

SONY®

Digital Still Camera

Operating Instructions

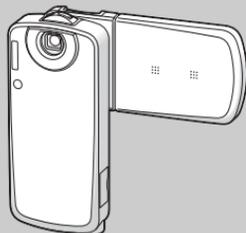
Before operating the unit, please read this manual thoroughly, and retain it for future reference.

Owner's Record

The model and serial numbers are located on the side. 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-M1

Serial No. _____



DSC-M1

Cyber-shot



MEMORY STICK™



2-320-916-12(1)

Getting started _____

Shooting images _____

Viewing images _____

Deleting images _____

Before advanced operations _____

Advanced shooting _____

Advanced viewing _____

Still image printing _____

Enjoying images on your computer _____

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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-M1
Responsible Party: Sony Electronics Inc.
Address: 16450 W. Bernardo Dr,
San Diego, CA 92127
U.S.A.
Telephone No.: 858-942-2230

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

Note:

Model DSC-M1 is to be used with the Cyber-shot Station Model UC-MA and AC Adaptor Model AC-LM5/LM5A.

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 LITHIUM-ION BATTERIES

Lithium-Ion 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 Lithium-Ion batteries.

"Memory Stick"



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

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

Notice

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

Read this first

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.

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 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.

Lens cover

The lens cover of this camera opens and closes automatically when the camera is turned on and off. Be careful not to pinch your finger when the lens cover opens and closes. Also, do not attempt to forcibly open the lens cover, as this may cause malfunction.

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. Water entering the inside of the camera may cause malfunctions which in some cases may not be repairable. If moisture condensation occurs, see page 118 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.

Do not aim the camera at the sun or other bright light

This may cause irrecoverable damage to your eyes. Or it may cause the malfunction of your camera.

Notes on the camera locations

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

Carl Zeiss lens

This camera is equipped with a Carl Zeiss lens which is capable of reproducing sharp images with excellent contrast.

The lens for this camera has been produced under a quality assurance system certified by Carl Zeiss in accordance with the quality standards of Carl Zeiss in Germany.

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.

Before using your camera

“Memory Stick” compatible with this camera

The IC recording medium used with this camera is the “Memory Stick Duo”.

There are two sizes of “Memory Stick”. Choose the “Memory Stick” size that matches your camera.

“Memory Stick Duo” (Size used with this camera)



“Memory Stick”



- For details on the “Memory Stick Duo”, see page 119.
- “Memory Stick PRO” and “Memory Stick PRO Duo” can be used only with “Memory Stick PRO” compatible equipment.
- For the number of images that can be saved using this camera, see page 27.

When using a “Memory Stick Duo” with “Memory Stick” compatible equipment

Be sure to insert the “Memory Stick Duo” into the supplied Memory Stick Duo Adaptor.

Memory Stick Duo Adaptor



On “InfoLITHIUM” battery pack

When using the battery pack for the first time

Be sure to charge the supplied NP-FT1 battery pack (page 14).

Recharging

The battery pack can be charged even when it has not been completely discharged. In addition, the battery pack can be used even if it has only been charged partway.

Extending the battery pack life

When not using the camera for a long time, turn off the camera, remove the battery pack and store it in a dry, cool place to maintain the battery pack functions (page 121).

- For details on “InfoLITHIUM” battery pack, see page 120.

Trademarks

- Cyber-shot is a trademark of Sony Corporation.
- “Memory Stick”, , “Memory Stick PRO”, **MEMORY STICK PRO**, “Memory Stick Duo”, **MEMORY STICK DUO**, “Memory Stick PRO Duo”, **MEMORY STICK PRO DUO**, “MagicGate” and **MAGICGATE** are trademarks of Sony Corporation.
- “InfoLITHIUM” is a trademark of Sony Corporation.
- Picture Package is a trademark of Sony Corporation.
- Microsoft, Windows, Windows Media, and DirectX are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.
- Macintosh, Mac OS, QuickTime, iMac, iBook, PowerBook, Power Mac and eMac are trademarks or registered trademarks of Apple Computer, Inc.
- Macromedia and Flash are trademarks or registered trademarks of Macromedia, Inc. in the United States and/or other countries.
- Intel, MMX, and Pentium are trademarks or registered trademarks 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.

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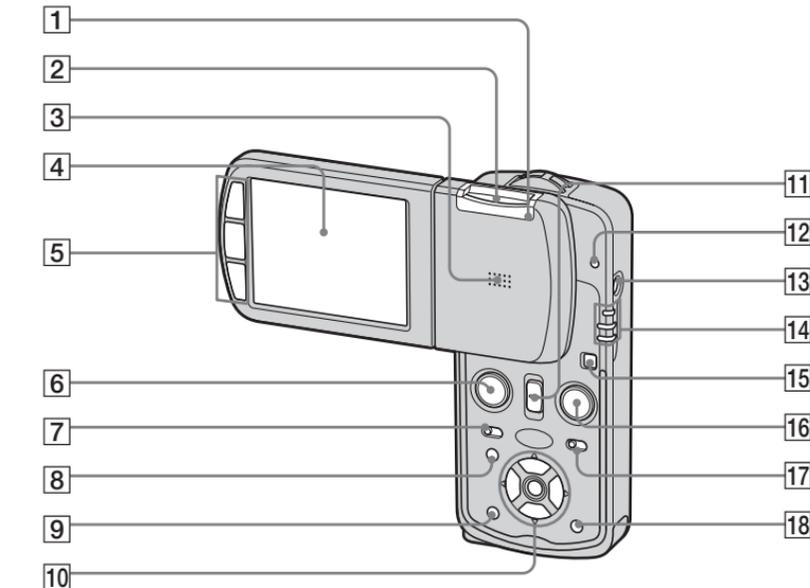
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Identifying the parts

See the pages in parentheses for details of operation.

Camera

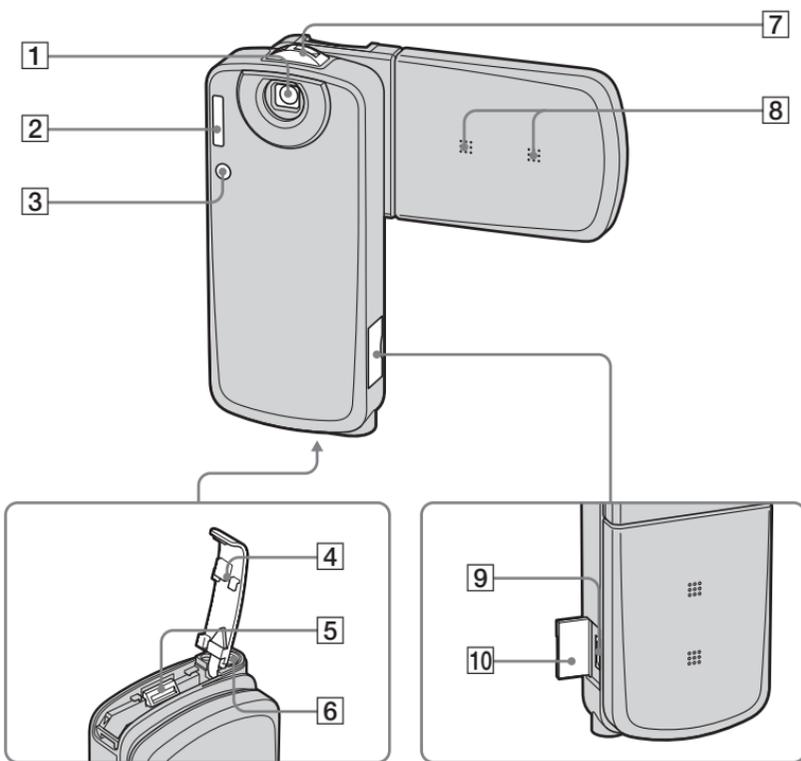


- 1 Access lamp (23)
- 2 “Memory Stick Duo” insertion slot (23)
- 3 Speaker
- 4 LCD screen

For details on the items on the LCD screen, see page 123 to 126.

- 5 For shooting: PHOTO/MOVIE buttons (30)
For viewing: ◀/▶ (43)

- 6 PHOTO button (30)
- 7 HYBRID switch (32)
- 8 MENU button (53, 113)
- 9 (Image Size/Delete) button (24, 49)
- 10 Control button
Menu on: ▲/▼/◀/▶/● (20)/
Menu off: ⚡/🔊/📺/📷 (39/38/36/61)
- 11 For shooting: Zoom (W/T) lever (35)
For viewing: ◀/▶ (Playback zoom) lever (72)/
 (Index) lever (45)
- 12 RESET button (101)
- 13 POWER button (19)
- 14 ⚡/CHG lamp (orange) (15)
REC: Recording mode lamp (green) (19)
PLAY: Playback mode lamp (green) (43)
- 15 MODE button (29, 43)
- 16 MOVIE button (30)
- 17 5SEC switch (34)
- 18 (Display/LCD backlight on/off) button (35)

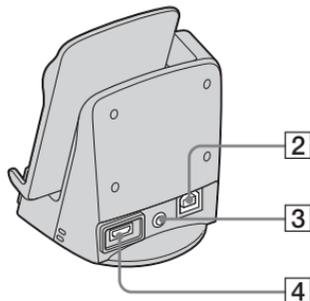
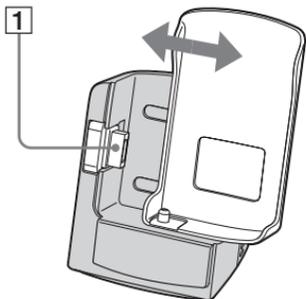


- 1 Lens**
- 2 Flash (39)**
- 3 Self-timer lamp (38)/
AF illuminator (40, 116)**
- 4 Battery cover**
- 5 Battery eject lever (16)**
- 6 Tripod receptacle**
- 7 Hook for wrist strap**
Attaching the strap is recommended to prevent dropping the camera (page 13).
- 8 Microphones**
- 9 Multi connector**
- 10 Multi connector cover**

- Use a tripod with a screw length of less than 5.5 mm (7/32 inch). You will be unable to firmly secure the camera to tripods having longer screws, and may damage the camera.

Cyber-shot Station

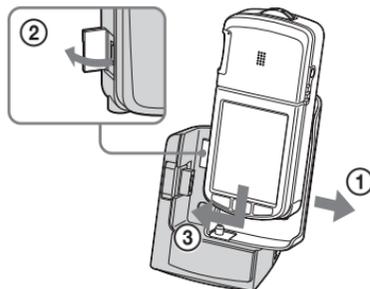
This is used when charging the battery pack or connecting the camera to a TV or a computer, etc.



- 1 Camera connector
- 2  (USB) jack (88)
- 3 A/V OUT (STEREO) jack (46)
- 4 DC IN jack (14)

How to connect

Connect the camera as illustrated.

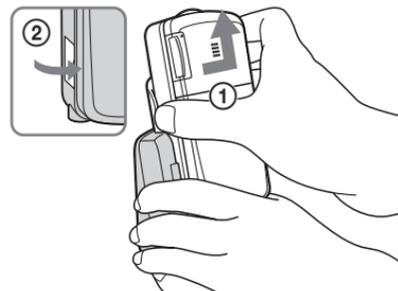


- 1 Slide the tray.
- 2 Open the multi connector cover on the camera.
- 3 Connect the camera and slide the tray.

- Make sure to slide the tray firmly.

How to disconnect

Grasp the camera and the Cyber-shot Station (supplied) as illustrated and disconnect the camera.



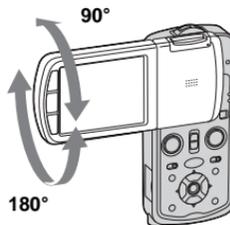
- Be sure to turn off the camera before you connect the camera to the Cyber-shot Station or disconnect the camera from the Cyber-shot Station.
- **Do not disconnect the camera from the Cyber-shot Station during the USB connection, as the data may be corrupted. To cancel the USB connection, see  on page 89 (Windows) or  on page 99 (Macintosh).**

How to handle the camera

When opening the LCD panel, rotate the panel to the left as illustrated.



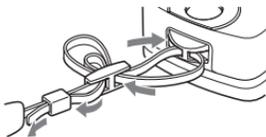
The LCD panel rotates 90 degrees and 180 degrees to each side as illustrated.



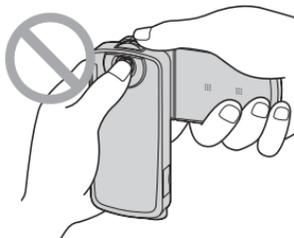
When carrying the camera, close the LCD screen as illustrated.



Attach the wrist strap as illustrated.



When opening the LCD panel, make sure not to touch the lens portion with your fingers.



Do not hold the LCD panel with your hand.



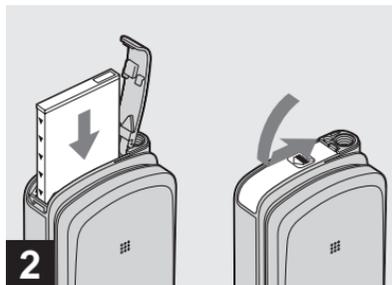
Charging the battery pack



1 → Open the battery cover.

Slide the cover in the direction of the arrow.

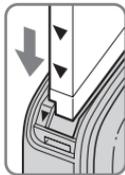
- Be sure to turn off your camera when charging the battery pack (page 19).
- Your camera operates with the “InfoLITHIUM” NP-FT1 battery pack (T type) (supplied). You can use only T type battery pack (page 120).



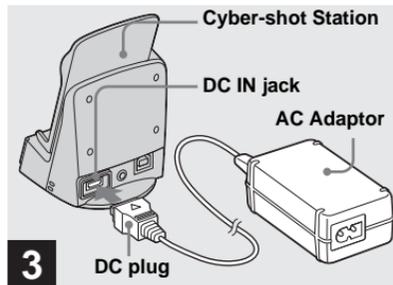
2 → Install the battery pack, then close the battery cover.

Make sure the battery pack is firmly inserted all the way, then close the cover.

Battery insertion slot



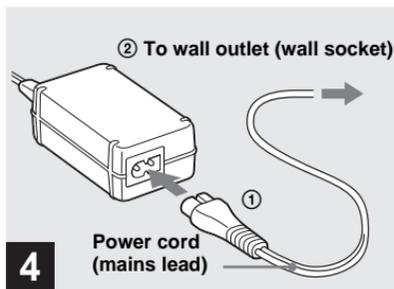
Facing the ▼ marks on the side of the battery pack in the same direction as the ▼ mark on the battery insertion slot, insert the battery pack until it is locked.



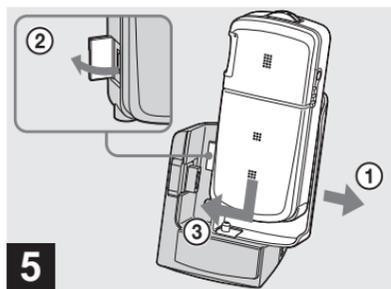
3 → Connect the AC Adaptor (supplied) to the DC IN jack of the Cyber-shot Station (supplied).

Connect the DC plug with the ▲ mark facing up.

- Do not short the DC plug of the AC Adaptor with a metallic object, as this may cause malfunction.
- Clean the DC plug of the AC Adaptor with a dry cotton bud. Do not use the dirty plug. Use of the dirty plug may not properly charge the battery pack.

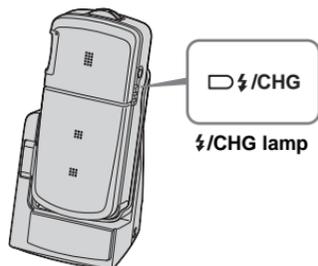


- 4** → Connect the power cord (mains lead) to the AC Adaptor and to a wall outlet (wall socket).



- 5** → Connect the camera to the Cyber-shot Station (page 12).

Connect the camera as illustrated. Make sure slide the tray firmly. The ⚡/CHG lamp lights up when charging begins.

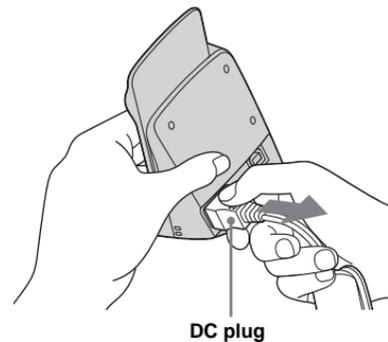


The ⚡/CHG lamp goes off when charging is completed.

- You can connect the camera to the Cyber-shot Station even when the LCD panel on the camera is open.
- When charging is completed, remove the camera from the Cyber-shot Station.

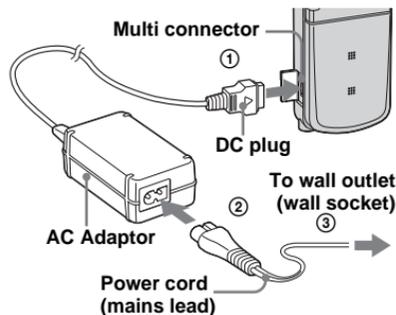
Disconnecting the AC Adaptor from the Cyber-shot Station

Hold the DC plug itself and the Cyber-shot Station as illustrated and disconnect the cable.



To charge the battery pack only using the AC Adaptor

You can charge the battery pack without the Cyber-shot Station, such as during your travels. Connect the DC plug of the AC Adaptor to the camera with the apex of the ▲ mark on the camera and the apex of the ▲ mark on the DC plug facing.



- Be sure to turn off your camera when charging the battery pack (page 19).
- When placing the camera, make sure the LCD screen is facing up.
- After charging the battery pack, disconnect the AC Adaptor both from the multi connector of the camera and from a wall outlet (wall socket).

Battery remaining indicator

The battery remaining indicator on the LCD screen shows the remaining shooting or viewing time.

Remaining indicator



- In standby mode, the battery remaining time for still image shooting is indicated.
- The displayed time remaining may not be correct under certain circumstances or conditions.

Charging time

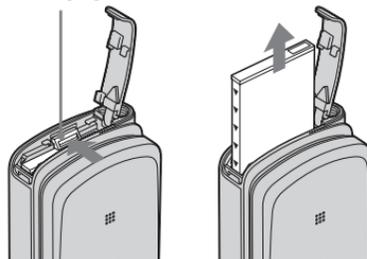
Approximate time to charge a completely discharged battery pack using the AC Adaptor at a temperature of 25°C (77°F).

Battery pack	Charging time (min.)
NP-FT1 (supplied)	Approx. 150

- The charging time may become longer under certain circumstances or conditions.

To remove the battery pack

Battery eject lever



Open the battery cover. Slide the battery eject lever in the direction of the arrow, and remove the battery pack.

- Be careful not to drop the battery pack when removing it.

Number of images and battery life that can be recorded/ viewed

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

- The battery capacity decreases as the number of uses increases and over time (page 121).

Shooting still images

Under the average conditions¹⁾

	NP-FT1 (supplied)		
	LCD backlight	No. of images	Battery life (min.)
Normal	On	Approx. 160	Approx. 80
	Off	Approx. 190	Approx. 95
Hybrid	On	Approx. 120	Approx. 60
	Off	Approx. 140	Approx. 70

¹⁾ Shooting in the following situations:

-  (P.Quality) is set to [Fine]
- Shooting one time every 30 seconds

- The zoom is switched alternately between the W and T ends
- The flash strobes once every two times
- The power turns on and off once every ten times

The measurement method is based on CIPA standard. (CIPA: Camera & Imaging Products Association)

Viewing still images²⁾

NP-FT1 (supplied)	
No. of images	Battery life (min.)
Approx. 2600	Approx. 130

²⁾ Viewing single images in order at about three second intervals

Shooting movies

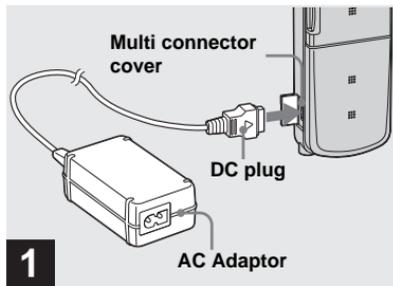
Movie size	NP-FT1 (supplied)	
	LCD backlight On	LCD backlight Off
640 (30fps)	Approx. 50 min.	Approx. 60 min.
320 (15fps)	Approx. 60 min.	Approx. 70 min.

Viewing movies

Movie size	NP-FT1 (supplied)
640 (30fps)	Approx. 110 min.
320 (15fps)	Approx. 120 min.

- The number of images and the battery life that can be recorded/viewed are decreased under the following conditions:
 - The surrounding temperature is low
 - The flash is used
 - The camera has been turned on and off many times
 - The zoom is used frequently
 - [LCD Backlight] is set to [Bright] on the Setup screen
 - The battery power is low
- When recording and playing back still images, the number of images recordable/playable and the battery life do not vary according to the image size.

Using the AC adaptor

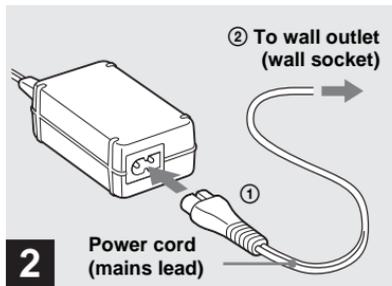


- 1** → Connect the AC Adaptor (supplied) to the DC IN jack of your camera.

When placing the camera, make sure the LCD screen is facing up.

Connect the DC plug of the AC Adaptor to the camera with the apex of ▲ mark on the camera and the apex of ▲ mark on the DC plug facing.

- Connect the AC Adaptor to an easily accessible wall outlet (wall socket) close by. If any trouble occurs while using the adaptor, immediately shut off the power by disconnecting the plug from the wall outlet (wall socket).



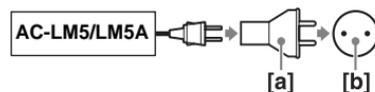
- 2** → Connect the power cord (mains lead) to the AC Adaptor and then to a wall outlet (wall socket).

- Do not use the AC Adaptor placed in a narrow space, such as between a wall and furniture.
- After using the AC Adaptor, disconnect it both from the multi connector of the camera and from a wall outlet (wall socket).
- The set is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet (wall socket) even if the set itself has been turned off.

Using your camera abroad

Power sources

You can use your camera in any country or region with the AC Adaptor/power cord (mains lead) (supplied) 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

There are two methods to turn on the camera.

Turning on the power by opening the LCD panel



Rotate the LCD panel in the direction of the arrow as illustrated.

The recording mode lamp (green) lights up and the power is on.

