

HP DraftMaster Series Large-format Pen Plotters

Technical Data

**Pen plotters for increased
personal productivity
within your work group.**

Features

- Exceptional performance
 - Acceleration: 5.7 g maximum
 - Pen speed: 110 cm/s (43 in/s) maximum
- Superior line quality
- HP-GL/2 interface language
- HP DraftMaster I/II (HP 7595A/HP 7596A) software emulation
- Restart and multiple copy capabilities
- Front-panel scaling
- One-year on-site warranty
- Low on-site service contract prices

HP DraftMaster SX

also includes:

- Single sheet plotting — up to 1.6 m (5.25 ft)
- 1 Mbyte buffer standard

HP DraftMaster RX

also includes:

- Roll-feed and single sheet-feed capabilities
- 1 Mbyte buffer standard
- Long-axis plotting (up to 1 Mbyte file size)



HP DraftMaster MX

also includes:

- Roll-feed and single sheet-feed capabilities
- Multiuser interface for up to four users
- 20 Mbyte intelligent plot spooler
- Advanced plot management features:
 - Plot status/reprioritization
 - Multiple user setups
 - Long-axis plotting (up to 20 Mbyte file size)

HP Computer Museum

www.hpmuseum.net

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Quality and Productivity

Hewlett-Packard has created a complete series of pen plotters following in the HP DraftMaster tradition of quality and performance. HP DraftMaster SX, HP DraftMaster RX, and HP DraftMaster MX are built for durability and productivity. They can handle greater workloads with faster throughput in today's demanding CAD environments, especially if you share your plotter.

Expect superior line quality from these premier pen plotters with an addressable resolution of 0.025 mm (0.00098 in) and repeatability of 0.10 mm (0.004 in). HP DraftMaster Series plotters have a maximum acceleration of 5.7 g, and a maximum pen speed of 110 cm/s (43 in/s), so you can spend more time working and less time waiting for plots. HP DraftMasters' unique combination of built-in features were specifically designed to increase personal productivity within your work group.

HP-GL/2

All HP DraftMaster Series plotters implement HP-GL/2, Hewlett-Packard's new standard graphics language. HP-GL/2's improved language efficiency substantially reduces transmission time, so you and your computer can go on to another task quickly. And HP-GL/2 is unique in the way it structures files — clearly showing the start and finish of each individual file as it is plotted. In addition to increasing productivity today, it ensures consistency between plotters and software in the future. Ultimate plotter performance, however, is dependent on the software used.

There is a significant amount of software currently available for HP DraftMaster I/II. HP DraftMaster SX, RX, and MX will work with this software. However, to get the most from your plotter, HP recommends using an efficient HP-GL/2 driver.

HP DraftMaster Series pen plotters also have a variety of intelligent firmware features that make plot management fast and convenient. The restart function lets you redraw your current plot without file retransmission. You can also produce multiple copies without file retransmission using the copy function. That's a real plus when you need color copies.

HP DraftMaster SX

HP DraftMaster SX was engineered for reliable, high quality, single-sheet plotting. The standard 1 Mbyte buffer allows downloading of an entire plot, minimizing data transmission time and freeing the computer more quickly for another plot or task.

HP DraftMaster RX

In addition to all of the features currently available on HP DraftMaster SX, HP DraftMaster RX offers convenient media handling capabilities including roll feed and take-up reel. Plus long-axis plotting up to 45.72 m (150 ft). HP DraftMaster RX gives you the option of sheet or roll feed, with the highest quality output assured either way. This high productivity pen plotter is the ideal choice when sharing through a central computer or LAN (local-area network) server.



HP DraftMaster Series pen plotters give you superior performance and increased productivity.

A photograph of an HP DraftMaster MX pen plotter is positioned on the left side of the page. The plotter is a light-colored, boxy device with a roll of paper emerging from it. The paper displays a detailed architectural drawing of a building with a complex roofline and structural elements. In the foreground, a black HP SurePlot disposable drafting pen is shown diagonally. The pen has a silver-colored tip and a clear plastic cap. The text "HP SurePlot" is printed in gold on the black body of the pen. The background is a plain, light-colored surface.

HP DraftMaster MX

HP DraftMaster MX is our most advanced pen plotter. It has every feature and capability of HP DraftMaster RX plus multiuser interface for up to four users, a 20 Mbyte intelligent plot spooler, and superior plot management features.

