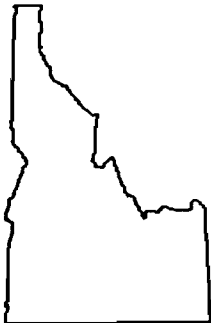
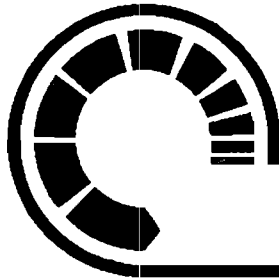
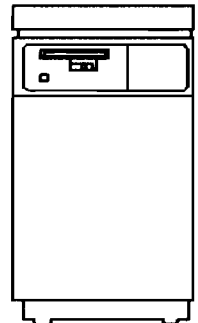


7914 SALES REFERENCE MANUAL

*HP #1 IN INTEGRATED MASS STORAGE SOLUTIONS :
7908, 7911, 7912, 7914, 7914TD*



**DISC MEMORY DIVISION
JANUARY 1983**



HP7914 SALES REFERENCE MANUAL

WHAT IS IT?

The 132.1 Mbyte 7914 is Hewlett-Packard's newest Winchester disc product aimed at strengthening our position in the mid-range marketplace.

The 7914 utilizes HP design-enhanced manganese-zinc read/write heads which allow twice the track recording density of standard Winchester heads, without sacrificing performance. By leveraging wherever possible from the field proven 7912, we are able to provide you with a disc that doubles the capacity of the 7912 for a small 20% increase in price!

As with the HP 7912, the 7914 can be configured with or without our unique 1/4 inch cartridge tape drive for convenient backup and software loading. The 7914 will be available in the same packaging options as the 7908/11/12: a compact stand-alone cabinet and a EIA standard rackmount for technical applications. A microprocessor-based controller manages both the tape and disc drives. The 7914 can provide your customer with a complete peripheral storage solution with enough disc space for expanding system requirements.

Something new with the 7914, we've combined a 7970E master tape drive with a 7914R and racked them together in a 72 inch system cabinet. We call it the 7914TD. The contribution of the 7914TD is price. The list price of \$26,000 is a \$6000 reduction off of the individual components. The 7914TD offers a higher performance backup solution at substantial price savings.

POSITIONING THE 7914

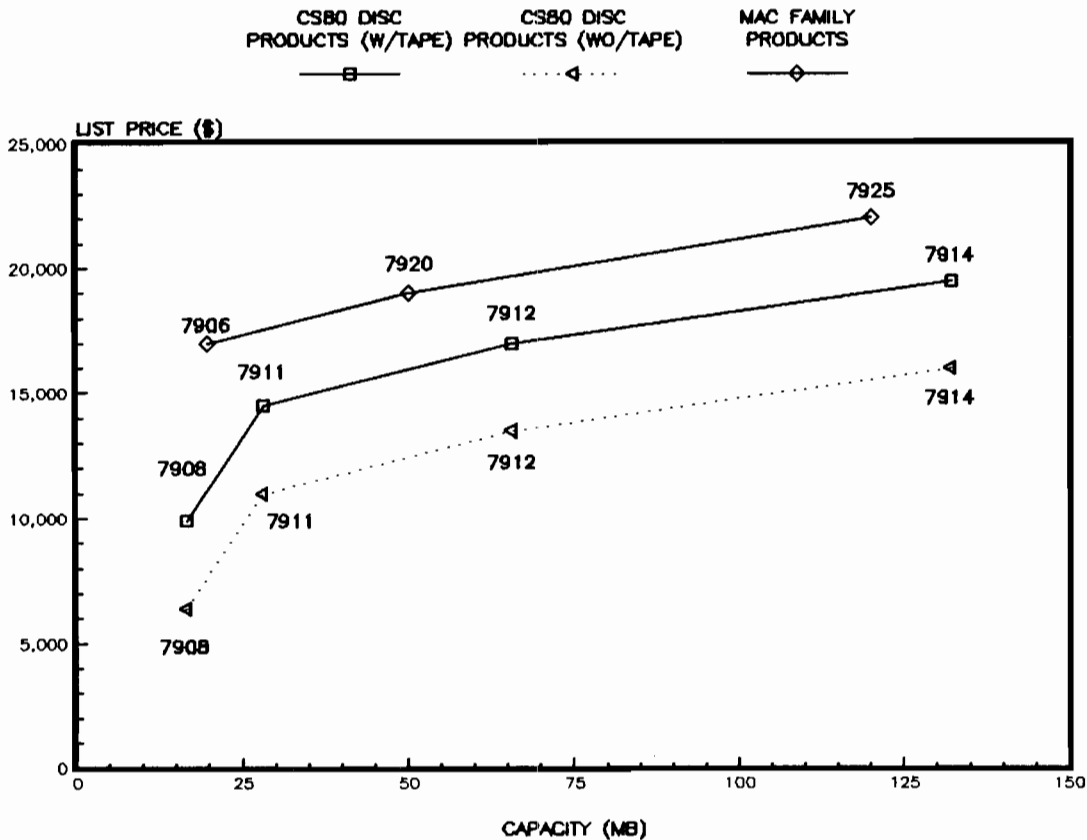
The 7914 is the Big Brother to the 7908/11/12 family of integrated storage products (see graph). With common styling and similar performance characteristics, this product line provides your customers with an even greater mass storage selection when configuring a system to meet their needs. Choose from a complete range of disc storage capacities: 16.5, 28.1, 65.6, and now 132.1 megabytes.

