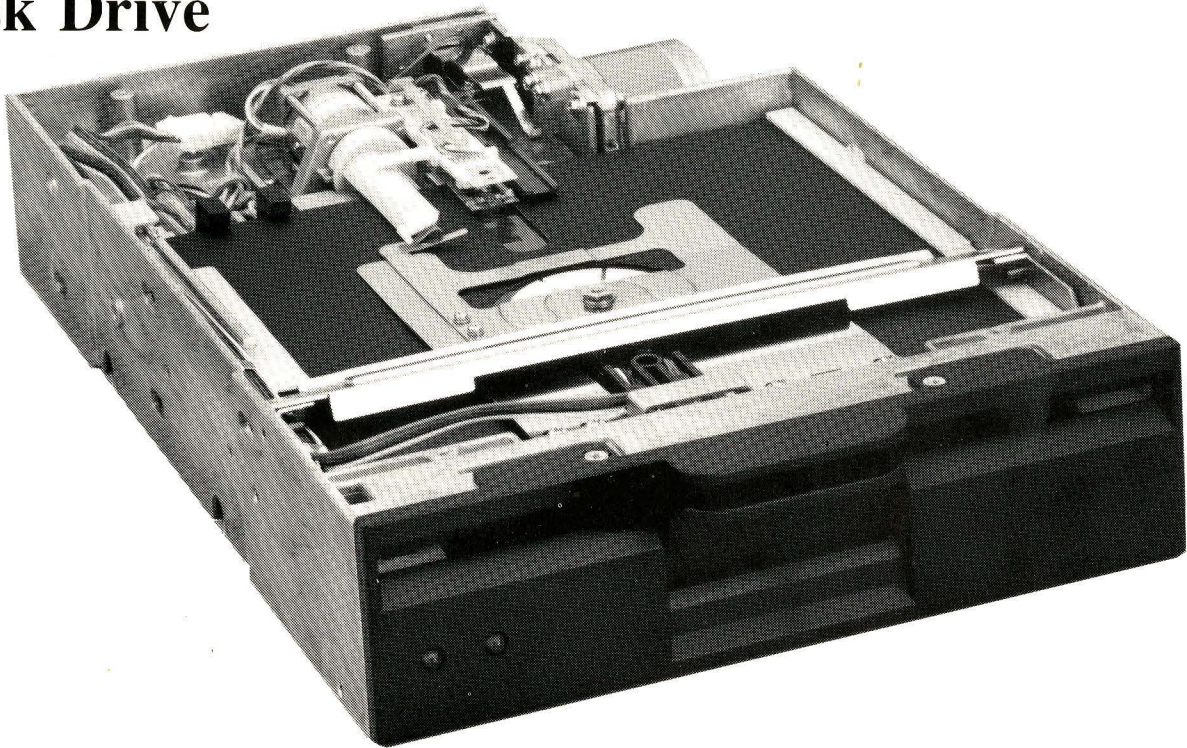


Model FD1165

8-inch Flexible Disk Drive



Features

- Compact design — less weight and half the height of standard 8-inch flexible disk drives
- Dual-sided, dual-density (1.6 Mb)
- Superior performance
- Direct drive dc motor — no belts or pulleys
- Microprocessor-controlled head loading and head positioning system
- Industry standard interface
- Media protection
- VFO option
- Write protect
- Outstanding reliability and ease of maintenance — MTBF of 24,000 hours; MTTR of 30 minutes

GENERAL DESCRIPTION

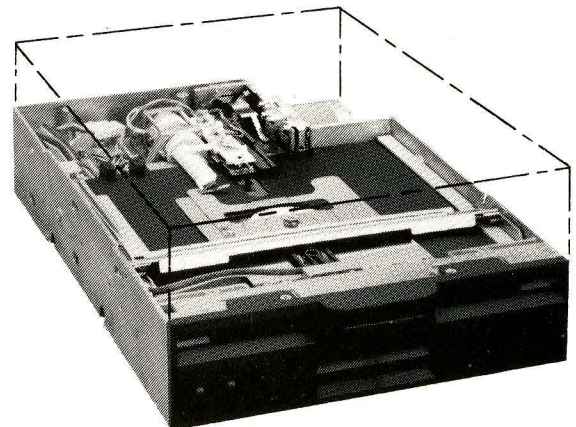
The NEC Model FD1165 is a new, state-of-the-art design in 8-inch flexible disk drives. The FD1165 is shorter, lighter and half the height of conventional 8-inch flexible disk drives. Now two FD1165s can be mounted in the space currently occupied by a single unit — doubling your storage capacity from 1.6 Mb to 3.2 Mb. Yet the FD1165 has all the features and performance of these larger-sized units and maintains media compatibility with them.

