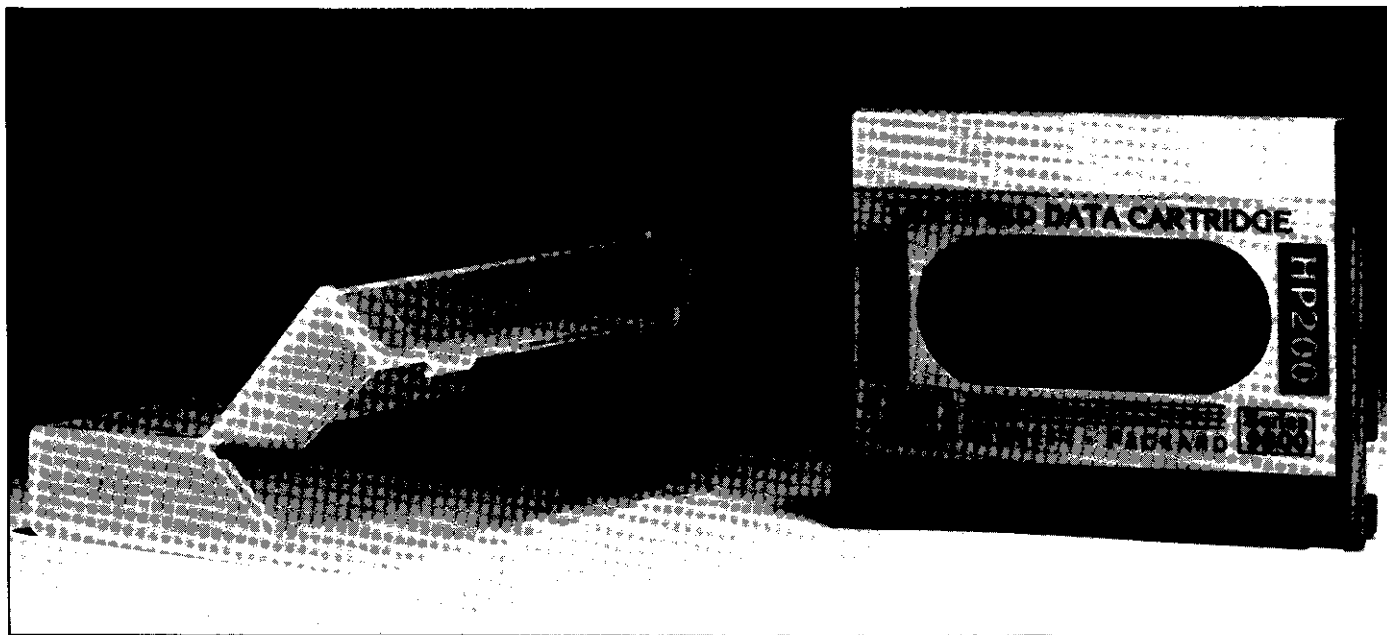


HEWLETT  PACKARD

98200A Data Cartridge



*TECHNICAL DATA SEPTEMBER 1979



The Hewlett-Packard 98200A Data Cartridge is a compact, magnetic-tape device offering reliable data storage for Series 9800 Desktop Computers and HP 264X Series Display Terminals.

An unlabeled version, Model 98200U, is also available.

The 98200 Data Cartridge is designed, manufactured and supported by HP to provide quality data storage devices that bring out the best performance in HP computer products. As much as 5.4 megabits of unformatted data can be stored on the 98200's 140 feet of 0.150 inch wide tape, assuming a recording density of 1600 bits per inch on two tracks. The 98200 features speeds of up to 90 inches per second, making short access time and fast transfer rates possible. Acceleration rates of up to 2000 inches/second² are possible, helping to keep start/stop distances to a minimum.

Certified Testing

To insure quality operating performance, HP tests the data cartridges mechanically for proper tape tension and drive force requirements, and electromagnetically for error-free recording.

Each cartridge is automatically tested over its entire tape length by recording and reading back tightly-packed data bits to certify 100% error-free performance at time of shipment.

In addition, the cartridges are subjected to realistic customer-usage tests to insure full tape life and reliability. These "life" tests are run on a continuous sample basis.

Added Protection

HP takes extra steps to protect the operating quality of its data cartridges.

It begins with an inspection and cleaning of all critical cartridge parts, followed by assembly of those parts in an industrial clean room.