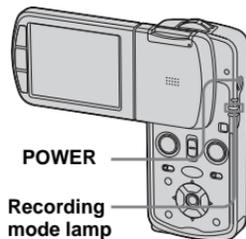
- When you rotate the LCD panel fast, the power may not be turned on. In a case like this, rotate it slowly again.

Turning off the power

Close the LCD panel. The camera turns off.

- In PLAY mode, if you close the LCD panel with the LCD screen facing up, the camera does not turn off.

Turning on the power by pressing POWER.



The recording mode lamp (green) lights up and the power is on.

- When the LCD screen is facing up with the LCD panel closed, turning on the power turns the camera to PLAY mode.

Turning off the power

Press POWER again. The camera turn off.

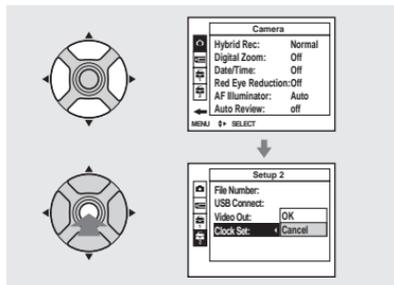
- When you turn on your camera for the first time, the Clock Set screen appears (page 21).

Auto power-off function

If you do not operate the camera for about three minutes during shooting or viewing or when performing Setup, the camera turns off automatically to prevent wearing down the battery. The auto power-off function only operates when the camera is operating using a battery pack. The auto power-off function also will not operate in the following circumstances.

- When viewing movies
- When playing back a slide show
- When a connector is plugged into the  (USB) jack or the A/V OUT (STEREO) jack with the camera connected to the Cyber-shot Station

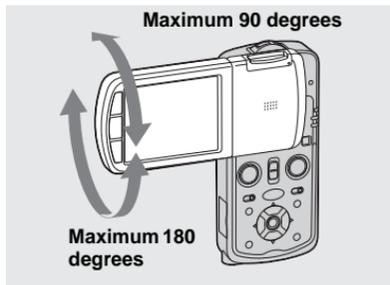
How to use the control button



To change the current settings of the camera, bring up the menu or the Setup screen (page 54), and use the control button to make the changes.

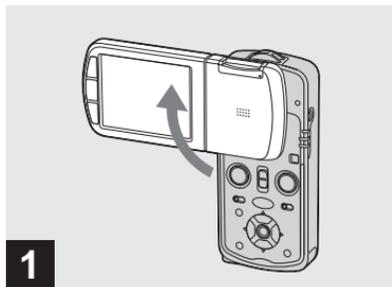
To set a menu item, press ▲/▼/◀/▶ on the control button to select the desired item and setting and make the setting. To set a Setup item, press ▲/▼/◀/▶ on the control button to select the desired item and setting, then press ● to make the setting.

Adjusting the LCD screen



You can adjust the angle of the LCD screen to suit your situation. Adjust the LCD screen with the LCD panel open at 90 degrees.

Setting the date and time

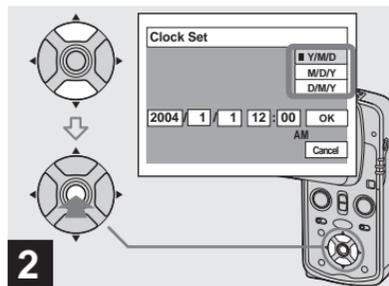


1

➔ Open the LCD panel to turn on the power.

The recording mode lamp (green) lights up and the Clock Set screen appears on the LCD screen.

- To change the date and time, on the Setup screen, select [Clock Set] in  (Setup 2) (pages 54 and 117), and perform the procedure from step 2.

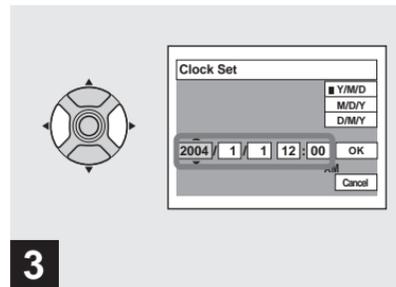


2

➔ Select the desired date display format with ▲/▼ on the control button, then press ●.

Select from [Y/M/D] (year/month/day), [M/D/Y] (month/day/year) or [D/M/Y] (day/month/year).

- If the rechargeable battery (page 119), which provides the power for saving the time data, ever becomes low, the Clock Set screen will appear again. When this happens, reset the date and time, by starting from step 2 above.



3

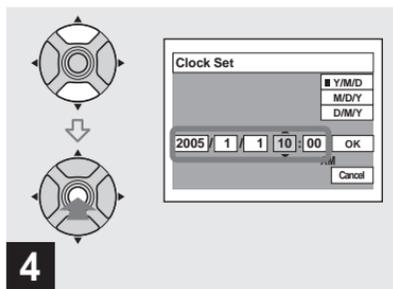
➔ Select the year, month, day, hour or minute item you want to set with ◀/▶ on the control button.

The item to be set is indicated with ▲/▼.

Changing the language setting

You can change the screen display like menu items, warnings and messages in your desired language.

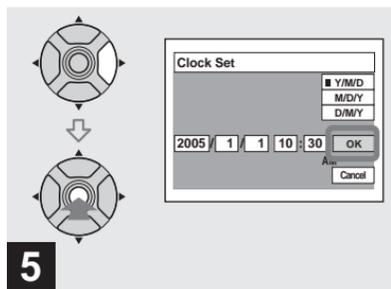
To change the language setting, select **A** (Language) in  (Setup 1) on the Setup screen, (pages 54 and 117) and select the desired language.



4 → Set the numeric value with ▲/▼ on the control button, then press ● to enter it.

After entering the number, ▲/▼ moves to the next item. Repeat steps **3** and **4** until all of the items are set.

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

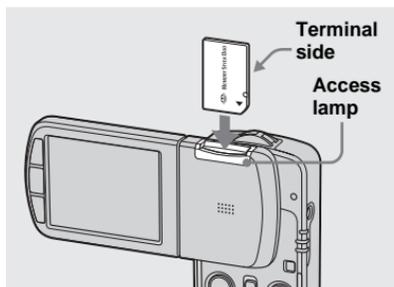


5 → Select [OK] with ► on the control button, then press ●.

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

- To cancel the date and time setting, select [Cancel] with ▲/▼/◀/▶ on the control button, then press ●.

Inserting and removing a “Memory Stick Duo”



➔ Insert the “Memory Stick Duo.”

Insert a “Memory Stick Duo” all the way in until it clicks as illustrated.

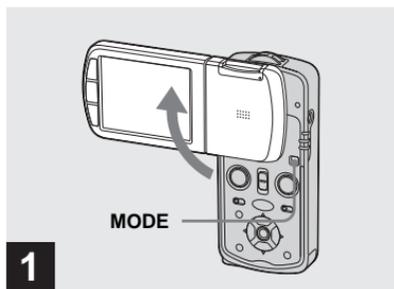
- **When using this camera, the Memory Stick Duo Adaptor (supplied) is not necessary.**
- For details on “Memory Stick Duo”, see page 119.
- When inserting a “Memory Stick Duo”, make sure of the direction and insert it all the way to the connector. If the “Memory Stick Duo” is not inserted correctly, you may not be able to record or display images with the “Memory Stick Duo”. And also it may result in malfunction of both the camera and “Memory Stick Duo”.

To remove a “Memory Stick Duo”

Push the “Memory Stick Duo” to pop it out.

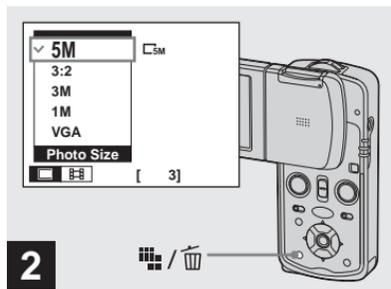
- **Whenever the access lamp is lit, the camera is recording or reading an image. Never remove the “Memory Stick Duo” or turn off the power at this time. The data may be corrupted.**

Setting the image size



→ Turn on the power (page 19).

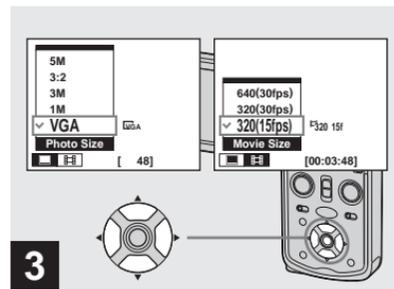
- In PLAY mode, turn to the REC mode with MODE.



→ Press  /  (Image Size).

The Image Size setup appears.

- For details on the image size, see page 25.



→ Select  (Photo Size) or  (Movie Size) with  /  on the control button, then select the desired image size with  / .

The image size is set.

When the setting is complete, press  /  (Image Size) so that the Image Size setup disappears from the LCD screen.

- The number of images recordable/remaining time of the “Memory Stick Duo” inserted in the camera is indicated on the lower part of the LCD screen.
- The image size selected here is maintained even when the power is turned off.

Image size and quality

You can choose image size (number of pixels) and image quality (compression ratio) based on the kind of images you want to shoot.

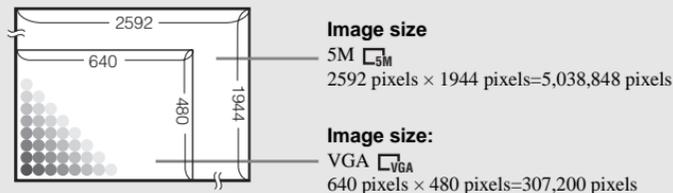
The image size is shown by the number of pixels (dots) (horizontal × vertical), which compose an image. For example, a 5M (2592×1944) size image indicates that there are 2592 pixels horizontally and 1944 pixels vertically. The larger the number of pixels, the larger the image size.

You can select from Fine (high quality) or Standard image quality. Each uses a different compression ratio.

When you select Fine, the image quality improves as the image size increases, but the amount of recorded data also increases and the number of images that can be recorded on a “Memory Stick Duo” decreases. Refer to the table on the right and choose the image size and image quality appropriate to the kind of images you want to shoot.

Short description of the image size

The following illustration shows a brief image using the maximum image size and the minimum one.



Examples based on image size and image quality

Photo size and image quality for still images

Photo size		Usage guidelines
5M ¹⁾ (2592×1944)	 <p>Larger</p> <p>Smaller</p>	<ul style="list-style-type: none">• For saving important images, printing in A4 size or printing A5 size high density images• For printing in postcard size• For recording a larger number of images• For attaching images to e-mail or creating home pages
3:2 ²⁾ (2592×1728)		
3M (2048×1536)		
1M (1280×960)		
VGA (640×480)		

¹⁾ The factory setting is [5M]. It is the highest image quality on this camera.

²⁾ Images are recorded in the same 3:2 aspect ratio as photograph printing paper or postcards, etc.

Image quality (Compression ratio)		Usage guideline
Fine	Low compression (looks better)	<ul style="list-style-type: none"> • For recording or printing with better image quality. • For recording a larger number of images.
Standard	High compression (normal)	

Movie size for movies

Movie size	Usage guidelines
640 (30fps) ¹⁾ (640×480)	<ul style="list-style-type: none"> • For recording a clear and smooth movie. • For recording a long movie.
320 (30fps) (320×240)	
320 (15fps) (320×240)	

¹⁾ The factory setting is [640 (30fps)].

- “fps” indicates the number of frames per second (Frame Per Second). The actual number of image recordable may differ depending on the shooting situations and the subject.

Number of images that can be recorded/recording time

The number of still images that can be saved in a “Memory Stick Duo”¹⁾

The number of images that can be saved in Fine (Standard)²⁾ mode are shown below.

- The tables below show the approximate number of images that can be recorded on a “Memory Stick Duo” that has been formatted by this camera.

Normal mode

(Units: number of images)

Capacity Photo size	16MB	32MB	64MB	128MB	256MB	512MB
5M	6 (11)	12 (23)	25 (48)	51 (96)	92 (174)	188 (354)
3:2	6 (11)	12 (23)	25 (48)	51 (96)	92 (174)	188 (354)
3M	10 (18)	20 (36)	41 (74)	82 (149)	148 (264)	302 (537)
1M	24 (46)	50 (93)	101 (187)	202 (376)	356 (649)	725(1319)
VGA	96 (242)	196 (490)	393 (984)	789 (1974)	1427 (3569)	2903 (7259)

Hybrid mode

(Units: number of images)

Capacity Photo size	16MB	32MB	64MB	128MB	256MB	512MB
5M	4 (7)	9 (14)	18 (28)	37 (57)	67 (103)	138 (210)
3:2	4 (7)	9 (14)	18 (28)	37 (57)	67 (103)	138 (210)
3M	6 (8)	12 (17)	25 (36)	51 (72)	93 (129)	191 (263)
1M	10 (12)	20 (25)	41 (51)	83 (102)	148 (183)	302 (372)
VGA	14 (16)	29 (32)	59 (65)	119 (131)	216 (237)	439 (483)

¹⁾ When [REC Mode] is set to [Normal].

For the number of images that can be saved in Multi Burst, see page 66.

²⁾ For more information about the image quality (compression ratio), see page 54.

- When images recorded using earlier Sony models are played back on this camera, the display may differ from the actual image size.
- When the images are viewed on the LCD screen of the camera, they all look the same size.
- Number of shooting images can differ from these values according to shooting conditions.
- When the number of remaining shooting images is greater than 9,999, the “>9999” indicator appears on the LCD screen.
- You can resize still images later (Resize function, see page 77).

The available recording time of movies saved in a “Memory Stick Duo”

- The table below shows the approximate amount of shooting time that can be recorded on a “Memory Stick Duo” that has been formatted by this camera.

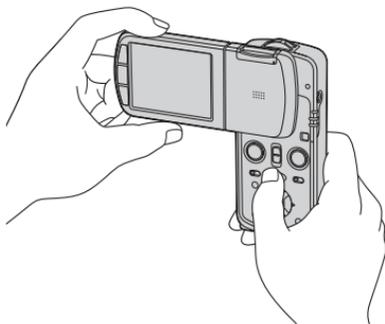
Capacity	16MB	32MB	64MB	128MB	256MB	512MB
Movie size						
640 (30fps)	0:00:43	0:01:29	0:02:59	0:05:59	0:10:49	0:22:01
320 (30fps)	0:02:21	0:04:45	0:09:34	0:19:12	0:34:43	1:10:37
320 (15fps)	0:08:12	0:16:37	0:33:24	1:07:00	2:01:08	4:06:24

The numbers indicate the recording time. For example: “1:10:37” indicates “1 hour, 10 minutes, 37 seconds.”

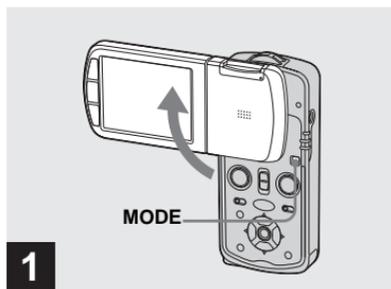
- The maximum recording time is two hours per one recording.
- Recording time can differ from these values according to shooting conditions.
- Playback of movies not recorded with this camera cannot be guaranteed.

Basic shooting — Using auto adjustment mode

Holding the camera correctly

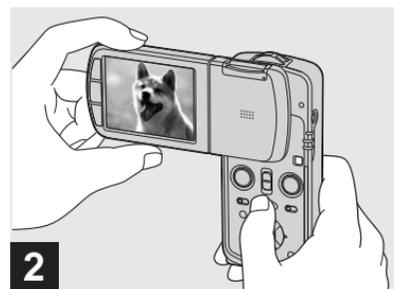


When shooting pictures with the camera, be careful so that your fingers do not block the lens portion, flash emitter or AF illuminator (page 11).



➔ Turn on the power (page 19).

- The lens cover opens when the power is turned on in REC mode.
- In PLAY mode, turn to the REC mode with MODE.



➔ Hold the camera steadily with both hands and position the subject in the center of the focus frame.

- The minimum focal distance to a subject is approx. 50 cm (19 3/4 inches). To shoot subjects at distances closer than this, use the close-ups (Macro) mode (page 36).
- The frame indicated on the LCD screen shows the focus adjustment range (AF range finder, page 57).

For shooting a photo



➔ Press and hold PHOTO halfway down.

The beep sounds but the image is not yet recorded. When the AE/AF lock indicator changes from flashing to steadily lit, the camera is ready for shooting. (The LCD screen may be frozen for a split second depending on the subject.)

- If you release PHOTO, shooting will be canceled.
- You can continue and shoot even when the camera does not beep, but in this case the focus is not set properly.
- No beep sounds when [Beep] is set to [Off] on the Setup screen (page 117).

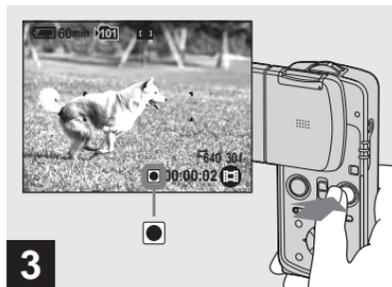


➔ Press PHOTO fully down.

The shutter sounds. The image will be recorded in the “Memory Stick Duo”.

- You can use PHOTO on the side of the LCD screen, however, you cannot press and hold PHOTO halfway down.
- When operating the camera using a battery pack, if you do not operate the camera for a while during recording or playback, the camera turns off automatically to prevent wearing down the battery (page 19).

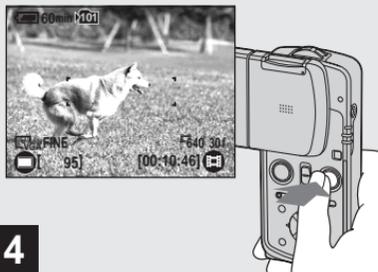
For shooting a movie



➔ Press MOVIE.

- You can use MOVIE on the side of the LCD screen.
- When available recording time is low,  on the lower part of the LCD screen flashes.
- When you set the image size to [640(30fps)] while connecting the A/V connecting cable (supplied) to the A/V OUT (STEREO) jack, the subject does not appear on the LCD screen. The LCD screen turns blue.

For shooting a movie



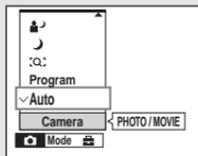
4

→ Press MOVIE again.

The recording stops.

The (Camera) item in the menu

The functions that can be used change as follows according to  (Camera) in the menu.



Still image auto shooting [Auto]

The focus, exposure and white balance are automatically adjusted as needed to allow easy shooting. In addition, the image quality is set to [Fine] (page 54), the AF range finder frame is set to [Multi AF], and the metering mode is set to Multi-pattern metering (pages 57 and 61).

Only , [Mode] (REC Mode) and  (Setup) appear in the menu.

Still image program shooting [Program]

The necessary adjustments are made automatically like still image auto shooting, but you can also change the focus and other adjustments as desired. In addition, you can also set the desired shooting functions using menus (pages 53 and 113).

-  (Magnifying glass mode) (page 67)
-  (Twilight mode) (page 67)
-  (Twilight portrait mode) (page 67)
-  (Landscape mode) (page 67)
-  (Snow mode) (page 68)
-  (Beach mode) (page 68)
-  (High-speed shutter mode) (page 68)
-  (Fireworks mode) (page 68)
-  (Candle mode) (page 68)

To switch the shooting method

- 1 Press MENU.
- 2 Select  (Camera) with  on the control button.
- 3 Select the desired shooting mode with  on the control button.

Hybrid shooting

Auto Focus

When you try to shoot a subject that is difficult to focus on, the AE/AF lock indicator changes to flashing slowly. In addition, the AE locked beep does not sound.

The Auto Focus function may have difficulty working under the following conditions. In such cases, release the PHOTO button, then recompose the shot and focus again.

- 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.

There are three method for Auto Focus function: Multipoint AF, Center AF and Spot AF (page 57). When  (Camera) is set to [Auto] in the menu settings, the Multipoint AF is automatically selected.

In hybrid shooting, the camera records an approximately 5-second movie before shooting a still image and an approximately 3-second movie after the still image. The sound is also recorded in movies. Using this shooting method, you can record the feel of a shooting situation, in comparison with only a still image. Also, you can feel the situation around the moment when shooting a photo with pre/post movies. The movie files are recorded in MPEG-4 (MP4) format.



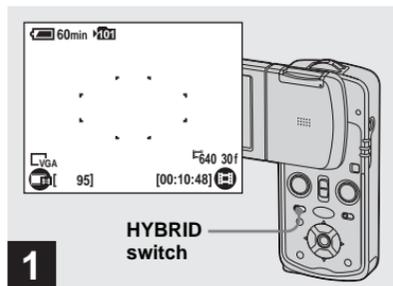
Approximately 5-second movie



Still image recorded when you press PHOTO



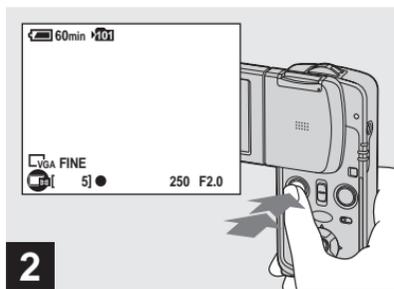
Approximately 3-second movie



➔ **Set the HYBRID switch to HYBRID.**

The icon changes to  on the lower-left of the LCD screen.

- In PLAY mode, turn to the REC mode with MODE.



→ Press PHOTO fully down.

An approximately 5-second movie shot before a still image and an approximately 3-second movie after the still image are also recorded.

When “Recording” disappears, you can shoot the next image or operate the camera. When a back movie is being recorded,  is indicated on the lower part of the LCD screen.

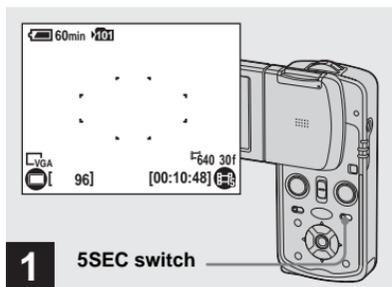
To return to the normal recording

Set the HYBRID switch to the left position.

- Movie size is set to 320×240 (15fps).
- You cannot use the following functions in Hybrid mode.
 - Speed Burst
 - Multi Burst
 - Exposure Bracket
 - Auto review
- When [Hybrid Rec] is set to [Pre Rec] on the Setup screen, you can record only an approximately 5-second movie before shooting a still image.
- The shutter sound is recorded even when [Beep] is set to [Off] on the Setup screen.
- In hybrid shooting, the battery quickly runs low as compared with a normal shooting.
- A pre/post movie may become shorter in the following cases.
 - Shooting the next image continuously.
 - Changing the mode with MODE or the HYBRID switch before or after shooting.
- Status of the LCD screen is directly recorded in a pre/post movie. So, the following status is also recorded.
 - AE lock adjusting sound and its lock sound
 - The light of AF illuminator
 - The screen status when setting a function, such as picture effect, just before shooting a still image
 - Self-timer sound
 - Beep sound during an operation (When you do not want to record a beep sound, set [Beep] to [Off] or [Shutter].)
- For details on how to play back images recorded in Hybrid mode, see page 44.

