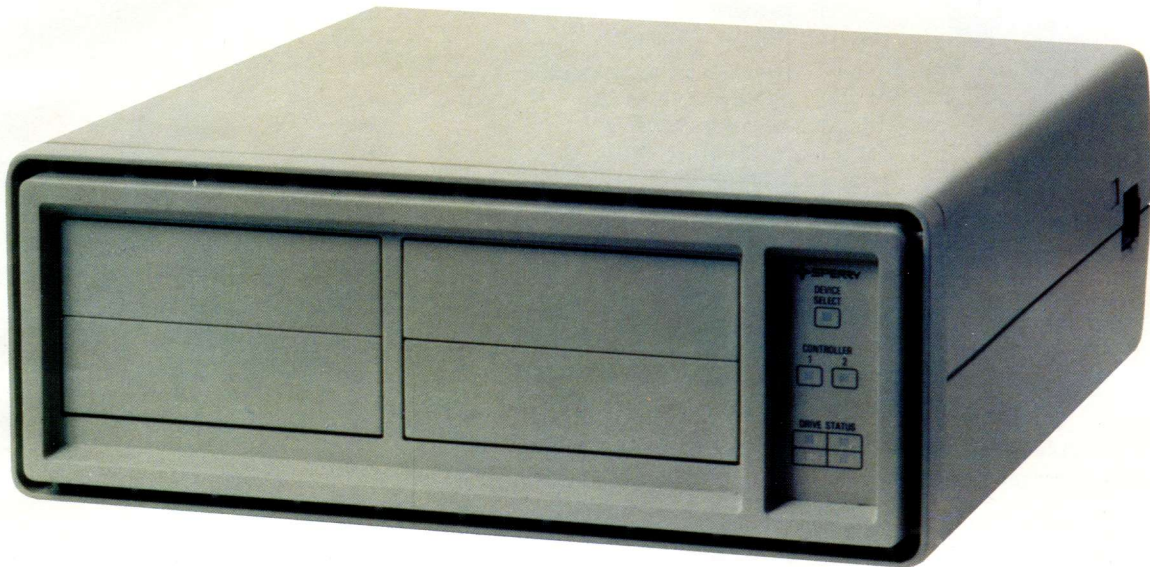


## 8441 Mass Storage Subsystem



Whether you are using a terminal on- or off-line to the host system, the 8441 Mass Storage Subsystem is a cost-effective way to store newly created files locally as well as update and access existing local files for distributed processing applications.

With the subsystem, partial or complete files can be prepared and stored locally for later transmission to a mainframe system. Those working at a terminal can also:

- select the mass storage system to read from or write to
- search for specific data and list it
- prep a disk, both rigid and flexible
- merge existing data from either a rigid or flexible disk drive with new data entered from a terminal
- create a composite file on the same drive or on another drive.

These functions can be performed from a mainframe, but a program must be loaded into the terminal controlling the subsystem.

The storage subsystem can use different storage devices. It can contain a 5¼-inch hard disk drive system and a 5¼-inch flexible disk drive system. The 5¼-inch hard disk provides 30 megabytes. The system can contain two hard disk drives, providing a maximum of 60 megabytes of storage.

The 8441 mass storage subsystem, which can easily be placed in a floor stand, uses random access techniques for rapid retrieval of data and for limiting the size of file directories. Powerful editing capabilities make file updates a quick and simple procedure.

The mass storage cabinet contains the power supply, indicator panel, storage drives, controller and

interface to the controlling device. The controller contains the bulkhead-mounted input/output connectors for daisy-chained configurations.

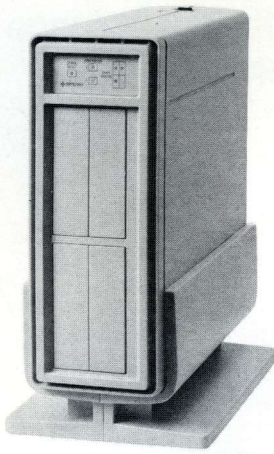
The controlling device is logically connected to the mass storage subsystem by the Small Computer System Interface (SCSI) per the ANSI 3T9.2/82-2.

The 8441 subsystems can be daisy-chained to expand storage capacity. The 8441 subsystem can use two controllers, each capable of handling seven rigid disk systems for a maximum storage capacity of 420 megabytes.

For complete information on how the SPERRY 8441 Mass Storage Subsystem can help improve the performance of your terminal systems, contact your local Sperry representative.







