

MPF920-Z

Internal Floppy Disk Drive

Easy to install 3.5" floppy disk drive for Microsoft® Windows® operating systems



- Compatible with 720 kB and 1.44 MB 3.5" floppy disks
- Replaceable front panel and eject button
- Ideal for replacing older floppy drive, or adding a second drive
- Legendary quality from Sony – the inventor of the 3.5" floppy

MPF920-Z

FEATURES AND BENEFITS

- Works with 720 kB and 1.44 MB floppy disks
- Standard 34 pin floppy interface for easy installation
- Mist white faceplate and eject button can be changed with matte black or granite colored parts (included) to match your computer
- High quality construction for years of reliable service

SPECIFICATIONS

PART NUMBER	MPF920-Z	
DRIVE TYPE	Internal Floppy Disk Drive	
DATA TRANSFER RATE (from disk)	500 kB/s max.	
TRACKS	80	
HEADS	2	
ENCODING METHOD	MFM	
ROTATIONAL SPEED	300 min-1	
INTERFACE	34 pin floppy interface	
CAPACITY	1.44 MB Formatted (2HD disk) 2 MB Unformatted (2HD disk)	
MTBF*	30,000 POH	
ENVIRONMENTAL	Operating Temperature	41° F - 125° F (5° C - 51.7° C)
	Humidity	8 - 80% RH (operating)
POWER VOLTAGE	DC 4.4 to 5.25V	
SYSTEM REQUIREMENTS	IBM PC/AT Compatible PC Microsoft® Windows® 98/2000, Windows® XP Home & Professional, or Windows® Millennium Edition operating systems.	
PACKAGE CONTENTS	Internal Disk Drive, matte black and granite colored faceplates and eject buttons, User's Guide	
WARRANTY	One-year Limited	

*MTBF specification is average based on normal office environmental conditions.
Actual experience may vary.

MEDIA COMPATIBILITY

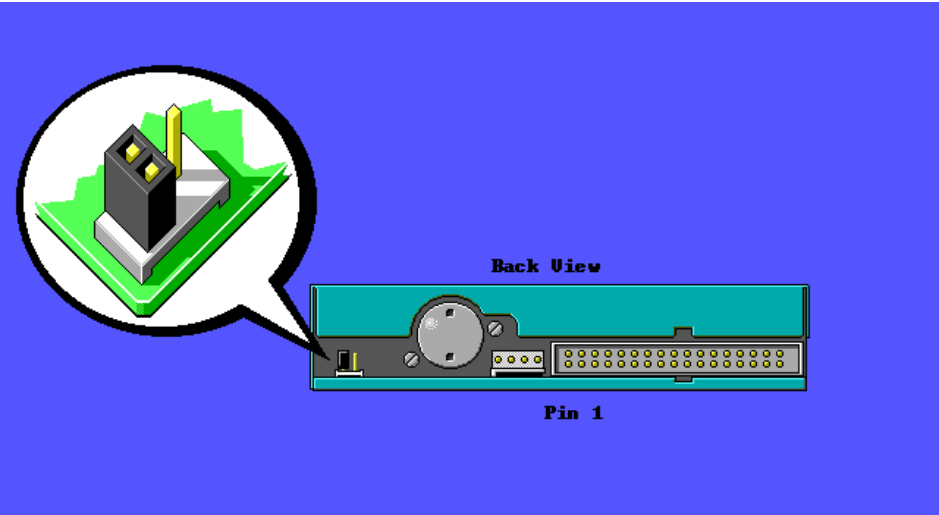
MODEL	CONFIGURATION
MFD-2HD	1.44 MB High Density Floppy Disk











Manuals

Jumpers: Sony MPF920-E 1.44-MB Diskette Drive



 = jumpered
 = unjumpered

 	Drive select 0 Support
 	Drive select 1 (default)

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Manuals

Specifications: Sony MPF920-E 1.44-MB Diskette Drive


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General

Manufacturer	Sony
Model number	MPF920-E
Capacity	2 MB (1.44 MB) on 2HD* 1 MB (720 KB) on 2DD*


* The capacities in parentheses are based on the IBM  format. Dell supports only the IBM format. Dell does NOT support the 2-MB or 1-MB format.

Performance

Data transfer rate:	
2-MB mode	500,000 bits/sec (for MFM)
1-MB mode	250,000 bits/sec (for MFM)
Access times:	
Average access time	94 ms
Track-to-track slew rate	3 ms
Head settling time	15 ms (maximum)
Rotational speed	300 rpm  1.5%
Motor start time	500 ms (maximum)
Rotational latency	100 ms (average)
Speed change time	200 ms (maximum)

Recording Parameters

Cylinders	80
Tracks	160
Read/write heads	2
Track density	135 tpi
Recording density:	
2-MB mode	17,434 bpi
1-MB mode	8,717 bpi









Supply voltage	+5.0 V  10%
Power consumption:	
Standby	17 mW (maximum)
Operational	1.5 W (typical)
Current load:	
Standby	3 mA (maximum)
Read/write mode	300 mA (typical)
Motor start	930 mA (maximum)
Step during motor rotation	960 mA (maximum)


Size and Weight

Height	25.4 mm (1.0 inch)
Width	101.6 mm (4.0 inches)
Depth	144.0 mm (5.7 inches)*
Weight	430 g (0.95 lb)

* Front-panel thickness and eject button not included

Environmental Limits

Temperature:	
Operating	5  to 50  C (40  to 122  F)
Nonoperating	-40  to 60  C (-40  to 140  F)
Relative humidity: ¹	
Operating	8% to 80% (noncondensing)
Nonoperating	5% to 95% (noncondensing)
Vibration: ²	
Operating	10 to 500 Hz at maximum of 0.5 G
Nonoperating	10 to 500 Hz at maximum of 2.0 G
Shock: ³	
Operating	5.0 G for 11 ms
Nonoperating	70 G for 11 ms

¹ Wet bulb at 29C
² Continuous along each mutually perpendicular axis
³ Half-sine wave along mutually perpendicular axes

Reliability

MTBF	30,000 POH
MTTR	30 minutes
Preventive maintenance	not required
Component life	5 years or 15,000 POH
Error rate:	
Soft read errors	1 per 10E9 bits read

Documentation		
Soft read errors	1 per 10E9 bits read	
Hard read errors	1 per 10E12 bits read	
Seek errors	1 per 10E6 seeks	

Regulatory Notices

- UL 1950
- CSA C22.2 No 950-M89
- TUV EN 60 950

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Tech Notes: Sony MPF920-E 1.44-MB Diskette Drive

[Mounting](#) | [Interface Connector Pinouts](#)

Mounting

The drive may be mounted vertically or horizontally on any axis.

Interface Connector Pinouts

Pin	Signal	Pin	Signal
1	Not connected	2	Not connected (mode select for 3 mode models)
3	Key	4	Not connected
5	Ground	6	Not connected
7	Ground	8	INDEX
9	Ground	10	DRIVE SELECT 0
11	Ground	12	DRIVE SELECT 1
13	Ground	14	Not connected
15	Ground	16	MOTOR ON
17	Ground	18	DIRECTION
19	Ground	20	STEP
21	Ground	22	WRITE DATA
23	Ground	24	WRITE GATE
25	Ground	26	TRACK 00
27	Ground	28	WRITE PROTECT
29	Ground	30	READ DATA
31	Ground	32	HEAD 1 SELECT
33	Ground	34	DISK CHANGE