

SONY®



Table of contents

Basic Operations

Using the shooting functions

Using the viewing functions

Customizing the settings

Viewing images on a TV

Using your computer

Printing still images

Troubleshooting

Others

Index

Cyber-shot

Cyber-shot Handbook

DSC-W210/W215/W220/W230

Notes on using the camera

Notes on the types of “Memory Stick” media that you can use (sold separately)



“Memory Stick Duo” media:

You can use a “Memory Stick Duo” media with the camera.



“Memory Stick” media:

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

Other memory cards cannot be used.

- For details on “Memory Stick Duo” media, see page 121.

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

You can use the “Memory Stick Duo” media by inserting it into the “Memory Stick Duo” media Adaptor (sold separately).



“Memory Stick Duo” media Adaptor

Notes on the battery pack

- Charge the battery pack (supplied) before using the camera for the first time.
- You can charge the battery pack even if it is not completely discharged. In addition, even if the battery pack is not fully charged, you can use the partially charged capacity of the battery pack as is.
- If you do not intend to use the battery pack for a long time, use up the existing charge and remove it from the camera, then store it in a cool, dry place. This is to maintain the battery pack functions.
- For details on the usable battery pack, see page 123.

Carl Zeiss lens

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

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

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.



Black, white, red, blue or green points

- Exposing the LCD screen or the lens to direct sunlight for long periods may cause malfunctions. Be careful when placing the camera near a window or outdoors.
- Do not press against the LCD screen. The screen may be discolored and that may cause a malfunction.
- Images may trail across on the LCD screen in a cold location. This is not a malfunction.
- Be careful not to bump the movable lens, and be careful not to apply force to it.

The images used in this Handbook

The images used as examples in this Handbook are reproduced images, and are not actual images shot using the camera.

On Illustrations

Illustrations used in this manual are of the DSC-W220 unless noted otherwise.

Table of contents

Notes on using the camera	2
Basic techniques for better images	7
Focus – Focusing on a subject successfully.....	7
Exposure – Adjusting the light intensity	9
Color – On the effects of lighting.....	10
Quality – On “image quality” and “image size”	11
Flash – On using the flash	13
Identifying parts	14
Indicators on the screen	16
Changing the screen display	20
Using the internal memory	21

Basic Operations

Using the mode dial.....	22
Shooting images (Auto Adjustment mode).....	23
Shooting still images (Scene Selection)	27
Viewing images	32
Deleting images.....	34
Learning the various functions – HOME/Menu.....	36
Menu items.....	39

Using the shooting functions

Shooting menu	41
Scene Selection: Selecting the scene selection	
Image Size: Selecting the image size	
Flash: Flash setting	
Face Detection: Detecting the face of subject	
Smile Detection: Setting the Smile Detection function	
Smile Detection Sensitivity: Setting the Smile Detection Sensitivity	
REC Mode: Selecting the continuous shooting method	
Scene Recognition: Determining the scene to be shot and taking the shot	
EV: Adjusting the light intensity	
ISO: Selecting a luminous sensitivity	
Metering Mode: Selecting the metering mode	
Focus: Changing the focus method	
White Balance: Adjusting the color tones	
Underwater White Balance: Adjusting color tones during Underwater mode	
Flash Level: Adjusting the amount of flash light	
Red Eye Reduction: Setting the Red Eye Reduction function	
DRO: Optimizing the brightness and contrast	
Color Mode: Changing the vividness of the image or adding special effects	
SteadyShot: Selecting the anti-blur mode (DSC-W220/W230 only)	
 (Shooting Settings): Selecting the shooting settings	

Using the viewing functions

Viewing menu	56
 (Delete): Deleting images	
 (Slideshow): Playing back a series of images	
 (Retouch): Retouching still images	
 (Multi-Purpose Resize): Changing the image size according to usage	
 (Protect): Preventing accidental erasure	
DPOF: Adding a Print order mark	
 (Print): Printing images using a printer	
 (Rotate): Rotating a still image	
 (Select Folder): Selecting the folder for viewing images	

Customizing the settings

Customizing the Manage Memory feature and the Settings	66
 Manage Memory	68
 Memory Tool — Memory Stick Tool.....	68
Format	Change REC.Folder
Create REC.Folder	Copy
 Memory Tool — Internal Memory Tool	70
Format	
 Settings	71
 Main Settings — Main Settings 1	71
Beep	Initialize
Function Guide	Smile demo mode
 Main Settings — Main Settings 2.....	73
USB Connect	Video Out
COMPONENT	Wide Zoom Display
 Shooting Settings — Shooting Settings 1	75
AF Illuminator	Digital Zoom
Grid Line	Conversion Lens
AF Mode	
 Shooting Settings — Shooting Settings 2	78
Auto Orientation (DSC-W220/W230 only)	Auto Review
 Clock Settings	79
 Language Setting.....	80

Viewing images on a TV

Viewing images on a TV.....	81
-----------------------------	----

Using your computer

Enjoying your Windows computer.....	84
Installing the software (supplied)	86
On the “PMB (Picture Motion Browser)” (supplied).....	87
Copying images to your computer using the “PMB”	88
Copying images to a computer without “PMB”	92
Viewing image files stored on a computer with the camera copying to the “Memory Stick Duo” media	94
Using the “Music Transfer” (supplied).....	95
Using your Macintosh computer	96
Viewing “Cyber-shot Step-up Guide”	98

Printing still images

How to print still images	99
Printing images directly using a PictBridge compliant printer	100
Printing at a shop	103

Troubleshooting

Troubleshooting	105
Warning indicators and messages	116

Others

Using the camera abroad — Power sources	120
On the “Memory Stick Duo” media.....	121
On the battery pack.....	123
On the battery charger	124

Index

Index	125
-------------	-----

Basic techniques for better images

Focus

Exposure

Color

Quality

Flash



This section describes the basics so you can enjoy the camera. It tells you how to use various camera functions such as the mode dial (page 22), the HOME screen (page 36) and the menus (page 38).

Focus *Focusing on a subject successfully*

When you press the shutter button halfway down, the camera adjusts the focus automatically (Auto Focus). Remember to press the shutter button only halfway down.

Do not fully press the shutter button straight away.



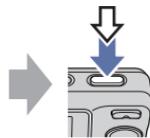
Press the shutter button halfway down.



AE/AF lock indicator flashing → lit/beeps



Then press the shutter button fully down.



When focusing is difficult → [Focus] (page 49)

If the image looks blurred even after focusing, it may be because of camera shake. → See “Hints for preventing blur” below.

Hints for preventing blur

The camera moved accidentally when you took the image. This is called “Camera shake.” On the other hand, if the subject moved when you took the image, it is called “subject blur.”

Camera shake



Cause

Your hands or body shake while you hold the camera and press the shutter button, and the entire screen is blurred.

What you can do to reduce the blurring

- Use a tripod or place the camera on a flat surface to hold the camera steady.
- Shoot with a 2-second delay self-timer and stabilize the camera by holding your arms firmly at your side after pressing the shutter button.

Subject blur



Cause

Even though the camera is steady, the subject moves during the exposure so the subject looks blurred when the shutter button is pressed.

What you can do to reduce the blurring

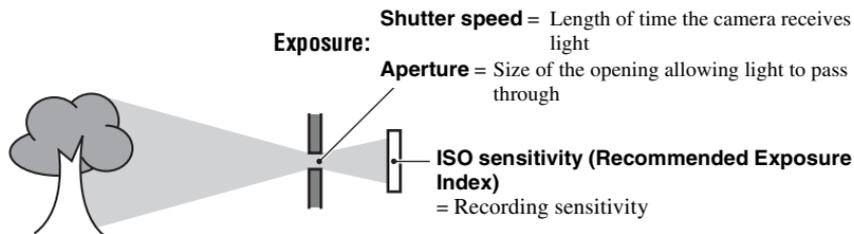
- Select **ISO** (High Sensitivity) mode in Scene Selection.
- Select a higher ISO sensitivity to make the shutter speed faster, and press the shutter button before the subject moves.

Note

Camera shake and subject blur occur frequently under low-light or slow shutter speed conditions, such as those encountered in  (Twilight) mode or  (Twilight Portrait) mode. In that case, shoot with the above tips in mind.

Exposure *Adjusting the light intensity*

You can create various images by adjusting the exposure and the ISO sensitivity. Exposure is the amount of light that the camera will receive when you release the shutter.



Overexposure
= too much light
Whitish image



Correct exposure



Underexposure
= too little light
Darker image

The exposure is automatically set to the proper value in the auto adjustment mode. However, you can adjust it manually using the functions below.

Adjusting EV:

Allows you to adjust the exposure determined by the camera (page 46).

Metering Mode:

Allows you to change the part of the subject to be measured to determine the exposure (page 48).

