

SONY®

4-152-046-11(1)

Digital Still Camera Instruction Manual DSC-WX1

Getting started

Shooting/viewing
images

Using shooting
functions

Using viewing
functions

Deleting images

Connecting to other
devices

Changing camera
settings



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GB

Cyber-shot

Owner's Record

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

Model No. DSC-WX1

Serial No. _____

WARNING

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

IMPORTANT SAFETY INSTRUCTIONS

**-SAVE THESE
INSTRUCTIONS**

**DANGER
TO REDUCE THE RISK OF
FIRE OR ELECTRIC
SHOCK, CAREFULLY
FOLLOW THESE
INSTRUCTIONS**

If the shape of the plug does not fit the power outlet, use an attachment plug adaptor of the proper configuration for the power outlet.

CAUTION

| Battery pack

If the battery pack is mishandled, the battery pack can burst, cause a fire or even chemical burns. Observe the following cautions.

- Do not disassemble.
- Do not crush and do not expose the battery pack to any shock or force such as hammering, dropping or stepping on it.
- Do not short circuit and do not allow metal objects to come into contact with the battery terminals.
- Do not expose to high temperature above 60°C (140°F) such as in direct sunlight or in a car parked in the sun.
- Do not incinerate or dispose of in fire.
- Do not handle damaged or leaking lithium ion batteries.
- Be sure to charge the battery pack using a genuine Sony battery charger or a device that can charge the battery pack.
- Keep the battery pack out of the reach of small children.
- Keep the battery pack dry.

- Replace only with the same or equivalent type recommended by Sony.
- Dispose of used battery packs promptly as described in the instructions.

Battery charger

Even if the CHARGE lamp is not lit, the battery charger is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet (wall socket). If some trouble occurs while using the battery charger, immediately shut off the power by disconnecting the plug from the wall outlet (wall socket).

For 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.rbc.org/>

Caution: Do not handle damaged or leaking Lithium-Ion batteries.

Battery pack

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.

For Customers in the U.S.A.

UL is an internationally recognized safety organization.

The UL Mark on the product means it has been UL Listed.

If you have any questions about this product, you may call:

Sony Customer Information 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-WX1
Responsible Party: Sony Electronics Inc.
Address: 16530 Via Esprillo,
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.

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 Customers in Europe

Notice for the customers in the countries applying EU Directives

The manufacturer of this product is Sony Corporation, 1-7-1 Konan Minato-ku Tokyo, 108-0075 Japan. The Authorized Representative for EMC and product safety is Sony Deutschland GmbH, Hedelfinger Strasse 61, 70327 Stuttgart, Germany. For any service or guarantee matters please refer to the addresses given in separate service or guarantee documents.

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

Attention

The electromagnetic fields at the specific frequencies may influence the picture and sound of this unit.

Notice

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

Disposal of Old Electrical & Electronic Equipment (Applicable in the European Union and other European countries with separate collection systems)



This symbol on the product or on its packaging indicates that this product shall not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. The recycling of materials will help to conserve natural resources. For more detailed information about recycling of this product, please contact your local Civic Office, your household waste disposal service or the shop where you purchased the product.

Disposal of waste batteries (applicable in the European Union and other European countries with separate collection systems)



This symbol on the battery or on the packaging indicates that the battery provided with this product shall not be treated as household waste. On certain batteries this symbol might be used in combination with a chemical symbol. The chemical symbols for mercury (Hg) or lead (Pb) are added if the battery contains more than 0.0005% mercury or 0.004% lead.

By ensuring these batteries are disposed of correctly, you will help prevent potentially negative consequences for the environment and human health which could otherwise be caused by inappropriate waste handling of the battery. The recycling of the materials will help to conserve natural resources.

In case of products that for safety, performance or data integrity reasons require a permanent connection with an incorporated battery, this battery should be replaced by qualified service staff only. To ensure that the battery will be treated properly, hand over the product at end-of-life to the applicable collection point for the recycling of electrical and electronic equipment.



For all other batteries, please view the section on how to remove the battery from the product safely.

Hand the battery over to the applicable collection point for the recycling of waste batteries.

For more detailed information about recycling of this product or battery, please contact your local Civic Office, your household waste disposal service or the shop where you purchased the product.

Notice for customers in the United Kingdom

A moulded plug complying with BS 1363 is fitted to this equipment for your safety and convenience.

Should the fuse in the plug supplied need to be replaced, a fuse of the same rating as the supplied one and approved by ASTA or BSI to BS 1362, (i.e., marked with an  or  mark) must be used.

If the plug supplied with this equipment has a detachable fuse cover, be sure to attach the fuse cover after you change the fuse. Never use the plug without the fuse cover. If you should lose the fuse cover, please contact your nearest Sony service station.

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Notes on using the camera

Changing the language setting

The screen language can be changed if necessary.

To change the language setting, press MENU button, then select  (Settings) →  (Main Settings) → [Language Setting].

Internal memory and “Memory Stick Duo” media back up

Do not turn off the camera, remove the battery pack, or remove the “Memory Stick Duo” media while the access lamp is lit. Otherwise, the internal memory data or “Memory Stick Duo” media may be damaged. Be sure to make a backup copy to protect your data.

On database files

When you insert a “Memory Stick Duo” media without a database file into the camera and turn on the power, part of the “Memory Stick Duo” media capacity is used to automatically create a database file. It may take some time until you can perform the next operation.

Notes on recording/playback

- Before you start recording, make a trial recording to make sure that the camera is working correctly.
- The camera is neither dust-proof, nor splash-proof, nor water-proof. Read “Precautions” (page 57) before operating the camera.
- Avoid exposing the camera to water. If water enters inside the camera, a malfunction may occur. In some cases, the camera cannot be repaired.
- Do not aim the camera at the sun or other bright light. It may cause the malfunction of the camera.
- Do not use the camera near a location that generates strong radio waves or emits radiation. Otherwise, the camera may not properly record or play back images.
- Using the camera in sandy or dusty locations may cause malfunctions.
- If moisture condensation occurs, remove it before using the camera (page 57).

- Do not shake or strike the camera. It may cause a malfunction and you may not be able to record images. Furthermore, the recording media may become unusable or image data may be damaged.
- 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.

Notes on the LCD screen and lens

- The LCD screen is manufactured using extremely high-precision technology so over 99.99% of the pixels are operational for effective use. However, some tiny black and/or bright dots (white, red, blue or green) may appear on the LCD screen. These dots are a normal result of the manufacturing process, and do not affect the recording.
- When the battery level becomes low, the lens might stop moving. Insert a charged battery pack and turn on the camera again.

On camera’s temperature

Your camera and battery may get warm due to continuous use, but it is not a malfunction.

On the overheat protection

Depending on the camera and battery temperature, you may be unable to record movies or the power may turn off automatically to protect the camera. A message will be displayed on the LCD screen before the power turns off or you can no longer record movies.

On image data compatibility

- The camera conforms with DCF (Design rule for Camera File system) universal standard established by JEITA (Japan Electronics and Information Technology Industries Association).
- Sony does not guarantee that the camera will play back images recorded or edited with other equipment, or that other equipment will play back images recorded with the camera.

Warning on copyright

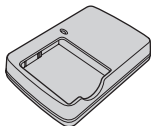
Television programs, films, videotapes, and other materials may be copyrighted. Unauthorized recording of such materials may be contrary to the provisions of the copyright laws.

No compensation for damaged content or recording failure

Sony cannot compensate for failure to record or loss or damage of recorded content due to a malfunction of the camera or recording media, etc.

Checking the accessories supplied

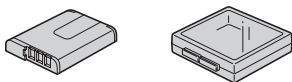
- Battery charger BC-CSGD/BC-CSGE (1)



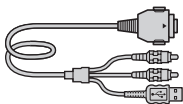
- Power cord (mains lead) (1)
(not supplied in the USA and Canada)



- Rechargeable battery pack NP-BG1 (1)/
Battery case (1)



- USB, A/V cable for multi-use terminal (1)



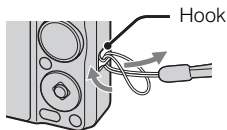
- Wrist strap (1)



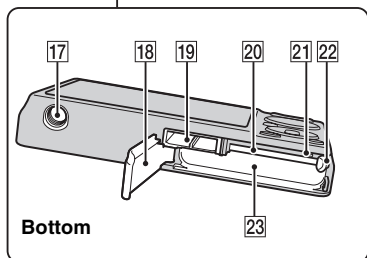
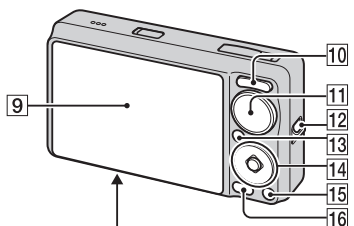
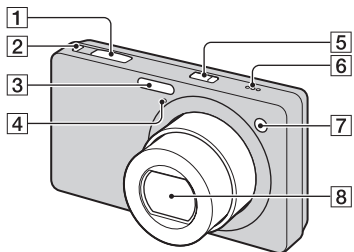
- CD-ROM (1)
 - Cyber-shot application software
 - “Cyber-shot Handbook”
 - “Cyber-shot Step-up Guide”
- Instruction Manual (this manual) (1)

Using the wrist strap

The camera is supplied with a wrist strap. Attach the strap and place your hand through the loop to prevent the camera from damage by being dropped.



