	RS-232C Serial Interface		X	
98646A	VMEbus Adapter . Includes DIO interface card, VME card, interconnecting cable, and hardware manual. (Requires 98358A software driver.)		X	
98647A	PC-IB Interface		X	
98691A Opt. 001 Opt. 002 Opt. 003	Programmable Datacomm Interface DTE (male) RS-232C cable (P/N 5061-4215) DCE (female) RS-232C cable (P/N 5061-4216) DTE (male) RS-449/423 cable (P/N 5061-4250)		X	



Series 300 Operating and Language Systems

HP-UX Operating System

Product/Opt. Number	Description	Price
98594L Opt. 003 Opt. 004 Opt. 005 98594A Opt. 022	HP-UX Software Bundle License-to-Use, 2 user. Includes AXE, PE, NS-ARPA, NFS. Media must be ordered separately. Upgrade credit for prior purchase of 6.0 AXE (98515L) Upgrade credit for prior purchase of 6.0 NS-ARPA (50952L) Upgrade credit for prior purchase of 6.0 PE (98597L) Media and documentation for 98594L. Requires prior or concurrent purchase of 98594L. Must order Opt. 022 below. Software on ¼-inch tape cartridge	
98515L 98515B Opt. 022 Opt. 045	HP-UX Application Execution Environment (AXE) License-to-Use, 2 user. Includes HP-UX kernel, HP Windows/9000 and PAM. Media and documentation must be ordered separately. Media and documentation for 98515L. Order either media Opt. 022 or 045 below. Requires prior or concurrent purchase of 98515L or 98594L. Software on ¼-inch tape cartridge Software on 3½-inch double-sided discs	
98595L Opt. 003 98595B Opt. 022 Opt. 045	HP-UX Application Execution Environment License-to-Use, 16 user. Includes HP-UX kernel, HP-Windows/9000 and PAM. Media and documentation must be ordered separately. 2-user to 16-user Upgrade. Requires prior purchase of 98515L or 98594L Media and documentation for 98595L. Order either media Opt. 022 or 045 below. Requires prior or concurrent purchase of 98595L. Software on ¼-inch tape cartridge Software on 3½-inch double-sided discs	
98596L Opt. 003 98596B Opt. 022	HP-UX Application Execution Environment License-to-Use, 32 user. Includes HP-UX kernel, HP-Windows/9000 and PAM. Media and documentation must be ordered separately. 16-user to 32-user Upgrade. Requires prior purchase of 98595L Media and documentation for 98596L. Order media Opt. 022 below. Requires prior or concurrent purchase of 98596L. Software on ¼-inch tape cartridge	
98594-17000	HP-UX AXE License-to-Use 6.0 Upgrade. Upgrade from 5.x to 6.0 AXE. Requires prior purchase of 98515A, 98595A or 98596A. Media and documentation must be ordered separately (98515B, 98595B, or 98596B).	
98597L 98597C Opt. 022 Opt. 045	HP-UX Programming Environment License-to-Use. Requires Application Execution Environment. Includes commands, C compiler, MC680x0 assembler, symbolic debugger, RS-232C data communications and device I/O library. Media and documentation must be ordered separately. Media and documentation for 98597L. Order either media Opt. 022 or 045 below. Requires prior or concurrent purchase of 98597L or 98594L. Software on ¼-inch tape cartridge Software on 3½-inch double-side discs	
98598L 98598B Opt. 022 Opt. 045	HP-UX FORTRAN 77 Compiler License-to-Use. FORTRAN 77 is a full implementation of the ANSI FORTRAN 77 X.39-1978 standard, plus MIL-STD 1753 and other extensions. Media and documentation must be ordered separately. Media and documentation for 98598L. Order either media Opt. 022 or 045 below. Requires prior or concurrent purchased of 98598L. Software on ¼-inch tape cartridge Software on 3½-inch double-sided discs	
98599L 98599B Opt. 022 Opt. 045	HP-UX Pascal Compiler License-to-Use. The Pascal compiler is a superset of the proposed ANSI standard with data manipulation, I/O and other extensions. Media and documentation must be ordered separately. Media and documentation for 98599L. Order either media Opt. 022 or 045 below. Requires prior or concurrent purchase of 98599L. Software on ¼-inch tape cartridge Software on 3½-inch double-sided discs	
97066L 97066B Opt. 022 Opt. 045	HP-UX Technical BASIC License-to-Use. The BASIC interpreter includes a complete BASIC development and run-time environment. Media and documentation must be ordered separately. Media and documentation for 97066L. Order either media Opt. 022 or 045 below. Requires prior or concurrent purchase of 97066L. Software on ¼-inch tape cartridge Software on 3½-inch double-sided discs	
98794A	HP-UX Programmer's Documentation Set. Includes HP-UX reference, concepts and tutorials, C Programming documentation and Starbase Graphics Library documentation.	

HP-UX Operating System (cont'd)

Product/Opt. Number	Description	Price
98594-87901	Documentation Kit for 98594A HP-UX Software Bundle. Includes binders and documentation: Beginner's Guides, HP-UX Reference, System Administration, Networking and other documents (order from DMK*).	
98794-87901	HP-UX 6.0 Complete Core Documentation Kit. Includes binders and documentation: Beginner's Guides, System Administration, HP-UX Reference, HP-UX Concepts and Tutorials, Starbase Graphics, C, FORTRAN, Pascal, Window/9000 and other documents (order from DMK*).	
98672L 98672B Opt. 022 Opt. 045	HP-GKS Graphics Library License-to-Use. HP-GKS is a full level 2b implementation of the ANSI/ISO Graphics Kernel System standard. Media and documentation must be ordered separately. Media and documentation for 98672L. Order either media Opt. 022 or 045 below. Requires prior or concurrent purchase of 98672L. Software on ¼-inch tape cartridge Software on 3½-inch double-sided discs	
98600L 98600B Opt. 022 Opt. 045	HP-UX DGL/AGP Graphics Library License-to-Use. Media and documentation must be ordered separately. Media and documentation for 98600L. Order either media Opt. 022 or 045 below. Requires prior or concurrent purchase of 98600L. Software on ¼-inch tape cartridge Software on 3½-inch double-sided discs	
98674L 98674B Opt. 022 Opt. 045	Starbase Display List License-to-Use. Media and documentation must be ordered separately. Media and documentation for 98674L. Order either media Opt. 022 or 045 below. Requires prior or concurrent purchase of 98674L. Software on ¼-inch tape cartridge Software on 3½-inch double-sided discs	
98860L 98860A Opt. 022	HP-UX Ada Development System License-to-Use. Requires HP-UX Programming Environment. Includes validated compiler, libraries, debugger/brower, cross reference and text reformatter. Media and documentation must be ordered separately. Media and documentation for 98860L. Requires concurrent purchase of 98860L. Order Opt. 022 below. Software on ¼-inch tape cartridge	
82320A Opt. 022 Opt. 045	X Window System, Version 10.4 Software on ¼-inch tape cartridge Software on 3½-inch double-sided discs	
82320R Opt. 100	Right-to-reproduce the X Window system. Includes manual set and right-to-reproduce certificate. Delete manuals	
98678L 98678B Opt. 022	Development Environment for Common LISP License-to-Use. Requires 46084A HP-HIL Module and HP-UX Programming Environment 6.0 or later. Includes compiler, interpreter, debugger and integrated environment for development of Common LISP applications. Order media and documentation separately. Media and documentation for 98678L. Requires prior or concurrent purchase of 98678L. Order Opt. 022 below. Software on ¼-inch tape cartridge	
79232U Opt. 022	Development Environment for HP PROLOG. Requires 98678L Development Environment for Common LISP. Includes choice of syntax compiler, debugger, interpreter, and integrated environment for development of PROLOG applications. Order Opt. 022 below. Software on ¼-inch tape cartridge	
98679L	Execution License for Common LISP/PROLOG. Requires 46084A HP-HIL ID Module and HP-UX Application Execution Environment. License to execute applications written in Common LISP and/or HP PROLOG.	
98688L 98688A Opt. 022	HP Common LISP II Development Environment License-to-Use. Requires 46084A HP-HIL Module and HP-UX Application Execution Environment 6.0 or later (HP-UX Programming Environment is recommended). It is an implementation of Lucid Common LISP™ and includes interpreter, compiler, debugging tools, and an embedded editor. Media and documentation for 98688L. Requires prior or concurrent purchase of 98688L. Order Opt. 022 below. Software on ¼-inch tape cartridge	
98689L 98688A Opt. 022	HP Common LISP II Application Environment License-to-Use. Requires 46084A HP-HIL Module and HP-UX Application Execution Environment 6.0 or later. Allows applications developed in HP Common LISP II to run on an additional Series 300 system. Media and documentation for 98689L. Requires prior or concurrent purchase of 98689L. Order Opt. 022 below. Software on ¼-inch tape cartridge	

* HP's Direct Marketing Division; order direct by dialing 1-800-538-8787 (in the U.S. only).

Lucid and Lucid Common LISP are trademarks of Lucid, Inc.