Adjusting ISO Sensitivity (Recommended Exposure Index)

ISO sensitivity is a speed rating for recording media that incorporates an image sensor that receives light. Even when the exposure is the same, images differ depending on the ISO sensitivity.

To adjust the ISO sensitivity, see page 47.



High ISO sensitivity

Records a bright image even in dark locations while increasing shutter speed to reduce blur.

However, the image tends to become noisy.



Low ISO sensitivity

Records a smoother image.

However, when the exposure is insufficient, the image may become darker.

Color

On the effects of lighting

The apparent color of the subject is affected by the lighting conditions.

Example: The color of an image affected by light sources

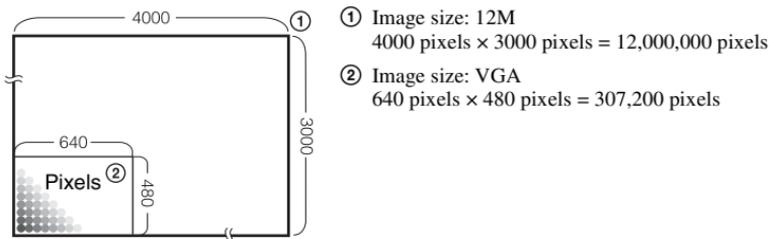
Weather/lighting	Daylight	Cloudy	Fluorescent	Incandescent
Characteristics of light	White (standard) 	Bluish 	Green-tinged 	Reddish 

The color tones are adjusted automatically in the auto adjustment mode.
However, you can adjust color tones manually with [White Balance] (page 51).

Quality On “image quality” and “image size”

A digital image is made up of a collection of small dots called pixels. If it contains a large number of pixels, the image becomes large, it takes up more memory, and the image is displayed in fine detail. “Image size” is shown by the number of pixels. Although you cannot see the differences on the screen of the camera, the fine detail and data processing time differ when the image is printed or displayed on a computer screen.

Description of the pixels and the image size



Selecting the image size for use (page 12)

The diagram shows a photograph of a bird on the left. A magnifying glass highlights a small area of the image, which is shown as a grid of pixels. A blue square is labeled "Pixel". To the right, two circular insets show different levels of image quality:

- Many pixels** (Fine image quality and large file size) → Example: Printing in up to A3+ size
- Few pixels** (Rough image quality but small file size) → Example: An attached image to be sent by e-mail

Basic techniques for better images

The default settings are marked with ✓.

	Image size	Usage guidelines	No. of images	Printing
✓	12M (4000×3000)	For prints up to A3+(13×19")	Less 	Fine 
	3:2(11M) ^{*1} (4000×2672)	Shoot in 3:2 aspect ratio	↑ ↓	↑ ↓
	8M (3264×2448)	For prints up to A3(11×17")		
	5M (2592×1944)	For prints up to A4(8×10")	↓ ↑	↓ ↑
	3M (2048×1536)	For prints up to 10×15 cm (4×6") or 13×18 cm(5×7")		
	VGA (640×480)	Shoot at a small image size for e-mail attachments		
	16:9(9M) ^{*2} (4000×2248)	For viewing on HDTVs and printing up to A4(8×10")	Less 	Fine 
	16:9(2M) ^{*2} (1920×1080)	For viewing on HDTVs	More 	Rough 

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

*2) Both edges of the image may be cut off when printing (page 113).

	Movie image size	Frame/Second	Usage guidelines
	640(Fine) (640×480)	Approx. 30	Shoot high quality movie for display on TV
✓	640(Standard) (640×480)	Approx. 17	Shoot standard quality movie for display on TV
	320 (320×240)	Approx. 8	Shoot at small image size for e-mail attachments

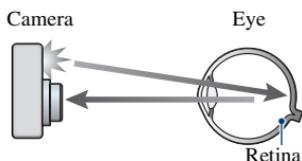
- The larger the image size, the higher the image quality.
- The higher the number of frames per second, the smoother the playback image.

Flash *On using the flash*

The eyes of the subject may come out red, or fuzzy white circular spots may appear when using the flash. These phenomena can be reduced by taking the following steps.

The “Red-eye phenomenon”

Pupils become dilated in dark environments. Flash light is reflected off the blood vessels at the back of the eye (retina), causing the “red-eye” phenomenon.

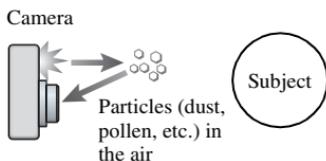


How can the “Red-eye phenomenon” be reduced?

- Set [Red Eye Reduction] to [On] (page 53).
- Select **ISO** (High Sensitivity)* mode in Scene Selection (page 28). (The flash is turned off automatically.)
- When the eyes of the subject turn out red, correct the image with [Retouch] on the viewing menu (page 58) or with the supplied software “PMB”.

The “White circular spots”

This is caused by particles (dust, pollen, etc.) floating close to the lens. When they are accentuated by the camera’s flash, they appear as white circular spots.



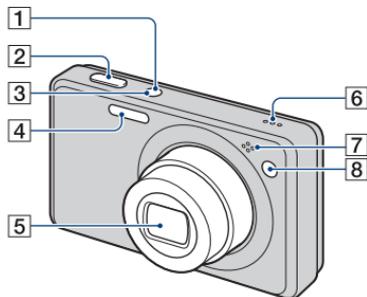
How can the “White circular spots” be reduced?

- Light the room and shoot the subject without a flash.
- Select **ISO** (High Sensitivity)* mode in Scene Selection. (The flash is turned off automatically.)

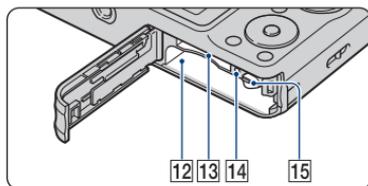
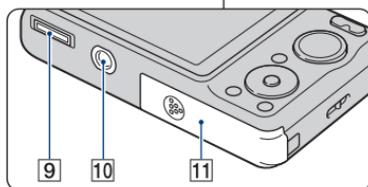
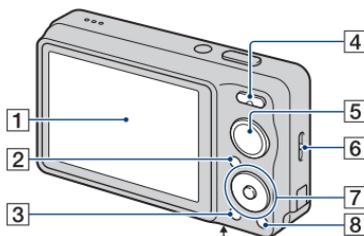
* Even though you selected **ISO** (High Sensitivity) mode in Scene Selection, the shutter speed might be slower under low-light conditions, or in a dark place. In that case, use a tripod or hold your arms firmly at your side after pressing the shutter button.

Identifying parts

See the pages in parentheses for details of operation.



- 1** ON/OFF (Power) button
- 2** Shutter button (23)
- 3** ON/OFF (Power) lamp
- 4** Flash (25)
- 5** Lens
- 6** Speaker
- 7** Microphone
- 8** Self-timer lamp (26)/Smile Shutter lamp (30)/AF illuminator (75)



- 1** LCD screen (20)
- 2** (Playback) button (32)
- 3** MENU button (38)
- 4** For shooting: W/T (Zoom) button (25)
For viewing: Q (Playback zoom) button/ (Index) button (32, 33)
- 5** Mode dial (22)
- 6** Hook for wrist strap
- 7** Control button
Menu on: (38)
Menu off: DISP/// (20, 25, 26)
- 8** HOME button (36)

Identifying parts

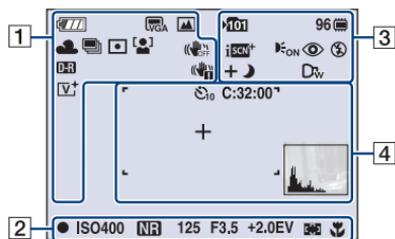
- 9** Multi connector (bottom)
Used in the following situations:
- Making a USB connection between the camera and the computer.
 - Making a connection to audio/video input jacks on a TV.
 - Making a connection to a PictBridge compliant printer.
- 10** Tripod receptacle (bottom)
- Use a tripod with a screw less than 5.5 mm (7/32 inch) long. Otherwise, you cannot firmly secure the camera, and damage to the camera may occur.
- 11** Battery/“Memory Stick Duo” media cover (bottom)
- 12** Battery insertion slot
- 13** “Memory Stick Duo” media slot
- 14** Access lamp
- 15** Battery eject lever

Indicators on the screen

Each time you press ▲ (DISP) on the control button, the display changes (page 20).

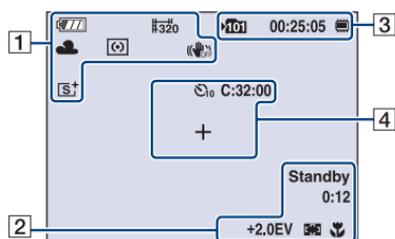
See the pages in parentheses for details of operation.

When shooting still images



- The indicators are limited in Easy Shooting mode.