Identifying parts



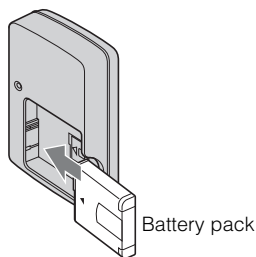
- 1 Shutter button
- 2 (Burst/Bracket) button
- 3 Flash
- 4 Microphone
- 5 ON/OFF (Power) button
- 6 Speaker
- 7 Self-timer lamp/Smile Shutter lamp/
AF illuminator
- 8 Lens
- 9 LCD screen

- 10 For shooting: W/T (Zoom) button
For viewing: Q (Playback zoom)
button/Index button
- 11 Mode dial
- 12 Hook for wrist strap
- 13 (Playback) button
- 14 Control button
Menu on: ▲/▼/◀/▶/●
Menu off: DISP/☺/☹/⚡
- 15 (Delete) button
- 16 MENU button
- 17 Tripod receptacle
 - Use a tripod with a screw less than 5.5 mm (7/32 inch) long. Otherwise, you cannot firmly secure the camera, and damage to the camera may occur.
- 18 Battery/“Memory Stick Duo” media cover
- 19 Multi connector
- 20 “Memory Stick Duo” media slot
- 21 Access lamp
- 22 Battery eject lever
- 23 Battery insertion slot

Charging the battery pack

1 Insert the battery pack into the battery charger.

- You can charge the battery even when it is partially charged.



2 Connect the battery charger to the wall outlet (wall socket).

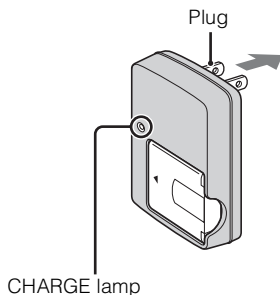
If you continue charging the battery pack for about one more hour after the CHARGE lamp turns off, the charge will last slightly longer (full charge).

CHARGE lamp

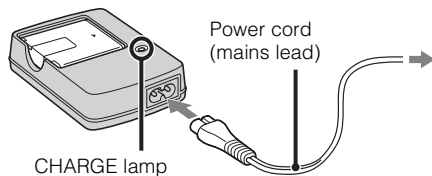
Lit: Charging

Off: Charging finished (normal charge)

For customers in the USA and Canada



For customers in countries/regions other than the USA and Canada



3 When charging is finished, disconnect the battery charger.

Charging time

Full charge time	Normal charge time
Approx. 330 min.	Approx. 270 min.

Notes

- The table above shows the time required to charge a fully depleted battery pack at a temperature of 25°C (77°F). Charging may take longer depending on conditions of use and circumstances.
- Connect the battery charger to the nearest wall outlet (wall socket).
- When charging is finished, disconnect the power cord (mains lead) from the wall outlet (wall socket), and remove the battery pack from the battery charger.
- Be sure to use the battery pack or the battery charger of the genuine Sony brand.

Battery life and number of images you can record/view

	Battery life (min.)	No. of Images
Shooting still images	Approx. 175	Approx. 350
Viewing still images	Approx. 420	Approx. 8400

Note

- The number of still images that can be recorded is based on the CIPA standard, and is for shooting under the following conditions.
(CIPA: Camera & Imaging Products Association)
 - [SteadyShot] is set to [Shooting].
 - DISP (Screen Display Settings) is set to [Normal].
 - Shooting once 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.
 - A fully charged battery pack (supplied) is used at an ambient temperature of 25°C (77°F).
 - Using Sony “Memory Stick PRO Duo” media (sold separately).



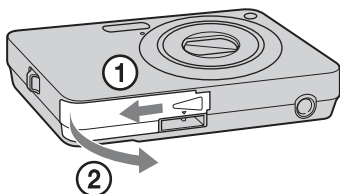
Using the camera abroad

You can use the camera and the battery charger (supplied) in any country or region where the power supply is within 100 V to 240 V AC, 50/60 Hz.

Do not use an electronic transformer (travel converter). This may cause a malfunction.

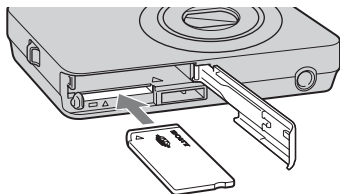
Inserting the battery pack/a “Memory Stick Duo” media (sold separately)

- 1 Open the cover.



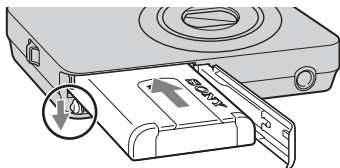
- 2 Insert the “Memory Stick Duo” media (sold separately).

With the terminal side facing the LCD screen, insert the “Memory Stick Duo” media until it clicks into place.

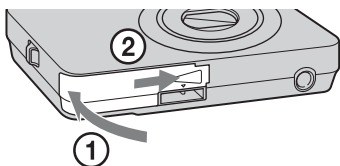


- 3 Insert the battery pack.

Insert the battery pack while pressing the battery eject lever in the direction of the arrow.



- 4 Close the cover.



“Memory Stick” media that you can use

“Memory Stick Duo” media



You can also use a “Memory Stick PRO Duo” media or “Memory Stick PRO-HG Duo” media with the camera.

For details on the number of images/time that can be recorded, see pages 24, 29 and 34. Other types of “Memory Stick” media or memory card are not compatible with the camera.

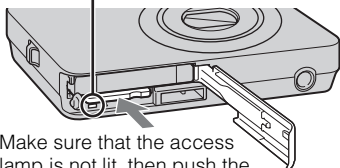
“Memory Stick” media

You cannot use a “Memory Stick” media with the camera.



To remove the “Memory Stick Duo” media

Access lamp



Make sure that the access lamp is not lit, then push the “Memory Stick Duo” media in once.

Note

- Never remove the “Memory Stick Duo” media/battery pack when the access lamp is lit. This may cause damage to data in the “Memory Stick Duo” media/internal memory.

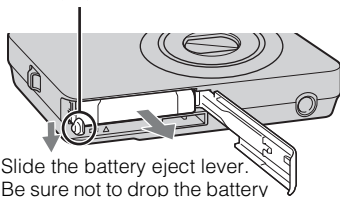
When there is no “Memory Stick Duo” media inserted

Images are stored in the camera’s internal memory (approximately 11 MB).

To copy images from the internal memory to a “Memory Stick Duo” media, insert the “Memory Stick Duo” media in the camera, then select MENU → (Settings) → (“Memory Stick” Tool) → [Copy].

To remove the battery pack

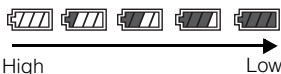
Battery eject lever



Slide the battery eject lever. Be sure not to drop the battery pack.

Checking the remaining battery charge

A remaining charge indicator appears on the LCD screen.



Notes

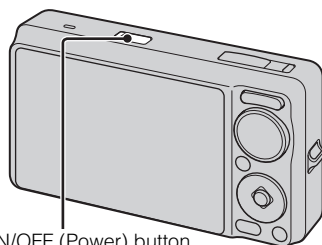
- It takes about one minute until the correct remaining charge indicator appears.
- The remaining charge indicator may not be correct under certain circumstances.
- If the NP-FG1 battery pack (sold separately) is used, the minute display is also shown after the remaining charge indicator.
- If the camera is running on and you do not operate the camera for about one minute, the LCD screen becomes dark.
- If the camera is running on and you do not operate the camera for about two minutes, the camera turns off automatically (Auto power-off function).

Setting the clock

1 Press the ON/OFF (Power) button.

The camera is turned on.

- It may take time for the power to turn on and allow operation.



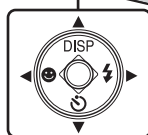
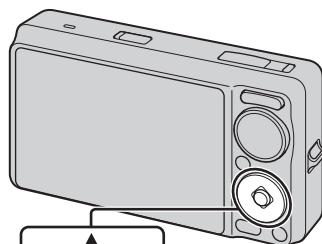
ON/OFF (Power) button

2 Select a setting item with ▲/▼ on the control button, then press ●.

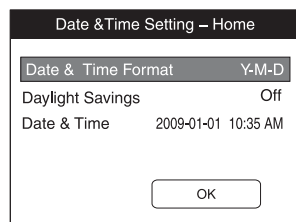
Date & Time Format: Select the date and time display format.

