SONY

Digital Still Camera

Operating Instructions

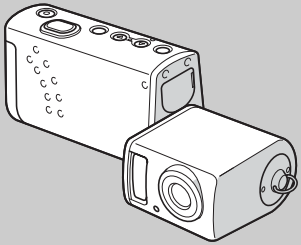
Before operating the unit, please read this manual thoroughly, and retain it for future reference.

Owner's Record

The model and serial numbers are located on the bottom. Record the serial number in the space provided below. Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No. DSC-U50

Serial No. _____



Cyber-shot U

MEMORY STICK TM

DSC-U50

© 2003 Sony Corporation

3-084-891-**11**(1)

Getting started

Shooting still images

Enjoying still images

Enjoying movies

Deleting images

Enjoying images on your computer

Troubleshooting

Additional information

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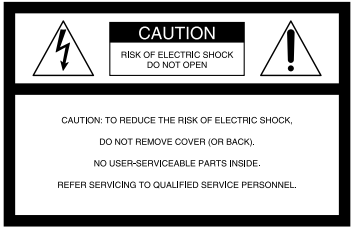
WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

For the Customers in the U.S.A.



This symbol is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

If you have any questions about this product, you may call:
Sony Customer Information Services Center
1-800-222-SONY (7669)

The number below is for the FCC related matters only.

Regulatory Information

Declaration of Conformity

Trade Name:	SONY
Model No.:	DSC-U50
Responsible Party:	Sony Electronics Inc.
Address:	680 Kinderkamack Road, Oradell, NJ 07649 U.S.A.
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

You are cautioned that 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 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.
- Consult the dealer or an experienced radio/TV technician for help.

The supplied interface cable must be used with the equipment in order to comply with the limits for a digital device pursuant to Subpart B of Part 15 of FCC Rules.

For the Customers in the U.S.A. and Canada

RECYCLING NICKEL METAL HYDRIDE BATTERIES

Nickel Metal Hydride batteries are recyclable.
You can help preserve our environment by returning your used rechargeable batteries to the collection and recycling location nearest you.

For more information regarding recycling of rechargeable batteries, call toll free 1-800-822-8837, or visit http://www.rbrc.org/

CAUTION:
Do not handle damaged or leaking Nickel Metal Hydride batteries.

CAUTION
TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

Notice for the customers in the United Kingdom

A moulded plug complying with BS1363 is fitted to this equipment for your safety and convenience.
Should the fuse in the plug supplied need to be replaced, a fuse of the same rating as the supplied one and approved by ASTA or BSI to BS1362 (i.e., marked with ⓐ or ♡ mark) must be used.
If the plug supplied with this equipment has a detachable fuse cover, be sure to attach the fuse cover after you change the fuse. Never use the plug without the fuse cover. If you should lose the fuse cover, please contact your nearest Sony service station.

Attention for the Customers in Europe

This product has been tested and found compliant with the limits sets out in the EMC Directive for using connection cables shorter than 3 meters (9.8 feet).

Attention

The electromagnetic fields at the specific frequencies may influence the picture of this camera.

Notice

If static electricity or electromagnetism causes data transfer to discontinue midway (fail), restart the application or disconnect and connect the USB cable again.

Certain countries may regulate disposal of the battery used to power this product. Please consult with your local authority.

"Memory Stick"

CE N50

For the Customers in the U.S.A.

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.

For the Customers in Canada

THIS CLASS B DIGITAL APPARATUS COMPLIES WITH CANADIAN ICES-003.

Trial recording

Before you record one-time events, you may want to make a trial recording to make sure that the camera is working correctly.

No compensation for contents of the recording

Contents of the recording cannot be compensated for if recording or playback is not possible due to a malfunction of your camera or recording media, etc.

Back up recommendation

To avoid the potential risk of data loss, always copy (back up) data to a disk.

Notes on image data compatibility

- This camera conforms with the Design rule for Camera File system universal standard established by the JEITA (Japan Electronics and Information Technology Industries Association).
- Playback of images recorded with your camera on other equipment and playback of images recorded or edited with other equipment on your camera are not guaranteed.

Notes on “Memory Stick Duo”

- There are two types of “Memory Stick”: a normal size “Memory Stick” and a smaller version called a “Memory Stick Duo.” You can use only a “Memory Stick Duo” in this camera.
- This camera turns off whenever you open the battery/“Memory Stick Duo” cover. Do not open the battery/“Memory Stick Duo” cover while the access lamp is lit.

Precaution on copyright

Television programs, films, video tapes, and other materials may be copyrighted. Unauthorized recording of such materials may be contrary to the provision of the copyright laws.

Do not shake or strike the camera

In addition to malfunctions and inability to record images, this may render the “Memory Stick Duo” unusable or image data breakdown, damage or loss may occur.

LCD screen, LCD finder (only models with an LCD finder) and lens

- The LCD screen and the LCD finder are manufactured using extremely high-precision technology so over 99.99% of the pixels are operational for effective use. However, there may be some tiny black points and/or bright points (white, red, blue or green in color) that constantly appear on the LCD screen and the LCD finder. These points are normal in the manufacturing process and do not affect the recording in any way.
- Be careful when placing the camera near a window or outdoors. Exposing the LCD screen, the LCD finder or the lens to direct sunlight for long periods may cause malfunctions.
- Do not press the LCD screen hardly. The screen may be uneven and that may cause a malfunction.
- Images may be trailed on the LCD screen in a cold location. This is not a malfunction.
- Replace the lens section when not using the camera.

Clean the flash surface before use

The heat of flash emission may cause dirt on the flash surface to become discolored or to stick to the flash surface, resulting in insufficient light emission.

Do not get the camera wet

When taking pictures outdoors in the rain or under similar conditions, be careful not to get the camera wet. If moisture condensation occurs, see page 80 and follow the instructions on how to remove it before using the camera.

Do not expose the camera to sand or dust

Using the camera in sandy or dusty locations may cause malfunction.

Note on the camera locations

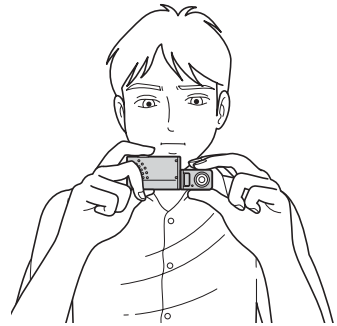
Do not use the camera near a location that generates strong radio wave or emits radiation. The camera may not be able to record or play back properly.

The pictures used in this manual

The photographs used as examples of pictures in this manual are reproduced images, and are not actual images shot using this camera.

Trademarks

- "Memory Stick Duo" and MEMORY STICK DUO are trademarks of Sony Corporation.
- "Memory Stick PRO Duo" and MEMORY STICK PRO DUO are trademarks of Sony Corporation.
- "MagicGate Memory Stick Duo" is a trademark of Sony Corporation.
- "Memory Stick," MEMORY STICK, and "MagicGate Memory Stick" are trademarks of Sony Corporation.
- "Memory Stick PRO" and MEMORY STICK PRO are trademarks of Sony Corporation.
- "MagicGate" and MAGICGATE are trademarks of Sony Corporation.
- Microsoft and Windows are registered trademarks of the U.S. Microsoft Corporation in the United States and other countries.
- Macintosh, Mac OS, iBook and Power Mac are trademarks or registered trademarks of Apple Computer, Inc.
- Pentium is a trademark or a registered trademark of Intel Corporation.
- In addition, system and product names used in this manual are, in general, trademarks or registered trademarks of their respective developers or manufacturers. However, the ™ or ® marks are not used in all cases in this manual.



- When shooting an image with the camera, be careful not to obstruct the flash or the lens with your fingers.
- You can rotate the lens section to photograph yourself (page 23).

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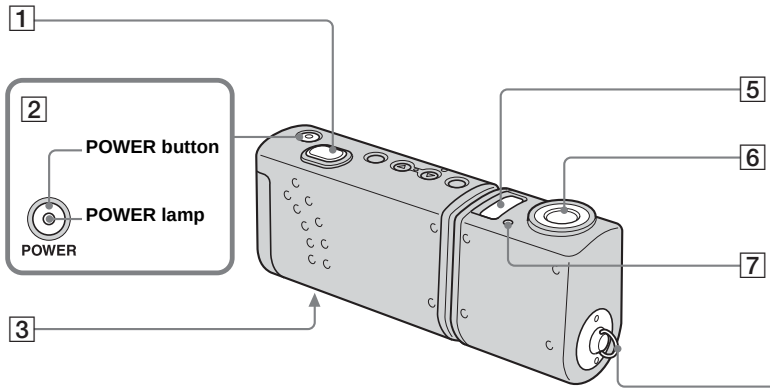
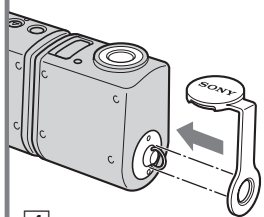
Identifying the parts

See the pages in parentheses for details of operation.

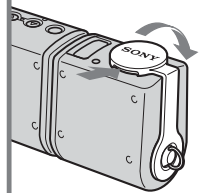


1 **Shutter button** (20)
2 **POWER button/POWER lamp** (14)
3 **RESET button (bottom surface)** (67)
4 **Lens cap**
5 **Flash** (24)
6 **Lens**
7 **Self-timer lamp** (23)
8 **Hook for neck strap**

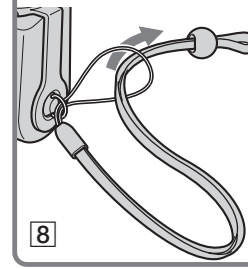
Attaching the lens cap

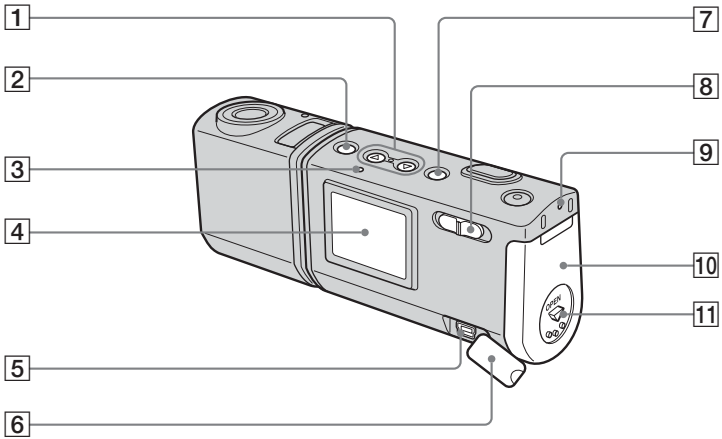


Opening the lens cap



Attaching the neck strap





1 **Control buttons**
Menu on: ▲/▼ (15)
Menu off: ϟ/SCENE (24, 28)
2 **MENU button** (15)
3 **ϟ (Flash charge) lamp (orange)** (24)
4 **LCD screen**
5 **USB jack** (57)
6 **Ψ (USB) jack cover**
7 **EXEC/Q (Enlarged playback) button** (15, 39)
8 **Mode switch**
▶: To view images (35)
📷: To shoot still images (20)
To shoot images continuously (31)
🎞: To shoot movies (46)
9 **Access lamp** (17)
10 **Battery/"Memory Stick Duo" cover**
11 **OPEN button** (12)

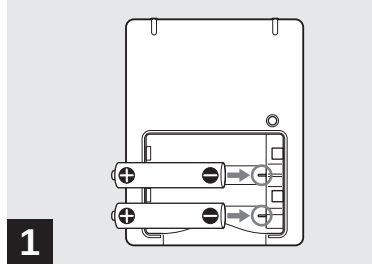
Acceptable batteries

– HR11/45: HR03 (size AAA) Nickel-Metal Hydride batteries (2)
  NH-AAA-DA (2) (supplied)
  NH-AAA-2DA twin-pack (not supplied)
– R03 (size AAA) alkaline batteries (2)

Batteries that cannot be used

Manganese batteries, lithium batteries, Ni-Cd batteries
When the above batteries are used, operation is not guaranteed due to possible voltage drops or other characteristics of the batteries.
In addition, the battery remaining indicator is not displayed correctly.

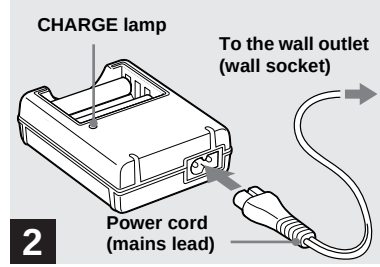
- **When alkaline batteries are used, take note of the following information.**
  – The battery life is shorter than that of the supplied Nickel-Metal Hydride batteries.
  – There is a big difference in the performance of batteries of different types and of batteries made by different manufacturers. The battery life may be quite a bit shorter depending on the conditions under which the batteries are used. This is especially true in low temperatures, where some batteries are noticeably weaker.
  You may not be able to shoot in temperatures below 5°C (41°F).
  – The battery remaining indicator may not display the correct information.



➡ **Insert Nickel-Metal Hydride batteries into the battery charger (supplied) with the correct polarity +/–.**

For details on the supplied battery charger, see page 84.

- **The supplied battery charger is only for Nickel-Metal Hydride batteries. You cannot charge any other type of battery.**
- Be sure to charge the Nickel-Metal Hydride batteries supplied with your camera before using them for the first time.
- Connect the battery charger to an easily accessible wall outlet (wall socket) close by.



➡ **Connect the battery charger to a wall outlet (wall socket) using the power cord (mains lead).**

The CHARGE lamp lights up when charging begins, and goes off when charging is completed.

- Even if the CHARGE lamp is not lit, the battery charger is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet (wall socket). If some trouble occurs while using the battery charger, immediately shut off the power by disconnecting the plug from the wall outlet (wall socket).
- When charging is finished, disconnect the power cord (mains lead) from the wall outlet (wall socket), and remove the Nickel-Metal Hydride batteries from the battery charger.

Charging time

Nickel-Metal Hydride battery	Charging time
NH-AAA-DA × 2 (supplied)	Approx. 6 hours

This represents the time required to charge fully depleted Nickel-Metal Hydride batteries using the supplied battery charger in an environment where the ambient temperature is 25°C (77°F).

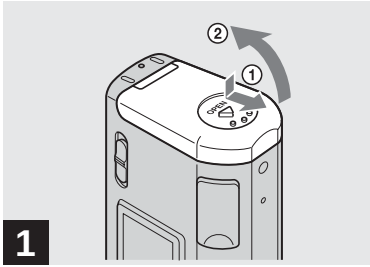
- It takes about six hours to completely charge the batteries. The CHARGE lamp may remain lit longer than six hours, but this is not a malfunction.
- If you use the BC-CSQ2 battery charger supplied with the STAMINA "Super Quick charge" kit (not supplied), the batteries will charge faster.
  Charging time for Size AAA Nickel-Metal Hydride batteries
  2 batteries: Approx. 1 hour 25 minutes
  4 batteries: Approx. 2 hours 50 minutes

Notes on the Nickel-Metal Hydride batteries

- If the poles of the Nickel-Metal Hydride batteries are dirty, the batteries may not charge properly. Occasionally clean the poles of the batteries and the terminals of the charger by wiping them with a dry cloth.
- Always use the supplied case when transporting the Nickel-Metal Hydride batteries. If the positive and negative terminals come into contact with metallic material and are shorted, the batteries could overheat or catch fire.
- At the time of purchase, or when the Nickel-Metal Hydride batteries have not been used for a long time, they may not fully charge. This is typical of this type of battery, and is not a malfunction. If this happens, repeatedly using up the batteries fully, and then charging them, should correct the problem.
- Even when Nickel-Metal Hydride batteries are not being used they lose their charge naturally over time. It is recommended that you recharge the batteries just before using them.
- If you recharge Nickel-Metal Hydride batteries before fully using up the existing charge, the low battery warning may be displayed sooner than expected. This is called the "memory effect."* If this problem occurs, charging the batteries only after using up the existing charge will correct it.

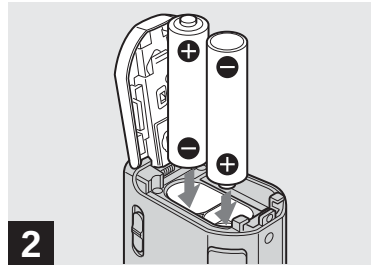
  * The "memory effect" – the situation in which the capacity of the battery is temporarily lowered.

- Do not peel off the external seals or damage the batteries. Never use batteries from which the seals have been partially or completely removed, or batteries that have been split in any way. These may cause leakage, explosion, or heat-up of the battery, and personal scald or injury may be caused. These may cause a malfunction of the battery charger.