Product/Opt. Number	Description	Price
79725L	HP SQL/300 Development Environment License-to-Use. A relational database management system based on the Structured Query Language (SQL). Includes language preprocessors for C, FORTRAN, or Pascal programs. Media and documentation must be ordered separately. Requires HP-UX 6.0 or later. (Refer to 79725A for use on HP-UX 5.15 through 5.5.)	
79725B	Media and documentation for 79725L. Requires prior or concurrent purchase of 79725L. Order either media Opt. 022 or 045 below.	
Opt. 022	Software on ¼-inch tape cartridge	
Opt. 045	Software on 3½-inch double-sided disc	
Opt. 100	Delete manuals	
79727L	HP Visor/300 Database Access Tools License-to-Use. A forms-based interface to HP SQL/300 databases for performing ad hoc queries or for generating customized reports. Media and documentation must be ordered separately. Requires HP-UX 5.15 or later.	
79727B	Media and documentation for 79727L. Requires prior or concurrent purchase of 79727L. Order either media Opt. 022 or 045 below.	
Opt. 022	Software on ¼-inch tape cartridge	
Opt. 045	Software on 3½-inch double-sided disc	
Opt. 100	Delete manuals	
98112A	HP TODAY/HP-UX Developer Pack. Version includes complete Application Development Environment, dictionary, screen and report painter, logic commands, application testing and run-time environment supporting C-ISAM or HP SQL data file management systems.	
Opt. 022	Software on ¼-inch tape cartridge	
Opt. 045	Software on 3½-inch, double-sided discs	
98118A	HP TODAY/HP-UX Run-time Environment. Includes all required libraries, routines and logic to run HP TODAY applications.	
Opt. 022	Software on ¼-inch tape cartridge	
Opt. 045	Software on 3½-inch, double-sided discs	
98683X	DGL Skeleton Device Handler	
Opt. 022	Software on ¼-inch tape cartridge	
98693A	SRM Access Utilities for HP-UX	
Opt. 022	Software on ¼-inch tape cartridge	
Opt. 045	Software on 3½-inch double-sided disc	
97009-10220	Starbase Driver Development Guide (order from DMK*)	
98053A	Versatec Hardcopy Support. Includes software, documentation, and cable. Must order HP 98622A GPIO interface separately. Supported plotters are available from Versatec.	

* HP's Direct Marketing Division; order direct by dialing 1-800-538-8787 (in the U.S. only).

BASIC Language Systems

Product/Opt. Number	Description	Price
98616A	RAM-based BASIC 5.1 Language System. Includes one system disc set, BASIC 5.0/5.1 Manual Kit and Utilities Pack. (Order one choice under "Media Options.")	
Opt. 001	Upgrade from a previous BASIC Language system	
98616M	Right-to-reproduce one copy of BASIC 5.x for VEUs, SRM users, or end users.	
Opt. 100	Delete manuals	
98616R	Right-to-reproduce one copy of BASIC 5.x for resellers.	
Opt. 100	Delete manuals	
98613B*	RAM-based BASIC 4.0 Language System. Includes one system disc set, BASIC 4.0 Language Manual Kit and BASIC 4.0 Utilities Pack. (Order one choice under "Media Options.")	
Opt. 001	Upgrade from a previous BASIC Language System	
98613R*	Right-to-reproduce BASIC 4.0 Language System. Includes BASIC 4.0 Language Manual Kit and right-to-reproduce license.	
Opt. 001	Upgrade from a previous version of BASIC Right-to-reproduce	
Opt. 100	Delete manuals	
98603A*	ROM-based BASIC 4.0. Includes one system ROM board, BASIC 4.0 Manual Kit, and BASIC 4.0 Utilities Pack. The ROM board contains all BASIC 4.0 binaries. § (Order one choice under "Media Options.")	
98603B	ROM-based BASIC 5.1. Includes one system ROM board, BASIC 5.0/5.1 Manual Kit, and BASIC 5.1 Utilities Pack. The ROM board contains all BASIC 5.1 binaries. (Order one choice under "Media Options.")	
98618A	BASIC 5.x Compiler. Includes BASIC 5.0/5.1 Compiler disc and manual kit.	

* BASIC 4.0 and Pascal 3.1 are supported on the Models 310 and 320 and Series 200 only. § Except SRM, Datacomm and KNB...2. These binaries are provided in software separately.

BASIC Language Systems (cont'd)

Product/Opt. Number	Description	Price
98618-17x00†	BASIC 5.x Compiler Upgrade Kit. Includes BASIC 5.0/5.1 Compiler disc and manual kit. (Customer must return previous version to DMK.)	
98616-11x40†	BASIC 5.x Compiled Subprogram Utilities (CSUB). For use with BASIC 5.0/5.1 and Pascal 3.2. These utilities allow you to develop compiled subprograms in Pascal or Assembly that are callable by BASIC.	
98616-17x40†	BASIC 5.x CSUB Utility Upgrade. This upgrades previous versions of the Compiled Subprogram Utilities to the current version.	
98616-87901	BASIC 5.0/5.1 Documentation Kit (order from DMK†)	

† The 'X' in the part number indicates media option:

2 is for 5¼-inch external format;

4 is for 3½-inch double-sided discs recorded single-sided;

5 is for 3½-inch double-sided discs recorded double-sided.

‡ HP's Direct Marketing Division; order direct by dialing 1-800-538-8787 (in the U.S. only).

Pascal Language Systems

Product/Opt. Number	Description	Price
98617A Opt. 001	RAM-based Pascal 3.2 Language System. Includes system disc set and Pascal 3.2 Manual Kit. (Order one choice under "Media Options.") Upgrade from previous version of Pascal Language System	
98617M Opt. 100	Right-to-reproduce one copy of Pascal 3.2 for VEUs, SRM users, or end users. Delete manuals	
98617R Opt. 100	Right-to-reproduce one copy of Pascal 3.2 for resellers. Delete manuals	
98617E Opt. 090	Right-to-execute Pascal 3.2 for resellers. Additional 99 copies of Pascal 3.2 right-to-execute	
98617-87901	Pascal 3.2 Documentation Kit (order from DMK†)	
98615C* Opt. 001	RAM-based Pascal 3.1 Language System. Includes system disc set and Pascal 3.1 Language Manual Kit. (Order one choice under "Media Options".) Upgrade from previous version of Pascal Language System	
98615R* Opt. 001 Opt. 100	Right-to-Reproduce Pascal 3.1 Language System. Includes Pascal 3.1 Language Manual Kit and right-to-reproduce license. Discount for second and subsequent upgrades from previous versions of Pascal Language System. Delete manuals	
98615E* Opt. 090	Right-to-Execute Pascal 3.1 Language System. Certificate for stand-alone applications using portions of the Pascal Language System. 99 additional Right-to-Execute certificates (100 total)	
98615-87971	Pascal 3.1 Systems Internals Documentation (order from DMK†)	

* BASIC 4.0 and Pascal 3.1 are supported on Models 310 and 320 only.

† HP's Direct Marketing Division; order direct by dialing 1-800-538-8787 (in the United States only).

Media Options

Product/Opt. Number	Description	Price
Opt. 042 Opt. 044 Opt. 045	Specify one media option for each BASIC or Pascal Language System ordered Software on 5¼-inch disc Software on 3½-inch disc, single-sided format on double-sided media Software on 3½-inch disc, double-sided format	

Local Area Network (LAN)

LAN Software

Product/Opt. Number	Description	Price
50952L 50952C Opt. 022 Opt. 045	NS-ARPA Services/300 License-to-Use. Media and documentation must be ordered separately. Media and documentation for 50952L. Requires 98643A LAN/300 Link for Models 310 and 320. Includes NS, ARPA, and Berkeley 4.2 Networking Services. Select media option. Requires prior or concurrent purchase of 50952L. Software on ¼-inch tape cartridge Software on 3½-inch double-sided discs	
50969L 50969A Opt. 022 Opt. 045	NFS Services/300 License-to-Use. Includes remote file sharing, the Yellow Pages, Remote Procedure Call, and External Data Representation. Media and documentation must be ordered separately. Media and documentation for 50969L. Requires prior or concurrent purchase of 50969L and 50952L/C. Order either media option 022 or 045 below. Software on ½-inch tape cartridge Software on 3½-inch double-sided discs	

LAN Hardware

Product/Opt. Number	Description	Price
98643A Opt. 241	LAN/300 Link (requires 50952L/C). Includes LAN interface, 28641A ThinMAU with integrated 1 meter AUI cable, and BNC "T" connector. (Required for Models 310 or 320 and for additional LAN interfaces.) Delete ThinMAU and "T" connector for connecting to ThickLAN cable. (Must order MAU and AUI cable separately.)	
92227A 92227B 92227C 92227D 92227E 92227F 92227G 92227H 92227J 92227K 92227L 92227M 92227N 92227P 28641A	ThinLAN Cables and Accessories ThinLAN Coax Cable (with BNC connectors installed): 1m coax cable 2m coax cable 4m coax cable 8m coax cable 16m coax cable 32m coax cable 64m coax cable 128m coax cable ThinLAN Coax Cable (without connectors): Cut-to-length, PVC (cost per meter) Cut-to-length, FEP (cost per meter) ThinLAN Accessories BNC Connector Pair for 92227J/K BNC Connector Tool Kit for 92227J/K BNC "T" Connector ThinLAN Terminator Pair ThinMAU. Includes 1 meter AUI cable and BNC "T" connector (included with 98643A)	

Note: For complete information on LAN cables and accessories, see the HP Computer Users' Catalog.