Daylight Savings: Select Daylight Savings On/Off.

Date & Time: Sets the date and time.



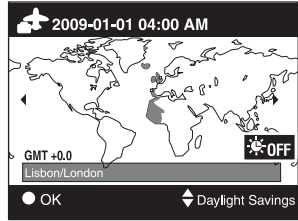
Control button



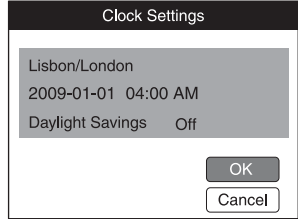
3 Set the numeric value and desired settings with ▲/▼/◀/▶, then press ●.

- Midnight is indicated as 12:00 AM, and noon as 12:00 PM.

- 4 Follow the instructions on the screen. Select your desired area with ◀/▶ on the control button, then press ●.





- 5 Select [OK], then press ●.




Note


- The camera does not have a feature for superimposing dates on images. By using "PMB" in the CD-ROM (supplied), you can print or save images with the date.

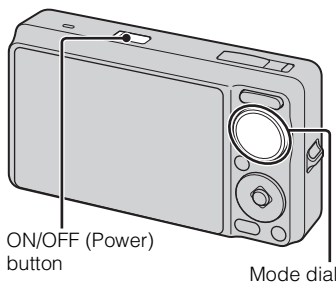
Setting the date and time again

Press the MENU button, then select  (Settings) →  (Clock Settings) (page 50).

Shooting images

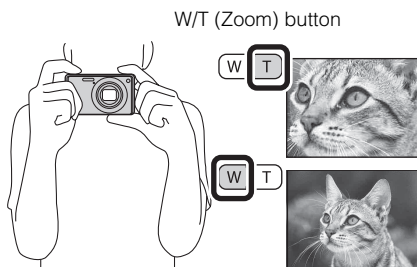
- 1 Set the mode dial to  (Intelligent Auto Adjustment), then press ON/OFF (Power) button.

To shoot movies, set the mode dial to  (Movie Mode) (page 33).




- 2 Hold the camera steady as illustrated.

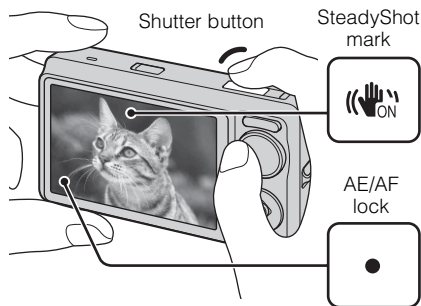
- Press the T button to zoom in, W button to zoom out.



- 3 Press the shutter button halfway down to focus.

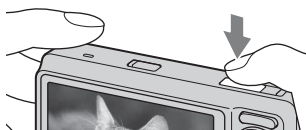
 is displayed to indicate that SteadyShot is working. When the image is in focus, a beep sounds and the ● indicator lights.

The shortest shooting distance is approximately 5 cm (2 inches) (W)/50 cm (19 3/4 inches) (T) (from the lens).



- 4 Press the shutter button fully down.

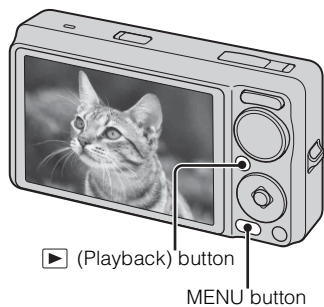
The image is shot.





Viewing images

1 Press the (Playback) button.




- When images on a “Memory Stick Duo” media recorded with other cameras cannot be played back on this camera, press the MENU button, and then select [View Mode] → [Folder View] to view the images.

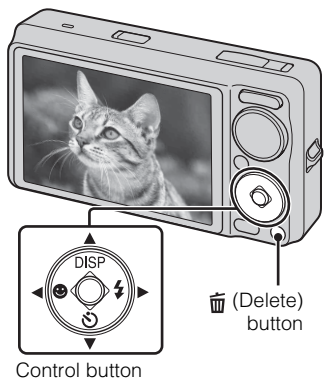


■ Selecting next/previous image

Select an image with  (next)/ (previous) on the control button.

■ Deleting an image

- ① Press  (Delete) button.
- ② Select [This Image] with  on the control button, then press .



■ Returning to shooting images

Press the shutter button halfway down.

■ Turning off the camera









Press ON/OFF (Power) button.

Detecting the shooting conditions automatically (Scene Recognition)

- 1 Set the mode dial to **i** (Intelligent Auto Adjustment).



- 2 Aim the camera at the subject.

When the camera recognizes a scene, a Scene Recognition icon and guide,  (Twilight),  (Twilight Portrait),  (Twilight using a tripod),  (Backlight),  (Backlight Portrait),  (Landscape),  (Macro) or  (Portrait) is displayed on the LCD screen.



Scene Recognition icon (Guide)

- 3 Press the shutter button halfway down to focus on the subject, then shoot images.



Shooting two images with different settings and selecting the one you like

Press the MENU button, then select **iSCN** (Scene Recognition) → **iSCN+** (Advanced) with ▲/▼/◀/▶ on the control button.


When the camera recognizes a difficult-to-shoot scene (☾ (Twilight), 👤 (Twilight Portrait), 📵 (Twilight using a tripod), 📷 (Backlight) and 👤 (Backlight Portrait)), it changes the settings as follows and shoots two images with different effects.

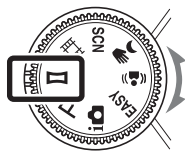
	First shot	Second shot
☾	Shoot in Slow Synchro	Shoots with sensitivity increased and shake reduced
👤	Shoot in Slow Synchro with the face which the flash strobos on as guide	Shoots with sensitivity increased with the face as guide and shake reduced
📵	Shoot in Slow Synchro	Shoots with even slower shutter speed without increasing sensitivity
📷	Shoots with the flash	Shoots with the brightness and contrast of the background adjusted (DRO plus)
👤	Shoots with the face which the flash strobos on as guide	Shoots with the brightness and contrast of the face and the background adjusted (DRO plus)

When [Anti Blink] is displayed prior to shooting while shooting with Scene Recognition set to [Advanced], the camera automatically shoots two images consecutively, and selects the image with the eyes open to be recorded automatically.

Shooting panoramic images (Sweep Panorama)

Shoots multiple images and allows you to create a panoramic image from composed images while you pan the camera. Panoramic images can also be played back with the supplied software “PMB”.

- 1 Set the mode dial to  (Sweep Panorama).



- 2 Hold the camera at the position where you can see the LCD screen clearly, then press the shutter button fully down.



This part will not be taken

- 3 Pan the camera to the end, following the guidance on the LCD screen.





Guidance bar

Notes

- Sweep Panorama is not suitable for moving objects.
- Shooting may stop or the image may not be recorded correctly in some cases.
- Since several images are stitched together, the stitched part will not be recorded smoothly.

Image Size

The image size determines the size of the image file that is recorded when you take a image.

 (Standard) (Vertical direction: 3424×1920) (Horizontal direction: 4912×1080)	Shoot images using standard size.
 (Wide) (Vertical direction: 4912×1920) (Horizontal direction: 7152×1080)	Shoot images using wide size.

Number of still images that can be recorded

(Units: Images)

Size \ Capacity	Internal memory	"Memory Stick Duo" media formatted with this camera				
		Approx. 11 MB	1 GB	2 GB	4 GB	8 GB
Standard (horizontal)	3	315	640	1262	2548	5180
Wide (horizontal)	3	259	527	1040	2101	4271
Standard (vertical)	2	222	452	892	1801	3661
Wide (vertical)	2	213	432	853	1723	3503

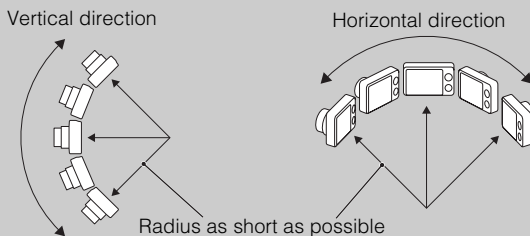
Notes

- The number of still images may vary depending on the shooting conditions and the recording media.
- When the number of remaining shootable images is greater than 9,999, the ">9999" indicator appears.
- When an image shot with other cameras is played back on this camera, the image may not appear in the actual image size.



Tips for shooting a panoramic image


Pan the camera in an arc with a constant velocity and in the same direction as the indication on the LCD screen.




Shooting with reduced blur (Anti Motion Blur) (Hand-held Twilight)

A series of burst shots are taken, and image processing is applied to reduce camera shake, subject blur and noise.

- 1 Set the mode dial to  (Anti Motion Blur) or  (Hand-held Twilight).


Select  (Anti Motion Blur) when you shoot in a room.