➡ **Open the battery/“Memory Stick Duo” cover.**

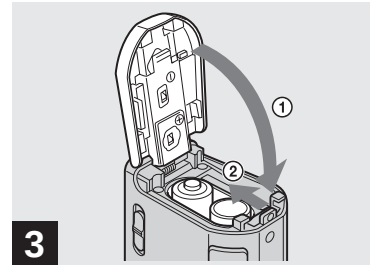
Hold the camera with the battery/“Memory Stick Duo” cover up, then slide the cover in the direction of the arrow ① while pressing OPEN. The battery/“Memory Stick Duo” cover opens in the direction of the arrow ②.



➡ **Insert the batteries.**

Match the +/– poles of the batteries to the +/– marks inside the battery case.

- From time to time, use a dry cloth to wipe any dirt off of the battery terminals and the contacts on the battery/“Memory Stick Duo” cover. Skin oil and other dirt on the battery terminals and contacts can significantly shorten the operating time provided by the batteries.



➡ **Close the battery/“Memory Stick Duo” cover.**

Close the battery/“Memory Stick Duo” cover while holding the batteries in. Make sure the cover is closed securely.

To remove the batteries

Hold the camera with the battery/“Memory Stick Duo” cover facing upward, open the cover, and remove the batteries.

- Be careful not to drop the batteries when opening or closing the battery/“Memory Stick Duo” cover.

Battery remaining indicator (When using Nickel-Metal Hydride batteries)

As the battery power decreases with use, the battery remaining indicator displays the amount of power remaining using the following symbols.

Battery remaining indicator	Battery remaining guidelines
	Sufficient power remaining
	Battery half full
	Battery low, recording/ playback will stop soon.
	Change the batteries for fully charged ones, or charge these batteries. (The warning indicator flashes.)

- If the LCD screen display is off, set [DISPLAY] in [▭] to [ON] to check the amount of power remaining.
- Based on the conditions under which the camera is being used and the state of the charge, or on the environment, this information may not be correctly indicated.
- The battery remaining indicator is not displayed in USB connecting.

Battery life and number of images that can be recorded/ viewed

The tables show the approximate battery life and the number of images that can be recorded/viewed with fully charged batteries at a temperature of 25°C (77°F) in auto adjustment mode. The numbers of images that can be recorded/viewed take into account changing the supplied "Memory Stick Duo" as necessary. Note that the actual numbers may be less than indicated depending on the conditions of use.

Shooting still images

Under the average conditions[1)]

Nickel-Metal Hydride batteries

Image size	NH-AAA-DA (2) (supplied)		
	LCD LIGHT	No. of images	Battery life (min.)
2M	ON	Approx. 160	Approx. 80
	OFF	Approx. 170	Approx. 85
VGA	ON	Approx. 160	Approx. 80
	OFF	Approx. 170	Approx. 85

Alkaline batteries

Image size	R03 (size AAA) alkaline batteries (2) (not supplied)		
	LCD LIGHT	No. of images	Battery life (min.)
2M	ON	Approx. 50	Approx. 25
	OFF	Approx. 60	Approx. 30
VGA	ON	Approx. 50	Approx. 25
	OFF	Approx. 60	Approx. 30

- When using Sony alkaline batteries

1) Shooting in the following situations:
   – Shooting one time every 30 seconds
   – The flash strobes once every two times
   – The power turns on and off once every ten times.

Viewing still images[2)]

Image size	NH-AAA-DA (2) (supplied)	
	No. of images	Battery life (min.)
2M	Approx. 3600	Approx. 180
VGA	Approx. 3600	Approx. 180

2) Viewing single images in order at about 3-second intervals with [LCD LIGHT] set to [ON]

Shooting movies[3)]

NH-AAA-DA (2) (supplied)		
	LCD LIGHT	**Battery life (min.)**
Continuous recording	ON	Approx. 90
	OFF	Approx. 100

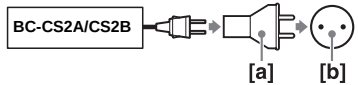
3) Shooting continuously at 160×112 image size

- The remaining indicator will decrease under the following conditions:
  – The surrounding temperature is low
  – The flash is used
  – The camera has been turned on and off many times
  – [LCD LIGHT] is set to [ON]
  – The battery capacity decreases as you use it more and more and as time passes (page 83).

Using your camera abroad

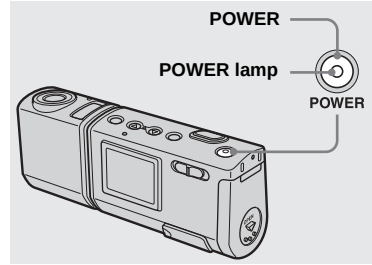
Power sources

You can use your camera in any country or region with the supplied battery charger within 100 V to 240 V AC, 50/60 Hz. Use a commercially available AC plug adaptor **[a]**, if necessary, depending on the design of the wall outlet (wall socket) **[b]**.



- Do not use an electronic transformer (travel converter), as this may cause a malfunction.

Turning on/off your camera



➡ **Press POWER.**

The POWER lamp (green) lights up and the power is on. When you turn on your camera for the first time, the DATE NOTATION screen appears on the LCD screen (page 15).

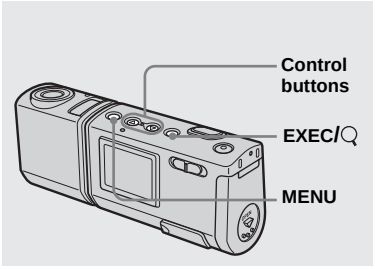
To turn off the power

Press POWER again. The POWER lamp goes out, and the camera turns off.

Auto power-off function

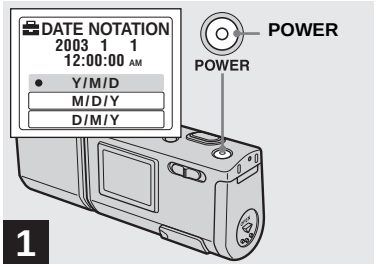
If you do not operate the camera for about three minutes, the camera turns off automatically to prevent wearing down the batteries.
However, the auto power-off function will not operate when the camera is connected to a computer with the USB cable.

How to use the buttons



To change the current settings of the camera, bring up the menu, and use the control buttons to make the changes.
For each item, press MENU to display the menu and press the control buttons ▲/▼ to select the desired value, then press EXEC to make the setting.
Press MENU, then the menu disappears from the LCD screen.

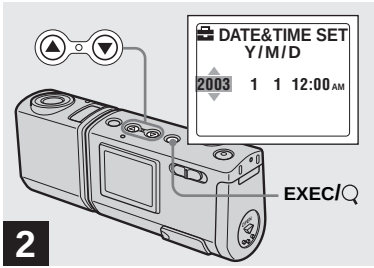
Setting the date and time



➡ Press POWER to turn on the power.

The POWER lamp (green) lights up and the DATE NOTATION screen appears on the LCD screen.

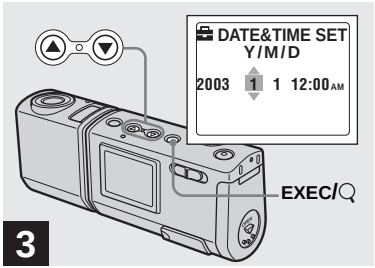
- To change the date and time, press MENU and select [DATE&TIME SET] in [CLOCK SET] under [🧰] (page 79), then perform step 3. When the setting is complete, press MENU so that the CLOCK SET screen disappears from the LCD screen.
- This operation is available no matter what position the mode switch is in.



➡ **Select the desired date display format with the control buttons ▲/▼, then press EXEC.**

Select from [Y/M/D] (year/month/day), [M/D/Y] (month/day/year) or [D/M/Y] (day/month/year). Then DATE&TIME SET screen appears on the LCD screen.

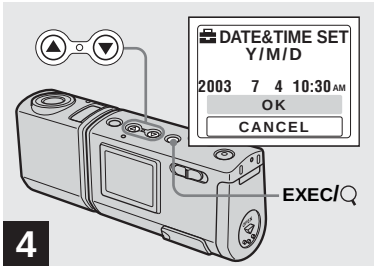
- If the rechargeable button battery, which provides the power for saving the time data, is ever fully discharged (page 81), the DATE NOTATION screen will appear again. When this happens, reset the date and time, by starting from step **2**.



➡ **Set the numeric value with the control buttons ▲/▼, then press EXEC.**

The item to be set is indicated with ▲/▼. After entering the number, ▲/▼ moves to the next item. Repeat this step until all of the items are set.

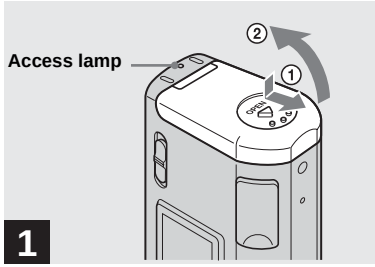
- Midnight is displayed as 12:00AM and noon is displayed as 12:00PM.
- If you selected [D/M/Y] in step **2**, set the time on a 24-hour cycle.



➡ **Select [OK] with the control button ▲, then press EXEC.**

The date and time are entered and the clock starts to keep time.

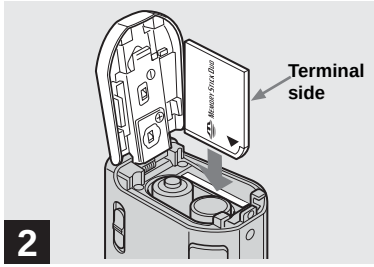
- If you make a mistake, select [CANCEL] in step **4** to display the DATE NOTATION screen, then repeat the procedure from step **2**.
- To cancel the date and time setting, select [CANCEL], then press EXEC.



➡ Open the battery/“Memory Stick Duo” cover.

Hold the camera with the battery/“Memory Stick Duo” cover up, then slide the cover in the direction of the arrow ① while pressing OPEN. The battery/“Memory Stick Duo” cover opens in the direction of the arrow ②.

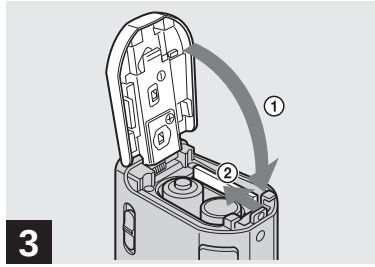
- **When the access lamp is lit up, it means that image data is being read or written. Never open the battery/“Memory Stick Duo” cover or turn off the power at this time, as the data may be damaged.**
- For details on the “Memory Stick Duo,” see page 82.



➡ Insert the “Memory Stick Duo.”

Holding the “Memory Stick Duo” as shown in the illustration, insert it all the way in until it clicks.

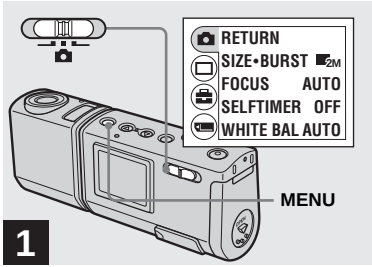
- Push the “Memory Stick Duo” all of the way in so that it is securely seated in the connector. If the “Memory Stick Duo” is not inserted correctly, you may not be able to record or display images in the “Memory Stick Duo.”
- Be careful not to drop the batteries when opening or closing the battery/“Memory Stick Duo” cover.



➡ Close the battery/“Memory Stick Duo” cover.

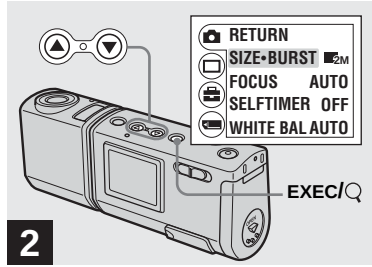
To remove a “Memory Stick Duo”

Open the battery/“Memory Stick Duo” cover, then push the “Memory Stick Duo” to pop it out.



➡ **Set the mode switch to 📷, and turn on the power, then press MENU.**

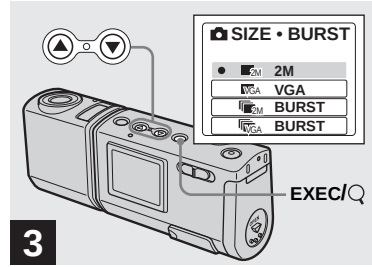
The menu appears on the LCD screen.



➡ **Select [📷] with the control button ▲, then press EXEC. Select [SIZE·BURST] with the control buttons ▲/▼, then press EXEC.**

The image size is displayed.

- For details on the image size, see page 19.



➡ **Select the desired image size with the control buttons ▲/▼, then press EXEC.**

The image size is set.
When you press MENU, the menu disappears and the indicator is displayed on the LCD screen.

- The image size selected here is maintained even when the power is turned off.

Image size

You can choose the image size (number of pixels) according to the kind of images you want to shoot. The larger you make the image size, the better your image, but also the larger the amount of data needed to preserve your image. This means you can save fewer images in your “Memory Stick Duo.”
Choose an image size appropriate for the kind of images you want to shoot.
You can choose from the following table. The image sizes given below are the minimum image sizes appropriate for each example.

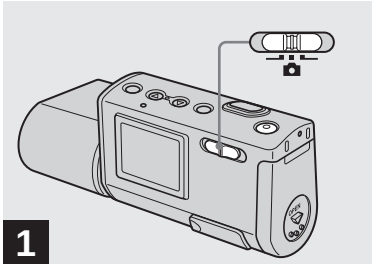
Image size		Examples
2M	1632×1224	Printing A5 size images
VGA	640×480	Creating home pages

Number of images that can be saved in a “Memory Stick Duo”

(Units: number of images)

Capacity / Image size	8MB	16MB	32MB	64MB	128MB	MSX-M256	MSX-M512
2M	14	29	60	122	245	445	906
VGA	80	161	326	656	1316	2380	4840

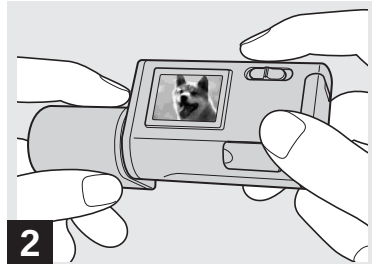
- When the images recorded using earlier Sony models are played back, the image size indication may be different from the actual image size.
- Images viewed on the LCD screen of the camera all appear the same size.
- The actual number of images may differ depending on the shooting conditions.
- When the number of remaining shooting images is greater than 9,999, >9999 indicator appears on the LCD screen.



➡ Set the mode switch to 📷, and turn on the power.

The name of the folder where the image will be recorded appears on the LCD screen for approximately five seconds.

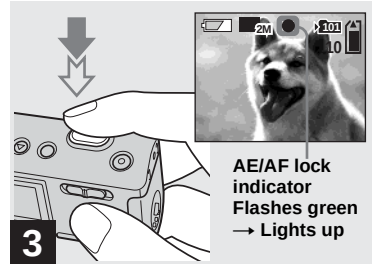
- [FOCUS] is set to [AUTO] at the factory.
- The exposure is automatically adjusted.
- This camera can create new folders and select folders to be stored in the “Memory Stick Duo” (page 25).



➡ Hold the camera steadily with both hands and position the subject in the center of the LCD screen.

Do not cover the lens or flash with your fingers.

- When recording outdoors during clear weather or under other intense light, undesired light (ghosting) may enter the screen. If this happens, shade the lens with your hand or other object while recording.
- The exposure and focus are adjusted to the center of the LCD screen.



➡ Press and hold the shutter button halfway down.

A beep sounds. When the AE/AF lock indicator changes from flashing to light-up, the camera is ready for shooting.

- If you release the shutter button, the recording will be canceled.
- When the camera does not beep, the AF adjustment is not complete. You can continue to shoot, but the focus is not adjusted properly.
- This camera employs an auto-macro AF function. The minimum focal distance to the subject is 10 cm (4 inches).

➡ **Press the shutter button fully down.**

A beep sounds. When “RECORDING” disappears from the LCD screen, recording is complete. The image will be recorded in the “Memory Stick Duo,” and you can shoot the next image.

- If you do not operate the camera for about three minutes during recording or playback, the camera turns off automatically to prevent wearing down the batteries (page 15).

Auto Focus

When you try to shoot a subject that is difficult to focus on, the AE/AF lock indicator changes to flashing slowly. The Auto Focus function may have difficulty working under the following conditions. In such cases, release the shutter button, then recompose the shot and focus again. If the Auto Focus function can still not bring the subject into focus, use the Focus preset function (page 30).

- The subject is distant from the camera and dark.
- The contrast between the subject and its background is poor.
- The subject is seen through glass, such as a window.
- A fast-moving subject.
- The subject reflects or has a lustrous finish, such as a mirror or a luminous body.
- A flashing subject.
- A backlit subject.

LCD light

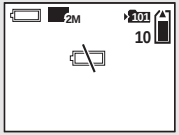
You can use [LCD LIGHT] under [▭] with MENU and the control buttons ▲/▼ to turn the LCD light on and off. This is useful for extending the battery life.
We recommend that you set [LCD LIGHT] to [OFF] when using alkaline batteries.

