

Control Data® 9775 Fixed Module Drive

Designed For Original Equipment Manufacturers (OEM)

CD
CONTROL
DATA

5180
NOV 18 1980

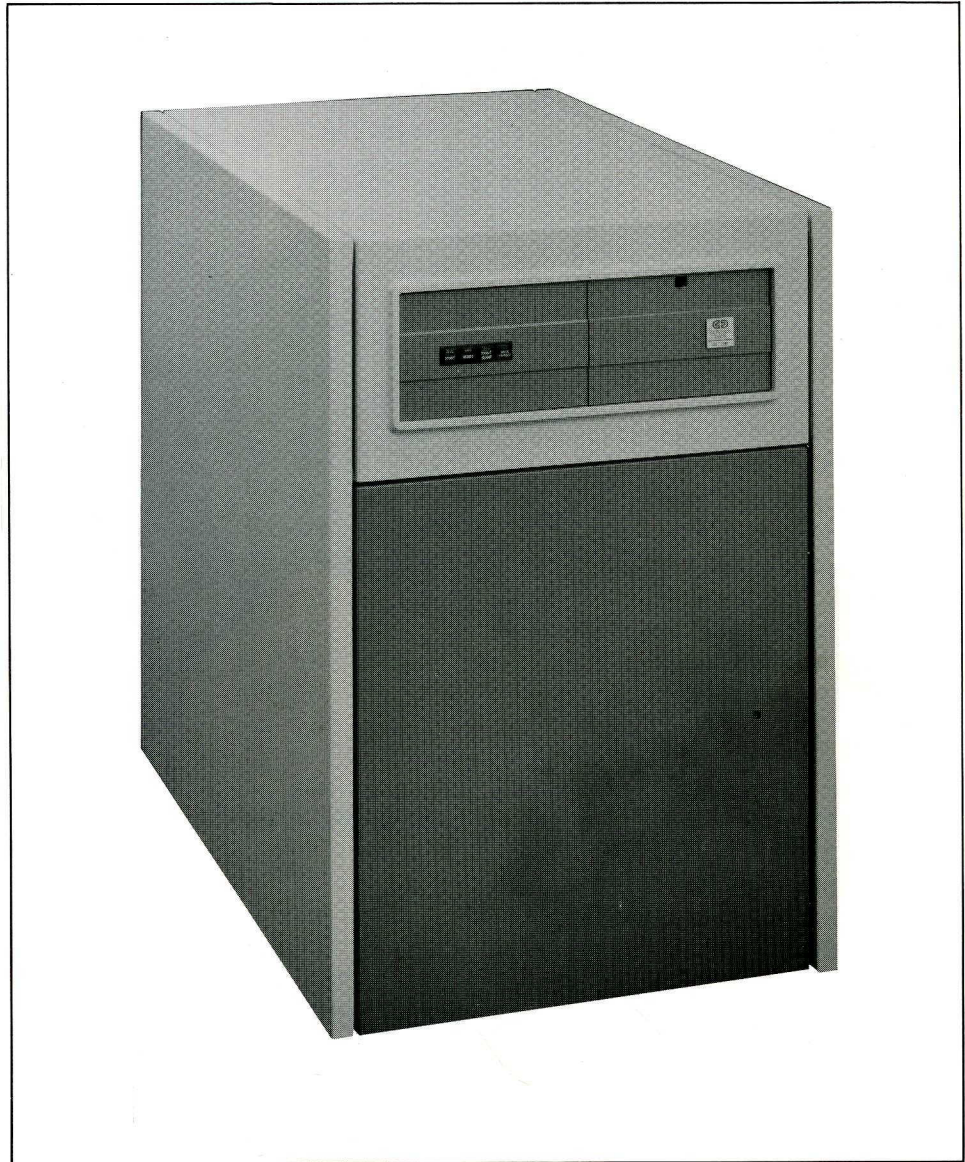
The CDC® 9775 Fixed Module Drive is a fixed-media disk drive that has a capacity of 675 megabytes plus an optional 1.9 megabytes of fixed-head-per-track storage for fast access.

The 9775 is a member of the Storage Module Drive (SMD) family with the same 9.67-megahertz transfer rate, interface and format approach. It can be attached to the same controller as a storage module, cartridge module or mini module drive.

The drive unit consists of a cabinet and frame containing a sealed head disk assembly (HDA), drive motor and brake, power supply, and an air circulation system. A logic chassis contains read/write, I/O, fault, drive control, and microprocessor-controlled servo electronics.