NEC designed a special direct-drive, simplified, dc motor for the spindle drive, eliminating the need for a drive pulley and belt. No more belt changes — and the problems associated with belt-driven drives. And this motor requires less power than conventional motors.

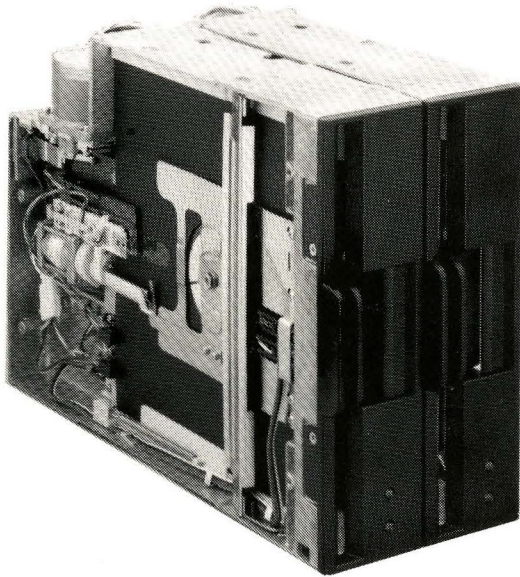
Low power (28 watts) means less expensive power supplies can be used, leading to a cost savings. Because the FD1165 uses a dc motor, you don't have to be concerned about different ac voltages and frequencies.

An NEC-patented, microprocessor-controlled head loading mechanism, using a cam, greatly minimizes media damage during head loading. The FD1165's head positioning system uses a steel band and stepper motor, and is microprocessor-controlled, making it one of the most accurate systems in the industry.

An optional Variable Frequency Oscillator (VFO) shapes and produces more reliable interface signals sent to the controller. This option helps simplify your design and increases overall reliability of the drive.



Half the height of conventional 8-inch flexible disk drives



For media protection, the FD1165 has a mechanical interlock to ensure that a diskette is properly inserted before the door will close.

The FD1165 has outstanding reliability and ease of maintenance — mean time between failures (MTBF) of 24,000 hours and a mean time to repair (MTTR) of 30 minutes. Fewer service calls are required and less time is needed for repair, reducing overall ownership cost.

Special built-in diagnostics easily check for correct operation of the FD1165's functions. This feature eliminates the need for special and sometimes expensive troubleshooting equipment.

FEATURES	SPECIFICATIONS		
	Single-Sided Single-Density	Dual-Sided Single-Density	Dual-Sided Dual-Density
Capacity (unformatted)	400 Kbytes	800 Kbytes	1,600 Kbytes
Capacity (formatted-maximum)			
Per Disk	303 Kbytes	606 Kbytes	1,212 Kbytes
Per Track	4,096 bytes	4,096 bytes	8,192 bytes
Per Sector	512 bytes	512 bytes	1,024 bytes
Tracks per Disk	77	154	154
Bit Density	3,268 bpi	3,408 bpi	6,816 bpi
Transfer Rate	250 kbps	250 kbps	500 kbps
Recording Method	FM	FM	MFM
Number of Sectors/Track	8		
Track Density	48 tpi		
Rotational Speed	360 rpm		
Access Time			
Track-to-track	3.0 ms		
Seek settling time	15.0 ms		
Head load time	30.0 ms		
Latency time (average)	83.3 ms		
Start time	0.6 second		
Power requirement	+24 Vdc ±10% @ 0.9 Amp (maximum)		
	+ 5 Vdc ± 5% @ 0.8 Amp (maximum) without VFO/ 0.9 Amp (maximum) with VFO		
Power Consumption	28 watts		
Mechanical			
Height	2.28 inches (58 mm)		
Width	8.55 inches (217 mm)		
Depth	13.19 inches (335 mm)		
Weight	7.7 pounds (3.5 Kg)		
Environmental			
Ambient temperature	Operating: 50°F to +113°F (+10°C to +45°C) Non-operating: +23°F to +158°F (-5°C to +70°C)		
Relative humidity	Operating: 20% to 80%		

NEC

NEC Information Systems, Inc.