- This camera is equipped with a Hybrid-type LCD screen that allows you to see the LCD screen even when the LCD light is turned off, as long as there is some ambient illumination.
- Even if the LCD light setting is [OFF], the LCD light will turn on when menu operations are being performed. When the menu operation is completed, the LCD light will turn off again.

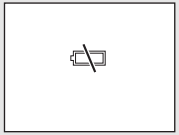
LCD screen display during shooting

You can use [DISPLAY] under [▭] with MENU and the control buttons ▲/▼ to turn the display on and off. This is useful when recording under conditions where it is difficult to check the image on the LCD screen.

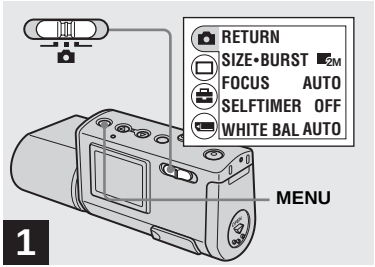
When [DISPLAY] is [ON]
All indicators are displayed.



When [DISPLAY] is [OFF]
Warning messages, etc. are displayed.



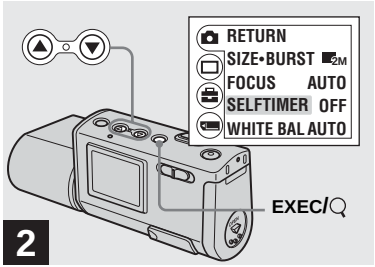
- For detailed descriptions of the indicators, see page 86.
- Indicators on the LCD screen are not recorded.



➡ **Set the mode switch to 📷, and press MENU.**

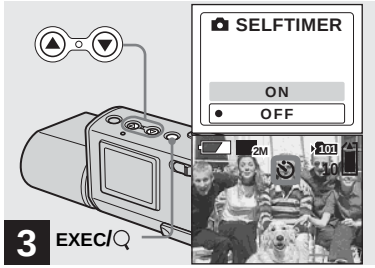
The menu appears on the LCD screen.

- You can also carry out this operation when the mode switch is set to 🎞.



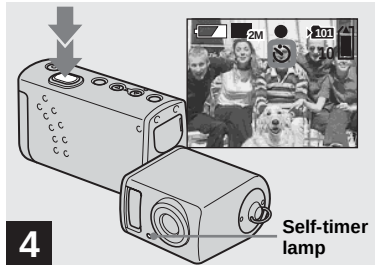
➡ **Select [📷] with the control button ▲, then press EXEC. Select [SELFTIMER] with the control buttons ▲/▼, then press EXEC.**

- When the mode switch is set to 🎞, select [🎞] with the control button ▲.



➡ **Select [ON] with the control button ▲, then press EXEC.**

When you press MENU, the menu disappears and the (self-timer) indicator appears on the LCD screen.



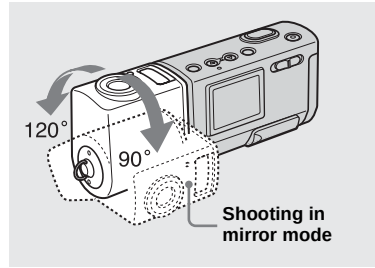
➡ **Center the subject in the LCD screen and press the shutter button fully down.**

The self-timer lamp flashes red and a continuous beep sounds. The image will be shot after approximately 10 seconds.

To cancel the self-timer in the middle of the operation

Press POWER to turn off the power.

- If you press the shutter button while standing in front of the camera, the focus and the exposure may not be correctly set.



➡ **Adjust the lens section angle.**

You can rotate the lens section up to 120 degrees frontward. When shooting in mirror mode, you can rotate it up to 90 degrees backwards.

When shooting in mirror mode, the image on the LCD screen is a mirror-image. However, the image will be normal when recorded.

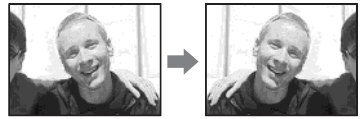
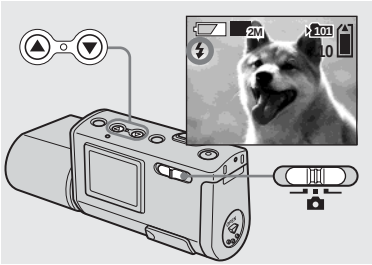


Image on the LCD screen **Recorded image**

- When you look at an image recorded in mirror mode on your computer, the image may be displayed inverted by 180 degrees, depending on the software you use (page 72).



➡ **Set the mode switch to 📷, and press the control button ▲ (⚡) repeatedly to select a flash mode.**

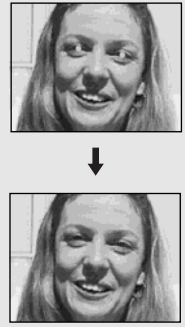
Each time you press ▲ (⚡), the indicator changes as follows.

No indicator (Auto): Based on the lighting conditions, the camera will decide if there is enough light, and will use the flash accordingly.
(Red-eye reduction): Flash mode is set to Auto, and the red-eye reduction operates if the flash strobes.
⚡ (Forced flash): The flash strobes regardless of the surrounding brightness.
(No flash): The flash does not strobe.

- You cannot use the flash in the Burst mode.
- If the menu is currently displayed, press MENU first so that the menu disappears.
- The recommended shooting distance using the flash is approximately 0.5 m to 1.8 m (1 foot 7 3/4 inches to 5 feet 10 3/4 inches). The recommended shooting distance for (Red-eye reduction) is approximately 0.5 m to 1.5 m (1 foot 7 3/4 inches to 4 feet 11 inches).
- When using the Auto, (Red-eye reduction) or ⚡ (Forced flash) mode, you may notice some noise in the image when you look at the LCD screen in a dark place, but this will have no effect on the shot image.
- While you are using (No flash) mode, the shutter speed is slower in a dark place. Be careful not to allow your hand to shake while holding the unit.
- While charging the flash, the ⚡ (Flash charge) lamp flashes. After the charging is complete, the lamp goes out.
- This setting is maintained even when the power is turned off.

Red-eye reduction

The flash pre-strobes before shooting to reduce the red-eye phenomenon.



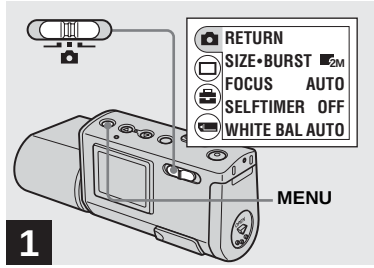
- Red-eye reduction may not produce the desired effects depending on individual differences, the distance to the subject, if the subject does not see the pre-strobe, or other conditions.

Creating or selecting a folder

Your camera can create multiple folders in a “Memory Stick Duo.” Also, you can select the folder used to store images. When not creating a new folder, “101MSDCF” folder is selected as the recording folder.
You can create folders up to “999MSDCF.”

- Up to 4,000 images can be stored in one folder. When the folder capacity is exceeded, a new folder is automatically created.

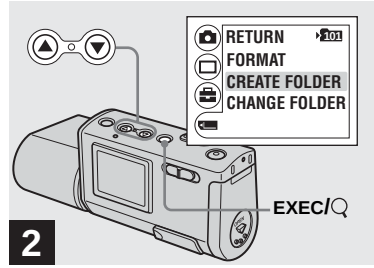
Creating a new folder



➡ Set the mode switch to 📷, and turn on the power, then press MENU.

The menu appears on the LCD screen.

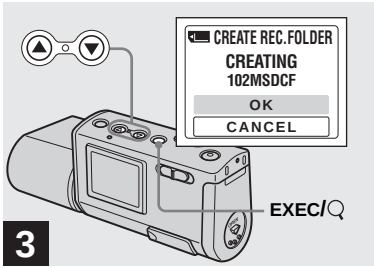
- You can also carry out this operation when the mode switch is set to 🎞.
- You cannot specify the number of a new folder that you create.



➡ Select [📁] with the control button ▼, then press EXEC. Select [CREATE FOLDER] with the control buttons ▲/▼, then press EXEC.

The CREATE REC. FOLDER screen appears.

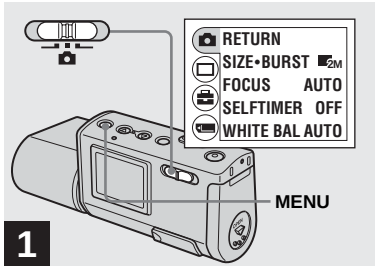
- Once you create a new folder, you cannot delete the new folder with the camera.
- Images are recorded in the newly created folder until a different folder is created or selected.



➡ **Select [OK] with the control button ▲, then press EXEC.**

A new folder is created with a number one higher than the largest number in the "Memory Stick Duo," and the folder becomes the recording folder.
When you press MENU, the menu disappears and the created folder is displayed.

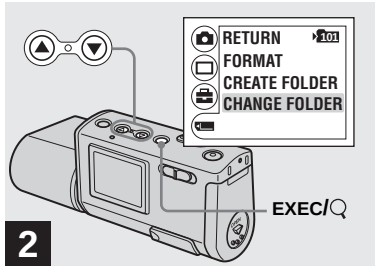
To cancel folder creation
Select [CANCEL] in step 3.



➡ **Set the mode switch to , then press MENU.**

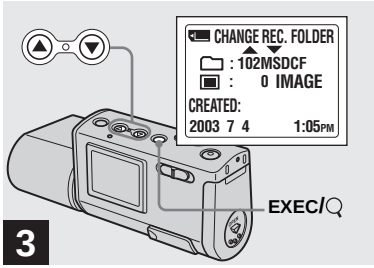
The menu appears on the LCD screen.

- You can also carry out this operation when the mode switch is set to .



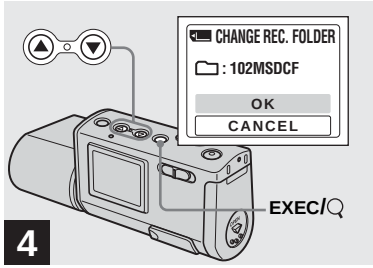
➡ **Select [ ] with the control button ▼, then press EXEC. Select [CHANGE FOLDER] with the control button ▼, then press EXEC.**

The CHANGE REC. FOLDER screen appears.



➡ **Select the desired folder with the control buttons ▲/▼, then press EXEC.**

- You cannot select the “100MSDCF” folder as a recording folder.
- The image is stored in the newly selected folder. You cannot move recorded images to a different folder with this camera.



➡ **Select [OK] with the control button ▲, then press EXEC.**

When you press MENU, the menu disappears and the selected folder is displayed.

To cancel changing the recording folder

Select [CANCEL] in step **4**.

When shooting portraits, landscapes, twilight scenes, twilight portraits, or moving subjects, use the modes below to improve the quality of your images.

Soft snap mode

This mode lets you shoot skin colors in brighter and warmer tones for more beautiful pictures. In addition, the soft focus effect creates a gentle atmosphere for portraits of people, flowers, etc.

Illumination snap mode

This mode lets you capture beautiful images of both subjects and night scene backgrounds at the same time. In addition, the cross filter effect enhances street lamps or other lights with cross-shaped rays.

- Note that as shutter speeds decrease, shaking increases.
- The flash strobes in red-eye reduction mode.
- When setting the focus to [AUTO], the focus is adjusted to approximately 1 m to ∞ (infinite). To record subjects closer than 1 m, use the Focus preset (page 30).

Twilight mode

This mode lets you shoot night scenes at far distances without losing the dark atmosphere of the surroundings.

- Note that as shutter speeds decrease, shaking increases.
- The focus setting changes to [▲ ∞].
- The flash cannot be used in this mode.
- When the focus setting is set to [AUTO], the focus is adjusted to telephoto.

Vivid nature mode

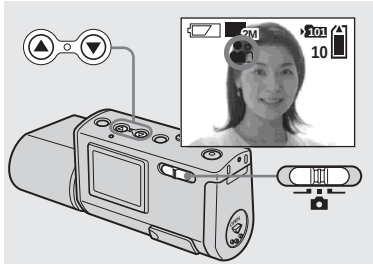
This mode enhances blues and greens such as the sky, ocean and mountains, letting you shoot natural landscapes with vivid, striking colors.

- The focus setting changes to [∞].
- The flash cannot be used in this mode.
- When the focus setting is set to [AUTO], the focus is adjusted to telephoto.

Active outdoor mode

This mode lets you stop the movement of your subject and get lively shots of those moving objects in bright outdoor conditions.

- When setting the focus to [AUTO], the focus is adjusted to approximately 1 m to ∞ (infinite).



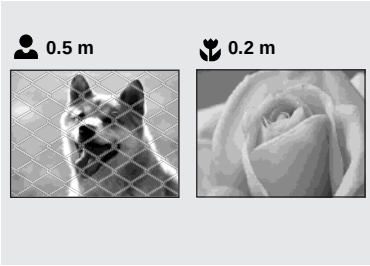
➡ Set the mode switch to 📷, and turn on the power.
Press the control button ▼ (SCENE) repeatedly to select a desired mode.

Each time you press ▼ (SCENE), the indicator changes as follows:
(Soft snap mode) → (Illumination snap mode) → (Twilight mode) → (Vivid nature mode) → (Active outdoor mode) → No indicator (Auto)

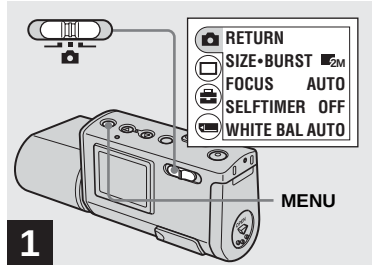
To cancel Scene Selection

Press ▼ (SCENE) repeatedly to set to No indicator (Auto).

- If the menu is currently displayed, press MENU first so that the menu disappears.
- You cannot use the Scene Selection when shooting movies.
- The setting selected here returns to Auto when the power is turned off.



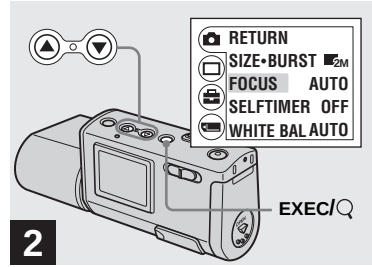
When shooting an image using a previously set distance to the subject, or when shooting a subject through a net or window glass, it is difficult to achieve a proper focus using the auto focus function. The Focus preset is useful in these cases.



➡ **Set the mode switch to 📷, and turn on the power, then press MENU.**

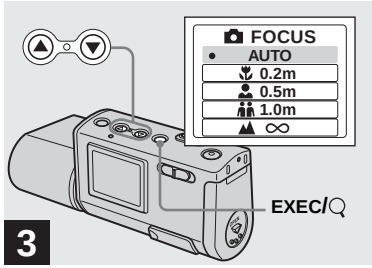
The menu appears on the LCD screen.

- You can also carry out this operation when the mode switch is set to 🎞.



➡ **Select [📷] with the control button ▲, then press EXEC. Select [FOCUS] with the control buttons ▲/▼, then press EXEC.**

- When the mode switch is set to 🎞, select [🎞] with the control button ▲.
- Focus setting information is approximate, and should be used as a reference.

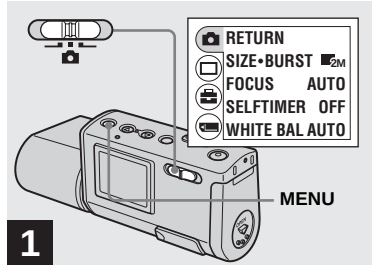


➡ **Select the desired focus setting with the control buttons ▲/▼, then press EXEC.**

You can select from the following distance settings:
AUTO (No indicator), 0.2 m, 0.5 m, 1.0 m, and ∞ (infinity)
When you press MENU, the menu disappears and the indicator is displayed on the LCD screen.

To return to auto focus mode
Select [AUTO] in step **3**.

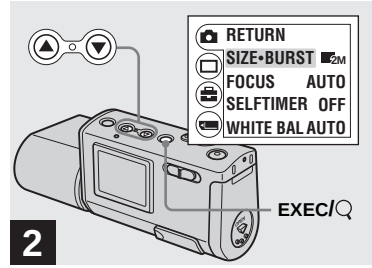
- The setting selected here returns to [AUTO] when the power is turned off.



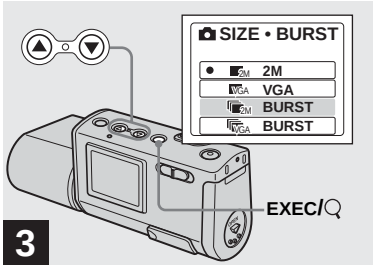
➡ **Set the mode switch to , and turn on the power, then press MENU.**

The menu appears on the LCD screen.

- You cannot use the flash in this mode.
- The recording interval is approximately 0.5 seconds. However, the recording interval may be longer in a dark place.