Features

- Interface and format compatibility with the Control Data Storage Module Drive family.
- Sealed HDA improves reliability.
- HDA can be exchanged in 15 minutes.
- No scheduled maintenance required, except periodic cleaning or replacement of filters.
- Daisy-chaining interface capability.
- Remote power sequencing.
- Flat input/output cable.
- Variable or fixed sectoring.
- Phase-locked oscillator/data separator.
- NRZ-to-MFM data encoder with write compensation.
- Prewired for dual-channel field kit.



Options

- Fixed head (1.9 megabytes).
- Dual-channel option.
- Power variations.
- Index and sector in "B" Cable.
- Round cable I/O.

Air Circulation System

Two air-flow systems are supplied by two impellers and driven by a common blower motor. One system provides filtered air to the HDA, and air flow is monitored by a pressure switch. This system also contains a replaceable primary filter and a secondary filter to reduce contaminants.

The second system provides air flow for logic and DC power supplies. A temperature limit switch removes AC power if the limit is exceeded.

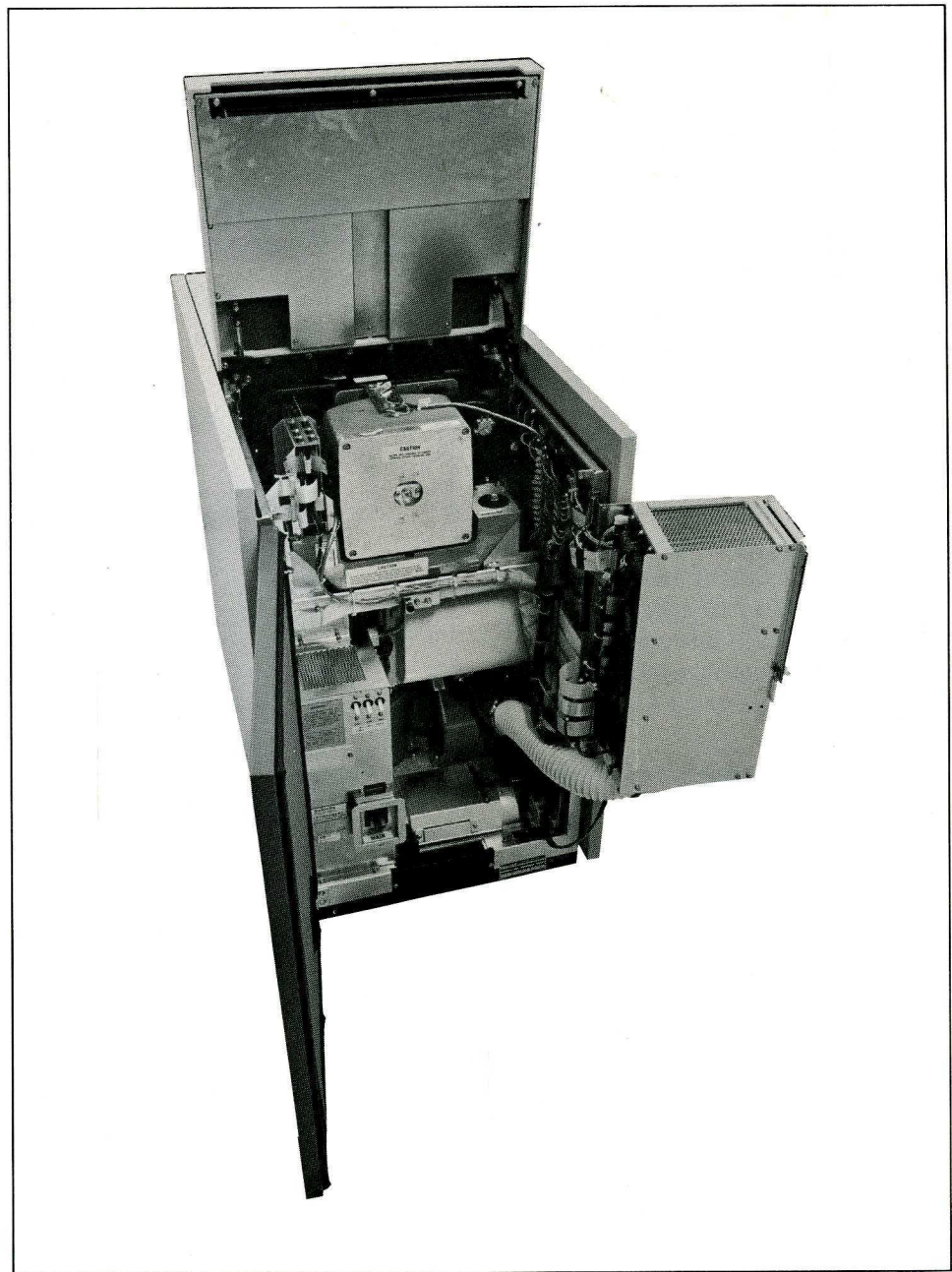
Logic and I/O Assembly

Standard logic building blocks are dual-in-line, low-power Schottky integrated circuits. The logic is packaged in modular, removable printed circuit boards, interconnected by a wire-wrapped back plane.

