

SONY®

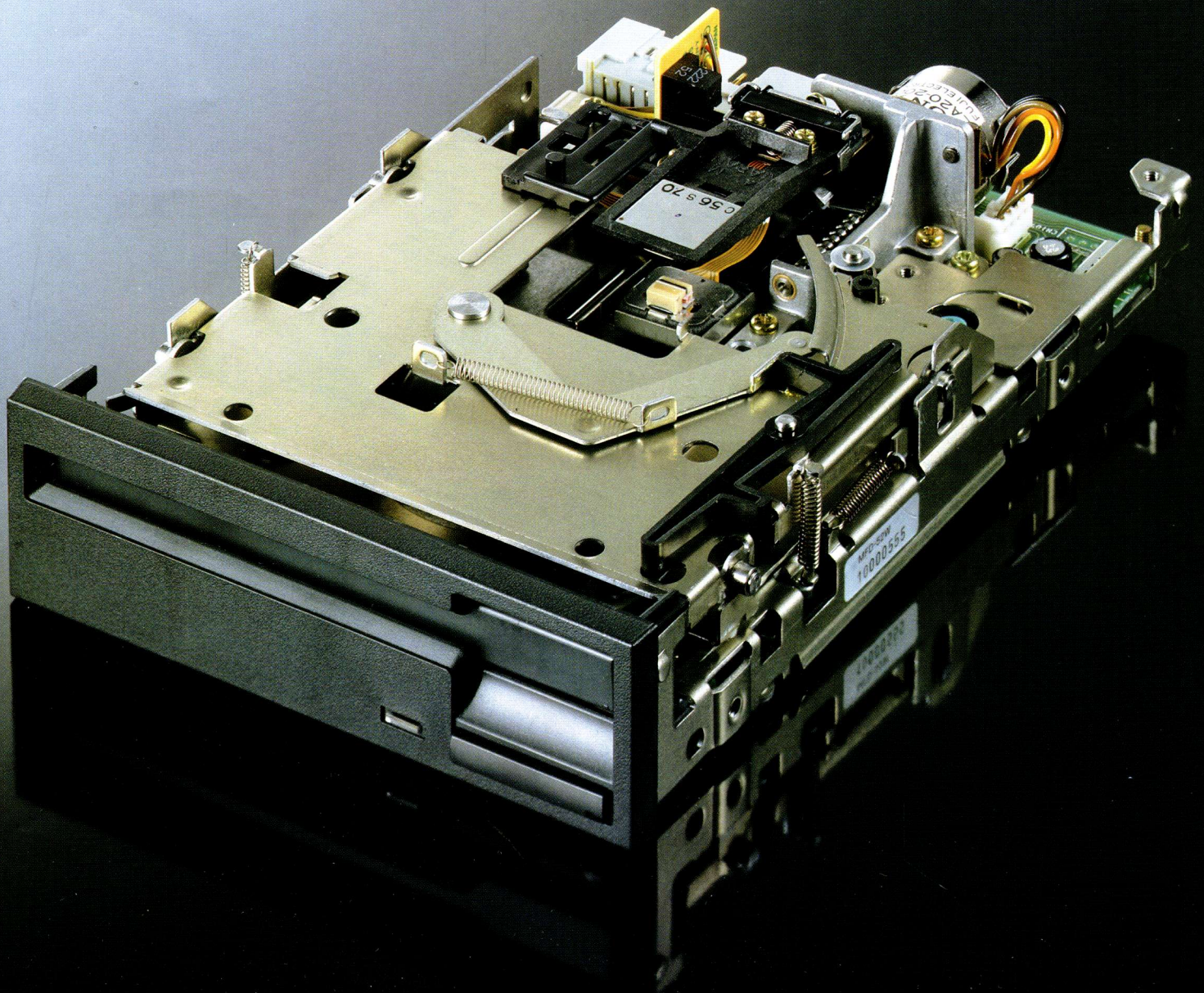
OEM

Sony Micro Floppydisk Drives

The New Line-Up of 3.5 inch
Micro Floppydisk Drives (1.0MB/2.0MB)
from the Industry's Leading Supplier



Large capacity
Slim design
Light weight
Low power consumption
High reliability
Precise head positioning

