Now—based on Proven 200 T.P.I. cartridge disk technology
Control Data Corporation proudly announces the

CONTROL DATA 9427H Cartridge Disk Drives

CONTROL DATA
CORPORATION

New and improved, smaller and simpler, 3 to 12 megabyte capacities.

To date Control Data has produced well over a thousand 200 TPI random access cartridge disk drives.

These units are performing successfully and reliably for many Original Equipment Manufacturers.

No other manufacturer can boast such proven performance and reliability in 200 TPI top loading cartridge drives.

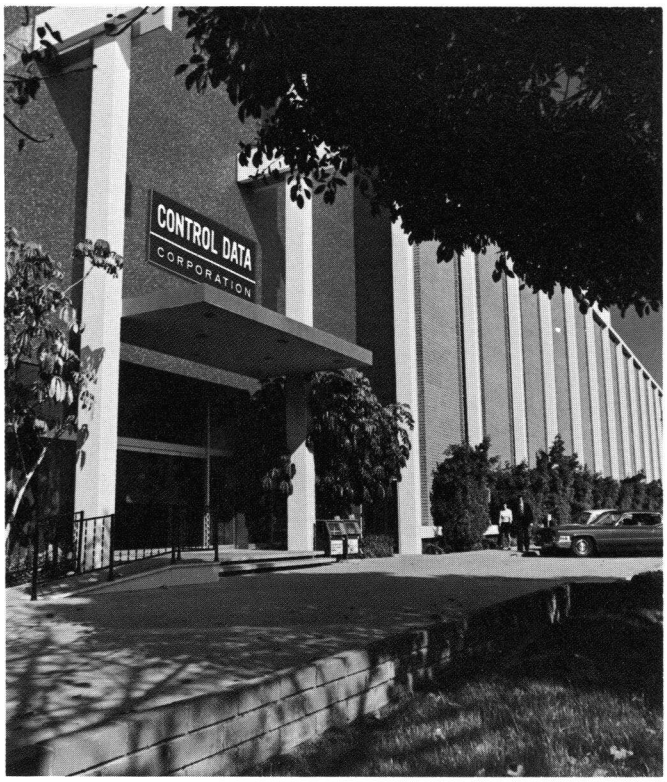
Why?

Because we learned through our manufacturing experience . . . and have advanced and perfected our methods and practices.

Because we listen when our customers speak . . . and we react to their needs.

And because we have the technological and production capabilities to create State-of-the-Art devices and deliver these units at competitive prices, on time and as promised.

For a medium-capacity, high-speed random access cartridge disk drive to interface with the central processor in your next system, consider the well tested and proven advantages of the reliable CONTROL DATA 9427H.



Control Data® 9427H Cartridge Disk Drive

When you have something very good and you set out to improve it, you must be very careful as you select what to keep and what to change.

In the new CONTROL DATA 9427H devices you will find that all elements contributing to our high reliability and consistent performance remain intact. And all improvements are based on providing specific features and benefits which add to the value of the units but not to the price. Components are available from 2 or more suppliers to assure continuity of production, parts supply and on-time delivery.

BASIC BENEFITS

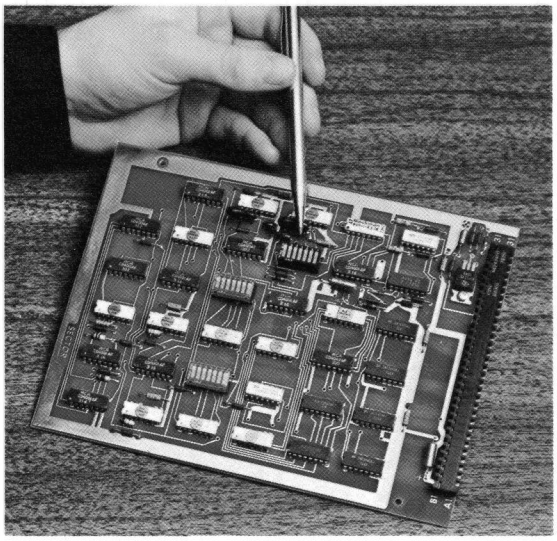
The CONTROL DATA 9427H 200 TPI Cartridge Disk Drive offers two times the on-line random access storage capacity of 100 TPI devices.

