

SONY®

4-659-577-12 (1)

Memory Stick Camera Module

Operating Instructions

PEGA-MSC1

**CLiÉ
GEAR**

Before operating the unit, please read these instructions thoroughly, and retain them for future reference.

If you have a question about this product, call the Sony Customer Information Center at keep on next line 1-877-760-7669; or write to the Sony Customer Information Center at 12451 Gateway Boulevard, Fort Myers, FL 33913. The number below is for FCC-related matters only.

Declaration of Conformity

Trade Name: SONY

Model No.: PEGA-MSC1

Responsible Party: Sony Electronics Inc.

Address: 680 Kinderkamack Road, Oradell, NJ 07649 USA

Telephone No.: 201-930-6972

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.

CAUTION

Any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

Note:

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 should 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.
- Consult the dealer or an experienced radio/TV technician for help.

This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

This equipment complies with EMC regulations when used in the following circumstances:

- Residential area
- Business district
- Light-industry district

(This equipment complies with the EMC standard regulations EN55022 Class B.)

Trademarks

- Sony, the Sony logo, CLIÉ, the CLIÉ logo, CLIÉ GEAR, the CLIÉ GEAR logo, CLIÉ Paint, Jog Dial, Memory Stick, Magic Gate Memory Stick, and PictureGear are the trademark of Sony Corporation.
- Microsoft and Windows are trademarks or registered trademarks of Microsoft Corporation in the U.S. and other countries.
- Palm OS, Graffiti, and HotSync are registered trademarks of Palm, Inc., or its subsidiaries. Palm Desktop and the HotSync logo are trademarks of Palm, Inc., or its subsidiaries.
- All other system names and model names are trademarks of their respective owners. In the text of this Operating Manual, ™ and ® marks are not used.

Before using this camera, be sure to read the supplied End-User's License Agreement.

Notes

- Menus shown in the instructions may differ slightly from the actual menus in the software.
- The explanations in the instructions assume a good understanding of the operations of Windows. For information on the operation of your computer and operating system, see their respective manuals.

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► Before You Begin

What you can do with the Memory Stick Camera Module

You can record still images with this camera. (The images are recorded in PictureGear Pocket (PGP) format and stored in your CLIÉ handheld.)

There is a wide range of uses for your recorded images, including:

- Attach them to email with CLIÉ Mail, or draw and paint on them with CLIÉ Paint.
- Make a slide show with Photo Stand.
- Use PictureGear Pocket to convert your images to DCF, the standard format for digital still cameras, and manipulate them with other graphics programs on your personal computer.

Read the following before using your camera

This camera works only with the CLIÉ handheld. It cannot be used with any other Memory Stick equipment, such as personal computers.

This camera is not compatible with the following CLIÉ models:

PEG-S300 series and N700 series (OS Version 3.x)

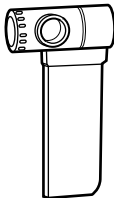
PictureGear Pocket Version 2.1 or higher is required.

If you have version 2.0 or earlier of PictureGear Pocket installed in your CLIÉ handheld, install PictureGear Pocket Version 2.1 from the supplied installation CD-ROM. For installation instructions, please refer to the "Installing the necessary software" (page 8) in this Operating Manual.

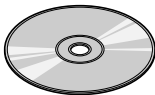
Check the items supplied

Check to make sure the package contains all of the following items.
If any items are missing, contact your Sony dealer or local authorized Sony service facility.

Memory Stick Camera Module (PEGA-MSC1)



Installation CD-ROM (1)



Operating Instructions for PEGA-MSC1 (1)

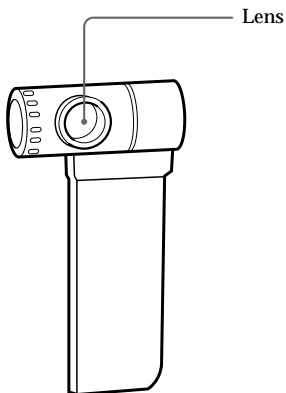
Hard case (1)

Warranty card (1)

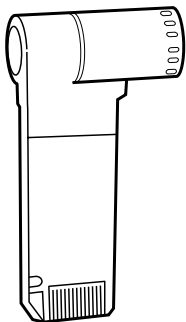
End-User's License Agreement (1)

Identifying the parts

Front



Rear



Installing the necessary software

Before using the Memory Stick Camera Module, install the “Memory Stick” Camera application software and the PictureGear Pocket Version 2.1 software into your CLIÉ handheld from the supplied CD-ROM.

