

SONY®

4-143-378-13(1)

Digital Still Camera Instruction Manual

DSC-W180/W190

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



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-W180/W190

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.rbrcc.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-W180
Responsible Party: Sony Electronics Inc.
Address: 16530 Via Esprillo,
San Diego, CA 92127U.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.

Declaration of Conformity

Trade Name: SONY
Model No.: DSC-W190
Responsible Party: Sony Electronics Inc.
Address: 16530 Via Esprillo,
San Diego, CA 92127U.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 the State of California, USA only

Perchlorate Material-special handling may apply, See

www.dtsc.ca.gov/hazardouswaste/perchlorate

Perchlorate Material: Lithium battery contains perchlorate.

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

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.

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 52) 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 52).
- 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, the power may turn off automatically to protect the camera. A message will be displayed on the LCD screen before the power turns off.

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

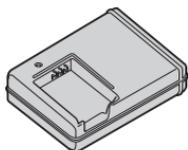
Television programs, films, videotapes, and other materials may be copyrighted. Unauthorized recording of such materials may be contrary to the provisions of the copyright laws.

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-CSKA (1)



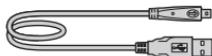
- Power cord (mains lead) (1)
(not supplied in the USA and Canada)



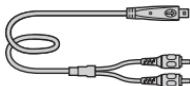
- Rechargeable battery pack NP-BK1 (1)



- Dedicated USB cable (1)



- Dedicated A/V cable (1)



- Wrist strap (1)

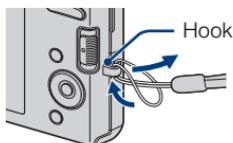


- CD-ROM (1)
 - Cyber-shot application software
 - “Cyber-shot Handbook”
 - “Cyber-shot Step-up Guide”
- Instruction Manual (this manual) (1)

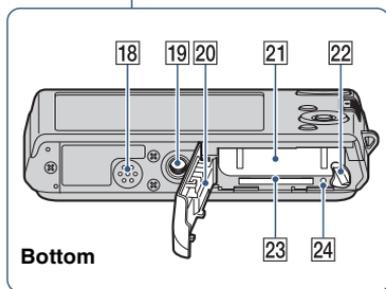
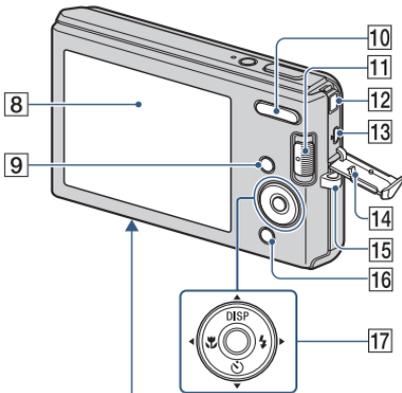
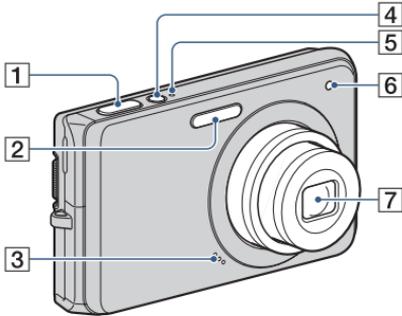
Using the wrist strap

The wrist strap is preset at the factory.

Attach the strap and place your hand through the loop to prevent the camera from damage by being dropped.



Identifying parts

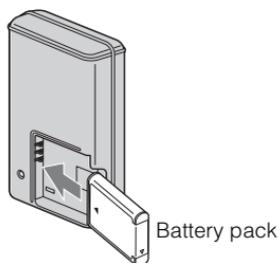


- 1 Shutter button
- 2 Flash
- 3 Microphone
- 4 ON/OFF (Power) button
- 5 ON/OFF (Power) lamp
- 6 Self-timer lamp
- 7 Lens
- 8 LCD screen
- 9 MENU button
- 10 For shooting: W/T (Zoom) button
For viewing: Q (Playback zoom) button/Index button
- 11 Mode switch
- 12 DC IN jack
 - Connecting the camera to AC Adaptor AC-LS5K (sold separately) will not charge the battery. Use a battery charger for charging the battery.
- 13 (USB)·A/V OUT terminal (side)
- 14 Jack cover
- 15 Hook for wrist strap
- 16 For shooting: ☺ (Smile) button
For viewing: 🗑️ (Delete) button
- 17 Control button
Menu on: ▲/▼/◀/▶/●
Menu off: DISP/☺/🗑️/🔋
- 18 Speaker
- 19 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.
- 20 Battery/"Memory Stick Duo" media cover
- 21 Battery insertion slot
- 22 Battery eject lever
- 23 "Memory Stick Duo" media slot
- 24 Access lamp

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).

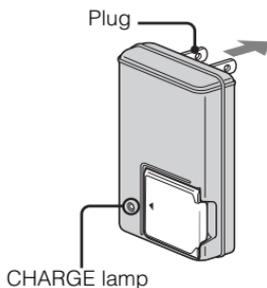
- If you continue charging the battery pack for about one more hour after the CHARGE lamp turns off, the charge will last slightly longer (full charge).

