SONY®

FeliCa Reader

Operating Instructions

FeliCa FeliCa™ CERTIFIED

RC-S390 - PaSoRi -

sony.net/Products/felica/business/products/RC-S390.html
FeliCa is a contactless IC card technology developed by Sony Corporation.
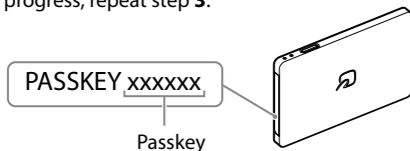© 2016 Sony Corporation

Setup (Read this First)

Notes

- Operation procedures may vary depending on the iOS device application you are using. For details, refer to the help screen for each respective application.
- Before pairing the unit, open the [Settings] > [Bluetooth] screen on the iOS device, and check whether "PaSoRi" is already paired. If another "PaSoRi" device is already paired, select [Forget this Device] to unpair the device.

Pairing the Unit with the iOS Device

Before using the unit for the first time, the unit must be paired as a Bluetooth device to the iOS device. After the unit is paired, Bluetooth connection will be established automatically and passkey re-entry will not be required on subsequent occasions.

1. **Install the dedicated application on the iOS device.**
   Search for the application on the App Store and install it.
2. **Set the Bluetooth function of the iOS device to [On].**
3. **While the unit is turned off, hold down the power button for at least 5 seconds, until the communication status indicator (blue) blinks at least 4 times rapidly.**
4. **Start the application on the iOS device.**
   When the application starts, the Bluetooth connection between the iOS device and the unit will be established automatically.
5. **When the [Bluetooth Pairing Request] screen appears on the iOS device, enter the 6-digit passkey that appears on the side of the unit, and then tap [Pair].**
   If the communication status indicator (blue) stops blinking rapidly while pairing is in progress, repeat step **3**.

PASSKEY xxxxxx

Passkey

When pairing is complete, the iOS device can be used in conjunction with the unit. The unit can operate continuously for about 1 month after being turned on from a fully charged state.

Notes

- Each unit is assigned a unique passkey that is used for identification between the unit and applications. Be aware that if the passkey registered on the iOS device via pairing does not match the passkey of the unit being used, Bluetooth connection cannot be established.
- Make a note of the passkey, so you do not forget it. Be sure to store the passkey safely away from unauthorized parties.

Notes

- If the unit is placed near a metal object or an object that produces electromagnetic radiation, communication with the electronic money cards may fail, due to electromagnetic interference. Distance the unit from these objects to prevent interference.
- The unit will not function properly if two or more electronic money cards are placed on the unit at the same time.
- Depending on the electronic money card type, the unit may not function properly in such cases.

- The timing for when to place electronic money cards on the unit differs for each service, so follow the specific operating procedure of the service being used.

Features

- This unit is a mobile reader/writer for FeliCa format contactless IC cards that supports *Bluetooth*® low energy technology*.
- The unit can operate in conjunction with iPhones and other iOS devices to display electronic money balances, charge cards, etc..
- By using the supplied card holder and a commercially available neck strap, you can insert an employee ID card that includes electronic money features and you can use the unit as a neck strap card holder.

* Communication with devices that support Bluetooth low energy technology is possible. (Communication between the unit and all Bluetooth low energy technology devices is not guaranteed.)

Power Button

The length of the button press and the indicator displays vary, depending on the operation you intend to perform with the power button.

Operation	Button press		Indicator display	
			Communication status indicator (blue)	Remaining battery indicator
Pair	Hold for longer than 5 sec.		Rapid blinking (4 times or more)	–
Turn unit on [1]	Hold for 2 sec.		Blinking (3 times)	–
Turn unit off	Hold for 2 sec.		Lit (1 sec.)	Lit orange (1 sec.)
Verify status	Press	During power ON	Blinking	Blinking [2]
		During power OFF	–	Blinking [2]

1) Connection to paired device will be established.
2) The color of the remaining battery indicator varies depending on the remaining battery charge. For details, see the "Indicator Displays" section.

Note

When turning on a paired PaSoRi device, hold the button for 2 seconds. When the paired iOS device is present, the Bluetooth connection will be established.
When pairing has not been performed, the power will automatically be turned off after this operation. In such cases, the "Turn unit off" indicator display will occur.