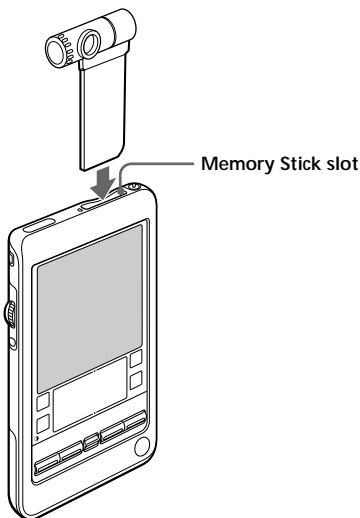
To install this software, you need a Windows computer which has the CLIÉ Palm Desktop software installed and which has a connection to your CLIÉ handheld. Make sure that the local HotSync between the Windows computer and the CLIÉ handheld works properly.

- 1** Insert the supplied installation CD-ROM into the CD-ROM drive of your Windows computer.
The initial installation screen appears.
- 2** Click [Installation of software for Memory Stick Camera Module].
The installer submenu appears.
- 3** Select the software you wish to install.
Select PictureGear Pocket Version 2.1* (required) and CLIÉ Paint (optional).
* This step is not necessary if PictureGear Pocket Version 2.1 or above is already installed on your CLIÉ handheld.
- 4** Click [Install].
- 5** Select your user name from the user list.
- 6** Click [Exit].
- 7** Press the HotSync button on the cradle.
HotSync starts and the software is transmitted to your CLIÉ handheld.

Attaching the camera to your CLIÉ handheld

Before using your camera for the first time, be sure to install the necessary software onto your CLIÉ handheld *before* attaching the camera. For details on the installation procedure, refer to “Installing the necessary software” (page 8).

Insert the camera firmly into the Memory Stick slot of your CLIÉ handheld in the direction shown below.



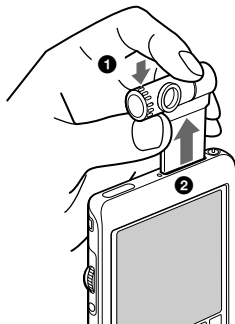
Note

Do not insert or remove the camera while starting or closing the camera's software, or the CLIÉ handheld may behave unpredictably.

Attaching the camera to your CLIÉ handheld (Continued)

Disconnecting the camera

To disconnect the camera, close the “Memory Stick” Camera application and then remove the camera by **pushing it in once (1)** and pulling it straight up out of the memory stick slot of the CLIÉ handheld (2).

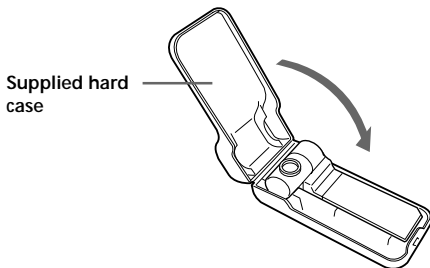


Note

Pulling up on the camera without first pushing it in may damage both the camera and the Memory Stick slot of the CLIÉ handheld.

When not in use

When you are not using the camera, remove it from the CLIÉ handheld, and put it into the supplied hard case.




Recording images with the camera

You can record images with the camera by inserting it into the CLIÉ handheld and using the “Memory Stick” Camera application. For the installation procedure for the “Memory Stick” Camera application, refer to “Installing the necessary software” (page 8).