Select  (Hand-held Twilight) when you shoot night scene without a tripod.


- 2 Fully press the shutter button.


Shooting continuously (Burst/Bracket)

You can select normal (single-image), burst or exposure bracket mode. You can also select the mode from the MENU button.

- 1 Press the  (Burst/Bracket) button then select a shooting mode.

 **(Off)**: Shoots a single image.

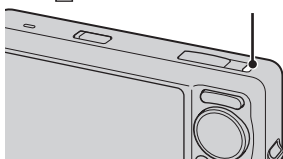
 **(High)**: Shoots up to 10 images per second in succession.

 **(Mid)**: Shoots up to 5 images per second in succession.

 **(Low)**: Shoots up to 2 images per second in succession.

BRK (Bracket): Shoots 3 images with different exposure.

 (Burst/Bracket) button

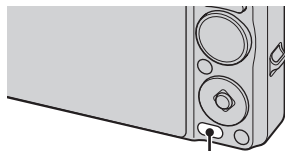


- 2 Press the shutter button.


Focusing on the face of the subject (Face Detection)

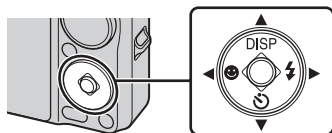
The camera detects the face of the subject and focuses on it. You can select which subject takes priority when focusing.


- 1 Press the MENU button.





MENU button


- 2 Select  (Face Detection) with $\blacktriangle/\blacktriangledown/\blacktriangleleft/\blacktriangleright$ on the control button \rightarrow desired mode \rightarrow \bullet .



 (Off): Does not use Face Detection.

 (Auto): Automatically selects and focuses on a priority face.



 (Child Priority): Detects and shoots with priority on a child's face.

 (Adult Priority): Detects and shoots with priority on an adult's face.



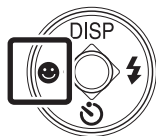
Registering the priority face (Selected-face Memory)



- 1 Press \bullet on the control button during Face Detection. The leftmost face is registered as the priority face, and the frame changes to an orange frame .
- 2 Each time you press \bullet , the priority face moves one face to the right. Press \bullet repeatedly until the orange frame () is on the face you want to register.
- 3 To cancel the face registration (Off), move the orange frame to the rightmost face, then press \bullet again.

Detecting smiles and shooting automatically (Smile Shutter)

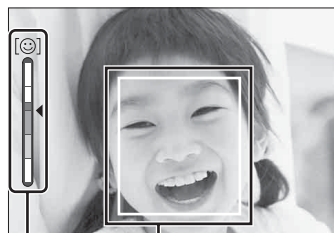
1 Press ☺ (Smile) on the control button.



2 Wait detecting a smile.

When the smile level exceeds the ◀ point on the indicator, the camera records images automatically. When you press ☺ (Smile) on the control button again, Smile Shutter ends.

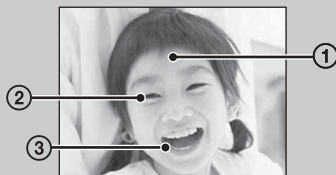
- Even if you press the shutter button during Smile Shutter, the camera shoots the image, then returns to Smile Shutter mode.



Face Detection frame
Smile Detection Sensitivity indicator



Hints for better capturing of smiles



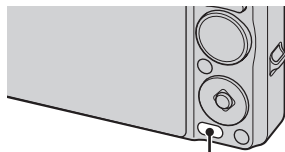
- ① Do not cover the eyes with the bangs.
- ② Try to orient the face in front of the camera and be as level as possible. Keep the eyes narrowed.
- ③ Give a clear smile with an open mouth. The smile is easier to detect when the teeth are shown.

Selecting the image size to match the usage

The image size determines the size of the image file that is recorded when you take a image.

The larger the image size, the more detail will be reproduced when the image is printed on large-format paper. The smaller the image size, the more images can be recorded.

1 Press the MENU button.



MENU button

2 Select $\frac{4:3}{10M}$ (Image Size) with $\blacktriangle/\blacktriangledown$ /
 $\blacktriangleleft/\blacktriangleright$ on the control button \rightarrow
desired size $\rightarrow \bullet$.

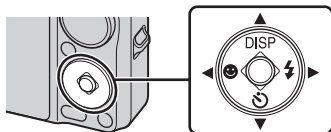


Image size	Usage guidelines
$\frac{4:3}{10M}$ (3648×2736)	For prints up to A3+ size
$\frac{4:3}{5M}$ (2592×1944)	For prints up to A4 size
$\frac{4:3}{3M}$ (2048×1536)	For prints up to L/2L size
$\frac{4:3}{VGA}$ (640×480)	For e-mail attachments
$\frac{3:2}{8M}$ (3648×2432)	3:2 aspect ratio as in photo prints and postcards
$\frac{16:9}{7M}$ (3648×2056)	For viewing on a high-definition TV and printing up to A4 size
$\frac{16:9}{2M}$ (1920×1080)	For viewing on a high-definition TV

Note

- When you print images shot with 16:9 aspect ratio, both edges may be cut off.

■ Number of still images that can be recorded





(Units: Images)


Size \ Capacity	Internal memory	"Memory Stick Duo" media formatted with this camera				
		Approx. 11 MB	1 GB	2 GB	4 GB	8 GB
10M	2	202	412	812	1640	3335
5M	3	293	595	1174	2372	4821
3M	7	617	1253	2472	4991	10140
VGA	70	5924	12030	23730	47910	97390
3:2(8M)	2	200	406	801	1618	3290
16:9(7M)	2	201	409	807	1629	3312
16:9(2M)	11	987	2005	3955	7986	16230



Notes


- The number of still images may vary depending on the shooting conditions and the recording media.
- When the number of remaining shootable images is greater than 9,999, the ">9999" indicator appears.
- When an image shot with other cameras is played back on this camera, the image may not appear in the actual image size.

Using the self-timer

- 1 Press  (Self-Timer) on the control button, then select the desired mode with / →  ●.

 (Off): Not using the self-timer.

 (10sec): Shooting starts after a 10-second delay. Use this setting if you want to include yourself in the image. To cancel, press  again.





 (2sec): Shooting starts after a two-second delay. This is to prevent blurring due to unsteadiness when the shutter button is pressed.

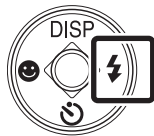



- 2 Press the shutter button.


The self-timer lamp flashes and a beep sounds until the shutter operates.


Selecting a flash mode


- 1 Press  (Flash) on the control button, then select the desired mode with   .



 **(Auto):** Flash automatically operates in dark locations or when there is backlight.

 **(On):** Flash always operates.



 **(Slow Synchro):** Flash always operates. The shutter speed is slow in a dark place to clearly shoot the background that is out of flash light.

 **(Off):** Flash does not operate.


Notes


- [On] and [Slow Synchro] are not available when the camera is in Intelligent Auto Adjustment mode.
- You cannot use the flash during burst or bracket shooting.
- Depending on the shooting conditions, the periphery of the image may become dark when the flash operates.


Changing the screen display


- 1 Press DISP (Screen Display Settings) on the control button, then select the desired mode with  .



 **(Bright + Image Only):** Sets screen brighter and displays only images.

 **(Bright + Histogram):** Sets screen brighter and displays a graph of the image brightness.

 **(Bright):** Sets screen brighter and displays the information.

 **(Normal):** Sets screen to standard brightness and displays the information.



Histogram and brightness settings

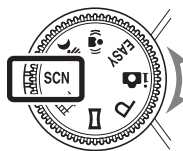
A histogram is a graph showing the brightness of an image. The graph display indicates a bright image when skewed to the right side, and a dark image when skewed to the left side.

If you view images in bright outside light, adjust the screen brightness up. However, the battery power may decrease faster under such condition.

Using the Shooting mode that matches the scene (Scene Selection)

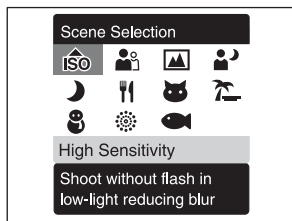
- 1 Set the mode dial to SCN (Scene Selection).

A list of Scene Selection modes is displayed.



- 2 Select the desired mode with ▲/▼/◀/▶ on the control button → ●.

If you want to switch to another scene, press the MENU button.



ISO (High Sensitivity): Shoots images without a flash even in low lighting.



Soft Snap: Shoots images with a softer atmosphere for portraits of people, flowers, etc.



Landscape: Shoots with the focus on a distant subject.



Twilight Portrait: Shoots sharp images of people in a dark place without losing the nighttime atmosphere.



Twilight: Shoots night scenes without losing the nighttime atmosphere.



Gourmet: Shoots food arrangements in delicious color.



Pet: Shoots images of your pet with the best settings.