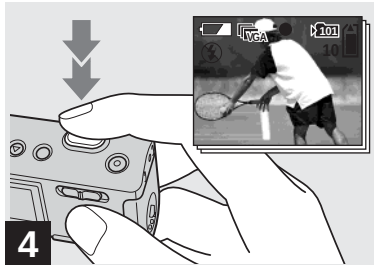
➡ **Select [] with the control button ▲, then press EXEC. Select [SIZE·BURST] with the control buttons ▲/▼, then press EXEC.**



➡ **Select [2M BURST] or [VGA BURST] with the control buttons ▲/▼, then press EXEC.**

The image size used for burst shooting is set.
Press MENU so that the menu disappears from the LCD screen.

- For details on the image size, see page 19.



➡ **Press the shutter button halfway down, then hold the shutter button fully down.**

Up to two images are recorded with 2M or up to ten images are recorded with VGA while you hold down the shutter button.

- If you release the shutter button in the middle of shooting, shooting will stop at that point. Only the images that were shot while the shutter button was held down are recorded.

When the white balance is set to Auto, the white balance function works automatically, and the overall color balance is adjusted according to the shooting conditions. However, when you shoot under fixed conditions or special lighting conditions, you can manually adjust the white balance.

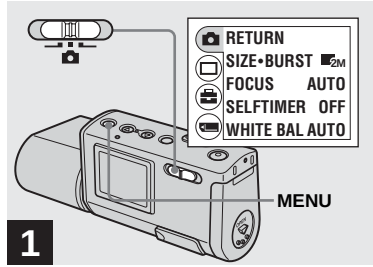
No indicator (Auto)
Adjusts the white balance automatically

☀ (Daylight)
Shooting outdoors, shooting night scenes, neon signs, fireworks or sunrises, or shooting just before and after sundown

☁ (Cloudy)
Shooting under a cloudy sky

(Fluorescent)
Shooting under fluorescent lighting

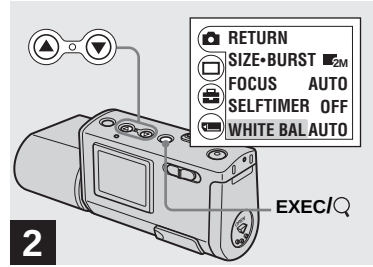
(Incandescent)
- Places where the lighting conditions change quickly
- Under bright lighting such as photography studios



➡ Set the mode switch to 📷, and turn on the power, then press MENU.

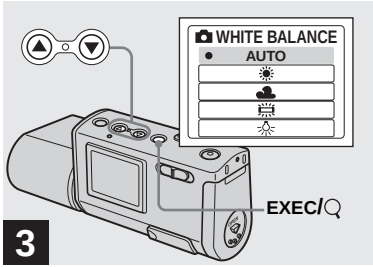
The menu appears on the LCD screen.

- You can also carry out this operation when the mode switch is set to 🎞.



➡ Select [📷] with the control button ▲, then press EXEC. Select [WHITE BAL] with the control button ▼, then press EXEC.

- When the mode switch is set to 🎞, select [🎞] with the control button ▲.
- Under fluorescent lights that flicker, the white balance adjustment function may not work correctly even though you select (fluorescent).



➡ **Select the desired mode with the control buttons ▲/▼, then press EXEC.**

When you press MENU, the menu disappears and the selected mode is displayed on the LCD screen.

To reactivate auto adjustment
Select [AUTO] in step **3**.

- When the flash strobes, the manual setting is canceled, and the image is recorded in the Auto mode.
- The mode you have selected here is maintained even when the power is turned off.

Shooting techniques

The image is affected by the lighting conditions. For example, the entire image appears blue under sunlight in the summer, and white items gain a reddish tint under incandescent light bulbs, etc. The human eye can resolve these problems, but digital still cameras cannot recognize the correct colors without adjustments.
Normally, the camera makes these adjustments automatically, but if recorded image colors appear unnatural, we recommend that you adjust the white balance.

Viewing still images on the LCD screen

Single (single-image) screen

Index (four-image) screen

You can view images shot with your camera almost immediately on the LCD screen. You can select the following two methods for viewing images.

Single (single-image) screen

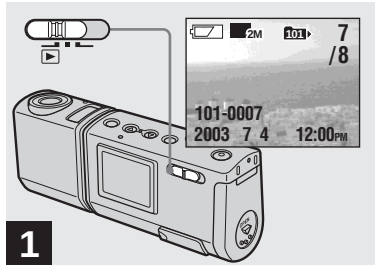
You can view one image at a time, displayed over the entire screen.

Index (four-image) screen

Four images are displayed simultaneously in separate panels on the screen.

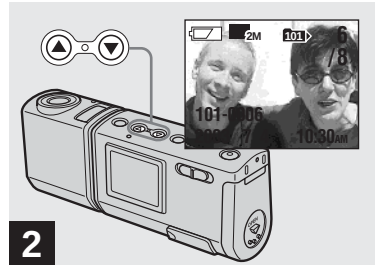
- For detailed descriptions of the screen indicators, see page 87.
- For details on viewing movies, see page 49.

Viewing single images



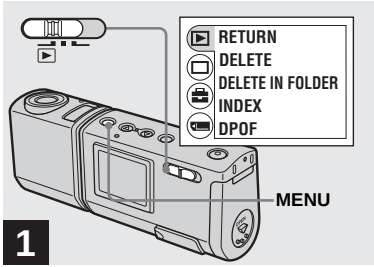
➡ Set the mode switch to ▶, and turn on the power.

The last image in the selected recording folder (page 26) appears on the LCD screen.



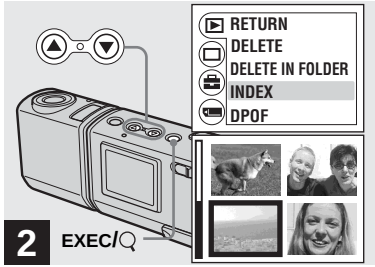
➡ Select the desired still image with the control buttons ▲/▼.

▲ : To display the preceding image
▼ : To display the next image



➡ **Set the mode switch to ▶, and press MENU.**

The menu appears on the LCD screen.



➡ **Select [▶] with the control button ▲, then press EXEC. Select [INDEX] with the control buttons ▲/▼, then press EXEC.**

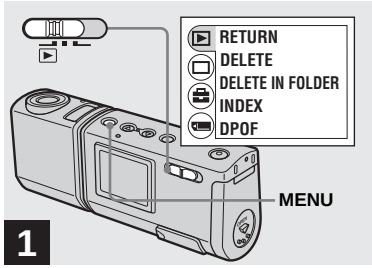
The display switches to the index (four-image) screen.

To display the next (previous) index screen

Press the control buttons ▲/▼ to move the yellow border.

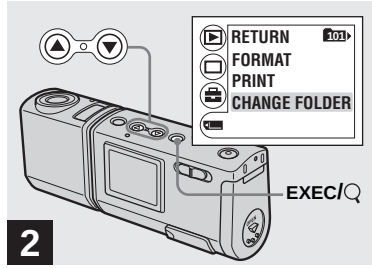
To return to the single-image screen

Select [SINGLE] in step **2**. Or when four frames are displayed, press EXEC to display the single image shown with the yellow border.



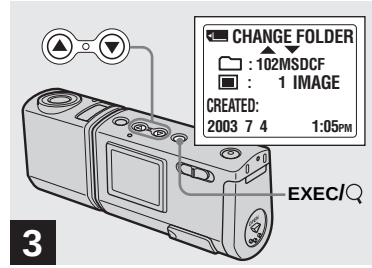
➡ **Set the mode switch to ▶, and turn on the power, then press MENU.**

The menu appears on the LCD screen.

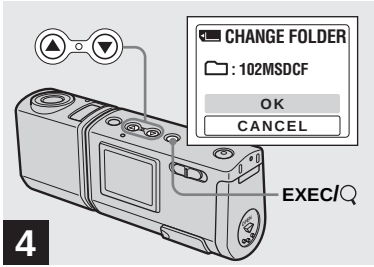


➡ **Select [ ] with the control button ▼, then press EXEC. Select [CHANGE FOLDER] with the control button ▼, then press EXEC.**

The CHANGE FOLDER screen appears.



➡ **Select the desired folder with the control buttons ▲/▼, then press EXEC.**



➡ **Select [OK] with the control button ▲, then press EXEC.**

When you press MENU, the menu disappears and the selected folder is displayed.

To cancel the selection

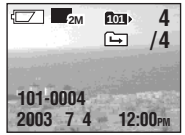
Select [CANCEL] in step **4**.

When multiple folders are created in the "Memory Stick Duo"

When the first or last image in the folder is displayed, the following indicators appear on the LCD screen.

: Moves to the previous folder.
: Moves to the next folder.
: Moves to both the previous and next folders.

Single (single-image) screen



Index (four-image) screen

- When no images are stored in the folder, "NO FILE IN THIS FOLDER" appears.
- You can play back images from the last-shot one without selecting the folder.

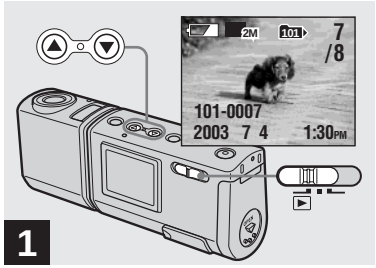
Enlarging an image — Enlarged playback

You can zoom in on an image shot with your camera to enlarge it to 2.5 or 5 times the original size.

1× (normal)

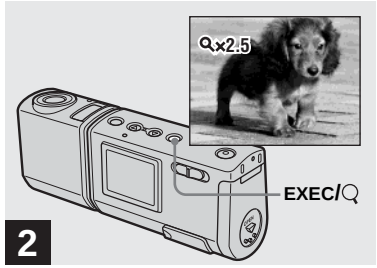
2.5×

5×



➡ **Set the mode switch to ▶, and turn on the power.**
Select the image you want to enlarge with the control buttons ▲/▼.

- Enlarged playback does not function for movies.
- You may not be able to enlarge images recorded using other devices.
- The enlarged image cannot be recorded as a new file.



➡ **Press EXEC/Q (Enlarged playback) repeatedly to select the desired enlargement level.**

The center of the screen is enlarged. Each time you press EXEC/Q (Enlarged playback), the enlargement level changes as follows.
2.5× ⟶ 5× ⟶ normal (no indicator) ⟶ ···

To cancel Enlarged playback

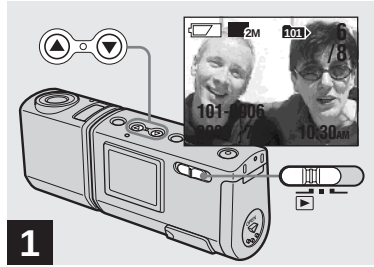
Press EXEC/Q (Enlarged playback) repeatedly to set to normal (no indicator).

- You can only enlarge the center of the screen.

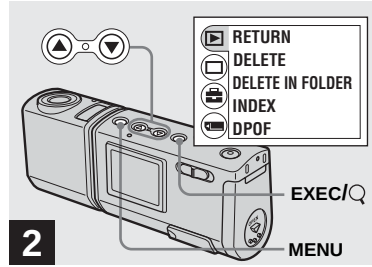
Choosing images to print — Print (DPOF) mark

You can mark still images shot with your camera that you want to have printed. This function is convenient when you have images printed at a shop or using a printer that conforms with the DPOF (Digital Print Order Format) standard.

- You cannot mark movies.
- You cannot specify the number of copies you want to have printed.



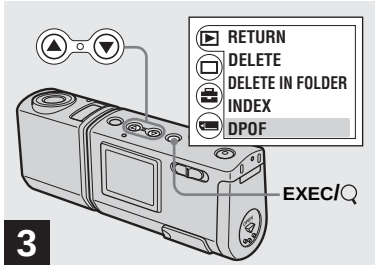
➡ **Set the mode switch to [▶], and turn on the power.**
Display the image you want to print with the control buttons ▲/▼.



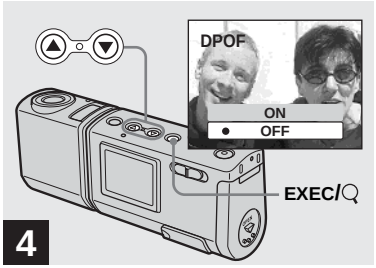
➡ **Press MENU, and select [▶] with the control button ▲, then press EXEC.**

To mark the print (DPOF) mark in index-image screen

Perform step 2 on page 36 and switch to index screen.



➡ **Select [DPOF] with the control button ▼, then press EXEC.**



➡ **Select [ON] with the control button ▲, then press EXEC.**

When you press MENU, the menu disappears and the mark is marked on the displayed image.

To unmark the print (DPOF) mark

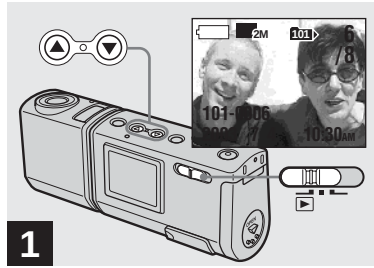
Select [OFF] in step 4. The mark disappears.

Connecting your camera to a PictBridge compliant printer

If you use a PictBridge compliant printer, you can easily print images shot with this camera even if you do not have a computer. All you need to do is to prepare for the connection in the menu of the camera, and then to connect the camera to the printer using a USB cable.

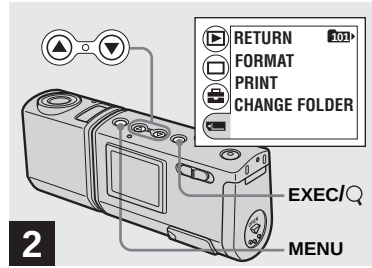
PictBridge

- Do not connect the camera to a printer in the following situations. Proper operation is not guaranteed.
  – The printer is not PictBridge compliant.
  – There is no battery in the camera, or there is insufficient power remaining in the batteries.

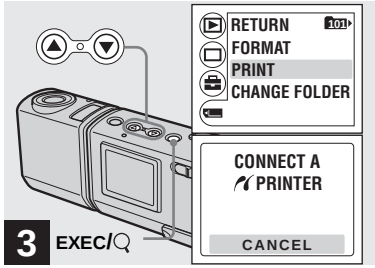


➡ **Set the mode switch to ▶, and turn on the power.**
Display the image you want to print with the control buttons ▲/▼.

Do not connect your camera to your printer at this time.



➡ **Press MENU, and select with the control button ▼, then press EXEC.**

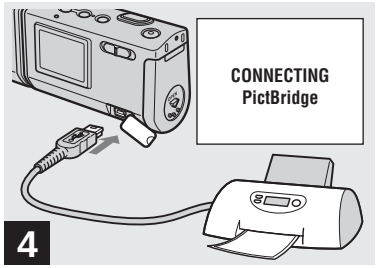


➡ **Select [PRINT] with the control buttons ▲/▼, then press EXEC.**

The message “CONNECT A PRINTER” appears.

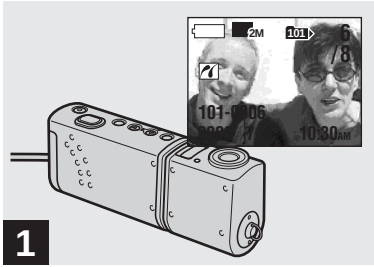
To cancel preparations to make the connection

Select [CANCEL] in step **3**.



➡ **Connect the camera to the printer.**

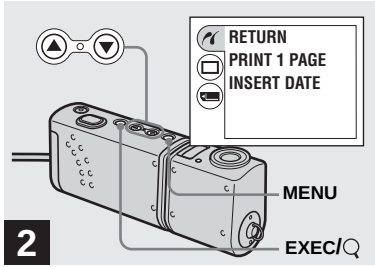
When the connection is completed, the selected image is displayed and the (PictBridge) mark appears on the screen.



➡ **Complete the procedures in steps 1 to 4 on pages 42 and 43, then connect the camera to the printer.**

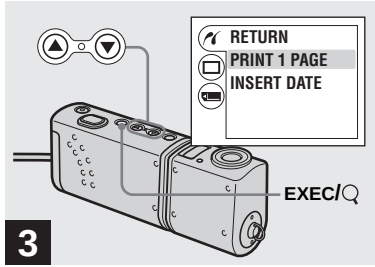
When the connection is completed, the (PictBridge) mark appears on the screen.

- If a warning message appears on the screen, check the meaning of the message on page 75, then select [EXIT] with EXEC.

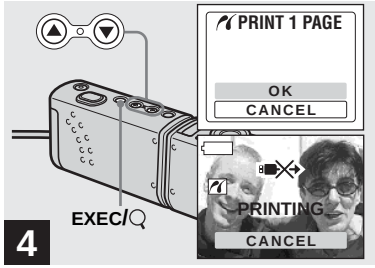


➡ **Press MENU, and select [ ] with the control button ▲, then press EXEC.**

- If you set [LCD LIGHT] to [OFF] under [ ] in the MENU, you can extend the battery life.



