

# The HP LaserJet 4 printer



## Technical data

### **New standard in print quality.**

- True 600 x 600-dpi resolution.
- HP's Resolution Enhancement technology – improved specifically for 600 dpi printing – eliminates jagged edges and stair-stepping.
- HP's microfine toner engineered specifically for 600 dpi printing.

### **More built-in typefaces, more options.**

- 45 internal scalable typefaces (35 Intellifont™ and 10 TrueType™).
- Additional 35 internal Adobe™ Type 1 typefaces with HP's PostScript™ SIMM option.

### **High performance and fast Windows™ printing.**

- Fast RISC processor and I/O for faster printing of complex graphics.
- Improved printer drivers.
- New 8 pages per minute print engine prints most 600 dpi documents at 300 dpi speeds.
- Built-in TrueType for optimum performance in Windows applications.
- 2MB standard memory. 4 SIMM slots for up to 32MB additional memory.

The HP LaserJet printer takes laser printing to the next generation.

## The right connections.

- For the PC
  - Enhanced PCL 5 for fast Microsoft Windows™, MS DOS and IBM OS/2 printing.
  - Optional PostScript SIMM features 35 PostScript typefaces.
  - Modular I/O slot for optional connections.
  - “Hot” I/Os for automatic switching between parallel, serial and MIO ports.
- For the Macintosh.
  - Add optional PostScript SIMM and LocalTalk or EtherTalk JetDirect card for fast PostScript printing.
  - “Hot” I/Os for automatic switching between parallel, serial and AppleTalk ports.

- The HP LaserJet 4M printer. The plug-and-play solution specifically designed for Macintosh and mixed PC-Mac environments.
- For both environments.
  - Automatic language switching between enhanced PCL 5 and PostScript languages.
  - All I/Os are hot and bi-directionally capable.
- For the network. Simply add the HP JetDirect card to:
  - Connect the HP LaserJet 4 printer anywhere on the network.
  - Transfer data at network speeds.
  - Optimize network and printer performance.

- Eliminate bottlenecks at the serial and parallel ports.

## Flexible paper handling.

- Standard 250-sheet tray, 100-sheet/10-envelope multi-purpose tray and 250-sheet output tray.
- Optional 500-sheet tray for an 850-sheet total capacity.
- Optional 75-envelope power feeder.

## Easy to use.

- HP Explorer software for the DOS single-user environment is included for fast set-up and online assistance.
- Printer drivers for many popular applications are included.