CHARGE lamp

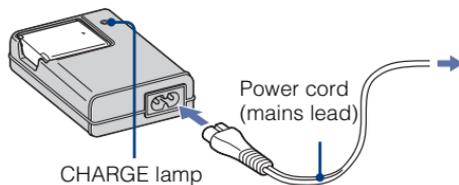
Lit: Charging

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. 300 min.	Approx. 240 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. 145	Approx. 290
Viewing still images	Approx. 240	Approx. 4800

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

Note

- The battery life and the number of still images may vary depending on the camera settings.



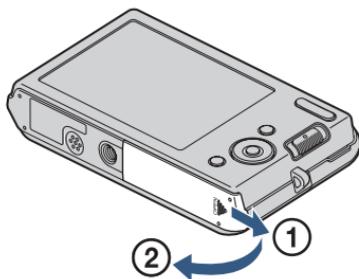
Using the camera abroad

You can use the camera, the battery charger (supplied), and the AC-LS5K AC Adaptor (sold separately) in any country or region where the power supply is within 100 V to 240 V AC, 50 Hz/60 Hz.

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

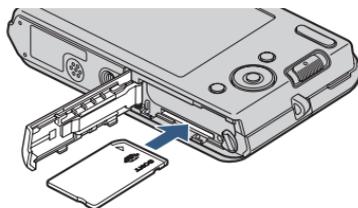
Inserting the battery pack/a “Memory Stick Duo” media (sold separately)

1 Open the cover.



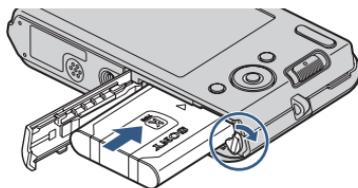
2 Insert the “Memory Stick Duo” media (sold separately).

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

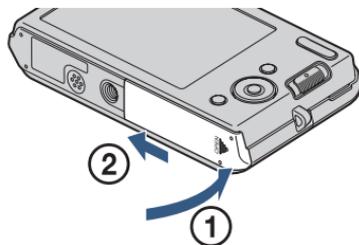


3 Insert the battery pack.

Insert the battery while pressing the 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 26, 29. Other types of “Memory Stick” media or memory card are not compatible with the camera.

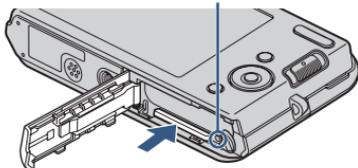
“Memory Stick” media

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.

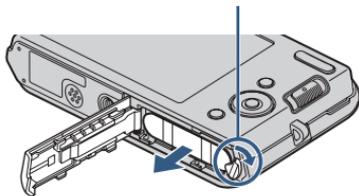
■ When there is no “Memory Stick Duo” media inserted

Images are stored in the camera’s internal memory (approximately 12 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

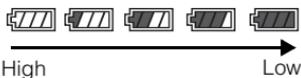
Battery eject lever



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 upper left of the LCD screen.



Notes

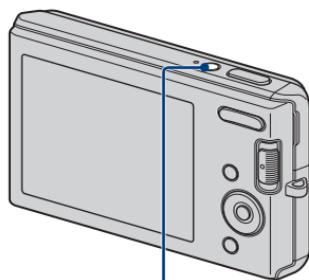
- It takes about one minute until the correct remaining charge indicator appears.
- The remaining charge indicator may not be correct under certain circumstances.
- Battery capacity decreases over time and through repeated use. When the operating time per charge decreases markedly, the battery pack needs to be replaced. Purchase a new battery pack.
- If the camera is running on and you do not operate the camera for about three minutes, the camera turns off automatically (Auto power-off function).

Setting the clock

- 1 Press the ON/OFF (Power) button.

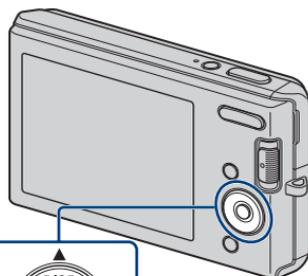
The camera is turned on.

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

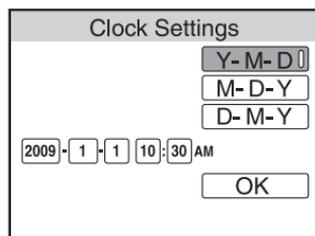


ON/OFF (Power) button

- 2 Select the date and time display format with ▲/▼ on the control button, then press ●.



Control button



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

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

- 4 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.

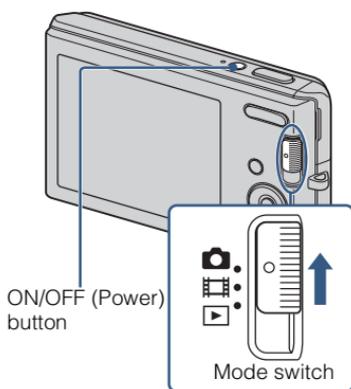
■ Setting the date and time again

Press the MENU button, then select  (Settings) → [Clock Settings] (page 45).