Four RS-232-C ports make HP DraftMaster MX an easily shared, highly productive plotter for non-networked PCs or workstations. Plot files from all four PCs or workstations can be transmitted directly to the plotter without a switch/buffer box. In addition, individual setups are available for each user.

The 20 Mbyte intelligent spooler (hard disk drive) acts as a huge buffer, so multiple files from multiple users can be downloaded, stored in a queue, and plotted as required. Queue status can be reviewed and changed as needed.

A single HP-IB port is also available to speed data transmission from HP workstations.

Upgrade Kits

HP's DraftMaster Series upgrade kits provide a path for your future needs. HP p/n 17520A converts the HP DraftMaster SX to roll feed; HP p/n 17569A converts an HP DraftMaster RX into an HP DraftMaster MX.

Improved Pens

HP SurePlot disposable drafting pens provide the quality and dependability required for optimum productivity. HP SurePlot disposable drafting pens have a ceramic tip for clog-free plotting. The specially designed regulator makes them leak-free, too. HP SurePlot pens are convenient and easy to use, with no assembly or maintenance required.

HP's new roller-ball pens now plot at a faster speed — 110 cm/s (43 in/s) — the maximum pen speed specified for the HP DraftMaster Series pen plotters. Roller-ball pens give you improved line quality and increased plotting speed.

You can also choose from HP's complete range of colors and line widths in fiber-tip and refillable drafting pens.

Reliability and Service

HP DraftMaster Series pen plotters, like all Hewlett-Packard products, have been tested extensively to ensure their quality and reliability. HP backs all its plotters with a standard one-year on-site warranty, and has the most affordable on-site service contracts in the industry.

HP SurePlot disposable drafting pens for leak-free, clog-free plotting.

Technical Information

Performance Characteristics

Media Sizes	Ranges include ISO sizes A4 through A0, ANSI sizes A through E, plus architectural sizes and oversized media. DraftMaster SX (sheets only): acceptable media widths, 207.0–381.0 mm (8.15–15.0 in), 539.0–713.0 mm (21.22–28.07 in), 753.0–927.0 mm (29.65–36.5 in). DraftMaster RX and MX : Same sheet sizes as above plus these roll sizes, width 609.6 mm (24.0 in), 914.4 mm (36.0 in), length, 46.0 m (150.0 ft).
Pens	8 in carousel
Number	Fiber-tip (paper and transparency), long-body drafting (refillable or disposable), roller-ball
Type	Vellum, double-matte polyester film, tracing bond, transparency film, paper (regular and glossy)
Media	Each in three fonts: French/German, HP 9825, Scandinavian, Spanish/Latin American, Roman
Character Sets	Extensions, Special Symbols, and these ISO registered sets: ANSI ASCII (006), French (025), French (069), German (021), International Reference Version (002), Italian (015), JIS ASCII (014), Katakana (013), Norwegian I (060), Norwegian II (061), Portuguese (016), Spanish (017), Swedish (010), Swedish for Names (011), United Kingdom (004)
Resolution	
Addressable	0.025 mm (0.00098 in)
Mechanical	0.00625 mm (0.0002 in)
Repeatability	For a given pen: 0.10 mm (0.004 in) (These specifications are for 0.08 mm (0.003 in) paper, vellum, or polyester film)
Accuracy	0.09% of the move or 0.25 mm (0.01 in), whichever is greater (These specifications are for 0.08 mm (0.003 in) polyester film)
Pen Velocity	Maximum pen speed*: 110 cm/s (43 in/s)
Acceleration	
Maximum	5.7 g (55.5 m/s ² , 182.4 ft/s ²) on diagonal, 4 g per axis
Programmable	2 or 4 g (19.4 or 39 m/s ²)
Pen Force	Programmable or front panel selectable: 15–66 grams
Margins (sheets only)	
Expanded Mode	Three margins approx. 5.0 mm (0.2 in) each, fourth margin approximately 29.0 mm (1.14 in)
Normal Mode	Three margins approx. 15.0 mm (0.59 in) each, fourth margin approximately 39.0 mm (1.54 in)
Buffer Size	
For SX and RX	1 Mbyte RAM standard
For MX	20 Mbyte hard disk standard
Interfaces	RS-232-C (including dual I/O for terminal eavesdrop), HP-IB, and RS-422-A MX also allows four RS-232-C users to share

