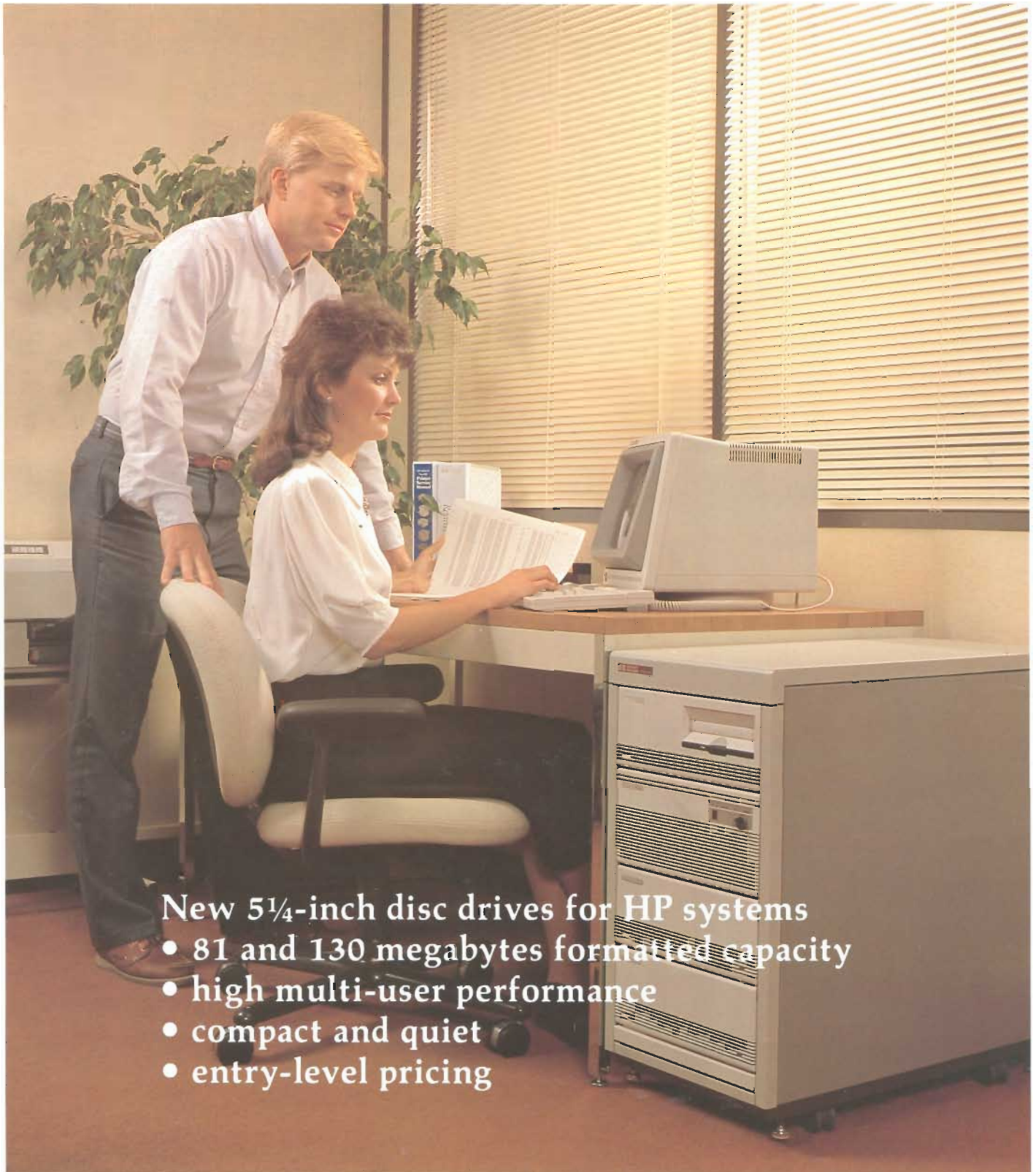


HEWLETT-PACKARD

HP 7957A and HP 7958A Midrange Disc Drives



- New 5¼-inch disc drives for HP systems
- 81 and 130 megabytes formatted capacity
 - high multi-user performance
 - compact and quiet
 - entry-level pricing

HP 7957A and HP 7958A . . . 5 $\frac{1}{4}$ -inch disc drives from Hewlett-Packard that offer the high capacity and high performance previously found only in our 14-inch disc products.