## 8441 Mass Storage Subsystem

### COLOR

Gray

### PHYSICAL CHARACTERISTICS

Height: 6.25" (159 mm)  
 Width: 16.75" (426 mm)  
 Depth: 17.55" (446 mm)  
 Weight: 27 Pounds maximum  
 (configuration dependent)  
 (12.25 kg)

### POWER REQUIREMENTS

Watts (Maximum): 113  
 Voltage and Frequency:  
 100-120V 220-240V  
 50 or 60 Hz 50 Hz  
 Phases: Single

### ENVIRONMENTAL CHARACTERISTICS, OPERATING

Temperature: 50°F to 93°F  
 (10°C to 34°C)  
 Relative Humidity: 20% to 80%

### Disk Drives

Storage capacity is rated as being formatted or unformatted. Formatted storage capacity refers to the amount of data that can be stored on a disk. Unformatted storage capacity includes the data, interrecord gaps, spare blocks, plus overhead storage capacity reserved for use by the controller. Data capacity of the disk drive depends on the number of bytes per block. More data can be stored on a disk that is formatted for 512 bytes per block than can be stored on a disk formatted for 256 bytes per block. The 8441 will normally use 512 bytes per block.

Specifications for the drives are as follows:

5¼" Disk	
<b>Storage Media</b>	
Number of disks per drive	3
Number of reserved sides	1
Number of data surfaces per drive	5
<b>Unformatted Storage Capacity</b>	
Megabytes per drive	36,299
Bytes per cylinder	52,080
Bytes per track	10,416
Number of cylinders	306
<b>Formatted Storage Capacity (512 bytes per block)</b>	
Megabytes per drive	30.33
Bytes per cylinder	43,520
Bytes per track	8,704
Blocks per track	17
<b>Available for Data Storage</b>	
Megabytes per drive	30.24
Blocks per drive	59,058
<b>Recording Technique</b>	
Type of recording	Modulation (MFM)
Recording density (bit/inch)	9,540
Density, tracks per inch	960
<b>Access Time</b>	
Track-to-track	4 ms
Average	42 ms
Maximum	78 ms

### Flexible Diskette Drive

One or two 5¼", half-high flexible diskette drives can be included in an 8441 subsystem along with a disk drive. Data is stored on or retrieved from a 5¼" flexible

diskette which can be removed from the drive. The drive includes a single spindle, read/write electronics, single head/arm assembly, and an interface to the controller.

Flexible diskette drive specifications are as follows:

<b>Storage Media</b>	
Number of disks per drive	1
Number of data surfaces per drive	2
<b>Unformatted Storage Capacity</b>	
Kilobytes per drive	1,000
Kilobytes per surface	500
Kilobytes per cylinder	12.5
Bytes per track	6,250
Number of cylinders	80
Number of tracks per cylinder	2
<b>Formatted Storage Capacity, Including User Assigned Spare Tracks</b>	
	<b>Bytes per Block 512</b>
Kilobytes per drive	737.28
Kilobytes per surface	368.64
Bytes per cylinder	9,216
Bytes per track	4,608
Blocks per track	9
<b>Recording Technique</b>	
Type of recording	Modified Frequency Modulation (MFM)
Recording density (bit/inch)	5,922
Density, tracks per inch	96
<b>Access Time</b>	
Track-to-track	3 ms
average 1/3 stroke	94 ms
maximum	255 ms







# Terminals announcement

AB 022

## 8441 MASS STORAGE DEVICE SUBSYSTEM (MSDS)

### INTRODUCTION

This bulletin announces the Type 8441 Mass Storage Device Subsystem (MSDS) which is housed in a small cabinet designed for the office environment. The cabinet contains the subsystem controller, the Winchester disk drives and the optional diskette drives.

The 8441 Disk Subsystem can be configured on the UTS 60 with a Small Computer System Interface (SCSI) feature required for interfacing the subsystem.

### DETAILS

There are configuration options for the 8441 MSDS. Configurations can include: one or two 5 1/4" Winchester drives or one 5 1/4" Winchester and one or two 5 1/4" half high flexible diskette drives.

The capacity of an 8441 disk is 30.24K bytes when formatted at 512 bytes per sector.

The 5 1/4" flexible diskettes have a formatted capacity of 737K bytes per drive when formatted at 512 bytes per sector.

Another feature, the Floor Stand feature (F4053-00) provides a floor stand for the 8441 Disk Subsystem when table top configurations are not acceptable or desirable.

Delivery will be available 2nd Quarter CY'84.



WORLDWIDE  
PRODUCT  
MARKETING

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NETWORK SYSTEMS

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## CONCLUSION

An important addition to the Terminal Products peripheral complement, the 8441 Disk Subsystem allows you to propose a low cost, medium-to-high capacity, high performance disk subsystem to your customers and prospects.

Configuration flexibility is provided with the ability to configure 5 1/4" diskettes as back-up devices.

On a price/byte basis, the 8441 Disk Subsystem gives you a big edge over competitive products.

A full peripheral complement, with multiple configuration options allows you to cite the benefit of investment protection to your clients. The initial investment your client makes for our terminal product is protected for the long term, as the Sperry peripheral complement is a product complement they can live with - and grow with.