Environmental Ranges

Temperature	
Operating	0 to 55 degrees C (32 to 131 degrees F)
Storage	–40 to 75 degrees C (–40 to 167 degrees F)
Humidity	
Sheets	5 to 95% (0 to 40 degrees C)
Rolls	30 to 70% (10 to 30 degrees C)

Power Requirements

Source	100, 120, 220, 240 V, ±10%
Frequency	48–66 Hz
Consumption	
For SX and RX	125 W maximum
For MX	160 W maximum

Physical Specifications

Width × Depth × Height	134.6 cm × 50.8 cm × 119.4 cm (53.0 in × 20.0 in × 47.0 in)
Net weight	
DraftMaster SX	73.0 kg (160.0 lb)
DraftMaster RX	74.0 kg (164.0 lb)
DraftMaster MX	76.0 kg (167.0 lb)
Shipping weight	
DraftMaster SX	91.0 kg (200.0 lb)
DraftMaster RX	93.0 kg (205.0 lb)
DraftMaster MX	94.0 kg (208.0 lb)

*As in all pen plotters, actual pen speed depends on direction of travel, vector length, and maximum velocity setting.

Ordering Information Standard Units

7595B
HP DraftMaster SX
Large-format single sheet drafting plotter

7596B
HP DraftMaster RX
Large-format roll-feed or sheet-feed
drafting plotter

7599A
HP DraftMaster MX
Large-format multiuser roll-feed or
sheet-feed drafting plotter

Note: Interface cables must be ordered
separately.

Accessories Included with HP DraftMaster SX, RX, and MX

User's Guide (language appropriate to
plotter destination)

Power cord (appropriate to plotter
destination)

Paper sampler

Adjustable pen carousels (2)

Fiber-tip pens (10)

Roller-ball pens (4)

Disposable drafting pens for vellum with
adapters (4)

Grit wheel brush

Plotter supplies catalog

Additional Accessories Included with HP DraftMaster RX and MX only

Paper roll sampler, 914.4 mm (36.0 in)
wide, 13.72 m (45.0 ft) long

Take-up spool, 914.4 mm (36.0 in)

Media cutters (5)

Additional Accessories Included with HP DraftMaster MX

RS-232-C splitter cables (2) convert two
DraftMaster ports into four

Accessories Available

17568A	1 Mb Buffer/HP-GL/2 Upgrade Kit.* Gives a 7595A or 7596A the buffer and HP-GL/2 capa- bility of a 7595B or 7596B. (Note: The converted unit is not upgradable to a 7599A.)
17569A	MX Upgrade Kit.* Converts 7596B to 7599A.
17520A	Roll-feed Upgrade Kit.* Converts either 7595A or 7595B to roll-feed.
5959-9733	HP-GL/2 Programmer's Reference Guide (English)
5959-9734	HP-GL/2 Comparison Guide (English)
07595-90001	HP DraftMaster Programmer's Reference (HP-GL)
07595-90003	HP DraftMaster Programmer's Pocket Guide
07595-90051	HP 7595B/96B User's Guide (English)
07595-90071	HP 7599A User's Guide (English)
07595-90025	HP 7595B/96B Hardware Support Manual (English)
07595-90000	HP 7599A Hardware Support Manual (English)
5062-1576	Additional pen carousels

Complete list of available supplies can be
found in the Supplies Source Catalog or
the Hewlett-Packard PC Peripherals
Price Guide.



*Must be installed by a qualified service representative.

Interface and Cable Requirements

System	Cable
HP Vectra PC with HP 24540A/B serial/parallel interface card or HP 24541A/B dual serial interface card using 9-pin connector; IBM AT	HP 24542G X
HP Vectra PC with HP 24541A/B dual serial interface card using 25-pin connector	HP 17255M
HP 9000, Series 300, using HP-IB interface	HP 10833A (1.0 m) HP 10833B (2.0 m) HP 10833C (4.0 m) HP 10833D (0.5 m)
IBM PS/2, PC, PC-XT, Compaq, and compatibles	HP 17255D
IBM AT and compatibles	HP 24542G
Apple Macintosh 128K and 512K	HP 92219M
Apple Macintosh Plus, SE, II	HP 17302A
Apple IIe, DEC VAX	HP 17355M

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