

# Control Data® 9715-500 Fixed Storage Drive (FSD)

Designed for Original Equipment Manufacturers (OEM)

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The Control Data 9715-500 Fixed Storage Drive (FSD) is a 230-millimeter (9-inch) rigid disk drive that provides 516 megabytes of unformatted storage in a sealed module. Drive characteristics include 20-millisecond average seek time, approximately 250 watts power consumption and one-half rack size.

The 9715-500 operates with a 14.5 megahertz Storage Module Drive (SMD) interface or Intelligent Standard Interface (ISI). A direct coupled, DC brushless drive motor and a universal power supply permit worldwide use of the 9715-500. Physical dimensions of the drive allow side-by-side mounting, providing over 1 billion bytes of storage in a standard 483-millimeter (19-inch) RETMA rack enclosure.

## Features

- 20-millisecond average seek
- Rack mountable
- Detachable, universal power supply
- High MTBF
- Low maintenance cost
- 14.5 megahertz SMD or ISI interface
- Automatic carriage and spindle lock
- High performance linear actuator
- NRZ to RLL 2, 7 data conversion
- Fixed or variable sectoring (address mark)
- Daisy-chain interface capability
- Dual channel option
- UL, CSA, VDE standards
- FCC Class A compliance

## Description

The 9715-500 FSD consists of seven disks in a sealed module, a direct coupled DC brushless motor with digital speed control, universal power supply, DC cooling fan, linear actuator



and thin film heads. The logic package uses low-power Schottky, I<sup>2</sup>L, ECL and LSI technology. All read/write, fault, transmitter/receiver, and microprocessor-controlled servo electronics are contained within the logic package.

## Applications

- Business control systems
- Large terminal systems
- Scientific, medical and instrumentation systems
- Seismic systems
- Communications systems
- Database systems

## Accessories

- Rack-mounting slides
- Terminator
- Input/output cables
- DC cables
- Bar mounting kit
- Address select plug (4-7)
- Maintenance manual

## Options

- SMD I/O dual access feature
- Intelligent standard interface
- Power supply
- Front panel in color

## Specifications

<b>Capacity (unformatted)</b>	516 Mbytes
Per Track	30,240 bytes
Per Cylinder	725,760 bytes
Cylinders Per Drive	711
<b>Number of Disks</b>	7
<b>Data Surfaces</b>	12
<b>Servo Surfaces</b>	1
<b>Data Heads</b>	24
<b>Transfer Rate</b>	14.52 MHz
<b>Spindle Speed</b>	3,600 r/min
<b>Recording</b>	
Bit Density	14.6 Mbits/in <sup>2</sup>
Bits Per Inch	15,159
Tracks Per Inch	960
Recording Method	NRZ TO RLL 2, 7 data conversion
<b>Access Time</b>	
Full Stroke	45 ms
Average	20 ms
Track-to-Track	5 ms
Positioning Method	Linear voice coil actuator
<b>Data Reliability</b>	
Recoverable Read Errors	Less than 1 in 10 <sup>10</sup> bits transferred
Unrecoverable Read Errors	Less than 1 in 10 <sup>12</sup> bits transferred
Seek Errors	Less than 1 in 10 <sup>6</sup> seek operations
<b>Drive Reliability</b>	
MTBF	15,000 hours, 11,250 hours, including power supply
Service Life	5 years
Preventive Maintenance Adjustments	None None
<b>Power</b>	
AC	120, 220, 230 and 240 V, 50 or 60 Hz
DC	± 5 V logic, ± 24 V control addressing, + 40 V spindle motor
Power Dissipation	Approx. 250 W
<b>Environmental</b>	
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%
<b>Physical Characteristics</b>	
Height	259 mm (10.2 in)
Width	216 mm (8.5 in)
Depth	762 mm (30 in) with power supply 610 mm (24 in) without power supply
Weight	31 kg (70 lb), drive 37 kg (82 lb), including power supply

Specifications subject to change without notice.

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

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