Beach: Shoots seaside or lakeside scenes with the blueness of the water captured more vividly.



Snow: Shoots snow scenes in white more clearly.



Fireworks: Shoots fireworks in all their splendor.




Underwater: Shoots underwater in natural colors when the water-proof case is attached.

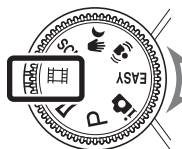


Note

- The flash does not operate in some modes.

Shooting movies

- 1 Set the mode dial to  (Movie Mode).







- 2 Press the shutter button fully down to start recording.

- 3 Press the shutter button fully down again to stop recording.

Note

- The operating sound of the lens might be recorded while shooting a movie.

Viewing movies

- ① Press the  (Playback) button and press  (next)/ (previous) on the control button to select a movie to view.
- ② Press .










Control Button	Playback feature
	Pause
	Fast forward
	Fast rewind
	Displays the volume control screen. Adjust the volume with  /  .

Image size

The larger the image size, the higher the image quality. The higher the amount of data used per second (average bit rate), the smoother the playback image.

Movie image size	Average bit rate	Usage guidelines
 1280×720(Fine)	9 Mbps	Shoot highest quality movie for display on HDTV
 1280×720(Standard)	6 Mbps	Shoot standard quality movie for display on HDTV
 VGA	3 Mbps	Shoot at an image size suitable for WEB upload

■ Maximum recording time

The table below shows the approximate maximum recording times. These are the total times for all movie files. Continuous shooting is possible for approximately 29 minutes.



(Units: hour : minute : second)

Size \ Capacity	Internal memory	"Memory Stick Duo" media formatted with this camera				
	Approx. 11 MB	1 GB	2 GB	4 GB	8 GB	16 GB
1280×720(Fine)	—	0:13:50	0:28:30	0:56:20	1:53:50	3:51:40
1280×720(Standard)	—	0:20:20	0:41:30	1:22:10	2:46:10	5:38:00
VGA	0:00:10	0:40:50	1:23:20	2:44:30	5:32:30	11:16:10

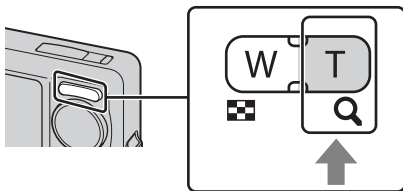
Notes

- The recording time may vary depending on the shooting conditions and the recording media.
- The continuous shooting time differs according to the shooting conditions (temperature, etc.). The value above is based on DISP (Screen Display Settings) set to [Normal].
- Movies with the size set to [1280×720] can only be recorded on a "Memory Stick PRO Duo" media.


Viewing an enlarged image (Playback zoom)


- 1 Press the  (Playback) button to display an image, then press  (Playback zoom) button.


The image is enlarged at twice the size, with the center of the image.



- 2 Adjust the zoom scale and position.

 button: Zooms in.

 button: Zooms out.



 on the control button: Adjusts the position.


- Press  to cancel playback zoom.




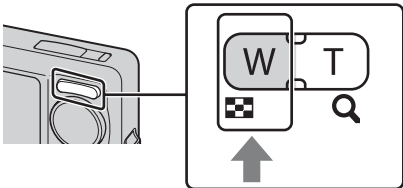
Shows the displayed area of the whole image


Searching for an image (Image Index)


- 1 Press the  (Playback) button to display an image, then press  (Index) button.

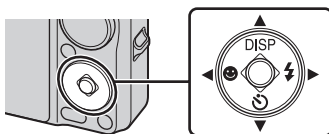
- Press  (Index) button again to display an index screen with even more images.

- When [View Mode] is set to [Date View], press the  (Index) button to view images with the calendar during list display.



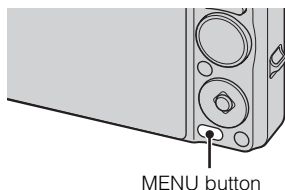
- 2 Select an image with  on the control button.





- To return to the single-image screen, press .

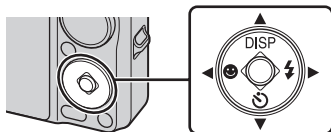





Viewing still images with music (Slideshow)

- 1 Press the  (Playback) button to display a still image, then press the MENU button.



- 2 Select  (Slideshow) → [Slideshow with music] with / on the control button, then press .






- 3 Select [Start] with  on the control button, then press .
- The slideshow starts.
- To end the slideshow, press .





Selecting background music

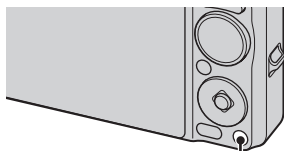
You can transfer a desired music file from your CDs or MP3 files to the camera to play back during slideshow. To transfer music files, install the “Music Transfer” software (supplied) to your computer (page 42), then follow the steps below.

- ① Press MENU →  (Settings) →  (Main Settings) → [Download Music] →  on the control button.
- ② Make a USB connection between the camera and your computer.
- ③ Start and operate “Music Transfer”.



For details on “Music Transfer”, see the “Music Transfer” help.

Deleting images

- 1 Press  (Playback) button to display an image, then press  (Delete) button.




 (Delete) button

- 2 Press / on the control button to select the desired setting.

All in Date Range/All in This Folder:

You can delete all images in the displayed date range or folder.

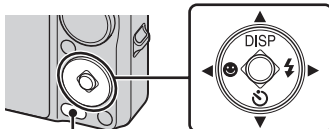
Multiple Images: You can select and delete multiple images. Select the images, press , and then press the MENU button to delete.

This Image: You can delete the currently displayed image.

All In This Group: You can delete all images in the displayed burst group at once.

All but this image: You can delete burst group images other than the selected image in Display Burst Group mode.

Exit: Cancels the deletion.

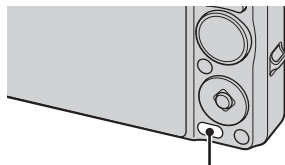


MENU button




Deleting all images (Format)

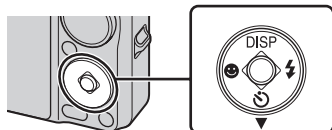
You can delete all data stored on “Memory Stick Duo” media or the internal memory. If a “Memory Stick Duo” media is inserted, all data stored on the “Memory Stick Duo” media are deleted. If no “Memory Stick Duo” media is inserted, all data stored in the internal memory are deleted.








- 1 Press the MENU button.




MENU button

- 2 Select  (Settings) with  on the control button, then press .



- 3 Select  (“Memory Stick” Tool) or  (Internal Memory Tool) with , , , or  on the control button, then press [Format] → .

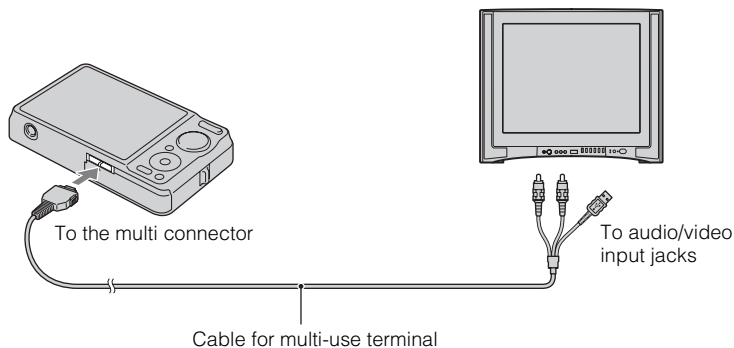
- 4 Select [OK], then press .

Note

- Formatting permanently deletes all data, including protected images, and the data cannot be recovered.

Viewing images on a TV

- 1 Connect the camera to the TV with the cable for multi-use terminal (supplied).



Viewing images on a HD (High Definition) TV

- You can view images recorded on the camera by connecting the camera to an HD (High Definition) TV with the HD Output Adaptor Cable (sold separately). Use a Type 1a-compliant HD Output Adaptor Cable.
- Set [COMPONENT] to [HD(1080i)] under **⚙** (Main Settings) on the setting screen.

Note


- The [Video Out] setting is set to [NTSC] mode at the factory to let you enjoy optimum movie image quality. When images do not appear or jittery on your TV, you may be using a PAL-only TV. Try switching the [Video Out] setting to [PAL] (page 50).


Printing still images


If you have a PictBridge-compliant printer, you can print images by the following procedure.


- 1 Connect the camera to the printer with the cable for multi-use terminal (supplied).

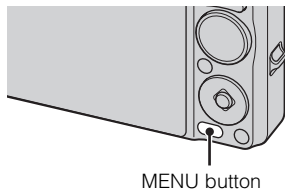
- 2 Turn on the camera and the printer.

After the connection is made, the  indicator appears.

- 3 Press MENU →  (Print) with ▲/▼/◀/▶ on the control button → desired mode → ●.


 (This Image): Print the currently displayed image.