➡ **Select [PRINT 1 PAGE] with the control buttons ▲/▼, and press EXEC.**



➡ **Select [OK] with the control button ▲, then press EXEC.**

When the message “PRINTING” disappears, printing is completed.
If you want to continue printing, repeat the procedure from step **2**.

- While the mark is on the screen, do not disconnect the USB cable or remove a “Memory Stick Duo” or the batteries from the camera.

To cancel printing

Select [CANCEL] in step **4**.

To print other images

Select the image you want to print with the control buttons ▲/▼ in step **1**.
To change a folder, select [CHANGE FOLDER] under [] in the MENU, and then select the folder containing the image you want to print.

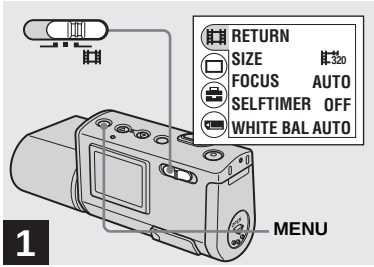
To attach a date to an image

Select [INSERT DATE], and select the desired date display format with the control buttons ▲/▼.
You can select [D/HR/MIN] or [Y/M/D] *.
The date will be attached to the image to be printed.
Some printers may not support this function.

* The setting selected in [DATE NOTATION] under [CLOCK SET] (page 15) is displayed.

To disconnect the printer

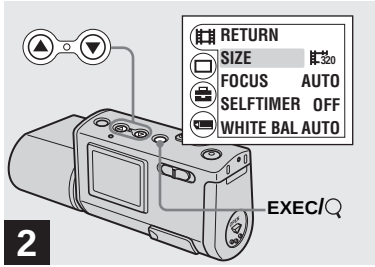
After confirming that the message “PRINTING” has disappeared, disconnect the USB cable. The camera turns off, and the connection is ended.



➡ **Set the mode switch to 🎞, and turn on the power, then press MENU.**

The menu appears.

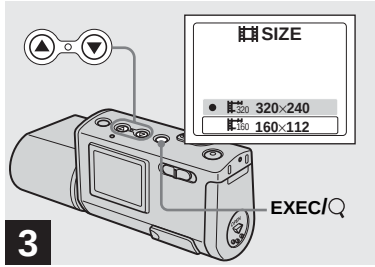
- Sound cannot be recorded in movies.
- When shooting a movie, the image may look like a single-frame advance. However, the recorded movie will be normal.



➡ **Select [🎞] with the control button ▲, then press EXEC. Select [SIZE] with the control buttons ▲/▼, then press EXEC.**

The image size is displayed.

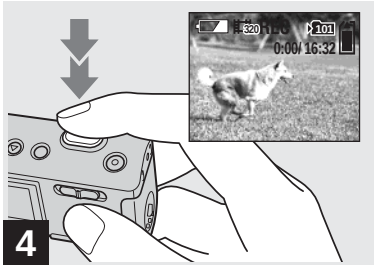
- For details on the shooting time for each image size, see page 48.



➡ **Select [320 320×240] or [160 160×112] with the control buttons ▲/▼, then press EXEC.**

The image size is set.
When you press MENU, the menu disappears and the indicator is displayed on the LCD screen.

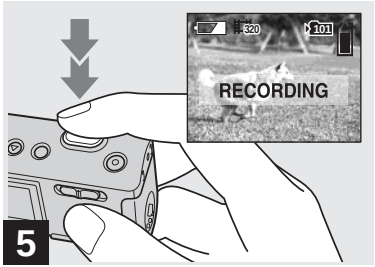
- The image size selected here is maintained even when the power is turned off.



➡ **Press the shutter button fully down.**

"REC" appears on the LCD screen and the camera starts recording the image.

- Recording stops when the "Memory Stick Duo" is full.
- The auto focus function can set the focus at any distance from approximately 1.0 m to ∞ (infinity). To shoot a subject at a closer distance than 1.0 m, select 0.2 m or 0.5 m with the Focus preset function (page 30).
- The flash does not function when shooting movies.



➡ **To stop recording, press the shutter button fully again.**

Indicators during shooting

Indicators on the LCD screen are not recorded. You can use [DISPLAY] under [▭] with MENU and the control buttons ▲/▼ to turn the display on and off (page 22).
For detailed descriptions of the indicators, see page 86.

To use the self-timer

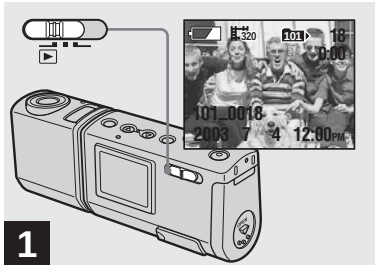
Complete step **3**, then follow the procedure on page 22.

Shooting time

The shooting time is different, depending on the capacity of the “Memory Stick Duo” and the image size. Refer to the following chart when you choose a “Memory Stick Duo.”

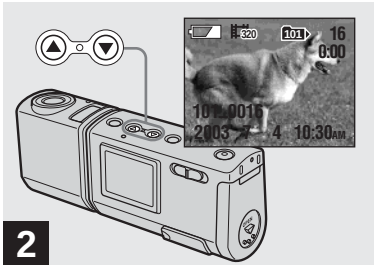
Image size / Capacity	160×112	320×240
8MB	5 min. 35 sec.	1 min. 26 sec.
16MB	11 min. 13 sec.	2 min. 54 sec.
32MB	22 min. 43 sec.	5 min. 52 sec.
64MB	45 min. 40 sec.	11 min. 48 sec.
128MB	1 h. 31 min. 34 sec.	23 min. 39 sec.
MSX-M256	2 h. 45 min. 35 sec.	42 min. 47 sec.
MSX-M512	5 h. 36 min. 43 sec.	1 h. 27 min. 1 sec.

- The shooting time may vary, depending on the shooting conditions.
- For numbers of still images that can be recorded, see page 19.
- When shooting time exceeds 99 minutes 59 seconds “>99:59” is displayed.



➡ **Set the mode switch to ▶, and turn on the power.**

The last image in the selected recording folder (page 26) appears on the LCD screen.

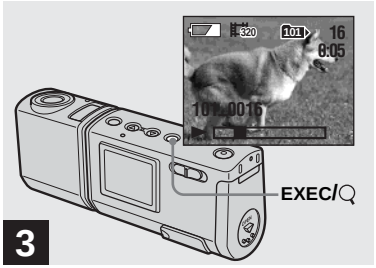


➡ **Select the desired movie with the control buttons ▲/▼.**

▲ : To display the preceding image
▼ : To display the next image

An image shot with a size of [320 320×240] is displayed full-sized on the screen, and an image shot with a size of [160 160×112] is displayed in a smaller size.

- Movies cannot be rewound or fast-forwarded with this camera.

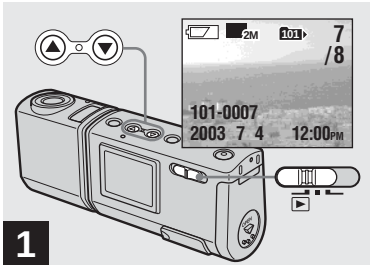


➡ **Press EXEC.**

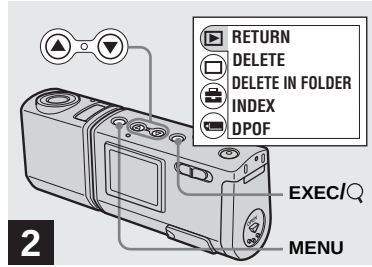
The movie is played back.

To stop playback
Press EXEC.

Indicators while viewing movies
Indicators on the LCD screen are not recorded. You can use [DISPLAY] under [▭] with MENU and the control buttons ▲/▼ to turn the display on and off (page 22).
For detailed descriptions of the indicators, see page 87.

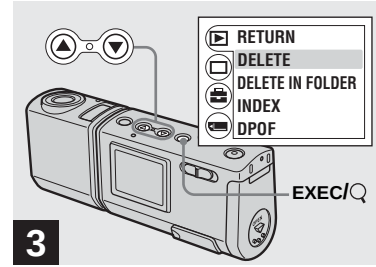


➡ **Set the mode switch to [▶], and turn on the power.**
Press the control buttons ▲/▼ to select the image you want to delete.



➡ **Press MENU and select [▶] with the control button ▲, then press EXEC.**

To delete an image in index-image screen
Perform step **2** on page 36 and switch to index screen.

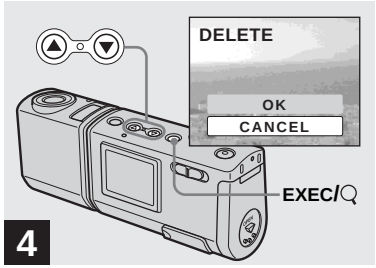


➡ **Select [DELETE] with the control buttons ▲/▼, then press EXEC.**

The image has not yet been deleted at this point.

To delete all the images in the folder
Select [DELETE IN FOLDER] in step **3**.

- You cannot delete images write-protected by another device.

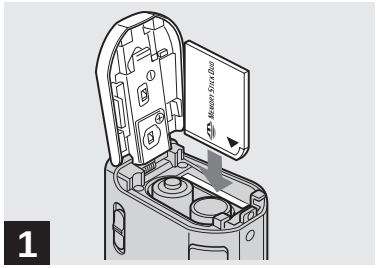


➡ **Select [OK] with the control button ▲, then press EXEC.**

When the message “MEMORY STICK ACCESS” disappears, the image has been deleted.

To cancel deleting

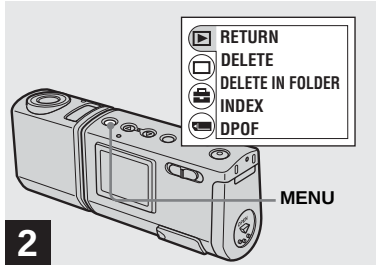
Select [CANCEL] in step **4**.



➡ **Insert the “Memory Stick Duo” you want to format into the camera.**

Do not open the battery/“Memory Stick Duo” cover while formatting the “Memory Stick Duo” as this may damage the “Memory Stick Duo.”

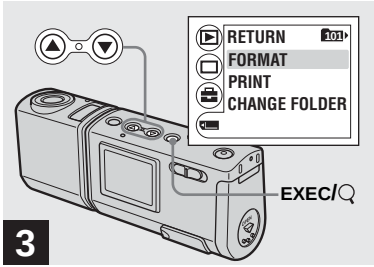
- The term “formatting” means preparing a “Memory Stick Duo” to record images; this process is also called “initialization.” The “Memory Stick Duo” provided with this camera, and those available commercially, are already formatted, and can be used immediately.
- This operation is available no matter what position the mode switch is in.



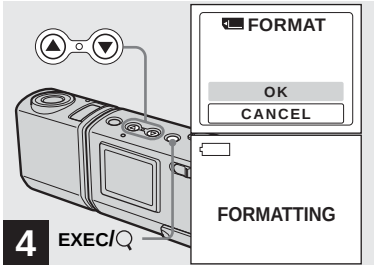
➡ **Turn on the power, and press MENU.**

The menu appears on the LCD screen.

- **When you format a “Memory Stick Duo,” note that all data in the “Memory Stick Duo,” including images that were write-protected by another device, will be permanently erased.**
- When you format a “Memory Stick Duo,” be sure that sufficient power remains, otherwise a “FORMAT ERROR” may occur.



➡ **Select [ ] with the control button ▼, then press EXEC. Select [FORMAT] with the control buttons ▲/▼, then press EXEC.**



➡ **Select [OK] with the control button ▲, then press EXEC.**

When the message “FORMATTING” disappears, the format is complete.

To cancel formatting

Select [CANCEL] in step **4**.

Recommended computer environment

OS: Microsoft Windows 98, Windows 98SE, Windows 2000 Professional, Windows Millennium Edition, Windows XP Home Edition, or Windows XP Professional
The above OS must be installed at the factory. Operation is not assured in an environment upgraded to the operating systems described above or in a multi-boot environment.
CPU: MMX Pentium 200 MHz or faster
USB connector: Provided as standard
Display: 800 × 600 dots or more
High Color (16-bit color, 65,000 colors) or more

- If you connect two or more USB equipment to a single computer at the same time, some equipment, including your camera, may not operate depending on the type of USB equipment.
- Operations are not guaranteed when using a USB hub.
- Operations are not guaranteed for all the recommended computer environments mentioned above.

USB mode

There are two modes for a USB connection, [NORMAL] and [PTP]* modes. The factory setting is the [NORMAL] mode. This section describes the USB connection using the [NORMAL] mode.
When the camera is connected to your computer via a USB cable, the camera can draw its power from your computer (USB Bus Powered).

* Compatible only with Windows XP. When connected to a computer, only the data in the folder selected by the camera is copied to the computer. To select a folder when the camera is connected to your computer, press MENU and perform the procedures to change a folder for playback.

Communication with your computer

When your computer resumes from the suspend or sleep mode, communication between your camera and your computer may not recover at the same time.

When a USB connector is not provided on your computer

When neither a USB connector nor a “Memory Stick” slot is provided, you can copy images using an additional device. See the Sony Website for details.
http://www.sony.net/

Contents of the CD-ROM

■ USB Driver

This driver is needed in order to connect the camera to a computer.

- When using Windows XP, you need not install the USB driver.

■ Image Transfer

This application is used to easily transfer images from the camera to a computer.

■ ImageMixer

This application is used to display and edit images that are stored in a computer.

- This section describes the Windows Me screen as an example. The required operations may differ depending on your OS.
- **Close down all applications running on the computer before installing the USB driver and application.**
- When using Windows XP or Windows 2000, log on as Administrator.
- The display settings should be 800 × 600 dots or more and High Color (16-bit color, 65,000 colors) or more. When set to less than 800 × 600 dots or 256 colors or less, the model selection screen does not appear.

Installing the USB driver

When using Windows XP, you need not install the USB driver.
Once the USB driver is installed, you need not install the USB driver again.

1 Start up your computer, and insert the supplied CD-ROM into the CD-ROM drive.

Do not connect your camera to your computer at this time.

The model selection screen appears. If it does not appear, double-click (My Computer) → (ImageMixer) in that order.

2 Click [Cyber-shot] on the model selection screen.

The installing menu screen appears.

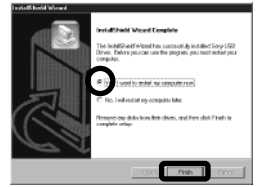
3 Click [USB Driver] on the installing menu screen.

The “InstallShield Wizard” screen appears.

4 Click [Next]. When the “Information” screen appears, click [Next].

The USB driver installation starts. When the installation is completed, the screen informs you of completion.

5 Click [Yes, I want to restart my computer now], then click [Finish].

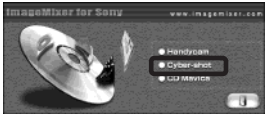


Your computer restarts. Then, you can establish USB connection.

Installing "Image Transfer"

You can use the "Image Transfer" software to copy images to your computer automatically when you connect the camera to your computer with the supplied USB cable.

1 Click [Cyber-shot] on the model selection screen.



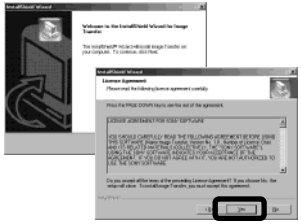
The installing menu screen appears.

2 Click [Image Transfer] on the installing menu screen. Select the desired language, then click [OK].

The "Welcome to the InstallShield Wizard" screen appears.

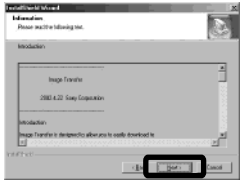
• This section describes the English screen.

3 Click [Next]. When the "Licence Agreement" screen appears, click [Yes].



Read the agreement carefully. If you accept the terms of the agreement, proceed with the installation. The "Information" screen appears.

4 Click [Next].

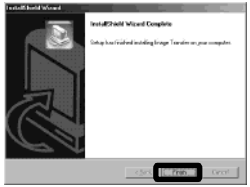


5 Select the folder to be installed, then click [Next]. Select the program folder, then click [Next].

6 Confirm that the checkbox is checked on the "Image Transfer Settings" screen, then click [Next].

When the installation is completed, the screen informs you of completion.

7 Click [Finish].



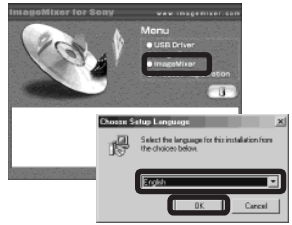
The “InstallShield Wizard” screen closes.
If you wish to continue with the installation of “ImageMixer,” click [ImageMixer] on the installing menu screen and then follow the instructions that appear on the screen.