LAN Hardware (cont'd)

Product/Opt. Number	Description	Price
	ThickLAN Cables and Accessories	
30241A	Backbone LAN MAU and Tap	
92256C	LAN MAU and Installation Kit (order once)	
	Backbone LAN AUI cables (with connectors attached):	
92254A	6m FEP AUI Cable	
92254B	12m FEP AUI Cable	
92254C	24m FEP AUI Cable	
92254D	48m FEP AUI Cable	
92254E	6m PVC (11) AUI Cable	
92254F	12m PVC AUI Cable	
92254G	24m PVC AUI Cable	
92254H	48m PVC AUI Cable	
	Backbone LAN AUI Cables (without connectors attached) and Tools:	
92255A	FEP Cut-to-length AUI Cable (cost per meter)	
92255B	PVC Cut-to-length AUI Cable (cost per meter)	
92255C	LAN AUI Connector kit (order for each 92255A/B connection)	
	Backbone LAN Coax Cable (including connectors and terminators):	
92253A	23.4m FEP without connectors attached	
92253B	23.4m FEP with connectors attached	
92253C	117m FEP without connectors attached	
92253D	500m FEP without connectors attached	
92253E	23.4m PVC without connectors attached	
92253F	23.4m PVC with connectors attached	
92253G	117m PVC without connectors attached	
92253H	500m PVC without connectors attached	
	Backbone LAN Coax Cable Tools for attaching connectors (order once):	
92256A	LAN Coax Installation Tool Kit	
92229B	LAN Coax Crimp Tool	
92223A	Repeater Kit. Includes repeater, two 5m repeater AUI cables, and 2 repeater MAUs. For connecting to ThinLAN or Backbone LAN coax segments.	
92223C	20m Repeater FEP AUI. Includes a single 20m repeater AUI cable. For extending the distance between the repeater and repeater MAU (up to 50 meters maximum).	
28645A	ThinLAN Hub. Includes ThinLAN Hub assembly, MAU assembly, MAU Coax Tap, four BNC "T" connectors, 5m AUI cable, wall mounting bracket, and installation manual.	
Opt. 241	Delete MAU, Tap, AUI cable and mounting bracket.	

Note: For complete information on LAN cables and accessories, see the *HP Computer Users' Catalog*.

Series 300-to-IBM Data Communications

Product/Opt. Number	Description	Price
36590A	HP-UX SNA3270 Datacomm Software for Series 300	
Opt. 0D0	Upgrade from stand-alone to Gateway	
36592A	HP-UX SNALink for Series 300	
Opt. 0A0	2 session, RS-232C (19.2 Kbps)	
Opt. 0A1	32 session, RS-232C (19.2 Kbps)	
Opt. 0D0	Upgrade to 32 session	
Opt. 0D1	Upgrade to Gateway	
Opt. 001	2 session, V.35 (56/64 Kbps)	
Opt. 002	32 session, V.35 (56/64 Kbps)	
36591A	HP-UX Gateway/SNA3270 Datacomm Software. Required for each Series 300. Requires NS-ARPA Services/300 5052L/C.	
36593A	HP-UX Gateway/SNALink for Series 300 Gateway System	
Opt. 003	RS-232C interface, up to 19.2 Kbps	
Opt. 004	V.35 interface, up to 56/64 Kbps	
50955A	3278 Display Station Emulator. Includes 98695A interface.	
Opt. 042	Software on 5¼-inch floppy disc	
Opt. 044	Software on 3½-inch microfloppy disc	
50967A	HP 9000 RJE Emulator. Requires the 98641A Series 300 RJE interface.	

Product/Opt. Number	Description	Price
98188A Opt. 0D0	HP-UX SNA 3770 (requires 36592A HP-UX SNA Link) Upgrade from stand-alone to gateway	
98184A	HP-UX Gateway/SNA 3770 (requires NS-ARPA Services/300)	
98855A Opt. 301 Opt. 304 Opt. 308 Opt. 312 Opt. 316 Opt. 400 Opt. 501 Opt. 502 Opt. 503 Opt. 504	5080 Emulator.* Standard hardware and software required to support the 5080 terminal emulator gateway. Includes VME coax interface. Requires NS-ARPA Services/300 and HP-UX 6.0. (Must specify number of users option below.) 1-user gateway license, media and documentation 4-user gateway license, media and documentation 8-user gateway license, media and documentation 12-user gateway license, media and documentation 16-user gateway license, media and documentation Channel Controller Coaxial Communications T1 Communications V.35 Communications Fiber Optic	
98856A Opt. 301 Opt. 304 Opt. 308 Opt. 312	5080 Emulator User Upgrade.* Adds users to the 98855A 5080 Emulator. Requires prior or concurrent purchase of 98855A. (Must specify number of users option below.) Add 1 user Add 4 users Add 8 users Add 12 users	
98857A Opt. 301 Opt. 304 Opt. 308 Opt. 312 Opt. 316 Opt. 501 Opt. 502 Opt. 503 Opt. 504	5080 Emulator Gateway License Upgrade.* Includes Communications Processor and VME Coax Interface. Requires prior or concurrent purchase of 98855A or existing Spectrographics DSCC equipment. (Must specify number of users option below.) 1-user gateway license, media and documentation 4-user gateway license, media and documentation 8-user gateway license, media and documentation 12-user gateway license, media and documentation 16-user gateway license, media and documentation Coaxial Communications T1 Communications V.35 Communications Fiber Optic	
98858A Opt. 301 Opt. 304 Opt. 308 Opt. 312 Opt. 316	Gateway License for 3278 Emulator and 5080 High-speed File Transfer.* Requires prior or concurrent purchase of 98855A. (Must specify number of users option below.) 1-user gateway license, media and documentation 4-user gateway license, media and documentation 8-user gateway license, media and documentation 12-user gateway license, media and documentation 16-user gateway license, media and documentation	
98859A Opt. 301 Opt. 304 Opt. 308 Opt. 312	3278 Emulator and 5080 High-speed File Transfer Gateway License Upgrade.* Requires prior or concurrent purchase of 98855A and 98858A. (Must specify number of user option below.) 1-user gateway license, media and documentation 4-user gateway license, media and documentation 8-user gateway license, media and documentation 12-user gateway license, media and documentation	

* HP 5080 Emulator products are available in the United States only and requires a special product support plan. Ask your HP sales representative for more details.

NS for the DEC VAX computer

Product/Opt. Number	Description	Price
50950A Opt. 044 Opt. 200 Opt. 250 Opt. 300 Opt. 350 Opt. 400	NS for the DEC VAX computer For HP 9000 to DEC MicroVAX communications; software on 5¼-inch floppy (RX50) For HP 9000 to DEC MicroVAX communications; software on TK50 Upgrade from low to mid software; software on 9-track tape For HP 9000 to DEC 11/725-85X0 communications; software on 9-track tape Upgrade from mid to high software; software on 9-track tape For HP 9000 to DEC 8600-89X0 communications; software on 9-track tape	
50950R Opt. 044 Opt. 200 Opt. 300 Opt. 400	Right-to-reproduce NS for the DEC VAX computer For HP 9000 to DEC MicroVAX communications; software on 5¼-inch floppy (RX50) For HP 9000 to DEC MicroVAX communications; software on TK50 For HP 9000 to DEC 11/725-85X0 communications; software on 9-track tape For HP 9000 to DEC 8600-89X0 communications; software on 9-track tape	

Shared Resource Management (SRM)

SRM Servers

Product/Opt. Number	Description	Price
50960A Opt. 022 Opt. 045 Opt. 100* Opt. 110*	SRM Server. Includes 98619A operating system, 50962A coax interface, interfaces and cables for video monitor and keyboard, CPU, 1/2 Mbyte RAM memory, DMA controller, HP-IB interface, RS-232C, and coax terminator kit in 325mm wide case. <i>Note: You must order 82913A monitor and 46021A keyboard separately.</i> <i>Note: Requires 9888A bus expander for more than one SRM interface.</i> Software on ¼-inch tape cartridge Software on 3½-inch microfloppy disc 256 Kbyte RAM; required for on-line backup and serial printer support 1 Mbyte RAM; recommended for maximum SRM performance and required for on-line backup and serial printer support	
50960U Opt. 100	SRM Upgrades Battery-powered clock upgrade. Keyboard/HP-IB interface with a battery powered time-of-day clock (for systems shipped prior to 1 January 1988)	
98619A Opt. 001 Opt. 022 Opt. 045	SRM Operating System. Includes software and manual. Requires 50960A or 9920A Opt. 500 configuration. Included with 50960A SRM Server. <i>Note: You must order Opt. 022 or Opt. 045.</i> Upgrade from previous revision of SRM Operating System Software on ¼-inch tape cartridge Software on 3½-inch microfloppy disc	

* Opt. 100 and Opt. 110 cannot be ordered concurrently.

SRM Workstation Hardware

Product/Opt. Number	Description	Price
50962A	<i>Hardware required in the Series 300 workstations to connect to the SRM Servers via the coax link:</i> SRM Coax Interface	
50961U Opt. 200	SRM Coax Adapter Upgrade Upgrades 98629A SRM interface card installed in a Series 200/300 computer or SRM server. Includes SRM coax adapter and BNC "T" connector.	
92227A 92227B 92227C 92227D 92227E 92227F 92227G 92227H	Coax Cables (PVC insulation, with BNC connector installed): 1m coax cable 2m coax cable 4m coax cable 8m coax cable 16m coax cable 32m coax cable 64m coax cable 128m coax cable	
92227J 92227K	Coax Cable (without connector): Cut-to-length, PVC insulation (300 to 3000 meters; cost per meter) Cut-to-length, FEP insulation (300 to 3000 meters; cost per meter)	

SRM Workstation Hardware (cont'd)

Product/Opt. Number	Description	Price
92227L 92227M 92227N 45695A	Cable Accessories: BNC connector pair for 92227J/K cables BNC connector tool kit BNC T-connector BNC 50 Ohm terminator pair	

SRM Workstation Software

Product/Opt. Number	Description	Price
	<i>Software required in the workstations to connect to the SRM servers:</i> To connect BASIC/Pascal systems in Series 300 and Vectra with Language Processor: The SRM access software is included in BASIC and Pascal language systems revision 2.1 or later.	
98693A Opt. 022 Opt. 045	To connect Series 300 HP-UX systems: SRM Access Utilities for HP-UX Software on ¼-inch tape cartridge Software on 3½-inch microfloppy disc	

Series 300 Peripherals, Media and Accessories*

For detailed information on model numbers and operating system revisions that support these peripherals, please refer to

the *Series 300 Configuration Reference Manual*, Part Number 98561-90020.