Shooting images

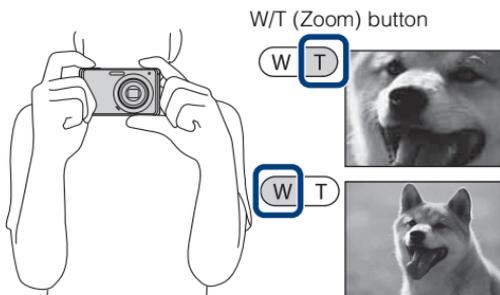
- 1 Set the mode switch to  (Still Image), then press ON/OFF (Power) button.

To shoot movies, set the mode switch to  (Movie) (page 28).



- 2 Hold the camera steady as illustrated.

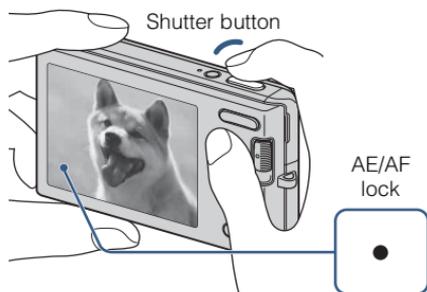
- Press the T button to zoom in, W button to zoom out.



- 3 Press the shutter button halfway down to focus.

When the image is in focus, a beep sounds and the  indicator lights.

- The shortest shooting distance is approximately 5 cm (2 inches) (W)/40 cm (1 feet 3 3/4 inches) (T) (from the lens).



- 4 Press the shutter button fully down.

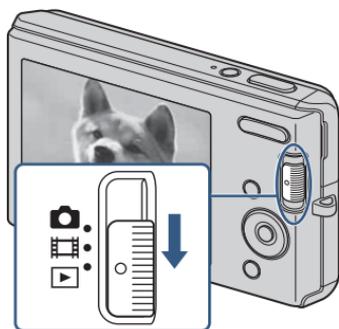
The image is shot.



Viewing images

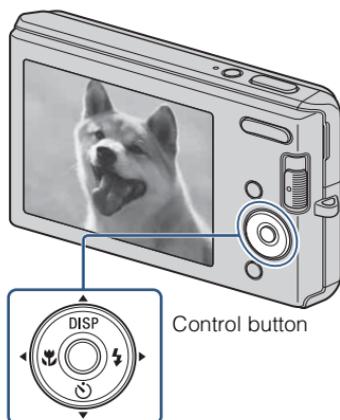
- 1 Set the mode switch to  (Playback).

The last image shot is displayed.



■ Selecting next/previous image

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



■ Deleting an image

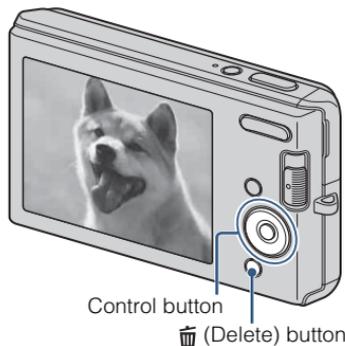
- ① Press  (Delete) button.
- ② Select [This Image] with / on the control button, then press .

■ Returning to shooting images

Set the mode switch to  (Still Image) or  (Movie).

■ Turning off the camera

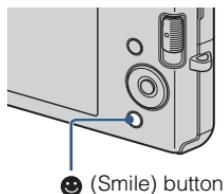
Press ON/OFF (Power) button.



Detecting smiles and shooting automatically (Smile Shutter)

1 Set the mode switch to  (Still Image).

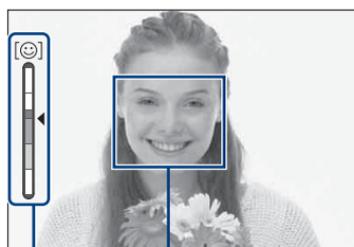
2 Press  (Smile) button.



3 Wait detecting a smile.

When the smile level exceeds the ◀ point on the indicator, the camera shoots images automatically. When you press  (Smile) 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

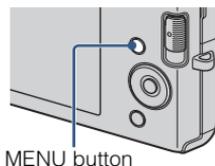


- ① Do not cover the eyes with the bangs.
- ② Try to orient the face in front of the camera and be as level as possible. The detection rate is higher when the eyes are narrowed.
- ③ Give a clear smile with an open mouth. The smile is easier to detect when the teeth are showing.

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.

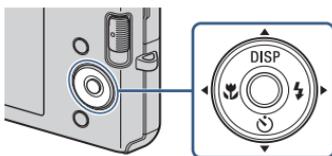
1 Press the MENU button.



2 Select  (Face Detection) with /// on the control button → desired mode → ●.

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

 **(Off)**: Does not use Face Detection.



Shooting close-ups (Macro)

You can shoot beautiful close-up images of small subjects such as insects or flowers.

- 1 Press  (Macro) on the control button repeatedly to select the desired mode → ●.

