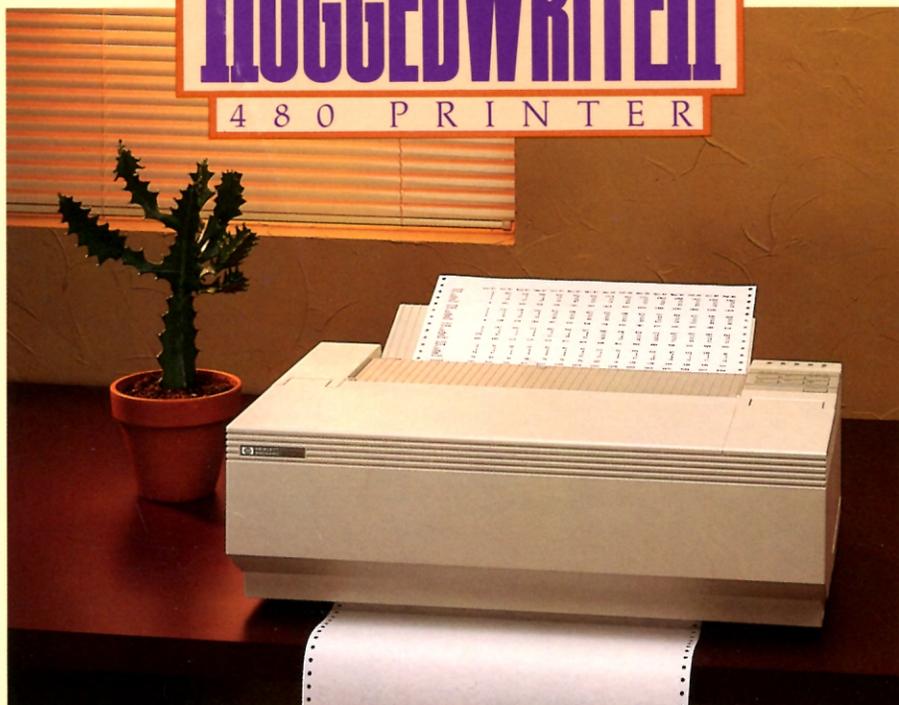
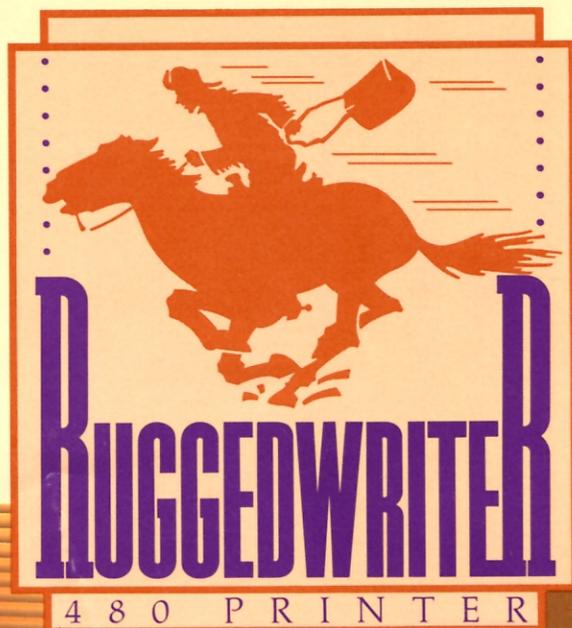


HEWLETT-PACKARD

**HP 2235 Series
Business Printers**



Fast, Rugged Operation

The new HP RuggedWriter 480 Printer offers *top-quality* 24-wire impact printing that's fast – 480-cps draft and 240-cps letter-quality printing. And it's rugged – durable and hardworking – designed for unlimited printing with excellent reliability.

A Multi-user Printer for Multiple Applications

When several users share the RuggedWriter 480 Printer, it zips through many tasks: top-quality letters, multipart forms, labels, or spreadsheets.

Three independent paper paths accommodate hand-fed paper, tractor-fed paper and the sheet feeder accessory.

A Dedicated Printer for Transaction Applications

If you need a dedicated printer for transactions like purchase orders, shipping documents, paychecks or invoices, you can depend on the RuggedWriter 480 Printer. With a minimum of attention, it performs such tasks quickly, efficiently, and reliably.

Full Compatibility for Applications Flexibility

The RuggedWriter 480 Printer has a dual I/O (HP-IB or Centronics parallel and serial) for use with a variety of computer systems. It supports most popular software via HP and Epson command languages.