## Specifications

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<b>Resolution</b>	600 x 600 dpi plus Resolution Enhancement technology and microfine toner tuned for 600 dpi printing. Enhanced 300 dpi for 300 dpi bitmapped data.
<b>Typeface Capabilities</b>	45 internal scalable typefaces (35 Intellifont, 10 TrueType). 1 internal bitmapped font — Line printer 16.67 pitch. 27 internal symbol sets for TrueType — 32 internal symbol sets for Intellifont. 1 typeface cartridge slot. Accepts all Intellifont and TrueType typefaces, and with HP's PostScript SIMM installed, Adobe Type 1 typefaces. (Check with your software vendor for specific typeface support.) Accessory typefaces available through the HP Master Type library, scalable typefaces on cartridges and disk-based collections.
<b>Speed and Throughput</b>	8 pages per minute rated engine speed. 20 MHz — i80960 RISC-architecture formatter board. Up to 200KB per second parallel I/O. First page less than 23 seconds after receipt of data. Throughput is application and system dependent. Optimal performance achieved with the most current software application drivers. Warm-up time is less than 60 seconds.
<b>Memory</b>	2MB standard RAM memory. Optional SIMM RAM memory modules in 1MB, 2MB, 4MB, 8MB sizes (in any combination). Total capacity including standard memory: 34MB. 4 Universal SIMM slots. Memory compression capability built-in.
<b>Paper Handling</b>	Standard 100-sheet/10-envelope multi-purpose tray and 250-sheet paper tray provide dual bin functionality. Options provide up to four input bins with total capacity of 850 sheets and 75 envelopes. Optional 500-sheet paper tray and paper tray assembly available in either of 2 configurations; an adjustable, multi-size tray for letter, A4 and executive; or an adjustable, multi-size tray for legal, letter, A4 and executive. Optional 75-envelope power feeder accommodates Commercial #10, Monarch 7½, DL C5 and B5. Output tray holds 250 sheets.
<b>Optional Replacement Trays</b>	250-sheet letter tray. 250-sheet A4 tray. 250-sheet multi-size tray (letter, legal, A4, and executive). 500-sheet multi-size tray (letter, legal, A4, and executive). 500-sheet multi-size tray (letter, A4, and executive).
<b>Paper Types and Weights</b>	Copier, bond, special application, recyclable paper: 16-36 lb. (60 to 135 g/m <sup>2</sup> ). Overhead transparencies designed for laser printers. Labels designed for laser printers. Envelopes 16-27 lb. (60 to 100 g/m <sup>2</sup> ).
<b>Paper Sizes and Printable Surfaces (Portrait)</b>	Letter (8.5 x 11in.; 8.0 x 10.6in.; 203 x 270mm printable). Legal (8.5 x 14in.; 8.0 x 13.6in.; 203 x 347mm printable). A4 (210 x 297mm; 198 x 288mm; 7.79 x 11.33in. printable). Executive (7.25 x 10.5in.; 6.75 x 10.1 in., 171 x 258 mm printable).



<b>Envelope Sizes and Printable Surfaces (Landscape)</b>	#10 regular (4.125 x 9.5in., 9.1 x 3.79in.; 231 x 96mm printable). Monarch (3.875 x 7.5in.; 7.1 x 3.54in.; 180 x 89mm printable). DL (220 x 110mm; 210 x 101mm; 8.27 x 3.99in. printable). C5 (229 x 162mm; 219 x 153mm; 8.62 x 6.04in. printable). B5 (250 x 176mm; 240 x 167mm; 9.45 x 6.69in. printable).