 _{AUTO} : The camera adjusts the focus automatically from distant subjects to close-up.

Normally, put the camera in this mode.

 : The camera adjusts the focus with priority on close-up subjects. Set Macro On when shooting close subjects.



Using the self-timer

- 1 Press  (Self-Timer) on the control button repeatedly to select the desired mode → ●.

 _{OFF} : Not using the self-timer.

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

 ₂ : 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 repeatedly to select the desired mode → ●.



 AUTO : Flashes when there is insufficient light or backlight.

 : Flash always operates.

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

 : Flash does not operate.

Note

- You cannot use the flash during burst shooting.

Changing the screen display

- 1 Press DISP (screen display) on the control button repeatedly to select the desired mode.



Indicators on: Sets screen to standard brightness and displays the information.

Indicators on*: Sets screen brighter and displays the information.

Histogram on*: Sets screen brighter and displays a graph of the image brightness.

Indicators off*: Sets screen brighter and displays only images.

* The brightness of the LCD Backlight increases.



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.

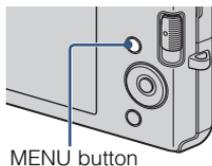
- If you view images in bright outside light, adjust the screen brightness up. However, the battery power may decrease faster under such condition.

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. Select the image size that matches the way you will view your images.

1 Press the MENU button.



2 Select  (Image Size) with ▲/▼/◀/▶ on the control button → desired size → ●.

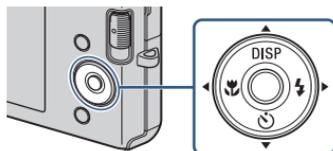


Image size	Usage guidelines	No. of images	Printing
 (4000×3000) (DSC-W190 only)	For prints up to A3+ size	Less 	Fine 
 (3648×2736) (DSC-W180 only)			
 (3264×2448) (DSC-W190 only)	For prints up to A3 size	↑ ↓ 	↑ ↓ 
 (2592×1944)	For prints up to A4 size		
 (2048×1536)	For prints up to L/2L size		
 (640×480)	For e-mail attachments		
 (4000×2672) (DSC-W190 only)	3:2 aspect ratio as in photo prints and postcards	Less	Fine
 (3648×2056) (DSC-W180 only)			
 (4000×2248) (DSC-W190 only)	For viewing on a high-definition TV.	Less ↑ ↓ More	Fine ↑ ↓ Rough
 (3648×2056) (DSC-W180 only)			
 (1920×1080)			

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

DSC-W190

(Units: Images)

Capacity Size	Internal memory	"Memory Stick Duo" media formatted with this camera						
	Approx. 12MB	256 MB	512 MB	1 GB	2 GB	4 GB	8 GB	16 GB
12M	2	49	93	197	395	790	1600	3200
8M	3	72	140	288	580	1170	2350	4700
5M	4	90	170	350	710	1420	2900	5850
3M	7	148	293	600	1200	2400	4850	9800
VGA	60	1200	2360	4800	9650	19300	38600	77200
3:2(11M)	2	49	93	197	395	790	1600	3200
16:9(9M)	3	66	130	262	533	1060	2150	4300
16:9(2M)	11	230	450	900	1800	3700	7500	15000

DSC-W180

(Units: Images)

Capacity Size	Internal memory	"Memory Stick Duo" media formatted with this camera						
	Approx. 12 MB	256 MB	512 MB	1 GB	2 GB	4 GB	8 GB	16 GB
10M	2	58	115	230	470	940	1900	3800
5M	4	90	170	350	710	1420	2900	5850
3M	7	148	293	600	1200	2400	4850	9800
VGA	60	1200	2360	4800	9650	19300	38600	77200
3:2(8M)	2	58	115	230	470	940	1900	3800
16:9(7M)	3	75	150	300	600	1200	2450	5000
16:9(2M)	11	230	450	900	1800	3700	7500	15000

Notes

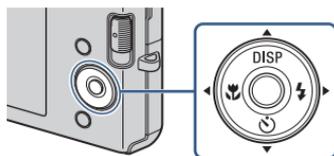
- The number of still images may vary depending on the shooting conditions and the recording media.
- When the number of remaining shootable images is greater than 9,999, the ">9999" indicator appears.
- When an image shot with other cameras is played back on this camera, the image may not appear in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

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

1 Set the mode switch to  (Still Image).

2 Press the MENU button.

3 Select  (Camera) with /// on the control button → the desired Scene Selection → .



 **(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.



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



 **(Snow):** Shoots snow scenes in white more clearly.

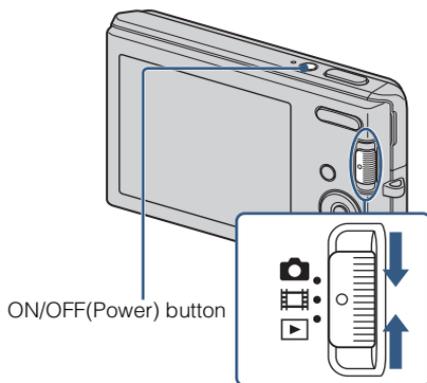


Note

• The flash does not operate in some modes.

