

## WARNING

You are cautioned that any changes or modifications not expressly approved in this document could void your authority to operate this equipment.

To reduce the risk of fire or electric shock, do not expose this apparatus 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 CRX230AE 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 an der Oberseite des Laufwerksgehäuses.

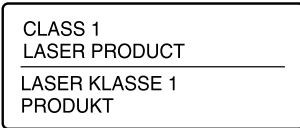


The CD-RW drive is classified as a CLASS 1 LASER PRODUCT.

The CLASS 1 LASER PRODUCT label is located at the top of the enclosure.

Bei diesem CD-RW-Laufwerk 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.



LUOKAN 1 LASERLAITE

KLASS 1 LASER APPARAT

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

기기의 명칭 (모델명) : CRX230AE  
인증받은자의 상호 : SONY KOREA  
제조년월일 : 별도표시  
제조사/제조국가 : SONY CORPORATION/CHINA

## 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.)

- Power-Burn and **Power-Burn** are trademarks of Sony Corporation.
- 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 <sup>TM</sup> 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 the CD-RW 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.

# CD-RW Drive Unit

## Product Information

### Included Documents

- Quick Start Guide
- Software Quick Start Guide
- Electronic manual on the software disc
- Warranty card
- Product Information (this document)
- Front Panel Replacement Guide

## CRX230AE

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P/N: 7819901432W

### 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

請參考本使用說明書及隨同軟件光盤一起提供的載有更多信息的 "ATAPI 接口驅動器用戶指南"。

### 한글

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

# Introduction

This product offers the following features.

- ❑ An internal CD-RW drive with ATAPI (EIDE) interface for PCs.
- ❑ Writes up to 52× speed on CD-R disc media.
- ❑ Writes up to 32× speed on CD-RW disc media.
- ❑ Reads CD-ROM discs at up to 52× speed.
- ❑ With the Turbo Boost function, easily switch from the default 40× read/write speed to 52× speed.\*

\* For details, see “Turbo Boost Function” below.

- ❑ Features “Power-Burn conformed” technology to prevent buffer under-run errors. “Power-Burn conformed” is used to refer to a CD-R/RW that uses CD-R/RW recording technology (ICs and/or firmware) other than Power-Burn, but provides performance equivalent to that of Sony original Power-Burn technology based on the Power-Burn concept.

### Notes

- Writing speed may automatically be adjusted depending on the disc specified speed or disc conditions such as weight imbalance and eccentricity.
- 1× and 2× writing speed and discs are not supported.
- During startup, the drive may make a whirring noise due to balls contained in the ABS (Auto-Balance System) spindle motor. This is normal and does not indicate a drive malfunction.

# System Requirements

This CD-RW drive can be used in systems with the following capabilities.

- ❑ CPU: Pentium II 400 MHz or higher is recommended.
- ❑ PC/AT-compatible PC
- ❑ OS:
  - Windows® 98 Second Edition
  - Windows® 2000 Professional
  - Windows® Millennium Edition
  - Windows® XP Home Edition
  - Windows® XP Professional
- ❑ 64 MB RAM or higher is recommended
- ❑ At least 1 GB available hard disk space

- ❑ One available EIDE (ATAPI) interface connection with DMA capability
- ❑ One empty 5-inch half-height drive bay
- ❑ One available internal +12 V/+5 V power connector

### Notes

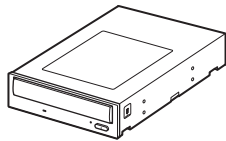
- The above system configuration is given as a minimum requirement for a system on which basic CD-RW writing performance can be obtained. In actual use, the requirements for the writing software and “Windows” also have to be taken into consideration. (Normally, these requirements will be higher than the above specifications.)
- The drive cannot be assured to operate properly if connected to an ATAPI interface adapter card (we cannot guarantee compatibility or offer user support).

# Package Contents

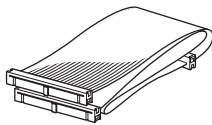
Please verify that the package includes the following accessories with the drive when unpacking.

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

- CD-RW drive



- 40-pin ATAPI (IDE) flat cable



- Screws (×4)
- Product Information (this document)
- Software Quick Start Guide
- Quick Start Guide (for ATAPI (EIDE) Interface Drive)
- Front Panel Replacement Guide
- Front Panel Replacement Kit
- Software disc
- Warranty card

### Note

To guard against possible loss or damage, be sure to make a backup copy of the provided software disc on a CD-R disc or other media. The software disc is not sold separately.

### Please Record Responsibly

Before copying anything onto a CD-R or CD-RW disc, make 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 license agreement for details.

# Turbo Boost Function

The default read/write speed of this drive is 40× speed. With a single touch, you can activate the Turbo Boost function, making the read/write speed 52× speed.

### CAUTION

- On rare occasions, some discs may not be able to tolerate 52× speed, causing them to break. We recommend that you do not use deeply scratched, brittle, or other discs that may break at 52× speed.
- The Turbo Boost function does not increase read/write speed with CD-RW discs.

### 1 Insert a disc into the drive.

The speed when you insert a disc is normally 40× speed.

### 2 Press the Eject button for five seconds.

The Busy indicator blinks twice and the speed switches to 52× speed. (The Turbo Boost function is active.)

### Notes

- When you want to write at 52× speed, insert the disc into the drive, activate the Turbo Boost function, and then start writing to the disc.
- When writing with the Turbo Boost function, the Busy indicator blinks more rapidly than usual.
- When you open the disc tray, the speed reverts to its default of 40× speed.
- The Turbo Boost function does not guarantee a 52× write speed. Depending on the condition of the disc you are using, the speed may be lower.

# Specifications

### Compatible discs

CD-R	CD-RW
CD-ROM	CD-ROM XA
CD-DA <sup>1)</sup>	CD Extra (CD+)
Video CD	CD TEXT
Photo CD	
Disc diameter	12 cm
	8 cm (for horizontal use only)

<sup>1)</sup> 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.



### Writing Systems

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

### Drive

#### Data transfer rate

CD-ROM 7.8 MB/s (52× speed)<sup>2)</sup>

#### Access time

Average random stroke CD-ROM 100 ms

<sup>2)</sup> When using the Turbo Boost function.

The maximum data transfer rate depends on the capabilities of the host PC.

Please note that specifications and appearance may be subject to change without notice.

### Buffer under-run error protection

**Power-Burn**  
conformed technology

### Operating Environment

5 to 40 °C

### Power and Miscellaneous

DC +5 V	1.5 A (max)
DC +12 V	1.5 A (max)

#### Size

Approx. 145.8 × 41.3 × 165 mm (W×H×D) (excluding front bezel)

#### Weight

Approx. 0.9 kg (drive only)

### Interface

#### Drive interface

ATAPI (EIDE)-compliant

### Drive Inquiry

SONY CD-RW CRX230EE

### Buffer capacity

1.5 MB

### Laser specifications

#### Type

RLD78PZW3

#### Wavelength

778 ~ 786 nm

#### Output power

Max 74 mW

# Product and Support Information

## Sony Global Sites Information (As of October, 2005)

### Product purchased in the USA:\*

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

\* 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: **CRX230AE**
- 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.**