SONY®

DVD/CD
Rewritable Drive

Operating Instructions

DRU-880S

Table of Contents

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

❏ 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 of product improvement.


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.

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
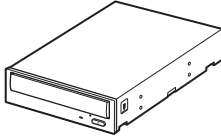
• Screws (×4)
• Product Information
• Quick Start Guide
• Software disc
• Warranty card

Note

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

Features

This product offers the following features.

❑ An internal DVD/CD rewritable drive with Serial ATA interface for computers.
❑ Can be used horizontally or vertically.
❑ The drive can write to DVD+R Double Layer and DVD-R Dual Layer discs.
❑ The drive has a maximum 24× writing capability for high speed DVD+R and DVD-R discs.
❑ The drive can write to DVD-RAM discs.

System Requirements

The drive should be used with a system that meets the following requirements[1].

❑ CPU: Pentium III, 1.0 GHz or higher (Pentium 4, 2.0 GHz or higher recommended)
❑ 256 MB RAM or more (512 MB RAM for Windows Vista)
❑ 1.5 GB free HDD space (10 GB for DVD creation)
❑ One available Serial ATA interface connection[2]
❑ One empty 5-inch half-height drive bay
❑ One available internal Serial ATA power connector[3]
❑ Operating system:
Windows XP Home Edition SP3/ Windows XP Professional SP3 (referred to as Windows XP SP3), or Windows Vista Home Basic SP1/ Windows Vista Home Premium SP1/ Windows Vista Business SP1/Windows Vista Ultimate SP1, or Windows 7 Home Premium/Windows 7 Professional/Windows 7 Ultimate

[1] The above requirements are the minimum requirements for normal writing and playback of discs. 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 a Serial ATA interface card. Connect the drive to the Serial ATA 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.
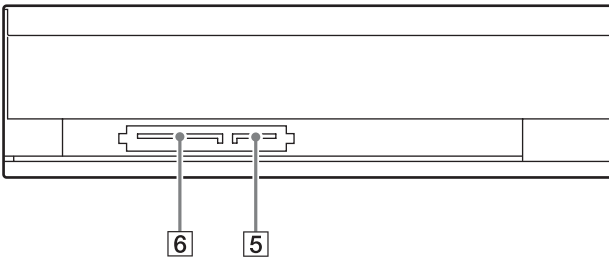
Part Names and Functions

Note

The design of the product is subject to change without notice and may differ from the illustrations depending on your product.

Front Panel

Rear Panel

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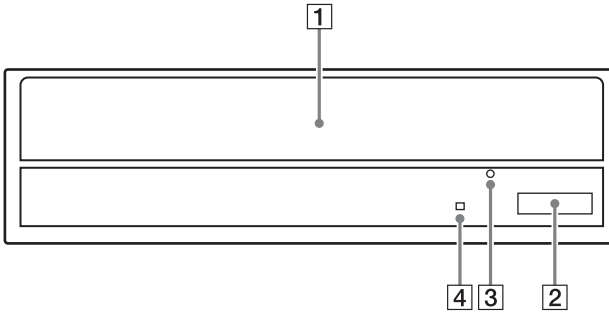
1 **Disc tray**

Insert discs here, label side up.

Hint

When you insert a disc into the drive, make sure that it is under the four pins. When using the drive vertically, make sure that you set the disc inside the two lower pins.

2 **Eject button**

Press to open and close the disc tray.

3 **Emergency eject hole**

If you cannot open the disc tray with the eject button, turn off your computer, and then insert a thin, elongated object into this hole to eject the disc tray manually.

About 40 mm (1 $\frac{5}{8}$ in)
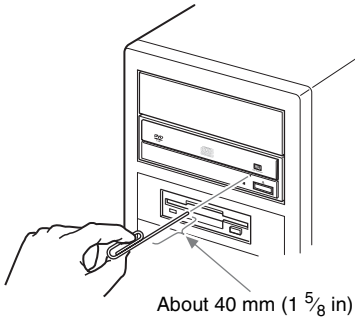
4 **Busy indicator**

Indicates the drive status.

Lighting	• Load/Eject • Drive read • Data transfer during FW update • Access (seek)
Blinking	• Track at once recording • Format • Erasing data • Writing data • CD packet write, read (audio play)
Off	The drive is in a state other than those outlined above.

5 **Serial ATA connector**

Connect to the computer with the Serial ATA data cable.

6 **Serial ATA power connector**

Connect to the Serial ATA power cable of the computer.