Shooting movies

- 1 Set the mode switch to  (Movie), then press ON/OFF (Power) button.



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

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

■ Viewing movies

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

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

■ Maximum recording time

The table below shows the approximate maximum recording times. These are the total times for all movie files. The image size is fixed to 320 × 240.

(Units: hour : minute : second)

Capacity Size	Internal memory	"Memory Stick Duo" media formatted with this camera						
	Approx. 12 MB	256 MB	512 MB	1 GB	2 GB	4 GB	8 GB	16 GB
320 × 240	0:00:20	0:10:10	0:20:20	0:41:20	1:23:40	2:45:00	5:35:00	11:18:00

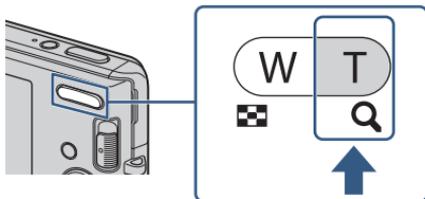
Notes

- The recording time may vary depending on the shooting conditions and the recording media.
- Recordable movie file size is up to approx. 2 GB for each file. If the file size reaches approx. 2 GB, the camera stops recording automatically.
- The camera does not support HD recordings or playbacks for movies.

Viewing an enlarged image (Playback zoom)

- 1 Set the mode switch to  (Playback) 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.

W button of the W/T (Zoom) button: Zooms out.

 on the control button: Adjusts the position.

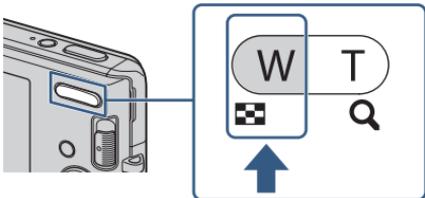


Shows the displayed area of the whole image

Searching for an image (Image Index)

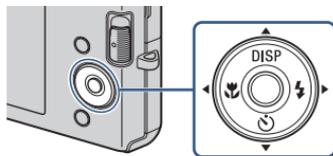
- 1 Set the mode switch to  (Playback) to display an image, then press  (Index) button.

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



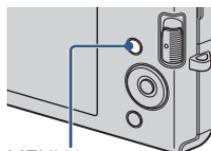
- 2 Select an image with  on the control button.

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



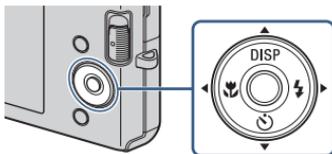
Viewing a series of still images (Slideshow)

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



MENU button

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



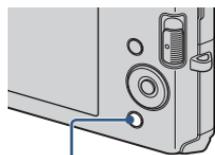
- 3 Select [Start] with , then press .

The slideshow starts.

- To end the slideshow, press .

Deleting images

- 1 Set the mode switch to  (Playback) to display an image, then press  (Delete) button.



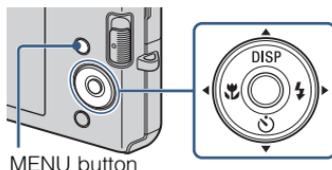
 (Delete) button

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

 **(This Image):** You can delete the currently displayed image.

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

 **(All in This Folder):** You can delete all the images of the selected folder.

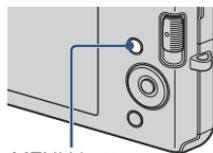


MENU button

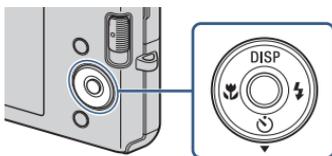
Deleting all images (Format)

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.



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



3 Select [“Memory Stick” Tool] or [Internal Memory Tool] with ▲/▼ on the control button, then press [Format] → ●.

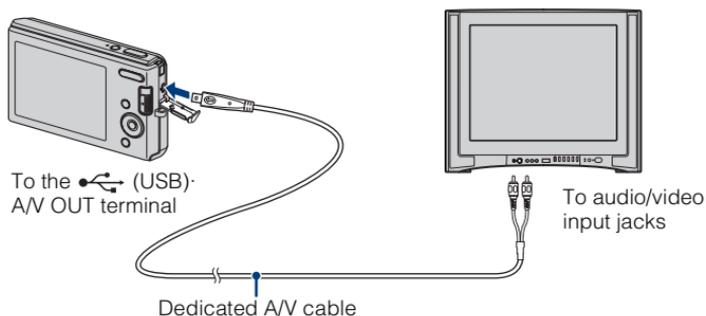
4 Select [OK], then press ●.

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 dedicated A/V cable (supplied).



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 44).

Printing still images

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

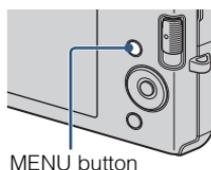
First, set the camera to enable USB connection between the camera and the printer.