The 9775 drive accommodates flat cable from the controller, which plugs into the outboard side of the I/O cards. An option can be ordered to accommodate round-cable I/O from the controller via the 9775 I/O panel.

Dual-Channel Option

This option permits two-controller access to the 9775. Either controller can hold the device in a select/reserve mode. At the controller release command, the device reverts to an unselected state. A priority-select feature is also provided. All 9775 drives are prewired for dual-channel installation in the field.



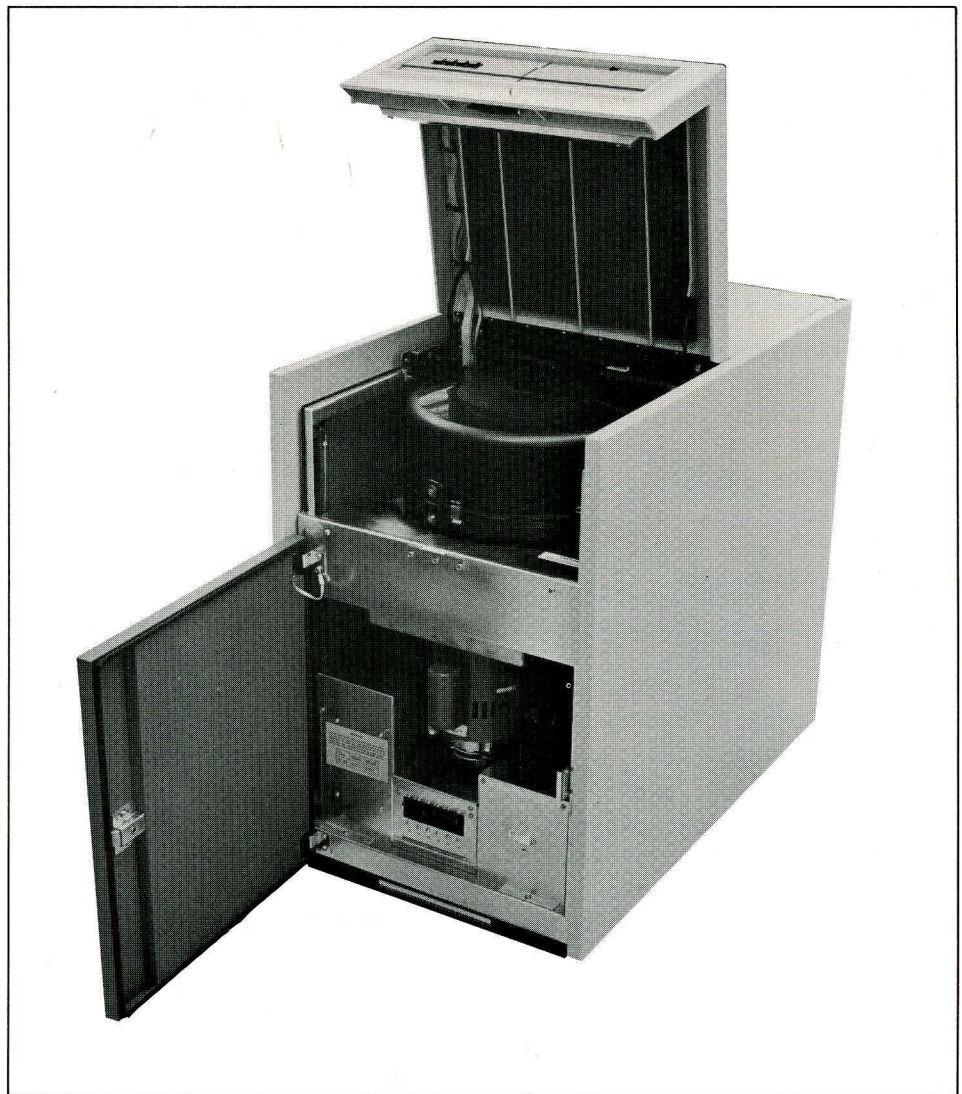
REAR VIEW: LOGIC CHASSIS AC POWER SUPPLY, MAGNET ASSEMBLY

Deck Assembly

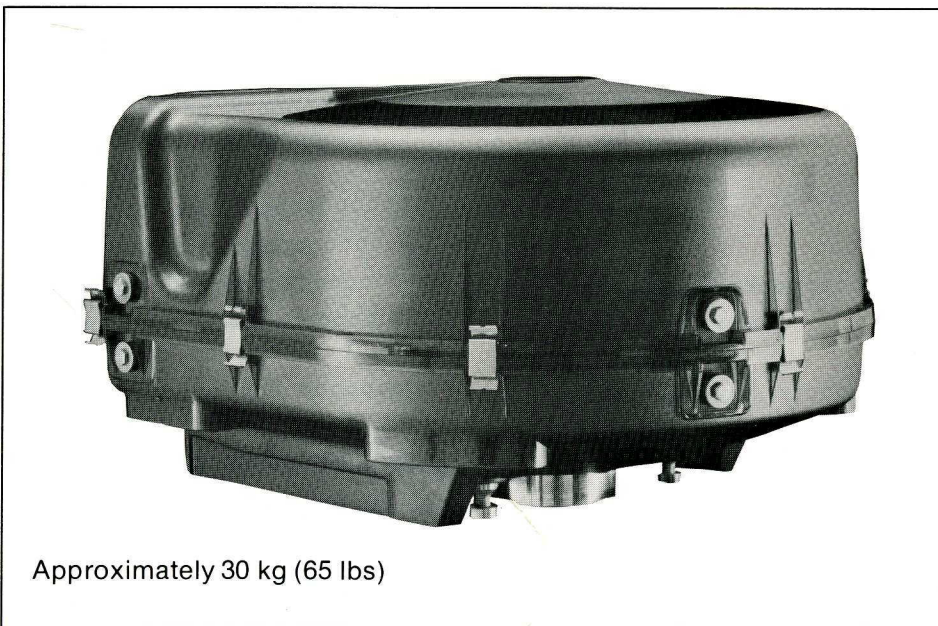
The deck assembly consists of a drive motor with fail-safe brake, head disk assembly, voice coil linear motor and read/write electronics.

Fixed-Head Option

The 9775 can be configured with a fixed-head assembly that contains 96 heads and adds 1,935,360 bytes of unsectored capacity. This option permits highspeed access and can be factory or field installed.



FRONT VIEW: HEAD DISK ASSEMBLY, DRIVE MOTOR



Approximately 30 kg (65 lbs)

HEAD DISK ASSEMBLY

Head Disk Assembly

The HDA is a sealed module that contains a deck plate, spindle, disks, heads and the linear motor voice coil. Heads are low mass, lightly loaded to allow contact start/stop operation and low flying heights.

