Control Data® 9715
Fixed Storage Drive (FSD)

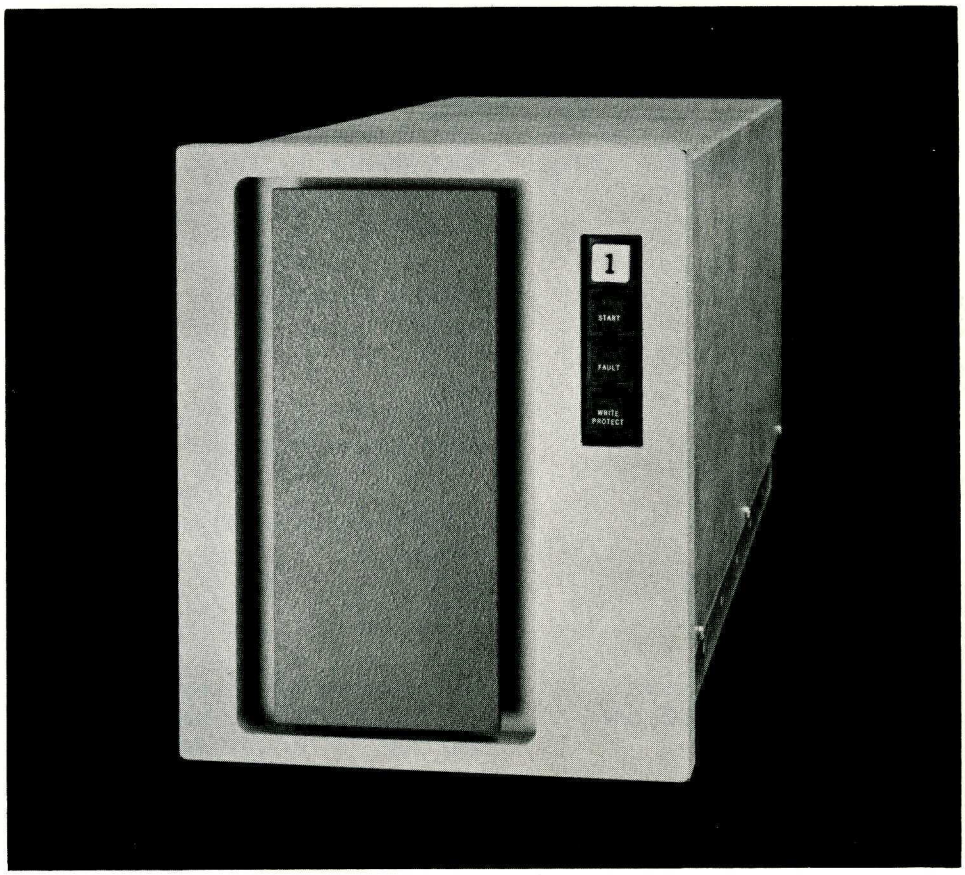
Designed for Original Equipment Manufacturers (OEM)

3/82

CONTROL DATA

The Control Data 9715 FSD Fixed Storage Drive is a 230-millimeter rigid disk drive that provides 165.9 megabytes (unformatted) of data storage in a sealed module. The 9715 offers the same capacity, speed and other performance characteristics of the CDC® Mini Module Drive (MMD) at less cost, less power consumption and in one-half the unit volume.

The 9715 uses the industry standard SMD interface and is plug compatible with Control Data's 14-inch products, as well as the 230-millimeter CDC 9710 RSD Removable Storage Drive. The direct-coupled DC, brushless drive motor and universal power supply permit world-wide operations. Physical dimensions of the drive allow rack mounting in either U.S. or European enclosures.



Features

- Rack mountable configuration only
- Detachable power supply
- Interface compatibility with the SMD, MMD and CMD
- Automatic carriage and spindle lock
- Meets FCC, UL, CSA and VDE standards for a component within a system
- Daisy-chain interface compatibility
- Phase-locked data separation
- NRZ to 2,7 RLL data conversion
- Fixed or variable sectoring (address mark)

Description

The FSD is a fixed disk drive that consists of six disks in a sealed module, direct coupled DC brushless motor with digital speed control, universal power supply, air supply, air filter, and an actuator. The logic package utilizes low power Schottky, I^2L and ECL technology.

The 9715 uses Large Scale Integration (LSI) for all read/write, fault, transmitter/receiver and microprocessor controlled servo electronics.

Applications

- Small business systems
- Telecommunications systems
- Word processing
- Terminal systems
- Non-computer room environments

Accessories

- Address select plug (0-3)
- Installation/operation manual

Options

- Rack-mounting slides
- Dual-channel access
- Maintenance manual
- Input/output cables
- Terminator
- Front panel, unique color
- Address select plug (4-7)

Specifications

Performance

Transfer Rate	9.677 Mhz
Spindle Speed	3,600 (±18) r/min

Access Time

(at 50 kHz step pulse rate)

Maximum, Full Stroke	55 ms
Average	30 ms
Maximum, One Track	6 ms

Functional

Number of Disks	6
Total Surfaces	11
Data Surfaces	10
Servo Surfaces	1
Capacity, Unformatted	165.9 Mbytes
Per Surface	16.5 Mbytes
Per Track	20 Kbytes

Recording

Bit Density	5.4 Mbits/in^2
Bits Per Inch	10,000
Tracks Per Inch	550
Tracks Per Surface	823
Recording Method	NRZ to 2, 7 RLL Code data conversion
Positioning Method	Rotary voice coil actuator

Reliability

MTBF	10,000 hours, including power supply
Service Life	5 years
Preventive Maintenance	None
Adjustments	None

Data Reliability

Recoverable Read Errors	Less than 1 in 10^{10} bits transferred.
Unrecoverable Read Errors	Less than 1 in 10^{12} bits transferred.
Seek Errors	Less than 1 in 10^6 seek operations.

Power

AC	100, 120, 208, 220, 230 and 240V, 50 or 60 Hz
DC	+5 V logic, 3.25 A; −5 V logic, 4.25 A; +24 V control accessing, 0.5 A (4.5 peak); −24 V control accessing, 0.3A (4.5 peak). +42 V DC spindle motor, 1.6 A

Power Dissipation

200 W (723 Btu/h)

Environmental

Operating Temperature	10°C to 45°C (50°F to 114°F)
Non-Operating Temperature	−40°C to 60°C (−40°F to 140°F)
Operating Humidity	20% to 80% RH
Non-Operating Humidity	5% to 95% RH
Altitude, Sea Level Ref.	
Operating	−300 m to 2,000 m (−983 ft to 6,560 ft)
Non-Operating	−300 m to 2,500 m (−983 ft to 8,200 ft)

Physical Characteristics

Width	216 mm (8.5 in)
Height	259 mm (10.2 in)
Depth	762 mm (30 in) with power supply 641 mm (24.25 in) without power supply
Weight	27 kg (60 lb) with power supply

Control Data sales offices are located in principal cities throughout the world.

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Specifications subject to change without notice.

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