<b>Connectivity</b>	HP Bi-Tronics (bi-directional parallel) I/O (up to 200KB) and serial I/O (RS-232 or RS-422) standard (Baud rates: 300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600). MIO slot for HP JetDirect cards supporting Novell NetWare, Microsoft LAN Manager, 3Com 3+Open, IBM LAN Server, HP-UX, SunOS, SCO-UNIX, and Apple Talk systems. "Hot" I/Os: Automatic switching between ports; all I/Os are bi-directional.
<b>Interface and Cable Requirements</b>	Parallel (25 pin male — 36 pin male) p/n C2912A 9.9ft. (3000mm) HP Vectra, IBM PC/AT/XT/PS2 and compatibles. Serial (9 pin male — 25 pin male) p/n 24542G 9.9ft. (3000mm) HP Vectra, IBM PC/AT and compatibles. Serial (25 pin female — 25 pin male) p/n 92219J 16.7ft. (5090mm) IBM PC/XT/PS2. Serial (25 pin male — 25 pin male) p/n C2913A 3.9ft. (1189mm) IBM PC/XT/PS2.
<b>Printer Languages</b>	Enhanced PCL 5 (standard). Optional PostScript Level 2 software from Adobe.
<b>Language Switching</b>	Context Switching: Fully automatic algorithm which parses each incoming file, determining the correct language for the file and printing it correctly. P/L (Printer Job Language) switching: A set of commands understood by the printer which allows fully automatic, fast, reliable language switching. If P/L is not supported within the driver or application, and context switching cannot be used, P/L switching commands may be attached to the head of files.
<b>System Software</b>	HP Explorer software (included) helps the DOS single user set up PC and printer, provides online information about printer features, lets user control the printer's front panel from the PC. Printer drivers for leading software are included with the printer.
<b>Print Orientation</b>	Portrait, landscape, reverse portrait and reverse landscape.
<b>Printing Process</b>	Dry-type laser electrophotography.
<b>Control Panel</b>	Bright vacuum fluorescent display — 16 characters Buttons: online, form feed, paper size, enter, shift, menu/reset, item/continue, +/-. Indicators: ready, online, form-feed. Messages can be displayed in 11 languages: English, French, German, Spanish, Italian, Swedish, Danish, Norwegian, Finnish, Portugese, Dutch.
<b>Environmental Ranges</b>	Temperature for printer and toner: Operating 10° to 32.5°C (50° to 91°F) Storage 0° to 35°C (32° to 95°F) Altitude: Operating 0 to 3,100m (0 to 10,000ft) Storage 0 to 4,600m (0 to 15,000ft) Humidity: Operating 20% to 80% RH Storage 10% to 80% RH Acoustics (declared noise emissions in accordance with ISO 9296): During printing: $L_{WA}$ ; 6.2 Bels, $L_{pAm}$ (bystander); 49dB During standby: $L_{WA}$ ; 4.7 Bels, $L_{pAm}$ (bystander); 33dB
<b>Power Requirements</b>	Source: 100 to 115 volts ( $\pm 10\%$ ) or 220 to 240 volts ( $\pm 10\%$ ) Printer's voltage range depends upon the country in which the printer is purchased. Frequency: 50 to 80Hz ( $\pm 3$ Hz) Power Consumption: Printing: 660 watts (maximum) Standby: 90 watts (nominal)
<b>Dimensions</b>	Width: 416mm (16.4in.) Depth: 403mm (15.9in.) Height: 297mm (11.7in.); with 500-sheet tray 431mm (17in.) Weight (without toner or options): 16.8kg (37lb.)
<b>Production Certifications</b>	UL 1950 listed; C-22.2-950 certified; complies with IEC 950/EN 60950, FCC Class B certified, CISPR-22 level B, Product CORH certified Class 1 Laser Product (safe for office/EDP use).
<b>Rated Maximum Monthly Volume</b>	Up to 20,000 pages per month.
<b>Warranty</b>	1 year warranty.