Recording media is a coated, oriented magnetic oxide disk, lubricated to allow start/stop contact of the heads.

Specifications

Number of Cylinders	843
Tracks Per Cylinder	40
Number of Tracks	33,720
Track Capacity	20,160 bytes
Cylinder Capacity	806,400 bytes
Spindle Capacity,	
Moving Heads	675 Mbytes
Fixed Heads (option)	1.9 Mbytes

Performance

Data Transfer Rate (9.67 MHz)	1209 Kbyte/s
Spindle Speed	3600 r/min
Average Latency	8.3 ms
Seek Time	
Minimum	10 ms
Average	25 ms
Maximum	50 ms

Power Requirements

	Nominal	Range
60 Hz (59 to 60.6 Hz)	208 V	179 to 223 V
	230 V	198 to 246 V
50 Hz (49 to 50.5 Hz)	220 V	198 to 235 V
	240 V	216 to 257 V

The 9775 is delivered prewired for 208 V, 60 Hz or 220 V, 50 Hz line power. Conversions to other line voltages within a frequency base is achieved by rewiring terminal strips within each drive as outlined in the Equipment Maintenance Manual.

Physical Characteristics

Height	920 mm (36.2 in)
Width	584 mm (23 in)
Depth	965 mm (38 in)
Weight	288 kg (635 lb)

Environmental

Operating Temperature	10°C to 35°C (50°F to 95°F)
Operating Humidity	20% to 80% RH

Specifications subject to change without notice

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

OEM Product Sales
CONTROL DATA CORPORATION
Box 0
Minneapolis, Minnesota 55440