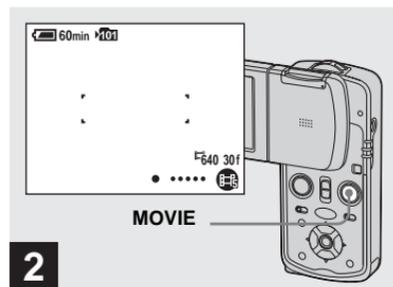
Shooting a movie for 5 seconds

You can record a 5-second movie with one press of the button just as you do when shooting a still image. Since the recording time of one movie is limited to 5 seconds, the series of 5-second movies are played back in a slide show as if they were edited.



➔ Set the 5SEC switch to 5SEC.

- In PLAY mode, turn to the REC mode with MODE.



➔ Press MOVIE fully down.

“●●●●●” appears on the LCD screen and the ● indicator disappears every second.

To return to the normal recording

Set the 5SEC switch to the left position.

To extend a recording

During recording, press MOVIE again. The recording time is extended by five seconds.

- You cannot stop a recording in the midst of a recording even if you press MOVIE.

Indicators on the LCD screen during shooting



Each time you press , the display changes in the following order.

- For a detailed description of the indicators, see page 123.
- For a detailed description of the histogram, see page 60.
- You can extend the battery remaining time by turning off the LCD backlight.
- This setting is maintained even when the power is turned off.

Histogram on
(Image information can also be displayed during still image playback.)



↓
Indicators off

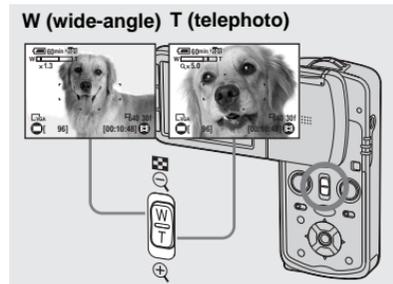


↓
LCD backlight off

↓
Indicators on



Using the zoom feature



➔ **Slide the zoom lever to choose the desired zoom position for shooting.**

The minimum focal distance to the subject

Approx. 50 cm (19 3/4 inches) from the lens surface.

- In PLAY mode, turn to the REC mode with MODE.

Zoom

Your camera is equipped with the following zoom functions.

The enlargement method and the zoom scale differ according to the image size and the zoom type, so select the zoom to match the shooting purpose.

Optical zoom

The telephoto and wide angle adjustment is made by the lens in the same manner as a conventional film camera.

The maximum optical zoom is 3×.

Digital zoom

All image sizes are enlarged up to a maximum 6×. Digital zoom function cuts out and enlarges a certain portion of the image, so the image quality deteriorates.



Optical zoom

Digital zoom

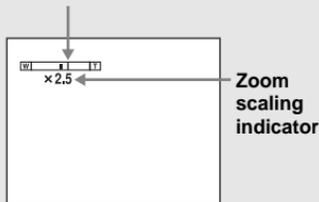
To set digital zoom

Set [Digital Zoom] to [On] on the Setup screen (page 116).

(When you purchase your camera, [Digital Zoom] is set to [Off].)

When you slide the zoom lever, the zoom scaling indicator appears on the LCD screen as follows.

The W side of this line is optical zoom area, and the T side is digital zoom area



- The zoom scaling indicator differs according to the zoom type.
 - Optical zoom: \times
 - Digital zoom: \times
- The AF range finder frame does not appear when using the digital zoom. The or indicators flashes, and AF operates with priority on subjects located near the center.
- The zoom may stop momentarily on the boundary between the optical zoom and the digital zoom.



The close-ups (Macro) recording mode is used when zooming up subjects such as flowers or insects. Setting the zoom all the way to the W side lets you shoot subjects at distances as close as approximately 8 cm (3 1/4 inches). However, the minimum focus distance varies according to the zoom position. Therefore, shooting with the zoom set all the way to the W side is recommended.

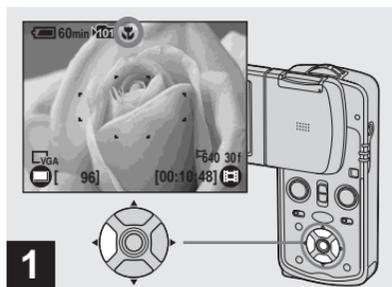
When the zoom is set all the way to the W side:

Approx. 8 cm (3 1/4 inches) from the lens surface

When the zoom is set all the way to the T side:

Approx. 25 cm (9 7/8 inches) from the lens surface

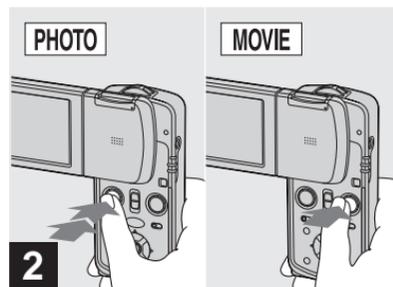
- Using Spot AF is recommended (page 57).
- To shoot at even closer distances than closeups (Macro) recording, use [Q] (Magnifying glass mode) (page 67).



1 → Press ► (Macro) on the control button.

The Macro indicator appears on the LCD screen.

- If the menu is currently displayed, press MENU first so that the menu disappears.
- You cannot use this function when [CAMERA] (Camera) in the menu is set to [Q] (Magnifying glass mode), [MOON] (Twilight mode), [MOUNTAIN] (Landscape mode), [FIREWORKS] (Fireworks mode) and [CANDLE] (Candle mode).
- In PLAY mode, turn to the REC mode with MODE.



2 [For shooting a photo]

→ Center the subject in the frame. Press and hold PHOTO halfway down to focus on, then press PHOTO fully down.

[For shooting a movie]

→ Press MOVIE fully down.

Using the self-timer

To return to normal recording mode

Press **▶** (📷) on the control button again.

The 📷 indicator disappears from the LCD screen.

To stop shooting a movie

Press **MOVIE** again.

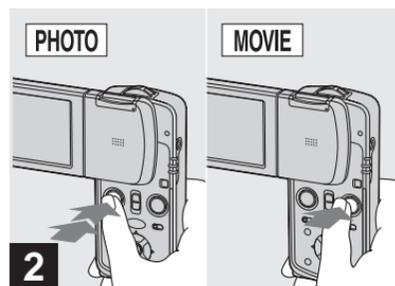
- When shooting in close-ups (Macro) mode, the in-focus range becomes extremely narrow, and the entire subject may not be in focus.
- When shooting in close-ups (Macro) mode, the AF speed drops in order to focus accurately on close subjects.



1 → Press **▼** (🕒) on the control button.

The 🕒 (self-timer) indicator appears on the screen.

- When recording with the self-timer, using a tripod is recommended.
- If the menu is currently displayed, press **MENU** first so that the menu disappears.
- In **PLAY** mode, turn to the **REC** mode with **MODE**.



[For shooting a photo]

→ Center the subject in the frame.
Press and hold **PHOTO** halfway down to focus on, then press **PHOTO** fully down.

[For shooting a movie]

→ Press **MOVIE** fully down.

The self-timer lamp (page 11) flashes and a beep sounds after you press **PHOTO/** **MOVIE** until the shutter operates (approximately 10 seconds later).

Rotating the LCD screen – Mirror mode

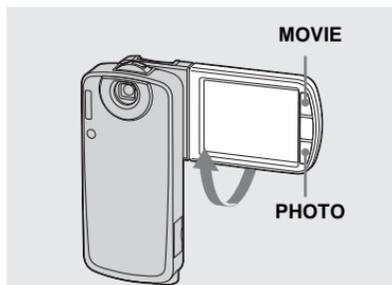
To cancel the self-timer in the middle of the operation

Press \blacktriangledown (⏸) on the control button again. The ⏸ indicator disappears from the LCD screen.

To stop shooting a movie

Press MOVIE again.

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



When shooting in mirror mode, turn over the LCD screen to the lens side. The image on the LCD screen is a mirror-image. However, the image can be normal when recorded.

You can start recording using the buttons on the side of the LCD screen.

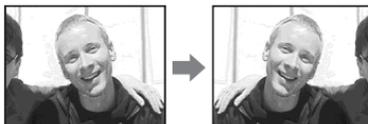


Image on the
LCD screen

Recorded image

- You cannot press and hold PHOTO on the side of the LCD screen halfway down.

Selecting a flash mode



➔ Press \blacktriangle (⚡) on the control button repeatedly to select a flash mode.

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

No indicator (Auto): The flash automatically strobes when shooting images in a dark place. The factory setting is Auto.

⚡ (Forced flash): The flash strobes regardless of the surrounding brightness.

⚡SL (Slow synchro): The flash strobes regardless of the surrounding brightness. The shutter speed is slow in a dark place, so you can clearly shoot the background that is out of flash light.

⊗ (No flash): The flash does not strobe.



- If the menu is currently displayed, press MENU first so that the menu disappears.
- The recommended shooting distance using the flash is approx. 0.3 m to 1.8 m (11 7/8 inches to 70 7/8 inches) (W)/0.5 m to 1.7 m (19 3/4 inches to 67 inches) (T) (When [ISO] is set to [Auto] in the menu settings).
- The flash strobos twice. The first time is the pre-flash which is used to adjust the flash light quantity, and the second time is the actual flash during which the image is recorded.
- You can change the brightness of the flash with \pm (Flash Level) in the menu settings (page 64). (You cannot change the brightness of the flash while  (Camera) in the menu is set to [Auto].)
- When shooting a movie, the flash does not strobe.
- When using the $\frac{1}{2}$ SL (Slow synchro) or $\frac{1}{2}$ (No flash) mode, the shutter speed becomes slower in dark places, so using a tripod is recommended.
- While charging the flash, the $\frac{1}{2}$ /CHG lamp flashes. After the charging is complete, the lamp goes out and flash mode is ready.
- In PLAY mode, turn to the REC mode with MODE.
- This setting is maintained even when the power is turned off.

To prevent subjects' eyes from appearing red

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

Set [Red Eye Reduction] to [On] on the Setup screen (page 116). The  indicator appears on the LCD screen.



Red-eye reduction takes approximately one second before actually shooting the image, so hold the camera firmly to avoid shaking. In addition, be sure to tell the subject to hold still.

- 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. In addition, red-eye reduction is more effective under bright lighting and when closer to the subject.

Shooting images with the AF illuminator

The AF illuminator is fill light to focus more easily on a subject in dark surroundings. The  appears on the LCD screen and the AF illuminator emits red light when PHOTO is pressed halfway until the focus is locked.

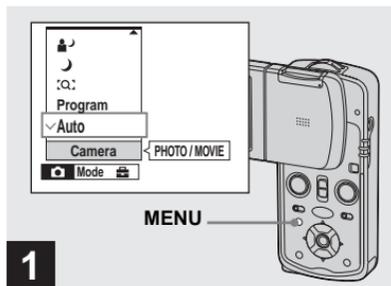


When this function is not needed, set [AF Illuminator] to [Off] on the Setup screen (page 116).

- If AF illuminator light does not reach the subject sufficiently or the subject has no contrast, focus will not be achieved. (A distance up to approximately 3.5 m (106 3/8 inches) (W)/approximately 2.7 m (137 7/8 inches) (T) is recommended.)
- Focus is achieved as long as AF illuminator light reaches the subject, even if the light is slightly off the center of the subject.
- When the focus preset distance is set (page 58), the AF illuminator does not function.

Inserting the date and time on a still image

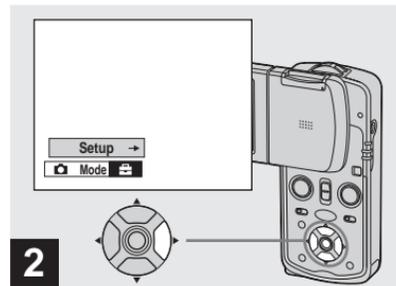
- The AF range finder frame does not appear. The ,  or  indicators flashes, and AF operates with priority on subjects located near the center.
- The AF illuminator operates only when  (Camera) is set to [Auto], [Program],  (Magnifying glass mode),  (Twilight portrait mode),  (Snow mode),  (Beach mode) or  (Candle mode) in the menu.
- The AF illuminator emits very bright light. Although there are no problems with safety, directly looking into the AF illuminator emitter at close range is not recommended.



➔ Press **MENU**.

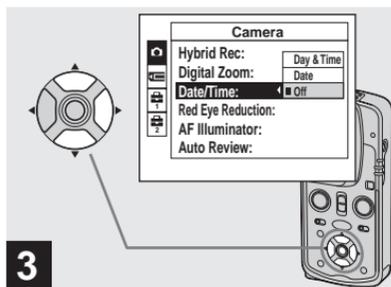
The menu appears.

- When images are shot with the date and time superimposed, the date and time cannot be removed later.
- The date and time is not inserted in Multi Burst mode.
- The date and time do not appear on the LCD screen during shooting, instead, **DATE** indicator appears on the LCD screen. The actual date and time appear in red on the lower-right corner during playback only.

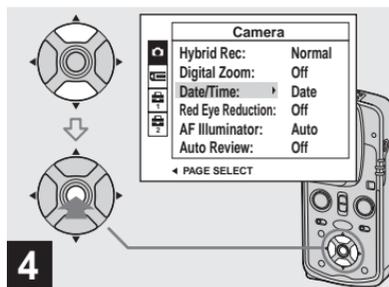


➔ Press **▶** on the control button to advance to , then press **▶** again.

The Setup screen appears.



- ➔ Select  (Camera) with ▲ on the control button, then press ►.
- Select [Date/Time] with ▲/▼, then press ►.



- ➔ Select the date and time setting with ▲/▼ on the control button, then press ●.

Day&Time: Superimposes the date, hour, and minute onto the image.

Date: Superimposes the year, month and day onto the image.

Off: Does not superimpose the date and time onto the image.

After the setting has been completed, press MENU first so that the menu disappears, and shoot the image.

- If you select [Date], the date is superimposed onto the image in the order selected in “Setting the date and time” (page 21).
- This setting is maintained even when the power is turned off.

Viewing images on the LCD screen of your camera

Single (single-image) screen



Index (nine-image) screen



Index (sixteen-image) screen



You can view images shot with your camera almost immediately on the LCD screen.

You can select the following three methods for viewing images.

Single (single-image) screen

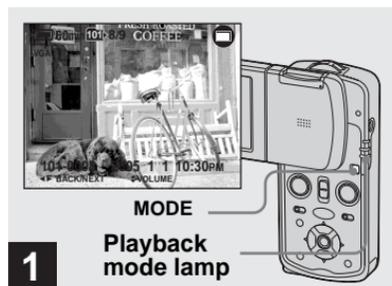
You can view one image at a time, displayed over the entire screen.

Index (nine-image or sixteen-image) screen

Nine or sixteen images are displayed simultaneously in separate panels on the LCD screen.

- You can operate using ◀|●|▶ on the side of the LCD screen.
- For a detailed description of the indicators, see page 125.

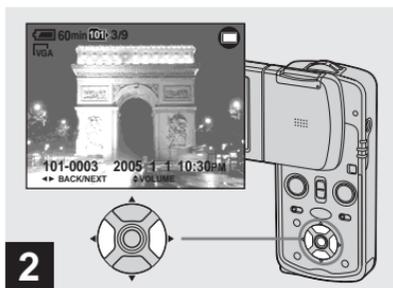
Viewing single images



- ➔ **Turn on the power, and turn to the PLAY mode with MODE.**

The playback mode lamp lights up and the last image in the selected recording folder (page 71) appears on the LCD screen.

- The image may appear rough right after playback starts due to the image processing.

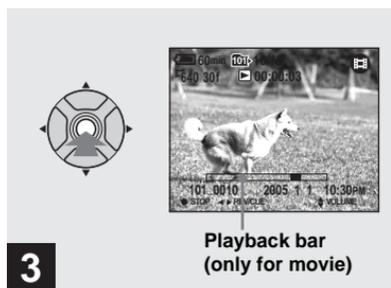


➔ **Select the desired image with ◀/▶ on the control button.**

◀ : To display the preceding image

▶ : To display the next image

- When you have selected a movie, a bar is indicated on the LCD screen during a read operation.



➔ **When viewing a hybrid mode image or a movie, press ● on the control button.**

The movie and sound are played back.

During playback of a movie, ▶ (playback) appears on the screen.

When playing back a hybrid mode image, the image is played back in the following order: pre movie → still image → post movie.

To stop playback

Press ● on the control button again.

To adjust the volume

Press ▲/▼ on the control button to adjust the volume.

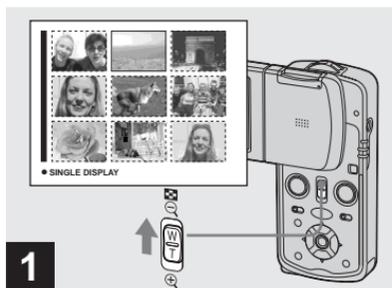
To advance or rewind the movie

Press ▶ (cue) or ◀ (rev) on the control button during playback.

To return to the normal playback, press ●.

- When playing back a hybrid mode image, you cannot use advance/rewind/pause operations.
- Even if you set [Beep] to [Off] on the Setup settings, the shutter sound is recorded in hybrid recording.

Viewing an index (nine-image or sixteen-image) screen

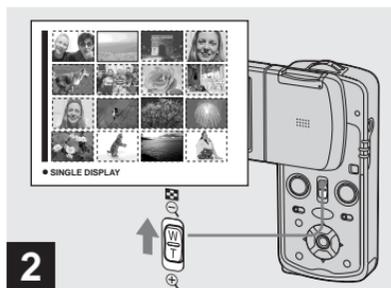


1 → Slide the  (index) lever to the upper position once.

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

To display the next (previous) index screen

Press /// on the control button to move the yellow frame up/down/left/right.

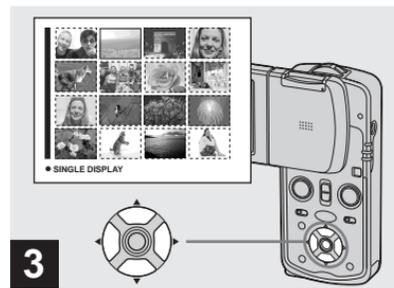


2 → Slide the  (index) lever to the upper position again.

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

To display the next (previous) index screen

Press /// on the control button to move the yellow frame up/down/left/right.



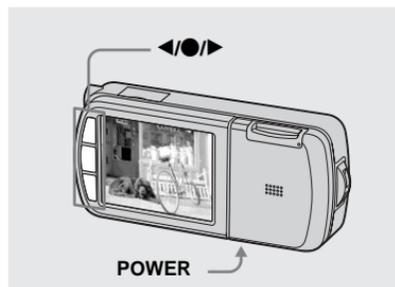
3 → Select the desired still image with /// on the control button.

The image in the yellow frame is selected.

To return to the single-image screen

Slide the  (index) lever to the lower position twice or press  on the control button.

Viewing images with the LCD panel closed



In PLAY mode, closing the LCD panel does not turn off the power. You can view images with the LCD panel closed. You can perform the following operations using the buttons located on the side of the LCD screen.

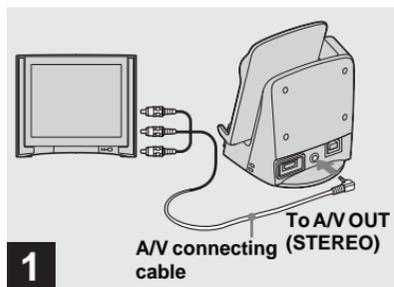
- ◀ : To display the preceding image
- ▶ : To display the next image
- : To play back/stop a movie

To turn off the power

Press POWER.

- When playing back a movie, the buttons function as ▶ (fast-forward) or ◀ (rewind).

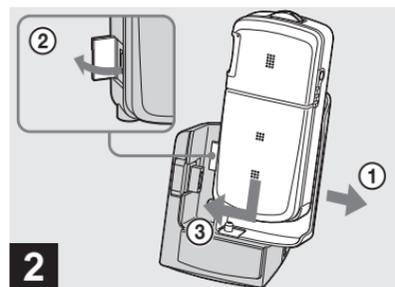
Viewing images on a TV screen



- ➔ **Connect the A/V connecting cable (supplied) to the A/V OUT (STEREO) jack of the Cyber-shot Station and the audio/video input jacks of the TV.**

If your TV is a monaural type, connect the yellow plug of the A/V connecting cable to the video input jack and the white or the red plug to the audio input jack on the TV. If you connect the white plug, the sound is L (left) signal. If you connect the red plug, the sound is R (right) signal.

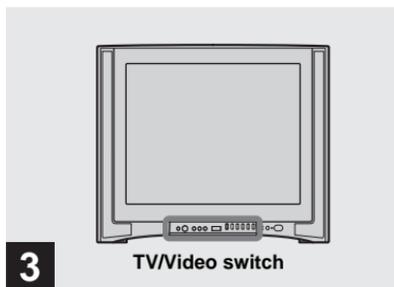
- When the USB cable is connected to the Cyber-shot Station, remove the USB cable from the Cyber-shot Station.
- Turn off both your camera and the TV before connecting the A/V connecting cable.



- ➔ **Connect the camera to the Cyber-shot Station (page 12).**

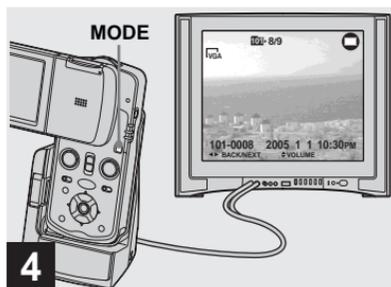
Connect the camera as illustrated.

- Make sure to slide the tray firmly.

**3****TV/Video switch**

➔ Turn on the TV and set the TV/Video switch to “Video”.

- The name and location of this switch may differ depending on your TV. For details, see the operating instructions supplied with the TV.

**4**

➔ Turn on the camera, and turn to the PLAY mode with MODE.

Press ◀▶ on the control button to select the desired image. When the LCD panel is closed with the LCD screen facing up, you can use ◀▶ on the side of the LCD screen.

- When using your camera abroad, it may be necessary to switch the video output signal to match that of your TV system (page 117).

Viewing images on a TV screen

If you want to view images on a TV screen, you need a TV with a video input jack and the A/V connecting cable (supplied).