When shooting movies



1

Display	Indication
	Battery remaining
	Low battery warning (116)
	Image Size (41)

Display	Indication
	Mode dial/Menu (Scene Selection) (27) • “” (SteadyShot) mode is available only for DSC-W210/W215.
P	Mode dial (Program Auto) (22)
	White Balance (51, 52)
	Burst mode/Bracket mode (44)
	Metering Mode (48)
	Face Detection (42)/Smile Detection (43)
	SteadyShot (DSC-W220/W230 only) (55) • In the default setting, when the shutter button is pressed halfway down, one of these indicators appears, depending on the SteadyShot setting.
	DRO (54)
	Vibration warning • Indicates vibration may prevent you from shooting clear images due to insufficient lighting. Even if the vibration warning appears, you can still shoot images. However, we recommend that you select the anti-blur function, using the flash for better lighting or using a tripod or other means to stabilize the camera (page 8).

Display	Indication
	Smile Detection Sensitivity indicator/Number of images (30)
	Zoom scaling (25, 76)
	Color Mode (54)
	

2

Display	Indication
	AE/AF lock (24)
REC Standby	Recording a movie/Standby a movie
ISO400	ISO number (47)
	NR slow shutter <ul style="list-style-type: none"> When the shutter speed becomes slower than a certain speed in low light conditions, the NR (Noise Reduction) slow shutter function is activated automatically to reduce the image noise.
125	Shutter speed
F3.5	Aperture value
+2.0EV	Exposure Value (46)
0:12	Recording time (minutes : seconds)
	AF range finder frame indicator (49)
1.0m	Semi manual value (50)
	Macro (25)

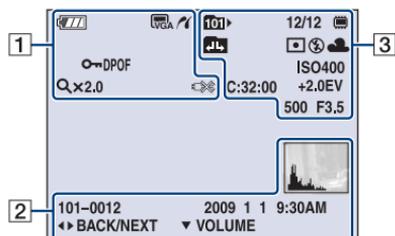
3

Display	Indication
	Recording folder (68) <ul style="list-style-type: none"> This does not appear when using internal memory.
96	Number of recordable images
	Recording Media ("Memory Stick Duo" media, Internal memory)
00:25:05	Recordable time (hours : minutes : seconds)
	Scene Recognition (45)
	AF Illuminator (75)
	Red Eye Reduction (53)
	Flash mode (25)
	Flash charging
	Conversion Lens (77)

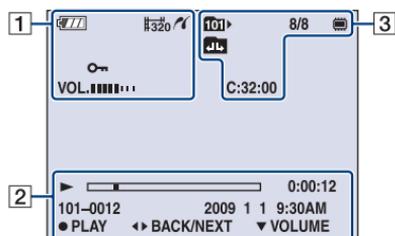
4

Display	Indication
	Self-timer (26)
C:32:00	Self-diagnosis display (116)
+	Spot metering cross hair (48)
	AF range finder frame (49)
	Histogram (20)

When playing back still images



When playing back movies



1

Display	Indication
	Battery remaining
	Low battery warning (116)
	Image Size (41)
	Protect (63)
VOL.	Volume (32)
DPOF	Print order (DPOF) mark (103)
	PictBridge connecting (100)
Qx2.0	Zoom scaling (32)
	PictBridge connecting (102) <ul style="list-style-type: none"> Do not disconnect the cable for multi-use terminal while the icon is displayed.

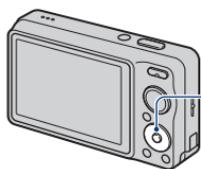
2

Display	Indication
	Playback (32)
	Playback bar
0:00:12	Counter
101-0012	Folder-file number (65)
2009 1 1	Recorded date/time of the playback image
9:30 AM	Recorded date/time of the playback image
● STOP ● PLAY	Function guide for playing image
◀▶ BACK/NEXT	Selecting images
▼ VOLUME	Adjusting the volume
	Histogram (20) <ul style="list-style-type: none"> appears when histogram display is disabled.

3

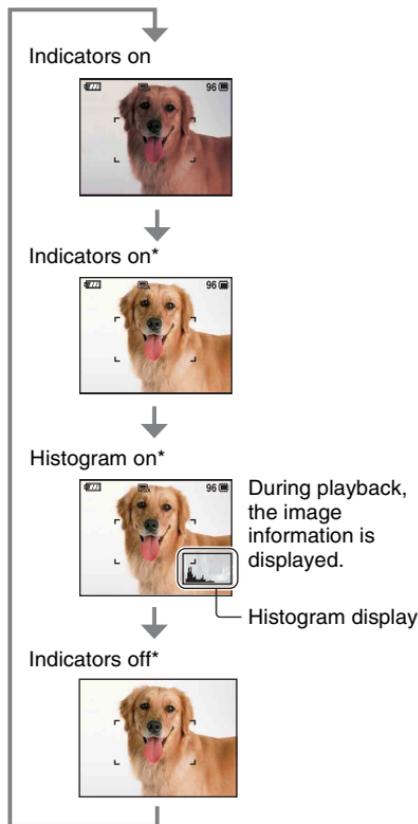
Display	Indication
	Playback folder (65) • This does not appear when using internal memory.
8/8 12/12	Image number/Number of images recorded in selected folder
	Playback Media (“Memory Stick Duo” media, Internal memory)
	Changing folder (65) • This does not appear when using internal memory.
	Metering Mode (48)
	Flash
AWB 	White Balance (51)
C:32:00	Self-diagnosis display (116)
ISO400	ISO number (47)
+2.0EV	Exposure Value (46)
500	Shutter speed
F3.5	Aperture value

Changing the screen display



▲ (DISP) (Screen display) button

Each time you press ▲ (DISP) on the control button, the display changes as follows:



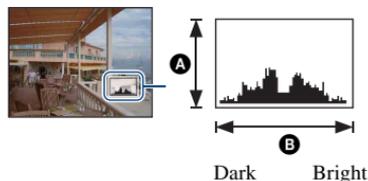
During playback, the image information is displayed.

Histogram display

* The LCD Backlight brightens.

- If you view images in bright outside light, adjust the brightness of the LCD backlight up. However, the battery power may decrease faster under such condition.
- The histogram does not appear in the following situations:
 - While shooting
 - When the menu is displayed.
 - When recording movies.
 - During playback
 - When the menu is displayed.
 - In index mode.
 - When you are using playback zoom.
 - When you are rotating still images.
 - During playback of movies.
- A large difference in the histogram displayed during shooting and playback may occur when:
 - The flash strobes.
 - The shutter speed is slow or fast.
- The histogram may not appear for images recorded using other cameras.

💡 Adjusting EV (Exposure Value) by displaying a histogram



A histogram is a graph showing the brightness of an image. Press ▲ (DISP) on the control button repeatedly to display the histogram on the screen. The graph display indicates a bright image when skewed to the right side, and a dark image when skewed to the left side.

A Number of pixels

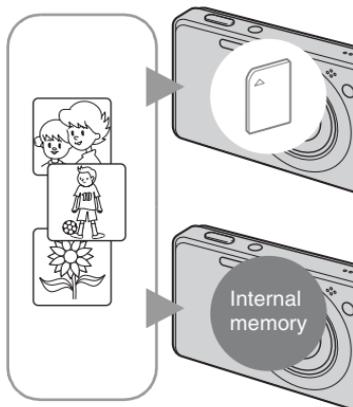
B Brightness

- The histogram also appears when playing back a single image, but you cannot adjust the exposure.

Using the internal memory

The camera has approximately 15 MB of internal memory. This memory is not removable. Even when there is no “Memory Stick Duo” media inserted in the camera, you can record images using this internal memory.

- Movies with the image size set to [640(Fine)] cannot be recorded using the internal memory.



When a “Memory Stick Duo” media is inserted

[Recording]: Images are recorded on the “Memory Stick Duo” media.

[Playback]: Images on the “Memory Stick Duo” media are played back.

[Menu, Settings, etc.]: Various functions can be performed on images on the “Memory Stick Duo” media.

When there is no “Memory Stick Duo” media inserted

[Recording]: Images are recorded using the internal memory.

[Playback]: Images stored in the internal memory are played back.

[Menu, Settings, etc.]: Various functions can be performed on images in the internal memory.

On image data stored in the internal memory

We recommend that you copy (back up) data without error using one of the following methods.

To copy (back up) data on a “Memory Stick Duo” media

Prepare a “Memory Stick Duo” media with sufficient free capacity, then perform the procedure explained in [Copy] (page 69).