 (Multiple Images): Press ◀/▶ to display the image, then ●.



- 4 Select the desired setting item, then [Start] → ●.
The image is printed.



Notes

- If it was impossible to connect to the printer, be sure to set [USB Connect] under  (Main Settings) to [PictBridge].
- Panoramic images may not be printed depending on the printer.



Printing at a shop

You cannot print images stored in the internal memory at a print shop directly from the camera. Copy the images to a “Memory Stick Duo” media, then take the “Memory Stick Duo” media to the print shop.

How to copy: Press MENU →  (Settings) →  (“Memory Stick” Tool) → [Copy] → [OK].

For details, consult your photo printing service shop.



Superimposing dates on images

This camera does not include a function for superimposing a date on an image. The reason for this is to prevent the date from being duplicated during printing.

Printing at a shop:

You can ask that images be printed with a date superimposed. For details, consult with a photo printing service shop.

Printing at home:

Connect to a PictBridge-compliant printer, and press the MENU button, then set [Print] → [Date] to [Date] or [Day&Time].

Superimposing dates on images using PMB:

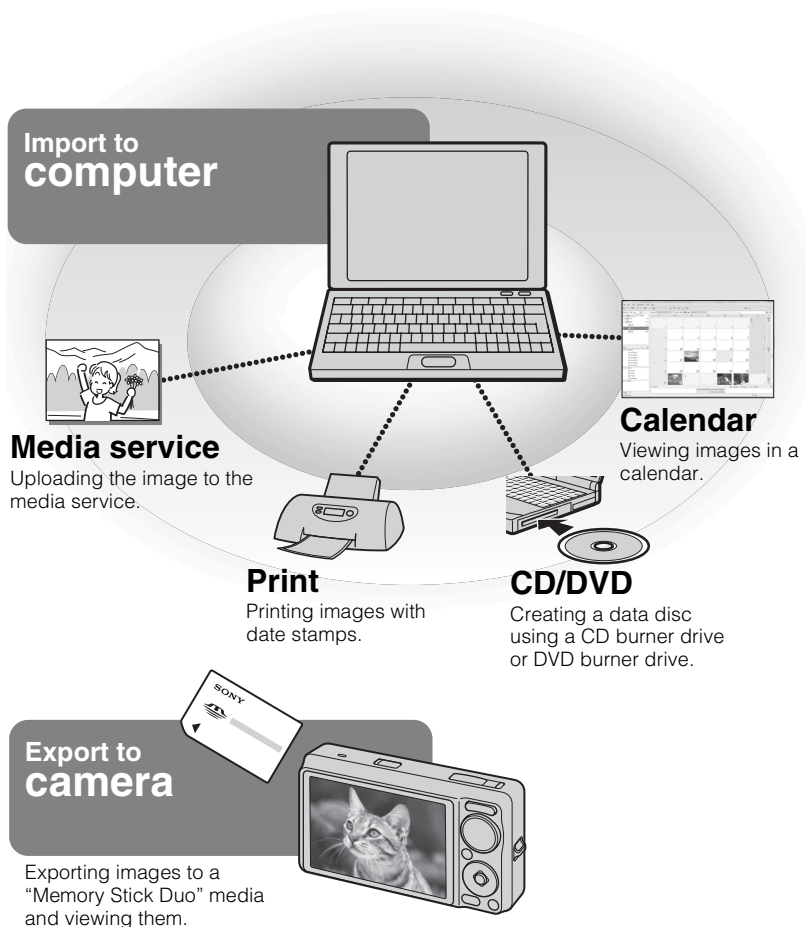
With the supplied “PMB” software installed on a PC (page 42), you can directly superimpose the date on an image. However, note that when images with a superimposed date are printed, the date may be duplicated depending on print settings. For details on “PMB”, see the “PMB Guide” (page 43).

Using the camera with a computer

■ Using “PMB (Picture Motion Browser)”

You can enjoy the recorded images more than ever by taking advantage of the software, and “PMB” is included on a CD-ROM (supplied).

There are more functions, in addition to those listed below, for enjoying your images. For details, see the “PMB Guide” (page 43).



Connecting to other devices

Note

- “PMB” is not compatible with Macintosh computers.

■ Stage 1: Installing the “PMB” (supplied)

You can install the software (supplied) using the following procedure. When you install “PMB,” “Music Transfer” is also installed.

- Log on as Administrator.

1 Check your computer environment.

Recommended environment for using “PMB” and “Music Transfer”, and when importing images

OS (pre-installed): Microsoft Windows XP*¹ SP3/Windows Vista*² SP2

CPU: Intel Pentium III 800 MHz or faster (For playing/editing the High Definition movies: Intel Pentium 4 2.8 GHz or faster/ Intel Pentium D 2.8 GHz or faster/ Intel Core Duo 1.66 GHz or faster/ Intel Core 2 Duo 1.20 GHz or faster)

Memory: 512 MB or more (For playing/editing the High Definition movies: 1 GB or more)

Hard Disk (Disk space required for installation): Approximately 500 MB

Display: Screen resolution: 1,024 × 768 dots or more

*¹ 64-bit editions and Starter (Edition) are not supported.

Windows Image Mastering API (IMAPI) Ver.2.0 or later is required to use the function for creating discs.

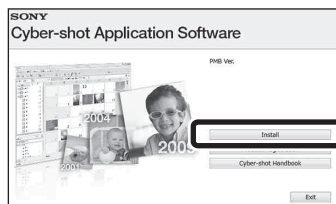
*² Starter (Edition) is not supported.

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

The installation menu screen appears.

3 Click [Install].


The “Choose Setup Language” screen appears.



4 Follow the instructions on the screen to complete the installation.

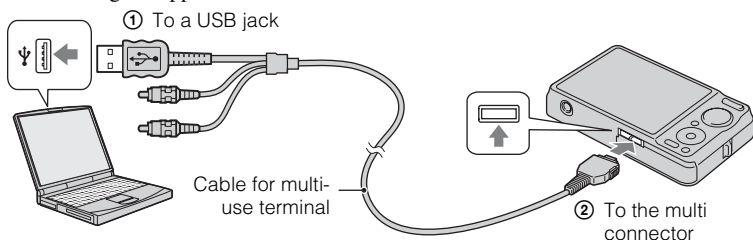
5 Remove the CD-ROM after the installation is complete.



■ Stage 2: Importing images to your computer using “PMB”

1 Insert a fully charged battery pack to the camera, then press the  (Playback) button.

2 Connect the camera to your computer.

“Connecting...” appears on the screen of the camera.



-  is displayed on the screen during the communication session. Do not operate the computer while the indicator is displayed. When the indicator changes to , you can start using the computer again.

3 Click the [Import] button.

For details, see the “PMB Guide”.

■ Stage 3: Viewing “PMB Guide”

1 Double-click the  (PMB Guide) icon on the desktop.

- To access the “PMB Guide” from the start menu: Click [Start] → [All Programs] → [Sony Picture Utility] → [Help] → [PMB Guide].



Notes

- Do not disconnect the cable for multi-use terminal from the camera while the camera is operating or while “Accessing...” appears on the screen of the camera. Doing so may corrupt the data.
- When using a battery with little remaining charge, you may not be able to transfer the data or the data may be corrupted. Using the AC-LS5K/AC-LS5 AC Adaptor (sold separately) and the USB / AV / DC IN cable for multi-use terminal (sold separately) is recommended.

■ Using the camera with your Macintosh computer

You can copy images to your Macintosh computer. However, “PMB” is not compatible. When images are exported to “Memory Stick Duo” media, view them in [Folder View]. You can install “Music Transfer” on your Macintosh computer.

Recommended computer environment

The following environment is recommended for a computer connected to the camera.

Recommended environment for using “Music Transfer” and for importing images

OS (pre-installed): Mac OS X (v10.3 to v10.5)

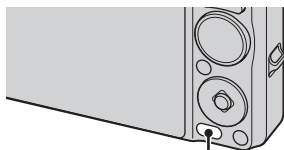
Memory: 64 MB or more (128 MB or more is recommended)

Hard Disk (Disk space required for installation): Approximately 50 MB


Changing the operation sounds

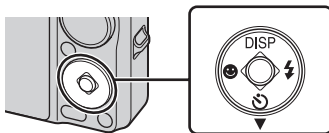
Selects or turns off the beep sound.


- 1 Press the MENU button.



MENU button

- 2 Select  (Settings) with ▼ on the control button, then press ●.



- 3 Select  (Main Settings) with ▲/▼/◀/▶ on the control button, then press [Beep] → desired mode → ●.


Shutter: Turns on the shutter sound when you press the shutter button.

High/Low: Turns on the beep/shutter sound when you press the control/shutter button. If you want to lower the volume, select [Low].