The color system of the TV must match that of your digital still camera. Check the following lists:

NTSC system

Bahama Islands, Bolivia, Canada, Central America, Chile, Colombia, Ecuador, Jamaica, Japan, Korea, Mexico, Peru, Surinam, Taiwan, the Philippines, the U.S.A., Venezuela, etc.

PAL system

Australia, Austria, Belgium, China, Czech Republic, Denmark, Finland, Germany, Holland, Hong Kong, Hungary, Italy, Kuwait, Malaysia, New Zealand, Norway, Poland, Portugal, Singapore, Slovak Republic, Spain, Sweden, Switzerland, Thailand, United Kingdom, etc.

PAL-M system

Brazil

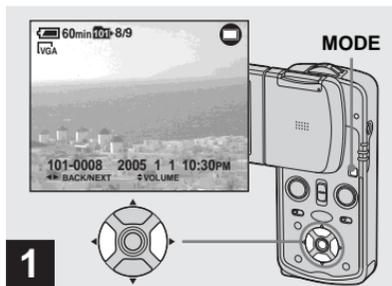
PAL-N system

Argentina, Paraguay, Uruguay

SECAM system

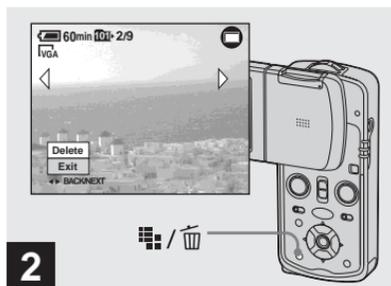
Bulgaria, France, Guiana, Iran, Iraq, Monaco, Russia, Ukraine, etc.

Deleting images



1 → Turn on the camera and turn to the PLAY mode with MODE. Press ◀▶ on the control button to select the image you want to delete.

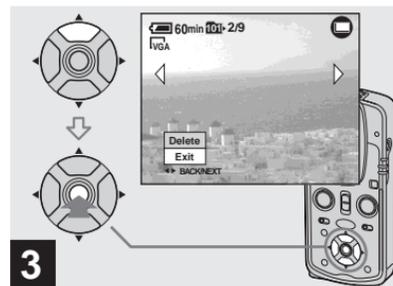
- Note that you cannot restore deleted images.



2 → Press  (Delete).

The image has not yet been deleted at this point.

- You cannot delete the protected image (page 76).
- Once you delete still images recorded in hybrid mode, movies recorded simultaneously are also deleted.



3 → Select [Delete] with ▲ on the control button, then press ●.

The message “Access” appears, and the image has been deleted.

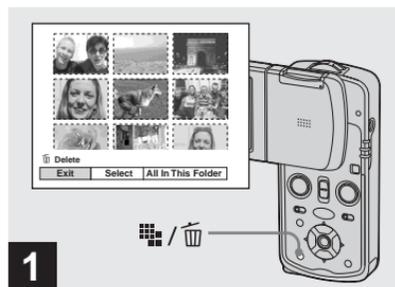
To continue and delete other images

Display the image to be deleted with ◀▶ on the control button. Then, select [Delete] with ▲ and press ●.

To cancel deleting

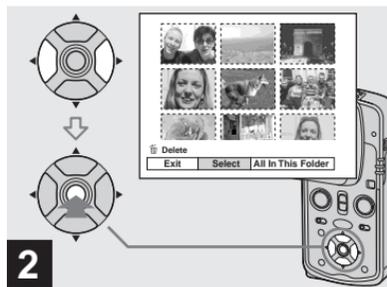
Select [Exit] with ▼ on the control button, then press ●.

Deleting images in index (nine-image or sixteen image) mode

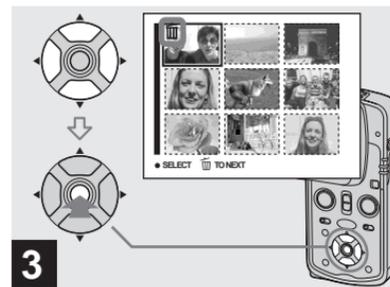


1 → While an index (nine-image or sixteen image) screen (page 45) is displayed, press  /  (Delete).

- Note that you cannot restore deleted images.



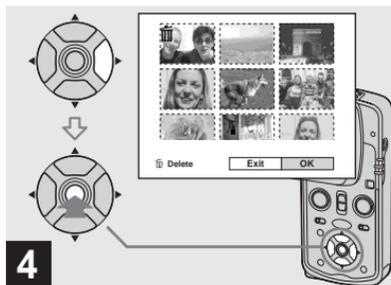
2 → Select [Select] with  /  on the control button, then press .



3 → Select an image you want to delete with  /  /  /  on the control button, then press .

The  (Delete) indicator appears on the selected image. At this point, the image has not yet been deleted. Repeat this step for all of the images you want to delete.

- To cancel a selection, select the image, then press  on the control button again so that the  indicator disappears.



➔ Press  /  (Delete) and select [OK] with  on the control button, then press .

The message “Access” appears, and the images with the  indicator have been deleted.

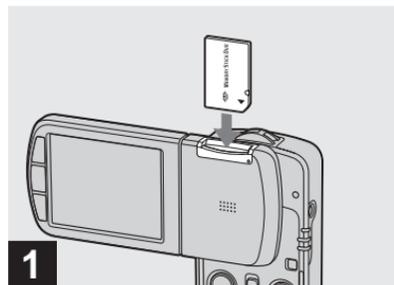
To cancel deleting

Select [Exit] with  on the control button, then press .

To delete all the images in the folder

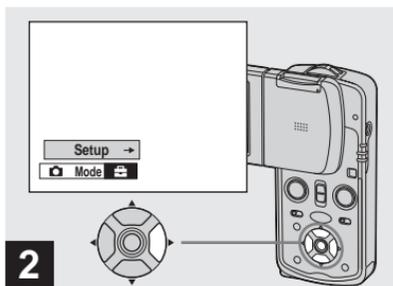
Select [All In This Folder] with  on the control button in step 2, then press . Select [OK], then press . All of the unprotected images in the folder are deleted. To cancel deleting, select [Cancel], then press .

Formatting a “Memory Stick Duo”



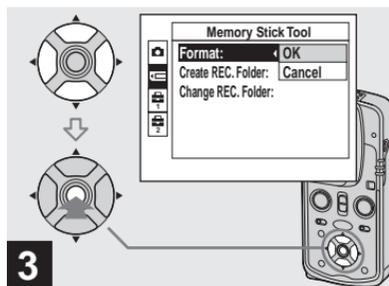
➔ Insert the “Memory Stick Duo” you want to format into the camera.

- The term “formatting” means preparing a “Memory Stick Duo” to record images; this process is also called “initialization.”
- The “Memory Stick Duo” supplied with your camera and commercially available “Memory Stick Duo” are already formatted, and can be used immediately.
- Operations of a “Memory Stick Duo” formatted with a computer is not guaranteed.
- **Note that formatting the “Memory Stick Duo” erases all the data in the “Memory Stick Duo” even if images are protected, and these images cannot be recovered.**



- 2** → Turn on the camera, then press MENU.
Press **▶** on the control button to advance to **Mode**, then press **▶** again.

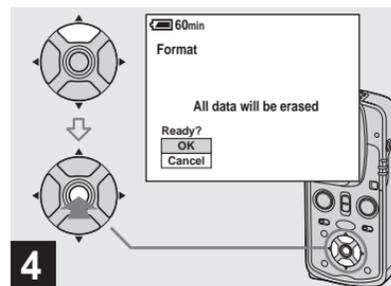
The Setup screen appears.



- 3** → Select **☰** (Memory Stick Tool) with **▲/▼** on the control button. Select [Format] with **▶**, then press **▶**. Select [OK] with **▲**, then press **●**.

To cancel the formatting

Select [Cancel] with **▼** on the control button, then press **●**.

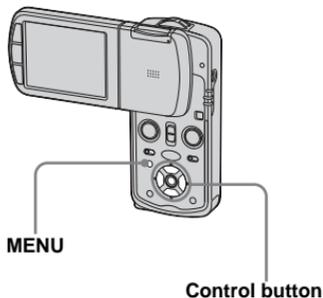


- 4** → Select [OK] with **▲** on the control button, then press **●**.

The message “Formatting” appears. When this message disappears, the format is complete.

How to setup and operate your camera

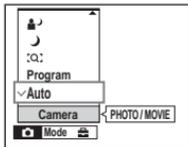
The usage of the menus and Setup screen items is described below.



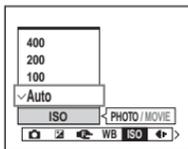
Changing the menu settings

1 Press MENU.

The menu appears.



2 Press ◀/▶ on the control button to select the item you want to set.



- In REC mode, [PHOTO/MOVIE] is indicated. You cannot set items in a mode indicated in gray.
- In PLAY mode, press ● after setting an item.

3 Press ▲/▼ on the control button to select the desired setting.

The selected setting is enlarged and the setting is entered.

When the ▲/▼/◀/▶ marks appear with an item

There are items that are not displayed on the screen. Press ▲/▼/◀/▶ on the control button to display these items.

To turn off the menu display

Press MENU again.

- You cannot select items displayed in gray.
- For a detailed description of the menu items, see page 113.

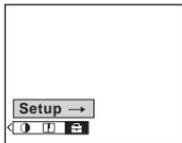
Changing the items in the Setup screen

1 Press MENU.

The menu appears.

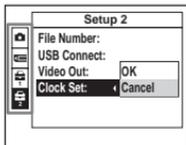
2 Press **▶** on the control button to advance to , then press **▶** again.

The Setup screen appears.



3 Press **▲/▼/◀/▶** on the control button to select the item you want to set.

The frame of the selected item turns yellow.



4 Press **●** on the control button to enter the setting.

To turn off the Setup screen display

Press MENU again.

To return to the menu from the Setup screen

Press **◀** on the control button to return to the position enclosed by the frame in step **3**, then press **◀** again.

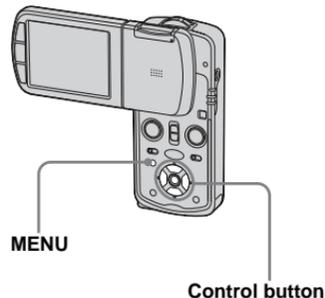
- For a detailed description of the Setup items, see page 116.

Deciding the still image quality PHOTO

You can select the still image quality from [Fine] (high quality) or [Standard].

Before operation

Set  (Camera) in the menu to other than [Auto] (pages 53 and 113).

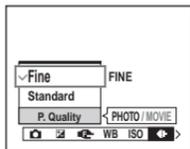


1 Turn to the REC mode.

2 Press MENU.

The menu appears.

- 3 Select **☰** (P. Quality) with **◀/▶**, then select the desired image quality with **▲/▼**.

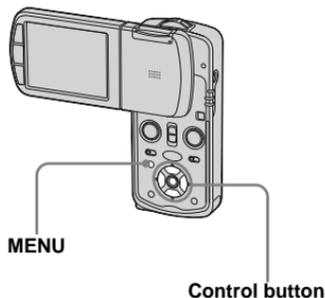


Creating or selecting a folder PHOTO / MOVIE

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

Before operation

Set the menu to the Setup screen (pages 54 and 116).



- 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

- 1 Select **☰** (Memory Stick Tool) with **▲/▼**, [Create REC. Folder] with **▶/▲/▼**, and [OK] with **▶/▲**, then press **●**.

The creating folder screen appears.



- 2 Select [OK] with **▲**, then press **●**.

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.

To cancel folder creation

Select [Cancel] in step **1** or **2**.

- 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.

Changing the recording folder

- 1 Select  (Memory Stick Tool) with $\blacktriangle/\blacktriangledown$, [Change REC. Folder] with $\blacktriangleright/\blacktriangledown$, and [OK] with $\blacktriangleright/\blacktriangle$, then press \bullet .

The recording folder selection screen appears.



- 2 Select the desired folder with $\blacktriangle/\blacktriangleright$, and [OK] with \blacktriangle , then press \bullet .

To cancel changing the recording folder

Select [Cancel] in step **1** or **2**.

- You cannot select the “100” folder as a recording folder (page 92).
- The image is stored in the newly selected folder. You cannot move recorded images to a different folder with this camera.

Choosing a focus method

PHOTO / MOVIE

You can set the AF range finder frame according to the position and the size of a subject.

Multipoint AF ()

The camera calculates the distance in five areas to the left, right, top, bottom and in the center of the image, letting you shoot using the auto focus function without worrying about the image composition. This mode is useful when it is difficult to focus on the subject because it is not in the center of the frame. You can check the position where the focus was adjusted using the green frame.

The factory setting is the Multipoint AF.

Center AF ()

This mode is useful for focusing on a subject near the center of the frame. Use together with the AF lock function lets you shoot in the desired image composition.

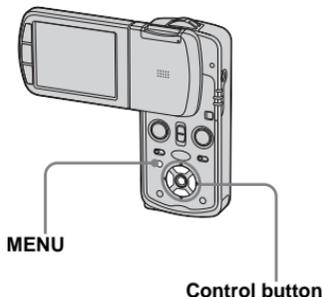
Spot AF ()

This is useful when focusing on an extremely small subject or a narrow area. Use together with the AF lock function lets you shoot in the desired image composition. Take care to hold the camera steady so that

the subject does not deviate from the range finder frame.

Before operation

Set (Camera) in the menu to other than [Auto] (pages 53 and 113).



1 Turn to the REC mode.

2 Press MENU.

The menu appears.

3 Select (Focus) with </>, then select the desired AF range with ▲/▼.



AF range finder frame

The focus is adjusted automatically. For shooting still images, the color of the AF range finder frame changes from white to green when the focus is adjusted by pressing PHOTO halfway down.

- When you are shooting movies and you choose Multipoint AF, the distance to the center of the screen is estimated as an average, so the AF works even with a certain amount of vibration. The AF range finder frame is . Center AF automatically focuses only on selected frame, so this is convenient when you want to focus only on what you aim at.
- When you use the digital zoom or AF illuminator, priority AF movement is given to subjects in or near the center of the frame. In this case the , , or indicator flashes and the AF range finder frame is not displayed.
- Some settings cannot be selected depending on the Scene Selection mode (page 69).

Shooting techniques

When shooting with the subject at the edge of the frame, or when using Center AF, the camera may focus on the center instead of on the subject at the edge of the frame. In a case like this, use AF lock to focus on the subject, and then recompose the picture and shoot.

Compose the shot so that the subject is centered in the AF range finder, and press PHOTO halfway down.

When the AE/AF lock indicator stops flashing and remains on, return to the fully composed shot, and press PHOTO fully down.



AF range finder frame

AE/AF lock indicator



- When you are using AF lock, you can capture an image with the correct focus even if the subject is at the edge of the frame.
- You can carry out the AF lock adjustment process before you press PHOTO fully down.

Setting the distance to the subject

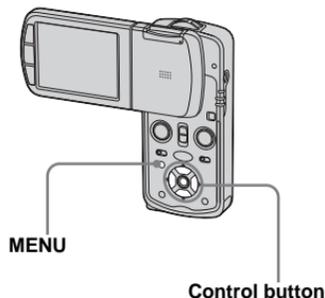
PHOTO / MOVIE

— Focus preset

When shooting an image using a previously set distance to the subject, or when shooting a subject through a net or through window glass, it is difficult to get the proper focus in auto focus mode. In these cases, use of the Focus preset is convenient.

Before operation

Set  (Camera) in the menu to other than [Auto] (pages 53 and 113).



- 1 Turn to the REC mode.

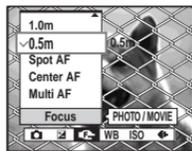
2 Press MENU.

The menu appears.

3 Select (Focus) with , then select the distance to the subject with /▼.

You can select from the following distance settings.

0.5m, 1.0m, 3.0m, 7.0m, ∞ (unlimited distance)



To return to auto focus mode

In step 3, select [Multi AF], [Center AF] or [Spot AF].

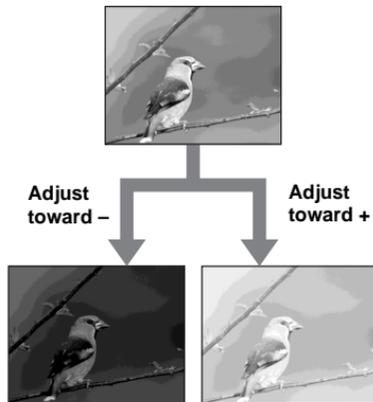
- Focus setting information is approximate, and should be used as a reference.
- Some settings cannot be selected depending on the Scene Selection mode (page 69).

Adjusting the exposure /

— EV adjustment

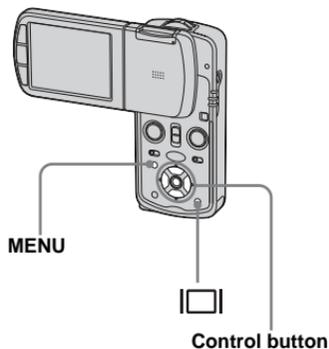
You can manually adjust the exposure determined by the camera. Use this mode when the proper exposure cannot be obtained, for example, when the contrast (difference between light and dark) between the subject and the background is extremely large.

The compensation value can be set in 1/3EV steps in the range from +2.0EV to -2.0EV.



Before operation

Set  (Camera) in the menu to other than [Auto] (pages 53 and 113).



1 Turn to the REC mode.

2 Press MENU.

The menu appears.

3 Select (EV) with .

The value of the exposure adjustment is displayed.



4 Select the desired exposure value with ▲/▼.

Adjust the exposure value while checking the brightness of the background.

To reactivate auto exposure

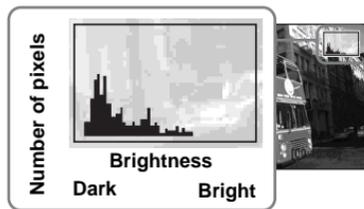
In step 4, select [0EV].

- If a subject is being shot in extremely bright or dark conditions, or the flash is used, the exposure adjustment may not be effective.

Displaying a histogram PHOTO

A histogram is a graph showing the brightness of an image. The horizontal axis shows the brightness, and the vertical axis shows the number of pixels. The graph display indicates a bright image when skewed to the right side, a dark image when skewed to the left side.

A histogram can be used to check the exposure when the screen is difficult to see during recording and playback.



1 Turn to the REC mode.

2 Press □ to display the histogram.

3 Adjust the exposure based on the histogram.

- The histogram also appears when the  (Camera) in the menu is set to [Auto], but you cannot adjust the exposure.
- The histogram also appears when you press □ while playing back a single image (page 43).

- The histogram does not appear in the following cases:
 - When the menu is displayed
 - When using playback zoom
 - When recording or playing back movies
- ⊗ appears and the histogram does not appear in the following cases:
 - When recording in the digital zoom area
 - When the image size is [3:2]
 - When playing back Multi Burst images
 - When rotating a still image
- The histogram before recording represents the histogram of the image displayed on the LCD screen at the time. A difference occurs in the histogram before and after you press PHOTO. In this case, check the histogram while playing back a single-image. In particular a large difference may appear in the following cases:
 - When the flash strobes
 - When the shutter speed is slow or high
- The histogram may not appear for images recorded using other cameras.

Shooting techniques

When shooting images, the camera automatically sets the exposure.

When shooting a whitish overall image such as a backlit subject or a snowy scene, the camera may judge that the subject is bright and set a darker exposure for the image. In such cases, adjusting the exposure in the + (plus) direction is effective.



Adjust in the + direction



When shooting a dark subject that fills the frame, the camera may judge that the subject is dark and set a brighter exposure for the image. In such cases, adjusting the exposure in the - (minus) direction is effective.



Adjust in the - direction



Refer to the histogram and adjust so that the image is not overexposed (white out) or underexposed (black out).

Try various images with different exposures to find the brightness that suits your taste.

Selecting the metering method

PHOTO / MOVIE

You can select the metering mode that sets which part of the subject to measure to determine the exposure.

Multi-pattern metering (No indicator)

The image is divided into multiple regions and metering is performed for each region. The camera judges the subject position and background brightness, and determines a well-balanced exposure.

The factory setting is the multi-pattern metering.

Spot metering (☐)

Metering is performed for only a part of the subject. This lets you shoot images that are not too dark even when the subject is backlit, or adjust the exposure to the subject when there is strong contrast between the subject and the background.

Before operation

Set  (Camera) in the menu to other than [Auto] (pages 53 and 113).



- 1 Turn to the REC mode.**
- 2 Press \blacktriangleright () to turn spot metering on.**

The spot metering cross hair appears.



Spot metering cross hair

To cancel spot metering

Press \blacktriangleright () again to turn spot metering off. The spot metering cross hair disappears, and the camera returns to multi-pattern metering.

- When using spot metering, to focus on the metering position, setting  (Focus) to [Center AF] is recommended (page 57).

Shooting three images with the exposure shifted

— Exposure Bracket

The Exposure Bracket function records a series of three images with the exposure values automatically shifted. This lets you select the image with the appropriate exposure after recording when you are unable to shoot good pictures depending on the brightness of the subject.

1st image (shifted in the + direction)



2nd image

(appropriate exposure for the camera)

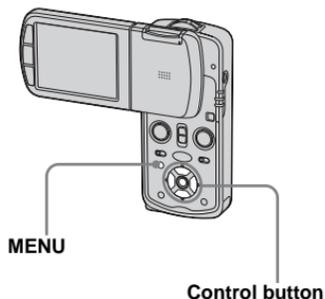


3rd image (shifted in the - direction)



Before operation

Set  (Camera) in the menu to other than [Auto] (pages 53 and 113).



5 Shoot the image.

To return to normal mode

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

- You cannot use the flash in this mode.
- During shooting in this mode, the images are not displayed on the LCD screen. Compose the image before pressing PHOTO.
- When shooting in hybrid mode, you cannot shoot in Exposure Bracket mode.
- The focus and white balance are adjusted for the first image, and these settings are also used for the other images.
- When the exposure is manually adjusted (page 59), the exposure is shifted based on the adjusted brightness.
- If the subject is too bright or too dark, you may be unable to shoot properly with the selected bracket adjustment value.
- You may not be able to shoot images in Exposure Bracket mode depending on the Scene Selection mode (page 69).

1 Turn to the REC mode.

2 Press MENU.

The menu appears.

3 Select [Mode] (REC Mode) with ◀/▶, then select [Exp Brktg] with ▲/▼.

4 Select [BRK] (Bracket Step) with ◀/▶, then select the desired exposure adjustment value with ▲/▼.

±1.0EV: Shifts the exposure value by plus or minus 1.0EV.