1 Attach this camera to CLIÉ handheld.

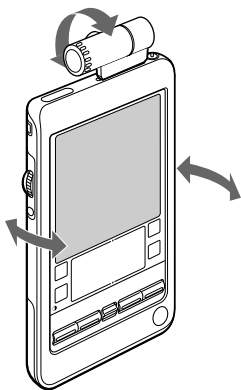
You can insert the camera without turning off the power of the CLIÉ handheld. For details, refer to “Attaching the camera to your CLIÉ handheld” (page 9).

2 Start the “Memory Stick” Camera application.

Inserting the camera to CLIÉ handheld, or tapping the  icon starts the “Memory Stick” Camera application.

For details, refer to “Recording images” in the Operating Manual for the “Memory Stick” Camera application, included in PDF format on the CD-ROM.

3 Aim the lens at whatever you want to take a picture of.



Recording images with the camera (Continued)

- 4 Tap the CAPTURE button on the screen with the stylus to record an image.




You can also record images by pressing the Jog Dial navigator.

Saving an image in the CLIÉ handheld may take a few moments.

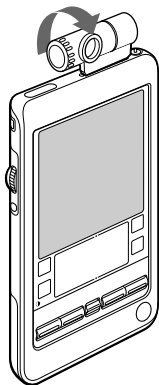
For more details on this process, refer to “Recording images” in the Operating Manual for the “Memory Stick” Camera application, included in PDF format on the CD-ROM.

After recording images with the camera

Tap the Home  icon to close “Memory Stick” Camera application, and then disconnect the camera from the CLIÉ handheld.

Recording an image of yourself

While looking through the finder of the camera, you can record yourself by turning the lens toward you.



To prevent images from being inverted or reversed, the camera automatically enters the inversion/mirror-reverse mode when you turn it toward yourself. This mode is canceled when the camera is put back into the normal position.

Note

Although images are reversed in the finder, they are recorded normally without being reversed.

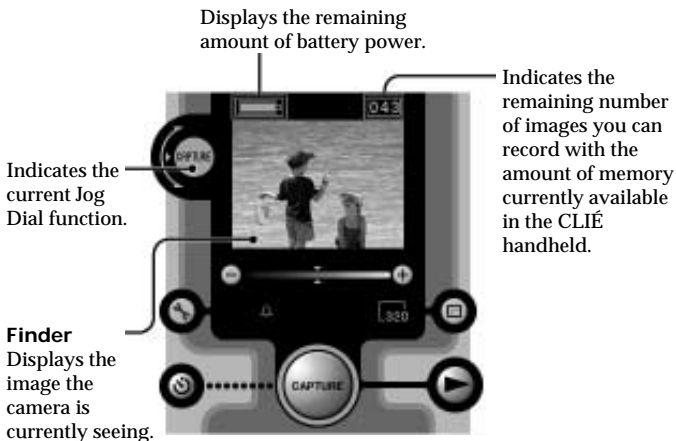
Recording images with the camera (Continued)

“Memory Stick” Camera application

The following is a brief explanation of the screen that appears when you start the “Memory Stick” Camera application.

To set each function, tap the buttons on the screen with the stylus or use the Jog Dial navigator.

For detailed procedures, refer to the Operating Manual for the “Memory Stick” Camera application, included in PDF format on the CD-ROM.



**Initial setting button**

Takes you to a screen where you can adjust various camera settings, including the capture sound, the white balance, and the effect setting.

**Brightness button**

Sets the brightness.

**Image size button**

Toggles between the 160 x 120 and 320 x 240 image modes. Whichever image mode you choose, the image displayed on the screen of the CLIÉ handheld remains the same size.

**CAPTURE button**

Tap this button to record an image.

**Viewer starting button**

Starts the PictureGear Pocket software to play back recorded images.

**Timer button**

Tap this button to record an image with the timer. After the timer button lights in orange, press the capture button. An image will be recorded automatically in about 10 seconds. This feature allows you time to enter the scene and be included in the picture.

How to read the online manual

Detailed information on the “Memory Stick” Camera application, PictureGear Pocket application, and CLIÉ Paint is provided in the online manual on the supplied CD-ROM.