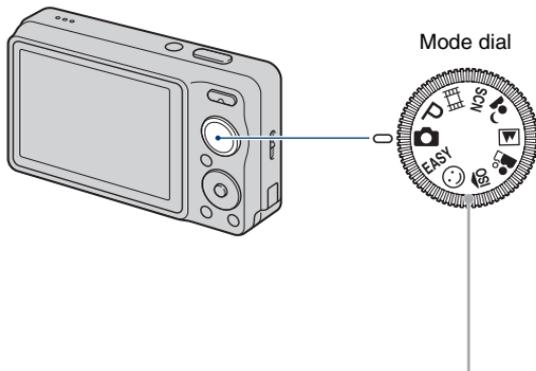
To copy (back up) data on a hard disk of your computer

Perform the procedure on pages 88 or 92 without a “Memory Stick Duo” media inserted in the camera.

- You cannot copy image data on a “Memory Stick Duo” media to the internal memory.
- By connecting the camera to a computer with a cable for multi-use terminal, you can copy data stored in the internal memory to a computer. However you cannot copy data on a computer to the internal memory.

Using the mode dial

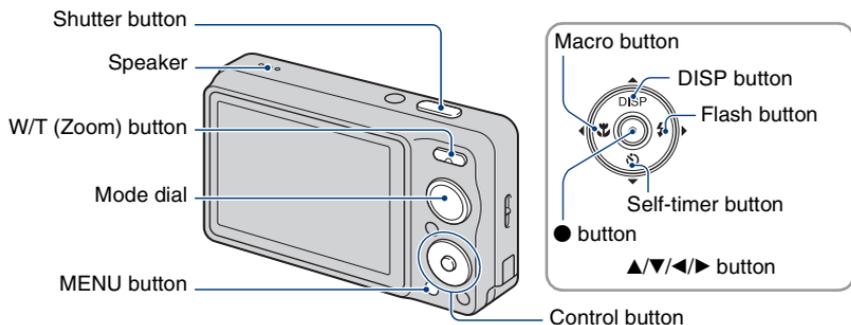
Set the mode dial to the desired function.



	Auto Adjustment mode Allows shooting with the settings adjusted automatically. → page 23
EASY:	Easy Shooting mode Allows you to shoot still images using the minimum necessary functions with easy-to-see indicators. → page 24
P:	Program Auto mode* Allows you to shoot with the exposure adjusted automatically (both the shutter speed and the aperture value).
	Movie Mode Allows you to record movies with audio. → page 23
	Scene Selection mode  (SteadyShot) mode is available only for DSC-W210/W215. Allows you to shoot with preset settings according to the scene. You can select the following modes when the mode dial is set to SCN.  (DSC-W220/W230) → page 27  (DSC-W210/W215) → page 27

* You can select various settings using the menu. (For details on the functions available → page 39)

Shooting images (Auto Adjustment mode)



1 Select the desired function from the mode dial.

When shooting still images (Auto Adjustment mode): Select .

When shooting movies: Select .

2 Hold the camera, with your elbows pressed against your body to steady it.



Position the subject in the center of the focus frame. Do not cover the speaker with your finger.

3 Shoot with the shutter button.

When shooting still images:

- ① Press and hold the shutter button halfway down to focus.

The ● (AE/AF lock) indicator (green) flashes, a beep sounds, the indicator stops flashing and remains lit.



AE/AF lock indicator

- ② Press the shutter button fully down.

When shooting movies:

Press the shutter button fully down.

To stop recording, press the shutter button fully down again.

If you shoot a still image of a subject that is difficult to focus on

- The shortest shooting distance is approx. 4 cm (1 5/8 inches) (W)/50 cm (1 feet 7 3/4 inches) (T) (from the lens).
- When the camera cannot focus on the subject automatically, the AE/AF lock indicator changes to flash slowly and the beep does not sound. In addition, the AF range finder frame disappears. Recompose the shot and focus again.

Focusing may be difficult in the following situations:

- It is dark and the subject is distant.
- The contrast between the subject and the background is poor.
- The subject is seen through glass.
- The subject is moving quickly.
- There is reflective light or shiny surfaces.
- The subject is backlit or there is a flashing light.

EASY Using Easy Shooting mode

Set the mode dial to **EASY**.

The text size increases and indicators become easier to see. The camera shoots images with the optimum settings, so the only settings that you can change are Image Size (Large/Small) (page 41), Flash (Auto/Off) (page 42) and Self-Timer (10 sec/Off).

- The battery power decreases faster because the brightness of the LCD backlight automatically increases.

W/T Using the zoom

Press T to zoom, press W to return the zoom.

- When the zoom scale exceeds 4x, the camera uses the Digital Zoom function.
For details on the [Digital Zoom] settings and the image quality, see page 76.
- You cannot change the zoom scale while shooting a movie.

⚡ Flash (Selecting a flash mode for still images)

Press ► (⚡) on the control button repeatedly until the desired mode is selected.



(No indicator): Flash Auto

Flashes when there is insufficient light or backlight (default setting).

⚡: Flash forced on

⚡SL: Slow synchro (Flash forced on)

The shutter speed is slow in a dark place to clearly shoot the background that is out of flash light.

⊘: Flash forced off

- The flash strobes twice. The first flash adjusts the light quantity.
- While charging the flash, ⚡ is displayed.

🌸 Macro (Shooting close-up)

Press ◀ (🌸) on the control button repeatedly until the desired mode is selected.



(No indicator): Auto

The camera adjusts the focus automatically from distant subjects to close-up.

Normally, put the camera in this mode.

🌸: Macro On

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

- The Auto Focus speed drops when you shoot images in the Macro.
- Setting the zoom all the way to the W side is recommended.

Using the self-timer

Press  () on the control button repeatedly until the desired mode is selected.

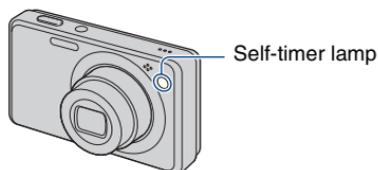


(No indicator): Not using the self-timer

: Setting the 10-second delay self-timer

: Setting the 2-second delay self-timer

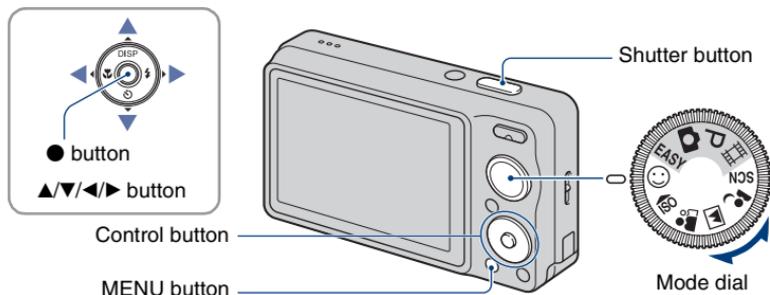
When you press the shutter button, the self-timer lamp flashes and a beep sounds until the shutter operates.



To cancel, press  () again.

- Use the 2-second delay self-timer to prevent blur of an image. The shutter is released 2 seconds after you press the shutter button, which reduces camera shake when the shutter button is pressed.
- In Easy Shooting mode, you can select only  (10 sec) or  (Off).

Shooting still images (Scene Selection)



Select the mode in the mode dial

1 Select the desired mode of Scene Selection with the mode dial.

2 Shoot with the shutter button.

Select the mode in SCN

1 Select SCN with the mode dial.

2 Press MENU button, and select the mode with ▲/▼/◀/▶ on the control button (page 41).

3 Shoot with the shutter button.

• For details on the mode, see next page.

To cancel the Scene selection

Set the mode dial to anything other than the Scene Selection mode.

Scene Selection modes

The following modes are preset to match the scene conditions.



Smile Shutter

When the camera detects a smile, the shutter is released automatically. For details, see page 30.



High Sensitivity

Allows you to shoot images without a flash under low light conditions, reducing blur.



SteadyShot

(DSC-W210/W215 only)
Allows you to shoot images clearly, reducing blur.



Soft Snap

Allows you to shoot images with a softer atmosphere for portraits and flowers, etc.



Landscape

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



Twilight Portrait*

Allows you to shoot sharp images of people with the night view in the background without compromising the atmosphere.



Twilight*

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



Gourmet

Shifts to Macro mode, allowing you to shoot food arrangements in delicious color.



Beach

Allows you to record the blue of the water clearly when shooting seaside or lakeside scenes.



Snow

Allows you to record clear images preventing sunken colors in snowy scenes or other places where the whole screen appears white.



Fireworks*

Allows you to record fireworks in all their splendor.



Underwater

Allows you to shoot underwater in natural colors when using a water proof housing.

* When you shoot images using  (Twilight Portrait),  (Twilight) or  (Fireworks) mode, the shutter speed becomes slower, and blurring occurs frequently, so use of a tripod is recommended.

Functions you can use in Scene Selection

For shooting an image appropriately according to the scene condition, a combination of functions is determined by the camera. ✓ indicates a function is available, and — that it is unavailable.

Some functions are not available, depending on the Scene Selection mode.

