

WARNING

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.
To prevent fire or shock hazard, do not expose the unit to rain or moisture.
To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

CAUTION:

As the laser beam in the DW-Q28A is harmful to the eyes, do not attempt to disassemble the cabinet. Refer servicing to qualified personnel only.
The use of optical instruments with this product will increase eye hazard.
The use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

This label is located on the top of the drive unit enclosure.
Dieses Etikett befindet sich auf der Oberseite des Laufwerksgehäuses.

CAUTION	CLASS 3B VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. AVOID DIRECT EXPOSURE TO THE BEAM.
ATTENTION	RADIATIONS LASER VISIBLES ET INVISIBLES DE CLASSE 3B EN CAS D'OUVERTURE. EVITER TOUTE EXPOSITION DIRECTE AU FAISCEAU.
VORSICHT	KLASSE 3B SICHTBARE UND UNSICHTBARE LASERSTRAHLUNG WENN GEÖFFNET. DIREKTEN KONTAKT MIT DEM STRAHL VERMEIDEN.
ADVARSEL	SYNLIG OG USYNLIG LASERSTRÅLING AF KLASSE 3B VED ÅBNING. UNDGÅ DIREKTE UDSÆTTELSE FOR STRÅLING.
ADVARSEL	SYNLIG OG USYNLIG LASERSTRÅLING I KLASSE 3B NÅR DEKSEL ÅPNES. UNNGÅ DIREKTE EKSPONERING FOR STRÅLEN.
WARNING	KLASS 3B SYNLIG OCH OSYNLIG LASERSTRÅLNING NÅR DENNA DEL ÄR ÖPPNAD. UNDVIK ATT DIREKT EXPONERA DIG FÖR STRÅLNINGEN.
VARO!	AVATTUNA LUOKAN 3B NÄKYVÄÄ JA NÄKYMÄTÖNTÄ LASERSÄTEILYÄ. VÄLTÄ SUORAA ALTISTUMISTA SÄTEELLE.

The DW-Q28A is classified as a CLASS 1 LASER PRODUCT.
The CLASS 1 LASER PRODUCT label is located at the top of the enclosure.

Bei diesem DW-Q28A handelt es sich um ein Laser-Produkt der Klasse 1.
Das Etikett mit der Aufschrift LASER KLASSE 1 PRODUKT befindet sich auf der Oberseite des Gehäuses.

CLASS 1 LASER PRODUCT	LUOKAN 1 LASERLAITE
LASER KLASSE 1 PRODUKT	KLASS 1 LASER APPARAT

CE Sicherheitsbestimmungen

Diese Ausrüstung erfüllt die Europäischen EMC-Bestimmungen für die Verwendung in folgender / folgenden Umgebung(en):

- Wohngegenden
- Gewerbegebiete
- Leichtindustriegebiete

(Diese Ausrüstung erfüllt die Bestimmungen der Norm EN55022, Klasse B.)

이 기기는 가정용으로 전자파 적합등록을 한 기기로서
주거지역에서는 물론 모든 지역에서 사용할 수 있습니다.

기기의 명칭 (모델명) : DW-Q28A
인증받은자의 상호 : SONY KOREA
제조년월일 : 별도표시
제조사/제조국가 : SONY CORP./China

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- Pentium is a registered trademark of Intel Corporation.
- Microsoft, MS, MS-DOS and Windows are registered trademarks of Microsoft Corporation.
- Other system and product names used herein are registered trademarks or trademarks of their respective manufacturers, although the TM and ® marks are not used in the text.

Before using this device, be sure to read the end-user license agreements for the software provided with your computer.