- The USB driver is needed in order to use “Image Transfer.” If the necessary driver is not already installed on your computer, a screen that asks if you want to install the driver will appear. Follow the instructions that appear on the screen.

Installing “ImageMixer”

You can use the “ImageMixer Ver.1.5 for Sony” software to copy, view, and edit images and to create Video CDs. For details, see the software’s help files.

1 Click [ImageMixer] on the installing menu screen. Select the desired language, then click [OK].



The “Welcome to the InstallShield Wizard” screen appears.

- This section describes the English screen.

2 Follow the instructions on each succeeding screen.

Install “ImageMixer” according to the instructions that appear on the screen.

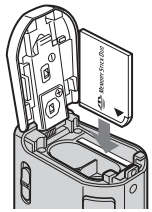
- When you use Windows 2000 or Windows XP, install “WinASPI”.
- If DirectX8.0a or a later version is not installed in your computer, the “Information” screen appears. Follow the instructions that appear on the screen.

3 Restart your computer according to the instructions that appear on the screen.

4 Remove the CD-ROM.

Connecting the camera to your computer

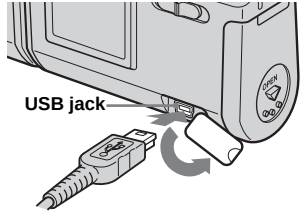
1 Insert the "Memory Stick Duo" with the images you want to copy into the camera.



- The camera can receive power supply from most of the computers that are recommended for use through the USB connection (USB Bus Powered), so in this case there is no need to insert batteries into the camera.
- Removing the batteries before connecting the camera is recommended in order to prevent battery deterioration.
- For further details on inserting the "Memory Stick Duo," see page 17.

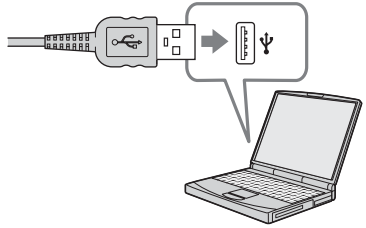
2 Turn on your computer.

3 Open the ψ (USB) jack cover, and connect the supplied USB cable to the USB jack of the camera.



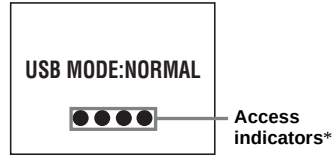
- **Operations are not guaranteed when using a USB hub. Connect the USB cable directly to your computer, without using a USB hub.**

4 Connect the USB cable to your computer.



The camera turns on.

- Note that the power cannot be turned on if a "Memory Stick Duo" is not inserted in the camera.
- When you use a desktop computer, we recommend that you connect the USB cable to the USB connector on the rear panel.
- When using Windows XP, the AutoPlay wizard automatically appears on the desktop. Proceed to page 60.



"USB MODE: NORMAL" appears on the LCD screen of the camera. When a USB connection is established for the first time, your computer automatically runs a program to recognize the camera. Wait for a while.

* During communication, the access indicators turn red.

- If "USB MODE: NORMAL" is not shown in step 4, confirm that [USB] is set to [NORMAL] under [🧰] in the menu (page 79).
- If [USB] is set to [NORMAL], the POWER button and other controls on the camera do not function.

Disconnecting the USB cable from your computer or removing the “Memory Stick Duo” from your camera during a USB connection

For Windows 2000, Me, or XP users

1 Double-click on the tasktray.

2 Click (Sony DSC), then click [Stop].

3 Confirm the device on the confirmation screen, then click [OK].

4 Click [OK].
Step 4 is unnecessary for Windows XP users.

5 Disconnect the USB cable or remove the “Memory Stick Duo.”

For Windows 98 or 98SE users

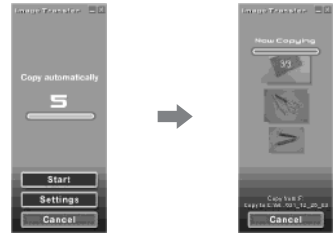
Confirm that the access indicators (page 57) on the LCD screen are turned white and carry out only Step 5 above.

Copying images using “Image Transfer”

— Windows 98/98SE/2000/Me

Connect the camera and your computer with the USB cable.

“Image Transfer” launches and the images are automatically copied to the computer.



- Normally “Image Transfer” and “Date” folders are created inside the “My Documents” folder, and all of the image files recorded with the camera are copied into these folders.
- You can change the “Image Transfer” settings (page 59).
- When “ImageMixer” (page 56) is installed and image copying is completed using “Image Transfer,” “ImageMixer” automatically launches and images appear.

— Windows XP

Connect the camera and your computer with the USB cable.

“Image Transfer” starts up automatically and the images are automatically copied to the computer.

Windows XP is set so that the OS AutoPlay Wizard activates.

If you want to cancel the setting, follow the procedure below.

1 Click [Start], then click [My Computer].

2 Right-click [Sony MemoryStick], then click [Properties].

3 Cancel the setting.

① Click [AutoPlay].
② Set [Content type] to [Pictures].
③ Check [Select an action to perform] under [Actions], select [Take no action], then click [Apply].
④ Set [Content type] to [Video files] and repeat step ③. Then, set [Content type] to [Mixed content] and repeat step ③ again.
⑤ Click [OK].
The “Properties” screen closes.
The OS AutoPlay Wizard does not start up automatically even if the USB connection is made next time.

Changing "Image Transfer" settings

You can change "Image Transfer" settings. Right-click the "Image Transfer" icon on the tasktray, and select [Open Settings]. The settings you can set are as follows: [Basic], [Copy], and [Delete].

When "Image Transfer" starts, the window below appears.

When you select [Settings] from the above window, you can only change the [Basic] setting.

Copying images without using "Image Transfer"

— Windows 98/98SE/2000/Me

If "Image Transfer" is not set to launch automatically, you can copy images as following procedure.

1 Double-click [My Computer], then double-click [Removable Disk].

The contents of the "Memory Stick Duo" inserted in your camera appear.

- This section describes an example of copying images to the "My Documents" folder.
- When the "Removable Disk" icon is not shown, see page 60.
- When using Windows XP, see page 60.

2 Double-click [DCIM], then double-click the folder which contains the desired images.

The folder opens.

3 Drag and drop the image files into the "My Documents" folder.

The image files are copied to the "My Documents" folder.

When you try to copy an image to a folder in which an image with the same file name is stored

The overwrite confirmation message appears. When you overwrite the existing image with the new one, the original file data is deleted.

Changing a file name

When you want to copy an image file to your computer without overwriting a file with the same name, change the file name. Once you change the name, the image cannot be played back on your camera. If you want to play back the image on your camera, follow the procedures on page 63.

When the removable disk icon is not shown

1 Right-click [My Computer], then click [Properties].
The “System Properties” screen appears.

• When using Windows 2000, click [Hardware] after the “System Properties” screen appears.

2 Confirm if other devices are already installed.
① Click [Device Manager].
② Confirm if there is a “ Sony DSC” with a mark.

3 If you find either of the devices above, follow the steps below to delete them.
① Click [Sony DSC].
• When using Windows 2000, right-click [Sony DSC].
② Click [Remove] (or [Uninstall] in Windows 2000).
The “Confirm Device Removal” screen appears.
③ Click [OK].
The device is deleted.

Try the USB driver installation again using the supplied CD-ROM (page 54).

— Windows XP

Copying images using the Windows XP AutoPlay Wizard

1 **Make a USB connection (page 57). Click [Copy pictures to a folder on my computer using Microsoft Scanner and Camera Wizard], then click [OK].**
The “Scanner and Camera Wizard” screen appears.

2 **Click [Next].**
The images stored on the “Memory Stick Duo” are displayed.

3 **Click the checkbox of images that you do not want to copy to your computer and remove the checkmark, then click [Next].**
The “Picture Name and Destination” screen appears.

4 **Select a name and destination for your pictures, then click [Next].**
Image copying starts. When the copying is completed, the “Other Options” screen appears.

5 **Select [Nothing. I’m finished working with these pictures], then click [Next].**
The “Completing the Scanner and Camera Wizard” screen appears.

6 **Click [Finish].**
The wizard closes.

• To continue copying other images, follow the procedure given under on page 58 to disconnect the USB cable and reconnect it. Then, perform the procedure from step **1** again.

— Windows 98/98SE/2000/Me/XP

1 Click [Start] → [My Documents].

The “My Documents” folder contents are displayed.

- This section describes the procedure for viewing images copied in the “My Documents” folder.
- When not using Windows XP, double-click [My Documents] on the desktop.
- You can use the “ImageMixer Ver.1.5 for Sony” software to view and edit images on your computer. For details, see the software’s help files.

2 Double-click the desired folder and image file.

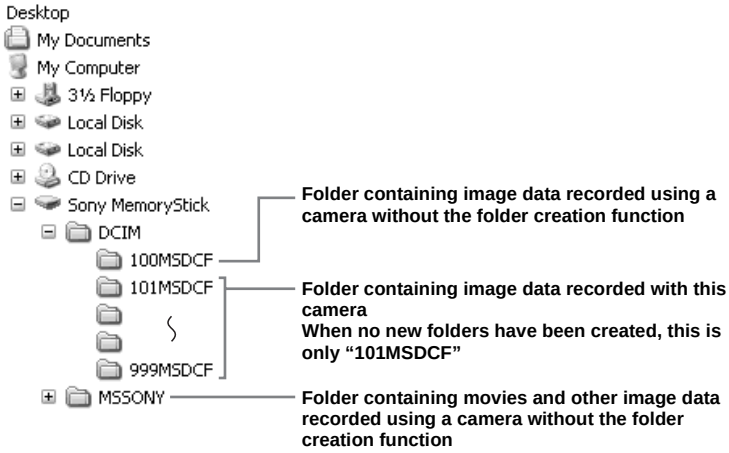
The image is displayed.

- **The image recorded in mirror mode may be displayed inverted by 180 degrees, depending on the software you use. To modify the inverted image, use the rotate tool of the software.**

Image file storage destinations and file names

Image files recorded with your camera are grouped as folders in the “Memory Stick Duo.”

Example: For Windows XP users



Folder	File name	File meaning
101MSDCF up to 999MSDCF	DSC0□□□□.JPG	Still image files
	MOV0□□□□.MPG	Movie files

- Data in the “100MSDCF” or “MSSONY” folders is for playback only, and your camera cannot record images in these folders.
- For more information about the folder, see page 25.
- □□□□ stands for any number within the range from 0001 to 9999.

Viewing images from your computer with this camera

When you want to view an image file using this camera that has been copied to your computer and has been deleted from the "Memory Stick Duo," copy the image file back to the "Memory Stick Duo" from your computer first. Then you can play back the image with this camera.

- If you have not changed any of the file names that were given automatically to images shot with this camera, you can skip step 1.
- You may not be able to play back a particular image, due to its image size.
- You may not be able to play back images processed on your computer with this camera.

1 Right-click the image file, and click [Rename].
Change the file name to "DSC0□□□□."
□□□□ stands for any number within the range from 0001 to 9999.

- Extensions may be displayed, depending on the settings made on your computer. The extension for a still image is jpg, and for a movie is mpg. Do not change the extensions.

2 Copy the file to a folder in the "Memory Stick Duo."
① Right-click the image file and click [Copy].
② Select a [DCIM] folder in [Removable Disk] or [Sony MemoryStick] in [My Computer].
③ Right-click a [□□□ MSDCF] folder in the [DCIM] folder and click [Paste].
□□□ stands for any number within the range from 100 to 999.

- When the overwrite confirmation message appears, change the file name by inputting another number in step 1.
- If there is no folder in the "Memory Stick Duo," create a folder with the camera, then copy the image file to the folder (page 25).

Recommended computer environment

OS: Mac OS 8.5.1, 8.6, 9.0, 9.1, 9.2, or Mac OS X (v10.0/v10.1/v10.2)
The above OS must be installed at the factory. For the following models, update your OS to Mac OS 9.0, 9.1 or 9.2.

– iMac with Mac OS 8.6 installed at the factory, and a slot loading type CD-ROM drive
– iBook or Power Mac G4 with the Mac OS 8.6 installed at the factory

USB connector: Provided as standard
Display: 800 × 600 dots or more
32,000-color mode or more

- If you connect two or more USB equipment to a single computer at the same time, some equipment, including your camera, may not operate depending on the type of USB equipment.
- Operations are not guaranteed when using a USB hub.
- Operations are not guaranteed for all the recommended computer environments mentioned above.

USB mode

There are two modes for a USB connection, [NORMAL] and [PTP]* modes. The factory setting is the [NORMAL] mode. This section describes the USB connection using the [NORMAL] mode.
When the camera is connected to your computer via a USB cable, the camera can draw its power from your computer (USB Bus Powered).

* Compatible only with Mac OS X. When connected to a computer, only the data in the folder selected by the camera is copied to the computer. To select a folder when the camera is connected to your computer, press MENU and perform the procedures to change a folder for playback.

Communication with your computer

When your computer resumes from the suspend or sleep mode, communication between your camera and your computer may not recover at the same time.

When a USB connector is not provided on your computer

When neither a USB connector nor a “Memory Stick” slot is provided, you can copy images using an additional device. See the Sony Website for details.
http://www.sony.net/

Steps required by your OS

Follow the steps below, according to your OS.

OS	Steps
Mac OS 8.5.1/8.6/9.0	Steps 1 to 4
Mac OS 9.1/9.2/ Mac OS X (v10.0/v10.1/v10.2)	Steps 2 to 4

1 Installing the USB driver

1 Turn on your computer, and set the supplied CD-ROM into the CD-ROM drive.
The model selection screen appears.

2 Click [Cyber-shot] on the model selection screen.
The installing menu screen appears.

3 Click [USB Driver].
The “USB Driver” screen appears.

4 Double-click the icon of the hard disk containing the OS to open the screen.

5 Drag and drop the following two files from the screen opened in step 3 into the System Folder icon in the screen opened in step 4.
- Sony USB Driver
- Sony USB Shim

6 When the message for confirmation is shown, click [OK].

7 Restart your computer, then remove the CD-ROM.

2 Connecting your camera to your computer

For details, see page 57.

Disconnecting the USB cable from your computer or removing the “Memory Stick Duo” from your camera during USB connection

Drag and drop the drive icon or the “Memory Stick” icon to the “Trash” icon, then disconnect the USB cable or remove the “Memory Stick Duo.”

- If you are using Mac OS X v10.0, disconnect the USB cable, etc., after you have turned your computer off.

3 Copying images

1 Double-click the newly recognized icon on the desktop.
The contents of the “Memory Stick Duo” inserted in your camera appear.

2 Double-click [DCIM].

3 Double-click the folder containing the desired image files.

4 Drag and drop the image files to the hard disk icon.
The image files are copied to your hard disk.

- See page 62 for details about the image file storage destinations and file names.

4 Viewing the images on your computer

1 Double-click the hard disk icon.

2 Double-click the desired image file in the folder containing the copied files.
The image file opens.

- **The image recorded in mirror mode may be displayed inverted by 180 degrees, depending on the software you use. To modify the inverted image, use the rotate tool of the software.**
- **Close down all applications running on the computer before installing the USB driver and application.**
- You can use the “ImageMixer Ver.1.5 for Sony” software to copy images to your computer, to view images on your computer, and to create video CDs. See the operation manual supplied with the CD-ROM for details about the installation method, or see the software’s help files for the operation method.
- “ImageMixer” is not compatible with Mac OS X.
- “Image Transfer” cannot be used with Macintosh.

Creating a Video CD using “ImageMixer”

You can create a Video CD using “ImageMixer Ver.1.5 for Sony.” You can play back created Video CDs on a Video CD-compatible DVD player, or on a computer using Video CD application software.

1 Start “ImageMixer.”

2 Click .

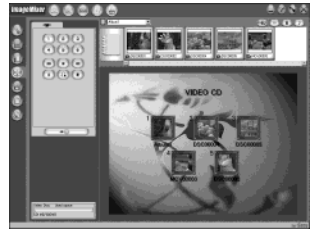
The video CD creating mode turns on.

3 Drag & drop the desired file or album to the menu screen.

The selected image is added to the menu screen.

• This section describes the English screen.

4 Click .



You can preview the image.

5 Click .

The disc creating dialogue appears.

6 Insert a blank CD-R into the CD-R drive and click [OK].

The disc creation starts.

• You cannot use CD-RW discs.
• The CD-R drive is required to create a Video CD.

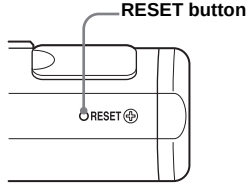
For the Macintosh edition

• Roxio-manufactured “Toast” (not supplied) is required to create a Video CD.
• The playback time of the movie file becomes shorter on the preview screen.

If you experience trouble with your camera, try the following solutions.