		ISO										
Macro	✓	✓	✓	✓	—	✓	—	✓	✓	✓	—	✓
Flash	✓		✓	✓								
Face Detection	—	✓	✓	✓*2	—	✓	—	—	✓	✓	—	—
Smile Detection	✓	—	—	—	—	—	—	—	—	—	—	—
Smile Detection Sensitivity	✓	—	—	—	—	—	—	—	—	—	—	—
Burst/Bracket	—	—	—	✓	✓	—	—	—	✓	✓	—	✓
White Balance	—	✓*1	✓	—	—	—	—	✓	—	—	—	 *3
Red Eye Reduction	—	—	✓	✓	✓	✓	—	—	✓	✓	—	—
Self-timer	—	✓	—	✓	✓	✓	✓	✓	✓	✓	✓	✓

*1) [Flash] for [White Balance] cannot be selected.

*2) [Off] for [Face Detection] cannot be selected.

*3) You can use [Underwater White Balance] instead of [White Balance].

•  (SteadyShot) mode is available only for DSC-W210/W215.

Shooting in Smile Shutter mode

When the camera detects a smile, the shutter is released automatically.

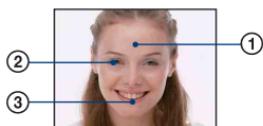
- ① Select ☺ (Smile Shutter) mode from the mode dial.
- ② Aim the camera at the subject and press the shutter button halfway down to focus.
- ③ Press the shutter button all the way down to set Smile Detection mode.
The Smile Shutter enters standby.



- ④ Wait detecting a smile.
When the smile level exceeds the ◀ point on the indicator, the camera automatically records up to six images. Press the shutter button all the way down again to exit the Smile Shutter mode.

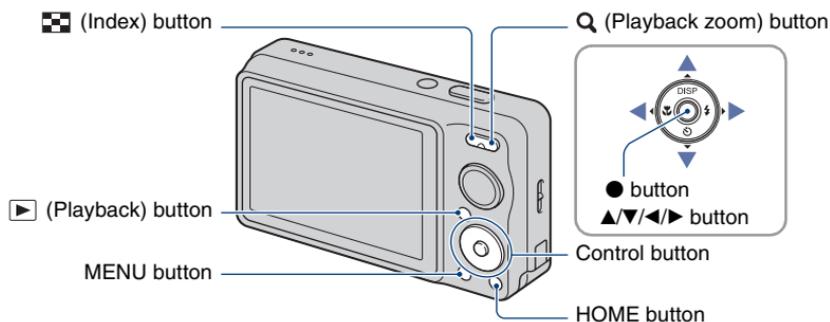
- Shooting using the Smile Shutter ends automatically when either the “Memory Stick Duo” media or internal memory becomes full or when six images have been recorded.
- You can select the subject that has priority for smile detection with [Smile Detection] (page 43).
- If a smile is not detected, set the [Smile Detection Sensitivity] (page 43).
- You can have the camera shoot the image automatically when any person displayed in the smile detection frame (Orange) smiles after pressing the shutter button all the way down.
- The image may not be in focus if the distance between the camera and the subject is changed after pressing the shutter button all the way down. The suitable exposure may not be obtained if the surrounding brightness changes.
- Faces may not be detected correctly when:
 - It is too dark or too bright.
 - Faces are partially hidden by sunglasses, masks, hats, etc.
 - The subjects are not facing the camera.
- Smiles may not be detected correctly depending on the conditions.
- You cannot use the Digital Zoom function.
- You cannot change the zoom ratio when the Smile Shutter is in standby.

💡 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.

Viewing images



1 Press (Playback) button.

- If you press (Playback) button when the camera is powered off, the camera is turned on automatically and set to playback mode. To switch to the shooting mode, press (Playback) button again.

2 Select an image with on the control button.

Movie:

Press ● to play back a movie. (Press ● again to stop playback.)

Press ▶ to fast forward, ◀ to rewind. (Press ● to return to normal playback.)

Press ▼ to display the volume control screen, then press to adjust the volume.

- Movies of image size [320] are displayed in a smaller size.

To view an enlarged image (playback zoom)

Press (T) while displaying a still image.

To return the zoom, press W.

Adjust the position with .

To cancel the playback zoom, press ●.



Shows the displayed area of the whole image
In this case, the center is enlarged.

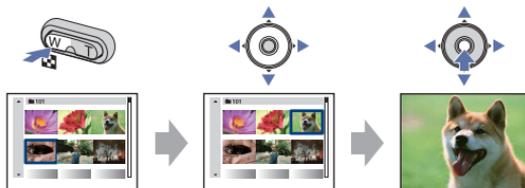
- To store enlarged images, see [Trimming] (page 59).

To view an index screen

Press  (Index) to display the index screen while a single image is displayed.

Select an image with ///.

To return to the single image screen, press .

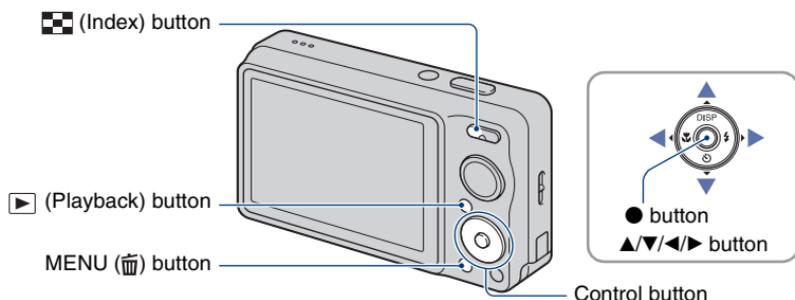


- You can also access the index screen by selecting [ Image Index] from  (View Images) on the HOME screen.
- Each time you press  (Index), the number of images on the index screen increases.
- When using the “Memory Stick Duo” media, and there are several folders, select the folder selection bar with , then select the desired folder with .



Folder Selection bar

Deleting images



1 Press (Playback) button.

2 Press MENU button while displaying in single-image or index mode.

3 Select (Delete) with on the control button.



4 Select the desired deletion method with from among [This Image], [Multiple Images] and [All in This Folder], then press .

- The displayed item differs according to the selected playback mode (single-image mode or index mode).

When you select [This Image]

You can delete the selected image.
Select [OK] with ▲, then press ●.

When you select [Multiple Images]

You can select and delete multiple images simultaneously.

- ① Select the images you want to delete, then press ●.
The ✓ mark is checked in the checkbox of the image.

Single Image



Index Display



- ② Press MENU (☰) button.
- ③ Select [OK] with ▲, then press ●.

- You can also delete all images in a folder after selecting [Multiple Images] on the index screen. Select the folder selection bar with ◀ and attach a ✓ mark to the folder.

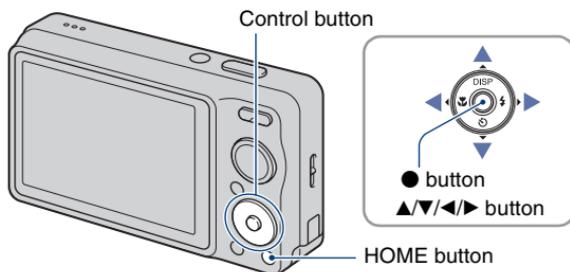
When you select [All in This Folder]

You can delete all the images in a selected folder.
Select [OK] with ▲, then press ●.

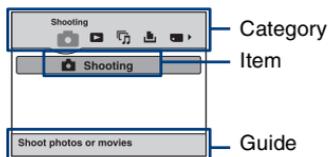
Learning the various functions – HOME/Menu

Using the HOME screen

The HOME screen is the gateway screen for all the functions of the camera, and can be called up regardless of the mode setting (shooting/viewing).



1 Press HOME button to display the HOME screen.



2 Select a category with ◀/▶ on the control button.

3 Select an item with ▲/▼, then press ●.

- You cannot display the HOME screen when a PictBridge connection or a USB connection is made.
- The camera is set to the shooting or viewing mode by pressing HOME button again.

HOME items

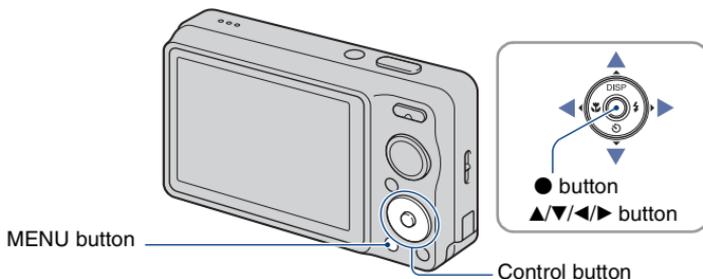
Pressing HOME displays the following items. Only the available items are displayed on the screen. Details on the items are displayed on the screen by the guide.