Setting up the Drive

The installation and setup procedures outlined below assume that you are using a standard computer. For details about how to install peripheral devices into your computer, refer to the instructions supplied with your computer.

Before installing the drive

Referring to "Package Contents" in the product information, verify that the contents of the drive package are complete.

Note

Avoid touching any exposed electronic conductors or contacts on the circuit boards of the drive or your computer, as they can be damaged by electrostatic discharges from your body. Make sure that you discharge any static electricity from your body before performing this operation.
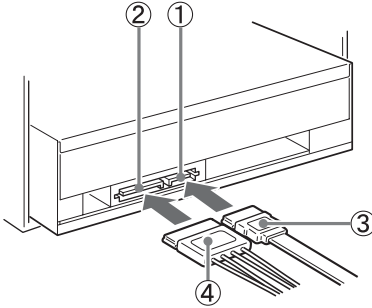
1 Turn off your computer, disconnect the power cable from the outlet, and then remove the computer cover.
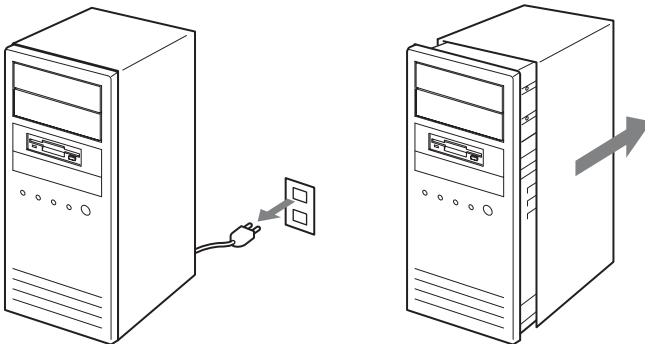
2 Connect the cables.
(Make sure the shape of the connectors match.)

CAUTION

- Using the wrong type of cable with this product can cause it to malfunction. Follow the instructions when connecting the product.
- Use only your computer's internal power supply.

① Serial ATA connector
② Serial ATA power connector
③ Serial ATA cable
④ Serial ATA power cable[*]

   * If there is no Serial ATA power cable in your computer, use a commercially available Serial ATA power adapter.
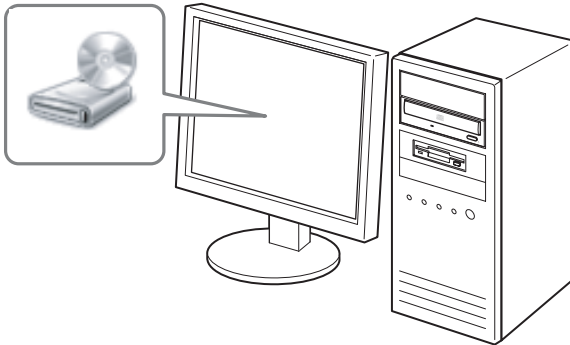
3 Install the drive into a 5-inch drive bay with the supplied screws.
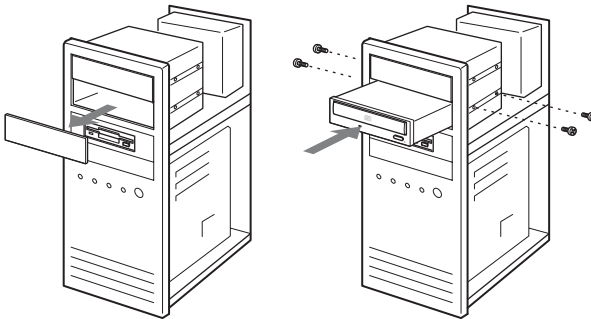
4 Replace the computer cover, and then reconnect the power cable to the outlet.
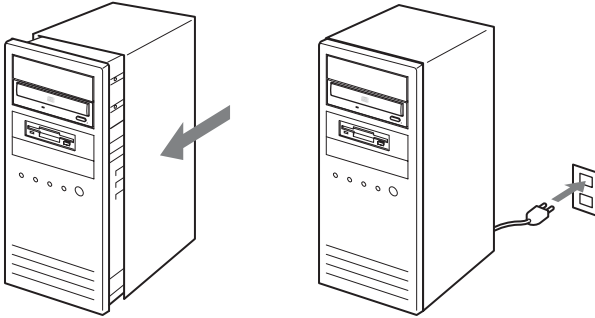
5 Start your computer, and make sure that the drive is detected.

