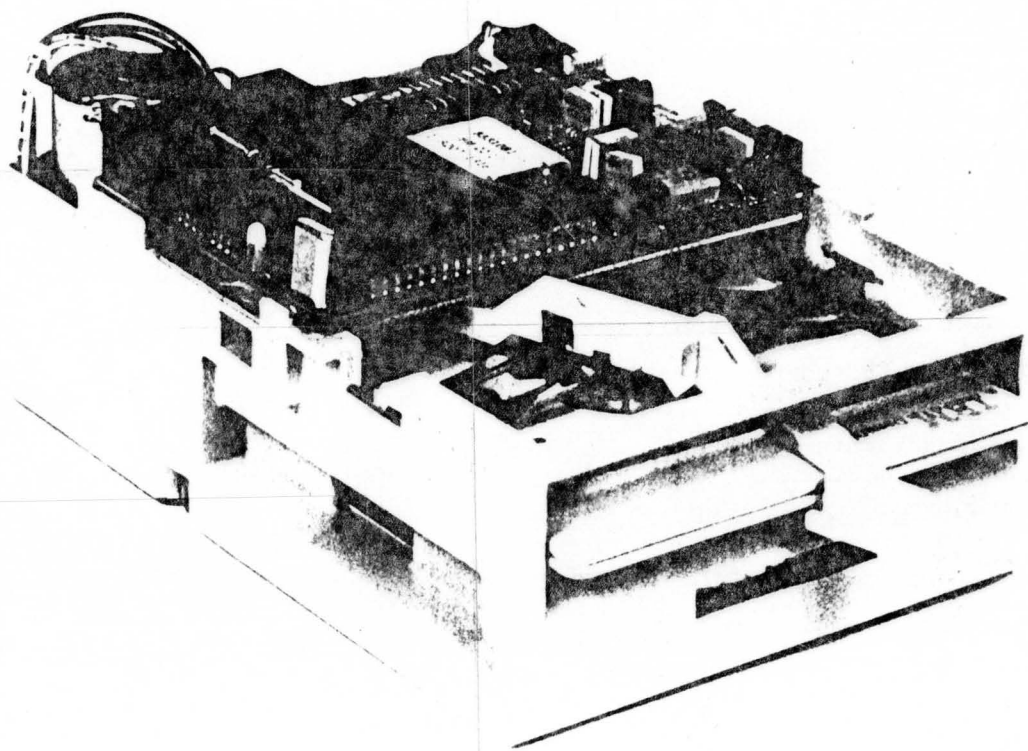


Introducing the IBM 341 Diskette Drive



IBM

General Description

The IBM 341 Flexible Diskette Drive uses advanced technology to provide a highly reliable storage device. The flexible disk media provides 358 kilobytes of unformatted storage on a single surface of the diskette.

Constant wavelength recording provides a 30% increase in capacity over conventional methods. A microcomputer on the drive provides a unique spindle speed for each of the 46 tracks, resulting in constant bit density over the entire surface of the diskette. Read and write reliability for diskette interchange is ensured by the selection of cobalt modified media protected by a 4" hard jacket and the low (68TPI) track density. The drive has fewer than 40 parts to attain high reliability and simplified field maintenance. It contains no switches, sensors, or slide mechanisms.

Also available is the IBM adapter module that relieves the host system of drive related timing requirements. The adapter module has four registers that provide seek, read, write, format and diagnostic support functions.

With the adapter module IBM 341 diskette drives may be attached to a conventional address/data bus.

Highlights

Compact, simplified, low cost and innovative design

Low part count for high reliability

High technology

Accurate head-positioning mechanism

Constant wavelength recording

Resident Microcomputer for drive control

Low Power Consumption

Light Weight

Hard Jacket Media

Reliable read/write diskette interchange

Interchange ensured over entire environmental range

Ease of maintenance

No field adjustments

No preventive maintenance

Only three field replaceable units

Hard Jacket Diskette

Increased media protection

*Storage
Shipment
Operation*

Low torque for reliable disk centering

Consistent torque for consistent head-disk interface and better speed control

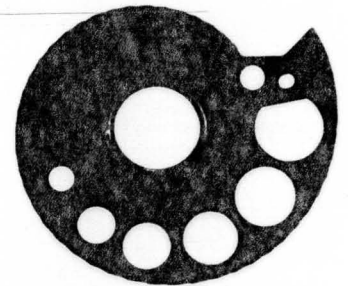
Cobalt-modified iron media for higher areal density



Head-Positioning Cam

Accurate Head Positioning Assured by

*46 precision machined dwells on cam
Cam and media centered on common spindle axis
Cam material and media have similar thermal coefficient of expansion
Dwells isolate stepper motor tolerances*