1 First check the items on the tables below. **If code "C:□□:□□" is displayed on the LCD screen, the self-diagnosis display function is working (page 76).**

2 Should your camera still not work properly, press the RESET button on the bottom of the camera using a fine-tipped object, then turn on the power again. (All the settings including date and time are cleared.)



3 Should your camera still not work properly, consult your Sony dealer or local authorized Sony service facility.

Batteries and power

Symptom	Cause	Solution
The battery remaining indicator is incorrect, or sufficient battery remaining indicator is displayed but the power runs out soon.	• You have used the camera in an extremely cold location. • The batteries are discharged. • The battery contacts or the terminals on the battery/"Memory Stick Duo" cover are dirty. • The batteries are exhibiting the "memory effect" (page 11). • The batteries are dead (page 83).	— → Install charged batteries (page 10). → Wipe any dirt off from them with a dry cloth (page 11). → To restore the batteries to their original condition, use them until they are fully drained before recharging them. → Replace the batteries with new ones.
The battery life is short.	• You are shooting/viewing images in an extremely cold location. • The batteries are not charged enough. • The batteries are dead (page 83).	— → Charge the batteries (page 10). → Replace the batteries with new ones.

Symptom	Cause	Solution
You cannot turn on the camera.	• The batteries are not installed correctly. • The batteries are discharged. • The batteries are dead (page 83).	→ Install the batteries correctly (page 12). → Replace them with charged batteries (page 10). → Replace the batteries with new ones.
The power turns off suddenly.	• If you do not operate the camera for about three minutes when using batteries, the camera turns off automatically to prevent wearing down the batteries (page 15). • The batteries are discharged.	→ Turn on the camera again (page 14). → Replace them with charged batteries (page 10).

Shooting still images/movies

Symptom	Cause	Solution
The subject does not appear on the LCD screen.	• The mode switch is set to [▶].	→ Set the mode switch to [📷] or [🎞] (pages 20 and 46).
The image is out of focus.	• The subject is too close. • When shooting still images, [Illumination snap mode], [Twilight mode], [Vivid nature mode], or [Active outdoor mode] is selected for the Scene Selection function. • You are shooting movies at a distance closer than 1.0 m (3 feet 3 3/8 inches). • The Focus preset function is selected.	→ Make sure to position the lens farther away from the subject than the minimum shooting distance of 10 cm (4 inches) when shooting (page 20). → Cancel the Scene Selection function (page 29). → Select the Focus preset function (page 30). → Set it to [AUTO] (page 31).
The image is too dark.	• The LCD screen is too dark.	→ Set [LCD LIGHT] to [ON] (pages 21 and 79).
The image is too bright.	• The LCD screen is too bright.	→ Set [LCD LIGHT] to [OFF] (pages 21 and 79).
Vertical streaks appear when you are shooting a very bright subject.	• The smear phenomenon is occurring.	→ This is not a malfunction.

Symptom	Cause	Solution
Your camera cannot record images.	• No “Memory Stick Duo” is inserted. • The capacity of the “Memory Stick Duo” is insufficient. • You are using a “Memory Stick Duo” with a write-protect switch, and the switch is set to LOCK. • You cannot shoot while the flash is charging. • The mode switch is not set to 📷 when shooting a still image. • The mode switch is not set to 🎞 when shooting a movie.	→ Insert a “Memory Stick Duo” (page 17). → Delete the images saved in the “Memory Stick Duo” (page 50), or format it (page 51). → Change the “Memory Stick Duo.” → Set it to the recording position (page 82). — → Set it to 📷 (page 20). → Set it to 🎞 (page 46).
The flash does not work.	• The mode switch is set to ▶ or 🎞. • The flash is set to ⊘ (No flash). • When shooting still images, either 🌙 (Twilight mode) or ⛰ (Vivid nature mode) is selected for the Scene Selection function, or the camera is in Burst mode.	→ Set it to 📷 (page 20). → Set the flash to auto (no indicator), 👁 (Red-eye reduction) or ϟ (Forced flash) (page 24). → Set it to other modes (pages 18 and 29).
The eyes of the subject come out red.	—	→ Set the flash mode to 👁 (Red-eye reduction) (page 24).
The date and time are recorded incorrectly.	• The date and time are not set correctly.	→ Set the correct date and time (page 15).

Viewing images

Symptom	Cause	Solution
Your camera cannot play back images.	• The mode switch is not set to ▶. • You have changed a folder or file name. • You cannot play back images processed on your computer. • The camera is in USB mode.	→ Set it to ▶ (page 35). → See page 63. — → Cancel the USB connection (pages 58 and 65).
The image cannot be played back on a computer.	—	→ See page 71.

Symptom	Cause	Solution
Your camera cannot perform enlarged playback.	• Enlarged playback is not available for files created or processed using other devices.	—
You cannot display a print (DPOF) mark.	• You cannot display print (DPOF) marks on movies.	—

Deleting images

Symptom	Cause	Solution
Your camera cannot delete an image.	• You are using a “Memory Stick Duo” with a write-protect switch, and the switch is set to LOCK.	→ Set it to the recording position (page 82).
You have deleted an image by mistake.	• Once you have deleted an image, you cannot restore it.	→ When you are using a “Memory Stick Duo” with a write-protect switch, the switch will prevent you from deleting images by mistake (page 82).

Computers

Symptom	Cause	Solution
You do not know if the OS of your computer is compatible.	—	→ Check “Recommended computer environment” (pages 53 and 64).
You cannot install the USB driver.	—	→ In Windows 2000, log on as Administrator (authorized Administrator) (page 53).

Symptom	Cause	Solution
Your computer does not recognize your camera.	• You are not using the supplied USB cable. • The USB cable is not connected firmly. • [USB] is set to [PTP] under [🧰] in the menu settings. • The USB connectors on your computer are connected to other equipment besides the keyboard, the mouse, and your camera. • The camera is not connected directly to your computer. • The USB driver is not installed. • The camera was connected to a computer with the USB cable before installing the USB driver, so the device was not recognized by the computer.	→ Use the supplied USB cable (page 57). → Disconnect the USB cable, and connect it again firmly. Make sure that “USB MODE” is displayed on the LCD screen (pages 57 and 65). → Set it to [NORMAL] (page 79). → Disconnect the USB cables except for the ones connected to the keyboard, the mouse, and your camera. → Connect the camera directly to your computer without passing through a hub or other device. → Install the USB driver (pages 54 and 65). → Delete the device which is not recognized, then install the USB driver (pages 54, 60 and 65).
You cannot turn on the camera during USB connection.	• The camera is not connected directly to your computer. • No “Memory Stick Duo” is inserted.	→ Connect the camera directly to your computer without passing through a hub or other device. → Insert a “Memory Stick Duo” (page 17).
You cannot copy images.	• The camera is not correctly connected to your computer. • You are not using the correct copy procedure for your OS. — —	→ Connect the camera and your computer correctly using the supplied USB cable (page 57). → Follow the designated copy procedure for your OS (pages 58, 59 and 65). → If you are using the “Image Transfer” software, see page 58. → If you are using the “ImageMixer Ver.1.5 for Sony” application software, click on HELP.
After making a USB connection, “Image Transfer” does not automatically start.	— —	→ Select [Launch Image Transfer automatically when the camera, etc., is connected.] at [Basic] setting (page 59). → Make a USB connection when the computer is turned on (page 57).
The image cannot be played back on a computer.	— —	→ If you are using the “ImageMixer Ver.1.5 for Sony” application software, click on HELP. → Consult the computer or software manufacturer.

Symptom	Cause	Solution
The image is displayed upside down.	• The image recorded in mirror mode may be displayed inverted by 180 degrees, depending on the software you use.	→ To modify the inverted image, use the rotate tool of the software you use.
The image is interrupted by noise when you view a movie on a computer.	• You are playing back the movie directly from the "Memory Stick Duo."	→ Copy the movie to the hard disk of your computer and then play back the movie from the hard disk (pages 58, 59 and 65).
You cannot print an image.	— —	→ Check the printer settings. → Click on HELP for the "ImageMixer Ver.1.5 for Sony" application software.
An error message appears when you set the supplied CD-ROM in your computer.	• The computer display is not set correctly.	→ Set the computer display as follows: Windows: 800 × 600 dots or more High Color (16-bit color, 65,000 colors) or more Macintosh: 800 × 600 dots or more 32,000-color or more

"Memory Stick Duo"

Symptom	Cause	Solution
You cannot insert a "Memory Stick Duo."	• You are inserting the "Memory Stick Duo" backwards. • The "Memory Stick Duo" has been inserted into a Memory Stick Duo adaptor.	→ Insert it from the right side (page 17). → Insert it directly into the camera.
You cannot record on a "Memory Stick Duo."	• You are using a "Memory Stick Duo" with a write-protect switch, and the switch is set to LOCK. • The "Memory Stick Duo" is full.	→ Set it to the recording position (page 82). → Delete unnecessary images (page 50).
You cannot format a "Memory Stick Duo."	• You are using a "Memory Stick Duo" with a write-protect switch, and the switch is set to LOCK.	→ Set it to the recording position (page 82).
You have formatted a "Memory Stick Duo" by mistake.	• When you format a "Memory Stick Duo," all data in the "Memory Stick Duo," including images that were write-protected by another device, will be permanently erased and cannot be restored.	→ When you are using a "Memory Stick Duo" with a write-protect switch, we recommend that you set the write-protect switch to LOCK to prevent accidental erasure (page 82).

PictBridge compliant printer

Symptom	Cause	Solution
You cannot connect your camera to the printer.	• The printer is not PictBridge compliant. • The printer is not ready to be connected. • Your camera is not connected to the printer correctly.	→ Ask the printer manufacturer if the printer is PictBridge compliant. → Confirm that the printer is turned on and is ready to be connected. → When the preparations needed to make the connection between the camera and the printer are finished, make the connection (pages 42 and 43).
You cannot print.	• Your camera is not connected to the printer. • The power of the printer is off. • You cannot print a movie.	→ Confirm that your camera is correctly connected to the printer using the USB cable. → Turn the printer on. For details, see the operation manual supplied with the printer. —
Printing was stopped.	• You disconnected the USB cable before the mark disappeared.	—
You cannot attach a date to an image.	• Your printer does not support this function.	→ Ask the printer manufacturer if the printer supports this function.

Others

Symptom	Cause	Solution
Your camera does not work.	• The battery level is low. (The indicator appears.) • The USB cable is connected.	→ Charge the batteries (page 10). → Disconnect the USB cable (pages 58 and 65).
The power is on, but the camera does not work.	• The built-in microcomputer is not working properly.	→ Remove the batteries, then install them again after about one minute and turn on the camera. If the functions still do not work, press the RESET button located on the bottom of the camera using a fine-tipped object, then turn the power on again (page 67). (If you press the RESET button, all settings including the date and time are cleared.)
You cannot identify an indicator on the LCD screen.	—	→ Check the indicator (pages 86 and 87).
The lens gets fogged.	• Moisture condensation has occurred.	→ Turn off the camera and leave it for about an hour at the room temperature for the moisture to evaporate before use (page 80).

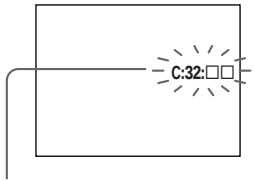
The following messages appear on the LCD screen.

Message	Meaning/Corrective Action
NO MEMORY STICK	• Insert a “Memory Stick Duo” (page 17).
SYSTEM ERROR	• Turn the power off and on again (page 14).
MEMORY STICK ERROR	• The inserted “Memory Stick Duo” cannot be used in your camera (page 82). • The “Memory Stick Duo” is damaged, or the terminal section of the “Memory Stick Duo” is dirty. • Insert the “Memory Stick Duo” correctly (page 17).
MEMORY STICK TYPE ERROR	• The inserted “Memory Stick Duo” cannot be used in your camera (page 82).
FORMAT ERROR	• The “Memory Stick Duo” format failed. Format the “Memory Stick Duo” again (page 51).
MEMORY STICK LOCKED	• You are using a “Memory Stick Duo” with a write-protect switch, and the switch is set to LOCK. Set it to the recording position (page 82).
NO MEMORY SPACE	• The capacity of the “Memory Stick Duo” is insufficient. You cannot record images. Delete unnecessary images (page 50).
READ ONLY MEMORY	• You cannot record or delete an image saved on this type of “Memory Stick Duo” using your camera.
NO FILE IN THIS FOLDER	• No images have been recorded in this folder.
FOLDER ERROR	• A folder with the same first three digits number already exists in the “Memory Stick Duo.” (For example: 123MSDCF and 123ABCDE) Select other folders, or create a new folder.
CANNOT CREATE MORE FOLDERS	• The folder whose first three digits of the name is “999” exists in the “Memory Stick Duo.” You cannot create any folders.
CANNOT RECORD	• The camera cannot record images in the selected folder. Select a different folder (page 26).
FILE ERROR	• An error occurred while playing back the image.
FILE PROTECT	• The image is write-protected by another device. Release the protection by another device.
IMAGE SIZE OVER	• You are attempting to play back an image of a size that cannot be played back on your camera. • You are using the PictBridge function to print an image shot with another camera.
INVALID OPERATION	• You are attempting to assign the print (DPOF) mark to a file that was created by another device.
	• The battery level is low or zero. Charge the batteries (page 10). Depending on the conditions of use, the indicator may flash even though there are still 5 to 10 minutes of remaining battery time left.

Message	Meaning/Corrective Action
ENLARGED PLAYBACK ERROR	• You are attempting to perform enlarged playback for a file created using other devices. • Enlarged playback is not available for images processed using a computer. • An error occurred while your camera was performing enlarged playback.
PRINTER IS BUSY	• The printer cannot accept a job because it is currently printing. Check the printer.
PAPER ERROR	• A paper-related error occurred with the printer, for example, it has run out of paper or has a paper jam.
INK ERROR	• An ink-related error occurred with the printer.
PRINTER ERROR	• A printer error occurred. Check the printer, or check to make sure the image file you want to print is not corrupted.
	• Data is being transferred to the printer. Do not disconnect the USB cable.

Self-diagnosis display — If a code starting with an alphabet letter appears

Your camera has a self-diagnosis display. This function displays the camera condition on the LCD screen with a combination of a letter and four numerical digits.
If this occurs, check the following code chart and attempt the corresponding corrective actions. The last two digits (indicated by ☐☐) will differ depending on the state of the camera.



Self-diagnosis display

Code	Cause	Countermeasure
C:32:☐☐	There is trouble with your camera's hardware.	• Turn the power off and on again (page 14).
C:13:☐☐	The camera cannot read or write data on the "Memory Stick Duo."	• Re-insert the "Memory Stick Duo" several times.
	An unformatted "Memory Stick Duo" is inserted.	• Format the "Memory Stick Duo" (page 51).
	The inserted "Memory Stick Duo" cannot be used with your camera, or the data is damaged.	• Insert a new "Memory Stick Duo" (page 17).
E:61:☐☐ **E:91:☐☐**	A camera malfunction that you cannot reverse has occurred.	• Press the RESET button (page 67) located on the bottom of the camera, then turn the power on again.

If you are unable to solve the problem even after trying the corrective actions a few times, repairs may be necessary. Contact your Sony dealer or local authorized Sony service facility and inform them of the 5-digit code.
Example: E:61:10

Menu items

Menu items that can be modified differ depending on the position of the mode switch.
The LCD screen shows only the items you can operate at the moment. Factory settings are indicated with ■.

When the mode switch is set to 📷 (when [📷] is selected in the menu settings)

Item	Setting	Description
SIZE·BURST	■2M / VGA / 2M BURST / VGA BURST	Selects the image size when shooting still images (pages 18 and 31).
FOCUS	■AUTO / 0.2 m / 0.5 m / 1.0 m / ∞	Selects the auto focus method or sets the focus preset distance (page 30).
SELFTIMER	ON / ■OFF	Sets the self-timer (page 22).
WHITE BAL	■AUTO / ☀ / ☁ / 💡 / 🔆	Sets the white balance (page 33).

When the mode switch is set to 🎞 (when [🎞] is selected in the menu settings)

Item	Setting	Description
SIZE	■320×240 / 160×112	Selects the image size to be used when shooting a movie (page 46).
FOCUS	■AUTO / 0.2 m / 0.5 m / 1.0 m / ∞	Selects the auto focus method or sets the focus preset distance (page 30).
SELFTIMER	ON / ■OFF	Sets the self-timer (page 22).
WHITE BAL	■AUTO / ☀ / ☁ / 💡 / 🔆	Sets the white balance (page 33).

When the mode switch is set to 📷 or 🎞 (when [📼] is selected in the menu settings)

Item	Setting	Description
FORMAT	OK / CANCEL	Formats the “Memory Stick Duo.” When you format a “Memory Stick Duo,” note that all data in the “Memory Stick Duo,” including images that were write-protected by another device, will be permanently erased (page 51).
CREATE FOLDER	OK / CANCEL	Creates a folder for recording images (page 25).
CHANGE FOLDER	OK / CANCEL	Changes a folder for recording images (page 26).