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6 Insert the supplied software disc into the drive, and then install the software on the disc.
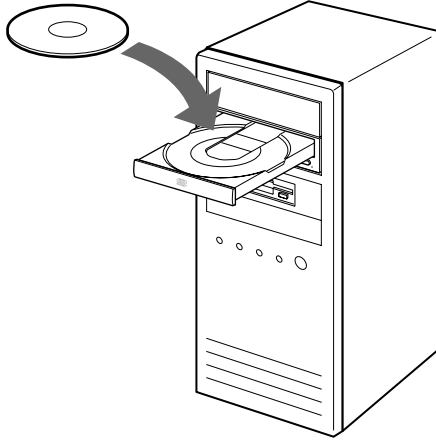
Follow the instructions on the screen to complete the installation.

For details about the software on the supplied software disc, see "Supplied Software" on page 11.

Hint

You do not need serial numbers when you install the software on the supplied software disc. However, in some instances you may have to purchase serial numbers or upgrade keys to upgrade the software.

Using the Drive

Use the supplied software to read and write to CDs and DVDs. Refer to the documentation of each software for details about their operation.

Supplied Software

The supplied software disc contains the following softwares.

Nero StartSmart Essentials
Nero StartSmart serves as the command center to quickly start all the software of the Nero suite.

Nero Express Essentials
Nero Express is a disc writing application that allows you to create CDs and DVDs through a simple step-by-step process.

Nero Vision Essentials*
DVD-Video and video CD authoring software.

Nero ShowTime Essentials*
DVD-Video and video CD playback software.

Nero CoverDesigner Essentials
CD and DVD cover and label creation software.

Nero Toolkit
The utilities of Nero Toolkit provide information about the system and more. Nero DiscSpeed tests the speed of the existing drives. Nero DriveSpeed adjusts the write speed to minimize drive noise. Nero InfoTool provides the main characteristics of drives, the discs they contain, and the installed software.

* This software is a trial version with a 30-day usage restriction. Some functions such as DVD-Video playback are restricted in this trial version.

Operation

Using Generic Software with the Drive

Using software other than the supplied software (such as generic software, shareware, or freeware) to write data to disc with this drive is not under warranty and Sony offers no customer service if problems arise from using such software.

Make sure that the supplied writing software and generic writing software do not coexist on your computer. Taking appropriate steps to avoid this situation, especially in the case of packet writing software[1] or format utility[2] will help prevent erratic operation of the software and/or computer.

If the generic software you are using does not detect the drive correctly, visit the Web site of the software manufacturer and update the software, as this may solve the problem.

[1] Such as Roxio's Drag-to-Disc, BHA's B's CLIP, and Sonic's DLA.
[2] Such as BHA's DVD-RAM Driver and Panasonic's DVD Form.

Compatible Discs

The following discs are compatible with the drive.

DVD

Disc types	Logo	Read	Write
DVD+R		✓	✓
DVD+R DL (Double Layer)		✓	✓
DVD+RW		✓	✓
DVD+RW (High Speed)		✓	✓
DVD-R		✓	✓
DVD-R DL (Dual Layer)		✓	✓
DVD-RW[1]		✓	✓
DVD-RAM[2] [3]		✓	✓
DVD-ROM		✓	—
DVD-Video		✓	—

[1] This drive is compatible with the DVD-RW disc displaying "**RW 2**" mark.

[2] This drive is compatible with the DVD-RAM disc displaying "**RAM2**" mark.
[3] Use a non-cartridge-type disc or a cartridge from which the disc can be ejected.

CD

Disc types	Logo	Read	Write
CD-R		✓	✓
CD-RW		✓	✓
CD-RW (High Speed)		✓	✓
CD-RW (Ultra Speed)		✓	✓
CD-RW (Ultra Speed Plus)		✓	✓
CD-ROM		✓	—
CD-DA (audio only)		✓	—
CD Extra		✓	—
Video CD		✓	—
CD TEXT		✓	—
Photo CD		✓	—

	Disc diameters	Read	Write
DVD	12 cm	✓	✓
	8 cm	✓	—
CD	12 cm	✓	✓
	8 cm	✓	✓

Notes

- Only round discs should be used with this drive. Attempting to read odd-shaped discs (stars, hearts, card shape, etc.) may damage the drive.
- Operation is not guaranteed when writing to or playing back 99 minute discs.
- With 8 cm discs, you must place the drive horizontally.
- When using a double-sided disc, orient the drive horizontally.

Recommended Writable Discs

We recommend that you only use discs for which operation has been guaranteed. You can obtain the latest list of writable discs for which operation with this drive has been guaranteed at the user support Web site address (see page 20 for details).