Modular design, fewer parts and easily replaceable subassemblies keeps maintenance costs to a minimum. Operational cost is low due to design simplicity, very high reliability and the added capacity of 200 TPI storage.

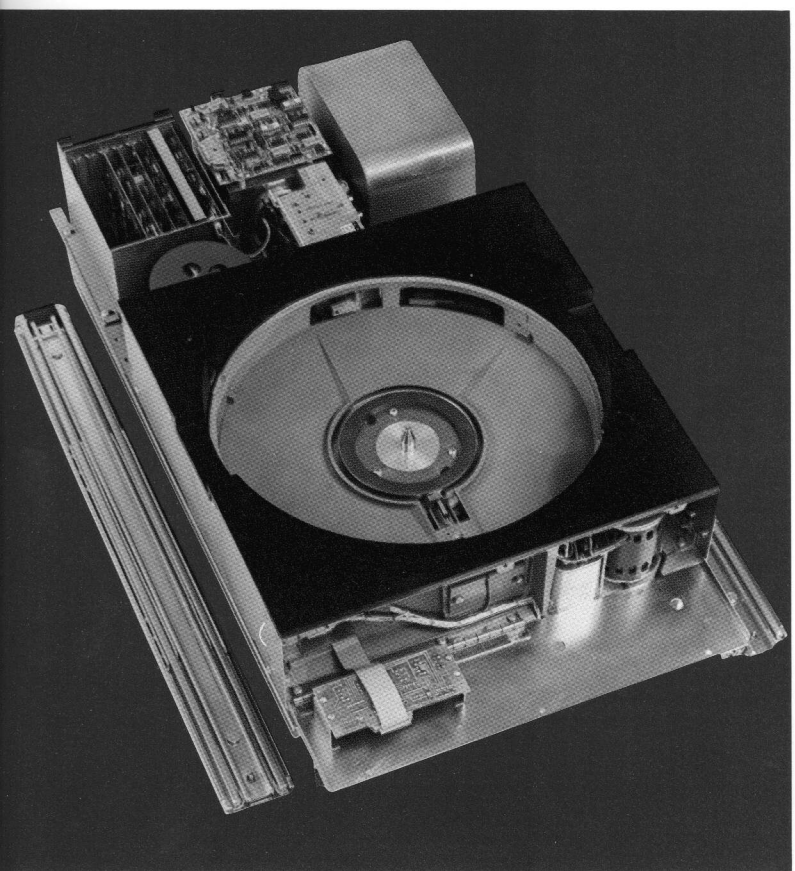
BASIC FEATURES

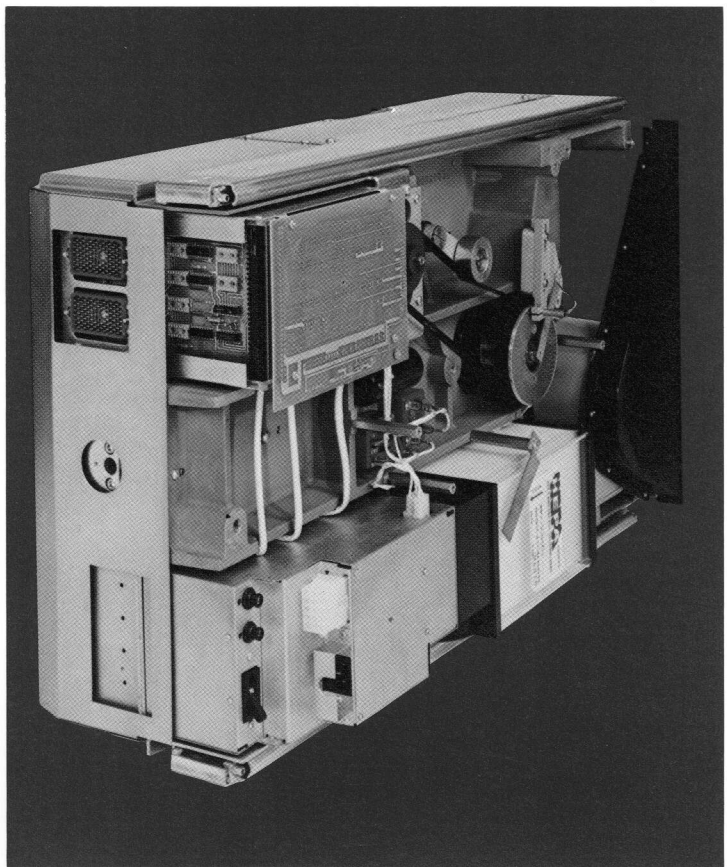
- Compactness. Over 4½-inches have been shaved off height to simplify rack mounting. Fits 19″ standard rack.
- Universal 50/60 Hz, 100-250 VAC power supply allows operation on 100-250 VAC without parts changes, and 50-60 Hz conversion by a simple pulley and belt change.
- Field upgrading to add a fixed disk, doubling unit capacity, required only the addition of 2 read/write heads.
- Field upgrading from 100 TPI to 200 TPI requires just a head change and jumper change. All units are factory tested at 200 TPI to guarantee upgradeability.
- Improved and simplified maintenance techniques allow trouble shooting to board level rather than chip level. All functional subassemblies are quickly replaceable modular assemblies, completely interchangeable without adjustment. Costly field adjustment procedures are eliminated.
- Each individual subassembly is readily accessible. Only one size screw—8/32—throughout. No downtime due to loss of one or another special size fastener.
- Increased reliability with improved servo design, efficient cooling and contamination control system, EMI/RFI immunity, conservative component derating, refined data recovery circuits, COSMOS logic and minimization of harnessing and connectors.

