



*Personal Computer
Hardware Reference
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IBM 10MB Fixed Disk Drive

6361482

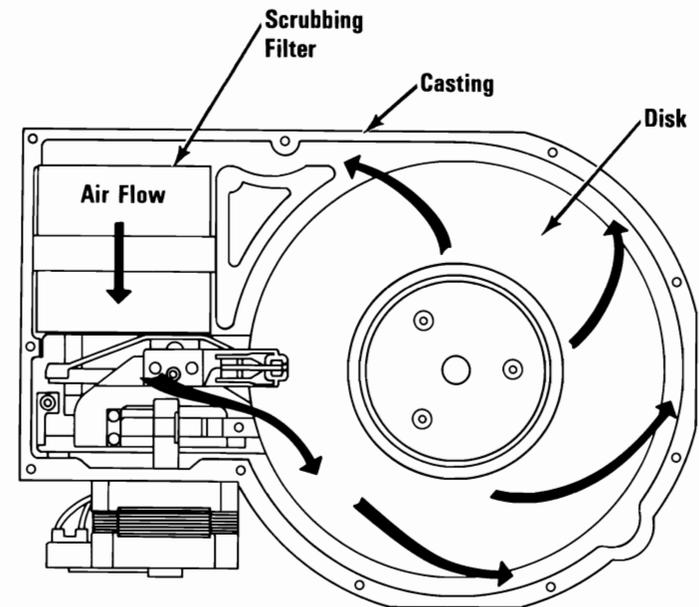
Contents

Description	1
Specifications	3
Logic Diagrams	5

Description

The IBM 10MB Fixed Disk Drive is a random-access storage device that uses two non-removable 5-1/4 inch disks for storage. Each disk surface employs one movable head to service 306 cylinders. The total formatted capacity of the four heads and surfaces is 10M bytes (17 sectors per track with 512 bytes per sector and a total of 1224 tracks).

An impact-resistant enclosure provides mechanical and contamination protection for the heads, actuator, and disks. A self-contained air recirculating system, which consists of an internal filter and a breather filter, maintains a clean-air environment. Thermal isolation of the stepper and spindle motor assemblies from the disk enclosure results in a very low temperature rise within the enclosure. This isolation provides a greater off-track margin and the ability to perform read and write operations immediately after power-up with no thermal stabilization delay.