The 7914 is targeted at the mid-range computing systems marketplace. It's capacity and performance are an excellent match with the mid-range to high end HP 1000 systems (including the new A900), the new 32 bit HP 9000, and low-end to mid-range HP 3000's.

Priced at \$16,000 for the disc and \$19,500 for the disc/cartridge tape combination, the 7914 greatly strengthens the competitive stance of HP systems requiring 132 megabytes of disc storage.



MID-RANGE PRODUCT POSITIONING



HP Computer Museum
www.hpmuseum.net

For research and education purposes only.

BACKUP

As computer users become more experienced and aware of the technology that they employ (and if they have ever experienced a disc or system crash!), they gain a greater sensitivity for the need to do periodic system backup. Many users require that the backup procedure be both inexpensive and simple. It is here that we feel Hewlett-Packard has the distinct advantage over the competition with our integral 1/4 inch cartridge tape drive (CTD).

HP is the innovator with the 'integrated solution' and by being so, we've got a significant jump on the competition. We believe it is a matter of time before our major competitors take a similar approach to peripheral storage. The knowledge we have gained in the more than a year of shipping products with this tape mechanism will keep us a 'head and shoulders' above the competition. Right now, we feel we have a significant advantage with our entry level backup solution.

However, some users will require greater performance from their backup device. (This is especially true with 132 megabytes of disc.) Remember, the 7914 is a 132 megabyte disc and will require two 67 megabyte tapes for a complete image copy. For this reason the 7914 offers you an alternative to the cartridge tape drive: the 7914TD.

The 7914TD includes a 7914R, without the cartridge tape, and a 7970E master half-inch tape drive and mounts them together in a 72 inch system cabinet. The concept of integration is not a new one, so the real contribution of the 7914TD is price. The 7914TD lists for \$26,000 which is a \$6000 savings over the disc and tape bought separately! Option 114 adds a second disc to the cabinet for a total of 264 megabytes of disc with the 7970E. A 7914TD Option 114 lists for \$40,000 which is an \$8000 savings!

BACKUP DEVICE STRENGTHS

CTD	7970E
<i>Low price</i>	<i>Higher performance</i>
<i>Inexpensive, compact media</i>	<i>ANSI compatible</i>
<i>Easy to use</i>	<i>Start/stop applications</i>

THE COMPETITION

Since the 7914 is the right product for both mid-range technical and commercial systems we will look at the competition for both, concentrating on IBM for the commercial and DEC for the technical systems.

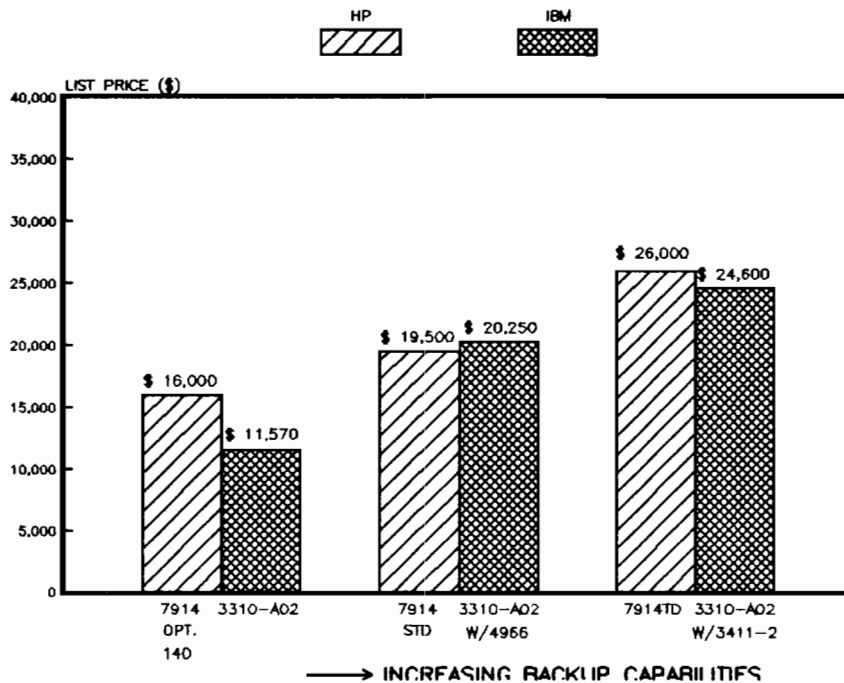
IBM

IBM's most competitive disc offering in this range is the 3310-A02, a double spindle Winchester product with very similar performance characteristics to the 7914. The 3310-A02 was introduced in 1979 and recently went through a 30% price reduction. The current list price is \$11,570 for 128 megabytes of disc.