Special structural features are built-in to the cartridge to serve as extra protection. One example is a specially designed door used to cover the tape at the high-usage head access point, protecting the tape when it is removed from the drive.

Following certification, each cartridge is then placed in a durable, plastic box to protect it against dust and other particulate matter including paper debris. Each boxed cartridge is then sealed in a protective shrinkwrap, then placed in a carton of five for shipment.

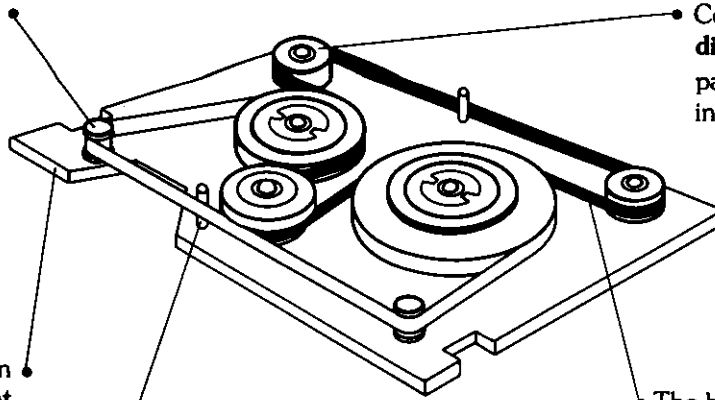
Precision Manufacturing

Physical durability and electrical performance are vital characteristics of tape cartridges used in storing and retrieving data in computational devices.

The 98200 is a precise mass storage device whose small, intricate internal parts (highlighted on the following page) demand extremely rigid tolerances that make optimum performance and durability possible.

Tightly-controlled tolerances set for the finished surface of the HP tape guides are one example of the rigid specifications applied to the cartridge's makeup — less than one millionth of an inch variation — to maintain long tape life and reliability.

The metal baseplate construction helps insure **accurate alignment** to tape guides and other internal parts, while providing a **grounding surface** to protect the cartridge from the effects of static electricity.



Corner-fixed rollers eliminate distracting noise and early part wear caused by any floating part vibrations.

High precision placement of the cartridge's internal parts is evident in the cartridge guide-pins. These pins must be within 1/1000 of an inch of perpendicular.

The heart of the HP cartridge is the belt which features custom-designed elasticity properties that assure **balanced tape tension and drive force** critical to proper tape to head contact.

Specifications

TAPE

Usable Tape Length	43.4m ± .76m (142.5 ft. ± 2.5 ft.)
Tape Width	3.8mm (0.150 in.)
Tape Thickness (nominal)	17.8µ m (700µ in.)

CARTRIDGE

Unformatted Data Capacity (1600 bits/in. on 2 tracks)	5.4 megabits
Tape Speed	up to 90 in./s either direction
Drive Ratio (Ratio of the tape velocity to the surface velocity of the drive pulley)	0.78 ± .02
Driving Force (at surface of drive roller)	3.5 oz maximum
Acceleration/Deceleration	up to 2000 in./sec ²
Tape Tension	8.4g (0.35 oz) minimum 49.7g (1.75 oz) maximum

SIZE/WEIGHT

Height	61.2mm (2.41 in.)
Width	80.9mm (3.18 in.)
Depth	11.9mm (0.47 in.)
Net Weight	56.8g (2 oz)
Shipping Weight (carton of five singles)	413g (14.75 oz)

ENVIRONMENTAL RANGE

Operating Temperature	0° C to +45° C
Non Operating Temperature	-40° C to +60° C
Relative Humidity (noncondensing; 30° C maximum Wet bulb)	20% to 80% R.H.

CARTRIDGE LIFE

Operating Life	5000 cycles minimum (A cycle is one pass from beginning of tape to end of tape and back to beginning of tape.)
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Ordering Information

Item	Part Number
1 carton containing five labeled single data cartridges	98200A
1 carton containing five unlabeled single data cartridges	98200U

Purchase Plans

Contact one of the Hewlett-Packard worldwide sales and service offices for specific prices or volume purchase discounts.

*Data subject to change.



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For assistance call: Washington (301) 948-6370, Chicago (312) 255-9800, Atlanta (404) 955-1500, Los Angeles (213) 877-1282, Canada (Toronto) (416) 678-9430

Ask for an HP Desktop Computer representative.

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