DATA SHEET
DSD 880 x/30

HIGHER CAPACITY

Data Systems Design introduces a higher capacity version of the DSD 880 Winchester/Floppy Disk Storage System. The DEC LSI-11/PDP-11 compatible DSD 880 is now available with either the previously standard 7.8 or a new 31.2 megabytes of winchester storage capacity. The 8½-inch 31.2 MB disk still fits the DSD 880's compact 5¼-inch high box.

CHOICE OF FLOPPIES

The new model, designated the DSD 880 x/30, is available with either a ½ MB, single-sided (DSD 880 S/30) or 1 MB double-sided (DSD 880 D/30) floppy drive for integral I/O and backup.

COMPLETE COMPATIBILITY

The DSD 880 x/30's winchester drive emulates three 10.4 MB DEC RL02s to ensure complete DEC compatibility. In addition, both floppies emulate the DEC RX02 for media interchangeability.

The DSD 880 x/30 comes with a choice of either a dual wide LSI-11 interface board that fits any Q-BUS slot or a quad-wide PDP®-11 interface board that fits any Small Peripheral Controller (SPC) slot.

All applicable DEC diagnostics and utilities are operable with the DSD 880 x/30.

ALL OF THE FEATURES

The DSD 880 x/30 contains all of the DSD 880 x/8 features including HyperDiagnostic™ Panel, built-in bootstrap, off-line backup, LSI-11 multi-level interrupt support and more. For a description of these and other features, see the 12-page DSD 880 Data Sheet.

- **WINCHESTER/FLEXIBLE DISK COMBINATION FOR DEC® LSI-11s AND PDP®-11s**
- **FULL DEC COMPATIBILITY: HARDWARE, SOFTWARE, MEDIA**
- **TRIPLE RL02 EMULATION**
- **WINCHESTER BACKUP AND LOADING WITH DEC MEDIA**
- **EXCLUSIVE HYPERDIAGNOSTICS—BUILT-IN INTELLIGENCE**

data Systems

DSD 880x/30

	WINCHESTER	FLEXIBLE DISK	
	(3-RL02's)	Double-Sided Double-Density	Single-Sided Double-Density
Capacity (Formatted)	31,457,280B	1,025,024B	512,512B
Recording Format	MFM	IBM 3740 or DEC RX02	IBM 3740 or DEC RX02
Average Access Time	65 ms	174 ms	296 ms
Maximum Access Time	100 ms	410 ms	783 ms
Rotational Speed	3000 rpm	360 rpm ± 2%	360 rpm ± 2%
Average Latency	10 ms	83 ms	83 ms
Real Throughput			
Within a Track	204KB/s	20KB/s	20KB/s
Across Entire Disk	143.8KB/s	18KB/s	18KB/s
Burst Rate	30 μs / 8 words	4 μs / word plus DMA overhead	4 μs / word plus DMA overhead
Standard Device Addresses (jumper selectable)			
Device Base Address	774400	777170	777170
Bootstrap Address	773000	773000	773000
Interrupt Priority** (LSI-11/23 compatible)	4-7	4-7	4-7
Interrupt Vector	330	264	264

**Winchester priority must equal or exceed flexible disk priority

Backplane Requirement	One Half Quad Q-BUS Slot: One Bus Load
Diskettes	Accepts DEC-compatible soft-sectored diskettes
Size	5.25" H × 17.6" W × 23.5" D
Power	Standard Domestic and International Configurations

EXTRA FEATURES

Many advanced, user-oriented features are built into all DSD 880's. A diagnostic display panel, located behind the molded front panel, accesses DSD's exclusive HyperDiagnostics™. These microcoded routines provide stand alone self-testing and detailed status reporting of the disk system, including:

- **MODE SELECTION**
- **STAND ALONE WINCHESTER BACKUP AND LOADING**
- **READ/WRITE AND SCAN TESTS**
- **FAULT INDICATION**
- **DISKETTE FORMATTING**
- **DC OK INDICATOR**
- **FLEXIBLE DISK ALIGNMENT ROUTINES**
- **SEVEN SEGMENT STATUS DISPLAY**
- **VOLTAGE TEST POINTS**
- **WINCHESTER AND FLEXIBLE DISK WRITE PROTECTION**
- **GENERAL SYSTEM EXERCISERS**

To enhance system reliability in line with the sealed Winchester, a timer automatically removes power from the flexible disk drive motor when it is not in use. This feature reduces wear on bearings, belts and diskettes. The flexible disk drive will automatically restart upon receiving the next command.

™Trademark of Data Systems...