Categories	Items
 Shooting* ¹	Shooting (page 22)
 View Images	Single Image Image Index
 Slideshow	Slideshow (page 56) Music Tool (page 95) Download Music Format Music
 Print	Print (page 100)
 Manage Memory	Memory Tool Memory Stick Tool (page 68) Format Create REC.Folder Change REC.Folder Copy Internal Memory Tool (page 70) Format
 Settings	Main Settings Main Settings 1 (page 71) Beep Function Guide Initialize Smile demo mode Main Settings 2 (page 73) USB Connect COMPONENT Video Out Wide Zoom Display Shooting Settings Shooting Settings 1 (page 75) AF Illuminator Grid Line AF Mode Digital Zoom Conversion Lens Shooting Settings 2 (page 78) Auto Orientation* ² Auto Review Clock Settings (page 79) Language Setting (page 80)

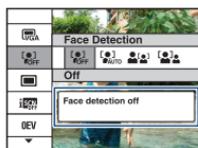
*¹ Shooting mode selected with the mode dial will be applied.

*² DSC-W220/W230 only.

Using the menu items



1 Press MENU button to display the menu.



Function Guide

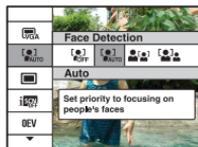
Setting [Function Guide] to [Off] turns off the function guide (page 71).

- The menu will be displayed only during shooting and playback mode.
- Different items will become visible depending on the selected mode.

2 Select a desired menu item with ▲/▼ on the control button.

- If the desired item is hidden, keep pressing ▲/▼ until the item appears on the screen.

3 Select a setting with ◀/▶.



- If the desired setting is hidden, keep pressing ◀/▶ until the setting appears on the screen.
- In playback mode, select a setting and press ●.

4 Press MENU button to turn off the menu.

Menu items

The available menu items vary depending on the mode setting (shooting/viewing), and the mode dial position in the shooting mode. Only the available items are displayed on the screen.

(✓: available)

Mode dial position:		EASY	P	Scene	
---------------------	--	------	---	-------	--

Shooting menu (page 41)

Scene Selection	—	—	—	✓ ⁺²	—
Image Size	✓	✓ ⁺¹	✓	✓	✓
Flash	—	✓ ⁺¹	—	—	—
Face Detection	✓	—	✓	✓ ⁺²	—
Smile Detection	—	—	—	✓ ⁺²	—
Smile Detection Sensitivity	—	—	—	✓ ⁺²	—
REC Mode	✓	—	✓	✓ ⁺²	—
Scene Recognition	✓	—	—	—	—
EV	✓	—	✓	✓	✓
ISO	—	—	✓	—	—
Metering Mode	—	—	✓	—	✓
Focus	—	—	✓	—	✓
White Balance	—	—	✓	✓ ⁺²	✓
Underwater White Balance	—	—	—	✓ ⁺²	—
Flash Level	—	—	✓	—	—
Red Eye Reduction	✓	—	✓	✓ ⁺²	—
DRO	—	—	✓	—	—
Color Mode	—	—	✓	—	✓
SteadyShot (DSC-W220/W230 only)	—	—	✓	✓	✓
(Shooting Settings)	✓	—	✓	✓	✓

⁺¹ The items that can be selected are limited compared to other modes (page 24).

⁺² The operation is limited according to the selected Scene Selection mode (page 29).

Viewing menu (page 56)

 (Delete)

 (Retouch)

 (Protect)

 (Print)

 (Select Folder)

 (Slideshow)

 (Multi-Purpose Resize)

DPOF

 (Rotate)



Shooting menu

The functions in shooting mode using MENU are described below.

For details on how to operate the menu, see page 38.

Only the available items are displayed on the screen.

The default settings are marked with ✓.

Scene Selection: Selecting the scene selection

Selects the scene selection in the menu.

You can shoot images with the settings pre-adjusted to match various scene conditions (page 27).

Image Size: Selecting the image size

For details, see pages 11, 12.

For still images

<input checked="" type="checkbox"/>	12M	Selects image size for shooting still images.
<input type="checkbox"/>	6M	
<input type="checkbox"/>	5M	
<input type="checkbox"/>	3M	
<input type="checkbox"/>	VGA	
<input type="checkbox"/>	3:2	
<input type="checkbox"/>	16:9+	
<input type="checkbox"/>	16:9	

For Easy Shooting mode

Selects the still image size for Easy Shooting mode.

<input checked="" type="checkbox"/>	Large	Shoots images in [12M] size.
<input type="checkbox"/>	Small	Shoots images in [3M] size.

For movies

<input type="checkbox"/>	640(Fine)	Selects image size for recording movies.
<input checked="" type="checkbox"/>	640(Standard)	
<input type="checkbox"/>	320	

Flash: Flash setting

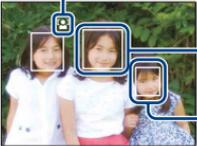
Selects the flash setting in Easy Shooting mode.

<input checked="" type="checkbox"/>	Auto	Flash strobes when there is insufficient light or backlight.
<input type="checkbox"/>	Off	Does not use the flash.

Face Detection: Detecting the face of subject

Selects whether to use the Face Detection function or not, and also selects the priority subject for adjusting the focus when using the function.

Detects the faces of your subjects and adjusts the focus, flash, exposure, white balance and red-eye reduction settings automatically.

<input checked="" type="checkbox"/>	 (Off)	Does not use Face Detection function.
<input type="checkbox"/>	 (Auto)	Selects the face the camera is to automatically focus on. 
<input type="checkbox"/>	 (Child Priority)	Detects and shoots with priority on child's face.
<input type="checkbox"/>	 (Adult Priority)	Detects and shoots with priority on adult's face.

- The Face Detection function does not work when using the Digital Zoom.
- In  (Soft Snap) mode, the Face Detection function is activated.
- When the Scene Selection mode is set to  (Soft Snap) mode, the default setting of [Face Detection] is [Auto].
- Although [Face Detection] is fixed to [Auto] when **EASY** (Easy Shooting) mode is selected, no face detection frames are displayed.
- Up to 8 faces of your subjects can be detected. However, only up to 4 faces of your subjects can be detected when  (Soft Snap) mode is selected in the Scene Selection mode.

- When the camera detects more than one subject, the camera will judge which is the main subject and set focus by priority. The Face Detection frame for the main subject will turn orange.
- The frame for which the focus is set will turn green by pressing the shutter button halfway down.
- Faces may not be detected correctly when:
 - It is too dark or too bright.
 - Faces are partially hidden by sunglasses, masks, hats, etc.
 - The subjects are not facing the camera.
- Adults and children may not be recognized correctly depending on the conditions.

Smile Detection: Setting the Smile Detection function

Selects the priority subject for the Smile Shutter function. For details on the Smile Shutter, see page 30.

<input checked="" type="checkbox"/>	 (Auto)	Detects and shoots smiling faces automatically.
<input type="checkbox"/>	 (Child Priority)	Detects and shoots with priority on child's face.
<input type="checkbox"/>	 (Adult Priority)	Detects and shoots with priority on adult's face.

- Smiles may not be detected correctly depending on the conditions.

Smile Detection Sensitivity: Setting the Smile Detection Sensitivity

This sets the smile detection level when  (Smile Shutter) mode (page 30) is selected in the Scene Selection.

<input type="checkbox"/>	 (Low)	Detects a big smile.
<input checked="" type="checkbox"/>	 (Medium)	Detects a normal smile.
<input type="checkbox"/>	 (High)	Detects even a slight smile.

- Smiles may not be detected correctly depending on the conditions.

REC Mode: Selecting the continuous shooting method

Selects whether the camera performs continuous shooting or not when you press the shutter button.

<input checked="" type="checkbox"/>  (Normal)	Does not shoot continuously.
<input type="checkbox"/>  (Burst)	<p>Records 100 images in succession when you press and hold down the shutter button.</p>  <ul style="list-style-type: none"> The flash is set to  (Flash forced off).
BRK±0.3EV	<p>Records a series of three images with the exposure values automatically shifted (Exposure Bracket).</p> <p>The larger the bracket step value, the larger the shift of the exposure value.</p> <ul style="list-style-type: none"> When you cannot decide the correct exposure, shoot in the Exposure Bracket mode, shifting the exposure value. You can select the image with the best exposure afterward.  <ul style="list-style-type: none"> When the mode dial is set to , the Exposure Bracket mode is not available. The flash is set to  (Flash forced off).
BRK±0.7EV	
BRK±1.0EV	

On the Burst

- When recording with the self-timer, a series of a maximum of five images is recorded.
- The recording interval is approximately 0.6 seconds. The recording interval becomes longer, depending on the setting for the image size.
- When the battery level is low, or when the internal memory or “Memory Stick Duo” media is full, the Burst stops.
- The focus, white balance, and exposure are fixed to the values set for the first shot.