- Our product warranty is valid only when the supplied accessories (including software) are used in the specified or recommended system environment, in accordance with the documentation, and applies only to this DVD/CD rewritable drive. Our customer service and user support apply only under these product warranty conditions.
- Please note that we cannot accept responsibility for failure of the computer or other devices, incompatibility with special hardware, operating problems caused by improper installation of software, loss of data, discs or other accidental or incidental damage that might occur when using this product.
- The guarantee and user support for this product are valid only within the countries or sales regions specified on the warranty card.
- Copyright laws prohibit the copying in part or in full of the supplied software and documentation, or loaning the software, without obtaining permission of the copyright holder.
- We cannot accept responsibility for any direct or indirect financial damage or loss of profit that might occur when using the supplied software.
- The supplied software can only be used with this product.
- Specifications of the supplied software may be changed without notice in the interest in product improvement.

Compliance Statements

Disposal of Old Electrical & Electronic Equipment (Applicable in the European Union and other European countries with separate collection systems)



This symbol on the product or on its packaging indicates that this product shall not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. The recycling of materials will help to conserve natural resources.

For more detailed information about recycling of this product, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

DVD/CD Rewritable Drive

Product Information

Included Documents

- Quick Start Guide
- Electronic manual on the software disc
- Warranty cards
- Product Information (this document)

DW-Q28A

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P/N: 7819901157

English

Please refer to this manual together with the "ATAPI Interface Drive User's Guide" in the attached Software Disc, which carries more detailed information.

Français

Reportez-vous au présent manuel ainsi qu'au document intitulé "Lecteur d'interface ATAPI - Guide de l'utilisateur" contenu sur le disque du logiciel accompagnant ce produit pour plus de détails.

Deutsch

Einzelheiten entnehmen Sie bitte diesem Handbuch sowie der "Laufwerk mit ATAPI-Schnittstelle - Anwenderanleitung" auf der mitgelieferten Software-Disc.

Español

Consulte este manual junto con la "Unidad de interfaz ATAPI - Guía del usuario" del disco de software suministrado, que contiene información más detallada.

Italiano

Fare riferimento al presente manuale insieme a "Guida dell'utilizzatore dell'unità disco con interfaccia ATAPI" nel disco del software allegato, nel quale sono contenute informazioni più dettagliate.

Português

Consulte este manual juntamente com o "Guia do Utilizador do Drive de Interface ATAPI" incluído no disco de software fornecido, para obter informações mais detalhadas.

Nederlands

Raadpleeg deze handleiding alsook de "ATAPI Station-interface -Gebruikershandleiding" op de bijgevoegde Software Disc, die meer gedetailleerde informatie bevat.

Svenska

Förutom denna bruksanvisning finns mer information i "Brukanvisning för enhet med ATAPI gränssnitt" på den medföljande programskivan.

日本語

付属のソフトウェアディスクに収録されている「ATAPIインターフェースドライブ ユーザーズガイド」には、より詳細な情報を掲載しています。

中文繁體

請參考本使用說明書及隨同軟體光碟一起提供的載有更多資訊的 "ATAPI 界面驅動器用戶指南"。

中文简体

请参考本使用说明书及随同软件光盘一起提供的载有更多信息的 "ATAPI 接口驱动器用户指南"。

한글

자세한 내용은 본 사용설명서와 함께 부착된 소프트웨어 디스크의 "ATAPI 인터페이스 드라이브 사용자 가이드" 도 참조하여 주십시오.

Features

This product offers the following features.

- ❑ An internal DVD/CD rewritable drive with ATAPI (EIDE) interface for computers.
- ❑ Can be used horizontally or vertically.
- ❑ The drive can write to DVD+R Double Layer and DVD-R Dual Layer discs.

- ❑ You can write at a maximum of 16× when using high speed DVD+R, DVD-R discs.
- ❑ The drive can write to eight types of disc.
- ❑ Features the technology to prevent buffer underrun errors.

System Requirements

The drive should be used with a system that meets the following requirements¹⁾.