High capacity, attractive low price

With 81 megabytes and 130 megabytes of formatted capacity, respectively, the HP 7957A and 7958A are the highest capacity 5 $\frac{1}{4}$ -inch disc products offered by Hewlett-Packard. Their attractive entry-level pricing results in a substantial reduction in cost per megabyte over previous HP midrange disc drives.

Performance for multi-user applications

Both the HP 7957A and 7958A provide the performance demanded by today's commercial and technical multi-user systems and engineering workstations. These products feature a 29 millisecond average seek time and a burst data transfer rate of 1.25 megabytes per second. Combined with a low-overhead controller that accurately and swiftly processes each transaction, the HP 7957A and 7958A offer performance levels previously found only in more expensive 8-inch and 14-inch disc drives.

Quiet and compact

The compact packaging of the HP 7957A and 7958A allows them to be tucked away in HP's attractive mini-rack cabinetry, or placed unobtrusively in desktop applications. With a sound power level of 52 dB(A), both drives are suitable for an office environment.

Reliability and ease of support

The HP 7957A and 7958A boast low monthly support costs that are a direct result of continuing improvements in reliability. Should a disc-related problem occur, self-test and error-logging capabilities allow service personnel to quickly troubleshoot failure modes. Repair time is minimized by a package design that allows quick access to the field replaceable assemblies.



Shown here in a desktop configuration, the HP 7958A has the capacity and performance to complement this HP 1000 A900 real-time computer.



The 81 megabyte HP 7957A is an excellent entry-level disc drive for HP 9000 Series 300 workstations running HP-UX.

Features

High capacity/low price

- 81 megabytes — HP 7957A
- 130 megabytes — HP 7958A
- low, entry-level pricing

High performance

- 29 ms average seek time
- 1.25 megabytes/sec burst data transfer rate
- low overhead controller
- 16 kbyte data buffer

Compact packaging

- desktop use
- HP Design Plus cabinets available
- 19-inch rackmount adapter kit

Performance specifications

Seek time

Track-to-track	7 ms
Average	29 ms
Maximum	63 ms

Rotational Speed

3600 rpm

Data transfer rate

Burst	1.25 megabytes/s
Average	853 kbytes/s

Average transaction time

Average controller overhead	3.0 ms
Average seek time	29.0 ms
Average rotational delay	8.3 ms
Average time to transfer 1 kbyte (at 853 kbytes/s)	1.2 ms
Total average transaction time (excludes system overhead)	41.5 ms
Disc performance index (I/O's per second)	24.1*

Disc I/O comparisons

Random seeks, 1 kbyte transfers:

Product	I/O's per second*
7957/7958	24.1
7945/7946	20.0
7914	24.0
7911/7912	24.6
7933/7935	25.7
7936/7937	32.5

*Maximum disc transactions per second, for 1 kbyte transfers, less system overhead. Refers to fundamental disc performance; true I/O rates are application dependent and must take into account system overhead, including the individual system configuration specifications.



Ideal for office use

- quiet operation
- low power requirements
- office environment specifications

Reliable design

- 5¼-inch thin film media
- extensive factory testing
- automatic error correction
- automatic error logging
- low monthly support rates

Compatible design

- CS/80 instruction set
- HP-IB interface

Capacity specifications

Data capacity (formatted) — HP 7957A and HP 7958A

Item	Data Bits Per	Data Bytes Per	Sectors Per	Tracks Per	Heads Per
Byte	8				
Sector	2,048	256			
Track	129,024	16,128	63*		
Head	130,701,312	16,337,664	63,819	1,013*	
HP 7957A	653,506,560	81,688,320	319,095	5,065	5
HP 7958A	1,045,610,496	130,701,312	510,552	8,104	8

*There is one spare sector per track and six spare tracks per head.

Overall specifications

Heat dissipation

Maximum:	85 Watts (290 Btu/hr, 73 kcals/hr)
Typical:	65 Watts (222 Btu/hr, 56 kcals/hr)

Electromagnetic emissions

- HP 7957A/7958A — For U.S.A., designed to meet FCC docket 20780 for Class B computing peripheral devices. These products comply with the limits for a Class B computing device pursuant to Subpart J of part 15 of the FCC Rules. See instructions if interference to radio reception is suspected.
- HP 7957A/7958A — For Europe, designed to meet EMI level FTZ 1046/84 and provides a Manufacturer's Declaration. Refer to your local sales representative for more information.