±0.7EV: Shifts the exposure value by plus or minus 0.7EV.

±0.3EV: Shifts the exposure value by plus or minus 0.3EV.

Adjusting color tones

PHOTO / MOVIE

— White Balance

You can set the white balance mode according to your shooting conditions. The apparent color of the subject is affected by the lighting conditions. When you want to fix the light source imaging conditions, or when the color of the entire image seems to be a bit unnatural, we recommend that you adjust the white balance setting.

Auto (No indicator)

Adjusts the white balance automatically. The factory setting is Auto.

☀ (Daylight)

Shooting outdoors, shooting night scenes, neon signs, fireworks or sunrise, 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

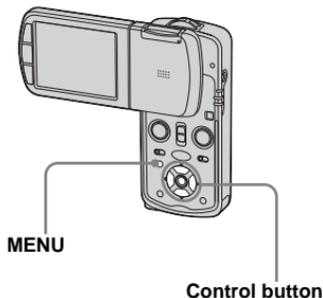
WB (Flash)

Adjusts the white balance only to the flash conditions

When shooting movies, the white balance is automatically set to Auto.

Before operation

Set  (Camera) in the menu to other than [Auto] (pages 53 and 113).



1 Turn to the REC mode.

2 Press MENU.

The menu appears.

3 Select [WB] (White Bal) with , then select the desired setting with /.

To reactivate auto adjustment

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

- Under fluorescent lights that flicker, the white balance adjustment function may not work correctly even though you select  (Fluorescent).
- When the flash strobos, the manual setting is canceled, and the image is recorded in [Auto] (except in WB (Flash) mode).
- Some settings cannot be selected depending on the Scene Selection mode (page 69).

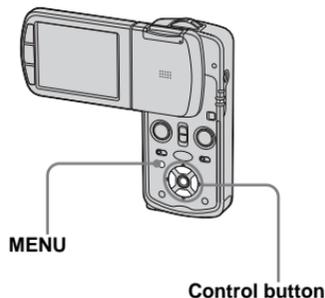
Adjusting the flash level

— Flash Level

You can adjust the amount of flash light.

Before operation

Set  (Camera) in the menu to other than [Auto] (pages 53 and 113).



1 Turn to the REC mode.

2 Press MENU.

The menu appears.

- 3 Select [\pm] (Flash Level) with \leftarrow/\rightarrow , then select the desired setting with $\blacktriangle/\blacktriangledown$.

$+$: Makes the flash level higher than normal.

Normal: Normal setting.

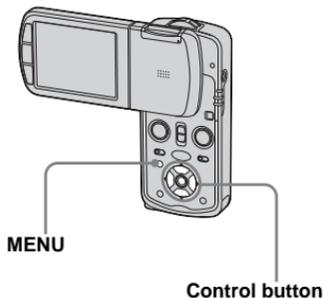
$-$: Makes the flash level lower than normal.

- You may not be able to set the flash level depending on the Scene Selection mode.

Shooting continuously

PHOTO

This mode is used for continuous shooting. Each time you press and hold PHOTO in this mode, the camera records maximum four images in succession.



- When the battery power decreases with use or the capacity of the “Memory Stick Duo” is full, recording stops even if you press and hold PHOTO.

- 1 Turn to the REC mode.

- 2 Press MENU.

The menu appears.

- 3 Select [Mode] (REC Mode) with \leftarrow/\rightarrow , then select [Speed Burst] with $\blacktriangle/\blacktriangledown$.

- 4 Shoot the image.

When you press and hold down PHOTO, the camera records up to four images in succession. If you release PHOTO, shooting will stop at that point.

When “Recording” disappears, you can shoot the next image.

To return to normal mode

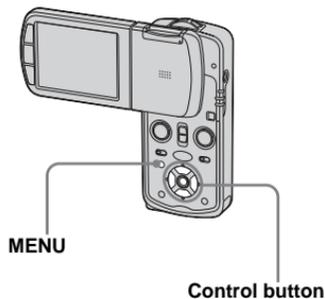
Select [Normal] in step 3.

- The flash is set to No flash (No flash).
- When recording with the self timer, a series of maximum four images are recorded each time you press PHOTO.
- When shooting in hybrid mode, you cannot shoot in Speed Burst mode.
- You may not be able to shoot images in succession depending on the Scene Selection mode (page 69).

Recording 16 frames in succession PHOTO

— Multi Burst

This mode records 16 frames in succession each time you press PHOTO. This is convenient for checking your form in sports, for example.



1 Turn to the REC mode.

2 Press MENU.

The menu appears.

3 Select [Mode] (REC Mode) with $\blacktriangleleft/\blacktriangleright$, then select [Multi Burst] with \blacktriangle .

4 Select \square (Interval) with $\blacktriangleleft/\blacktriangleright$, then select the desired frame interval with $\blacktriangle/\blacktriangledown$.

You can choose the frame interval from [1/7.5], [1/15] or [1/30].



5 Shoot the image.

A continuous burst of 16 frames are recorded within a single still image (image size 1M).

The number of images recordable

(Units: images)

Photo size \ Capacity	1M
16MB	24 (46)
32MB	50 (93)
64MB	101 (187)
128MB	202 (376)
256MB	356 (649)
512MB	725 (1319)

- The number of images is listed in Fine (Standard) order. The values for the number of images that can be saved may vary, depending on the shooting conditions.

- You cannot use the following functions in Multi Burst mode:
 - Flash
 - Inserting the date and time
- When shooting in hybrid mode, you cannot shoot in Multi Burst mode.
- When \square (Camera) in the menu is set to [Auto], frame interval is automatically set to [1/30] second.
- See page 75 to play back images recorded in Multi Burst mode using this camera.
- You may not be able to shoot images in Multi Burst mode depending on the Scene Selection mode (page 69).

Shooting according to scene conditions

PHOTO / MOVIE

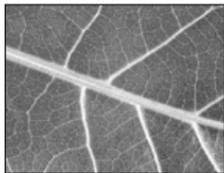
— Scene Selection

You can shoot more effectively by selecting the appropriate mode.

[Q] Magnifying glass mode

The subject appears on the LCD screen magnified by up to 3.3×. This lets you see details that would otherwise be difficult to confirm with the naked eye.

Distance to the subject	Magnification scale
1 cm (13/32 inch)	3.3×
2 cm (13/16 inch)	2.1×
5 cm (2 inches)	1.0×
10 cm (4 inches)	0.5×
20 cm (7 7/8 inches)	0.3×



- The focal distance to a subject is approx. 1 cm to 20 cm (13/32 inch to 7 7/8 inches)
- The optical zoom is locked to the W side and cannot be used.
- When you slide the zoom lever, the image is enlarged using the digital zoom.



Q × 1.1

☾ Twilight mode

Allows you to shoot night scenes at far distance without losing the dark atmosphere of the surroundings.



- The shutter speed becomes slower, so using a tripod is recommended.

👤 Twilight portrait mode

Suitable for shooting portraits in dark places. Allows you to shoot sharp images of people in dark places without losing the dark atmosphere of the surroundings.



- The shutter speed becomes slower, so using a tripod is recommended.

🏔 Landscape mode

Focuses only on a distant subject to shoot landscapes, etc.



Snow mode

When shooting snowy scenes or other places where the whole screen appears white, use this mode to prevent sunken colors and record clear images.



Beach mode

When shooting seaside or lakeside scenes, the blue of the water is clearly recorded.



High-speed shutter mode

Use this mode to shoot moving subjects outdoors or in other bright places.



- The shutter speed becomes faster, so images shot in dark places become darker.

Fireworks mode

You can record fire works in all their splendor. The focus distance is set to infinity.



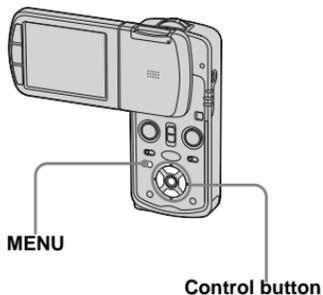
- You can change the shutter speed by setting an EV adjustment value (page 59).
- The shutter speed becomes slower, so using a tripod is recommended.

Candle mode

You can record parties, candle services and other candlelit scenes without spoiling the candlelight atmosphere.



- The shutter speed becomes slower, so using a tripod is recommended.



1 Turn to the REC mode.

2 Press MENU.

The menu appears.

3 Select (Camera) with , then select the desired mode with .

To return to normal mode

Select [Auto] or [Program] with .

Shooting with Scene Selection

When shooting with the Scene Selection function, the combination of functions such as the flash mode is predetermined to make the optimum settings to match the scene. See the table below for the function setting of each shooting mode.

Function Shooting mode	Macro	Flash mode ¹⁾	AF range finder frame	Focus preset	Exposure bracket ¹⁾	White balance	Speed Burst ¹⁾ / Multi Burst ¹⁾
	—		○	—	—	○	—
	—		○	∞	—	○	—
	○		○	○	—	○ ²⁾	—
	—		○	∞	○	○	○
	○		○	○	○	○	○
	○		○	○	○	○	○
	—		—	∞	—		—
	—		Center AF	0.5m/ 1.0m/ 3.0m/7.0m	—		—

• ○ indicates that the function can be set to your preference.

¹⁾ When shooting movies, you cannot use this item.

²⁾ When shooting still images, you can select only Auto or WB .

NR slow shutter

The NR slow shutter function reduces noise from recorded images, providing clear images. When the shutter speed is 1/6 second or slower, the camera automatically activates the NR slow shutter function and “NR” is indicated next to the shutter speed indicator.



Press PHOTO fully down.



Then the screen turns black.



Finally, when “Processing” disappears, the image has been recorded.

- Do not move the camera while “Capturing” appears. To eliminate the effects of vibration, using a tripod is recommended.
- When you set a slow shutter speed, the processing may take some time.

Shooting with special effects

PHOTO / MOVIE

— Picture Effect

You can digitally process images to obtain special effects.

B&W



The picture is monochrome (black and white).

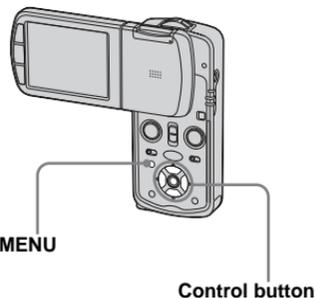
Sepia



The picture is sepia-toned like an old photograph.

Before operation

Set  (Camera) in the menu to other than [Auto] (pages 53 and 113).



- 1 Turn to the REC mode.**
- 2 Press MENU.**
The menu appears.
- 3 Select [PFX] (P. Effect) with ◀/▶, then select the desired mode with ▲/▼.**
- 4 Shoot the image.**

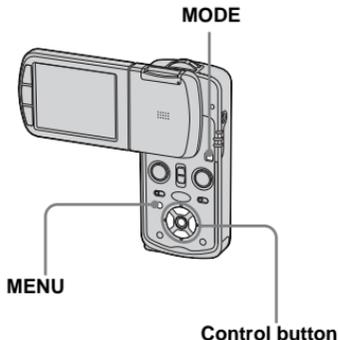
To cancel Picture Effects

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

- Picture Effect setting is not maintained when the power is turned off.

Selecting the folder and playing back images

Select the folder that images you want to play back are stored.



- 1** Turn to the PLAY mode with MODE.
- 2** Press MENU.
The menu appears.
- 3** Select  (Folder) with , then press .

- 4** Select the desired folder with  .



- 5** Select [OK] with , then press .

To cancel the selection

In step **5**, select [Cancel].

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 screen.

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

Single screen



Index (nine-image) screen



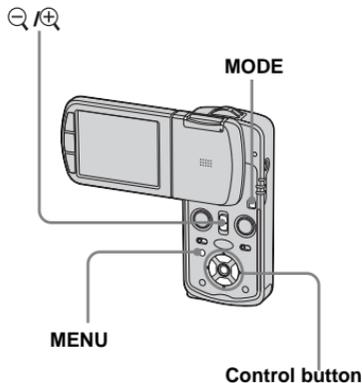
Index (sixteen-image) screen



- When no images are stored in the folder, “No file in this folder” appears.

Enlarging a portion of a still image

You can enlarge a part of an image up to five times the original size. You can also record the magnified image as a new file.



Enlarging an image

— Playback zoom

- 1 Turn to the PLAY mode with **MODE**.
- 2 Display the image to be enlarged with **◀/▶**.
- 3 Slide **◀/▶** (playback zoom) to the **▶** side to zoom in on the image.
- 4 Select the desired portion of the image with **▲/▼/◀/▶**.



- ▲: To view more of the top of the image
- ▼: To view more of the bottom of the image
- ◀: To view more of the left side of the image
- ▶: To view more of the right side of the image

- 5 Adjust the image size with **◀/▶** (playback zoom).



To cancel playback zoom

Press **●**.

- You cannot use playback zoom for movies and Multi Burst images.
- If you slide **◀/▶** (playback zoom) to the **◀** side while a non-enlarged image is displayed, the LCD screen switches to the index screen (page 45).

Recording an enlarged image — Trimming

- 1 Press MENU after playback zoom.

The menu appears.

- 2 Select [Trimming] with \blacktriangleright , then press \bullet .

- 3 Select the image size with $\blacktriangle/\blacktriangledown$, then press \bullet .

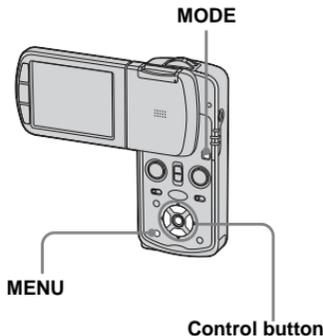
The image is recorded, and the image on the LCD screen returns to the normal size after recording.

- The trimmed image is recorded as the newest file in the selected recording folder, and the original image is retained.
- The quality of trimmed images may deteriorate.
- You cannot trim to an image size of 3:2.

Playing back successive images

— Slide Show

You can play back recorded images in order. This function is useful for checking your images or for presentations, etc.



- 1 Turn to the PLAY mode with MODE.

- 2 Press MENU.

The menu appears.

- 3 Select \square (Slide) with $\blacktriangle/\blacktriangleright$, then press \bullet .

Set the following items with $\blacktriangle/\blacktriangledown/\blacktriangle/\blacktriangleright$.

Interval

Sets the playback interval of still images.

3 sec/5 sec/10 sec/30 sec/1 min

Image

Folder: Plays back all images in the selected folder.

All: Plays back all images stored in the “Memory Stick Duo”.

Repeat

On: Plays back images in a continuous loop.

Off: After all the images have been played back, the slide show ends.

- 4 Select [Start] with $\blacktriangledown/\blacktriangleright$, then press \bullet .

The slide show begins.

To cancel the slide show setting

Select [Cancel] in step 3.

To stop slide show playback

Press \bullet , select [Exit] with \blacktriangleright , then press \bullet again.

To skip to the next/previous image during the slide show

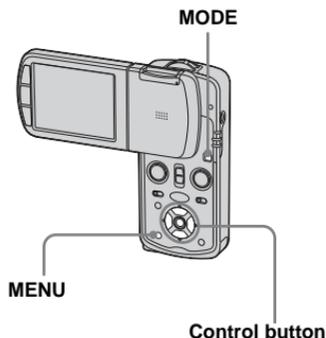
Press \blacktriangleright (next) or \blacktriangleleft (previous).

- The interval settings time are just guidelines, so it may vary depending on the image.
- When playing back images recorded in Hybrid mode, only still images are played back.

Rotating still images

— Rotate

You can rotate an image recorded in portrait orientation and display it in landscape orientation.



- 1** Turn to the **PLAY** mode with **MODE**, and display the image to rotate.
- 2** Press **MENU**.
The menu appears.
- 3** Select  (**Rotate**) with **◀/▶**, then press **●**.
- 4** Select  with **▲**, then rotate the image with **◀/▶**.
- 5** Select **[OK]** with **▲/▼**, then press **●**.

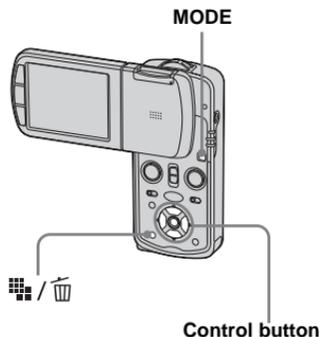
To cancel rotation

Select **[Cancel]** in step **4** or **5**, then press **●**.

- You cannot rotate protected images and movies and Multi Burst images.
- Even when you rotate an image recorded in Hybrid mode, the image is not rotated in Hybrid playback.
- You may not be able to rotate images shot with other cameras.
- When viewing images on a computer, the image rotation information may not be reflected depending on the application software.

Playing back images shot in Multi Burst mode

You can play back Multi Burst images continuously or play them back frame by frame. This function is used for checking the image.



- When Multi Burst images are played back on a computer or on a camera without the Multi Burst function, the 16 frames you shot will be displayed at the same time as part of one image.

Playing back continuously

- 1 Turn to the PLAY mode with MODE.
- 2 Select the Multi Burst image with ◀/▶.

The selected Multi Burst image is played back continuously.



To pause playback

Press ●. To resume playback, press ● again. The playback starts from the frame displayed on the LCD screen.

Playing back frame by frame

- 1 Turn to the PLAY mode with MODE.
- 2 Select the Multi Burst image with ◀/▶.
- 3 Press ● when the desired frame is displayed.

“Step” appears.



- 4 Advance the frame with ◀/▶.

▶: A next frame is displayed. When you keep and press ▶, the frame advances.

◀: A previous frame is displayed. When you keep and press ◀, the frame advances in the reverse direction.

To return to the normal playback

Press ● in step 4. The playback starts from the frame displayed on the LCD screen.

To delete shot images

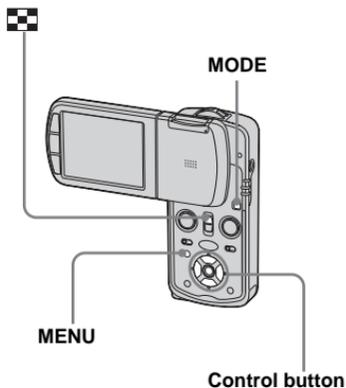
When using this mode, you cannot delete only certain frames. When you delete images, all 16 of the frames are deleted at the same time.

- 1 Display the desired Multi Burst image to delete.
- 2 Press / (Delete).
- 3 Select [Delete], then press . All of the frames are deleted.

Protecting images

— Protect

This function protects images against accidental erasure.



- Note that formatting the “Memory Stick Duo” erases all the data in the “Memory Stick Duo” even if images are protected, and these images cannot be recovered.
- It may take some time to protect the images.

In single-image mode

- 1 Turn to the PLAY mode with MODE.
- 2 Display the image you want to protect with / .
- 3 Press MENU.
The menu appears.
- 4 Select (Protect) with / , then press .

The displayed image is protected. The (protect) indicator appears on the image.



- 5 To continue and protect other images, select the desired image with / , then press .

To cancel the protection

Press again in step 4 or 5. The indicator disappears.

In index mode

- 1 Turn to the PLAY mode with MODE, then slide the  (index) lever to the upper position once to display the index (nine-image) screen.

Slide  (index) lever to the upper position twice to display a sixteen-image screen.

- 2 Press MENU.

The menu appears.

- 3 Select  (Protect) with , then press .

- 4 Select [Select] with , then press .

- 5 Select the image you want to protect with , then press .

The green  indicator appears on the selected image.



- 6 Repeat step 5 to protect other images.

- 7 Press MENU.

- 8 Select [OK] with , then press .

The  indicator turns white. The selected images are protected.

To exit the Protect function

Select [Cancel] in step 4 or select [Exit] in step 8, then press .

To cancel individual protection

Select the image to be unprotected with  in step 5, then press . The  indicator turns gray. Repeat this operation for all images that are to be unprotected. Press MENU, select [OK], and then press .

To protect all images in the folder

Select [All In This Folder] in step 4, and press . Select [On], then press .

To cancel protection of all images in the folder

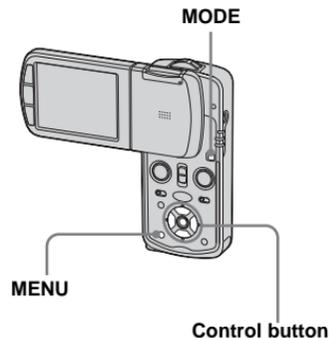
Select [All In This Folder] in step 4, and press . Select [Off], then press .

Changing image size

— Resize

You can change the image size of a recorded image, and save it as a new file. You can resize to the following sizes: 5M, 3M, 1M, VGA

The original image is retained even after resizing.



- 1 Turn to the PLAY mode with MODE.
- 2 Display the image you want to resize with .
- 3 Press MENU.

The menu appears.

4 Select  (Resize) with ◀/▶, then press ●.

5 Select the desired size with ▲/▼, then press ●.

The resized image is recorded in the recording folder as the newest file.

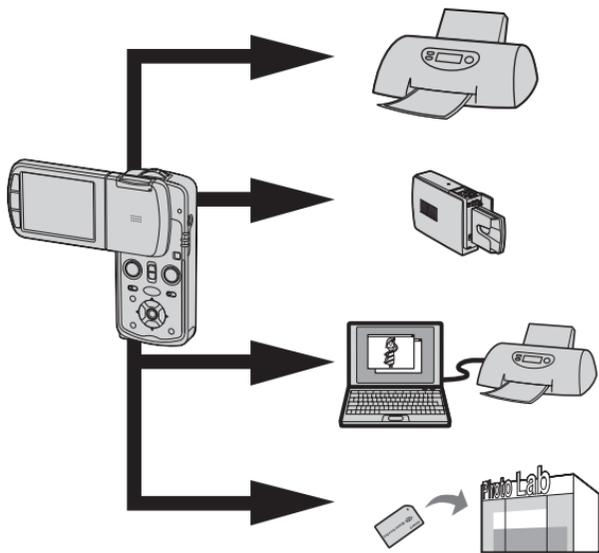
To cancel resizing

Select [Cancel] in step **5**.

- You cannot change the size of movies or Multi Burst images.
- When you change from a small size to a large size, the image quality deteriorates.
- You cannot resize to an image size of 3:2.
- When you resize a 3:2 image, the upper and lower black portions will be displayed on the image.

Printing still images

You can print images shot with your camera by the following methods.



Direct printing (PictBridge compatible printer) (page 80)

You can print by connecting the camera directly to a PictBridge compatible printer.

Direct printing (“Memory Stick” compatible printer)

You can print using a “Memory Stick” compatible printer. See the users manual supplied with the printer for details.

Printing with a computer (page 98)

You can print images that have been loaded to a computer using the “PicturePackage” software included on the CD-ROM supplied with your camera. See the users manual supplied with the printer for the printer operation method.

