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PICTURE 1

**IBM Personal System/2 2.88MB Diskette Drive**

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This package contains an update to the IBM Personal System/2 *Hardware Maintenance Reference* manual (part number 15F2190, form number S15F-2190-00).

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**IBM PS/2 2.88MB Diskette Drive HMR**  
IBM Personal System/2 2.88MB Diskette Drive

*1.0 IBM Personal System/2 2.88MB Diskette Drive*

This option is an internal 3.5-inch, 2.88MB diskette drive compatible with 3.5-inch 1.0MB, 2.0MB, and 4.0MB diskettes. The drive can be installed into either a 5.25-inch or 3.5-inch bay, with appropriate mounting hardware. Power is supplied by the system-unit power supply through the combined signal/power attachment cable. Data signals are provided by the system-board diskette-drive controller. No adapter is required. The signal/power cable is standard in the system unit.

Subtopics

- 1.1 Connector Information
- 1.2 3.5-Inch Diskettes and Drive Compatibility
- 1.3 Diagnostic Information

1.1 Connector Information

The following table shows the pin and signal assignments.

Pin	Signal	Pin	Signal
1	Ground	2	Data Rate Select 1
3	+5 V dc	4	Drive Type ID
5	Ground	6	Reserved (Open)
7	Ground	8	-Index
9	Reserved (Open)	10	Reserved (Open)
11	Ground	12	-Drive Select
13	Ground	14	Reserved (Open)
15	Ground	16	-Motor Enable
17	Media Type ID 1	18	-Direction In
19	Ground	20	-Step
21	Ground	22	-Write Data
23	Ground	24	-Write Enable
25	Ground	26	-Track 0
27	Media Type ID 0	28	-Write Protect
29	Ground	30	-Read Data
31	Ground	32	-Head 1 Select
33	Data Rate Select 0	34	-Diskette Change

1.2 3.5-Inch Diskettes and Drive Compatibility

The 2.88MB diskette drive is compatible with IBM 3.5-inch 1.44MB and 720KB diskette drives.

IBM DOS 5.0 or OS/2 1.30.1 or later **must** be installed on the diskette or fixed disk drive that is used to start the computer.

Several types of 3.5-inch diskettes and diskette drives are available. The following table provides information concerning the identification of 3.5-inch diskette drives.

Diskette Drive	Identifying Mark
3.5-inch - 720KB	none
3.5-inch - 1.44MB	1.44 on eject button
3.5-inch - 2.88MB	2.88 on eject button

The following table addresses the compatibility of diskettes to diskette drives.

Diskette Type	Formatted Capacity	Compatibility	Drive
1.0MB	720KB	3.5-inch 720KB, 1.44MB, and 2.88MB	
2.0MB*	1.44MB	3.5-inch 1.44MB and 2.88MB drives	
4.0MB**	2.88MB	3.5-inch 2.88MB drive only	
<b>Note:</b> *The identifying mark for a 2.0MB diskette is HD. **The identifying mark for a 4.0MB diskette is ED.			

Warning: 1.0MB diskettes can be reliably formatted to only 720KB capacity, 2.0MB diskettes can be reliably formatted to only 1.44MB capacity, and 4.0MB diskettes can be reliably formatted to only 2.88MB capacity. Using diskettes formatted to an unsupported capacity can result in loss of data.

To optimize diskette drive performance, IBM recommends the use of media, such as IBM media, which meets or exceeds the following equivalent current standards:

- 1.0MB 3.5-inch media
  - American National Standards Institute (ANSI) X3.137
  - International Standards Organization (ISO) 8860-1
  - European Computer Manufacturer's Association (ECMA) 100
- 2.0MB 3.5-inch media
  - ANSI X3.171
  - ISO 9529-1
  - ECMA 125
- 4.0MB 3.5-inch media
  - ECMA 147

*1.3 Diagnostic Information*

An error code of 6XX indicates that the diagnostic program has detected an error with the diskette drive or controller. The failing field replaceable unit (FRU) is identified on the screen.

#### 1.4 Specifications

##### Size

- Width: 102 mm (4.0 in.) maximum
- Depth: 150 mm (5.9 in.) maximum
- Height: 27 mm (1.1 in.) maximum

##### Weight

0.45 kg (1.0 lb).

##### Environment

###### Temperature

Power on: 10° C to 51.7° C

Power off: -40° C to 60° C.

##### Humidity

- Power on: 8% to 80% Relative Humidity
- Power off: 5% to 95% Relative Humidity.
- Maximum Altitude 2150 m (7054 ft).

##### Heat Output

3.5 W (12 BTU per hour).

##### Electrical

Voltage: +5 V dc