### **Output tray.**

Large capacity 250-sheet output tray lets you run high-volume jobs.

### **Easy reading display.**

Now it's easier than ever to control and monitor printer functions. You can read its bright vacuum-fluorescent control panel from any angle. Or, if you're a single user in a DOS environment, you can change control panel settings with HP's Explorer software that comes with your printer.

### **High precision printing engine.**

At 600 x 600 dpi, a printer has to print four times as many dots as a 300 dpi printer. Yet the HP LaserJet 4 printer actually prints and delivers as fast as the 300 dpi HP LaserJet III printer — up to 8 pages per minute.

### **More expandability.**

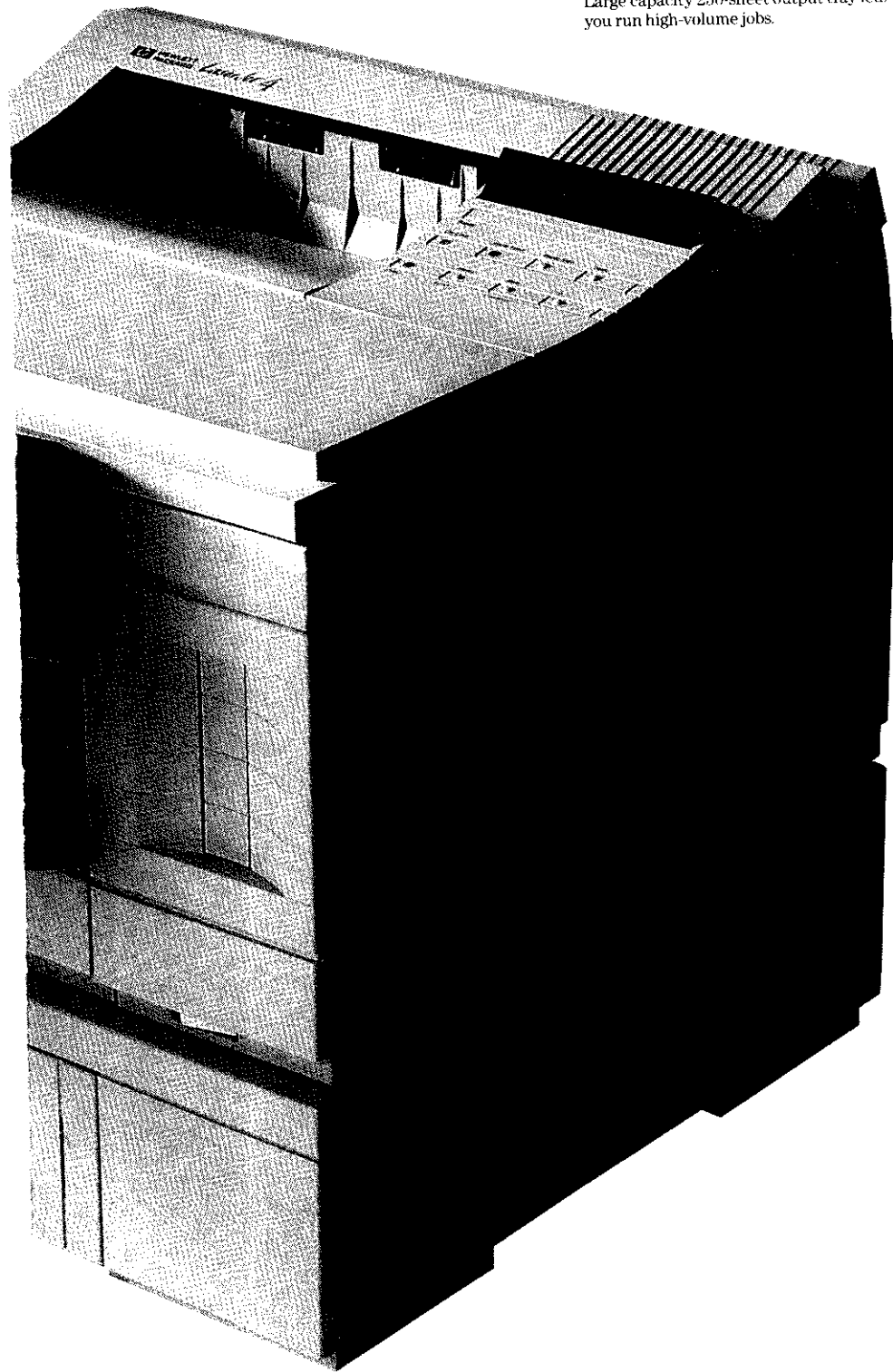
Four universal SIMM slots let you enhance your printer with PostScript printing capabilities and/or additional memory. The HP LaserJet 4's 2MB standard memory and improved data compression allow you to print most full-page, 600 dpi graphics with ease. But if you want more memory for graphic-intensive or large network applications, you can add 1, 2, 4 and 8MB modules for up to 34MB total memory.

### **"Hot" I/Os.**

HP Bi-Tronics (bi-directional parallel) interface and serial interface are standard with a special MIO slot for HP's JetDirect cards that let you connect the printers as a node on the network. All I/Os on the HP LaserJet 4 printer are "hot" I/Os: the printer automatically switches between ports, and each port can send messages back to the host.

### **RISC-based processor.**

i80960 RISC-based architecture means that most 600 dpi documents are formatted and printed at or near full engine speed.