Printing at a shop (page 84)

Just bring the “Memory Stick Duo” and the Memory Stick Duo Adaptor to a print service shop. You can also mark the images you want to print beforehand with print marks.

Direct printing

Even if you do not have a computer, you can easily print images shot using your camera by connecting the camera to a PictBridge compliant printer. For preparation, you only set the USB connection on the Setup screen and connect the camera to the printer with the USB cable.

Using a PictBridge compliant printer easily prints the index print*.

PictBridge

* An index print function may not be provided depending on a printer.

- Using the AC Adaptor is recommended to prevent the power from turning off partway through printing.
- You cannot print movies.
- When an error notification is received from the connected printer, the  indicator flashes for approximately five seconds. Check the connected printer.

Single print



Index print



- If you arrange the same image side by side, select [This image] in single-image mode, then set [Index] to [On] (page 82).
- The number of images printed on a single index print differs according to the printer.

Preparing the camera

Set the USB mode on the camera to connect the camera with a printer.

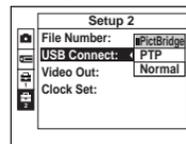
Before operation

Set the menu to the Setup screen (pages 54 and 116).



Control button

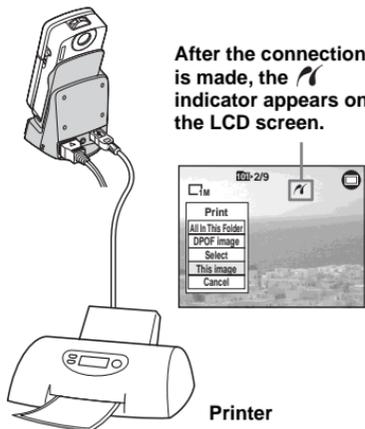
- 1** Select  (Setup 2) with **▼**, then select [USB Connect] with **▲/▼/▶**.
- 2** Select [PictBridge] with **▶/▲**, then press **●**.



The USB mode is set.

Connecting the camera to the printer

Connect the camera to the Cyber-shot Station. Then, connect the  (USB) jack of the Cyber-shot Station and the USB jack on the printer with the USB cable (supplied). Turn on the camera and printer. The camera turns to PLAY mode regardless of the current mode, and an image in the selected playback folder and the print menu appear on the LCD screen.

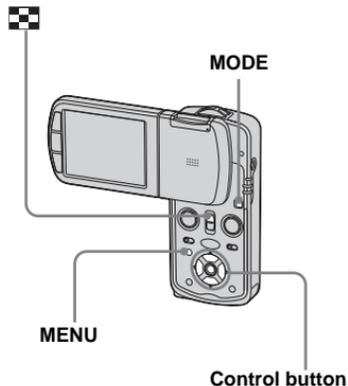


When [USB Connect] is not set to [PictBridge] on the Setup screen

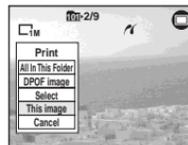
Even if you turn on the camera, you cannot use the PictBridge function. Disconnect the USB cable from the Cyber-shot Station and set [USB Connect] to [PictBridge]. (page 80)

Printing in single-image mode

When you connect the camera and a printer, the print menu appears.



- 1 Select the desired printing type with /, then press .



All In This Folder

Prints all the images in the folder.

DPOF image

Prints all the images with the  mark (page 84) regardless of the displayed image.

Select

Selects the images in order. Prints all the selected images.

- 1 Select the image you want to print with ◀/▶, then press ●.

The ✓ mark appears on the selected image.

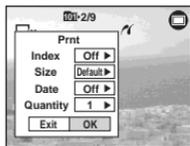
- Repeat this step to print other images.

- 2 Select [Print] with ▼, then press ●.

This image

Prints the currently displayed image.

- 2 Set the print setting with ▲/▼/◀/▶.



Index

Select [On] to print index-images.

Size

Selects the desired paper size.

Date

To insert the date and time on images, select [Date] or [Day&Time].

- If you select [This image] in step 1 and print index-images, the same images are arranged side by side.

- When you select [Date] for [Date] setting, the date will be inserted in the order set in “Setting the date and time” (page 21). Date function may not be provided depending on a printer.
- Setting items the printer does not support cannot be displayed.

- 3 Select [Quantity] with ▼, select the number of sheets with ◀/▶.

When [Index] is set to [Off]: the number of sheets of the selected image.

When [Index] is set to [On]: the number of sheets of index-images.

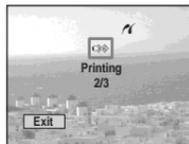
When [This image] is selected in step 1, this is the number of the same image that can be arranged on a single sheet.

- Depending on the number of index-images, it may not be possible to arrange all of the images on a single sheet.

- 4 Select [OK] with ▼/▶, then press ●.

The image is printed.

Do not disconnect the USB cable while the USB (Not disconnect USB cable) indicator appears on the LCD screen.



To cancel printing

Select [Cancel] in step 1 or select [Exit] in step 4.

To print other images

Select the image with ◀/▶ after step 4, then select [Print].

Printing in index mode

If you connect your camera to the printer, the print menu appears. Press [Cancel] to exit the print menu.

- 1 Turn to the **PLAY** mode with **MODE**, then slide the  (index) lever to the upper position once to display the index (nine-image) screen.

Slide the  (index) lever to the upper position twice to display a sixteen-image screen.

- 2 Press **MENU**.

The menu appears.

- 3 Select  (Print) with **▶**, then press **●**.

- 4 Select the desired printing type with **◀/▶**, then press **●**.



Select

Selects the images in order. Prints all the selected images.

- 1 Select the image you want to print with **▲/▼/◀/▶**, then press **●**.

The  mark appears on the selected image.

- Repeat this step to print other images.

- 2 Press **MENU**.

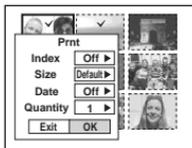
DPOF image

Prints all the images with the  mark (page 84) regardless of the displayed image.

All In This Folder

Prints all the images in the folder.

- 5 Set the print setting with **▲/▼/◀/▶**.



Index

Select [On] to print index-images.

Size

Selects the desired paper size.

Date

To insert the date and time on images, select [Date] or [Day&Time].

- When you select [Date] for [Date] setting, the date will be inserted in the order set in “Setting the date and time” (page 21). Date function may not be provided depending on a printer.

- 6 Select [Quantity] with **▼**, select the number of sheets with **◀/▶**.

When [Index] is set to [Off]: the number of sheets of the selected image.

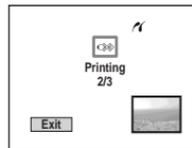
When [Index] is set to [On]: the number of sheets of index-images.

- Depending on the number of index-images, it may not be possible to arrange all of the images on a single sheet.

- 7 Select [OK] with **▼/▶**, then press **●**.

The image is printed.

Do not disconnect the USB cable while the  (Not disconnect USB cable) indicator appears on the LCD screen.



To cancel printing

Select [Cancel] in step 4 or select [Exit] in step 7.

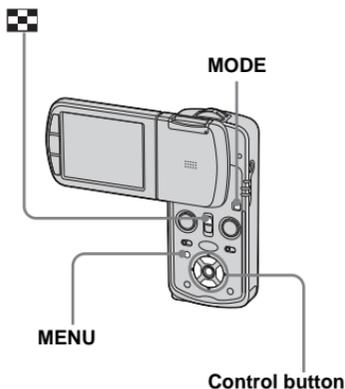
Having images printed at a shop

Note the following items when having images printed at a shop.

- Contact the print service shop to determine what “Memory Stick” types are supported.
- When using a print service shop that does not support “Memory Stick”, copy the images to a CD-R, etc., and bring that to the shop instead.
- Be sure to also bring the Memory Stick Duo Adaptor to the shop.
- Be sure to make a backup copy of the data before using a print service shop.

Marking print marks

Marking images you want to have printed beforehand with print marks is convenient when having images printed at a print service shop.



- You cannot mark movies.
- When you mark images shot in Multi Burst mode, all the images are printed on one sheet divided into 16 panels.
- You cannot set the number of prints.

Marking print marks in single-image mode

- 1** Turn to the PLAY mode with MODE.
- 2** Display the image you want to mark with ◀/▶.
- 3** Press MENU.
The menu appears.
- 4** Select DPOF (DPOF) with ◀/▶, then press ●.

The  mark is marked on the displayed image.



- 5** To continue and mark other images, display the desired image with ◀/▶, then press ●.

To unmark the mark

Press ● again in step **4** or **5**. The  mark disappears.

Marking print marks in index mode

- 1 Turn to the PLAY mode with MODE, then slide the  (index) lever to the upper position once to display the index (nine-image) screen.

Slide the  (index) lever to the upper position twice to display a sixteen-image screen.

- 2 Press MENU.

The menu appears.

- 3 Select DPOF (DPOF) with , then press .

- 4 Select [Select] with , then press .

- You cannot mark the  mark in [All In This Folder].

- 5 Select the image you want to mark with , then press .

The green  mark appears on the selected image.



- 6 Repeat step 5 to mark other images.

- 7 Press MENU.

- 8 Select [OK] with , then press .

The  mark turns white. The  mark setting is completed.

To unmark marks

Select the images to be unmarked with  in step 5, then press .

To unmark all the marks in the folder

Select [All In This Folder] in step 4, then press . Select [Off], then press .

To exit the mark function

Select [Cancel] in step 4 or select [Exit] in step 8.

Copying images to your computer — ***For Windows users***

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

- This camera is compatible with Hi-Speed USB (USB 2.0 compliant).
- Connecting with a USB interface that is compatible with Hi-Speed USB (USB 2.0-compliant) allows advanced transfer (high-speed transfer).
- 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 when connecting with a computer, [Normal] and [PTP]* modes. The default setting is the [Normal] mode. This section describes the [Normal] mode as an example.

* For details on the PTP connection, see page 117.

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.

■ Picture Package

This application is used to transfer images from the camera to a computer easily. It also allows you to utilize the various functions. When you install “Picture Package,” the USB driver is also installed at the same time.

- 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.

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.

- 1 Turn on your computer, and insert the CD-ROM (supplied) into the CD-ROM drive.

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

The install menu screen appears. If it does not appear, double-click  (My Computer) →

 (PICTUREPACKAGE) in that order.

- When also using the supplied image utility software “Picture Package”, click [Picture Package]. The USB driver will be installed when “Picture Package” is installed (page 94).
- **When the computer is in use, shut down all application software before you install the USB driver.**

- 2 Click [USB Driver] on the title screen.



The “InstallShield Wizard” screen appears.

- 3 Click [Next].



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

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

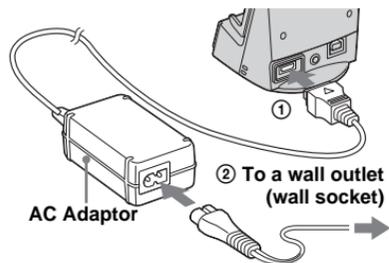


Your computer restarts. Then, you can establish USB connection.

- 5 Remove the CD-ROM.

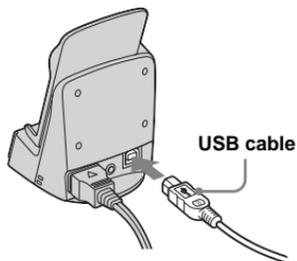
Connecting the camera to your computer

- 1 Turn on your computer.
- 2 Insert the “Memory Stick Duo” with the images you want to copy into the camera.
- 3 Connect the Cyber-shot Station (supplied) and the AC Adaptor (supplied), and plug the adaptor into a wall outlet (wall socket).

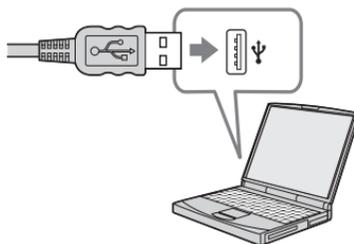


- When you copy images to your computer using the battery pack, copying may be failed or cause data corruption by battery shutoff. We recommend that you use the AC Adaptor.

- 4 Connect the USB cable to the (USB) jack of the Cyber-shot Station.

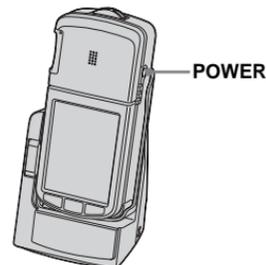


- 5 Connect the USB cable to your computer.

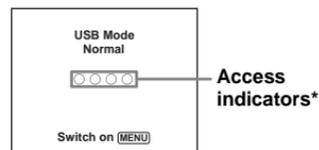


- When using Windows XP, the AutoPlay wizard automatically appears on the desktop. Proceed to page 90.

- 6 Connect the camera to the Cyber-shot Station and turn on the camera.



- Make sure to slide the tray firmly.



“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 the used program to recognize the camera. Wait for a while.

- * During communication, the access indicators turn red. Do not operate the computer until the indicators turn white.

- If “USB Mode Normal” does not appear in step **6**, press MENU, select [USB Connect], and set it to [Normal].
- Do not remove the camera from the Cyber-shot Station during USB connection, as the image data may be destroyed. To end the USB connection, see the note **1**.

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

For Windows 2000, Me, or XP users

- 1 Double-click  on the tasktray.



Double-click here

- 2 Click  (Sony DSC), then click [Stop].
- 3 Confirm the device on the confirmation window, then click [OK].
- 4 Click [OK].
Step 4 is unnecessary for Windows XP users.
- 5 Disconnect the USB cable, remove the “Memory Stick Duo”, or turn off the camera.

For Windows 98 or 98SE users

Confirm that the access indicators (page 88) on the screen are turned white and carry out only step **5** above.

Copying images

– Windows 98/98SE/2000/Me

- 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 still images to the “My Documents” folder.
- When the “Removable Disk” icon is not shown, see page 90.
- When using Windows XP, see page 90.

- 2** Double-click [DCIM], then double-click the folder that the image files you want to copy are stored.

- For movies, double-click [MP_ROOT].

- 3** Right-click the image file to display the menu, then select [Copy] from the menu.

- 4** Double-click the [My Documents] folder and right-click on the “My Documents” window to display the menu, then select [Paste] from the menu.

The image files are copied to the “My Documents” folder.

When an image with the same file name exists in the copy destination folder

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

To change the file name

To copy an image file to the computer without overwriting, change the file name to the desired name and then copy the image file. However, note that if you change the file name, you may not be able to play back that image with your camera. To play back images with the camera, perform the operation on page 94.

When a removable disk icon is not shown

- 1 Right-click [My Computer] to display the menu, then click [Properties].
The “System Properties” screen appears.
- 2 Display [Device Manager].
 - ① Click [Hardware].
 - ② Click [Device Manager].
 - For Windows 98, 98SE, Me users, step ① is unnecessary. Click the [Device Manager] tab.
- 3 If [Sony DSC] is displayed, delete it.
 - ① Right-click [Sony DSC].
 - ② Click [Uninstall]
The “Confirm Device Removal” screen appears.
 - For Windows 98, 98SE, Me users, click [Remove].
 - ③ Click [OK].
The device is deleted.

Try the USB driver installation again using the CD-ROM (page 87).

– Windows XP

Copying images using the Windows XP AutoPlay wizard

- 1 **Make a USB connection (page 88). 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.

- When copying movies, copy the movies following the procedure on page 89.

- 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 to 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 **4** on page 89 to disconnect the USB cable and reconnect it. Then, perform the procedure from step **1** again.

Viewing the images on your computer

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

The “My Documents” folder contents are displayed.

- This section describes the procedure for viewing copied images in the “My Documents” folder.
- When not using Windows XP, double-click [My Documents] on the desktop.

2 Double-click the desired image file.

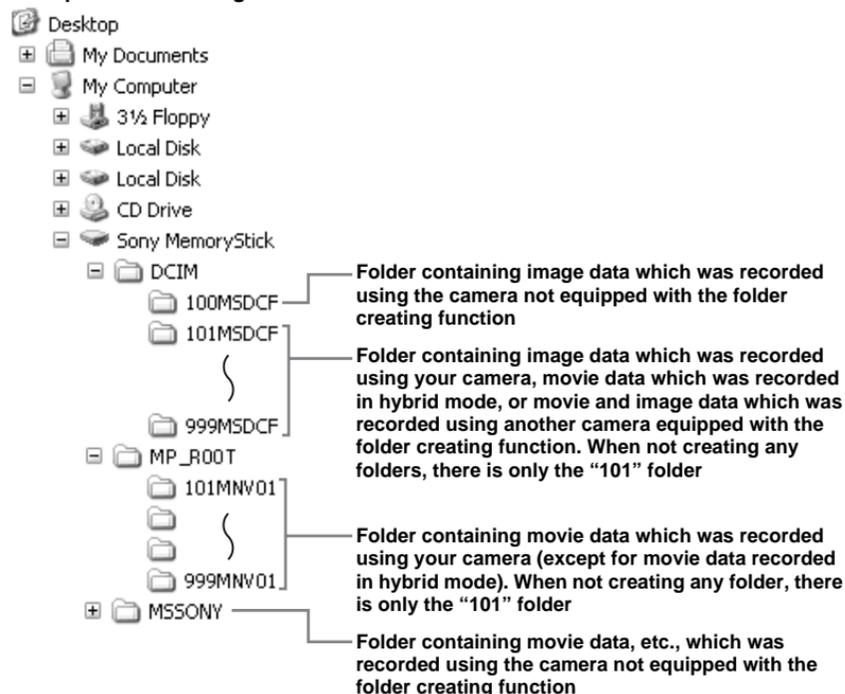
The image is displayed.

- For playing back movies, installation of “Picture Package” is required (page 94). Open the file from [Viewing video and pictures on PC] (page 97).

Image file storage destinations and file names

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

Example: when viewing folders on Windows XP



- You cannot record any images to “100” or “MSSONY” folders. The images in the “100” folder are available only for viewing.
- For more information about the folder, see pages 55, 71.

Folder	File name	File meaning
101MSDCF to 999MSDCF	DSC0□□□□.JPG	<ul style="list-style-type: none"> • Still image files shot in <ul style="list-style-type: none"> – Normal mode (page 29) – Hybrid mode (page 32) – Exposure Bracket mode (page 62) – Speed Burst mode (page 65) – Multi Burst mode (page 66)
	DSC0□□□□.MP4	<ul style="list-style-type: none"> • Movie files recorded in simultaneously in hybrid mode (page 32)
101MNV01 to 999MNV01	M4V0□□□□.MP4	<ul style="list-style-type: none"> • Movie files recorded in normal mode (page 30)
	M4V0□□□□.THM	<ul style="list-style-type: none"> • Index image files recorded simultaneously in movie mode (page 30)

- □□□□ stands for any number within the range from 0001 to 9999.
- The numerical portions of the following files are the same.
 - A still image file recorded in hybrid mode and its corresponding movie files
 - A movie file recorded in movie mode and its corresponding index image file

Viewing image files once copied to a computer with your camera

When an image file copied to a computer no longer remains in a “Memory Stick Duo”, you can view that image again on your camera by copying the image file in the computer to a “Memory Stick Duo”.

- Step **1** is not necessary when the file name set with your camera has not been changed.
- You may be unable to play back some images depending on the image size.
- When an image file has been processed by a computer or when the image file was recorded using a model other than your camera, playback on your camera is not guaranteed.
- When the overwrite confirmation message appears, enter a different number in step **1**.
- When there is no folder, first create a folder with your camera and then copy the image file (page 55).

1 Right-click the image file, then click [Rename]. Change the file name to “DSC0□□□□”.

For movie files, the file name format is “M4V0□□□□”.

Enter a number from 0001 to 9999 for □□□□.

- An extension may be displayed depending on the computer settings. The extension for still images is JPG, and the extension for movies is MP4. Do not change the extension.

2 Copy the image file to the “Memory Stick Duo” folder.

- ① Right-click the image file, then click [Copy].
- ② Select and double-click the [DCIM] (for photo) or [MP_ROOT] (for movie) folder from [Removable Disk] or [Sony MemoryStick] in [My Computer].
- ③ Right-click the [□□□MSDCF] (for photo) or [□□□MNV01] (for movie) folder and click [Paste]. □□□ stands for any number within the range from 100 to 999.

Installing “Picture Package”

“Picture Package” is only for Windows computers.

You can use the “Picture Package” software on your Windows computer to compile the images shot with your camera. When you install “Picture Package,” the USB driver is also installed at the same time.

- When the computer is in use, shut down all application software before you install “Picture Package.”

For computer environment

See page 86 for the basic Windows operating environment. Other system requirements are as follows.

Software: Macromedia Flash Player 6.0 or later, Windows Media Player 7.0 or later, DirectX 9.0b or later

Sound card: 16-bit stereo sound card with speakers

Memory: 64 MB or more (128 MB or more is recommended.)

Hard Disk: Disk space required for installation: approximately 500 MB

Display: Video card (Direct Draw driver compliant) with 4 MB of VRAM

- When automatically creating slide shows (page 98), a Pentium III 500 MHz or faster CPU is required.
- This software is compatible with DirectX technology. “DirectX” must be installed for use.
- A separate environment for operating the recording device is required in order to write to CD-Rs.

When playing back an MPEG-4 (MP4) file, the following computer environment is required.

OS: Microsoft Windows 2000 Professional, Windows XP Home Edition, Windows XP Professional
 IBM PC/AT (DOS/V) compatible computers on which the above OS is preinstalled.

CPU: Intel Pentium III 1 GHz or faster is recommended

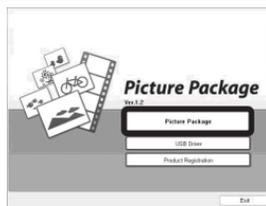
Memory: 256 MB or more is recommended

1 Turn on your computer, and insert the CD-ROM (supplied) into the CD-ROM drive.

The installation menu screen appears.

- If you have not yet installed the USB driver (page 87), do not connect the camera to the computer before you install the “Picture Package” software (except for Windows XP).

2 Click [Picture Package].



“Choose Setup Language” screen appears.

3 Select the desired language, then click [Next].



- This section describes the English screen.

4 Click [Next].

The “License Agreement” screen appears. Read the agreement carefully. If you accept the terms of the agreement, check the “I accept the terms of the license agreement” checkbox and click [Next].



5 Click [Next].



6 Click [Install] on the “Ready to Install the Program” screen.

The installation starts.



If the “Welcome to setup for Direct X” screen appears after you install the application software, follow the instructions.

7 Confirm if the checkbox of “Yes, I want to restart my computer now” is checked, then click [Finish].

Your computer restarts.