Note

You can safely use most disc formats that comply to the appropriate standards with this drive. However, bear in mind that some generic discs do not comply to quality or performance standards necessary for safe use with this drive. If you use such discs, the drive may automatically adjust the writing speed, writing errors may occur, and discs that have been written to may generate reading errors, etc.

Writable Discs and Compatibility

CD-R discs
Data can be written on this type of disc only once, and once it has been written, it cannot be erased. Music CDs created on this media can be played on standard CD players.

CD-RW discs
Data can be written on and erased from this type of disc repeatedly. Typically, a new CD-RW disc can be rewritten about 1,000 times.
Music CDs created on this media cannot be played on a CD player unless it is CD-RW compatible.

DVD+R, DVD-R, DVD+R DL, and DVD-R DL discs
Data can be written on this type of disc only once, and once it has been written, it cannot be erased.
DVD+R DL (double layer) and DVD-R DL (dual layer) discs have two layers on one side of the disc and have double the capacity conventional single-layer discs.

DVD+RW, DVD-RW, and DVD-RAM discs
Data can be written on or erased from this type of disc repeatedly. Typically, a new DVD+RW or DVD-RW disc can be rewritten about 1,000 times (100,000 times for DVD-RAM discs).

About playback/reading compatibility
• CD-R and CD-RW discs created and finalized with this drive can be read on most CD-ROM drives. However, some older CD-ROM drives cannot read CD-RW discs. Similarly, CD-R music discs created and finalized with this drive can be played on most CD players, but some CD players and automobile CD players do not support or guarantee playback of CD-R discs. Due to differences in CD-ROM drive, CD player, CD-R disc, and CD-RW disc characteristics between manufacturers, playback may not be possible depending on the combination.*

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- DVD-Video discs created and finalized with this drive can be played back on most standard DVD players. In addition, DVD-ROM discs created and finalized with this drive can be played back on most DVD drives. However, some drives do not support multi-session or multi-border DVD-ROM discs. In such cases, the drive may only read the first session or border of the disc. Due to differences in DVD drive, DVD player, and disc characteristics between manufacturers, playback and reading may not be possible depending on the combination.*

- Playback of DVD-RAM discs is only supported on drives and players that are DVD-RAM compatible.

* Playback compatibility is not under warranty.

Precautions on Writing/Playing Discs

Write speed and compatible discs

- When writing data to disc at high speeds, you must use the appropriate type of disc.
- Configure the writing speed through your writing software. For details about the setting procedures, refer to your writing software documentation.
- When writing data to disc, the drive may adjust the writing speed to the quality of the disc in the drive. Depending on the transfer rate, there may also be limitations on writing speeds.

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 $2^{1)}$ 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.

Precautions when playing back DVD-Video

DVD-Video disc playback conditions are sometimes determined by software manufacturers. Because the drive plays back discs as determined by software manufacturers, some drive functions may not always perform as expected. When playing back DVD-Video, refer to the documentation accompanying each disc.

DVD copy protection technology

Most DVD-Video discs on the market are protected against unauthorized copy. Attempting to copy protected discs violates copyright laws.

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[1] Region Playback Control (RPC) standard.

Copy controlled CDs

This product is designed to play back discs conforming to the compact disc (CD) standard. Audio CDs encoded with copyright protection technology are now marketed by various record companies. Be aware that some of these discs do not conform to the CD standard and you may not be able to play them back with the drive. When using the drive as an audio CD player, only use audio CDs with the following mark. Some of these discs are encoded in such a way as to prevent sampling and/or copy, while others can only be played back under certain conditions. For details, refer to the documentation of your audio CD.

Attention Regarding DualDisc Software

A DualDisc is a two sided disc product which mates DVD recorded material on one side with digital audio material on the other side.
However, since the audio material side does not conform to the Compact Disc (CD) standard, playback on this product is not guaranteed.

Precautions for Use

Operation and storage conditions

Avoid using or storing the drive in a hot or humid location, or where it might be subject to severe vibration or direct sunlight.

On transportation

- Please repack the drive in its original carton when shipping by itself.
- If the drive is to be shipped while installed in a PC, remove any disc beforehand.

Whirring noise

During startup, the drive may make a whirring noise due to balls contained in the spindle motor. This is normal and does not indicate a drive malfunction.

Avoiding condensation problems

When you transfer this appliance from a cold place a hot place abruptly, you may get water drops on the surface and inside of the appliance. This is called condensation. If condensation occurs, turn off the power and leave the appliance until the condensation disappears; after the condensation disappears, you can use the appliance again. If you use the appliance during condensation, this may cause the appliance to malfunction.