## Ordering information

	Number	Description
<b>Standard Unit</b>		
	C2001A †	HP LaserJet 4 printer (includes: 2MB RAM, Bi-Tronics (bi-directional parallel) and RS-232/RS-422 serial interfaces, one toner cartridge, one 100-sheet/10-envelope multi-purpose tray, one 250-sheet paper tray, power cord, driver and documentation).
	C2021A †	HP LaserJet 4M printer (includes: 6MB RAM, LocalTalk, Bi-Tronics (bi-directional parallel) and RS-232/RS-422 serial interfaces. Integrated PostScript Level 2 Software from Adobe, one toner cartridge, one 100-sheet/10-envelope multi-purpose tray, one 250-sheet paper tray, power cord, driver and documentation).
<b>Supplies and Accessories</b>		
<b>Toner</b>	92298A	HP LaserJet toner cartridge with microfine toner; approx. 6000 pages at 5% coverage.
<b>Memory</b>	C2063A	1MB SIMM
	C2064A	2MB SIMM
	C2065A	4MB SIMM
	C2066A	8MB SIMM
<b>Optional Languages</b>	C2080A	PostScript SIMM
<b>HP JetDirect Cards</b>	J2337A	Novell NetWare — Ethernet/802.3 LAN ††
	J2338A	Microsoft LAN Manager, 3Com 3+Open LAN Manager — Ethernet/802.3 LAN ††
	J2339A	EtherTalk, ††
	J2340A	HP-UX, SunOS, and SCO UNIX — Ethernet LAN ††
	J2341A	LocalTalk
	C2059C	Novell Netware — Token Ring
	C2059D	IBM LAN Server, Microsoft LAN Manager, 3Com 3+Open LAN Manager — Token Ring.
<b>Power Envelope Feeder</b>	C2082A	Power Envelope Feeder — For Commercial #10, Monarch #7½, DL C5 and B5 sizes.
<b>500-Sheet Paper Tray and Paper Tray Assembly</b>	C2083A	Letter, executive and A4 multi-size paper tray and paper tray assembly.
	C2083B	Legal, letter, executive and A4 multi-size paper tray and paper tray assembly.
<b>Replacement Paper Trays</b>	C2085A	Legal, letter, executive and A4 multi-size paper tray (250-sheet capacity).
	C2085B	Letter-size paper tray (250-sheet capacity).
	C2085C	A4-size paper tray (250-sheet capacity).
	C2084A	Letter, executive and A4 multi-size paper tray (500-sheet capacity).†††
	C2084B	Legal, letter, executive and A4 multi-size paper tray (500-sheet capacity).†††
<b>Documentation</b>	C2001-90901*	Your Guide to Setting Up the HP LaserJet 4 Printer.
	C2001-90902*	Your Guide to Setting Up the HP LaserJet 4M Printer.
	C2001-90912*	HP LaserJet 4 and LaserJet 4M Printer User's Manual.
	C2001-90923*	HP LaserJet 4 and LaserJet 4M Printer User's Quick Reference Guide.
	C2001-90934**	HP LaserJet 4 Printer Software Application Notes.
	C2001-90943**	Network Notes for the HP LaserJet 4 Printer.
	5861-0888***	The PCL/PJL Technical Reference Package includes: PCL 5 Printer Language Technical Reference Manual, Printer Job Language Technical Reference Manual, PCL/PJL Technical Quick Reference Guide, PCL Comparison Guide.
	5002-1801***	HP LaserJet Printer Family Paper Specification Guide.
	C2080-90921***	PostScript SIMM Technical Reference Manual.

† Add country-specific option, e.g., #ABA for US English manual and power cord for 115-volt unit. †† HP JetDirect Ethernet cards provide both Thin LAN (BNC) and 10 Base-T (RJ-45) ports. ††† Requires optional tray assembly (C2083A or C2083B). \* Documentation included with the HP LaserJet 4 or HP LaserJet 4M printer. \*\* Documentation included with the US English printer only. \*\*\* Documentation is not included but can be ordered.

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