Winning Features

- 480/240 cps
- 20,000 hours MTBF
- Triple paper path
- Built-in tractors
- Quiet operation
- Dual I/O



FEATURES

- High-speed 24-wire, impact printing
 - 480-cps draft
 - 240-cps letter-quality
- Rugged and reliable
 - Unlimited duty cycle
 - 20,000 hours MTBF (mean time between failures)
- Industry compatible
 - HP and Epson printers
 - HP and IBM PCs
- Comprehensive print features
 - Full range of print pitches
 - Bold, underline, and italics
 - Superscripts and subscripts
 - Proportional spacing
- Three paper paths
 - Z-fold paper
 - Cut-sheet paper
 - Hand-fed sheets
- Adjustable tractors
 - Handles paper up to 15" wide
- Convenient key pad
 - Key-selectable print modes, paper movement, and paper paths
- Character cartridge accessory

BENEFITS

- Provides fast, quality business printing for a variety of tasks – letters, multipart forms, reports, and program listings, to name a few.
- Keeps on printing and gets the job done on time – even handles high-volume printing with virtually trouble-free operation.
- Works with a variety of computer systems, personal computers, software, graphics, preprinted forms.
- Provides the printing versatility needed by today's business and technical professionals. A full range of print styles and pitches accommodate both custom and industry-standard preprinted forms.
- Allows you to conveniently handle all kinds of printing and to preload both z-fold and cut sheets for maximum time savings.
- Allows full-size printing of spreadsheets and program listings.
- Saves time because print selections are easy to learn and easy to use.
- Expands printing capability with four additional print styles and 16K RAM.

Specifications

Print Speed	Draft mode: 480 cps (12 cpi) Letter-quality mode: 240 cps (12 cpi)
Character Structure	Draft mode: 12×12 Letter-quality mode: 36×24 Wire size: .28 mm (.011")
Character Sets	PCL Mode: HP Roman8, PC-8(Dk/No), JISASCII, ECMA-94Latin1, ISO 7-bit languages (support UK, Germany, France, Italy, Norway, Sweden, Spain, Portugal) EPSON Mode: PC-8(Dk/No), Epson 7-bit languages (support USA, England, Germany, France, Italy, Norway, Sweden, Spain, Japan, Denmark, DenmarkII, SpainII, and Latin America)
Graphics	Resolution for PCL mode format: 90×90 normal, 180×180 high resolution Resolution for Epson mode format: 60×60, 60×180, 80×60, 90×180, 90×60, 120×180, 120×60, 180×180, 240×60, 360×180
Printing Format	For PCL mode control format: 10 - Pica (136 columns) 12 - Elite (163 columns) 16.7 - Compressed (227 columns) 20 - Compressed (272 columns) 5 - Expanded (68 columns). For Epson mode control format: 10 - Pica (136 columns) 12 - Elite (163 columns) 15 - Compressed (204 columns) 17.13 - Compressed (232 columns) 20 - Compressed (272 columns) 5 - Expanded (68 columns) 6 - Expanded (81 columns) 8.53 - Expanded (116 columns). Both (PCL/Epson) format: Proportional space Sub/superscript, italics, bold, and underline available in all pitches. Line spacing variable
Operational Modes	Switch selectable Epson and HP modes
Command Language and Emulation	HP Printer Command Language PCL Level 3; Epson Esc/P (LQ-1000/LQ-1500)
Paper Handling	Triple paper path: Adjustable tractors, Friction feed, Single bin sheet feeder accessory (up to 100 sheet capacity). Auto paper load 4-part forms Last-form tearoff
Forms/Paper Requirements	Tractor forms: maximum width (edge to edge) 380mm (14.95"), minimum width (hole to hole) 76.2mm (3"), forms thickness maximum .3mm (.012") Hand fed paper: maximum width 370mm (14.57") Paper length minimum: 104.14mm (4.1") Printable line: 345.4mm (13.6") maximum

Key Pad	Keys: On-line, Select Print Mode, Up Arrow, Down Arrow, Select Paper Path, Form Feed, Line Feed Indicators: Ready, Tractor Fed, Bin Fed, Hand Fed, Draft, Compressed, Letter Quality
Power Requirements	Input voltage: 100, 120, 220, 240 volts AC (+10%, -10%), user selectable All voltages: 47.5/63 Hz Power consumption: 20 W. maximum non-printing; 80 W. maximum printing
Interface and Datacomm	Dual I/O: HP2235A/C: Centronics Parallel, RS-232 Serial. HP2235B/D: HP-IB, RS-232 Serial Xon/Xoff Protocol, DTR Busy Handshake
Environmental	Operating temperature: 5°C (41°F) to 40°C (104°F) Storage temperature: -40°C (-40°F) to 70°C (158°F) Acoustics per ISO SP 7779 standard: Sound pressure level-Lpa: 56 dB(A) tested in draft mode with cut sheet feeder @ 1 meter bystander position. Humidity: 15% to 80% RH, noncondensing
Physical Specifications	209mm (8.2") H×600mm (23.6") W×350mm (13.7") D 15.9 kg (35 lbs.) net weight
Product Certifications	UL, CSA, IEC Compliance. FCC Class B certified per FCC Rules, Part 15, subpart J, when used with a Class B computing device.
Buffer	2K (Optional 16K with character cartridge)
Reliability and Duty Cycle	No duty cycle limitations; 125,000 page life MTBF 20,000 hours based on 2000 hours power-on and 25,000 printed pages annual usage.