Microfloppy and Hard Disc Storage (270 Kbytes - 40Mbytes)

Product/Opt. Number	Description	Price
9127A	HP 360 Kbyte , single 5¼-inch floppy disc drive (also supports HP format 270 Kbyte). For use with the HP Series 300 DOS Coprocessor System.	
9122C Opt. 001	2 Mbyte (1.42 Mbyte formatted), 3½-inch dual microfloppy disc drive Delete one microfloppy	
9122D	2 x 630 Kbyte , 3½-inch dual double-sided microfloppy drive	
9122S	630 Kbyte , 3½-inch single double-sided microfloppy drive	
9153A	10 Mbyte Winchester Hard Disc with 3½-inch 630 Kbyte double-sided microfloppy drive	
9154A	10 Mbyte Winchester Hard Disc only	
9153B	20 Mbyte Winchester Hard Disc with 3½-inch 630 Kbyte double-sided microfloppy drive	
9154B	20 Mbyte Winchester Hard Disc with 3½-inch hard disc only	
9153C Opt. 010 Opt. 011 Opt. 020 Opt. 021 Opt. 040 Opt. 041	10/20/40 Mbyte Hard Disc with 2 Mbyte Microfloppy drive. Must order one option below. 10 Mbyte hard disc with 2 Mbyte 3½-inch microfloppy disc drive 10 Mbyte 3½-inch hard disc drive 20 Mbyte hard disc with 2 Mbyte 3½-inch microfloppy disc drive 20 Mbyte 3½-inch hard disc drive 40 Mbyte hard disc with 2 Mbyte 3½-inch microfloppy disc drive 40 Mbyte 3½-inch hard disc drive	

* Peripheral, interface, and accessory information in this document is for ordering purposes only. This information does not imply support on all SPLs and operating systems. Consult the *Series 300 Peripheral, Interface and Accessory Support Matrix* before specifying or ordering products.

HP-IB Hard Disc Storage (41 Mbytes to 571 Mbytes)

Product/Opt. Number	Description	Price
7907A	41 Mbyte Fixed/Removable Disc Drive, 20½ removable, 20½ fixed, CS/80, HP-IB	
7935H*	404 Mbyte Removable Media Disc Drive	
7935HR*	Remarketed 404 Mbyte Removable Media Disc Drive	
7936H	307 Mbyte Fixed Disc Drive	
7937H	571 Mbyte Fixed Disc Drive	
7957A	81 Mbyte Fixed Disc Drive	
7958A	130 Mbyte Fixed Disc Drive	
7959B	304 Mbyte Fixed Disc Drive	
7963B	304 Mbyte Fixed Disc Drive	
97963B	304 Mbyte Upgrade Kit	

* Note: FRD supplies.

SCSI Hard Disc Storage (107 Mbytes to 323 Mbytes)

Product/Opt. Number	Description	Price
7957S	107 Mbyte Fixed Disc Drive	
7958S	161 Mbyte Fixed Disc Drive	
7959S	323 Mbyte Fixed Disc Drive	

Back-up Tape Drives

Product/Opt. Number	Description	Price
7978B	½-inch 6250 cpi and 1600 cpi Streaming Tape Drive, 75 ips streaming	
7974A Opt. 800	1600 cpi ½-inch Tape Drive Adds 800 cpi capability	
35401A	¼-inch Cartridge Autochanger	
92192C	Cartridge Magazine (Unloaded. One included with 35401A.)	
9144A	¼-inch Cartridge Tape Drive	

Series 300 Printers

Character Printers

Product/Opt. Number	Description	Price
2603A	48 cps* Daisy-wheel Printer; HP-IB interface	
2225A	150 cps Thinkjet printer; HP-IB interface	
2227A	160 cps QuietJet Plus printer; RS-232C interface	
2227B	160 cps QuietJet Plus printer; HP-IB interface	
2228A	160 cps QuietJet printer; RS-232C interface	
2235B	RuggedWriter 480 printer, RS-232C/HP-IB interface	
2932A Opt. 046	200 cps Dot Matrix Impact Printer Replace RS-232C interface with HP-IB	
2934A Opt. 046	200 cps Dot Matrix Impact Printer Replace RS-232C interface with HP-IB	
3630A Opt. 001 Opt. 002	HP PaintJet color graphics printer RS-232C Interface HP-IB Interface	

* Key: cps = characters per second

Line Printers

Product/Opt. Number	Description	Price
2563B Opt. 114 Opt. 290 Opt. 510 Opt. 850	300 lpm* Impact Printer Deletes quietized cabinet, passive stacker, and sound enclosure. HP 9000 HP-IB interface and 4-m cable for Series 300/500/800 Bundled option package; includes Opt. 004, 005, 008, 068 Configures the printer for use with SRM	
2564B Opt. 114 Opt. 290 Opt. 510 Opt. 850	600 lpm Impact Printer Deletes quietized cabinet, passive stacker, and sound enclosure, and adds non-quietized cabinet. HP-IB CIPER interface for use with Series 300/500/800 Bundled option package; includes Opt. 004, 005, 008, 068 Configures the printer for use with SRM	
2566B Opt. 115 Opt. 290 Opt. 500 Opt. 850	900 lpm Impact Printer Passive paper stacker HP-IB CIPER interface for use with Series 300/500/800 Printer package, includes Options 004, 005, and 115 Configures the printer for use with SRM	
2567B Opt. 115 Opt. 500	1200 lpm Impact Printer Passive paper stacker Printer package; includes Options 004, 005, and 115	

* Key: lpm = lines per minute

Page Printers

Product/Opt. Number	Description	Price
33440A	LaserJet Series II 8 ppm* printer	
2684A	LaserJet 2000 20 ppm printer†	
2684P	LaserJet 2000 printer with 2000-sheet paper deck†	
2684D	LaserJet 2000 printer with 2000-sheet input paper deck and duplexer†	

* Key: ppm = pages per minute

† Interface not included.

Series 300 Graphics Devices

Product/Opt. Number	Description	Price
3630A Opt. 001 Opt. 002	HP PaintJet color graphics printer, 8½ x 11-inch size RS-232C Interface HP-IB Interface	
7440A Opt. 001 Opt. 002	ColorPro graphics plotter, 8-Pen, for A4/A-size media RS-232C interface HP-IB interface	
7475A Opt. 001 Opt. 002	A...B-size, 6-Pen Plotter RS-232C interface HP-IB interface	
7550A	A...B-size, 8-Pen Plotter, sheet-feed (comes with RS-232C and HP-IB interfaces standard)	
7570A 17570A	DraftPro C/D-size, 8-pen plotter (comes with RS-232C interface standard) Optional HP-IB cartridge	
7595A	DraftMaster I A...E size, 8-pen plotter (comes with RS-232C and HP-IB interfaces standard)	
7596A	DraftMaster II A...E size, 8-pen roll-feed plotter (comes with RS-232C and HP-IB interfaces standard)	
17520A	DraftMaster Upgrade Kit (for upgrading DraftMaster I to DraftMaster II)	

Series 300 Terminals

Product/Opt. Number	Description	Price
C1001A C1001G C1001W	HP 700/92 Block-Mode Display Terminal , 14-inch screen, 8-page memory, printer port, 80- and 132-column. HP 700/92 with amber screen HP 700/92 with green screen HP 700/92 with soft white screen	
C1004A C1004G C1004W	HP 700/22 ANSI DEC VT220 Compatible Terminal , 14-inch screen, 4-page memory, 80- and 132-column. HP 700/22 with amber screen HP 700/22 with green screen HP 700/22 with soft white screen	
C1003A C1003G	HP 700/41 Entry-level ASCII Terminal , 14-inch screen, 1-page memory, printer port, 80-column, nine ASCII terminal compatibility modes. Not supported as system console. HP 700/41 with amber screen HP 700/41 with green screen	
C1006A C1006G C1006W	HP 700/43 Fully-featured ASCII Terminal , 14-inch screen, 4-page memory, printer port, 132-column, twelve ASCII terminal compatibility modes. Not supported as system console. HP 700/43 with amber screen HP 700/43 with green screen HP 700/43 with soft-white screen	
2393A Opt. 046 Opt. 092 Opt. 093	12-inch Graphics Display Terminal , 47-66 Hz, 115 Vac Port 2: HP-IB interface Port 2: 25-pin RS-232C interface, same as accessory 40210R Port 2: 8-bit parallel Centronics-type interface, same as accessory 40201P	
2397A Opt. 046 Opt. 092 Opt. 093	Color Graphics Terminal with selectable 512 x 390 or 640 x 400 resolution. Eight colors from 64-color palette. Port 2: HP-IB interface Port 2: 25-pin RS-232C interface, same as accessory 40210R Port 2: 8-bit parallel Centronics-type interface, same as accessory 40201P	
45851A	HP 150 II Touchscreen Computer	
45711A	<i>Portable Plus</i> computer	
45850A	HP 150 II Personal Computer Terminal	
9807A	<i>Integral II</i> personal computer	
98791B	HP 2392A and VT100 Terminal Emulator (requires 46084A HP-HIL ID Module)	



Series 300 Miscellaneous Peripherals

Product/Opt. Number	Description	Price
2334A	x.25 Multiplexer	
26075A	HP-IB Switch	
92205A	Hayes Smartmodem 1200™ (U.S.), 60 Hz, 120 Vac	
92205C	Hayes Smartmodem 1200™ (Canada), 60 Hz, 120 Vac	

Smartmodem 1200™ is a trademark of Hayes Microcomputer Products, Inc.