Their entry level backup solution is a diskette magazine unit. The 4966 diskette magazine is capable of holding 23 diskettes (2 magazines of 10 and 3 single diskettes). Maximum possible capacity is 27.6 megabytes. List price of the 4966 is \$6,160. The 1205 4966 control unit is \$2,520. The main disadvantages of this approach are price and the constant swapping of floppies. The entire 23 floppies would require changing five times to back up 128 megabytes. However, the 8809 1/2-inch tape drive is the entry level backup device for the 3310 on the IBM 43XX series computers. The IBM 8809 is used primarily for streaming backup (100 ips), but can also be used as a start/stop device (12.5 ips). The 8809-1A Master unit lists for \$11,970 with a monthly maintenance charge of \$76.50.

Their 1/2-inch tape offering closest to the 7970E is the 3411 Model 2. Its list price is \$13,030 and monthly maintenance is \$167 (compared to \$78 for the 7970E). A solution consisting of the 3310-A02 and the 3411 would be \$24,600, very competitive with the 7914TD at \$26,000. But remember, we've got the solution in one cabinet, IBM does not. Therefore, if floor space is a concern, the 7914TD can help you win against IBM. Just a reminder; IBM does not discount these peripherals!

HP VS IBM



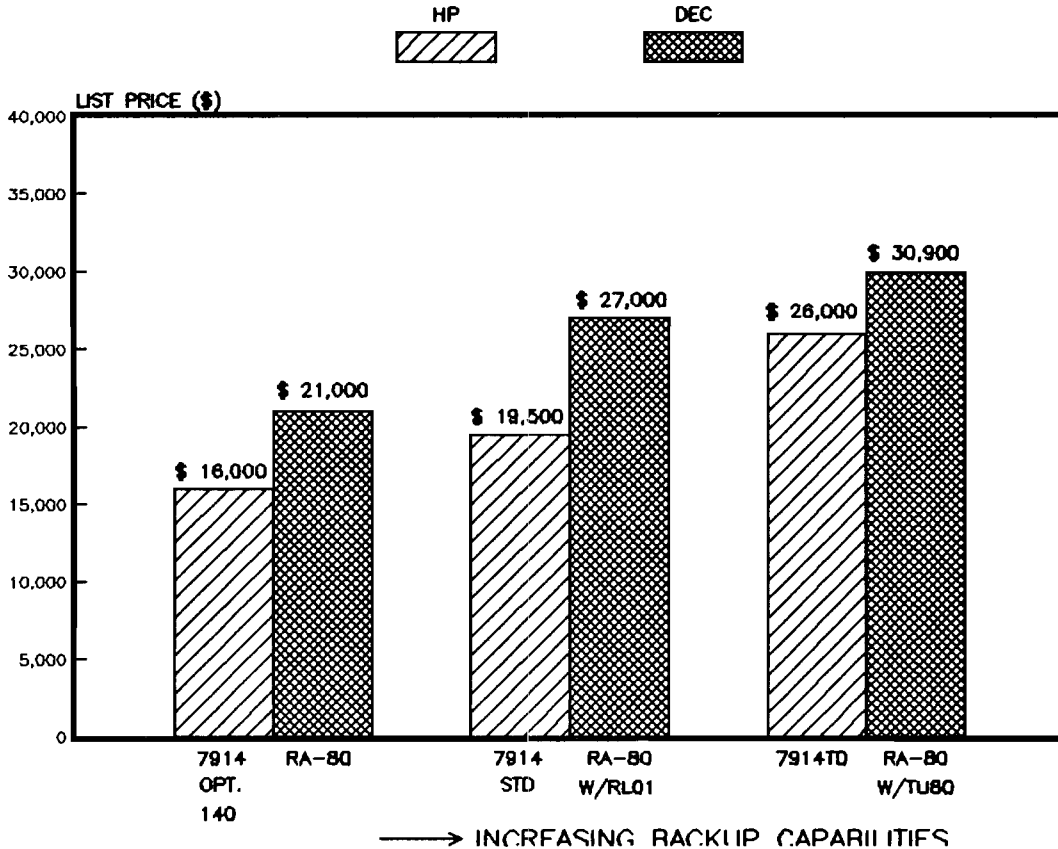
DEC

DEC's most competitive disc offering in the 130 megabyte range is the RA-80. It's a 121 megabyte Winchester disc that lists for \$21,000. Compare that to \$16,000 for a 7914P option 140. Monthly maintenance fees are \$81, compared to a BMMC of \$42 for the 7914 (disc only). Performance spec's and transfer rates are comparable.