The shortcut icons of “Picture Package Menu” and “Picture Package destination Folder” are displayed.

8 Remove the CD-ROM.

Copying images using “Picture Package”

Connect the camera and your computer with the USB cable.

“Picture Package” starts up automatically and the images are copied to the computer automatically. After the images are copied, “Picture Package Viewer” starts up and the images copied are displayed.



- Normally “Picture Package” and “Date” folders are created inside the “My Picture” folder, and all of the image files recorded with the camera are copied into these folders.
- If “Picture Package” cannot copy images automatically, start up “Picture Package Menu” and check [Settings] in [Copy automatically].

Using “Picture Package”

Start up the [Picture Package Menu] on the desktop to use the various functions.

- The initial screen may differ depending on your computer. You can change the menu display order to suit your taste by clicking [Settings] at the lower-right corner of the screen.
- For details on the use of the application software, click  at the upper-right corner of each screen to show the on-line help.

Technical support of “Picture Package” is provided by the Pixela User Support Center. For more information, refer to the enclosed information with the CD-ROM.

Viewing images on a computer

Click [Viewing video and pictures on PC] on the left side of the screen, then click [Viewing video and pictures on PC] in the lower-right corner of the screen.



The screen used for viewing images appears.

Storing images on a CD-R

Click [Save the images on CD-R] on the left side of the screen, then click [Save the images on CD-R] in the lower-right corner of the screen.

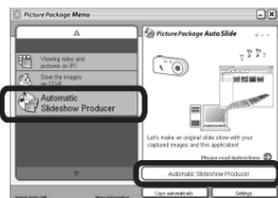


The screen used for storing images on a CD-R appears.

- A CD-R drive is required to store images on a CD-R. For further information on compatible drives, see the following home page of the Pixela User Support Center.
<http://www.ppackage.com/>

Creating a slide show

Click [Automatic Slideshow Producer] on the left side of the screen, then click [Automatic Slideshow Producer] in the lower-right corner of the screen.



The screen used for creating a slide show appears.

Printing images

- 1 Perform the procedures described under “Viewing images on a computer” (page 97) to display the list of images.
- 2 Double-click and select the images you want to print from the list.
- 3 Click the  button on the screen.



The screen used for printing images appears.

- 4 Click [File] in the upper-left corner of the screen, then select [Print].



The printing wizard screen appears.

- 5 Set the paper size and the number of sheets and print images.

Copying images to your computer

— For Macintosh users

Recommended computer environment

OS: Mac OS 9.1, 9.2, or Mac OS X (v10.0/v10.1/v10.2/v10.3)

The above OS must be installed at the factory.

USB connector: Provided as standard

- 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 when connecting with a computer, [Normal] and [PTP]* modes. The default setting is the [Normal] mode. This section describes the [Normal] mode as an example.

* For details on the PTP connection, see page 117.

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/>

1 Connecting your camera to your computer

For details, see page 88.

Disconnecting the USB cable, removing the “Memory Stick Duo” from your camera or turning off the power during USB connection

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

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

2 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].
For movies, double-click [MP_ROOT].
- 3** Double-click the folder that the images you want to copy are stored.
- 4** Drag and drop the image files to the hard disk icon.
 - The image files are copied to your hard disk.
For details on the storage location of the images and file names, see page 92.

3 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.
 - To view movies, MPEG4 compliant application software is required.

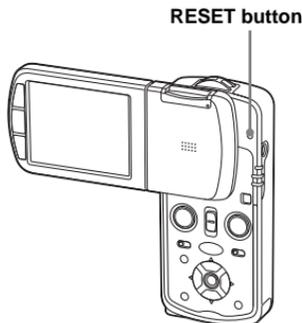
Troubleshooting

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

- 1 First check the items on the tables below.
If code displays “C:□□:□□” appear on the screen, the self-diagnosis display function is working (page 112).

- 2 Should your camera still not work properly, press the RESET button 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.



Battery pack and power

Symptom	Cause/Solution
You cannot charge the battery pack.	<ul style="list-style-type: none">• The camera is turned on. Turn the camera off (page 19).
The battery pack cannot be installed.	<ul style="list-style-type: none">• Install the battery pack correctly (page 14).
The $\frac{1}{2}$ /CHG lamp flashes when charging a battery pack.	<ul style="list-style-type: none">• Install the battery pack correctly (page 14).• The battery pack has malfunctioned. Consult your Sony dealer or local authorized Sony service facility.• The battery pack is discharged. Re-insert the AC Adaptor and then charge the battery pack.
The $\frac{1}{2}$ /CHG lamp does not light up when charging a battery pack.	<ul style="list-style-type: none">• The AC Adaptor is disconnected. Properly connect the AC Adaptor (page 14).• The AC Adaptor has malfunctioned. Consult your Sony dealer or local authorized Sony service facility.• Install the battery pack correctly (page 14).• The battery pack is completely charged.• The battery pack is discharged. Re-insert the AC Adaptor and then charge the battery pack.• Properly install the camera to the Cyber-shot Station (page 12).

Symptom	Cause/Solution
The battery remaining indicator is incorrect, or sufficient battery remaining indicator is displayed but the power runs out soon.	<ul style="list-style-type: none"> You have used the camera in an extremely hot or an extremely cold location (page 118). A deviation has occurred in the remaining battery time. Fully discharge and then charge the battery pack so that the battery remaining indicator functions correctly (page 16). The battery pack is discharged. Install a charged battery pack (page 14). The battery pack is dead (page 121). Replace the battery pack with a new one.
The battery pack runs down too quickly.	<ul style="list-style-type: none"> The battery pack is dead (page 121). Replace the battery pack with a new one. You have used the camera in an extremely cold location (page 120). The battery terminal is dirty. Clean the battery terminal with a cotton swab, etc., and charge the battery pack. After charging the battery pack, disconnect the DC plug from your camera.
You cannot turn on the camera.	<ul style="list-style-type: none"> Install the battery pack correctly (page 14). The AC Adaptor is disconnected. Properly connect the AC Adaptor (page 18). The AC Adaptor has malfunctioned. Consult your Sony dealer or local authorized Sony service facility. The battery pack is discharged. Install a charged battery pack (page 14). The battery pack is dead (page 121). Replace the battery pack with a new one. Properly install the camera to the Cyber-shot Station (page 12). It is due to open the LCD panel fast. Rotate the LCD panel slowly again.
The power turns off suddenly.	<ul style="list-style-type: none"> If you do not operate the camera for about three minutes while the power is on, the camera turns off automatically to prevent wearing down the battery pack. Turn on the camera again (page 19) or use the AC Adaptor (page 18). The battery pack is discharged. Install a charged battery pack (page 14). Properly install the camera to the Cyber-shot Station (page 12).

Shooting still images/movies

Symptom	Cause/Solution
The LCD screen is not turned on even when the power is turned on.	<ul style="list-style-type: none"> The LCD backlight is turned off with <input type="checkbox"/> in the dark place. Turn on the LCD backlight with <input type="checkbox"/> (page 35).
The subject is not visible on the LCD screen.	<ul style="list-style-type: none"> Turn to the REC mode with MODE (page 29).
The LCD screen turns blue and the subject does not appear when recording movies.	<ul style="list-style-type: none"> The image size is set to [640 (30fps)] while an A/V connecting cable is connected to the A/V OUT (STEREO) jack. Disconnect the A/V connecting cable or set the image size to other than [640 (30fps)].

Symptom	Cause/Solution
The image is out of focus.	<ul style="list-style-type: none"> The subject is too close. Set the camera to the close-ups (Macro) recording mode, and position the camera further away from the minimum shooting distance until the AE/AF lock indicator changes from flashing to lighted when PHOTO is pressed and held halfway down, then shoot the image (page 36). Or, select [Q] (Magnifying glass mode) and focus at a distance of 1 cm to 20 cm from the subject. Select the other mode than [Q] (Magnifying glass mode), ☾ (Twilight mode), ▲ (Landscape mode) or 🎆 (Fireworks mode) for the Scene Selection function (page 69). The focus preset function is selected. Set to the auto focus mode (page 58).
Optical zoom does not work.	<ul style="list-style-type: none"> Select the other mode than [Q] (Magnifying glass mode) for the Scene Selection function (page 67).
Digital zoom does not function.	<ul style="list-style-type: none"> [Digital Zoom] is set to [Off] on the Setup screen. Set [Digital Zoom] to [On] (pages 35 and 116).
The image is too dark.	<ul style="list-style-type: none"> You are shooting a subject with a light source behind the subject. Select the metering mode (page 61) or adjust the exposure (page 59). The brightness of the LCD screen is too low. Adjust the brightness of the LCD backlight (page 117). Turn on the LCD backlight with [□] (page 35).
The image is too bright.	<ul style="list-style-type: none"> You are shooting a spotlighted subject in a dark location such as on a stage. Adjust the exposure (page 59). The brightness of the LCD screen is too bright. Adjust the brightness of the LCD backlight (page 117).
The image is monochrome (black and white).	<ul style="list-style-type: none"> Set [PFX] (P. Effect) to the other modes than [B&W] (page 70).
Vertical streaks appear when you are shooting a very bright subject.	<ul style="list-style-type: none"> The smear phenomenon is occurring. This is not a malfunction.
Noise appears in the image when you view the LCD screen in a dark place.	<ul style="list-style-type: none"> The camera is functioning to increase the visibility of the LCD screen by temporarily brightening the image under conditions of low illumination. There is no effect on the recorded image.
Your camera cannot record images.	<ul style="list-style-type: none"> No “Memory Stick Duo” has been inserted. Insert a “Memory Stick Duo” (page 23). The capacity of the “Memory Stick Duo” is full. Delete unnecessary images saved in the “Memory Stick Duo” (page 49) or change the “Memory Stick Duo”. You are using the “Memory Stick Duo” with the write-protect switch, and the switch is set to the LOCK position. Set the switch to the recording position (page 119). You cannot record images while charging the flash. Turn to the REC mode with MODE (page 29).
Recording takes a long time.	<ul style="list-style-type: none"> NR slow shutter function is activated (page 70).

Symptom	Cause/Solution
The flash does not work.	<ul style="list-style-type: none"> The flash is set to  (No flash). Set the flash to auto (No indicator),  (Forced flash) or  (Slow synchro) (page 39). Select the other mode than  (Twilight mode),  (Fireworks mode) or  (Candle mode) for the Scene Selection function (page 69). When  (Magnifying glass mode),  (Landscape mode),  (Snow mode),  (Beach mode) or  (High-speed shutter mode) is selected for the Scene Selection function, set the flash to  (Forced flash) (page 39). Set [Mode] (REC Mode) to [Normal]. The flash cannot be used when shooting movies.
Fuzzy specks appear in images shot using the flash.	<ul style="list-style-type: none"> Dust in the air reflected the flash light and appeared in the image. This is not a malfunction.
The close-ups (Macro) function does not work.	<ul style="list-style-type: none"> Select the other mode than  (Magnifying glass mode),  (Twilight mode),  (Landscape mode),  (Fireworks mode) or  (Candle mode) for the Scene Selection function (page 69).
You cannot shoot continuously.	<ul style="list-style-type: none"> The capacity of the “Memory Stick Duo” is full. Delete unnecessary images saved in the “Memory Stick Duo” (page 49) or change the “Memory Stick Duo”. The battery pack is discharged, so you can shoot only one image. Install a charged battery pack (page 14).
The eyes of the subject come out red.	<ul style="list-style-type: none"> Set [Red Eye Reduction] on the Setup screen to [On] (pages 40 and 116). Approach the subject and shoot from within the recommended shooting distance using the flash (page 39). Increase the indoor brightness and shoot the image.
The date and time are recorded incorrectly.	<ul style="list-style-type: none"> Set the correct date and time (pages 21 and 117).
The F value and shutter speed flash when you press and hold PHOTO halfway down.	<ul style="list-style-type: none"> Adjust the correct exposure (page 59).

Viewing images

Symptom	Cause/Solution
Your camera cannot play back images.	<ul style="list-style-type: none">• Turn to the PLAY mode with MODE (page 43).• Movie files not recorded with this camera are not guaranteed.• The folder/file name has been changed on your computer (page 94).• Playback of image files that have been modified by a computer or images shot using other cameras on your camera is not guaranteed.• The camera is in USB mode. Cancel USB communication (pages 89 and 99).
The image appears rough right after playback starts.	<ul style="list-style-type: none">• The image may appear rough right after playback starts due to the image processing. This condition is not a malfunction.
The image does not appear on the TV screen.	<ul style="list-style-type: none">• The video output signal setting of your camera on the Setup screen is incorrect. Change the setting (pages 54 and 117).• The connection is not correct. Check the connection (page 46).• The USB jack is connected. Follow the procedure of the note 1 on page 89 (Windows) or 1 on page 99 (Macintosh) and disconnect the USB cable.
The image cannot be played back on a computer.	<ul style="list-style-type: none">• See page 106.

Deleting/Editing Images

Symptom	Cause/Solution
Your camera cannot delete an image.	<ul style="list-style-type: none">• The image is protected. Cancel the protection (page 76).• You are using the “Memory Stick Duo” with the write-protect switch, and the switch is set to the LOCK position. Set the switch to the recording position (page 119).
You have deleted an image by mistake.	<ul style="list-style-type: none">• Marking  (protect) will prevent you from deleting images by mistake (page 76).• If you are using the “Memory Stick Duo” with write-protect switch, we recommend that you set the switch to the LOCK position to prevent accidental erasure (page 119).
The resizing function does not work.	<ul style="list-style-type: none">• You cannot resize movies and Multi Burst images.
You cannot display a print (DPOF) mark.	<ul style="list-style-type: none">• You cannot display print (DPOF) marks on movies.

Computers

Symptom	Cause/Solution
You do not know if the OS of your computer is compatible.	<ul style="list-style-type: none"> • Check “Recommended computer environment” (pages 86 and 99).
You cannot install the USB driver.	<ul style="list-style-type: none"> • In Windows 2000, log on as Administrator (authorized Administrators) (page 86).
Your computer does not recognize your camera.	<ul style="list-style-type: none"> • Turn on the camera (page 19). • The battery level is low. Use the AC Adaptor (page 18). • Use the supplied USB cable (pages 88 and 99). • Disconnect the USB cable from both the computer and the Cyber-shot Station, and connect it again firmly. Make sure that “USB Mode” is displayed on the LCD screen (page 88). • Properly install the camera to the Cyber-shot Station (page 12). • Set [USB Connect] to [Normal] on the Setup screen (pages 54 and 117). • The USB connectors on your computer are connected to other equipment besides the keyboard, the mouse and the Cyber-shot Station. Disconnect all equipment other than the keyboard and the mouse from the USB connectors (page 86). • The camera is not connected directly to your computer. Connect the camera directly to your computer without passing through a USB hub or other device (page 86). • Install the USB driver (page 87). • Your computer does not properly recognize the device because you connected the camera and your computer with the USB cable before you installed the “USB Driver” from the supplied CD-ROM. Delete the erroneously recognized device from your computer (page 90), then install the USB driver (page 87).
You cannot copy images.	<ul style="list-style-type: none"> • Make a correct USB connection between the camera and your computer (page 88). • Follow the designated copy procedure for your OS (pages 89, 90, 96 and 99). • You attempted to shoot using a “Memory Stick Duo” formatted by a computer. Shoot using a “Memory Stick Duo” formatted by your camera.
After making a USB connection, “Picture Package” does not automatically start.	<ul style="list-style-type: none"> • Start up the “Picture Package Menu” and check [Settings]. • Make a USB connection when the computer is turned on (page 88).
The image cannot be played back on a computer.	<ul style="list-style-type: none"> • If you are using the “Picture Package” application software, click on help at the upper-right corner of each screen. • Consult the computer or software manufacturer.
The image and sound are interrupted by noise when you view a movie on a computer.	<ul style="list-style-type: none"> • 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 89, 96 and 99).

Symptom	Cause/Solution
You cannot print an image.	<ul style="list-style-type: none"> • Check the printer settings.
Images once copied to a computer cannot be viewed on the camera.	<ul style="list-style-type: none"> • Copied to a wrong folder. Copy them to an available folders, such as “101MSDCF” (page 92). • The folder/file name has been changed on your computer (page 94).

“Memory Stick Duo”

Symptom	Cause/Solution
You cannot insert a “Memory Stick Duo”.	<ul style="list-style-type: none"> • You are inserting the “Memory Stick Duo” backwards. Insert the “Memory Stick Duo” from the correct side (page 23).
You cannot record on a “Memory Stick Duo”.	<ul style="list-style-type: none"> • You are using the “Memory Stick Duo” with the write-protect switch, and the switch is set to the LOCK position. Set the switch to the recording position (page 119). • The capacity of the “Memory Stick Duo” is full. Delete unnecessary images (page 49).
You cannot format a “Memory Stick Duo”.	<ul style="list-style-type: none"> • You are using the “Memory Stick Duo” with the write-protect switch, and the switch is set to the LOCK position. Set the switch to the recording position (page 119).
You have formatted a “Memory Stick Duo” by mistake.	<ul style="list-style-type: none"> • All the data on the “Memory Stick Duo” are deleted by formatting. You cannot restore them. If you are using the “Memory Stick Duo” with write-protect switch, we recommend that you set the switch to the LOCK position to prevent accidental erasure (page 119).

PictBridge compliant printer

Symptom	Cause/Solution
The connection cannot be established.	<ul style="list-style-type: none"> • Consult with the printer manufacturer whether the printer is compliant with the PictBridge or not. • Check that the printer is turned on and can connect with the camera. • Set [USB Connect] to [PictBridge] on the Setup screen (page 117). • Depending on the circumstances, the connection may not be established. Disconnect and connect the USB cable again. If an error message is indicated on the printer, refer to the operating instructions supplied with the printer.

Symptom	Cause/Solution
You cannot print images.	<ul style="list-style-type: none"> • The camera is not connected to the printer. Check that the camera and the printer are properly connected using the USB cable. • Turn on the printer. For further information, refer to the operating instructions supplied with it. • If you select [Exit] during printing, you may not print again depending on your printer. Disconnect and connect the USB cable again. If you cannot print still, disconnect the USB cable, turn off and on the printer, then connect the USB cable again. • Movies cannot be printed. • Images modified with a computer or images shot using other than this camera may not be able to be printed.
Printing is canceled.	<ul style="list-style-type: none"> • You disconnected the USB cable before the  (Not disconnect USB cable) mark disappears.
You cannot insert the date or print images in the index mode.	<ul style="list-style-type: none"> • Consult with the printer manufacturer whether the printer provides date function or index print function or not. • The date may not be inserted in the index mode depending on the printer. Consult with the printer manufacturer.
The paper size you want to print on does not appear.	<ul style="list-style-type: none"> • Check with the printer manufacturer whether the printer supports the paper size you want to print on.
“---- -- --” is printed on the date-inserted part.	<ul style="list-style-type: none"> • The images that do not have the recording date data cannot be printed with the date inserted. Set [Date] to [Off] and print the image.
You cannot print with the current paper size setting of the printer.	<ul style="list-style-type: none"> • If the printer paper was changed to paper of a different size after the camera was connected to the printer, disconnect and connect the USB cable again. • The printing setting of the camera differs from the printer setting. Change the paper size setting of the camera (pages 82 and 83) or change the printer setting.
You cannot perform other operations when printing is stopped.	<ul style="list-style-type: none"> • The printer is performing the printing stop processing, so wait for this processing to finish. (This processing may take some time depending on the printer.)

Others

Symptom	Cause/Solution
Your camera does not work.	<ul style="list-style-type: none">• You are not using an “InfoLITHIUM” battery pack. Use an “InfoLITHIUM” battery pack (page 120).• The battery level is low. (The  indicator appears.) Charge the battery pack (page 14).• Connect the AC Adaptor securely to the DC IN jack of your camera and to a wall outlet (wall socket) (page 18).• Properly install the camera to the Cyber-shot Station (page 12).
The power is on, but the camera does not work.	<ul style="list-style-type: none">• The built-in microcomputer is not working properly. Disconnect, and then, after one minute, reconnect all power sources and turn on the camera. If this does not work, press the RESET button with a fine-tipped object, then turn the power on again. (This will clear the date and time settings, etc.) (page 101)
You cannot identify an indicator on the screen.	<ul style="list-style-type: none">• Check the indicator (pages 123 to 126).
The lens gets fogged.	<ul style="list-style-type: none">• Moisture condensation has occurred. Turn off the camera and leave for about an hour at room temperature for the moisture to evaporate before use (page 118).
The camera becomes warm when you use it for the long time.	<ul style="list-style-type: none">• This is not a malfunction.

Warnings and messages

The following messages may appear on the screen.

Message	Meaning/Corrective Action
No Memory Stick	<ul style="list-style-type: none">• Insert a “Memory Stick Duo” (page 23).
System error	<ul style="list-style-type: none">• Turn the power off and on again (page 19).
Memory Stick error	<ul style="list-style-type: none">• The inserted “Memory Stick Duo” cannot be used in your camera (page 119).• The “Memory Stick Duo” is damaged.• The terminal section of the “Memory Stick Duo” is dirty.• Insert the “Memory Stick Duo” correctly (page 23).
Memory Stick type error	<ul style="list-style-type: none">• The inserted “Memory Stick Duo” cannot be used in your camera (page 119).
Format error	<ul style="list-style-type: none">• Failed to format the “Memory Stick Duo.” Format the “Memory Stick Duo” again (page 51).
Memory Stick locked	<ul style="list-style-type: none">• You are using the “Memory Stick Duo” with the write-protect switch, and the switch is set to the LOCK position. Set the switch to the recording position (page 119).
No memory space	<ul style="list-style-type: none">• The capacity of the “Memory Stick Duo” is insufficient. You cannot record images. Delete unnecessary images (page 49).
Read only memory	<ul style="list-style-type: none">• Your camera cannot record or delete images to this “Memory Stick Duo.”
No file in this folder	<ul style="list-style-type: none">• No images have been recorded in this folder.
Folder error	<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• The folder whose first three digits of the name is “999” exists in the “Memory Stick Duo.” You cannot create any folders.
Cannot record	<ul style="list-style-type: none">• The camera cannot record images in the selected folder. Select a different folder (page 56).
File error	<ul style="list-style-type: none">• An error occurred while playing back the image.
File protect	<ul style="list-style-type: none">• The image is protected against erasure. Release the protection (page 76).
For “InfoLITHIUM” battery only	<ul style="list-style-type: none">• The battery pack is not the “InfoLITHIUM” type.
Image size over	<ul style="list-style-type: none">• You are playing back an image of a size that cannot be played back on your camera.