Print Sample:

Draft:

This is Draft Font 6 point
This is Draft Font 7 point
This is Draft Font 10 point
This is Draft Font 12 point
This is Draft
Font 24 point

Letter Quality:

This is Courier 10 point
This is Courier 12 point
This is Courier 16 point

Ordering Information

HP2235A - Centronics parallel and RS-232 dual I/O without sheetfeeder HP2235C - Centronics parallel and RS-232 dual I/O with sheetfeeder
 HP2235B - HP-IB and RS-232 dual I/O without sheetfeeder HP2235D - HP-IB and RS-232 dual I/O with sheetfeeder

The standard unit includes: printer, power cord, ribbon, owner's manual. Sheetfeeder accessory is included for HP2235C and HP2235D. Power supply voltage is user-configurable to 100, 120, 220, or 240V. Cables must be ordered separately.

Supplies and Accessories

Number	Description
12235A	Font Cartridge (Includes: Prestige Elite 12, Letter Gothic 12, TmsRmn PS, Helv 10, 16K RAM for download or buffer.)
12235C	Demo Cartridge
12239A	Single-bin Sheet Feeder (8½" × 11" size)
12239B	Single-bin Sheet Feeder (EUR A-4 size paper)
92166A	Desktop Printer Stand
92214P	Floor Printer Stand
92156S	Ribbon (5 million draft character-life)
02235-90002	HP RuggedWriter 480 Owner's Manual
02235-90003	HP RuggedWriter 480 Service Manual

12235A Font Cartridge: Print Samples

This is Letter Gothic 12 point
 This is Prestige Elite 12 point
 This is TmsRmn 12 point
 This is Helv 10 point

Fast phones for price and availability by location:

Austria: (0222) 2500-0 • Belgium/Luxembourg: (02) 761 31 11 • Denmark: (02) 81 66 40 • Finland: (0) 887 21 • France: (1) 60 77 83 83 • Iceland: (1) 67 10 00 • Ireland: (1) 60 88 00 • Italy: (2) 92 36 91 • Mediterranean and Middle East: Geneva – (22) 83 11 11 • Norway: (2) 24 60 90 • Scotland: (31) 331-1188 • South Africa: Johannesburg – (011) 802 5111; Cape Town – (021) 53 7954; Durban – (031) 28 4178 • Spain: (1) 637 00 11 0 • Sweden: (8) 750 20 00 • The Netherlands: (20) 547 69 11 • Switzerland: Widen – (57) 31 21 11; Meyrin – (22) 83 11 11; Lugano – (91) 22 78 31 • United Kingdom: (344) 773100 • United States: 800-538-8787; California – 408-738-4133 • West Germany: (6172) 400-0

Interface and Cable Requirements

HP/NON-HP HOST	PRINTER I/O	HOST INTERFACE	HP CABLE
Touchscreen PC/150	Serial	Built-in	13242G
Vectra PC	HP-IB	Built-in	10833A/B/C/D
	Parallel	HP24540A	24542D
	Serial	HP24541A (25-pin) HP24540A/41A (9-pin)	13242G 24542G
HP 250/260	Serial	See 250/260 documentation	13242N/M
HP1000 A/E/F	HP-IB	See 250/260 documentation	10833A/B/C/D
	Serial	12040 C/D/ Multiplexer	92219G
HP3000 (3X, 4X, 5X, 6X, 70, Micro3000, Micro3000XE)	HP-IB	12009A HP-IB	10833 A/B/C/D
	Serial	ADCC and ATP (25 pin) or ATP (3-pin)	13242Y, 92219G, or 13242N 13242X
HP9000(200,300,500)	HP-IB	Built-in	10833 A/B/C/D
HP2392/93/94/97 Terminal	Parallel	Opt. 093 or HP40210P	13242D or 40242D
	Serial	Opt. 092 or HP40210R	13242G or 40242G
IBM PC Family and compatibles	Parallel	IBM Parallel Printer Adaptor or HP24540A	24542D
		IBM Asyn. Com. Adaptor (25-pin)	13242H
	Serial	IBM Serial/Parallel Adaptor (9-pin)	24542G



For more information, call your local HP Sales Office.
 Or write to Hewlett-Packard: 1820 Embarcadero Road, Palo Alto, CA 94303.

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