When the mode switch is set to ▶ (when [▶] is selected in the menu settings)

Item	Setting	Description
DELETE	OK / CANCEL	Deletes the displayed image (page 50).
DELETE IN FOLDER	OK / CANCEL	Deletes all images in the folder (page 50).
INDEX / SINGLE	—	Switches between four-image display and single image display (page 35).
DPOF	ON / ■OFF	Marks/unmarks the print (DPOF) mark on still images you want to print (page 40).

When the mode switch is set to ▶ (when [📼] is selected in the menu settings)

Item	Setting	Description
FORMAT	OK / CANCEL	Formats the “Memory Stick Duo.” When you format a “Memory Stick Duo,” note that all data in the “Memory Stick Duo,” including images that were write-protected by another device, will be permanently erased (page 51).
PRINT	—	Connects the camera to a PictBridge compliant printer, and then prints the image (page 42).
CHANGE FOLDER*	OK / CANCEL	Selects the folder containing the images you want to play back (page 37).

* You can also select this item when the camera is connected to a PictBridge compliant printer. You can change a folder containing the images you want to print (page 45).

When [🖌] is selected in the menu settings during a connection with a PictBridge compliant printer

Item	Setting	Description
PRINT 1 PAGE	OK / CANCEL	Connects the camera to a PictBridge compliant printer, and then print the image (page 44).
INSERT DATE	—	Attaches a date to an image to be printed (page 45).

The following menus are available no matter what position the mode switch is in.

When [▭] is selected in the menu settings

Item	Setting	Description
LCD LIGHT	■ON / OFF	Selects the brightness of the LCD screen. Selecting [ON] makes the screen bright and easy to see, but also uses up the battery charge faster (page 21).
DISPLAY	■ON OFF	– Displays all indicators. – Displays warning messages, etc.

When [🖶] is selected in the menu settings

Item	Setting	Description
CLOCK SET	DATE NOTATION DATE&TIME SET	– Sets the date notation (page 15). ■[Y/M/D] / [M/D/Y] / [D/M/Y] – Sets the date and time (page 15).
BEEP	■ON SHUTTER OFF	– Turns on the beep when you press the control button/shutter button. – Turns on the beep when you press the shutter button. – Turns off the beep.
USB	■NORMAL / PTP	Switches the USB mode (pages 53 and 64).
LANGUAGE	—	Displays the menu items, warnings and messages in selected language.

Do not leave the camera in the following places

- In extremely hot place, such as in a car parked in the sun. The camera body may become deformed or this may cause a malfunction.
- Under direct sunlight or near a heater. The camera body may become deformed or this may cause a malfunction.
- On rocking vibration.
- Near strong magnetic place.
- In sandy or dusty places, be careful not to let sand or dust get into the camera. This may cause the camera to malfunction, and in some cases this malfunction cannot be repaired.

On cleaning

Cleaning the LCD screen

Wipe the screen surface with an LCD cleaning kit (not supplied) to remove fingerprints, dust, etc.

Cleaning the lens

Wipe the lens with a soft cloth to remove fingerprints, dust, etc.

Cleaning the camera surface

Clean the camera surface with a soft cloth slightly moistened with water, then wipe the surface with a dry cloth. Do not use the following as this may damage the finish or the casing.

- Thinner
- Benzine
- Alcohol
- Diposable cloth
- Volatile insecticide
- Contact with rubber or vinyl for a long time

Note on operating temperature

Your camera is designed for use between the temperatures of 0°C and 40°C (32°F and 104°F). Shooting in extremely cold or hot places that exceed this range is not recommended.

On moisture condensation

If the camera is brought directly from a cold to a warm location, or is placed in a very damp room, moisture may condense inside or outside the camera. This moisture condensation may cause a malfunction of the camera.

Moisture condensation occurs easily when:

- The camera is brought from a cold location such as a ski slope into a warmly heated room.
- The camera is taken from an air-conditioned room or car interior to the hot outdoors, etc.

How to prevent moisture condensation

When bringing the camera from a cold place to a warm place, seal the camera in a plastic bag and allow it to adapt to conditions at the new location over a period of time (about an hour).

If moisture condensation occurs

Turn off the camera and wait about an hour for the moisture to evaporate. Note that if you attempt to shoot with moisture remaining inside the lens, you will be unable to record clear images.

On internal rechargeable button battery

This camera has an internal rechargeable button battery for maintaining the date and time and other settings regardless of whether the power is on or off.

This rechargeable button battery is continually charged as long as you are using the camera. However, if you use the camera for only short periods it discharges gradually, and if you do not use the camera at all for about one month it becomes completely discharged. In this case, be sure to charge this rechargeable button battery before using the camera.

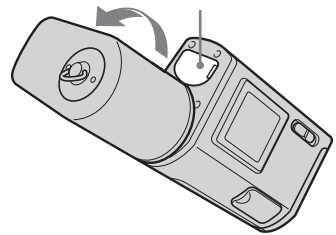
However, even if this rechargeable button battery is not charged, you can still use the camera as long as you do not record the date and time.

Charging method

Install charged size AAA Nickel-Metal Hydride batteries, and leave the camera for 24 hours or more with the power off.

- This internal rechargeable button battery is located as shown in the illustration. Once you remove the rechargeable button battery cover and the rechargeable button battery from the camera, you cannot put them back into the camera. Do not remove them until the time you discard the camera.

The location for the internal rechargeable button battery



“Memory Stick” is a new compact, portable IC recording medium with a data capacity that exceeds the capacity of a floppy disk. The types of “Memory Stick” that can be used with this camera are listed in the table below. However, proper operation cannot be guaranteed for all “Memory Stick” functions.

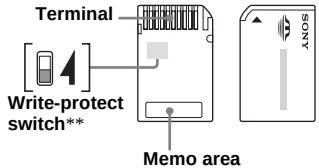
“Memory Stick” type	Recording/ Playback
Memory Stick	×
Memory Stick Duo	○
MagicGate Memory Stick	×
MagicGate Memory Stick Duo	○*
Memory Stick PRO	×
Memory Stick PRO Duo	○*

* “MagicGate Memory Stick Duo” and “Memory Stick PRO Duo” are equipped with MagicGate functions. MagicGate is copyright protection technology that uses encryption technology. Data recording/playback that requires MagicGate functions cannot be performed with this camera.

- “Memory Stick Duo” formatted with a computer is not guaranteed to operate with this camera.

Notes on using “Memory Stick Duo”

- You cannot record, edit, or delete images if you slide the write-protect switch** to LOCK with a fine-tipped object.



The position or the shape of the write-protect switch** may differ depending on the “Memory Stick Duo” you use.

**The “Memory Stick Duo” supplied with this camera does not have a write-protect switch.

- Do not remove the “Memory Stick Duo” while reading or writing data.
- Data may be corrupted in the following cases.
  – When the “Memory Stick Duo” is removed or the camera is turned off during read or write operation
  – When the “Memory Stick Duo” is used in locations subject to static electricity or electrical noise
- We recommend backing up important data.
- Do not press down hard when you write down on the memo area.
- Do not attach a label on the “Memory Stick Duo” itself nor on a Memory Stick Duo adaptor.
- When you carry or store the “Memory Stick Duo,” put it in the case supplied with it.
- Do not touch the terminal of the “Memory Stick Duo” with your hand or a metal object.
- Do not strike, bend or drop the “Memory Stick Duo.”
- Do not disassemble or modify the “Memory Stick Duo.”
- Do not expose the “Memory Stick Duo” to water.
- Do not leave the “Memory Stick Duo” within the reach of small children.
  They might accidentally swallow it.
- Do not use or keep the “Memory Stick Duo” under the following conditions:
  – High temperature locations such as the hot interior of a car parked in direct sunlight
  – Locations exposed to direct sunlight
  – Humid locations or locations with corrosive substances

Notes on using a Memory Stick Duo adaptor (supplied)

- When using a “Memory Stick Duo” with a “Memory Stick” compliant device, be sure to insert the “Memory Stick Duo” into a Memory Stick Duo adaptor.
  If you insert a “Memory Stick Duo” into a “Memory Stick” compliant device without a Memory Stick Duo adaptor, you might not be able to remove it from the device.
- When inserting a “Memory Stick Duo” into a Memory Stick Duo adaptor, make sure the “Memory Stick Duo” is inserted facing in the correct direction, then insert it all the way in. Incorrect insertion may result in a malfunction.
- When using a “Memory Stick Duo” inserted into a Memory Stick Duo adaptor with a “Memory Stick” compliant device, make sure that the “Memory Stick Duo” is inserted facing the correct direction. Note that improper use may damage the equipment.
- Do not insert a Memory Stick Duo adaptor without a “Memory Stick Duo” attached. Doing so may result in malfunction of the unit.

Note on using “Memory Stick PRO Duo” (not supplied)

- “Memory Stick PRO Duo” with a capacity up to 512MB have been confirmed to operate properly with this camera.

Effective use of the battery

- At the time of purchase, or if the Nickel-Metal Hydride batteries have not been used for a long time, they may not be sufficiently charged. We recommend that you charge the batteries before you use them.
- Battery performance decreases in low-temperature surroundings, and the battery life is shortened under such circumstances. To use the battery longer, we recommend you keep the battery in its case in a pocket close to your body to warm it, and insert it in your camera just before you start shooting.
- If you set [LCD LIGHT] to [OFF], the battery will run for a longer amount of time.
- If you shoot a lot using the flash, the battery power will be used up faster.
- We recommend having spare batteries handy for two or three times the expected shooting time, and try test shooting before actually using the camera.
- Do not expose the battery to water. The battery is not water-resistant.

Battery life

- The battery life is limited. The battery capacity decreases little by little as you use it more and more, and as time passes. When the battery operating time seems to have been considerably shortened, a probable cause is that the batteries have reached the end of their life.
- The battery life varies depending on storage, operating conditions, and environment, and is different for each battery.

On the battery charger

- Do not charge any other batteries except Sony Nickel-Metal Hydride batteries in the battery charger supplied with your camera. If you try to charge any other type of battery (e.g., manganese batteries, alkaline dry cells, primary lithium batteries, or Ni-Cd batteries) than the batteries specified, those batteries may leak, overheat, or explode, causing the danger of burns or other injuries.
- Do not charge fully charged Nickel-Metal Hydride batteries again. Otherwise, there is a danger of leaks, excessive heat, explosions, or electric shock.
- When charging a high capacity battery other than the supplied battery using the supplied battery charger, the full capacity of the battery may not be available.
- When the CHARGE lamp flashes, this may indicate a battery error or that batteries other than the specified type have been inserted. Check that the batteries are the specified type. If the specified type of batteries have been installed, remove all the batteries, replace them with new ones or another ones and check if the battery charger operates correctly. If the battery charger operates correctly, a battery error may have occurred.

■Camera

[System]

Image device
6.72 mm (1/2.7 type) color CCD
Primary color filter

Total pixels number of camera
Approx. 2 112 000 pixels

Effective pixels number of camera
Approx. 2 020 000 pixels

Lens Single focal lens
f = 5.0 mm (7/32 inches)
(35 mm camera conversion: 33 mm (1 5/16 inches))
F2.8

Exposure control
Automatic, Scene Selection (5 modes)

White Balance
Automatic, Daylight, Cloudy, Fluorescent, Incandescent

Data formats
Still images: DCF compliant (Exif Ver. 2.2 JPEG compliant), DPOF compatible
Movies: MPEG1 compliant (without audio)

Recording media
“Memory Stick Duo”

Flash Recommended distance: 0.5 m to 1.8 m (1 foot 7 3/4 inches to 5 feet 10 3/4 inches)

[Output connector]

USB jack mini-B

[LCD screen]

LCD panel used
2.5 cm (1.0 type) TFT drive

Total number of dots
64 460 (293×220) dots

[Power, general]

Power AAA Nickel-Metal Hydride batteries (2) 2.4 V
5 V (from USB cable)

Power consumption (when shooting)
1.27 W

Operating temperature range
0°C to +40°C (+32°F to +104°F)

Storage temperature range
–20°C to +60°C (–4°F to +140°F)

Dimensions
99.9 × 40.5 × 24.9 mm (4 × 1 5/8 × 1 inches) (W/H/D, protruding sections not included)

Mass Approx. 132 g (4.7 oz) (two batteries, “Memory Stick Duo,” neck strap, and lens cap included)

Exif Print Compatible

PRINT Image Matching II Compatible

PictBridge Compatible

■BC-CS2A/CS2B Ni-MH battery charger

Input rating
100 – 240 V AC, 50/60 Hz, 3 W

Output rating
DC OUT AA: 1.4 V, 400 mA × 2
AAA: 1.4 V, 160 mA × 2

Operating temperature range
0°C to +40°C (+32°F to +104°F)

Storage temperature range
–20°C to +60°C (–4°F to +140°F)

Dimensions
Approx. 71 × 30 × 91 mm (2 7/8 × 1 3/16 × 3 5/8 inches) (W/H/D)

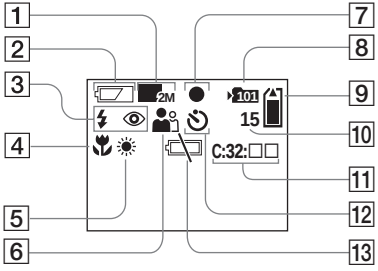
Mass Approx. 90 g (3 oz)

Accessories

- HR11/45: HR03 (Size AAA) Ni-MH batteries (2)
- Battery case (1)
- BC-CS2A/CS2B Ni-MH battery charger (1)
- Power cord (mains lead) (1)
- USB cable (1)
- Neck strap (1)
- “Memory Stick Duo” (8MB) (1)
- Memory Stick Duo Adaptor (1)
- Lens cap (1)
- CD-ROM (USB driver SPVD-010) (1)
- Operating instructions (1)

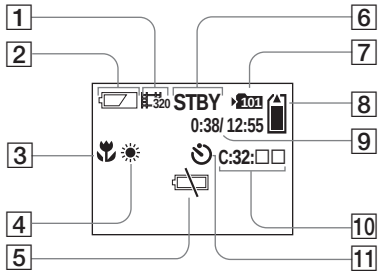
Design and specifications are subject to change without notice.

When shooting still images



1 **Image size indicator** (18, 31)
2 **Battery remaining indicator** (13)
3 **Flash mode indicator** (24)**/ Red-eye reduction indicator** (24)
4 **Focus preset indicator** (30)
5 **White Balance indicator** (33)
6 **Scene Selection indicator** (28)
7 **AE/AF lock indicator** (20)
8 **Recording folder indicator** (25)
9 **Remaining "Memory Stick" capacity indicator**
10 **Remaining number of recordable images indicator** (19)
11 **Self-diagnosis display** (76)
12 **Self-timer indicator** (22)
13 **Low battery warning indicator** (74)

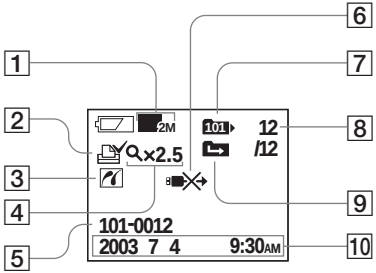
When shooting movies



1 **Recording mode indicator** (46)
2 **Battery remaining indicator** (13)
3 **Focus preset indicator** (30)
4 **White Balance indicator** (33)
5 **Low battery warning indicator** (74)
6 **Status indicator** (46)
7 **Recording folder indicator** (25)
8 **Remaining "Memory Stick" capacity indicator**
9 **Shooting time/Recording time [maximum recordable time] indicator** (48)
10 **Self-diagnosis display** (76)
11 **Self-timer indicator** (22)

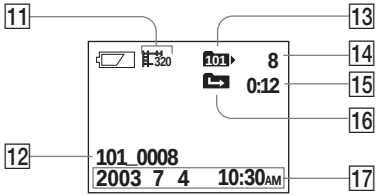
Page numbers in parentheses indicate the location of additional important information.

When playing back still images



1 **Image size indicator** (18, 31)
2 **Print (DPOF) mark indicator** (40)
3 **PictBridge connecting indicator** (43)
4 **Enlarged playback/enlargement level indicator** (39)
5 **Folder-file name** (62)
6 **Not disconnect USB cable indicator** (45)
7 **Playback folder indicator** (37)
8 **Image number/Number of images recorded in selected folder**
9 **Change folder indicator** (38)
10 **Recording date/time of the playback image**

When playing back moving images



11 **Recording mode indicator** (49)
12 **Folder_file name** (62)
13 **Playback folder indicator** (37)
14 **Image number**
15 **Counter**
16 **Change folder indicator** (38)
17 **Recording date/time of the playback image**

Page numbers in parentheses indicate the location of additional important information.

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3 0 8 4 8 9 1 1 1

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