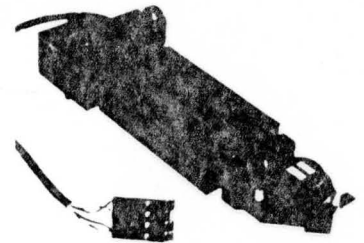
Head Positioning Flexure

Unique four bar linkage ensures accurate and repeatable positioning

Single molded part eliminates friction and high-wear components

Computer-controlled, head-alignment tool ensures accurate

*Azimuth angle
Track centerline position*



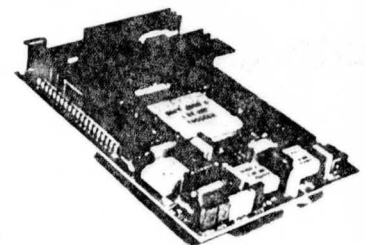
Drive Electronics

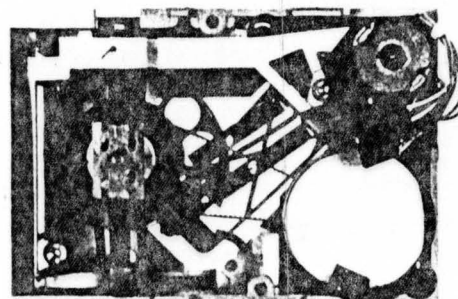
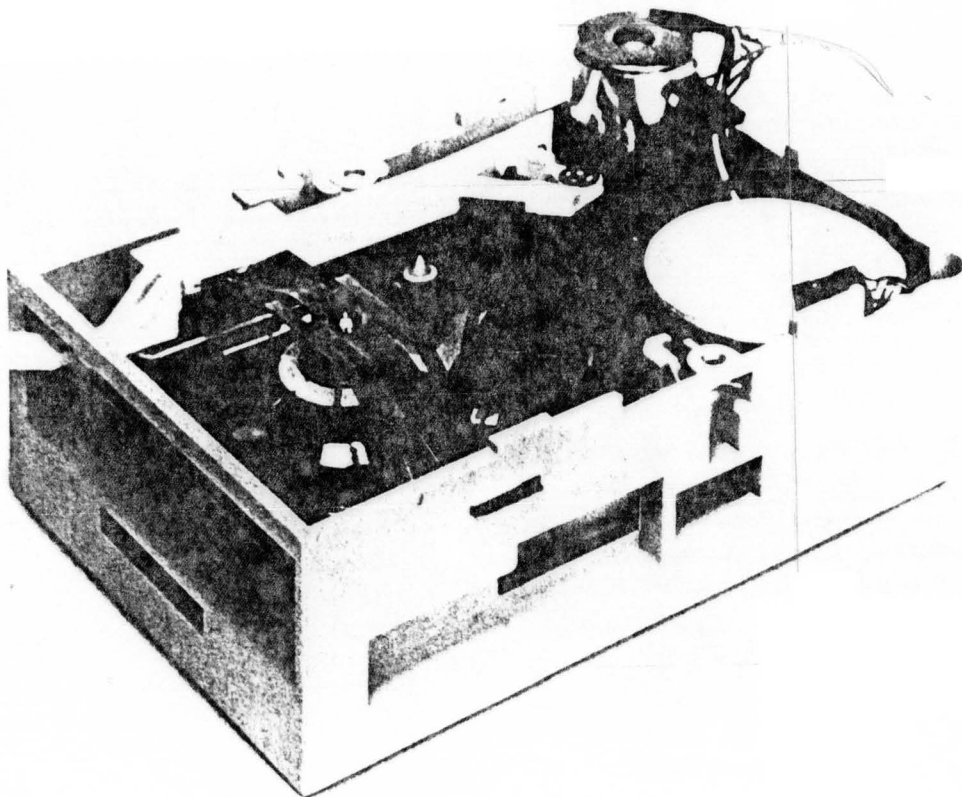
High reliability achieved by

*High-density analog LSI technology
Phase lock loop on drive*

Microcomputer

*Achieves individual speed control for each of 46 tracks
Controls stepper-motor for head positioning
Detects and routes (to host system) all drive detected errors*





Revolutionary Mechanical Design

Simple design

Low part count (less than 40)

No preventive maintenance

No field adjustments

Allows automated assembly

Low Cost

Light Weight

Vibration-Isolation Mounted

Positive Auditory and Tactile feedback diskette insertion

Diskette Locking Lever



IBM 341 Diskette Drive Specifications

General	Capacity (<i>Unformatted</i>)	358 Kilobytes
	Recording Surfaces	1
	Encoding Method	FM
	Tracks	46
	BPI	6865
	TPI	68 65
	Track Capacity (<i>Unformatted</i>)	6017-9552 Bytes
Performance	Rotational Speed	262-415 RPM
	Data Transfer Rate	333 Kilobits/Second
	Track to Track Access	40 Milliseconds (<i>Average</i>)
	Latency ($\frac{1}{2}$ Rev)	72.2-114.6 Milliseconds
Power Requirements	DC +24V ($\pm 10\%$) + 5V ($\pm 10\%$) - 5V ($\pm 10\%$)	
	Power Dissipation	4 Watts Standby 12 Watts Operating
Operating Environment	Temperature	50° F to 120° F (10° C to 48.9° C)
	Humidity	8% to 80% Relative Humidity
	Maximum Wet Bulb	80° F (26.7° C) Non-Condensing
Physical Size	Height	2.6 Inches (66.5 mm)
	Width	4.7 Inches (119 mm)
	Depth	6.7 Inches (169 mm)
	Weight	1.94 Lbs. (0.88 kg)

For operating environment of media,
contact your media vendor

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