Series 300 Accessories

Product/Opt. Number	Description	Price
10833A	1 meter HP-IB Cable	
10833B	2 meter HP-IB Cable	
10833C	4 meter HP-IB Cable	
10833D	0.5 meter HP-IB Cable	
10834A	Adapter, extends HP-IB connector 2.3 cm	
92240B	Swivel Base Unit for desktop disc drives	
92211L	Taboret Cabinet Rack for Series 300 and 325 mm-wide peripherals	
92211M	Small Taboret Cabinet Rack for 9888A and 325 mm-wide peripherals	
92211R	HP Design Plus Mobile Mini-rack for 325 mm-wide peripherals	
98290A	3 meter RGB Cable	
98787B	Tilt and Swivel Base for the 98751A, 98752A, 98785A or 98789A monitor	
19511A	Stack Cabinets for 307/571 Mbyte disc drives	
92213B	CAD Table with pull-out work surface and keyboard tray	
19500B	EIA 19-inch Rack Mounting Kit for 91XX, 7945 and 7957/58A disc drives	
98567A	EIA 19-inch Rack Mounting Kit for the 35731A/B 12-inch monitor	
98567B	EIA 19-inch Rack Mounting Kit for the 35741A/B 12-inch monitor	
98569A	EIA 19-inch Rack Mounting Kit for Series 300 SPU or SPU and expander	

Series 300 Media

Product/Opt. Number	Description	Price
92192A	Blank 3½-inch, Double-sided Microfloppy Discs (box of ten)	
92192N	Blank 3½-inch, Double-sided Microfloppy Discs (box of 100)	
92192R	Package of 250 Multi-colored Disc Labels for 92192A/N	
92191A	Blank 3½-inch, Single-sided Microfloppy Discs (box of ten)	
92190A	Blank 5¼-inch Floppy Discs (box of ten)	
92195A	Blank 8-inch Floppy Discs (box of ten)	
97907A	20.5 Mbyte Cartridge Tape for 7907A	
88140LC	Certified, ¼-inch Tape Cartridges, 600-foot (box of five)	
88140SC	Certified ¼-inch Tape Cartridges, 150-foot (box of five)	

HP 9000 Hardware Support Services

Overview

At Hewlett-Packard we want you to get the most from your workstation products. To meet the goals of maximum uptime and productivity at minimum cost, our products are backed by a range of hardware services designed to meet your price/performance needs.

In the following section, these support services are listed alongside Series 300 products, in the same order and categories you found them in the hardware section (minus descriptions) – so you can easily look up support services for products in which you are interested.

Summary of Hardware Support Services

Service	Place of Service	Response Time
Standard (SMMC)	Customer Site (0–100 miles radius from HP Primary Service Responsible Office)	Four Hours
BASIC (BMMC)	Customer Site (0–100 miles radius from HP Primary Service Responsible Office)	Next Day
Priority (WMMC)	Customer Site (0–100 miles radius from HP Primary Service Responsible Office)	Four Hours
Next Day (PMMC)	Customer Site (0–100 miles radius from HP Primary Service Responsible Office)	Next Day
Scheduled (Sched.)	Customer Site (0–100 miles radius from HP Primary Service Responsible Office (SRO))	Scheduled Weekly
Customer Return (FMMC)	Nearest HP Customer Service Center	Three Working Days*

* Intermittent failures may require more time.

Our support services let you choose your hardware maintenance program depending upon whether your highest priority is a quick response or a low cost for your workstation products. These services are available for most HP computers, plotters, printers, terminals and associated peripherals. You receive the services of an HP Customer Engineer specially trained in the type of equipment you have. And you get the support level that is right for you, for a known cost.

HP maintains a staff of trained Customer Engineers and stocks each Service Responsible Office and Customer Service Center with its own service inventory and tools, assuring you that quality maintenance service will be available when you need it.

If your HP 9000 Series 300 is used in a multi-computer or multi-system environment, HP can provide the services listed below. These services include an account-assigned engineer and work-to-completion features.

Standard System Maintenance Service (SMMC)

Standard System Maintenance Service provides four-hour response from 8:00 a.m. to 9:00 p.m. every business day, excluding HP holidays. Extended coverage options are available to provide service up to 7 days per week, 24 hours per day.

Basic System Maintenance Service (BMMC)

Basic System Maintenance Service provides you with next-business-day response from 8:00 a.m. to 5:00 p.m. during the standard work week. These services include an account-assigned CE and work-to-completion features.

If your HP 9000 Series 300 is used as a stand-alone workstation, the following services may be appropriate:

Priority On-site Service (WMMC)

Priority On-site Service offers a four-hour response time for on-site service. Support coverage is from 8:00 a.m. to 5:00 p.m. every business day, excluding HP holidays.

Next Day On-site Service (PMMC)

Next Day On-site Service gives you next-business-day response between the hours of 8:00 a.m. to 5:00 p.m., Monday through Friday, excluding HP holidays.

Scheduled On-site Service (Sched.)

When backup equipment is available, you can meet your up-time requirements and receive economical on-site support with Scheduled On-site Service. With 25 units or more under contract, HP will perform repairs at a designated location on a scheduled weekly basis during normal business hours, excluding HP holidays.

Customer Return Service (FMMC)

This service provides the lowest cost maintenance for your workstation products. You ship your equipment to an HP Customer Service Center where it will be repaired, tested, and sent back to you within three working days after it is received. If you can afford to be without your equipment or if you have spares at your site, Customer Return Service offers our most economical service.

Note: All prices are quoted in monthly amounts.

System Processor Unit (SPU)

Product No.	Description	Return to HP		On-Site Service			
		FMMC	PMMC	Sched.	WMMC	BMMC	SMMC
98561A Opt. 002 Opt. 003 Opt. 004 Opt. W03	Model 310 SPU						
98561B Opt. W03	Model 320 SPU						
98561C Opt. 022 Opt. W03	Model 320U SPU						
98562A Opt. 006 Opt. 010 Opt. 011 Opt. 015 Opt. W03	Model 330 SPU						
98562B Opt. 011 Opt. 015 Opt. 116 Opt. 208 Opt. 216	Model 350 SPU						

Series 300 Workstations and Instrument Controllers

Entry Level Workstations

Product No.	Description	Return to HP		On-Site Service			
		FMMC	PMMC	Sched.	WMMC	BMMC	SMMC
98563B Opt. 060 Opt. 084	Model 318M Workstation						
98564A Opt. 010 Opt. 011 Opt. 060 Opt. 084 Opt. 108 Opt. 112 Opt. 116 Opt. 719	Model 319C+ Workstation						
98266A							
98266B							

Model 330 Workstations		Return to HP	On-Site Service				
Product No.	Description	FMMC	PMMC	Sched.	WMMC	BMMC	SMMC
98588S Opt. 006 Opt. 010 Opt. 011 Opt. 015 Opt. 719	Model 330CH 2D Color Workstation						
98583S Opt. 006 Opt. 010 Opt. 011 Opt. 015 Opt. 719	Model 330C Color Workstation						
98589S Opt. 006 Opt. 010 Opt. 011 Opt. 015	Model 330MH 2D Monochrome Workstation						
98582S Opt. 006 Opt. 010 Opt. 011 Opt. 015	Model 330M Monochrome Workstation						

Model 350 Workstations		Return to HP	On-Site Service				
Product No.	Description	FMMC	PMMC	Sched.	WMMC	BMMC	SMMC
98587E Opt. 016 Opt. 024 Opt. 032 Opt. 011 Opt. 015 Opt. 116 Opt. 208 Opt. 216	Model 350SRX Solid Rendering Workstation						
98588E Opt. 011 Opt. 015 Opt. 116 Opt. 208 Opt. 216 Opt. 556 Opt. 716	Model 350CH 2D Color Workstation						
98586E Opt. 011 Opt. 015 Opt. 116 Opt. 208 Opt. 216	Model 350CX Color Workstation with Graphics Accelerator						
98583E Opt. 011 Opt. 015 Opt. 116 Opt. 208 Opt. 216 Opt. 716	Model 350C Color Workstation						

Model 350 Workstations (cont'd)

Product No.	Description	Return to HP		On-Site Service			
		FMMC	PMMC	Sched.	WMMC	BMMC	SMMC
98585E Opt. 011 Opt. 015 Opt. 116 Opt. 208 Opt. 216 Opt. 232	Model 350AIC Color AI Development System						
98589E Opt. 011 Opt. 015 Opt. 116 Opt. 208 Opt. 216	Model 350MH Monochrome Workstation						
98582E Opt. 011 Opt. 015 Opt. 116 Opt. 208 Opt. 216	Model 350M Monochrome Workstation						
98584E Opt. 011 Opt. 015 Opt. 116 Opt. 208 Opt. 216 Opt. 232	Model 350AIM Monochrome AI Development System						
98587F Opt. 011 Opt. 015 Opt. 116 Opt. 208 Opt. 216 Opt. 608 Opt. 616 Opt. 624	Model 350 TurboSRX Solid Rendering Workstation						

Model PC-305 and PC-308 Instrument Controllers

Product No.	Description	Return to HP		On-Site Service			
		FMMC	PMMC	Sched.	WMMC	BMMC	SMMC
82316Ax	PC-305M BASIC Controller						
82317Ax	PC-305ML BASIC Controller						
82318Ax	PC-305CL BASIC Controller						
82315Bx	PC-308CL BASIC Controller						
82314Bx	PC-308ML BASIC Controller						

Model 310 Instrument Controllers		Return to HP	On-Site Service				
Product No.	Description	FMMC	PMMC	Sched.	WMMC	BMMC	SMMC
98581B Opt. 042 Opt. 613 Opt. 008 Opt. W03	Model 310C Low-cost Color Instrument Controller						
98580B Opt. 042 Opt. 002 Opt. 008 Opt. 613 Opt. W03	Model 310M Monochrome Instrument Controller System						