To view the online manual, the Adobe Acrobat Reader version 4.0 or higher, must be installed on your computer.

- 1** Insert the supplied CD-ROM into your computer’s CD-ROM drive .
The install screen appears automatically.
- 2** Click Manuals.
- 3** Double-click an appropriate PDF-formatted manual.
 - For "Memory Stick" Camera Application, select [Memory Stick Camera Manual.pdf].
 - For PictureGear Pocket, select [PictureGear Pocket Manual.pdf].
 - For CLIÉ Paint, select [CLIÉ Paint Manual.pdf].

If the Acrobat Reader software is not installed or is a version earlier than 4.0

- 1** Insert the supplied CD-ROM into your computer’s CD-ROM drive.
The install screen appears automatically.
- 2** Click Exit.
- 3** Double-click the My Computer icon on your Windows desktop.
- 4** Right-click the CD-ROM drive icon, and click Open from the shortcut menu.
- 5** Double-click the PC folder.
- 6** Double-click the Acrobat folder.
- 7** Double-click the ar500enu.exe to install Acrobat Reader onto your computer.


Viewing recorded images

Storage format for recorded images

Images recorded with this camera using the “Memory Stick” Camera application are saved in PictureGear Pocket (PGP) format. To manipulate images with other graphics programs on your personal computer, use PictureGear Pocket to convert them to DCF, the standard format for digital still cameras. For more details, refer to the Operating Manual for PictureGear Pocket, included in PDF format on the CD-ROM.

Playing back recorded images (PictureGear Pocket)

To play back a recorded image, you can directly start PictureGear Pocket from the “Memory Stick” Camera application screen.



Tap the  icon on the lower right of the screen of the “Memory Stick” Camera application.

PictureGear Pocket starts in **camera application mode** and displays a recorded image.



Viewing recorded images (Continued)

Note

When you want to use all features of PictureGear Pocket, tap the Home  button on CLIÉ handheld to go to the Home screen. By tapping the  icon on the Home screen, PictureGear Pocket starts in full function mode. For further details on the operation of PictureGear Pocket, please refer to the Operating Manual for PictureGear Pocket, included in PDF format on the CD-ROM.

To return to the “Memory Stick” Camera application

Tap the  icon on the PictureGear Pocket application screen.

You can also return to the “Memory Stick” Camera application by pressing the BACK button on CLIÉ handheld.


Drawing on recorded images (CLIE Paint)

You can draw pictures and letters on recorded images with the stylus.

Tap the  icon on the lower right of the screen when a recorded image is shown on PictureGear Pocket in full function mode.

CLIE Paint starts, allowing you to draw on the image shown on the screen.

Note

The  icon is not shown on PictureGear Pocket when it is in camera application mode.



For details on this operation, please refer to the Operating Manual for CLIE Paint, included in PDF format on the CD-ROM.

Precautions

Storing the Memory Stick Camera Module

- When you are not using the Memory Stick Camera Module, remove it from the CLIE handheld, and store it in the supplied hard case.
 - Carrying your CLIE handheld with the Memory Stick Camera Module inserted may damage both the camera and the Memory Stick slot of the CLIE handheld.
-

Places to avoid with the Memory Stick Camera Module

Avoid the following situations both when using or storing the Memory Stick Camera Module:

- **Extremely hot places**
Car interiors, for example, may become extremely hot in direct sunlight. If the Memory Stick Camera Module is left inside, it may be damaged.
 - **Direct sunlight or heat-generating equipment**
 - **Sandy places.**
Do not expose the Memory Stick Camera Module to sand or dust. Such conditions may damage the Memory Stick Camera Module beyond possibility of repair.
 - **Facing the sun**
Allowing the lens to face the sun for extended periods can damage the Memory Stick Camera Module. Avoid this when leaving the Memory Stick Camera Module outside or near a window.
-

On operation

- Do not lay any objects on top of the Memory Stick Camera Module.
- Avoid forcing the Memory Stick Camera Module to change temperature rapidly. Extreme temperature changes can cause moisture to condense inside the camera, and using the camera with condensed moisture inside can damage it. When you must take the camera between temperature extremes, such as taking it from a cold outdoor setting into a heating building, do not turn the camera on immediately. Give the moisture time to evaporate.