- ❑ PC/AT-compatible computer
- ❑ CPU: Pentium III, 800 MHz or higher (with Nero Vision Express: Pentium 4, 1.6 GHz recommended)
- ❑ 256 MB RAM or more
1 GB (with Nero Vision Express: 10 GB) free hard disk space
- ❑ One available EIDE (ATAPI) interface connection with DMA capability²⁾
- ❑ One empty 5-inch half-height drive bay
- ❑ One available internal +12 V/+5 V power connector³⁾
- ❑ Operating system:
Windows® 2000 Professional

(referred to as Windows 2000), Windows® XP Home Edition or Windows® XP Professional (referred to as Windows XP)

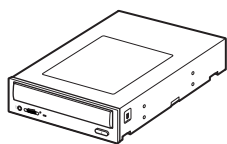
- ¹⁾ The above requirements the minimum necessary requirements to write to disc normally. Under actual operating conditions, the requirements imposed by your software must also be met. For details, refer to your software documentation.
- ²⁾ The drive does not support connection to an ATAPI interface card. Connect the drive to the IDE (ATAPI) interface connector of your computer's motherboard.
- ³⁾ The drive consumes a lot of power when operating at high speeds. You should therefore make sure that the rated power output of the power outlet where you connect all your drives is sufficient to power all the drives, including this one. For details about each drive's power consumption rating, refer to their documentation.

Package Contents

Please verify that the package includes the following accessories with the drive when unpacking.

If any of these items appears to be missing or damaged, please contact your supplier.

• Drive



- Screws (×4)
- Product Information (this document)
- Quick Start Guide
- Software disc
- Warranty cards

Note

Make sure that you back up the supplied software disc on another disc because the software disc is not distributed independently.

Please Record Responsibly

Before copying anything onto a disc, please be sure that you are not violating copyright laws. Most software companies allow you to make a backup or archive copy of software. Check your software's license agreement for details.

Turbo Boost Function

The default CD-R and CD-ROM read/write speed of this drive is 40× speed. With a single touch, you can activate the Turbo Boost function, to raise the read/write speed to 48× speed.

Note

- On rare occasions, some discs may not be able to tolerate 48× speed, causing them to break. We recommend that you do not use deeply scratched, brittle, or other discs that may break at 48× speed.
- The Turbo Boost function does not guarantee a 48× write speed. Depending on the condition of the disc you are using, the speed may be automatically lowered.
- The Turbo Boost function does not increase read/write speed with CD-RW discs.

- 1** Insert a disc into the drive.
The read/write speed when you insert a disc is normally 40× speed.
- 2** Press and hold the Eject button for five seconds.
The Busy indicator blinks twice and the read/write speed switches to 48× speed. (The Turbo Boost function is active.)

Hint

When you open the disc tray, the read/write speed reverts to its default of 40× speed.

DVD region codes

The playback of DVD-Video (DVD discs) is protected and controlled by a region code setting. For the drive to play back DVD-Video, the region code on the DVD disc, the region code of the drive, and the region code of the DVD-Video software must all match.

With this drive, the region code can be set up to five times, including the initial assignment (RPC phase 21) standard). After setting the region code five times, the setting becomes permanent and can no longer be changed. From this point on, you are only able to play

back DVD-Video whose region code matches the one set the fifth time.

Do not attempt to make unauthorized changes to the region code. Any problems resulting from doing so are not covered by the warranty.

Hint

You can change the region code of the drive on it's properties dialog box accessible from the Device Manager.