Model 330 Instrument Controllers		Return to HP	On-Site Service				
Product No.	Description	FMMC	PMMC	Sched.	WMMC	BMMC	SMMC
98581S Opt. 042 Opt. 613 Opt. W03	Model 330CMA Color Instrument Controller						
98580S Opt. 042 Opt. 613 Opt. W03	Model 330MMA Monochrome Instrument Controller						

SPU Accessories		Return to HP	On-Site Service				
Product No.	Description	FMMC	PMMC	Sched.	WMMC	BMMC	SMMC
98242A	4-slot DIO Backplane						
98242B	2-slot DIO Backplane						
98568A Opt. 132	Direct Connect 8-slot I/O Expander						
98570A Opt. 004	Direct Connect DIO II Expander						
9888A	16-slot DIO Expander						
98258A Opt. 004 Opt. 005	4 Mbyte Parity-Checking RAM Controller						
98258B	4 Mbyte Parity-Checking RAM Add-on						
98258C	12 Mbyte Parity-Checking RAM Add-on						
98257A	1 Mbyte RAM Card (DIO)						
98264B Opt. 004 Opt. 005	16 Mbyte Error-Checking and Correcting RAM						
98248A	Floating Point Accelerator						
98262A	High-speed HP-IB Disc Interface						

SPU Upgrades

Product No.	Description	Return to HP		On-Site Service			
		FMMC	PMMC	Sched.	WMMC	BMMC	SMMC
98243B Opt. 002	Model 310 CPU Upgrade to Model 320						
98244A Opt. 001 Opt. 002 Opt. 003 Opt. 116 Opt. 570	Model 330 CPU Upgrade to Model 350						
98563-67001	Boot ROM for Models 310/320/330/350						

DOS Coprocessor System

Product No.	Description	Return to HP		On-Site Service			
		FMMC	PMMC	Sched.	WMMC	BMMC	SMMC
98286S Opt. W03	Series 300 DOS Coprocessor System						
98286T	Series 300 DOS Memory Enhancement Kit						
9127A	360 Kbyte Disc Drive						
D1387A	80287 Numeric Coprocessor						

BASIC Language Processor System

Product No.	Description	Return to HP		On-Site Service			
		FMMC	PMMC	Sched.	WMMC	BMMC	SMMC
82300B	BASIC Language Processor						
82303A	RAM Expansion Kit						
82304B	BASIC ROM for Language Processor						
82305A	RAM Expansion Board						
82306A	GPIO Interface for Language Processor						

Pascal Language Processor System

Product No.	Description	Return to HP		On-Site Service			
		FMMC	PMMC	Sched.	WMMC	BMMC	SMMC
82310A	Pascal Language Processor						
82312A	Pascal Language Processor Board						

VMEbus Connection

Product No.	Description	Return to HP		On-Site Service			
		FMMC	PMMC	Sched.	WMMC	BMMC	SMMC
98577A	VMEbus Expander						
98646A	VMEbus Adapter						
98647A	PC-IB Interface and System Software						

Graphics Boards

Product No.	Description	Return to HP		On-Site Service			
		FMMC	PMMC	Sched.	WMMC	BMMC	SMMC
98542A	Medium-resolution Monochrome Graphics Board						
98543A	Medium-resolution Color Graphics Board						
98544B	High-resolution Monochrome Graphics Board						
98546A	Display Compatibility Interface						
98547A	High-resolution Color Graphics Board						
98548A	High-resolution Monochrome Graphics Board						
98549A	High-resolution Color Graphics Board						
98550A	High-resolution Color Graphics Board						

Monitors

Product No.	Description	Return to HP		On-Site Service			
		FMMC	PMMC	Sched.	WMMC	BMMC	SMMC
35731A/B	12-inch Medium-resolution Monochrome Monitor						
35741A/B	12-inch Medium-resolution Color Monitor						
98751A	19-inch High-resolution Color Monitor						
98752A	19-inch High-resolution Color Monitor						
98785A	16-inch High-resolution Color Monitor						
98786A	17-inch High-resolution Monochrome Monitor						
98788A	19-inch High-resolution Monochrome Monitor						
98789A	16-inch High-resolution Color Monitor						
98787B	Tilt/swivel						

Graphics Accessories and Upgrades

Product No.	Description	Return to HP		On-Site Service			
		FMMC	PMMC	Sched.	WMMC	BMMC	SMMC
98556A	2D Integer-based Graphics Accelerator						
98700A	High-resolution Display Controller						
98701A	Additional four planes of graphics memory for the 98700A						
98710A	Graphics Accelerator for the 98700A						
98287A	Series 300 Interface Card for the 98700A						
98720A	3D Display Controller						
98721A	3D Solid Rendering Graphics Accelerator						
98722A	Frame Buffer Board						
98723A	Additional Power Supply						
98724A	16-bit Display Controller Interface						
98725A	16-bit Display Controller Interface						
98726A	32-bit Display Controller Interface						
98730A	3D Display Controller						
98732A	3D Solid Rendering Graphics Accelerator						

HP-HIL Input Devices

Product No.	Description	Return to HP		On-Site Service			
		FMMC	PMMC	Sched.	WMMC	BMMC	SMMC
45911A	HP-HIL Digitizer						
46021A	HP-HIL Keyboard →						OR
98203C Opt. 001	HP-HIL Keyboard with Rotary Knob	<u>OR</u>			46083A (Knob)		
46060A	HP-HIL 2-button Mouse				98 Keyboard(?)		
46060B	HP-HIL 3-button Mouse						
46080A	2.4m HP-HIL Extension						
46081A	2.4m HP-HIL Extension with audio						
46082A	15m HP-HIL Remote Extension with audio and RGB video						
46082B	30m Remote Extension with audio and RGB video						
46083A	HP-HIL Knob						
46084A	HP-HIL ID Module						
46085A	HP-HIL Control Dial Module						
46086A	HP-HIL 32-button Box						

HP-HIL Input Devices (cont'd)

Product No.	Description	Return to HP		On-Site Service			
		FMMC	PMMC	Sched.	WMMC	BMMC	SMMC
46087A/B Opt. 001	HP-HIL Digitizer, ANSI A/ISO A4-size						
46088A/B Opt. 001	HP-HIL Digitizer, ANSI B/ISO A3-size						
46089A/B	4-button Cursor						
46094A	Quadrature Port						
46095A	3-button Mouse						
35723A	HP-HIL Touchscreen Bezel						
92916A	Bar Code Reader						

Interface Products for Series 300

Product No.	Description	Return to HP		On-Site Service			
		FMMC	PMMC	Sched.	WMMC	BMMC	SMMC
36593A	HP-UX Gateway/SNA Link						
50955A	3278 Display Station Emulator						
50962A	SRM Coax Interface						
98253A	EPROM Programmer Interface						
98255A	EPROM Card						
98256A	256 Kbyte RAM Card						
98257A	1 Mbyte RAM Card						
98265A	SCSI Single-ended Board						
98259A	128 Kbyte Magnetic Bubble Memory Card						
98546A	Display Compatibility Interface						
98620B	Two-channel DMA Controller Card						
98622A Opt. 001 Opt. 002 Opt. 003 Opt. 004	16-bit GPIO Interface Card						
98623A Opt. 001	43-line BCD Interface Card						
98624A	HP-IB Interface, standard speed						
98625B	HP-IB Disc Interface, high speed (for Model 310 and 320 only)						
98262A	HP-IB Disc Interface, high speed (for Models 330 and 350 only)						
98626A Opt. 001 Opt. 002	RS-232C (Serial) Interface						
98627A	RGB Color Video Output Interface						
98628A Opt. 001 Opt. 002 Opt. 003	Datcomm Interface, RS-423 and RS-232C						
98630A Opt. 001	Breadboard Interface						
98633A	6944A Multiprogrammer Interface						
98635A	Floating Point Math Card						
98640A Opt. 001 Opt. 630 Opt. 655	7-channel Analog-to-Digital Interface						
98641A	RJE 2780/3780 Interface						
98642A Opt. 001	4-port RS-232C Multiplexer						

Interface Products for Series 300 (cont'd)

Product No.	Description	Return to HP		On-Site Service			
		FMMC	PMMC	Sched.	WMMC	BMMC	SMMC
98643A	LAN/300 Link with ThinMAU						
98644A	RS-232C Serial Interface						
98646A	VMEbus Adapter						
98691A Opt. 001 Opt. 002 Opt. 003	Programmable Datacomm Interface						

Local Area Network (LAN)

LAN Hardware

Product No.	Description	Return to HP		On-Site Service			
		FMMC	PMMC	Sched.	WMMC	BMMC	SMMC
98643A Opt. 241	LAN/300 Link						
92227A through 92227K	LAN Cables and Accessories						
92227L	BNC Connector Pair						
92227M	BNC Connector Tool Kit						
92227N	BNC "T" Connector						
92227P	ThinLAN Terminator Pair						
28641A	Thin MAU						
30241A	Backbone LAN MAU						
92256C	LAN MAU and Kit						
92254A through 92254H	Backbone LAN AUI Cables						
92255A/B	Backbone LAN AUI Cables						
92255C	LAN AUI Connector Kit						
92253A through 92253H	Backbone LAN Coax Cables						
92256A	LAN Coax Installation Tool Kit						
92229B	LAN Coax Crimp Tool						
92223A	Repeater Kit						
92223C	20m Repeater FEP AUI						
28645A Opt. 241	ThinLAN Hub						

Shared Resource Management (SRM)

SRM Servers

Product No.	Description	Return to HP		On-Site Service			
		FMMC	PMMC	Sched.	WMMC	BMMC	SMMC
50960A	SRM Server						
50960U Opt. 100	SRM Upgrades						