Handling discs

- Handle discs only by the edges. Never touch the recording surface.
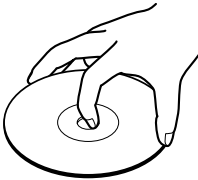
- Do not affix labels on discs.
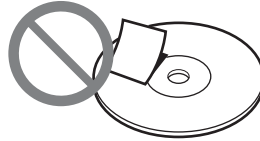
- Do not store discs in dusty, dirty or humid locations, in direct sunlight, or near heat-generating devices.
- To protect important data, always keep discs in their protective cases.
- Do not wipe writable discs to clean them before recording data. Instead, use a blower to remove any dust.
- Data may not record properly if a scratch or dust is present on the unrecorded area of writable discs. Use special care when handling.

Support Overview

If you have problems with the drive, or are unsure of a procedure or some other details, please contact your Sony customer support center.

User Support Web Site

You can find the following information on this Web site. The information is periodically updated, so we recommend that you visit regularly.
• Information about the drive
• Information about the software supplied with the drive
• Latest firmware
• Frequently asked questions
• Troubleshooting guide
• Certified compatible computers
• Certified compatible discs
• Operating instructions
• Et cetera

Accessing the user support Web site

Insert the supplied software disc into the drive, and in the [Menu Selection] screen, click [User Support Web Page]. You can also directly type the user support Web site address (see Product and Support Information for details) in the address box of your Web browser.

Update the Drive Firmware

Some problems encountered when using the drive can be solved simply by updating the drive firmware. Firmware updates are available on the user support Web site. Access the site, make sure that there is an update for your firmware, and follow the instructions on the screen to proceed with download and installation.

Product and Support Information

Product Website Information (As of March, 2010)

**Europe:*
http://www.sony-optiarc.eu/

**Hong Kong:*
http://www.sony.com.hk/Electronics/cp

**China:*
http://www.sony.com.cn/products/ed/cp/ds

**Singapore:*
http://www.sony-asia.com/microsite/cp/

* Local Web sites for computer peripheral products

About the Bundled 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: DRU-880S
- 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.

Specifications

Compatible discs	Read (max.)	Write (max.)
DVD+R	16×-CAV	24×-CAV[1]
DVD+R Double Layer	12×-CAV	12×-CAV
DVD+RW (High Speed)	13×-CAV	8×-ZCLV
DVD-R	16×-CAV	24×-CAV[1]
DVD-R Dual Layer	12×-CAV	12×-CAV
DVD-RW	13×-CAV	6×
DVD-RAM[2]	12×-PCAV	12×-PCAV
DVD-ROM	16×-CAV	—
DVD-Video	8×-CAV	—
CD-R	48×-CAV	48×-CAV
CD-RW	40×-CAV	4×
CD-RW (High Speed)	40×-CAV	10×
CD-RW (Ultra Speed)	40×-CAV	24×-ZCLV
CD-RW (Ultra Speed Plus)	40×-CAV	32×-ZCLV
CD-ROM	48×-CAV	—
CD-DA[3]	20×-CAV	—
CD-DA(DAE)	40×-PCAV	—

Disc diameters

		Read	Write
DVD	12 cm	✓	✓
	8 cm[4]	✓	—
CD	12 cm	✓	✓
	8 cm[4]	✓	✓

1) See the Product Website Information section for information about media that supports DVD±R 24× write speed.
2) Use a non-cartridge-type disc or a cartridge from which the disc can be ejected.
3) 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.

COMPACT DISC DIGITAL AUDIO

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

Depending on your system and media, the speed may be automatically lowered to ensure a writing quality.

Miscellaneous

Drive

Data transfer rate
DVD: 33 MB/s (24× speed)[1]
CD: 7.2 MB/s (48× speed)[1]

Access time
Average random stroke
DVD: Approx. 160 ms
CD: Approx. 140 ms

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

Operating Environment

5 to 40 °C / 41 to 104 °F

Power and Miscellaneous

Power source
DC +5 V   1.5 A (max.)
DC +12V   2.5 A (max.)

Size
Approx. 146 mm × 41.3 mm × 165 mm /
5 $3/4$ in × 1 $11/16$ in × 6 $1/2$ in (W×H×D)
(excluding front panel)

Weight
Approx. 640 g / 22.6 oz (drive only)

Interface

Drive interface
Serial ATA compliant

Buffer capacity

2 MB

Drive product number (Inquiry)

DRU-880S: SONY DVD RW DRU-880S

Design and specifications are subject to
change without notice.

http://www.sony.net/

Sony Corporation