Message	Meaning/Corrective Action
Invalid operation	<ul style="list-style-type: none"> You are playing back a file that was created on equipment other than this camera.
	<ul style="list-style-type: none"> The battery level is low or zero. Charge the battery pack (page 14). Depending on the conditions of use or the type of battery pack, the indicator may flash even though there are still 5 to 10 minutes of remaining battery time left.
	<ul style="list-style-type: none"> Camera shake may occur due to insufficient light. Use the flash, mount the camera on a tripod, or otherwise secure the camera in place.
Turn the power off and on again	<ul style="list-style-type: none"> A problem with the lens caused an error.
Enable printer to connect	<ul style="list-style-type: none"> [USB Connect] is set to [PictBridge], however the camera is connected to a non-PictBridge compliant device. Check the device. Depending on the circumstances, the connection may not be established. Disconnect and connect the USB cable again. If an error message is indicated on the printer, refer to the operating instructions supplied with the printer.
Connect to  device	<ul style="list-style-type: none"> You tried to print images before the printer connection was established. Connect to a PictBridge compliant printer.
No printable image	<ul style="list-style-type: none"> You tried to execute [DPOF image] without checking the  mark. You tried to execute [All In This Folder] while selecting the folder that stores only movies. You cannot print movies.
Printer busy	<ul style="list-style-type: none"> Since the printer is busy, it cannot receive print requests. Check the printer.
Paper error	<ul style="list-style-type: none"> A paper error occurred, such as paper-out, paper-jam, etc. Check the printer.
Ink error	<ul style="list-style-type: none"> An ink error has occurred in the connected printer, or the ink level is low. Check the printer.
Printer error	<ul style="list-style-type: none"> The camera received an error from the printer. Check the printer, or check if the image you want to print is corrupted.
	<ul style="list-style-type: none"> The data transmission to the printer may not be completed yet. Do not disconnect the USB cable.
Processing	<ul style="list-style-type: none"> The printer is performing the printing stop processing. Printing is not possible until this processing is completed. This processing may take some time depending on the printer.

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 19).
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 23).
E:61: □□ E:91: □□	A camera malfunction that you cannot reverse has occurred.	• Press the RESET button (page 101), then turn the power on again.

If you are unable to solve the problem even after trying the corrective actions a few times, contact your Sony dealer or local authorized Sony service facility.

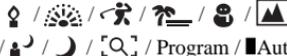
Menu items

Menu items that can be modified differ depending on the setting.

Menu items are maintained even when the power is turned off or the mode is changed using the MODE button (except [PFX] (P.Effect)).

Factory settings are indicated with ■.

In REC mode

Item	Available mode	Setting	Description
 (Camera)	PHOTO MOVIE	 / Program / ■Auto	Sets the camera mode (page 31).
 (EV) ¹⁾	PHOTO MOVIE	+2.0EV / +1.7EV / +1.3EV / +1.0EV / +0.7EV / +0.3EV / ■0EV / -0.3EV / -0.7EV / -1.0EV / -1.3EV / -1.7EV / -2.0EV	Adjusts the exposure (page 59).
 (Focus) ¹⁾²⁾	PHOTO MOVIE	∞ / 7.0m / 3.0m / 1.0m / 0.5m / Spot AF / Center AF / ■Multi AF	Chooses the auto focus method (page 57), or sets the focus preset distance (page 58).
WB (White Bal) ¹⁾²⁾	PHOTO MOVIE	■WB /  / ■Auto	Sets the white balance (page 63).
ISO ¹⁾	PHOTO	400 / 200 / 100 / ■Auto	Selects the ISO sensitivity. Select a large number when shooting in dark locations or shooting a subject moving at high speed, or select a small number to obtain high image quality. • Note that the image tends to become noisier as the ISO sensitivity number increases.
 (P.Quality) ¹⁾	PHOTO	■Fine / Standard	Records images with fine/standard quality (page 54).
Mode (REC Mode) ²⁾	PHOTO	Multi Burst ³⁾ Exp Brktg ³⁾ Speed Burst ³⁾ ■Normal	<ul style="list-style-type: none"> - Records a continuous burst of 16 frames within a single still image (page 66). - Records three images with the exposure value of each image slightly shifted (page 62). - Records continuously (page 65). - Records an image using the normal recording mode.

Item	Available mode	Setting	Description
BRK (Bracket Step)⁴⁾		±1.0EV /  ±0.7EV / ±0.3EV	Sets the exposure compensation value when recording three images with each exposure adjustment value (page 62). (This setting cannot be made when [Mode] (REC Mode) in the menu is set to other than [Exp Brktg].)
 (Interval)⁴⁾		1/7.5 / 1/15 /  1/30	Selects the Multi Burst shutter interval (page 66). (This setting cannot be made when [Mode] (REC Mode) in the menu is set to other than [Multi Burst].)
 (Flash Level)⁵⁾		+ /  Normal / -	Selects the amount of flash light (page 64).
PFX (P.Effect)¹⁾	 	B&W / Sepia /  Off	Sets the image special effects (page 70).
 (Saturation)⁶⁾		+ /  Normal / -	Adjusts the saturation of the image. The  indicator appears (except when the setting is Normal).
 (Contrast)⁶⁾		+ /  Normal / -	Adjusts the contrast of the image. The  indicator appears (except when the setting is Normal).
 (Sharpness)⁶⁾		+ /  Normal / -	Adjusts the sharpness of the image. The  indicator appears (except when the setting is Normal).

¹⁾ This does not appear when  (Camera) in the menu is set to [Auto].

²⁾ The available settings are limited according to the  (Camera) setting in the menu.

³⁾ This does not appear in Hybrid mode.

⁴⁾ This does not appear when  (Camera) in the menu is set to [Auto],  (Magnifying glass mode),  (Twilight mode),  (Twilight portrait mode),  (Fireworks mode) or  (Candle mode).

⁵⁾ This does not appear when  (Camera) in the menu is set to [Auto],  (Twilight mode),  (Fireworks mode) or  (Candle mode).

⁶⁾ This does not appear when  (Camera) in the menu is set to other than [Program].

In PLAY mode

Item	Setting	Description
 (Folder)	OK / Cancel	Selects the folder containing the image you want to play back (page 71).
 (Protect)	—	Protects and unprotects images against accidental erasure (page 76).
DPOF (DPOF)	—	Marks and unmarks the print (DPOF) mark on still images you want to print (page 84).
 (Print)	—	Prints images using a PictBridge compliant printer (page 80).
 (Slide)	Interval Image Repeat Start Cancel	<ul style="list-style-type: none"> – Sets the slide show interval for still images (page 73). (Only in single-image mode) <ul style="list-style-type: none"> ■ 3 sec / 5 sec / 10 sec / 30 sec / 1 min – Sets the range of the playback images. <ul style="list-style-type: none"> ■ Folder / All – Plays back images repeatedly. <ul style="list-style-type: none"> ■ On / Off – Starts the slide show. – Cancels the slide show.
 (Resize)	5M / 3M / 1M / VGA / Cancel	Changes the recorded still image size (page 77). (Only in single-image mode)
 (Rotate)	 (counter clockwise) /  (clockwise) / OK / Cancel	Rotates the still image (page 74). (Only in single-image mode)

Setup items

The Setup screen appears when you advance to  in the menu and press **▶** again.
Factory settings are indicated with **■**.

(Camera)

Item	Setting	Description
Hybrid Rec	■Normal / Pre Rec	Selects whether to record only a pre movie or pre/post movies in Hybrid mode (page 32).
Digital Zoom	On / ■Off	Selects whether to use the digital zoom (page 35).
Date/time	Day&Time / Date / ■Off	Selects whether to superimpose the date or time onto the image (page 41). The date and time are not inserted in movie or Multi Burst mode. Also, the date and time appear only during playback, and do not appear during recording.
Red Eye Reduction	On / ■Off	Reduces the red-eye phenomenon when using a flash (page 40).
AF Illuminator	■Auto / Off	Selects whether to emit an AF assist light in the dark. Helps when it is hard to focus on the subject under dark lighting (page 40).
Auto Review	On / ■Off	Selects whether to automatically display the recorded image on the LCD screen immediately after shooting a still image. When set to [On], the recorded image is displayed for approximately two seconds. (In hybrid mode, the image is not displayed.) You cannot shoot the next image during the period.

(Memory Stick Tool)

Item	Setting	Description
Format	OK / Cancel	Formats the “Memory Stick Duo.” Note that formatting irrevocably erases all data on a “Memory Stick Duo,” including even protected images (page 51).
Create REC. Folder	OK / Cancel	Creates a folder for recording images (page 55).
Change REC. Folder	OK / Cancel	Changes a folder for recording images (page 56).

(Setup 1)

Item	Setting	Description
Beep	Shutter ■On Off	<ul style="list-style-type: none">– Turns on the shutter sound when you press PHOTO.– Turns on the beep/shutter sound when you press the control button/ press PHOTO.– Turns off the beep/shutter sound.
LCD Backlight	Bright / ■Normal	Selects the brightness of the LCD backlight. Selecting [Bright] makes the screen bright and easy to see when using the camera outdoors or in other bright locations, but also uses up the battery charge faster. Displayed only when you are using the camera with the battery pack.
 Language	—	Displays the menu items, warnings and messages in selected language.

(Setup 2)

Item	Setting	Description
File Number	■Series Reset	<ul style="list-style-type: none">– Assigns numbers to files in sequence even if the “Memory Stick Duo” is changed or the recording folder is changed.– Resets the file numbering and starts from 0001 each time the folder is changed. (When the recording folder contains a file, a number one higher than the largest number is assigned.)
USB Connect	PictBridge PTP ■Normal	<ul style="list-style-type: none">– Connects the camera with a PictBridge compatible printer (page 80).– When a PTP connection is made, the Copy Wizard automatically starts up and copies the images in the recording folder (page 90) set in the camera to the computer. (This supports Windows XP and Mac OS X.)<ul style="list-style-type: none">• When using Windows XP, apply Service Pack 1 or later one to your computer.• When using a Macintosh computer, use the normal mode.– Makes a USB connection between the camera and a computer (page 88).
Video Out	NTSC PAL	<ul style="list-style-type: none">– Sets the video output signal to NTSC mode (e.g., USA, Japan).– Sets the video output signal to PAL mode (e.g., Europe).
Clock Set	OK / Cancel	Sets the date and time (pages 21 and 54).

Precautions

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 discolored or 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 carrying

Do not sit down in a chair or other place with the camera in the back pocket of your trousers or skirt, as this may cause malfunction or damage the camera.

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 DC plug

Clean the DC plug of the AC Adaptor with a dry cotton bud. Do not use the dirty plug. Use of the dirty plug may not properly charge the battery pack.

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.

- Chemical products such as thinner, benzine, alcohol, disposable cloth, insect repellent or insecticide, etc.
- Touch the camera with the above on your hand
- Contact with rubber or vinyl for a long time

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 battery

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

This rechargeable 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 battery before using the camera.

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

Charging method

Connect the camera to a wall outlet (wall socket) using the AC Adaptor, or install a charged battery pack, and leave the camera for 24 hours or more with the power off.

On “Memory Stick”

“Memory Stick” is a compact, portable IC recording medium.

The types of “Memory Stick” that can be used with this camera are listed in the following table. However, proper operation cannot be guaranteed for all “Memory Stick” functions.

“Memory Stick” type	Recording/ Playback
Memory Stick	–
Memory Stick (MagicGate/high-speed data transfer)	–
Memory Stick Duo	○
Memory Stick Duo (MagicGate/high-speed data transfer)	○ ¹⁾²⁾
MagicGate Memory Stick	–
MagicGate Memory Stick Duo	○ ¹⁾
Memory Stick PRO	–
Memory Stick PRO Duo	○ ¹⁾²⁾

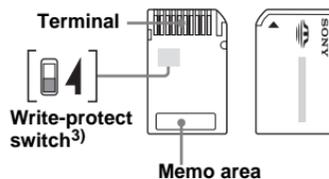
¹⁾ “MagicGate Memory Stick Duo” and “Memory Stick PRO Duo” are equipped with MagicGate functions. MagicGate is copyright protection technology that uses encryption technology. Data recording/playback that requires MagicGate functions cannot be performed with this camera.

²⁾ Supports high-speed data transfer using a parallel interface.

- “Memory Stick Duo” formatted with a computer is not guaranteed to operate with this camera.
- Data read/write speeds differ depending on the combination of the “Memory Stick Duo” and the equipment used.

Notes on using “Memory Stick Duo” (supplied)

- You cannot record, edit or delete images if you slide the write-protect switch³⁾ to LOCK with a fine-tipped object..



The position or the shape of the write-protect switch³⁾ may differ depending on the “Memory Stick Duo” you use.

- ³⁾ The “Memory Stick Duo” supplied with this camera does not have a write-protect switch. When using the supplied “Memory Stick Duo,” be careful not to edit or delete data by mistake.

- 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 into a “Memory Stick” compliant device 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.

On “InfoLITHIUM” battery pack



What is the “InfoLITHIUM” battery pack?

The “InfoLITHIUM” battery pack is a lithium-ion battery pack that has functions for communicating information related to operating conditions between your camera and the AC Adaptor.

The “InfoLITHIUM” battery pack calculates the power consumption according to the operating conditions of your camera, and displays the remaining battery time in minutes.

Charging the battery pack

We recommend charging the battery pack in an ambient temperature of between 10°C to 30°C (50°F to 86°F). You may not be able to efficiently charge the battery pack outside of this temperature range.

Effective use of the battery pack

- Battery performance decreases in low-temperature surroundings. So, the time that the battery pack can be used is shorter in cold places. We recommend the following to ensure longer battery pack use:
 - Put the battery pack in a pocket close to your body to warm it up, and insert it in your camera immediately before you start shooting.
- Frequently operating the zoom or flash wears out the battery charge faster.
- We recommend having spare battery packs handy for two or three times the expected shooting time, and making trial shots before taking the actual shots.
- Do not expose the battery pack to water. The battery pack is not water-resistant.

Remaining battery time indicator

The power may go off although the battery remaining indicator shows there is enough power to operate. Use the battery pack up and charge the battery pack fully again so that the indication on the battery remaining indicator is correct. Note, however, that the correct battery indication sometimes will not be restored if the camera is used in high temperatures for a long time or left in a fully charged state, or the battery pack is frequently used.

How to store the battery pack

- Even if the battery pack will not be used for a long time, fully charge it and use it up once per year. Remove the battery pack from your camera, then store it in a dry, cool place. This is to maintain the battery pack's functions.
- To use the battery pack up on your camera, leave the power on in slide show playback mode (page 73) until the power goes off.
- Always carry and store the battery pack in the battery case to prevent the battery terminals from becoming dirty or short circuited.

Battery life

- The battery life is limited. Battery capacity decreases little by little as you use it more and more, and as time passes. When the battery operating time is shortened considerably, a probable cause is that the battery pack has reached the end of its life. Buy a new battery pack.
- The battery life varies according to how it is stored and the operating conditions and environment for each battery pack.

Specifications

■ Camera

[System]

Image device

7.66 mm (1/2.4 type) color CCD
Primary color filter

Total pixels number of camera

Approx. 5 255 000 pixels

Effective pixels number of camera

Approx. 5 090 000 pixels

Lens

Carl Zeiss Vario-Tessar
3× zoom lens
f = 6.7 – 20.1 mm (38 – 114 mm when converted to a 35 mm still camera)
F3.5 – 4.4

Exposure control

Automatic exposure, Scene selection
(9 modes)

White balance

Automatic, Daylight, Cloudy,
Fluorescent, Incandescent, Flash

File format (DCF compliant)

Still images: Exif Ver. 2.2 JPEG
compliant, DPOF compatible
Movies: MPEG4 compliant (Stereo)

Recording media

“Memory Stick Duo”

Flash

Recommended distance (ISO set to Auto):
0.3 m to 1.8 m (11 7/8 inches to 70 7/8 inches) (W)
0.5 m to 1.7 m (19 3/4 inches to 67 inches) (T)



[Input and Output connectors]

Multi connector

USB communication

Hi-Speed USB (USB 2.0 compliant)

[LCD screen]

LCD panel

6.2 cm (2.5 type) TFT drive

Total number of dots

123 200 (560×220) dots

[Power, general]

Used battery pack

NP-FT1

Power requirements

3.6 V

Power consumption (during normal shooting)

1.4 W

Operating temperature

0°C to +40°C (+32°F to +104°F)

Storage temperature

-20°C to +60°C (-4°F to +140°F)

Dimensions

51.0×114.0×27.8 mm
(2 1/8×4 5/8×1 1/8 inches)
(W/H/D, excluding maximum protrusions)

Mass

Approx. 220 g (8 oz) (including battery pack NP-FT1, "Memory Stick Duo" and wrist strap)

Microphone

Electret condenser microphone

Speaker

Piezoelectric speaker

Exif Print

Compatible

PRINT Image Matching II

Compatible

PictBridge

Compatible

■ UC-MA Cyber-shot Station

[Input and Output connectors]

A/V OUT (STEREO) jack (Stereo)

Minijack

Video: 1 Vp-p, 75 Ω, unbalanced, sync negative

Audio: 327 mV (at a 47 kΩ load)
Output impedance 1 kΩ

USB jack B

USB connection

High-Speed USB
(USB 2.0 High-Speed compatible)

DC IN jack

Camera connector

■ AC-LM5/LM5A AC Adaptor

Input rating

100 V to 240 V AC,
50/60 Hz

AC-LM5

10 W

AC-LM5A

11 W

Output rating

4.2 V DC*

* See the label on the AC Adaptor for other specifications.

Operating temperature

0°C to +40°C (+32°F to +104°F)

Storage temperature

-20°C to +60°C (-4°F to +140°F)

Dimensions

AC-LM5

Approx. 47×30×80 mm
(1 7/8×1 3/16×3 1/4 inches)

AC-LM5A

Approx. 48×29×81 mm
(1 15/16×1 3/16×3 1/4 inches)
(W/H/D, excluding projecting parts)

Mass

AC-LM5

Approx. 170 g (6.0 oz)

AC-LM5A

Approx. 160 g (5.6 oz)
excluding power cord (mains lead)

■ NP-FT1 battery pack

Used battery

Lithium-ion battery

Maximum voltage

DC 4.2 V

Nominal voltage

DC 3.6 V

Capacity

2.4 Wh (680 mAh)

■ Accessories

- AC-LM5/LM5A AC Adaptor (1)
- Power cord (mains lead) (1)
- Cyber-shot Station UC-MA (1)
- NP-FT1 battery pack (1)
- Battery case (1)
- USB cable (1)
- A/V connecting cable (1)
- Wrist strap (1)
- "Memory Stick Duo" (32 MB) (1)
- Memory Stick Duo Adaptor (1)
- CD-ROM (USB driver SPVD-012) (1)
- Operating instructions (1)

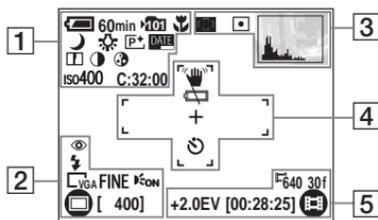
Design and specifications are subject to change without notice.

The LCD screen

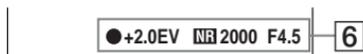
Page numbers in parentheses indicate the location of additional important information.

When in REC mode

Standby mode



When PHOTO pressed halfway down



When recording movies



1



Battery remaining (16)



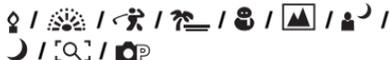
Recording folder (55)



Macro (36)



Zoom scaling



Camera mode (31)



White balance (63)



Picture effect (70)



Date/time (41)



Sharpness (114)



Contrast (114)



Saturation (114)

iso100

ISO number (113)

C:32:00

Self-diagnosis display (112)

2



Red-eye reduction (40)



Flash mode (39)



Photo size (24)

FINE / STD

Image quality (54)



AF illuminator (40, 116)



Photo recording mode

400

Remaining number of recordable images (27)

Menu/Guide menu (53)

- Pressing MENU switches the menu/guide menu on/off.

3



AF range finder frame indicator (57)

0.5m

Focus preset value (58)



Metering mode (61)

Histogram (60)

4



Vibration warning (111)



Low battery warning (111)

AF range finder frame (57)



Spot metering cross hair (62)



Self-timer (38)

5



Movie size (24)

+2.0EV

EV level value (59)

[00:28:25]

Maximum recordable time (28)



Movie recording mode

6



AE/AF lock (30, 58)



NR slow shutter (70)

500

Shutter speed

F4.5

Aperture value

+2.0EV

EV level value (59)

7



Movie recording (30)



Movie remaining time (34)

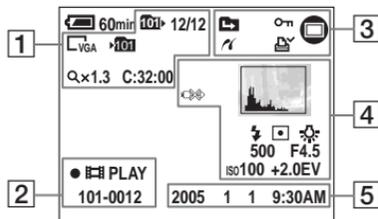
00:00:02

Recording time

+2.0EV

EV level value (59)

When playing back still images



1



Playback folder (71)

12/12

**Image number/Number of images
recorded in selected folder**



Photo size indicator (24)

Step 12/16

Frame by frame playback (75)



Playback zoom scaling (72)

C:32:00

Self-diagnosis display (112)

2

101-0012

Folder-file number (92)

● **PLAY**

Hybrid mode playback (44)

3



Change folder (71)



Protect (76)



PictBridge connecting (80)



Print (DPOF) mark (84)



Photo recording mode

4



Not disconnect USB cable (82)

Histogram (60)



Flash



Metering mode (61)



White balance (63)

500

Shutter speed

F4.5

Aperture value

+2.0EV

EV level value (59)

iso100

ISO number (113)

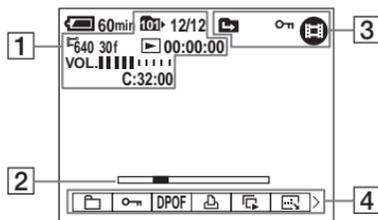
5

**Recording date/time of the playback
image** (41)

Menu/Guide menu (53)

- Pressing MENU switches the menu/guide menu on/off.

When playing back moving images



1



Playback folder (71)

12/12

**Image number/Number of images
recorded in selected folder**

640 30f

Movie size (24)



Playback/Stop (44)

00:00:12

Counter (44)

VOL. ■■■■■■■■■■

Volume (44)

C:32:00

Self-diagnosis display (112)

2

Playback bar (44)

3



Change folder (71)



Movie recording mode



Protect (76)

4

Menu/Guide menu (53)

- Pressing MENU switches the menu/guide menu on/off.

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