# WD Protégé®

# Western Digital EIDE Hard Drives

### INTERFACE

EIDE

#### WIDTH/HEIGHT

3.5-inch/1-inch

CAPACITY

20 to 160 GB

### PART NUMBERS

WD200EB WD400EB WD600EB WD800EB WD1200AB WD1600AB

Note: All products may not be available in all regions of the world. Western Digital's WD Protégé hard drives are designed for the value segment of the desktop PC market. Ideal for entry-level PCs, this member of the WD family offers the same quality, reliability, and service you've come to expect with all Western Digital hard drives.

## **Data Protection Enhancements**

Data Lifeguard<sup>™</sup> is an expanded set of data protection tools that includes shock protection, an environmental protection system, and embedded error detection and repair features that automatically find, isolate, and repair problem areas that may develop over the extended use of the hard drive. With these enhanced data reliability features, the drive can perform more accurate monitoring and error repair and deliver exceptional data security.

Data Lifeguard Tools<sup>™</sup> is a set of software utilities that work in conjunction with the embedded Data Lifeguard features to make hard drive installation, drive management diagnostics, and repair simple and worry-free.

Shock Guard<sup>™</sup> provides outstanding improvements in shock and vibration protection for WD Protégé drives. Shock Guard allows instantaneous data protection at high shock values to achieve leading shock specifications.

**IMPORTANT**: Use Data Lifeguard Tools 10.0 or later installation software to access the full capacity of your hard drive.

# **Superior Reliability**

The WD Protégé design offers superior servo performance and areal density. For added robustness, WD uses thicker platters and has enhanced the shock levels with a new cover design and additional baseplate stiffening. This new flexible platform can be used for multiple generations to come.

# The Western Digital Promise

Western Digital understands the importance of the data stored on our hard drives. We are committed to providing our customers with reliable, high-performance storage products and superior customer support and services.





# WD Protégé

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#### **WD Protégé Specifications**

	20 GB	40 GB	60 GB	80 GB	120 GB	160 GB	
Physical Specifications							
Interface Form factor Formatted capacity <sup>1</sup> Actuator type Bytes per sector (STD) User sectors per drive Model numbers	EIDE 3.5-inch 20,020 MB Rotary Voice Coil 512 39,102,33 WD200EB	EIDE 3.5-inch 40,020 MB Rotary Voice Coil 512 78,165,360 WD400EB	EIDE 3.5-inch 60,022 MB Rotary Voice Coil 512 117,231,408 WD600EB	EIDE 3.5-inch 80,026 MB Rotary Voice Coil 512 156,301,488 WD800EB	EIDE 3.5-inch 120,034 MB Rotary Voice Coil 512 234,441,648 WD1200AB	EIDE 3.5-inch 160,041 MB Rotary Voice Coil 512 312,581,808 WD1600AB	
Performance Specifications							
Average latency Rotational speed Data transfer rate (Buffer	5 ms 5400 RPM to host)	5 ms 5400 RPM	5 ms 5400 RPM	5 ms 5400 RPM	5 ms 5400 RPM	5 ms 5400 RPM	
- Mode 5 Ultra ATA <sup>2</sup>	100 MB/s	100 MB/s	100 MB/s	100 MB/s	100 MB/s	100 MB/s	
- Mode 4 Ultra ATA <sup>2</sup>	66.6 MB/s	66.6 MB/s	66.6 MB/s	66.6 MB/s	66.6 MB/s	66.6 MB/s	
- Mode 2 Ultra ATA <sup>2</sup>	33.3 MB/s	33.3 MB/s	33.3 MB/s	33.3 MB/s	33.3 MB/s	33.3 MB/s	
- Mode 2 DMA <sup>2</sup>	16.6 MB/s	16.6 MB/s	16.6 MB/s	16.6 MB/s	16.6 MB/s	16.6 MB/s	
- Mode 4 PIO <sup>2</sup> Buffer Warranty <sup>3</sup>	16.6 MB/s 2 MB 1-year	16.6 MB/s 2 MB 1-year	16.6 MB/s 2 MB 1-year	16.6 MB/s 2 MB 1-year	16.6 MB/s 2 MB 1-year	16.6 MB/s 2 MB 1-year	

Average read seek	12.8 ms (average)		
Track-to-track seek <sup>4</sup>	2.0 ms (average)		
Full stroke read seek <sup>4</sup> Read cache Write cache	28.5 ms (average) Adaptive Yes		
Drive ready time Start/stop cycles Master/slave support IORDY support	6.0 sec average 50,000 min Yes Yes		
Error rate (Non-recoverable)	${<}1$ in 10 $^{\rm 14}$ bits read		

Western Digital defines a megabyte (MB) as 1,000,000 bytes and a gigabyte (GB) as 1,000,000,000 bytes. Maximum burst rate running the specified PIO, DMA, or Ultra ATA transfer mode. One-year standard warranty, unless otherwise required by law. 2

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<sup>4</sup> On reads and writes.









#### For service and literature:

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