- Pack interchangeability assured by a mechanically temperature-compensated position transducer.
- Continuous standby capability assured by independent blower motor.
- Plug-in circuit boards are functionally organized to facilitate trouble shooting. Circuit boards are interchangeable without adjustment.
- Interlogic harnesses are eliminated by design of "mother" board. Interface board provides I/O flexibility; open slot provided for custom circuit board. Bleed air by-pass for power supply cooling means only the air required in the disk area is filtered thus maximizing filter life.
- Complete versatility in interface system, i.e. Elco, Amp, Winchester and 3M connectors available for use with twisted pair or flat (3M) cable and choice of terminators, and terminator power supply. DIP terminators are supplied with the unit. Extra DC power available from the unit for supplying the terminator and field testor.
- Unique sector disk provides 1-64 sectors selectable without unit modification. (1, 3, 5, 6, 8, 10, 12, 15, 16, 20, 24, 25, 29, 30, 32, 40, 48, 50, 60, 64) Electronic Missing Clock sectoring also available without unit modification.
- Unit readily adaptable from 2400 rpm to 1500 rpm operation.
- Simplified self-reversing brush drive assembly.
- Complete compatibility with earlier CONTROL DATA 9425 and 9427 units. Specific OEM interfaces are available.
- Devices are compatible with disk packs having both 80-mil and 20-mil cartridge sector notches.



- AC input voltage tolerance increased to +10%, −15% to allow for brownouts. With the 110V input tap selected, the unit will function from 94.5V to 121V.
- 9427H model uses a single removable disk (two recording surfaces) in a cartridge case. (CONTROL DATA 9847, IBM 5440 or equivalent for 100 TPI; CONTROL DATA 9848 or equivalent for 200 TPI).
- Daisy-chain interface, sector addressing and independent fixed and removable write protection are standard features.
- Optional "Fault Isolation and Retention Module" available to simplify maintenance. Maintains fault information even if the unit is shut down.





CDC 9427H CARTRIDGE DISK DRIVES NOW AVAILABLE

The new CONTROL DATA Cartridge Disk Drives represent a new generation of devices designed to help you provide large system performance capabilities at compact system cost. As stated earlier, we believe that you will find CONTROL DATA Cartridge Disk Drives are State-of-the-Art. The standards we set in design and production are the standards by which you can judge all others. And when you measure our cost/performance, our high reliability, and our ability to meet delivery commitments, we feel that you will be well satisfied when your systems include 200 TPI cartridge disk drives by Control Data.