Specifications

Compatible discs	Read	Write
	(max.)	(max.)
DVD+R	8×-CAV	2.4×
DVD+R (4×)	8×-CAV	4×
DVD+R (8×)	8×-CAV	8×-PCAV
DVD+R (16×)	8×-CAV	16×-CAV
DVD+R Double Layer	6×-CAV	2.4×
DVD+R Double Layer(4×)	6×-CAV	4×
DVD+RW	8×-CAV	2.4×
DVD+RW (4×)	8×-CAV	4×
DVD+RW (High Speed)	8×-CAV	8×-ZCLV
DVD-R	8×-CAV	2×
DVD-R (4×)	8×-CAV	4×
DVD-R (8×)	8×-CAV	8×-PCAV
DVD-R (16×)	8×-CAV	16×-CAV
DVD-R (Dual Layer)	6×-CAV	4×
DVD-RW	8×-CAV	2×
DVD-RW (2×)	8×-CAV	2×
DVD-RW (4×)	8×-CAV	4×
DVD-RW (6×)	8×-CAV	6×
DVD-ROM	16×-CAV	—
DVD-Video	6×-CAV	—
CD-R	48×-CAV ¹⁾	48×-CAV ¹⁾
CD-RW	32×-CAV	4×
CD-RW (High Speed)	32×-CAV	10×
CD-RW (Ultra Speed)	32×-CAV	24×-ZCLV
CD-ROM	48×-CAV ¹⁾	—
CD-DA 8× ²⁾	8×	—
CD-DA (DAE)	48×-CAV ¹⁾	—

Disc diameters		
DVD 12 cm	✓	✓
8 cm ³⁾	✓	—
CD 12 cm	✓	✓
8 cm ³⁾	✓	✓

¹⁾ The default setting is 40×. You must use the turbo boost function to achieve 48× speed.

²⁾ This product is designed to playback discs that conform to the Compact Disc (CD) standard. Recently, various music discs encoded with copyright protection technologies are marketed by some record companies. Please be aware that among those discs, there are some that do not conform to the CD standard and may not be playable by this product. When you use this unit as an audio CD player, please use compact discs with the following mark.



³⁾ With 8 cm discs, you must place the drive horizontally.

Writing Systems

DVD
Random write
Sequential write

CD
Track-at-once
Disc-at-once
Session-at-once
Packet writing

Drive

Data transfer rate
DVD: 22.1 MB/s (16× speed¹⁾)
CD: 7.2 MB/s (48× speed¹⁾)

Access time
Average random stroke
Approx. 135 ms (DVD)
Approx. 140 ms (CD)

²⁾ Maximum data transfer rate depends on the capabilities of the host computer.

Buffer under-run error protection

Power-Burn
conformed technology

Operating Environment

5 to 40 °C

Power and Miscellaneous

Power consumption

25.5 W

Power source

DC +5 V 1.5 A max.
DC +12 V 1.5 A max.

Size

Approx. 146 × 41.3 × 165 mm (W×H×D)
(excluding front panel)

Weight

Approx. 0.9 kg (drive only)

Laser

CD

Type: RLD78PZW3
Wavelength: 782 nm +5 -3 nm
Output power (max): 90 mW (CW)
240 mW (Pulse)

DVD

Type: ML101J25-23
Wavelength: 658 nm ±4 nm
Output power (max): 100 mW (CW)
255 mW (Pulse)

Interface

Drive interface
ATAPI (EIDE)-compliant

Buffer capacity

2 MB

Drive product number (Inquiry)

SONY DVD RW DW-Q28A

Design and specifications are subject to change without notice.

Product and Support Information

Sony Global Sites Information (As of March, 2005)

Product purchased in the USA:*

<http://sony.storagesupport.com/>

Product purchased in Europe:*

<http://www.sonydigital-link.com/OSD/>

* Local Web sites for computer peripheral products

About the Bundled Writing Software

Detailed information about the supplied writing software is available on the Web sites of the software manufacturers and software distributors. (Accessible from the links in each software application)

Technical Support

Please consult the above sources before calling with questions about using this product, or with technical questions about the drive or the supplied software. If using telephone or e-mail support, please have the following information available:

- Model number: **DW-Q28A**
- Serial number
- Date and place of purchase
- Computer maker and model number
- Computer specifications (CPU speed, memory size, OS version, etc.)
- Writing software used (version, etc.)

Local technical support is only available in the specified sales regions. The customers in these regions should be provided with a warranty card for this product. For contact information, refer to the warranty card.

Note that technical support conditions may vary according to the locality, and that charges and/or limited service may apply in some regions.