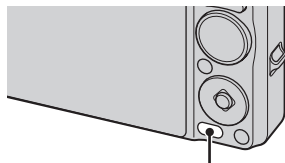
Off: Turns off the beep/shutter sound.

Using the MENU items






Displays available functions for easy setting when the camera is in shooting or playback mode. Only the items that are available for each mode are displayed on the screen.

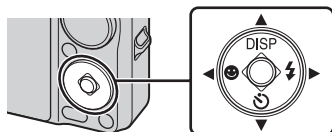
Select  (Settings) → [Main Settings] → [Initialize] to initialize the settings to the default setting.

- 1 Press the MENU button to display the Menu screen.



MENU button

- 2 Select the desired menu item with , , ,  on the control button. During playback, confirm by pressing .

































- 3 Press the MENU button to turn off the Menu screen.

MENU in shooting mode

Item	Description
Scene Selection	Shoots images with preset settings according to the scene mode. (High Sensitivity/ Soft Snap/ Landscape/ Twilight Portrait/ Twilight/ Gourmet/ Pet/ Beach/ Snow/ Fireworks/ Underwater)
Movie shooting mode	Changes the settings according to the movie scene mode. (Auto/ Underwater)
Shooting Direction	Sets the direction to pan the camera when you shoot a Sweep Panorama images. (Right/ Left/ Up/ Down)
Image Size	Sets the image size. (4:3 10M/ 4:3 5M/ 4:3 3M/ VGA/ 4:3 8M/ 3:2 7M/ 16:9 2M) (Standard/ Wide) (FINE 1280×720(Fine)/ STD 1280×720(Standard)/ VGA: VGA)
Burst	Sets the burst shooting settings. (OFF/ Hi High/ Mid Mid/ Lo Low/ BRK Bracket)


Item	Description
EV	Adjusts exposure manually. (-2.0EV to +2.0EV)
ISO	Selects a luminous sensitivity. (Auto/ISO 160 to ISO 3200)
White Balance	Adjusts color tones according to the surrounding light conditions. (AUTO Auto/ Daylight/ Cloudy/ Fluorescent White Balance 1/ Fluorescent White Balance 2/ Fluorescent White Balance 3/ Incandescent/ WB Flash/ One Push/ SET One Push Set)
Underwater White Balance	Adjusts the colors when shooting underwater. (AUTO Auto/ 1 Underwater 1/ 2 Underwater 2/ One Push/ SET One Push Set)
Focus	Changes the focus method. (Multi AF/ Center AF/ Spot AF)
Metering Mode	Sets which part of the subject to measure to determine the exposure. (Multi/ Center/ Spot)
Bracket Settings	Sets the bracket shooting setting. (± 0.3 EXP ± 0.3 / ± 0.7 EXP ± 0.7 / ± 1.0 EXP ± 1.0)
Scene Recognition	Automatically detects the shooting conditions and then takes the shot. (SCN Auto/ Advanced)
Smile Detection Sensitivity	Sets the level of sensitivity to detect smile. (Big Smile/ Normal Smile/ Slight Smile)
Face Detection	Selects the priority subject for adjusting the focus when using Face Detection. (OFF Off/ AUTO Auto/ Child Priority/ Adult Priority)
DRO	Optimizes the brightness and contrast. (DRO OFF Off/ DRO STD DRO standard/ DRO Plus DRO plus)
Anti Blink	Sets Anti Blink function. (AUTO Auto/ OFF Off)
Red Eye Reduction	Sets to reduce the red-eye phenomenon. (ON Auto/ ON On/ OFF Off)
SteadyShot	Selects the anti-blur mode. (Shooting/ Continuous/ OFF Off)
(Settings)	Changes the camera settings.

■ MENU in viewing mode

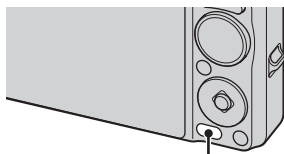
Item	Description
 (Slideshow)	Plays back images in succession. ( Continuous Playback/  Slideshow with music)
 (View Mode)	Switches the View Modes. ( Date View/  Folder View)
 (Display Burst Group)	Selects how to display the burst images on the screen. ( Display Main Image Only/  Display All)
 (Retouch)	Retouches still images. ( Trimming/  Red Eye Correction/  Unsharp masking)
 (Delete)	Deletes images. ( This Image/  Multiple Images/  All in Date Range*/  All In This Group/  All but this image) * The displayed item differs according to each View Mode.
 (Protect)	Prevents accidental erasure. ( This Image/  Multiple Images)
DPOF	Adds a Print order mark to the image you want to print in a “Memory Stick Duo” media. ( This Image/  Multiple Images)
 (Print)	Prints images using a PictBridge-compliant printer. ( This Image/  Multiple Images)
 (Rotate)	Rotates a still image.
 (Select Folder)	Selects the folder for viewing images.
 (Settings)	Changes settings other than shooting settings.

Using the (Settings) items

You can change the default settings.

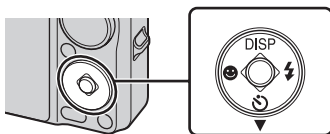
 (Shooting Settings) are displayed only when settings have been entered from shooting mode.

- 1 Press the MENU button to display the Menu screen.




MENU button





- 2 Select  (Settings) with \blacktriangledown on the control button, then press \bullet .



- 3 Select the desired item with $\blacktriangle/\blacktriangledown/\blacktriangleleft/\blacktriangleright$ on the control button, then press \bullet .

- 4 Press the MENU button to turn off the setting screen.

Category	Item	Description
 (Shooting Settings)	AF Illuminator	The AF illuminator supplies fill light to focus more easily on a subject in dark surroundings.
	Grid Line	Sets whether or not to display the grid lines on the screen.
	Digital Zoom	Selects the digital zoom mode.
	Auto Orientation	When the camera is rotated to shoot a portrait (vertical) image, the camera records its position change and displays the image in the portrait position.
	Blink Alert	When an image with the subject's eyes closed is recorded, a message is displayed.

Category	Item	Description
 (Main Settings)	Beep	Selects or turns off the sound produced when you operate the camera.
	Language Setting	Selects the language to be used in menu items, warnings and messages.
	Function Guide	Selects whether or not to display the function guide when you operate the camera.
	Demo Mode	Sets whether to view a demonstration of the Smile Shutter and Scene Recognition.
	Initialize	Initializes settings to their default settings.
	COMPONENT	Selects the video signal output type according to the TV connected.
	Video Out	Sets the video signal output according to the TV color system of the connected video equipment.
	USB Connect	Selects the USB mode when connecting the camera to a computer or a PictBridge-compliant printer using the cable for multi-use terminal.
	Download Music	Changes music files using "Music Transfer".
	Format Music	Deletes all background music files stored in the camera.
 ("Memory Stick" Tool)	Format	Formats the "Memory Stick Duo" media.
	Create REC.Folder	Creates a folder in "Memory Stick Duo" media for recording images.
	Change REC.Folder	Changes the folder currently used for recording images.
	Delete REC.Folder	Deletes folders in "Memory Stick Duo" media.
	Copy	Copies all images in the internal memory to "Memory Stick Duo" media.
	File Number	Selects the method used to assign file numbers to images.
 (Internal Memory Tool)	Format	Formats the internal memory.
	File Number	Selects the method used to assign file numbers to images.
 (Clock Settings)	Area Setting	Adjusts the time to the local time of the selected area.
	Date & Time Setting	Sets the date and time.










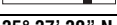



Display	Indication
	PictBridge connecting
	Protect
DPOF	Print order (DPOF)
Qx2.0	Playback zoom
	Display burst group
	Main image in the burst group

2

Display	Indication
	AE/AF lock
ISO400	ISO number
NR	NR slow shutter
125	Shutter speed
F3.5	Aperture value
+2.0EV	Exposure Value
	AF range finder frame indicator
REC Standby	Recording a movie/Standby a movie
0:12	Recording time (m:s)
101-0012	Folder-file number
2009 1 1 9:30 AM	Recorded date/time of the playback image
● STOP	Function guide for playing image
● PLAY	
◀▶ BACK/NEXT	Selecting images
▼ VOLUME	Adjusting volume

3

Display	Indication
	Recording folder
	Playback folder
96	Number of recordable images
12/12	Image number/Number of images recorded in selected folder
100Min	Recordable time
	Recording/Playback Media ("Memory Stick Duo" media, internal memory)
	Changing folder
	AF illuminator
	Red-eye reduction
	Metering mode
	Flash mode
	Flash charging
	White balance
	Database file full
ISO 400	ISO number

Display	Indication
	Self-timer
C:32:00	Self-diagnosis display
	Destination
	Overheating warning
	Face Detection
 BRK	Burst/Bracket
	Database file full
±0.3 EV ±0.7 EV ±1.0 EV	Bracket Settings
	AF range finder frame
+	Spot metering cross hair
+2.0EV	Exposure value
500	Shutter speed
F3.5	Aperture value
	PictBridge connecting
	Playback
	Playback bar
35° 37' 32" N 139° 44' 31" E	Latitude and Longitude display
	Histogram •  appears when histogram display is disabled.
	Volume

Learning more about the camera (“Cyber-shot Handbook”)

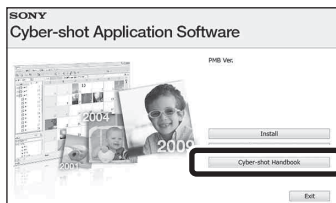
“Cyber-shot Handbook”, which explains how to use the camera in detail, is included on the CD-ROM (supplied). Refer to it for in-depth instructions on the many functions of the camera.