Supplied Accessories
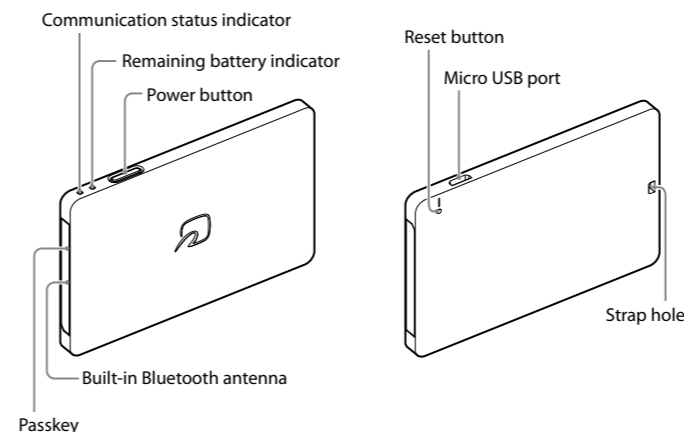
- FeliCa reader unit
- USB cable
- Card holder

System Requirements

- Compatible operating systems: iOS 9 or above (as of February 2019)
- For detailed information about compatible hardware and operating systems, please visit the following website:
  sony.net/Products/felica/business/products/RC-S390.html

Notes

- Operation is not guaranteed on all devices that meet the recommended requirements.
- The unit may not function properly, depending on the status of supported applications on the iOS device.

Parts Identification

Communication status indicator
Remaining battery indicator
Power button
Reset button
Micro USB port

Strap hole

Built-in Bluetooth antenna

Passkey

Note

Do not cover the built-in antenna portion with your hand, for example, during Bluetooth connections. Doing so may disrupt the Bluetooth connection.
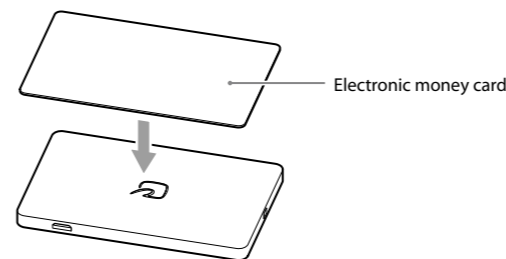
Pressing the Power Button

There are three methods of pressing the power button. Press the button in one of the following ways, depending on which operation you want to perform:
Short press: Press the power button and release quickly when it clicks.
Hold for 2 seconds: Press and hold the power button for at least 2 seconds until the communication status indicator blinks blue 3 times, and then release.
Hold for 5 seconds: Press and hold the power button for at least 5 seconds (the communication status indicator is blinking blue) and continue to hold.
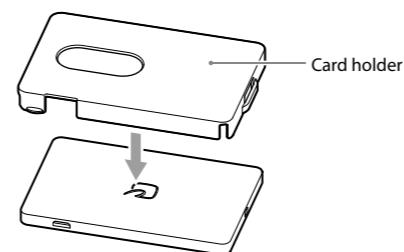For more details, see the "Power Button" section in this document.

Basic Operations

Placing Electronic Money Cards

Match the orientation of the electronic money card to that of the unit, and place the card on the surface of the unit marked with the FeliCa icon.
If the electronic money card is not positioned properly, it may not be properly scanned.

Electronic money card

Using the Card Holder

Align the card holder with the unit, and then press on it until it clicks into place. The Sony logo on the unit should be at the top left, and the elongated hole on the card holder should be on the left side.
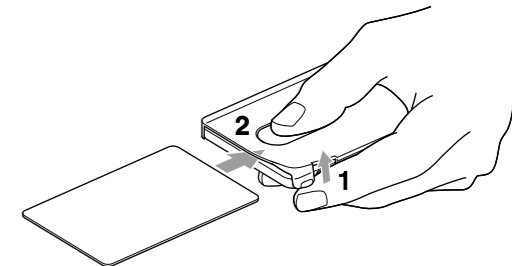
Card holder

Notes

- Verify that the card holder is firmly secured. If the card holder is not attached properly, the electronic money card may slip out.
- When an electronic money card is placed on the unit while using the card holder, the unit may affect the ability of other readers and writers to read the card. In such cases, remove the electronic money card from the unit before placing the card on the reader/writer.
- When removing the card holder from the unit, do so carefully to avoid cracking the holder.
- When using a commercially available neck strap with the card holder, be sure to attach it to the strap hole on the card holder beforehand.