On the Exposure Bracket

- The focus and white balance are adjusted for the first image, and these settings are also used for the other images.
- When you adjust the exposure manually (page 46), the exposure is shifted based on the adjusted brightness.
- The recording interval is the same as that for Burst mode, but becomes slower depending on the shooting conditions.
- If the subject is too bright or too dark, you may not be able to shoot properly with the selected bracket step value.

Scene Recognition: Determining the scene to be shot and taking the shot

The camera automatically detects shooting conditions, such as backlight or a night scene, and then takes the shot.

✓	 (Off)	Does not use the Scene Recognition.
	 (Auto)	<p>The camera detects conditions such as backlight or a night scene and takes the shot using the optimal settings. If the camera does not recognize the scene, it shoots the image just as if scene recognition was set to [Off].</p> <div style="text-align: center;">  </div> <p style="margin-left: 150px;">  Current setting mark  Scene Recognition mark </p>
	 (Advanced)	<p>The camera shoots one image without using the scene recognition function and another image using scene recognition.  is displayed next to a scene recognition mark. (A total of two shots)</p> <p>If the camera does not recognize the scene, it only shoots one image.</p> <p>In this case, the image is shot just as if scene recognition was set to [Off].</p>

About Scenes that are Recognized

The following scenes can be recognized. The camera identifies the optimum scene and displays each mark.

When the shutter is pressed halfway down while a mark is displayed, the mark color turns green and scene recognition is confirmed.

-  Twilight
-  Twilight Portrait
-  Twilight using a tripod (DSC-W220/W230 only)
-  Backlight
-  Backlight Portrait

- Scene recognition does not function in the following situations:
 - During burst shooting
 - When using Digital Zoom
- Although [Scene Recognition] is fixed to [Auto] when **EASY** (Easy Shooting) mode is selected, the current setting mark and scene recognition mark are not displayed.
- The flash is set to  (Flash Auto) or  (Flash forced off).
- When the Face Detection function is set to [Off], and [Scene Recognition] is set to [Auto] or [Advanced], [Face Detection] is changed to [Auto].

- When the Face Detection function is [Off],  (Twilight Portrait) and  (Backlight Portrait) scenes cannot be detected.
-  (Twilight using a tripod) scenes sometimes cannot be recognized in an environment where vibrations are transferred to the camera even though it is fixed on a tripod (DSC-W220/W230 only).
- Sometimes a slow shutter results when a scene is recognized as a  (Twilight using a tripod). Make sure to keep the camera still during shooting (DSC-W220/W230 only).
- The current setting mark and scene recognition mark are displayed regardless of the screen display settings (page 20).
- Sometimes these scenes may not be recognized depending on the situation.

EV: Adjusting the light intensity

Manually adjusts the exposure.



	-2.0EV	Toward -: Darkens an image.
✓	0EV	The exposure is determined automatically by the camera.
	+2.0EV	Toward +: Brightens an image.

- For details on the Exposure, see page 9.
- The compensation value can be set in 1/3EV increments.
- If you shoot a subject in extremely bright or dark conditions, or when you use the flash, the exposure adjustment may not be effective.

ISO: Selecting a luminous sensitivity

Selects the ISO sensitivity.



Low ISO sensitivity



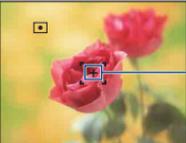
High ISO sensitivity

<input checked="" type="checkbox"/>	ISO AUTO (Auto)	You can reduce image blurring in dark locations or moving subjects by increasing ISO sensitivity (select a larger number). However, images tend to become noisier as the ISO sensitivity number increases. Select an ISO sensitivity number according to shooting conditions.
<input type="checkbox"/>	ISO 100	
<input type="checkbox"/>	ISO 200	
<input type="checkbox"/>	ISO 400	
<input type="checkbox"/>	ISO 800	
<input type="checkbox"/>	ISO 1600	
<input type="checkbox"/>	ISO 3200	

- For details on the ISO sensitivity, see page 9.
- You can select only from [ISO AUTO], [ISO 100] to [ISO 400] when set to Burst or Exposure Bracket.
- When shooting under brighter conditions, the camera automatically increases its tone reproduction and helps prevent images to become whitish (excluding when [ISO] is set to [ISO 100]).

Metering Mode: Selecting the metering mode

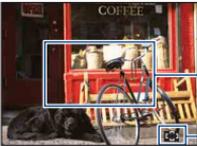
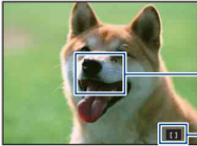
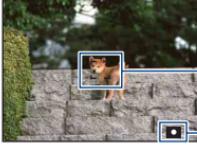
Selects the metering mode that sets which part of the subject to measure to determine the exposure.

✓	 (Multi)	Divides into multiple regions and measures each region. The camera determines a well-balanced exposure (Multi-pattern metering).
	 (Center)	Measures the center of the image, and determines the exposure based on the brightness of the subject there (Center-weighted metering).
	 (Spot) (Only for still image)	<p>Measures only a part of the subject (Spot metering).</p> <ul style="list-style-type: none"> This function is useful when the subject is backlit or when there is strong contrast between the subject and the background. <div data-bbox="433 550 619 693" style="display: inline-block; vertical-align: middle;">  </div> <p style="margin-left: 20px;">Spot metering cross hairs Positions on the subject</p>

- For details on the Exposure, see page 9.
- When using spot metering or center-weighted metering, setting [Focus] to [Center AF] is recommended to focus on the metering position (page 49).
- You can select the metering mode only when [Face Detection] is set to [Off].

Focus: Changing the focus method

You can change the focus method. Use the menu when it is difficult to get the proper focus in auto focus mode.

✓	 (Multi AF)	<p>Focuses on a subject in all ranges of the finder frame automatically.</p> <ul style="list-style-type: none"> This mode is useful when the subject is not in the center of the frame.  <p>AF range finder frame (Only for still image)</p> <p>AF range finder frame indicator</p>
	 (Center AF)	<p>Focuses on a subject in the center of the finder frame automatically.</p> <ul style="list-style-type: none"> Using the AF lock function together, you can compose the image the way you want.  <p>AF range finder frame</p> <p>AF range finder frame indicator</p>
	 (Spot AF)	<p>Focuses on an extremely small subject or a narrow area automatically.</p> <ul style="list-style-type: none"> Using the AF lock function together, you can compose the image the way you want. Hold the camera steady so as not to misalign the subject and the AF range finder frame.  <p>AF range finder frame</p> <p>AF range finder frame indicator</p>

0.5 m	Automatically focuses quickly on the area around a previously set distance (Semi-manual). <ul style="list-style-type: none"> • Focuses on a subject in all ranges of the finder frame in semi manual mode. • This mode is useful when repeatedly shooting a subject at the same distance. • Use “Semi manual” when it is difficult to get sharp focus with automatic focusing, such as when shooting a subject through a net or window.
1.0 m	
3.0 m	
7.0 m	
∞ (unlimited distance)	

- AF stands for Auto Focus.
- When you use Digital Zoom or AF illuminator, the AF range finder frame is disabled and appears in a dotted line. In this case, the camera works to focus on the subjects at the center of the screen.
- You can change the focus method only when the [Face Detection] is set to [Off].
- You can select only [Multi AF] or [∞] when shooting movies.
- The semi manual distance setting contains some error, and this error increases when the zoom is set to the T side or the lens is tilted upward or downward.

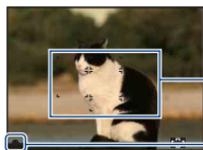
If the subject is out of focus

When shooting with the subject at the edge of the frame (or the screen), or when using [Center AF] or [Spot AF], the camera may not focus on a subject at the edge of the frame.



In such cases, do as follows:

- ① Recompose the shot so that the subject is centered in the AF range finder, and press the shutter button halfway down to focus on the subject (AF lock).



— AF range finder frame

— AE/AF lock indicator

As long as you do not press the shutter button fully down, you can retry the procedure as many times as you want.

- ② When the AE/AF lock indicator stops flashing and remains on, return to the fully composed shot, and press the shutter button fully down.



White Balance: Adjusting the color tones

Adjusts color tones according to the surrounding light conditions. Use this function if image color appears unnatural.

✓	WB AUTO (Auto)	Adjusts the white balance automatically so that the colors appear natural.
☀	(Daylight)	Adjusts for conditions outside under a clear sky, at sundown, night scenes, the presence of neon signs or fireworks.
☁	(Cloudy)	Adjusts for a cloudy sky or a shady location.
☼ ₁	(Fluorescent Light 1)/	[Fluorescent Light 1]: Adjusts for white fluorescent lighting.
☼ ₂	(Fluorescent Light 2)/	[Fluorescent Light 2]: Adjusts for natural white fluorescent lighting.
☼ ₃	(Fluorescent Light 3)	[Fluorescent Light 3]: Adjusts for day white fluorescent lighting.