- You need Adobe Reader to read “Cyber-shot Handbook”. If it is not installed on your computer, you can download it from web page: <http://www.adobe.com/>

■ For Windows users

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

2 Click [Cyber-shot Handbook].
“Cyber-shot Step-up Guide”, which contains information on accessories for the camera, is installed at the same time.



3 Start “Cyber-shot Handbook” from the shortcut on the desktop.

■ For Macintosh users

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

2 Select the [Handbook] folder and copy “Handbook.pdf” stored in the [GB] folder to your computer.

3 After copying is complete, double-click “Handbook.pdf”.

Troubleshooting

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

- 1 **Check the items below, and refer to “Cyber-shot Handbook” (PDF).**
If a code such as “C/E:□□:□□” appears on the screen, refer to “Cyber-shot Handbook.”

- 2 **Remove the battery pack, wait for about one minute, re-insert the battery pack, then turn on the power.**

- 3 **Initialize the settings (page 49).**

- 4 **Consult your Sony dealer or local authorized Sony service facility.**

On repairing cameras with internal memory or Music files function included, data in the camera may be checked on minimum necessity to verify and improve the malfunction symptoms. Sony will not copy or save any of those data.

Battery pack and power

Cannot insert the battery pack.

- Insert the battery pack correctly by pushing the battery eject lever (page 14).

Cannot turn on the camera.

- After inserting the battery pack into the camera, it may take a few moments for the camera to power up.
- Insert the battery pack correctly (page 14).
- The battery pack is discharged. Insert a charged battery pack (page 12).
- Use a recommended battery pack.

The power turns off suddenly.

- Depending on the camera and battery temperature, the power may turn off automatically to protect the camera. In this case, a message is displayed on the LCD screen before the power turns off.
- If you do not operate the camera for about two minutes while the power is on, the camera turns off automatically to prevent wearing down the battery pack. Turn on the camera again.

The remaining charge indicator is incorrect.

- This phenomenon occurs when you use the camera in an extremely hot or cold location.
- A discrepancy arose between the remaining charge indicator and the actual remaining battery charge. Fully discharge the battery pack once, then charge it to correct the indication.
- Battery capacity decreases over time and through repeated use. When the operating time per charge decreases markedly, the battery pack needs to be replaced. Purchase a new battery pack.

Cannot charge the battery pack while it is inside the camera.

- You cannot charge the battery pack using the AC Adaptor (sold separately). Use the battery charger to charge the battery.

The CHARGE lamp flashes while charging the battery.

- Remove and reinsert the battery pack, making sure it is installed correctly.
- The temperature may be inappropriate for charging. Try charging the battery pack again within the proper charging temperature range (10°C to 30°C (50°F to 86°F)).

Shooting still images/movies

Cannot record images.

- Check the free capacity of the internal memory or “Memory Stick Duo” media (pages 24, 29 and 34). If it is full, do one of the following:
 - Delete unnecessary images (page 37).
 - Change the “Memory Stick Duo” media.
- You cannot record images while charging the flash.
- Movies with the size set to [1280×720] can only be recorded on a “Memory Stick PRO Duo” media. When using recording media other than “Memory Stick PRO Duo” media, set the movie image size to [VGA].
- Set [Demo Mode] to [Off].

Black shadows appear on the LCD screen.

- Fluctuations in the subject brightness may cause black shadows to appear when switching the aperture value. This is not a malfunction.

Viewing images

Cannot play back images.

- The folder/file name has been changed on your computer.
- No guarantees are made for playing back, on this camera, files containing images which were processed on a computer or images which were shot using other cameras.
- The camera is in USB mode. Delete the USB connection.
- You may not be able to play back some images stored on the “Memory Stick Duo” media shot using other cameras. Play such images in Folder View.
- This is caused by copying images on your computer to the “Memory Stick Duo” media without using the “PMB”. Play such images in Folder View.

Precautions

Do not use/store the camera in the following places

- In an extremely hot, cold or humid place
In places such as in a car parked in the sun, the camera body may become deformed and this may cause a malfunction.
- Under direct sunlight or near a heater
The camera body may become discolored or deformed, and this may cause a malfunction.
- In a location subject to 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 (sold separately) to remove fingerprints, dust, etc.

Cleaning the lens

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

Cleaning the camera surface

Clean the camera surface with a soft cloth slightly moistened with water, then wipe the surface with a dry cloth. To prevent damage to the finish or casing:

- Do not expose the camera to chemical products such as thinner, benzene, alcohol, disposable cloths, insect repellent, sunscreen or insecticide.
- Do not touch the camera with any of the above on your hand.
- Do not leave the camera in contact with rubber or vinyl for a long time.

On operating temperatures

Your camera is designed for use under the temperatures between 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, moisture may condense inside or outside the camera. This moisture condensation may cause a malfunction of the camera.

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 the internal rechargeable backup 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, but the date and time will not be indicated.

Charging method of the internal rechargeable backup battery

Insert charged battery pack in the camera, and then leave the camera for 24 hours or more with the power off.

Specifications

Camera

[System]

Image device: 7.59 mm (1/2.4 type) Exmor R CMOS Sensor

Total pixel number of camera:
Approx. 10.6 Megapixels

Effective pixel number of camera:
Approx. 10.2 Megapixels

Lens: Sony G 5× zoom lens
f = 4.25 mm – 21.25 mm (24 mm – 120 mm (35 mm film equivalent))
F2.4 (W) – F5.9 (T)
While shooting movies (16:9): 28 mm – 140 mm
While shooting movies (4:3): 34 mm – 170 mm

Exposure control: Automatic exposure, Scene Selection (11 modes)

White balance: Automatic, Daylight, Cloudy, Fluorescent 1/2/3, Incandescent, Flash, One Push

Underwater White Balance: Auto, Underwater 1/2, One Push

File format:
Still images: JPEG (DCF Ver. 2.0, Exif Ver. 2.21, MPF Baseline) compliant, DPOF compatible
Movies: MPEG-4 Visual

Recording media: Internal Memory (approx. 11 MB), “Memory Stick Duo” media

Flash: Flash range (ISO sensitivity (Recommended exposure Index) set to Auto):
Approx. 0.2 m to 5.0 m (7 7/8 inches to 16 feet 4 7/8 inches) (W)/
approx. 0.5 m to 2.0 m (1 feet 7 3/4 inches to 6 feet 6 3/4 inches) (T)

[Input and Output connectors]

Multi use terminal Type Ia (AV-out(SD/HD Component)/USB/DC-in):
Video output
Audio output (Monaural)
USB communication

USB communication: Hi-Speed USB (USB 2.0 compliant)

[LCD screen]

LCD panel: 6.7 cm (2.7 type) TFT drive
Total number of dots: 230 400 (960 × 240) dots

[Power, general]

Power: Rechargeable battery pack
NP-BG1, 3.6 V
NP-FG1 (sold separately), 3.6 V

Power consumption (during shooting): 1.0 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:
90.5 × 51.8 × 19.8 mm (3 9/16 × 2 1/16 × 25/32 inches) (W/H/D, excluding protrusions)

Mass (including NP-BG1 battery pack, “Memory Stick Duo” media): Approx. 149 g (5.3 oz)

Microphone: Monaural

Speaker: Monaural

Exif Print: Compatible

PRINT Image Matching III: Compatible

PictBridge: Compatible

BC-CSGD/BC-CSGE battery charger

Power requirements: AC 100 V to 240 V, 50/60 Hz, 2 W

Output voltage: DC 4.2 V, 0.25 A

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: Approx. 55 × 24 × 83 mm (2 1/4 × 31/32 × 3 3/8 inches) (W/H/D)

Mass: Approx. 55 g (1.9 oz)

Rechargeable battery pack NP-BG1

Used battery: Lithium-ion battery

Maximum voltage: DC 4.2 V

Nominal voltage: DC 3.6 V

Maximum charge current: 1.44 A

Maximum charge voltage: DC 4.2 V

Capacity:

typical: 3.4 Wh (960 mAh)

minimum: 3.3 Wh (910 mAh)

Design and specifications are subject to change without notice.

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