You said you liked our old product—but:

- you said you may want to remotely locate the control function. (On our new models we have made the control panel a removable module.)
- you said you needed input voltage and frequency flexibility. (On our new models we provide an autotransformer power input and quick change pulley for fast power adjustment—anywhere.)
- you said you wanted easier maintenance. (We have designed out all field assembly adjustments, gone to modular design, and use only one size—8/32—assembly hardware.)
- you said you wanted a smaller unit for rack mount applications. (Our new model packages have dimensions to facilitate rack mounting. Only 10½ inches of rack heighth.)
- you said you wanted board space in the logic chassis. (On our new models you'll find an interface board and an open slot for a custom board.)
- etc. and etc. We sincerely believe the new CONTROL DATA 9427H cartridge disk drive devices are State of the Art. We invite you to read further, and, to contact the Control Data OEM Representative nearest you.

SPECIFICATIONS FOR CONTROL DATA 9427H CARTRIDGE DISK DRIVES

201,060 LITHO in U.S.A. 3/74

RECORDING FORMAT CAPACITY

Capacity (full track mode):
62,500 bits/track nominal
125,000 bits/cylinder*
50 x 10^6 bits/disk
Recording Mode: Double Frequency
Recording Density: 1530 bpi
outer track
2220 bpi,
inner track
Tracks per Surface: 400, plus 6 spares (standard)
200, plus 3 spares (optional)

TRANSFER RATE

Bit Rate: 2.5 Mbits/sec at 2400 rpm
1.6 Mbits/sec at 1500 rpm
Spindle Speed: 2400 rpm
1500 rpm (optional)

ACCESSING TIME (Direct seek, on track)

Full Stroke: 70 milliseconds
Average: 40 milliseconds
One Track: 10 milliseconds (max.)

CARTRIDGE DISK PACK

Type: CDC 9847 or equivalent (IBM 5440)
(Certified for 100 TPI)
CDC 9848 for 9427 (Certified for 200 TPI)
Number of Disks: 1
Usable Surfaces: 2
Diameter: 14 inches
Coating: Magnetic Oxide

RECORDING HEADS*

Type: Standard CDC* straddle erase
Total Number: 4
Read/Write to Erase Gap: 0.045 inch nominal
Track Spacing: 0.010 inch, nominal (9425)
0.005 inch, nominal (9427)
Head Positioning: Features closed loop servo,
requires no mechanical detent
*CDC pre-erase heads also available as an option

PHYSICAL

Panel Height: 10-7/16 inches***
Panel Width: 19 inches
Depth (overall): 29½ inches*** (including
I/O connector)
Weight: 135 pounds
Cabinet Mounted
Height: 34 inches
Width: 18½ inches
Depth: 29¾ inches
Weight: 235 pounds

ENVIRONMENTAL

Operating Temperature: 60°F to 90°F
Operating Humidity: 10% to 80% R.H.
(non-condensing)
Non-operating Temperature: −40°F to 160°F
Non-operating Humidity: 5% to 95% R.H.
(non-condensing)

ERROR RATE

Less than 1 in 10^{12} bits—
Irrecoverable errors

STANDARD FEATURES

Daisy-Chain Interface: Connects up to four drives.
Sector Address: Shows sector presently under read/write heads.
Write Protect: Via controller or individual switches on Operator Panel
Power Supply: 90 VAC-260 VAC at 50 or 60 Hz.

STANDARD OPTIONS AVAILABLE

Cabinet
Rack Mount: Slide Mounts and Front Panel
Fixed Disk: Non-removable, doubles capacity.

RELIABILITY AND SERVICE GOALS

MTBF: 2000 hours
MTR: Shall not exceed 0.5 man hours
P/M: Shall not exceed .5 man hours per 500 hours
Service Life: 5 years or 30,000 hours

Specifications are subject to change without notice.

Control Data Peripheral Products Company is the world's foremost supplier of OEM peripherals. The cartridge disk drive is but one device in a full line of rotating memory products; printers, card readers, magnetic tape transports, optical character recognition equipment and terminals are also available for OEM purchase.

For further information contact your nearest CDC OEM representative, or write: Control Data Corporation, Peripheral Products Company, Box 0, Minneapolis, MN 55440 USA.
Telephone: (612) 853-5340 TWX: 910-576-2978

CONTROL DATA
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SALES OFFICES AND SERVICE CENTERS
IN MAJOR CITIES
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