Inserting Cards in the Card Holder

1. **Raise the card holder from the unit while gently pulling the tab on the holder away from the unit's side.**
   A gap will open between the unit and the card holder.
2. **Insert the electronic money card into the gap.**
   After fully inserting the card, press down on the card holder until its tab clicks back into place on the unit.
   If the card holder is not attached properly, the electronic money card may slip out.
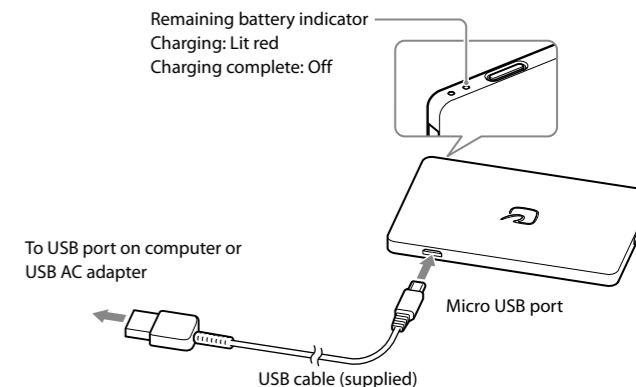
3. To remove the card, raise the card holder by the tab as you did in step **1**, and then slide the card out.

Charging the Battery

The unit is equipped with a built-in rechargeable battery.
Be sure to charge the battery fully before using the unit for the first time.
To charge the battery, use the supplied USB cable to connect the unit's micro USB port with the USB port on a computer or USB AC adapter (not supplied).
Recommended USB AC adapter: Sony AC-UD20 (not supplied)

The unit's remaining battery indicator lights up while charging is in progress. The remaining battery indicator turns off when charging is complete.
The approximate charge duration is 1.5 hours from a fully discharged state to a fully charged state.
The unit can be operated while charging is in progress.

Remaining battery indicator
Charging: Lit red
Charging complete: Off

To USB port on computer or USB AC adapter

Micro USB port

USB cable (supplied)

Notes

- Be sure to perform battery charging within an ambient temperature range of 5 ℃ to 35 ℃ (41 ℉ to 95 ℉).
- When operating the unit for the first time or after a prolonged period of disuse, we recommend charging the battery to a fully charged state.
- Battery charging may not be possible if the unit is connected to a USB hub or a USB port with low current capacity.
- Battery charging is not guaranteed with all computer USB ports and USB AC adapters.
- Battery charging is not guaranteed when using USB AC adapters other than the adapter recommended in the "Charging the Battery" section.
- The unit's micro USB port is intended for battery charging only.

Troubleshooting

Charging the battery

→ If Bluetooth connection cannot be established or there is no response when the power button is pressed, charging the battery may resolve the problem.

Resetting the unit

→ Insert a pointed object, such as a straightened paper clip, into the reset button hole, and then press the button.

The unit will restart. Cancel the pairing of the unit as a Bluetooth device on the iOS device, and then perform pairing again.

Checking the PaSoRi website

→ If an Internet connection is available, you can view the latest information on the support website:

sony.net/Products/felica/business/products/RC-S390.html

Maintenance

- If the unit is dirty, use a soft cloth or facial tissue to wipe it clean.
- To clean stubborn dirt, use a soft cloth that has been soaked in a mild detergent diluted with water and then wrung out thoroughly.
- Do not use alcohol, thinner, benzine, etc.. Doing so may damage the surface coating.
- When using chemically treated wipes, follow the instructions provided.
- Prolonged exposure to pesticides or other volatile solvents, rubber, or plastic may result in damage to the surface and ink.

Specifications

Dimensions	Approx. 87.6 × 56 × 5.5 mm
	$(3 \frac{1}{2} × 2 \frac{1}{4} × \frac{1}{4}$ in) (W × H × D)
Mass	Approx. 30 g (1 oz)
	(exlcuding USB cable and card holder)
External interface	Micro USB (exclusively for battery charging)
Cable length	Approx. 50 cm (19 in)
Operating temperature	5 ℃ to 35 ℃ (41 °F to 95 °F)
Operating humidity	10% to 90% (non-condensing)
Storage temperature	−20 ℃ to +60 ℃ (−4 °F to +140 °F)
Operating voltage	5 V DC (via USB during battery charging)
Current consumption	Maximum of approx. 500 mA

Design and specifications are subject to change without notice.