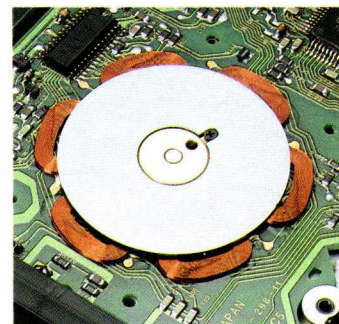
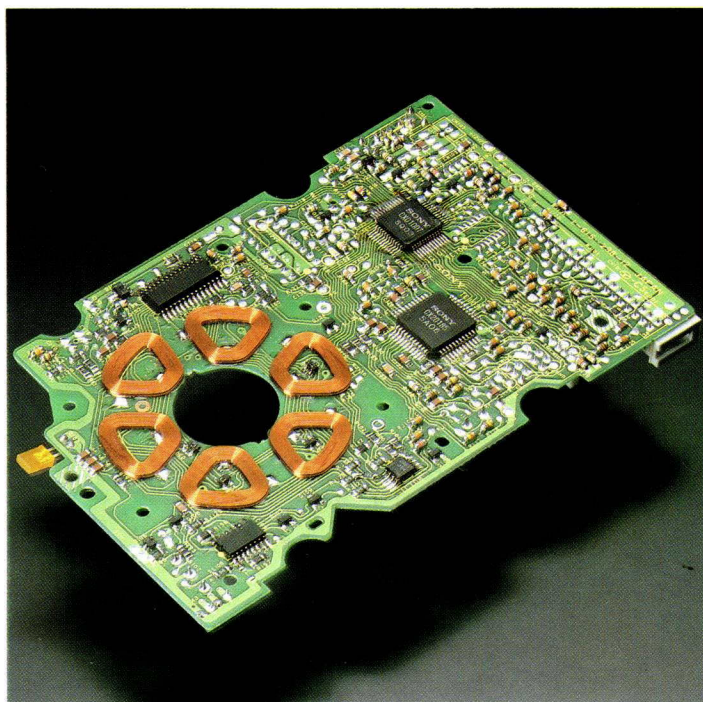
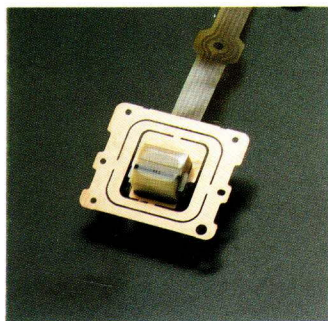


High Capacity, High Speed, and High Reliability through Innovative Technology

Sony has become the world's leading supplier of 3.5 inch Micro Floppydisk Drive since it first established the 3.5 inch Micro Floppydisk Drive as a new standard. Now adding the 2.0MB drive to its line-up, Sony is offering a full line-up of 3.5 inch Micro Floppydisk Drives which are produced on a state of the art production line. High performance is backed up by Sony's reputation for reliability which assures OEM customers of a competitive edge. Furthermore, Sony's innovative technology has allowed the 2.0MB drive to read and write 1.0MB disks as well.

1 BULK TYPE MAGNETIC HEAD

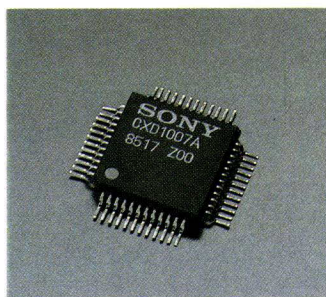
Sony's experience in mass-producing bulk type heads for video tape recorders provided the technical expertise to develop an extremely reliable head for the MP-F series. Through the use of an erase gap, Sony's bulk type head achieves far better demagnetization and off-track characteristics than conventional heads.



positioned with extreme accuracy by installing the rotor on the main chassis. The coils of the disk motor are directly mounted on the PCB which contributes to the drive's slimness, and through the use of a digital servo control mechanism, accurate rotational speed is maintained.

2 ONLY ONE PRINTED CIRCUIT BOARD

Sony minimizes the numbers of connectors and harnesses by using only one PCB in the slim line drive. The manufacture of this board is fully automated and uses a variety of Sony's leading production techniques such as surface mounting and laser soldering.



the drive's low power consumption, slim size, high reliability, and reduced number of electronic parts.

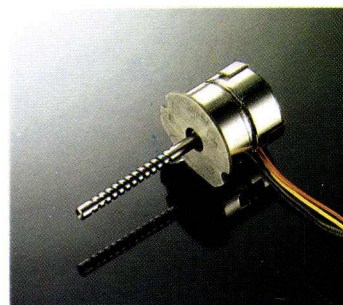
avoid coupling the lead screw to the motor shaft. This unique control method reduces stepping motor hysteresis to virtually zero and achieves precise and reliable head positioning.

3 CUSTOM LSI

One custom CMOS LSI is used to control all of the functions of the drive. This LSI contributes to

4 HEAD POSITIONING MECHANISM

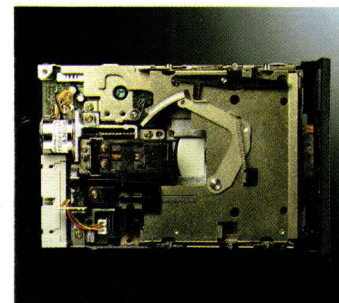
The lead screw is cut on the shaft of the stepping motor to



5 DISK MOTOR

The center of the disk motor is

6 AUTOMATED PRODUCTION



All components of the drive are laid out to take maximum advantage of Sony's robot technology. With only a single printed circuit board, all adjustments and inspections are performed using fully automated equipment, thereby further enhancing the quality and reliability of Sony's most advanced 3.5 inch floppy-disk drives.