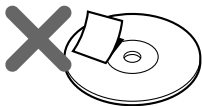
The lens

Do not touch the lens of the Memory Stick Camera Module.

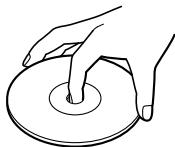
On handling CD-ROM discs

For the safety of data recorded on the disc, note the following.

- Do not attach paper or anything else to the disc, and do not scratch its surface.



- When you hold the disc, do not touch the unlabeled side (playback side).



- Do not store the disc in dusty places, in direct sunlight, near heat-generating equipment, or in a humid area.
- Store the disc inside its case.

Cleaning

Cleaning the Memory Stick Camera Module

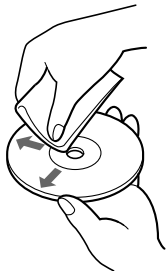
To clean the Memory Stick Camera Module, wipe it with a soft, dry cloth. If more aggressive cleaning is necessary, use a soft cloth lightly moistened with a mild detergent solution. Do not use a thinner, benzine, or alcohol, which can damage the camera's finish.

Cleaning the lens

To clean the lens of the Memory Stick Camera Module, use a blower brush or a soft brush.

Cleaning the CD-ROM disc

Fingerprints or dust may cause errors when the disc is read. To clean the disc, wipe the disc gently with a soft cloth, always moving from the center of the disc to its outer edge.



Specifications

Imaging device

1/6 type, 100,000 pixel, CMOS image sensor

Lens

F2.8

f=2.65 mm

Shutter speed

Automatic

Capture size

160 × 120 pixels, 320 × 240 pixels

Maximum outside dimensions (approx.)

1.42 in. (width) × 3.07 in. (height) × 0.71 in. (depth) (36 × 78 × 18 mm)

Weight (approx.)

0.4 oz (12 g) (Camera Module Only)

Operating temperature

41° F to 95° F (5° C to 35° C)

Operation time (at 77° F (25° C))

Approximately 120 minutes (for a fully-charged CLIÉ handheld is used continuously with the backlight on)

Supplied Accessories

Installation CD-ROM

Case

Design and specifications are subject to change without notice.

Operations cannot be guaranteed for all computers running in the recommended environment.

Troubleshooting

Try the solutions listed below before calling for service. If there is still a problem after trying these solutions, call your Sony dealer or local authorized Sony Service facility.

Symptom	Remedy
Nothing is displayed in the window.	<ul style="list-style-type: none">→ Slide the HOLD switch on the CLIÉ handheld to cancel the HOLD function.→ Reset the software. Refer to the supplied operating instructions for an explanation of this procedure.
Warning of memory shortage is displayed, and images cannot be recorded.	<ul style="list-style-type: none">→ Delete unnecessary images in PictureGear Pocket.→ Delete unnecessary data in other applications.→ Delete unnecessary applications from your CLIÉ handheld.
Any operation does not work.	<ul style="list-style-type: none">→ You cannot perform any other operations while images are being recorded. Try again after the recording process has ended.→ Slide the HOLD switch on the CLIÉ handheld to cancel the HOLD function.→ Reset the software. Refer to the supplied operating instructions for an explanation of this procedure.
There are lateral stripes, a ring-shaped pattern, or lighting spots on the display.	<ul style="list-style-type: none">→ The display image may be distorted due to conditions such as the temperature or the lighting. Try moving the camera to different temperature or lighting conditions.

Note

There are thousands of applications designed for the Palm OS. We do not support applications produced by other companies (including HACK software and DA software).

If you have difficulty with an application produced by another company, consult the developer or the seller of the application.

Customer Support in USA and Canada

For the latest support information,
check our official Sony CLIE Web site

<http://www.ita.sel.sony.com/support/clie/access/>