SRM Workstation Hardware		Return to HP			On-Site Service		
Product No.	Description	FMMC	PMMC	Sched.	WMMC	BMMC	SMMC
50962A	SRM Coax Interface						
50963A	SRM Interface for Vectra						
50961U Opt. 200	SRM Coax Adapter Upgrade						
92227A through 92227K	Coax Cables						
92227L	BNC Connector Pair						
92227M	BNC Connector Took Kit						
92227N	BNC Connector						
45695A	50 ohm Termination Pair						

Series 300 Peripherals, Media and Accessories

Microfloppy and Hard Disc Storage (270 Kbytes - 40 Mbytes)

Microfloppy and Hard Disc Storage (270 Kbytes - 40 Mbytes)		Return to HP			On-Site Service		
Product No.	Description	FMMC	PMMC	Sched.	WMMC	BMMC	SMMC
9127A	360 Kbyte, 5/4-inch Flexible Single Master Disc						
9122D	2 x 630 Kbyte, 3 1/2-inch Dual Double-sided Microfloppy						
9122S	630 Kbyte, 3 1/2-inch Single Double-sided Microfloppy						
9153A	10 Mbyte Winchester with 3 1/2-inch, 630 Kbyte Microfloppy						
9153B	20 Mbyte Winchester Hard Disc						
9153C Opt. 010 Opt. 011 Opt. 020 Opt. 021 Opt. 040 Opt. 041	10/20/40 Mbyte Hard Disc						
9154A	10 Mbyte Winchester Hard Disc only						
9154B	20 Mbyte Winchester Hard Disc						
9133L Opt. 001	40 Mbyte Winchester Hard Disc with 3 1/2-inch Microfloppy						
9134L Opt. 001	40 Mbyte Winchester Hard Disc only						

**HP-IB Hard Disc Storage
(41 Mbytes to 571 Mbytes)**

Product No.	Description	Return to HP		On-Site Service			
		FMMC	PMMC	Sched.	WMMC	BMMC	SMMC
7907A	41 Mbyte Fixed/Removable Drive						
7935H	404 Mbyte						
7936H	307 Mbyte Fixed Disc Drive						
7937H	571 Mbyte Fixed Disc Drive						
7957A	81 Mbyte Fixed Disc Drive						
7958A	130 Mbyte Fixed Disc Drive						
7959B	304 Mbyte Fixed Disc Drive						
7963B	304 Mbyte Fixed Disc Drive						
97963B	304 Mbyte Upgrade Kit						



**SCSI Hard Disc Storage
(107 Mbytes to 323 Mbytes)**

Product No.	Description	Return to HP		On-Site Service			
		FMMC	PMMC	Sched.	WMMC	BMMC	SMMC
7957S	107 Mbyte Fixed Disc Drive						
7958S	161 Mbyte Fixed Disc Drive						
7959S	323 Mbyte Fixed Disc Drive						

Back-up Tape Drives

Product No.	Description	Return to HP		On-Site Service			
		FMMC	PMMC	Sched.	WMMC	BMMC	SMMC
7978B	1/2-inch Streaming Tape Drive						
7974A Opt. 800	1600 cpi 1/2-inch Tape Drive						
35401A	1/4-inch Cartridge Autochanger						
92192C	Cartridge Magazine						
9144A	1/4-inch Cartridge Tape Drive						

Series 300 Printers

Character Printers

Product No.	Description	Return to HP		On-Site Service			
		FMMC	PMMC	Sched.	WMMC	BMMC	SMMC
2603A	48 cps Daisy-wheel Printer						
2225A	150 cps <i>Thinkjet</i> printer						
2227A	160 cps <i>QuietJet</i> printer						
2227B	160 cps <i>QuietJet</i> printer						
2228A	160 cps <i>QuietJet PLUS</i> printer						
2235B	<i>RuggedWriter 480</i> printer						
2932A Opt. 046	200 cps Impact Printer						
2934A Opt. 046	200 cps Office Printer						
3630A Opt. 001 Opt. 002 Opt. 004	<i>HP PaintJet</i> color graphics printer						

<i>Line Printers</i>		Return to HP		On-Site Service			
Product No.	Description	FMMC	PMMC	Sched.	WMMC	BMMC	SMMC
2563B Opt. 114 Opt. 290 Opt. 510 Opt. 850	300 lpm Impact Printer						
2564B Opt. 114 Opt. 290 Opt. 510 Opt. 850	600 lpm Impact Printer						
2566B Opt. 115 Opt. 290 Opt.500 Opt. 850	900 lpm Impact Printer						
2567B Opt. 115 Opt. 500	1200 lpm Impact Printer						

<i>Page Printers</i>		Return to HP		On-Site Service			
Product No.	Description	FMMC	PMMC	Sched.	WMMC	BMMC	SMMC
33440A	<i>LaserJet Series II 8 ppm printer</i>						
2684A	<i>LaserJet 2000 20 ppm printer</i>						
2684P	<i>LaserJet 2000 with paper deck</i>						
2684D	<i>LaserJet 2000 with duplexer</i>						

<i>Series 300 Graphics Devices</i>		Return to HP		On-Site Service			
Product No.	Description	FMMC	PMMC	Sched.	WMMC	BMMC	SMMC
3630A Opt. 001 Opt. 002 Opt. 004	<i>HP PaintJet color graphics printer</i>						
7440A Opt. 001 Opt. 002	<i>ColorPro graphics plotter, 8-pen</i>						
7475A Opt. 001 Opt. 002	<i>A...B-size, 6-Pen Plotter</i>						
7550A	<i>A...B-size, 8-Pen Plotter, sheet-feed</i>						
7570A 17570A	<i>DraftPro C/D size, 8-pen plotter</i> Optional HP-1B Cartridge						
7595A	<i>DraftMaster I A...E size, 8-pen plotter</i>						
7596A	<i>DraftMaster II A...E size, 8-pen plotter</i>						
17520A	<i>DraftMaster upgrade kit</i>						

Series 300 Terminals		Return to HP	On-Site Service				
Product No.	Description	FMCC	PMCC	Sched.	WMCC	BMMC	SMMC
C1001A C1001G C1001W	HP 700/92 Block-Mode Display Terminal						
C1004A C1004G C1004W	HP 700/22 ANSI DEC VT 220 Compatible Terminal						
C1003A C1003G	HP 700/41 Entry-level ASCII Terminal						
C1006A C1006G C1006W	HP 700/43 Fully-featured ASCII Terminal						
2393A Opt. 046 Opt. 092 Opt. 093	12-inch Graphics Display Terminal						
2397A Opt. 046 Opt. 092 Opt. 093	Color Graphics Terminal						
45851A	HP 150 II Personal Computer						
45711A	Portable Plus computer						
45850A	HP 150 II Personal Computer Terminal						
9807A	Integral II personal computer						
98791	HP 2392A/VT100 Terminal Emulator						

Series 300 Miscellaneous Peripherals		Return to HP	On-Site Service				
Product No.	Description	FMCC	PMCC	Sched.	WMCC	BMMC	SMMC
2334A	x.25 Multiplexer						
26075A	HP-IB Switch						
92205A	Hayes Smartmodem 1200™ (U.S.)						
92205C	Hayes Smartmodem 1200™ (Canada)						

Series 300 Accessories		Return to HP	On-Site Service				
Product No.	Description	FMCC	PMCC	Sched.	WMCC	BMMC	SMMC
10833A through 10833D	Cables						
10834A	Adapter						
92240B	Swivel Base Unit for Desktop Disc Drives						
92211L	Taboret Cabinet Rack						
92211M	Small Taboret Cabinet Rack						
92211R	HP Design Plus Mobile Mini-rack						
97064A	CAD Table						
98290A	3 meter RGB Cable						
98561-90020	Series 300 Configuration Reference Manual						
98787B	Tilt and Swivel Base						
19511A	Stack Cabinets						
92213B	CAD Table with Pull-out						
19500A	EIA 19-inch Rack Kit						
98567A	EIA 19-inch Rack Kit						
98567B	EIA 19-inch Rack Kit						
98569A	EIA 19-inch Rack Kit						

HP 9000 Software Support Services

Hewlett-Packard's software services span a broad range – from personal on-site assistance to materials-only services. These levels give flexibility in choosing the level of HP support to meet changing requirements.

Operating Systems Support

The following services are available to support a central system.

Account Management Support (AMS) – Provides local assistance from an account-assigned SE, one Response Center caller (a system manager) and one alternate for telephone assistance, and a Software Materials Subscription.

Response Center Support (RCS) – Provides one Response Center caller and one alternate for telephone assistance and Software Materials Subscription.

Software Materials Subscription (SMS) – Provides software and manual updates, *Software Status Bulletin*, and *HP communicator* magazine. Updates to ROM-based systems are not provided.

The following services are available to support additional systems:

Additional System Coverage (ASC) – Extends AMS or RCS coverage on the operating system to one additional system under the same System Manager. All support is delivered through the central system.

Extended Materials Support (Ext. SMS) – Extends SMS by providing the right to make one copy of all central system materials for use on one additional system.

The following optional services are also available for central or additional systems:

Additional Response Center Caller (ARCC) – Provides one additional caller access to the HP Response Center.

Manual Update Service (MUS) – Provides one copy of updates to software reference manuals.

Software Notification Service (SNS) – Provides issues of the *HP communicator* and *Software Status Bulletin*.

Application Software Support

Software Materials Subscription (SMS) – Provides software and manual updates, *Software Status Bulletin*, and *HP communicator* magazine. SMS must be ordered for each piece of subsystem and application software.

Extended Materials Support (Ext. SMS) – Extends Software Materials Subscription by providing the right to make one copy of all central system materials for use on one additional system.