SPECIFICATIONS

Model		MP-F52W Double Sided	MP-F52W-00D Double Sided	MP-F53W Double Sided	MP-F53W-00D Double sided	MP-F63W-01D Double Sided	MP-F73W-01D Double Sided
Unformatted Recording Capacity		1.0 M bytes	1.0 M bytes	1.0 M bytes	1.0 M bytes	1.0 M bytes	2.0 M bytes
Data Transfer Rate		500 K bps	500 K bps	250 K bps	250 K bps	250 K bps	250 K bps (1 MB) 500 K bps (2 MB)
Rotational Speed		600 RPM	600 RPM	300 RPM	300 RPM	300 RPM	300 RPM
Access Time	Track to Track	6 ms	6 ms	6 ms	6 ms	3 ms	3 ms
	Settling	15 ms	15 ms	15 ms	15 ms	15 ms	15 ms
	Average	175 ms	175 ms	175 ms	175 ms	95 ms	95 ms
Average Latency		50 ms	50 ms	100 ms	100 ms	100 ms	100 ms
Motor-On to Ready Time		0.9 sec. max	0.9 sec. max	0.9 sec. max	0.9 sec. max	500 ms max.	500 ms max.
Recording Density		8,717 BPI	8,717 BPI	8,717 BPI	8,717 BPI	8,717 BPI	17,434 BPI
Number of Tracks		160	160	160	160	160	160
Track Density		135 TPI	135 TPI	135 TPI	135 TPI	135 TPI	135 TPI
Encoding Method		MFM	MFM	MFM	MFM	MFM	MFM
Environmental	Ambient Temperature	5°C to 50°C (40°F to 122°F)	5°C to 50°C (40°F to 122°F)	5°C to 50°C (40°F to 122°F)	5°C to 50°C (40°F to 122°F)	5°C to 50°C (40°F to 122°F)	5°C to 50°C (40°F to 122°F)
	Relative Humidity	8% to 80%	8% to 80%	8% to 80%	8% to 80%	8% to 80%	8% to 80%
	Maximum Wet Bulb	29°C (85°F)	29°C (85°F)	29°C (85°F)	29°C (85°F)	29°C (85°F)	29°C (85°F)
DC Power Requirement		+12V ±5% +5V ±5%	+12V ±5% +5V ±5%	+12V ±5% +5V ±5%	+12V ±5% +5V ±5%	+12V ±5% +5V ±5%	+12V ±5% +5V ±5%
Power Dissipation	Stand-by	0.05 W (CMOS Interface)	255 mW (TTL Interface)	0.05 W (CMOS Interface)	255 mW (TTL Interface)	255 mW (TTL Interface)	255 mW (TTL Interface)
	Operating	2.6 W (CMOS Interface)	2.8 W (TTL Interface)	2.6 W (CMOS Interface)	2.8 W (TTL Interface)	2.8 W (TTL Interface)	2.8 W (TTL Interface)
Mechanical Dimensions	Height	30 mm	30 mm	30 mm	30 mm	30 mm	30 mm
	Width	101.6 mm	101.6 mm	101.6 mm	101.6 mm	101.6 mm	101.6 mm
	Depth	150 mm	150 mm	150 mm	150 mm	150 mm	150 mm
Weight		480 g	480 g	480 g	480 g	480 g	480 g
MTBF		10,000 POH	10,000 POH	10,000 POH	10,000 POH	10,000 POH	10,000 POH
MTTR		30 min.	30 min.	30 min.	30 min.	30 min.	30 min.
Error Rates	Soft	1 in 10 ⁹ bits	1 in 10 ⁹ bits	1 in 10 ⁹ bits	1 in 10 ⁹ bits	1 in 10 ⁹ bits	1 in 10 ⁹ bits
	Hard	1 in 10 ¹² bits	1 in 10 ¹² bits	1 in 10 ¹² bits	1 in 10 ¹² bits	1 in 10 ¹² bits	1 in 10 ¹² bits
	Seek	1 in 10 ⁶ seeks	1 in 10 ⁶ seeks	1 in 10 ⁶ seeks	1 in 10 ⁶ seeks	1 in 10 ⁶ seeks	1 in 10 ⁶ seeks
Media	2.0 MB	2DD (1 MB type, double sided, 3.5" media)	2DD (1 MB type, double sided, 3.5" media)	2DD (1 MB type, double sided, 3.5" media)	2DD (1 MB type, double sided, 3.5" media)	2DD (1 MB type, double sided, 3.5" media)	2HD (2 MB type, double sided, 3.5" media)
	1.0 MB						2DD (1 MB type, double sided, 3.5" media)

(Specifications are subject to change without notice)

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