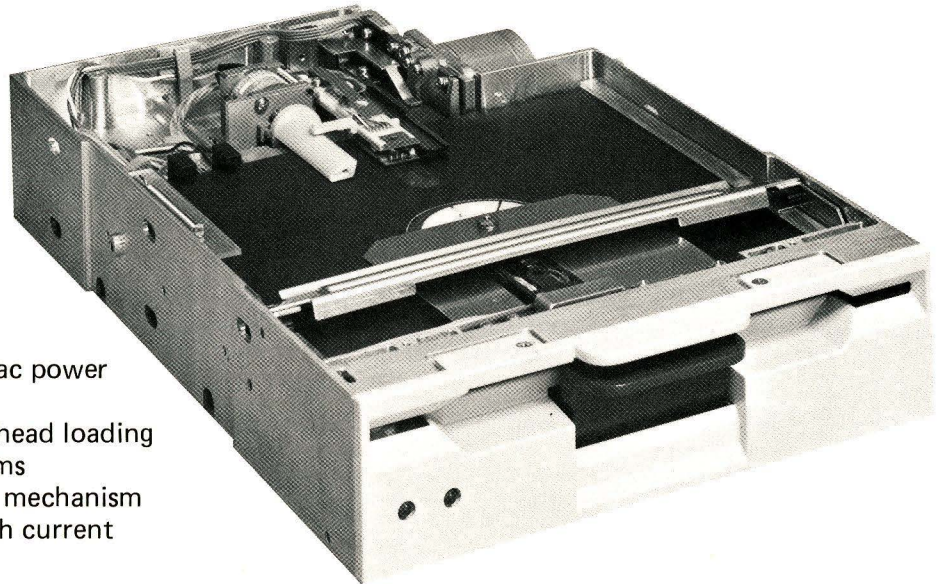
5 Militia Drive, Lexington, Massachusetts 02173 (617) 862-3120

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NEC Model FD1165

Dual-Sided, Double-Density Flexible Disk Drive



FEATURES

- Compact design
- Direct drive dc motor - no ac power required
- Microprocessor-controlled head loading and head positioning systems
- High reliability - simplified mechanism
- Interface compatibility with current flexible disk drives
- Media protection
- VFO option
- Write protect detection

GENERAL DESCRIPTION

The NEC Model FD1165 is a unique new design in 8-inch flexible disk drives. It has all the features and performance of larger-sized units while offering more. The FD1165 maintains media and interface compatibility with currently available 8-inch flexible disk drives, but is shorter, lighter and half their height. This small size allows two FD1165s to be mounted in the space now occupied by a single unit.

NEC uses a special direct-drive, simplified, dc motor for the spindle drive. This direct drive concept eliminates a drive pulley and belt - no more belt changes and gone are the problems associated with belt-driven drives. And this motor requires less power than conventional motors - low power, less expensive power supplies can be used. Since the FD1165 uses a dc motor, the user does not have to be concerned about the different

ac voltages and frequencies of concern to users of drives with ac spindle motors.

An NEC patented microprocessor-controlled head loading mechanism, using a cam, greatly reduces media damage during head loading. The FD1165's head positioning system uses a steel band and stepper motor and is microprocessor-controlled, making it one of the most accurate systems in the industry.

The Model FD1165 can be ordered with an optional Variable Frequency Oscillator (VFO). This option shapes and produces more reliable interface signals to the controller, increasing the overall reliability of the drive.

For media protection, the FD1165 has a mechanical interlock to ensure that a diskette is properly inserted before the door will close.