Specifications

**Dimensions**
Approx. 60 × 111 × 100 mm (2 3/4 × 4 5/16 × 3 15/16 inches)

**Mass**
Approx. 42 g (1.5 oz.)

**External interface**
USB (Low-Speed)

**Cable length**
Approx. 70 cm (27 5/8 inches)

**Operating temperature**
5°C to 35°C (41°F to 95°F)

**Operating humidity**
10% to 90% (no condensation)

**Storage temperature**
-20°C to +60°C (-4°F to 140°F)

**Storage humidity**
10% to 90% (no condensation)

**Power requirements**
5 V DC (supplied through USB)

**Power consumption**
Max. 100 mA (during operation)

Design specifications are subject to change without notice.

Limited Warranty

Contactless IC Card Reader/Writer

SONY ELECTRONICS INC. ("SONY") warrants this Product (including any accessories) against defects in material or workmanship for the 90 day period from the date of purchase of the Product (the "Warranty Period") as set forth below. Pursuant to this Limited Warranty, SONY will, for defects reported during the Warranty Period, replace the Product. In the event of a defect, this is your exclusive remedy.

This Limited Warranty does not cover product causes resulting from anything other than defects in material or workmanship. By way of example, but not limitation, this Limited Warranty does not cover product customer instruction, installation, set up adjustments or improper care and maintenance. Any Product returned to SONY that is not defective, or is defective due to improper use or maintenance, will be charged a minimum service fee of $25.00.

This Limited Warranty is valid only in the United States. This Limited Warranty is non-transferable and covers only the hardware component of the Product. It does not cover the technical assistance or support for hardware or software usage and it does not cover any software products whether or not contained in the Product. SONY excludes all warranties and conditions, express or implied, in respect of any software provided with the Product and any such software is provided AS IS unless expressly provided in any enclosed software limited warranty. Please refer to the End User License Agreement(s) included with the Product for your rights and obligations with respect to the software.

To obtain warranty service, you must deliver the product, freight prepaid, in either original or suitable container to a SONY Authorized Service Station. If you do not deliver the product in suitable container, SONY, at its discretion, may refuse to provide warranty service on the product.

This Limited Warranty is invalid if the factory applied serial number has been altered or removed from the Product.

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For your convenience, SONY ELECTRONICS INC. has established the following telephone number which you should use for warranty service assistance, resolution of a service problem, or product information or operation: 1-877-686-SONY (7669) or visit: www.my.sony.com/supportcard.

Precautions

**Safety**

- To prevent fire or shock hazard, do not expose the unit to rain or moisture.
- To avoid electrical shock, do not open the unit. Refer servicing to qualified personnel.
- Do not allow any liquid or solid object to fall into the unit. This may cause a fire or give an electric shock. If it happens, unplug the unit from the computer immediately and contact the Reader/Writer Customer Service Center. If you leave the unit as it is, the computer connected to the unit may be damaged.
- Do not give an extreme shock to the unit, or squeeze it too tightly. This may cause a malfunction.
- Do not pull the cable slowly, bend it, or crush it. The cable may be broken, and this can cause a malfunction.
- Do not use or leave the unit:
  - In places subject to extreme high temperatures, for example near a radiator, heating vent, or in direct sunlight.
  - In places subject to mechanical vibration or shock.
  - In places that generate a strong magnetic field.
  - In places where corrosive gas is present.

**Maintenance**

- Clean the unit with a soft cloth or tissue paper. When the unit is very dirty, clean it with a soft cloth lightly moistened with a mild detergent solution and finish with a dry cloth.
- Do not use alcohol, thinner, or benzine to clean the unit. If you do so, the finish of the unit may be damaged or the coating may come off.
- Do not expose the unit to chemical-impregnated clothes, use it according to the directions provided.
- Do not spray a volatile solvent such as insecticide toward the unit, or place rubber or vinyl products on the unit for a long time. If you do so, the finish of the unit may be damaged or the coating may come off.

**Troubleshooting**

If a problem occurs, check the following:

- Did you install the required software on your computer properly?
- Is the connector on the cable of the Reader/Writer seated firmly in the USB port on your computer?
- Does your computer environment meet the requirements mentioned in "System Requirements?"

If you go through these checks and do not find any possible causes of problems, or if the problem is still not resolved (which is part of the driver and application software (FelCa/Reader Software) you need to download. (For details, see “4 Confirm the Reliability of the Operation Using the Self-Diagnosis Function.” on the opposite page.)

Results of the self-diagnosis

If a result other than "Normal" appears:

- Contact the Reader/Writer Customer Service Center.

If result is "Normal," but the card is not recognized:

- Confirm that your card is compatible with this Reader/Writer.

If the recommendations above do not resolve the problem, refer to the FAQ section on our Web site (http://www.my.sony.com/smartcard). Then, if the problem still persists, contact the Reader/Writer Customer Service Center.

http://www.sony.net/
Printed on 100% recycled paper using VOC (Volatile Organic Compound)-free vegetable oil based ink.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Reader/Writer Customer Service Center

If you have questions about this product or the features/applications of the Smart Card, please visit: http://www.my.sony.com/smartcard.
Or call 1-877-686-SONY (7669).

