

7901A Cartridge Disc Subsystem



Features

- Compact on-line storage for HP Computer Systems
- 2.5 million bytes, expandable to 17.2 million bytes
- Average access time less than 35 milliseconds
- Photo-optical head positioning for guaranteed interchangeability
- Reliability through simple and rugged design

The HP 7901A Cartridge Disc Subsystem uses the efficiency and dependability of the 7901 Moving-head Disc Drive. It serves as a low-cost mass storage device for use in HP 2100-based computer systems.

Each 7901A Disc Drive has a removable 2315-type disc to store 2.5 million bytes of information. The disc is permanently enclosed in a cartridge for protection against contamination and damage. A photo-optical positioning system means complete cartridge interchangeability. This allows you to build a library of removable cartridges that will run on any HP 7900A or 7901A disc drive. Rapid cartridge exchange gives fast access to off-line storage . . . less than 60 seconds are required to stop, change cartridges, and resume full operation.

The 7901A Cartridge Disc Subsystem contains the disc drive and an integral power supply, interface controller and all necessary software for operation with HP computer systems.



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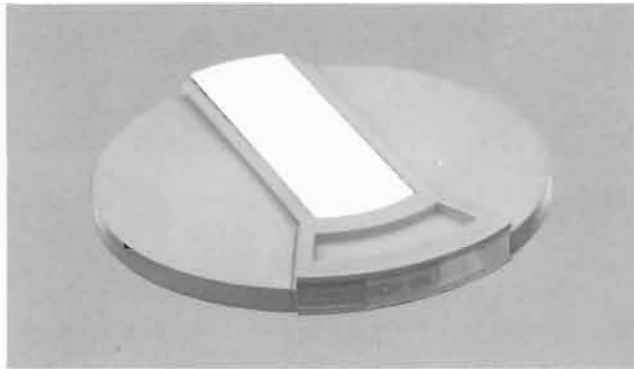
Specifications

CAPACITY

Drive: 2,500,000 bytes	Cylinder: 2 tracks
200 cylinders	48 sectors
400 tracks	12.5 bytes
9,600 sectors	Sector: 256 bytes
Track: 24 sectors	Recording Surfaces: 2
6,144 bytes	Disc: 1

RECORDING

2200 bits/inch on inner track, 100 tracks/inch,
203 tracks/surface



ACTUATOR

Voice coil actuator with position and velocity feedback

CARRIAGE

Stainless steel rails life tested in excess of two hundred million seeks.

AIR FILTRATION AND CIRCULATION

75 CFM squirrel cage blower distributes air to the cartridge. Absolute filter located at inlet to cartridge. All air passing into the cartridge goes through this filter.

DATA ACCESS

Rotation Speed 2400 RPM

Head Positioning (including settling time)

Track-to-Track (Maximum):	10 ms
67 Tracks (Maximum):	35 ms
203 Tracks (Maximum):	55 ms

Rotational Delay (latency)

Average (1/2 revolution)	12.5 ms
Maximum (1 revolution)	25 ms

Total Average Response Time (position and rotation) 47.5 ms

Data Transfer

8 Bit Bytes/Second: 312,000 average
Bits/Second: 2.5 million average

Cartridge Change at 60 Hz Power

Stop Time: 35 sec

Start Time: 30 sec

POWER REQUIREMENTS

110/120V $\pm 10\%$, 60 Hz $\pm 2\%$, 3.4A, single phase
220/240V $\pm 10\%$, 50 Hz $\pm 2\%$, 1.8A, single phase

INTERCHANGEABILITY

The 7901's unique photo-optical head positioning system allows any disc written on any 7901 within its operating temperature (10° to 40°C) to be read on any other 7901 unit operating within that temperature range.

ENVIRONMENTAL

Temperature

Operating: +10° to +40°C (+50° to +104°F)

Nonoperating: -20° to +65°C (-4° to +149°F)

Humidity: Up to 95% non-condensing

Vibration: 10 to 50 Hz at 0.01 inch peak-to-peak excursion

Attitude (pitch and roll): Accuracy of position is not affected by attitude of the drive.

PHYSICAL

Disc Drive

Height: 10½ inches (26,7 cm)

Width: 19 inches (48,3 cm) (16¾ inches behind rack mounting ears)

Depth: 25⅝ inches (65,1 cm) (22⅕ inches behind rack mounting ears)

Weight: 107 lbs. (48,6 kg)

Shipping Weight: 140 lbs. (63,7 kg)

Racking: Fits standard 19 inch EIA rack

ORDERING INFORMATION

2100-Based Systems

12961A**: Cartridge Disc Subsystem for 2100-based systems, 2.5M bytes (1.25M 16-bit words). Includes the 7901 disc drive, integral power supply, interface controller,* disc cartridge and disc operating system software.

12961A-010: Serves as 2nd, 3rd or 4th drive for the 12961A. Includes the 7901 disc drive, integral power supply, disc cartridge and necessary connecting cables. Up to 4 drives may be operated from one interface controller.

12961A-015: Provides 230V, 50 Hz operation.

12869A: Disc Cartridge (This is a 2315 type disc cartridge.)

Interface Power Requirements for 2100-Series Computers
0.06A (+12V); 0.095A (-12V); 0.134 (-2V);
3.78A (+4.5V)

*Controller occupies 2 computer I/O slots.

**HP 12960A and 12961A Cartridge Disc Subsystems may be mixed on the same 2100 Based System.



For more information, call your local HP Sales Office or East (201) 265-5000,
Midwest (312) 677-0400, South (404) 436-6181, West (213) 877-1282.
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