Manual Update Service (MUS) – Provides one copy of updates to software reference manuals.

In addition, if AMS or RCS levels of support are selected for the operating system, Family Support must be ordered for the application software in the system.

Family Support: Central System – provides local SE assistance and/or access to the Response Center for all software products in the family. Customer can choose AMS or RCS level of support independent of the level of support on the operating system. Family Support entitles customer to an additional Response Center caller and an alternative for each family supported.

Family Support: Additional System Coverage – Extends Family Support on the central system to one additional system. All support is delivered through the central system.

Subsystem Software

Support for subsystem software is determined by the level of support on the operating system. As of August 1, 1987, Category Support on the HP 9000 Series 200, 300 and 500 is no longer required for subsystem software. Customers with AMS support on their operating system will receive AMS support on their subsystem software.

Category MUS has also been obsoleted and MUS should be purchased for each individual subsystem software product.

For support outside the U.S., contact your region or local sales office.

Product Numbering for Support Services

A plus (+) symbol followed by a three-character suffix is attached to each software product. The first letter in the suffix identifies the software support service:

Letter	Software Support Service
H	Response Center Support (RCS)
N	Software Notification Service (SNS)
P	Additional Response Center Caller (ARCC)
Q	Manual Update Service (MUS)
S	Software Materials Subscription (SMS)
T	Account Management Support (AMS)
V	Additional System Coverage (ASC)
W	Extended Software Materials Subscription (Ext. SMS)

The numbers in the suffix designate the media option, if one is required. A media option must always be specified for the operating system on a central system. If the software configuration on an additional system is not the same as, or a subset of, the central system, then a media option must be specified for the additional system.

HP 9000 Software Support Services

Operating Systems

Software Product No.	AMS	RCS	SMS	ASC	Ext. SMS	MUS	ARCC	SNS*
<u>HP-UX</u>								
98594L HP-UX Software Bundle License, 2-user								
¼-inch tape cartridge								
98515L Application Execution Environment, 2-user								
¼-inch tape cartridge								
3½-inch microfloppy, double-sided format								
98595L Application Execution Environment, 16-user								
¼-inch tape cartridge								
3½-inch microfloppy, double-sided format								
98596L Application Execution Environment, 32-user								
¼-inch tape cartridge								
98597L Programming Environment								
¼-inch tape cartridge								
3½-inch microfloppy								
<u>BASIC</u>								
98616A RAM-based BASIC								
5¼-inch internal flexible disc								
3½-inch microfloppy, single-sided format								
3½-inch microfloppy, double-sided format								
<u>Pascal</u>								
98617A RAM-based Pascal								
5¼-inch internal flexible disc								
3½-inch microfloppy, single-sided format								
3½-inch microfloppy, double-sided format								
98619A SRM Operating System								
¼-inch tape cartridge								
3½-inch microfloppy, double-sided format								

* This service includes only the HP communicator magazine and Software Status Bulletin.

† Use with 98597L.

‡ Use with 98597L and 98594L.

Series 300 Subsystem Support Services

Series 300 subsystem software (SMS, Ext. SMS, and MUS) are uniformly priced as follows:

- SMS
- Ext. SMS
- MUS

Series 300 subsystems include the following:

- DOS Coprocessor System (98286S)
- DOS Coprocessor Software (98531A)
- BASIC Language Processor (82300B)
- VMEbus Software Drivers for 98646A (98358A)
- HP-UX Gateway/SNALink (36593A)
- 3278 Display Station Emulator (50955A)
- EPROM Programmer Interface (98253A)
- HP-UX FORTRAN 77 Compiler License-to-Use (98598L)
- HP-UX Pascal Compiler License-to-Use (98599L)
- HP-UX Technical BASIC License-to-Use (97066L)
- HP-UX Programmer's Documentation Kit (98794A)
- Documentaion Kit for 98594A Software (98594-87901)
- HP-UX Complete Core Documentation Kit (98794-87901)
- HP-GKS Graphics Library License-to-Use (98672L)
- HP-UX DGL/AGP Graphics Library License-to-Use (98600L)
- Starbase Display List License-to-Use (98674L)
- HP-UX Ada Development System License-to-Use (98860L)
- X Window System (82320A)
- Development Environment for Common LISP License-to-Use (98678L)
- Development Environment for HP PROLOG (79232U)
- Execution License for Common LISP/PROLOG (98679L)
- HP Common LISP II Development Environment License-to-Use (98688L)
- HP Common LISP II Application Environment License-to-Use (98689L)
- HP SQL/300 Development Environment License-to-Use (79725L)
- HP Visor/300 Database Access Tools License-to-Use (79727L)
- HP TODAY/HP-UX Developer Pack (98112A)
- HP TODAY/HP-UX Run-time Environment (98118A)
- DGL Skeleton Device Handler (98683x)
- SRM Access Utilities for HP-UX (98693A/94A)
- SRM Access Software/BASIC Utilities (97058A)
- Versatec Hardcopy Support (98053A)
- RAM-based BASIC 5.1 Language System (98616A)
- ROM-based BASIC 5.1 (98603B)
- BASIC 5.x Compiler (98618A)
- BASIC 5.x Compiler Upgrade Kit (98618-17x00)
- BASIC 5.x Compiled Subprogram Utilities (CSUB) (98616-11x40)
- BASIC 5.x CSUB Utility Upgrade (98616-17x40)
- BASIC 5.0/5.1 Documentation Kit (98616-87901)
- RAM-based Pascal 3.2 Language System (98617A)
- Pascal 3.2 Documentation Kit (98617-87901)
- NS-ARPA Services/300 License-to-Use (50952L)
- NFS Services/300 License-to-Use (50969L)
- HP-UX SNA 3270 Datacomm Software (36590A)
- HP-UX Gateway/SNA3270 Datacomm Software (36591A)
- HP-UX Gateway/SNALink (36593A)
- HP-UX SNA 3770 (98188A)
- HP-UX Gateway/SNA 3770 (98194A)
- 5080 Emulator (98855A)
- Gateway License for 3278 Emulator and 5080 High-speed File Transfer (98858A)
- 3278 Emulator and 5080 High-speed File Transfer Gateway License Upgrade (98859A)
- NS for the DEC VAX computer (50950A)
- SRM Access Utilities for HP-UX (98693A)

General Consulting Services

Field District (ID44)	Regular Hours	After Hours Weekday	Weekends or Holidays
Product Support Representative	51413A	51419A	51422A
Application Engineer	51414A	51420A	51423A
Specialist	51415A	51421A	51424A

Project Center (ID46)	Regular Hours	After Hours Weekday	Weekends or Holidays
Product Support Representative	35135G	35135H	35135K
Application Engineer	35135C	35135I	35135L
Specialist	35135D	35135J	35135M

Travel Charge options for HP 51413A - 51424A Consulting Services and HP 35135C - M Project Services.

101 Zone 1 Travel Charge	
102 Zone 2 Travel Charge	
103 Zone 3 Travel Charge	
104 Zone 4 Travel Charge	
105 Beyond Zone 4 Travel Charge	Quote

For Europe and Intercon only, the following daily rates apply:

51416A	Product Support Representative Daily Rate	
51417A	Application Engineer Daily Rate	
51418A	Specialist Daily Rate	

Packaged Consulting

Product	Description	Price
35630A+42A	VISTA + 3565S Install	
64710S+42A	TEAMWORK Installation	
64801S+42A	64000 UX Installation	
74210A+42A	EDS Installation	
74400A+42A	PCDS Installation	
98366A+42A	ME 5/10/30 Installation	
98595A+42A	AXE MU Installation	
98597A+42A	PE MU Installation	

Series 300 Training

Product	Description	HP Site	On-Site*
22861A	ARPA/Berkeley for Series 300 (2 days)		
51436A	HP-UX Series 300 System Administrator (5 days)		
98510C	Series 200/300 BASIC Operating and Programming (5 days)		

* Courses can be given at suitably-equipped customer facilities. These courses, which carry an X suffix (such as 35128X), are listed in the HP Corporate Price List. For more information on all Training Courses, contact the local Hewlett-Packard Applications Engineering Organization or your local HP sales office.

General 9000 Training

Product	Description	HP Site	On-Site*
35130A	Programming in C Language (5 days)		
50959A	Using SRM from BASIC and Pascal (1 day)		
51432A	HP-UX Fundamentals for General Users (5 days)		
51433A	Shell Programming for General Users (5 days)		
51434A	HP-UX for Programmers (5 days)		
51435A	Advanced HP-UX Tools (5 days)		
51438A	SCCS and make utility (2 days)		
51440A	Document Preparation (3 days)		
51439A	Advanced Editing with VI (1 day)		
98501A	BASIC Programming (4 days)		
98502A	9845 Operating and Programming (5 days)		
98503A	BASIC I/O Programming (4 days)		
98511B	Pascal Programming (5 days)		
98524A	HPL Operating and Programming (5 days)		
98525A	HPL I/O Programming (4 days)		

* Courses can be given at suitably-equipped customer facilities. These courses, which carry an X suffix (such as 35128X), are listed in the HP Corporate Price List. For more information on all Training Courses, contact the local Hewlett-Packard Applications Engineering Organization or your local HP sales office.

Purchase Plans

Both hardware and software support services are covered under our Customer Support Services Agreement. Contact your HP Sales Representative for more information.

Hewlett-Packard maintains fully-trained and well-equipped service operations at more than 170 offices worldwide. Contact your nearest sales office for specific prices and plans.

Warranties

The warranty covering a specific system is determined by the HP WARRANTY AND INSTALLATION TERMS in effect at the time of purchase. These terms are specified in HP Pub. No. 5954-1617(D) for the United States and in similar documents for other countries.





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