Sperry Univac introduces the new 8434 Disk Subsystem which can expand your on-line storage facility to 4.9 billion bytes for the 90/80 system or 1.7 billion words for 1100 systems in fixed record formats, and improve overall data processing capabilities.

The subsystem for the 1100 Series consists of the SPERRY UNIVAC 5046 Storage Control Unit and from 2 to 16 SPERRY UNIVAC 8434 and/or 8430 and/or 8433 Disk Storage Drives. A second optional group of up to 16 drives can be attached to the 5046 via the appropriate feature. The subsystem for the 90/80 consists of the SPERRY UNIVAC 5040 Storage Control Unit and from 2 to 8 SPERRY UNIVAC 8434 and/or 8430 and/or 8433 Disk Storage Drives. A second group of up to 8 drives can be attached to the 5040 Controller via the appropriate feature.

In addition to the 8430, 8433, 8434, each control can accommodate the 8405 Fixed Head Disk (FHD) via an optional feature.

With 8405 included, a maximum configuration with FHD is from 1 to 6 8405's and from 2 to 8 8434's and/or 8433's and/or 8430 drives using the 5040 control, and 1 to 8 8405 FHD's and from 2 to 16 8434's, 8433's and/or 8430 drives using the 5046 control.

The 8434 disk drive contains a fixed disk stack consisting of 10 platters providing 19 recording surfaces. The twentieth surface is used for servo positioning information. When necessary, the disk stack is removable by servicing personnel. In the event of drive failure, the pack can be moved to another drive to facilitate data recovery. Each disk drive stores up to 307 million bytes or 54 million words in software supported formats.

A voice-coil electromagnetic actuator provides a fast average positioning time of 30 milliseconds. The 8434 provides the fastest data throughput of any SPERRY UNIVAC disk, i.e., 1.26 million bytes per second.

The 5046 Control Unit is a microprogrammable control unit designed for application flexibility. The control uses a diskette as a loading device.

The 5040 Control Unit is also a microprogrammed unit. Both the 5046 and 5040 Control Units offer Command Retry, reducing processor intervention requirements for error recovery in addition to in-lined diagnostic capability for more effective maintainability.

8434 disk drives provide a growth path for either 8430-99 or 8433 users.

Because of the state-of-the-art advancements made in recording density the 8434 can greatly reduce on-line storage cost for users who rarely ever change their disk packs. In addition, new and improved reliability will provide more uninterrupted processing time.

Working with 8430/8434 and 8405 FHD, the 8434 offers high flexibility, smooth performance and modular growth with the investment protection demanded in today's direct access facilities.
**SPERRY UNIVAC**  
8434 Disk  
Storage Subsystem  

**COLORS**

**Standard Colors**
- Frame: slate gray
- Front/rear: pale gray

**Customer Color Selection**
- End panels: dark green, slate gray, twilight blue, earth brown, grayish blue

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**Controls**

**Nominal Voltages**
- 200/208/230/240 VAC + 6%  
- -15% @ 60 Hz ± 2%  
- 200/220/230/240 VAC + 6%  
- -15% @ 50 Hz ± 2% DELTA  
- 380/400/416 VAC + 6%  
- -15% @ 50 Hz ± 2% WYE

**Maximum Load:** 2 KVA

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**ENVIRONMENTAL REQUIREMENTS**

**Drive 8434**

**Shipping & Storage**
- Temperature 50°F. (10°C.) to 110°F. (43°C.)
- Humidity 8% to 85% (with no condensation)

**Working Range:**
- Temperature 50°F. (10°C.) to 94°F. (34°C.) (with max. drift 20°F./hr. (11°C./hr.)
- Humidity 20% to 80% (with no condensation)

Heat Dissipation 5500 BTU (nominal) (5.80 MJ)

**Control 5046**

**Shipping & Storage**
- Temperature -40°F. (-40°C.) to 144°F. (62°C.)
- Humidity 1% to 95%

**Working Range:**
- Temperature 50°F. (10°C.) to 93°F. (34°C.) with max. rate of change 20°F./hr. (11°C./hr.)
- Humidity 20% to 85% (with no condensation)

Heat Dissipation 6300 BTU (6.65 MJ)

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**POWER REQUIREMENTS**

**Drive 8434**

- Voltages supplied from Control Unit Frequencies 60 Hz or 50 Hz
- Nominal Load: 1.8 KVA

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**FUNCTIONAL CHARACTERISTICS**

- Data Capacity Per Drive
  - Software Supported Prep Formats
    - (1100 Systems)
    - Prep formats of 28, 56, or 112 words per record
    - 112 words per record (max.)
    - 3,248 words per track
    - 61,712 words per cylinder
    - 54.183M words per drive
  - (90/80 System)
    - Prep format of 2048 bytes per record with 9 records per track is supported
    - 2048 data bytes per record
    - 18,432 data bytes per track
    - 350,208 data bytes per cylinder
    - 307,483 Mbytes of data per drive
    - 75,069 virtual pages per drive
    - 4096 bytes each
    - 337,026 Mbytes per pack (1 rec./track free format-bytes)

- Transfer Rate
  - 1260 KB per second

- Data Heads
  - 19 per drive

- Tracks Per Drive
  - 19 per cylinder
  - 16,682 per drive
  - 133 spares

- Cylinders
  - 878 per drive
  - 7 spare

- Head Positioning Time
  - 7 ms minimum
  - 30 ms average
  - 55 ms maximum

- Rotational Latency
  - 8.3 ms. average
  - 16.7 ms. maximum

- Rotational Speed
  - 3600 RPM @ 50 Hz & 60 Hz

Above information provided for reference purposes only. Consult your Sperry Univac representative for additional information, delivery dates and further specifications.

Specifications subject to change without prior notice.