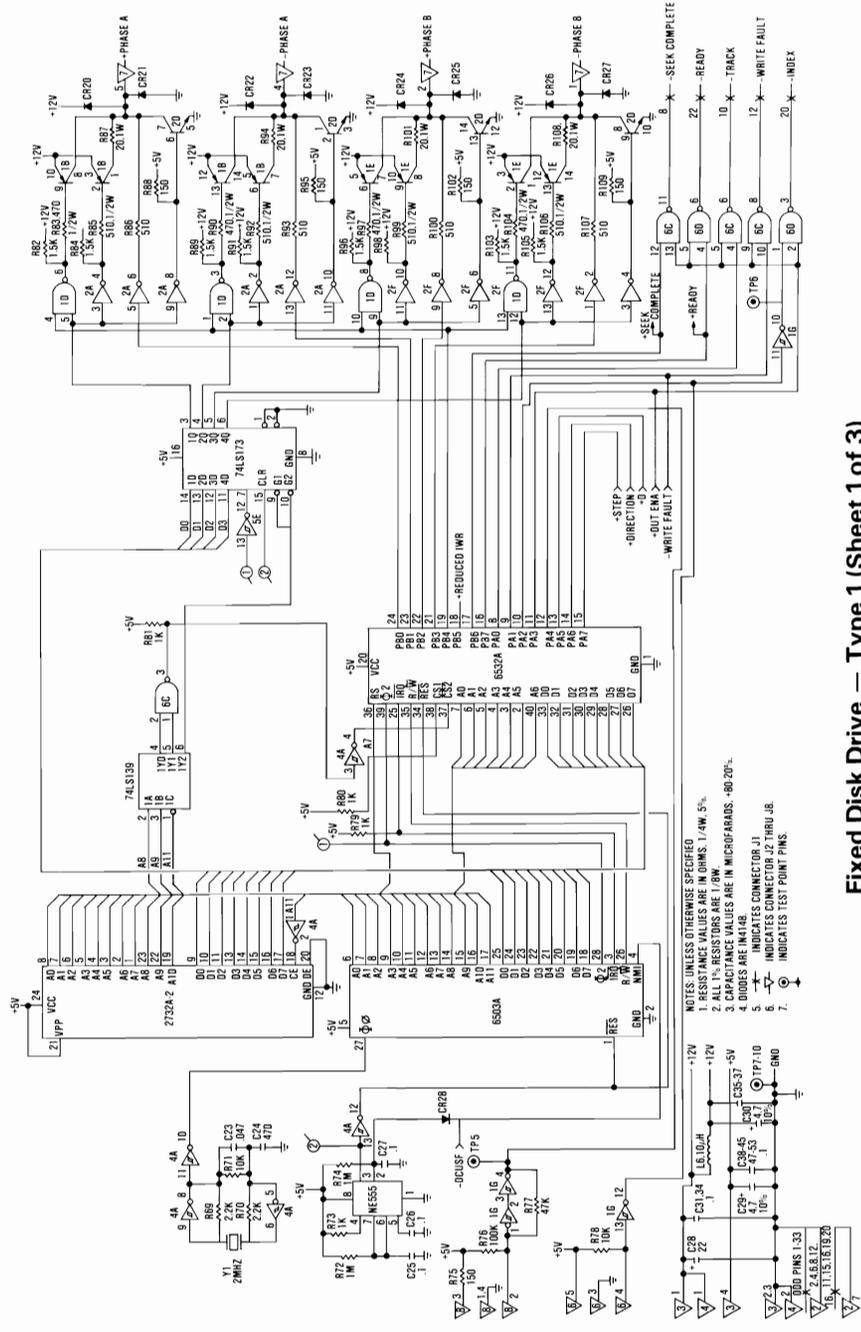


Specifications

Size (maximum)	
Height	82.55 mm (3.25 in.)
Width	146.05 mm (5.75 in.)
Depth	203 mm (8.0 in.)
Weight	2.08 kg (4.6 lb)
Power	+12 Vdc \pm 5%, 1.8 A (4.5 A maximum) +5 Vdc \pm 5%, 0.7 A (1.0 A maximum)
Maximum Ripple	1% with equivalent resistive load
Media	Rigid media disk
Track Density	345 tracks per inch
Number of Tracks	1224
Temperature	
Operating	4 to 50°C (40 to 122°F)
Non-operating	-40 to 60°C (-40 to 140°F)
Relative humidity	
Operating	8 to 80% (non-condensing)
Maximum Wet Bulb	26°C (78°F)
Shock	
Operating	10 Gs
Non-operating	20 Gs
Access Time	3 ms track-to-track
Average Latency	8.33 ms
Error Rates	
Recoverable	1 per 10 ¹⁰ bits read
Irrecoverable	1 per 10 ¹² bits read
Seek Errors	1 per 10 ⁶ seeks
Design Life	5-years (8,000 hours MTF)
Disk speed	3600 rpm \pm 1%
Transfer Rate	5.0M bps
Recording Mode	MFM

Mechanical and Electrical Specifications

Logic Diagrams



NOTES UNLESS OTHERWISE SPECIFIED:
 1. DIMENSIONS ARE IN MILLIMETERS, 1/4 IN. 5%
 2. ALL RESISTORS ARE 1/4 W
 3. CAPACITANCE VALUES ARE IN MICROFARADS - 80.20%
 4. DIMENSIONS ARE IN 1/4 IN.
 5. INDICATES CONNECTOR J1
 6. INDICATES CONNECTOR J2 THRU J8
 7. INDICATES TEST POINT PINS.

Notes: