WD Caviar® SE
SATA/EIDE Hard Drives

Fast
Cool
Quiet

Cool-running, quiet operation, superior performance, and industry-leading reliability make these drives the perfect hard drives for desktop, business, and consumer electronics storage — ideal for high-performance family computing such as photo editing, multimedia functions, and business applications such as spreadsheets and databases.

Product Benefits

- **Fast** — WD, the first to introduce an 8 MB buffer, has advanced the caching algorithms of this new and improved WD Caviar family of hard drives, resulting in next-generation high performance — performance that beats all competing 8 MB cache drives.
- **Cool** — Heat is a major contributor to hard drive wear, and cool drive operating temperatures help increase long-term drive reliability. WD achieves the lowest operating temperature of any hard drive in its class by lowering the drive's power consumption through advanced design of electronics and firmware.
- **Quiet** — Today's PCs, digital video recorders, and gaming machines are increasingly operated in environments where noise is less tolerated. WD minimizes WD Caviar noise to levels virtually below the threshold of human hearing with its WhisperDrive™ technology which features a highly efficient power driver design. And to cut seek noise, SoftSeek™ technology streamlines read/write seeking algorithms, resulting in the drive operating more efficiently when accessing and writing data.
- **Data Lifeguard Tools™** — This software utility works with embedded Data Lifeguard™ features (including shock protection, an environmental protection system, and error detection and repair) to make hard drive installation, management, and diagnostics simple and worry-free.

SATA-specific Features

- **SecureConnect™** — provides a 500 percent stronger cable-to-drive connection than first-generation SATA hard drives and cables. Also ensures backward compatibility with legacy SATA cables and backplanes.

  Note: WD's SATA cable with SecureConnect is recommended for use with all WD SATA hard drives.
- **FlexPower™** — connector technology that accepts power from both industry-standard and new SATA power supplies.

The WD Promise

WD understands the importance of the information you save to your hard drive and we are committed to protecting that data with exceptionally reliable products, advanced data protection technology, and superior customer support. No one does more to safeguard your data than WD.

INTERFACE

SATA or EIDE

WIDTH/HEIGHT

3.5-inch/1-inch

ROTATIONAL SPEED

7200 RPM

CAPACITIES

40 to 320 GB

MODEL NUMBERS

EIDE	SATA
WD400JB	**150 MB/s**
WD800JB	WD1200JD
WD1200JB	WD1600JD
WD1600JB	WD2000JD
WD2000JB	WD2500JD
WD2500JB	WD3000JD
WD3000JB	WD3200JD
WD3200JB	**300 MB/s**
	WD400JD
	WD800JD
	WD1200JS
	WD1600JS
	WD2000JS
	WD2500JS
	WD3000JS
	WD3200JS

Note: Not all products may be available in all regions of the world.

 Western Digital®

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Drive Specifications

SATA Hard Drives	40 GB	80 GB	120 GB	160 GB	200 GB	250 GB	300 GB	320 GB
Formatted capacity[1]	40,020 MB	80,026 MB	120,034 MB	160,041 MB	200,049 MB	250,059 MB	300,069 MB	320,072 MB
User sectors per drive	78,165,360	156,301,488	234,441,648	312,581,808	390,721,968	488,397,168	586,072,368	625,142,448
WD model number								
150 MB/s	—	—	WD1200JD	WD1600JD	WD2000JD	WD2500JD	WD3000JD	WD3200JD
300 MB/s	WD400JD	WD800JD	WD1200JS	WD1600JS	WD2000JS	WD2500JS	WD3000JS	WD3200JS

EIDE Hard Drives	40 GB	80 GB	120 GB	160 GB	200 GB	250 GB	300 GB	320 GB
Formatted capacity[1]	40,020 MB	80,026 MB	120,034 MB	160,041 MB	200,049 MB	250,059 MB	300,069	320,072 MB
User sectors per drive	78,165,360	156,301,488	234,441,648	312,581,808	390,721,968	488,397,168	586,072,368	625,142,448
WD model number	WD400JB	WD800JB	WD1200JB	WD1600JB	WD2000JB	WD2500JB	WD3000JB	WD3200JB

SATA Hard Drives

Actuator latch/auto park	Yes
Bytes per sector (STD)	512
Form factor	3.5-inch
RoHS compliant[2]	Yes

EIDE Hard Drives

Actuator type	Rotary voice coil
Bytes per sector (STD)	512
Form factor	3.5-inch
RoHS compliant[2]	Yes

Performance Specifications

SATA Hard Drives

Average latency	4.2 ms
Buffer	8 MB
Cache	
Read	Adaptive
Write	Yes
Data transfer rate	
Buffer to disk	748 Mbits/s (maximum)
Buffer to host	
JD models[3]	150 MB/s (maximum)
JS models[3]	300 MB/s (maximum)
Drive ready time	9.0 sec (average)
Error rate (non-recoverable)	<1 in 10^{14} bits read
LBA support	Yes
Rotational speed	7200 RPM
Seek time	
Full stroke read	21 ms (average)
Read	8.9 ms (average)
Track-to-track	2.0 ms (average)
Start/stop cycles	50,000 minimum

EIDE Hard Drives

Average latency	4.2 ms
Buffer	8 MB
Cache	
Read	Adaptive
Write	Yes
Data transfer rate (buffer to host)	
Mode 5 Ultra ATA[4]	100 MB/s
Mode 4 Ultra ATA[4]	66.6 MB/s
Mode 2 Ultra ATA[4]	33.3 MB/s
Mode 2 Ultra DMA[4]	16.6 MB/s
Mode 4 Ultra PIO[4]	16.6 MB/s
Drive ready time	7.0 sec (average)
Error rate (non-recoverable)	<1 in 10^{14} bits read
LBA support	Yes
Rotational speed	7200 RPM
Seek time	
Full stroke read	21 ms (average)
Read	8.9 ms (average)
Track-to-track	2.0 ms (average)
Start/stop cycles	50,000 minimum

[1] 1 gigabyte (GB) = 1 billion bytes. Total accessible capacity varies depending on operating environment.

[2] WD products manufactured and sold worldwide after August 1, 2005, meet or exceed Restriction of Hazardous Substances (RoHS) compliance requirements as mandated by the European Union for electrical and electronic products. The RoHS Directive 2002/95/EC of the European Parliament, which is effective in the EU beginning July 1, 2006, aims to protect human health and the environment by restricting the use of certain hazardous substances in new equipment, and consists of restrictions on lead, mercury, cadmium, and other substances.

[3] Models WD400JD and WD800JD manufactured before December 1, 2005 have a buffer-to-host data transfer rate of 150 MB/s.

[4] Maximum burst rate running the specified PIO, DMA, or Ultra ATA transfer mode.

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