- 1 Connect the camera to the printer with the dedicated USB cable (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 → ●.



4 Select the desired mode with ▲/▼ on the control button → ●.

This Image: Print the currently displayed image.

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

5 Select the desired setting item, then [OK] → ●.

The image is printed.

Note

- If it was impossible to connect to the printer, be sure to set [USB Connect] under  (Settings) to [PictBridge].



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 37), 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 38).

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).

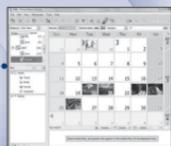
There are more functions, in addition to those listed below, for enjoying your images. For details, see the “PMB Guide” (page 38).

Import to computer



Media service

Uploading the image to the media service.



Calendar

Viewing images in a calendar.



Print

Printing images with date stamps.



CD/DVD

Creating a data disc using a CD burner drive or DVD burner drive.

Export to camera



Exporting images to a “Memory Stick Duo” media and viewing them.



Note

- “PMB” is not compatible with Macintosh computers.

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

You can install the software (supplied) using the following procedure.

- Log on as Administrator.

1 Check your computer environment.

Recommended environment for using “PMB”

OS (pre-installed): Microsoft Windows XP*¹ SP3/Windows Vista*² SP1

CPU: Intel Pentium III 500 MHz or faster (Recommended: Intel Pentium III 800 MHz or faster)

Memory: 256 MB or more (Recommended: 512 MB or more)

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

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

Video memory: 32 MB or more (Recommended: 64 MB or more)

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

*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.

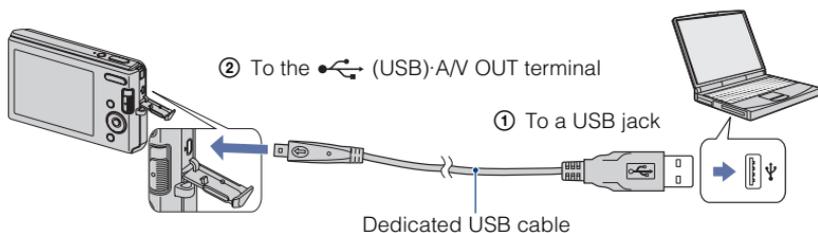
5 Remove the CD-ROM after the installation is complete.

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

1 Insert a fully charged battery pack to the camera, then press the ON/OFF (Power) 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.

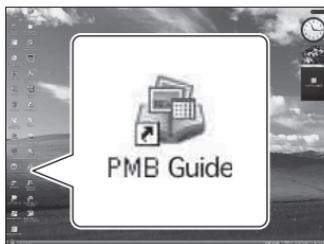
3 Click the [Import] button.

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 dedicated USB cable 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 Adaptor (sold separately) is recommended.

■ Using the camera with your Macintosh computer

You can copy images to your Macintosh computer. However, “PMB” is not compatible.

Recommended computer environment

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

Recommended environment for importing images

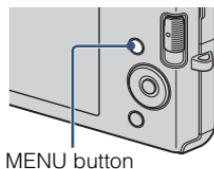
OS (pre-installed): Mac OS 9.1/9.2/ Mac OS X (v10.1 to v10.5)

USB jack: Provided as standard

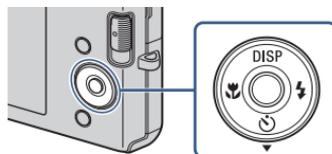
Changing the operation sounds

You can set the sound produced when you operate the camera.

- 1 Press the MENU button.



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



- 3 Select [Main Settings] with / on the control button, then press [Beep]  .

- 4 Select the desired mode with / on the control button  .

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

On: Turns on the beep/shutter sound when you press the control/shutter button.

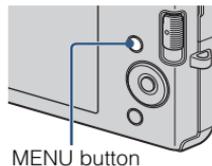
Off: Turns off the beep/shutter sound.

Using the MENU items

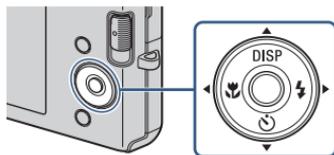
Displays available functions for easy setting when the camera is in shooting or playback mode. Only the items that are available for each mode are displayed on the screen.

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

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



- 2 Select the desired menu item with , , , or  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
Camera	Sets the camera mode. ( AUTO Auto Adjustment/  PGM Program Auto/  ISO High Sensitivity/  Soft Snap/  Landscape/  Twilight Portrait/  Twilight/  Beach/  Snow)
Image Size	Sets the image size. DSC-W190 ( 12M/  8M/  5M/  3M/  VGA/  3:2/  16:9+/  16:9) DSC-W180 ( 10M/  5M/  3M/  VGA/  3:2/  16:9+/  16:9)
SteadyShot	Selects the anti-blur mode. ( Off/  AUTO Auto)
REC Mode	Selects the continuous shooting method. ( Normal/  Burst)
EV	Adjusts exposure manually. (-2.0 EV to +2.0 EV)
ISO	Selects a luminous sensitivity. (Auto/ISO 100 to ISO 3200)