DEC chooses the RL01, a 5.2 megabyte cartridge disc at \$6000 for their entry level backup solution. Unlike HP, DEC does not advocate full-volume backups. They recommend selective file backups done periodically. For this reason, the RL01 is a good choice for entry level backup on DEC's systems. It is fast, with transfer rates that match those of the system disc and loading a disc cartridge is about as easy as loading a cartridge tape. NOTE: the VAX systems do not support the RL01 but do support the RL02 (10.4 megabytes at \$6,900).

DEC's 1/2-inch tape offering is the new TU80. The TU80 is an OEM'd tape drive from CDC that was introduced December 1982. Deliveries are scheduled for Spring 1983. The TU80 is a 1600 bpi drive that can operate in a start/stop mode at 25 ips and in a streaming mode at 25 or 100 ips. List price of the TU80 is \$9900. Monthly maintenance prices are not yet known.

HP VS DEC



ENTRY LEVEL BACKUP COMPARISON**PRO****CON****HP
CTD**

- o integrated with disc
- o inexpensive (\$3,500)
- o compact, high capacity media
- o easy to use
- o inexpensive maintenance (\$12)

- o full volume backup of 132 MB with just 2 CTD cartridges
 - DEC needs 12 expensive RL02 disc cartridges
 - IBM requires 106 floppy discs with the 4966

- o relatively slow transfer rate (1-2 Mb/min)

**DEC
RL01**

- o very fast
- o easy to use

- o high maintenance costs (\$60)
- o many media swaps for a full volume copy
- o additional floor space and power consumption requirements
- o bulky, expensive media

**IBM
4966**

- o relatively fast for short data transfers

- o expensive (more than \$8,000 with controller)
- o many (over 100) media swaps to perform for full volume backup
- o additional floor space and power consumption requirements
- o high maintenance costs (\$80)

SELL HP MAINTENANCE!!**MAINTENANCE PRICE COMPARISON****HP**7914 \$ 42
(without tape)

CTD \$ 12

7970E \$ 78

DEC

RA-80 \$ 81

RL01 \$ 60

TU80 \$ N/A

IBM

3310-A02 \$105

4966 \$ 80

8809 \$76.50

3411 \$167

ORDERING/PRICING (Prices are US Factory Prices, without freight.)

HP 7914P : 132.1 megabytes disc drive, integral cartridge tape drive, two
[\$19,500] 67 megabyte tape cartridges, controller, power supply, stand-alone
cabinet and a 2 meter HP-IB cable.

HP 7914R : Same as 7914P except a standard EIA rackmount enclosure replaces
[\$19,500] the stand-alone cabinet.

OPTIONS:

001 : Adds dedicated controller for cartridge tape drive. For HP 3000
[+\$1800] applications. (7914P only.)

140 : Deletes integral cartridge tape drive and associated electronics.
[-\$3500]

015 : Configures 7914 for 220 volt/50 Hz operation.
[+\$0]

HP 7914TD: 132.1 megabytes disc drive (without cartridge tape), 7970E 1/2 inch magnetic tape drive, controllers, power supplies, 2 meter HP-IB cable and 72 inch cabinet.

OPTIONS:

002 : Adds the cartridge tape drive and a second controller (for 3000 applications only - April release).
[+\$5300]

015 : Configures 7914TD for 220V/50Hz operation.
[+\$0]

114 : Adds additional 7914R Opt. 140, controller, power supply, and 2 meter HP-IB cable.
[+\$14,000]

240 : Adds the cartridge tape drive to the first 7914R, 2 - 67 megabyte tape cartridges.
[+\$3500]

SYSTEM SUPPORT

The 7914P/R products will begin shipping February 1 with a 12 week availability. The following matrix is a summary of HP systems that support the 7914P/R and their appropriate support dates.

7914P/R SYSTEM SUPPORT

SYSTEM/PRODUCT	WHEN SUPPORTED*
1000 A600, 700, 900 E, F processors	February 1, 1983 Coming soon
3000 Series 40,44,64	R-MIT release (March 1983)
9000X 32-bit processors	Q3 '83
9836A	Q3 '83



DMD will begin taking orders on the 7914TD in February, with shipments beginning in March.

7914TD SYSTEM SUPPORT

SYSTEM/PRODUCT	WHEN SUPPORTED*
<i>1000 A600, 700, 900</i>	<i>March 1, 1983</i>
<i>3000 Series 30, 33, 40, 44, and 64</i>	<i>April 1, 1983</i>

* Support dates are goals, contact System Divisions for details.

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