Declaration of Conformity

Trade Name: SONY
Model: RC-S320
Responsible Party: Sony Electronics Inc.
Address: 16450 W. Bernardo Dr.
San Diego, CA 92127 U.S.A.
Telephone Number: 858-942-2230

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTICE TO USERS

Program/Documentation 002040 Sony Corporation

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The software described herein may also be governed by the terms of a separate user license agreement.

Introduction

This product is a contactless IC card Reader/Writer that connects to the USB port on your computer. This Reader/Writer provides the ability to write information to and read information from contactless IC cards using Sony’s FelCa technology, such as the “wave” smart card. Sony’s FelCa chip technology can be incorporated into contactless IC cards and devices.

If you do not know whether your contactless IC card is compatible with the Reader/Writer, consult with an information source shown on your card about the compatibility.

System Requirements

You can use this Reader/Writer only in the United States. To use it, you need an Internet connection environment meeting the requirements below.

- Computer hardware equipped with a USB port
- Operating system: Microsoft Windows 98 or later

Notes

- Even if your computer environment meets the requirements above, the Reader/Writer may not operate properly depending on the configuration of your software and hardware.
- Depending on the type of contactless card, a malfunction may occur when the computer goes into the standby mode while the Reader/Writer is operating.
- Depending on the type of USB hub you are using, the Reader/Writer may not operate properly.
- Depending on the environmental condition in and around your computer, the Reader/Writer may not operate properly.
- The Reader/Writer uses the 13.56 MHz frequency band. When more than one Reader/Writer is in one location, leave one meter or more space between each Reader/Writer. In addition, make sure to keep the Reader/Writer away from other wireless communication devices which use the same 13.56 MHz frequency band.

CAUTION

You are cautioned that any changes or modifications not expressly approved by the manufacturer could void your authority to operate this equipment.
Unpacking
Make sure your carton contains everything listed below.
• Reader/Writer unit
• Operating Instructions (this document)

Reader/Writer Setup
When you use the Reader/Writer for the first time, perform the procedures below.

Notes:
• Do not plug the Reader/Writer into the computer before you install the FeliCa Reader/Writer Software.
• The Reader/Writer does not work with the Smart Card unless the software has been installed onto your computer. You should have already downloaded the software that enables the Reader/Writer and Smart Card to function when you purchased or signed-up for the Smart Card on-line. If not, follow these steps.
• The FeliCa Reader/Writer Software may be updated with enhancements. You’ll be notified when they occur.

1 Confirm that the Reader/Writer is unplugged from your computer.
2 Download and Install the FeliCa Reader/Writer Software.
   1 Start up your computer.
   2 If you use Windows 2000 or Windows XP, log on to Windows using an account/user that can install programs (Administrator Account).
   3 Shut down all active programs. If virus protection software is active, the installation may not be completed properly.
   4 Download the FeliCa Reader/Writer Software from our Web site (http://www.my.sony.com/smartcard).
   5 Click the downloaded file and install it according to the instructions shown on the display.
   6 If an instruction requesting you to restart the computer appears, restart the computer.
5 Carry out the self-diagnosis test according to the instructions shown on the display.
6 If an instruction requesting you to restart the computer appears, restart the computer. 
7 If the surface on which you put the Reader/Writer is made of metal, the Reader/Writer may not operate properly.
8 If you put the Smart card or device on the Reader/Writer, if a portion of the card or of the device extends off the read/write surface, or if the card or device is tilted, the Reader/Writer may not operate properly.
9 The timing for placing the Smart Card or device is defined by the service you use. Follow the instructions shown on the display.
10 If you use Windows 2000, when you intend to unplug the Reader/Writer, first, click the “Unplug or Eject Hardware” icon on the taskbar on the Windows screen to stop the Reader/Writer device, and then, pull out the connector on the cable.

Using the Reader/Writer
1 Put Your Smart Card or Your Device Using FeliCa Chip Technology on the Reader/Writer.
   Put the Smart Card or device on the Reader/Writer so that the center of the Smart Card or device comes to just above the FeliCa Platform Mark.

a) A FeliCa Platform Mark indicates that the product is designed for a multifunctional platform using the FeliCa technology.

Notes:
• If you use Windows 2000, when you intend to unplug the Reader/Writer, first, click the “Unplug or Eject Hardware” icon on the taskbar on the Windows screen to stop the Reader/Writer device, and then, pull out the connector on the cable.

<Tip>
The ACTIVE lamp lights up or flashes to indicate that the Reader/Writer is ready to accept the Smart Card or device or that the Reader/Writer is communicating with the Smart Card or device (see the illustration below).

For the latest information on the Reader/Writer, refer to our Web site (http://www.my.sony.com/smartcard).

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