Item	Description
White Balance	Adjusts color tones according to the surrounding light conditions. (AUTO Auto/ Daylight/ Cloudy/ Fluorescent Light 1, Fluorescent Light 2, Fluorescent Light 3/ Incandescent/ Flash)
Focus	Changes the focus method. (Multi AF/ Center AF/0.5 m/1.0 m/3.0 m/7.0 m/∞)
Metering Mode	Sets which part of the subject to measure to determine the exposure. (Multi/ Center/ Spot)
Smile Detection Sensitivity	Sets the level of sensitivity to detect smile. (Low/ Medium/ High)
Face Detection	Sets the Face Detection. (AUTO Auto/ OFF Off)
Flash Level	Adjusts the amount of flash light. (-/ STD Standard/ +)
Red Eye Reduction	Sets to reduce the red-eye phenomenon. (AUTO Auto/ ON On/ OFF Off)
Color Mode	Changes the vividness of the image or adds special effects. (+ Normal/ S+ Sepia/ BW+ B & W)
(Settings)	Changes the camera settings.

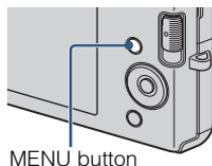
MENU in viewing mode

Item	Description
 (Slideshow)	Plays back images in succession along with effects.
 (Retouch)	Retouches still images. ( Trimming/  Red Eye Correction)
 (Multi-Purpose Resize)	Changes the image size according to usage. ( HDTV/  Blog/E-mail)
 (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.
 (Rotate)	Rotates a still image.
 (Select Folder)	Selects the folder for viewing images.
 (Settings)	Changes settings.

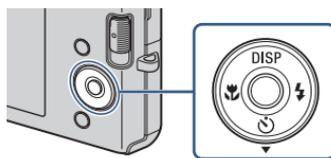
Using the (Settings) items

You can change the default settings.

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



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



- 3 Select the desired item with ▲/▼/◀/▶, then press ●.

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

Category	Item	Description
Main Settings	Beep	Selects or turns off the sound produced when you operate the camera.
	USB Connect	Selects the USB mode when connecting the camera to a computer or a PictBridge-compliant printer using the dedicated USB cable.
	Video Out	Sets the video signal output according to the TV color system of the connected video equipment.
	Initialize	Initializes settings to their default settings.
Shooting Settings	Grid Line	Sets whether or not to display the grid lines on the screen.
	Digital Zoom	Selects the digital zoom mode.
	Auto Review	Displays the recorded image on the screen for approximately two seconds immediately after shooting a still image.

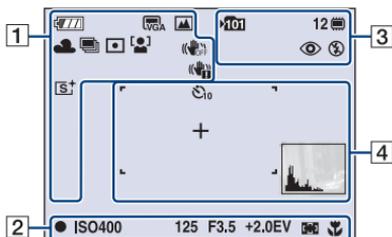
Category	Item	Description
"Memory Stick" Tool	Format	Formats the "Memory Stick Duo" media.
	Create REC.Folder	Creates a folder in "Memory Stick Duo" media for recording images.
	Change REC.Folder	Changes the folder currently used for recording images.
	Copy	Copies all images in the internal memory to "Memory Stick Duo" media.
Internal Memory Tool	Format	Formats the internal memory.
Clock Settings	Clock Settings	Sets the date and time.
Language Setting	Language Setting	Selects the language to be used in menu items, warnings and messages.

List of icons displayed on the screen

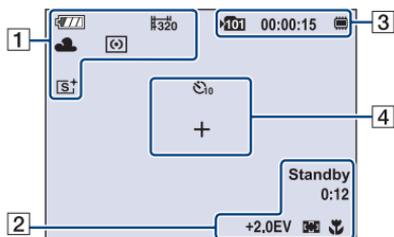
Icons are displayed on the screen to indicate the camera status.

You can change the screen display using DISP (screen display) on the control button (page 23).

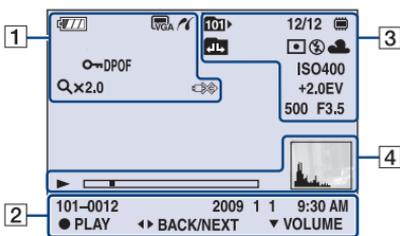
When shooting still images



When shooting movies



When playing back



1

Display	Indication
	Battery remaining
	Low battery warning
	Image size <ul style="list-style-type: none"> • / is displayed only for the DSC-W190. • is displayed only for the DSC-W180.
	Camera mode (Scene Selection) Camera mode (Program Auto)
	White balance
	Burst
	Metering Mode
	Face Detection
	SteadyShot
	Vibration warning
	Smile Detection Sensitivity indicator
	Zoom scaling

Display	Indication
	Color mode
	PictBridge connecting
	Protect
DPOF	Print order (DPOF)
VOL.	Volume
	PictBridge connecting