Indicator Displays

Battery indicator
Remaining battery displays
The indicator display appears as follows when the power button is short pressed:

Indicator display	Meaning
Blinking green (3 times)	The remaining battery charge is sufficient.
Blinking orange (2 times)	The remaining battery charge is moderately sufficient.
Blinking red (1 time)	The remaining battery charge is very low.
Blinking red (2 times)	The battery is discharged, and operation cannot continue without charging.
Off	The battery is discharged, and operation cannot continue without charging.

Note

The remaining battery charge cannot be determined during charging.

Charging status displays
The indicator display appears as follows when charging via the USB cable:
(If the battery is fully charged, the indicator does not illuminate.)

Indicator display	Meaning
Lit red	Charging is in progress.
Lit red → off	Charging is complete.

Communication status indicator

Bluetooth status displays
The indicator display, which indicates the power status (On or Off) of the unit, appears as follows when the power button is short pressed:

Indicator display	Meaning
Lit or blinking blue	Bluetooth communication is in progress (i.e., the unit is turned on).
Off	Bluetooth communication is inactive (i.e., the unit is turned off).

Electronic money card status displays
The indicator display appears as follows when an electronic money card is placed on the unit:

Indicator display	Meaning
Blinking blue (rapid)	Read/write for the electronic money card is in progress.
Off	Communication with the electronic money card is inactive.

Battery Use Duration

The unit can operate continuously for about 1 month after being turned on from a fully charged state. (This assumes about two electronic money communications per day with each fund charge action taking about 20 seconds and each balance check taking about 1 second.)
Battery run time differs depending on usage.
The battery charge depletes slightly, even when the unit is turned off or in standby mode. As a result, the battery operating duration will be shorter after prolonged periods of disuse.

Notes

- The battery charge is depleted most during communication with electronic money cards. To reduce the duration of communication, we recommend positioning the electronic money card properly before starting communication.
- Charge the battery at least once every 6 to 12 months, even during prolonged periods of disuse.

Bluetooth® Features

Bluetooth wireless technology allows the unit to connect to smartphones and tablet computers wirelessly at close ranges, as follows:
- Bluetooth wireless technology allows connection at distances of up to about 10 m (33 ft). The effective range, however, may vary depending on the signal status and whether the signal is obstructed (by people, metallic objects, walls, etc.).
- Operating under the following conditions may disrupt the Bluetooth connection:
  – when the unit is in a bag that has metallic components
  – when the unit is in a backpack or shoulder bag
  – when the unit is located in an environment with a wireless LAN, near microwaves, mobile phones, portable gaming devices, or other devices with communication functions, or near other sources of electromagnetic waves.

  Although connection and card reading/writing may fail in such cases, it does not indicate a malfunction. In such cases, modify the usage environment and conditions.
- Bluetooth devices and wireless LAN (IEEE802.11b/g) devices use the same frequency ranges, so wave interferences may occur when the product is used near a device equipped with a wireless LAN. This may result in problems, such as slow connection speed and an inability to connect. In such cases, take the following measures:
  – when connecting the unit to an iOS device via Bluetooth, maintain a distance of at least 10 m from wireless LAN devices.
  – Keep the unit as close to the iOS device as possible.
  – when using the unit within 10 m of a wireless LAN device, turn off the wireless LAN.

After-Sales Services

If a problem occurs...
First read the "Troubleshooting" section in this document.

For inquiries regarding services...
sony.net/Products/felica/business/products/RC-S390.html

Usage Precautions

- The unit is neither waterproof nor splashproof:
  – Exposure to or infiltration of water will corrode the interior and may result in malfunction.
  – Avoid exposure to water and operation in excessively humid environments.
  – Avoid touching the control and micro USB port areas with wet hands.
  – Stooping in a restroom, for example, may result in the unit dropping and being exposed to water.

- Always verify that the unit is operating properly before use. SONY WILL NOT BE LIABLE FOR DAMAGES OF ANY KIND INCLUDING, BUT NOT LIMITED TO, COMPENSATION OR REIMBURSEMENT ON ACCOUNT OF THE LOSS OF PRESENT OR PROSPECTIVE PROFITS DUE TO FAILURE OF THIS UNIT, EITHER DURING THE WARRANTY PERIOD OR AFTER EXPIRATION OF THE WARRANTY, OR FOR ANY OTHER REASON WHATSOEVER.
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