

# WD Caviar® SE

## SATA/EIDE Hard Drives

Fast  
Cool  
Quiet



### 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	WD400JD
WD800JB	WD800JD
WD1200JB	WD1200JS
WD1600JB	WD1600AAJS
WD2000JB	WD1600JS
WD2500JB	WD2000JS
WD3000JB	WD2500JS
WD3200JB	WD3000JS
	WD3200JS

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

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:* SecureConnect supports only legacy power and does not allow connection to a SATA power supply.
- **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.

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## SATA/EIDE Hard Drives



### Drive Specifications

SATA Hard Drives	40 GB	80 GB	120 GB	160 GB	200 GB	250 GB	300 GB	320 GB
Formatted capacity <sup>1</sup>	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	WD400JD	WD800JD	WD1200JS	WD1600JS WD1600AAJS	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 <sup>1</sup>	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 <sup>2</sup>	Yes

### EIDE Hard Drives

Actuator type	Rotary voice coil
Bytes per sector (STD)	512
Form factor	3.5-inch
RoHS compliant <sup>2</sup>	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 (multi-platter)	748 Mbits/s (maximum)
Buffer to disk (single platter) <sup>3</sup>	475 Mbits/s (maximum)
Buffer to host <sup>4</sup>	300 MB/s (maximum)
Drive ready time	9.0 sec (average)
Error rate (non-recoverable)	<1 in 10 <sup>14</sup> 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	5.5 ms
Buffer	8 MB
Cache	
Read	Adaptive
Write	Yes
Data transfer rate (buffer to host)	
Mode 5 Ultra ATA <sup>5</sup>	100 MB/s
Mode 4 Ultra ATA <sup>5</sup>	66.6 MB/s
Mode 2 Ultra ATA <sup>5</sup>	33.3 MB/s
Mode 2 Ultra DMA <sup>5</sup>	16.6 MB/s
Mode 4 Ultra PIO <sup>5</sup>	16.6 MB/s
Drive ready time	7.0 sec (average)
Error rate (non-recoverable)	<1 in 10 <sup>14</sup> 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

<sup>1</sup>One gigabyte (GB) = 1,000,000,000 bytes. Total accessible capacity varies depending on operating environment.

<sup>2</sup>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.

<sup>3</sup>The WD1600AAJS model has a buffer to disk data transfer rate of 592 Mbits/s (maximum).

<sup>4</sup>Models WD400JD and WD800JD manufactured before December 1, 2005 have a buffer-to-host data transfer rate of 150 MB/s.

<sup>5</sup>Maximum burst rate running the specified PIO, DMA, or Ultra ATA transfer mode.



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800.ASK.4WDC North America  
 949.672.7199 Spanish  
 +800.6008.6008 Asia Pacific  
 +31.20.4467651 EMEA

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Western Digital  
 20511 Lake Forest Drive  
 Lake Forest, California 92630  
 U.S.A.

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