2

Display	Indication
	AE/AF lock
REC Standby	Recording a movie/Standby a movie
ISO400	ISO number
125	Shutter speed
F3.5	Aperture value
+2.0EV	Exposure Value
0:12	Recording time (m:s)
	AF range finder frame indicator
1.0 m	Semi-manual value
	Macro
00:00:12	Counter
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	Function guide for playing image
BACK/NEXT	Selecting images
VOLUME	Adjusting volume

3

Display	Indication
	Recording folder
12	Number of recordable images
	Recording/Playback Media ("Memory Stick Duo" media, internal memory)
00:00:15	Recordable time
	Red-eye reduction
	Flash mode
	Flash charging
	Playback folder
12/12	Image number/Number of images recorded in selected folder
	Changing folder
	Metering mode
AWB	White balance
	White balance
ISO 400	ISO number
+2.0EV	Exposure value
500	Shutter speed
F3.5	Aperture value

4

Display	Indication
	Self-timer
	Spot metering cross hair
	AF range finder frame
	Playback
	Playback bar
	Histogram <ul style="list-style-type: none"> •  appears when histogram display is disabled.

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).

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 44).

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

On repairing cameras with internal memory 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).
- The battery pack is dead. Replace it with a new one.
- 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 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 16).
- The battery pack is dead. Replace it with a new one.

The remaining charge indicator is incorrect.

- The battery charge will quickly get used up and the actual remaining battery charge will be lower than the indicator in the following cases:
 - When you use the camera in an extremely hot or cold location.
 - When you use the flash and zoom frequently.
 - When you repeatedly turn the power on and off.
 - When you set the screen brightness higher using DISP (screen display) settings.
- The battery pack is discharged. Insert the charged battery pack (page 12).
- The battery pack is dead. Replace it with a new one.

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 (supplied) 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 26, 29). If it is full, do one of the following:
 - Delete unnecessary images (page 32).
 - Change the “Memory Stick Duo” media.
- You cannot record images while charging the flash.
- When shooting a still image, set the mode switch to  (Still Image).
- Set the mode switch to  (Movie) when shooting movies.

White, black, red, purple or other streaks appear on the image, or the image seems reddish.

- This phenomenon is called smearing. This is not a malfunction.

Viewing images

Cannot play back images.

- Set the mode switch to  (Playback) (page 19).
- 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.

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, benzine, 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:

- DSC-W190: 7.79 mm (1/2.3 type) color CCD, Primary color filter
- DSC-W180: 7.70 mm (1/2.3 type) color CCD, Primary color filter

Total pixel number of camera:

- DSC-W190: Approx. 12.4 Megapixels
- DSC-W180: Approx. 10.3 Megapixels

Effective pixel number of camera:

- DSC-W190: Approx. 12.1 Megapixels
- DSC-W180: Approx. 10.1 Megapixels

Lens: 3× zoom lens

- f = 6.2 mm – 18.6 mm (35 mm – 105 mm (35 mm film equivalent))
- F3.1 (W) – F5.6 (T)

Exposure control: Automatic exposure, Scene Selection (7 modes)

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

Recording interval for Burst mode:

- Approx. 1 second

File format:

- Still images: JPEG (DCF Ver. 2.0, Exif Ver. 2.21, MPF Baseline) compliant, DPOF compatible
- Movies: AVI (Motion JPEG)

Recording media: Internal Memory

- (approx. 12 MB), “Memory Stick Duo” media

Flash: Flash range (ISO sensitivity

- (Recommended exposure Index) set to Auto):
- Approx. 0.5 m to 3.0 m (1 feet 7 3/4 inches to 9 feet 10 1/8 inches) (W)/
- approx. 0.5 m to 1.5 m (1 feet 7 3/4 inches to 4 feet 11 1/8 inches) (T)

[Input and Output connectors]

• (USB)-A/V OUT terminal:

- 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-BK1, 3.6 V

AC-LS5 AC Adaptor (sold separately), 4.2 V

Power consumption (during shooting):

1.2 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:

93.4 × 54.5 × 18.7 mm (3 3/4 × 2 1/4 × 3/4 inches) (W/H/D, excluding protrusions)

Mass (including NP-BK1 battery pack, “Memory Stick Duo” media):

Approx. 140 g (4.9 oz)

Microphone: Monaural

Speaker: Monaural

Exif Print: Compatible

PRINT Image Matching III: Compatible

PictBridge: Compatible

BC-CSKA battery charger

Power requirements: AC 100 V to 240 V,
50 Hz/60 Hz, 2.3 W

Output voltage: DC 4.2 V, 0.30 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. 62 × 24 × 91 mm
(2 1/2 × 31/32 × 3 5/8 inches) (W/H/D)

Mass: Approx. 70 g (2.5 oz)

Rechargeable battery pack NP-BK1

Used battery: Lithium-ion battery

Maximum voltage: DC 4.2 V

Nominal voltage: DC 3.6 V

Maximum charge current: 1.4 A

Maximum charge voltage: DC 4.2 V

Capacity:

typical: 3.4 Wh (970 mAh)

minimum: 3.3 Wh (930 mAh)

Design and specifications are subject to
change without notice.

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