Radiated and magnetic interference

Magnetic nonoperating:	< 2 milligauss at 2 m (7 ft) on all surfaces
Magnetic operating:	< 5 gauss on all surfaces

Safety

- CSA certified to CSA 22.2 No. 154.
- Meets all applicable safety standards of IEC 380 and IEC 435.
- UL listed to UL 114 and UL 478.

Power requirements

Voltages (true RMS):	
115V setting:	100V, 115V, 120V, single phase (inclusive tolerance range is 90V to 132V)
230V setting:	220V, 240V, single phase (inclusive tolerance range is 180V to 264V)
Frequency:	47.5 - 66 Hz
Typical Current:	
115V setting:	0.80A (true RMS at 115V, 60 Hz)
230V setting:	0.50A (true RMS at 230V, 50 Hz)
Typical Power:	
115V setting:	84 V-A (115V, 60 Hz)
230V setting:	97 V-A (230V, 50 Hz)

Acoustic Emissions

Average sound pressure level (L_{pA}):	41 dB(A)
Sound power level (L_{WA}):	52 dB(A)

Overall characteristics

Physical characteristics

Dimensions	
Height:	132 mm (5.2 in.)
Width:	325 mm (12.8 in.)
Depth:	285 mm (11.2 in.)
Weight	
Net:	10.9 kg (24.0 lb)
Shipping:	14.0 kg (31.0 lb)

System configurations*

- Total cable length is limited to one metre per equivalent HP-IB load.
- One HP 7957A or 7958A places one equivalent load on each of the HP-IB lines.

*Consult the appropriate system configuration guide for specific constraints in conjunction with the host CPU.

Environmental requirements

Note: Before installing a disc drive, refer to the Site Environmental Requirements Manual, part no. 5955-3456, available at your local Hewlett-Packard Sales Office.

Ordering information

HP 7957A and HP 7958A include:

- a disc drive (81 or 130 megabytes, respectively)
- integral controller and power supply
- stand-alone cabinet
- power cable
- 1-metre HP-IB cable
- 90-day on-site warranty (parts and labor)

Available options

- 015 — For non-U.S. shipments: Voltage selection switch for 230V operation.
- 550 — Delete 1-metre HP-IB cable.

Accessories supplied with each drive

Disc Drive Owner's Manual:	07957-90901
Site Environmental Requirements Manual:	5955-3456

Accessories available through an HP supply organization

Service Manual:	07957-90903
CS/80 Instruction Set Programming Manual:	5955-3442
CS/80 External Exerciser Reference Manual:	5955-3462
HP 19500B Rack Mount Kit for mounting in a standard 19-inch EIA cabinet.	
HP 92211-Series cabinets.	

For assistance call the HP regional office nearest you: (Eastern) Hewlett-Packard, 4 Choke Cherry Road, Rockville, MD 20850, 301/258-2000; (Midwest) Hewlett-Packard, 5201 Tollview Drive, Rolling Meadows, IL, 60008, 312/255-9800; (Western) Hewlett-Packard, 5161 Lankershim Boulevard, North Hollywood, CA, 91601, 818/505-5600; (Southern) Hewlett-Packard, 2000 South Park Place, Atlanta, GA, 30339, 404/955-1500; (Canada) Hewlett-Packard Canada Ltd., 6877 Goreway Drive, Mississauga, Ontario, L4V 1M8, 416/678-9430; (Europe) Hewlett-Packard S.A., 150 Route du Nant-d'Avril, P.O. Box CH-1217 MEYRIN 2, Geneva, Switzerland, 011/41 22 838-111; (Japan), Yokogawa-Hewlett-Packard Ltd., 29-21 Takaide-Higashi 3-chome, Suginami-ku, Tokyo, 168, 03/331-6111; (Far East) Hewlett-Packard Asia Headquarters, 47F China Resources Building, 26 Harbour Road, Wanchai, Hong Kong, 51833-0833; elsewhere in the world: Hewlett-Packard Intercontinental, 3495 Deer Creek Road, Palo Alto, CA, 94304, U.S.A. 415/857-1501.

Hewlett-Packard, in a continuing effort to offer excellent products at a fair value, reserves the right to change specifications, designs, and models without notice.