	 (Incandescent)	Adjusts for places under an incandescent lamp, or under bright lighting, such as in a photo studio. 
	 (Flash) (Only for still image)	Adjusts for the flash conditions. 

- For details on the white balance, see page 10.
- Under fluorescent lights that flicker, the white balance function may not work correctly even though you select [Fluorescent Light 1], [Fluorescent Light 2] or [Fluorescent Light 3].
- Except in [Flash] mode, [White Balance] is set to [Auto] when you shoot images using the flash.
- When  (Underwater) mode is selected in the Scene Selection, you can use [Underwater White Balance] instead of [White Balance].

Underwater White Balance: Adjusting color tones during Underwater mode

Adjusts the color tone during  (Underwater) mode (page 28).

✓	 (Auto)	The camera automatically adjusts color tones underwater so they appear natural.
	 (Underwater 1)	Adjusts for underwater conditions where blue is strong.
	 (Underwater 2)	Adjusts for underwater conditions where green is strong.
	 (Flash)	Adjusts for use of flash underwater.

- Depending on the color of the water, sometimes good adjustment is not possible regardless of whether [Underwater 1] or [Underwater 2] is selected.
- When shooting with a flash in other than [Flash] mode, [Underwater White Balance] is set to [Auto].

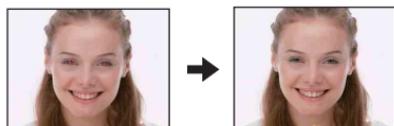
Flash Level: Adjusting the amount of flash light

Adjusts the amount of flash light.

	⚡- (-)	Makes the flash level lower.
	⚡ _{STD} (Normal)	
	⚡+ (+)	Makes the flash level higher.

- To change flash mode, see page 25.
- If the subject is too bright or dark, this adjustment may have no effect.

Red Eye Reduction: Setting the Red Eye Reduction function



The flash strobes two or more times before shooting to reduce the red-eye phenomenon when using the flash.

	 (Auto)	The flash strobes to reduce the red-eye phenomenon automatically when the Face Detection function is activated.
	 (On)	The flash always strobes to reduce the red-eye phenomenon.
	 (Off)	Does not use Red Eye Reduction.

- To avoid blurring of images, hold the camera firmly until the shutter is released. It usually takes a second after you press the shutter button. Be also sure not to allow the subject to move during this period.
- Red-eye reduction may not produce the desired effects. It depends on individual differences and conditions, such as distance to the subject, or if the subject looked away from the pre-strobe. When the eyes of the subject turn out red, correct the image with [Retouch] on the viewing menu (page 58) or with the supplied software “PMB”.
- When the Face Detection function is not used, the flash does not strobe to reduce the red-eye phenomenon even when [Auto] is selected.

DRO: Optimizing the brightness and contrast

Analyzes the scene to be shot, and improves the image quality by automatic correction.

 (Off)	Does not adjust.
<input checked="" type="checkbox"/>  (DRO standard)	The camera automatically adjusts the brightness and contrast of the entire scene.
 (DRO plus)	The camera automatically adjusts brightness and contrast of the images area-by-area.

- DRO is an abbreviation for “Dynamic Range Optimizer”, a function that automatically optimizes the difference between light and dark parts of an image.
- Depending on shooting conditions, it may not be possible to obtain correction effects.
- Note the following points when [DRO plus] is set.
 - Time is required for image processing.
 - You can select only from [ISO AUTO], [ISO 100] to [ISO 400].
 - When Burst/bracket shooting is selected, [DRO plus] is canceled and [DRO standard] is set.

Color Mode: Changing the vividness of the image or adding special effects

You can change the brightness of the image, accompanied by effects.

<input checked="" type="checkbox"/>  (Normal)	Sets the image to standard color. 
<input type="checkbox"/>  (Vivid) (Only for still image)	Sets the image to bright and deep color. 

	 (Sepia)	Sets the image to sepia color. 
	 (B & W)	Sets the image to black and white. 

SteadyShot: Selecting the anti-blur mode (DSC-W220/W230 only)

Selects the anti-blur mode.

✓	 (Shooting)	Activates the anti-blur function when pressing the shutter button halfway down.
	 (Continuous)	Always activates the anti-blur function. You can stabilize images even when zooming up a far subject. <ul style="list-style-type: none"> • Battery consumption is faster than in [Shooting] mode.
	 (Off)	Does not use anti-blur mode.

- In Auto Adjustment mode, Easy Shooting mode or  (Gourmet) mode, [SteadyShot] is set to [Shooting].
- For movies, you can set [Continuous] or [Off] only. The default setting is set to [Continuous].
- The anti-blur function may not work properly in the following cases.
 - When camera shake is too strong.
 - When the shutter speed is slow, for example, shooting night scenes.

(Shooting Settings): Selecting the shooting settings

Selects the settings for the shooting function. The items appearing in this menu are the same ones as those in [ Shooting Settings] on the HOME screen. See pages 37, 75.



Viewing menu

This section explains the menu items available when you press MENU button in playback mode. For details on how to use the menu, see page 38.

(Delete): Deleting images

Selects and deletes images on the single-image screen or the index screen. See page 34.

 (This Image)	Deletes the image that is now selected.
 (Multiple Images)	Selects and deletes multiple images.
 (All in This Folder)	Deletes all the images in the selected folder.

(Slideshow): Playing back a series of images

Images are automatically played back in succession along with effects and music.

- ① Press the MENU button.
- ② Select  (Slideshow) with ▲/▼ on the control button, then press ●.
The Setup screen appears.
- ③ Select [OK], then press ●.
The slideshow starts.

- The setting is maintained until it is changed.
- You cannot play movies.

To end the slideshow

Press ●.

- You cannot pause the slideshow.

To adjust the volume of the music

Press ▼ to display the volume control screen, and then press ◀/▶ to adjust the volume.

To change the setup

On the setup screen, select each item with ▲/▼, then press ●.

The items that can be set are as follows.

The default settings are marked with ✓.

Image		You can select only when you use a “Memory Stick Duo” media (sold separately). This setting is fixed to [Folder] when the internal memory is used to record images.
✓	All	Plays back all the still images in a “Memory Stick Duo” media in order.
	Folder	Plays back all the still images in the selected folder.

Effects		
	Simple	A simple slideshow switching still images at a preset interval
✓	Basic	A basic slideshow suitable for a wide range of scenes
	Nostalgic	A moody slideshow reproducing the atmosphere of a movie scene
	Stylish	A stylish slideshow proceeding at a middle tempo
	Active	A high-tempo slideshow suitable for active scenes
	Face 1:Basic	A mid-tempo slideshow suitable for various scenes that makes the most of images that include faces. Faces in still images are zoomed and multiple images are displayed together.
	Face 2:Nostalgic	A slow, moody slideshow that makes the most of images that include faces. Faces in still images are zoomed and multiple images are displayed together.
	Face 3:Stylish	A lively, high-tempo slideshow that makes the most of images that include faces. Faces in still images are zoomed and multiple images are displayed together.

Music		
The music played is determined by default according to the effect you select. You can custom set any music with any effect as desired. It is also possible to choose from multiple background music (BGM) selections.		
	Music1	The default setting for a [Simple] slideshow
✓	Music2	The default setting for a [Basic] slideshow
	Music3	The default setting for a [Nostalgic] slideshow
	Music4	The default setting for a [Stylish] slideshow
	Music5	The default setting for an [Active] slideshow
	Music6	You can change the default settings.
	Music7	
	Music8	
	Off	Do not use BGM.
	Back	Returns to the setup screen.

Interval		
<input type="checkbox"/>	1 sec	Sets the display interval of images for a [Simple] slideshow.
<input type="checkbox"/>	3 sec	
<input type="checkbox"/>	5 sec	
<input type="checkbox"/>	10 sec	
<input checked="" type="checkbox"/>	Auto	The interval is set to suit the selected [Effects] item. The setting is fixed to [Auto] when [Simple] is not selected as the [Effects].

Repeat		
<input checked="" type="checkbox"/>	On	Plays back images in a continuous loop.
<input type="checkbox"/>	Off	After all the images have been played back, the slideshow ends.

To add /change Music files

You can transfer a desired music file from your CDs or MP3 files to the camera to playback during slideshow. You can transfer music using [ Music Tool] in [ Slideshow] on the HOME screen and the “Music Transfer” software (supplied) installed on a computer. For details, see pages 95 and 97.

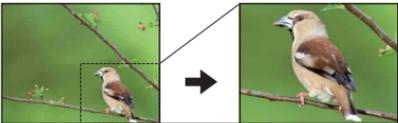
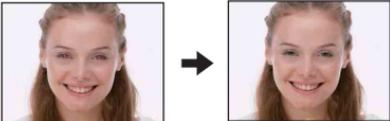
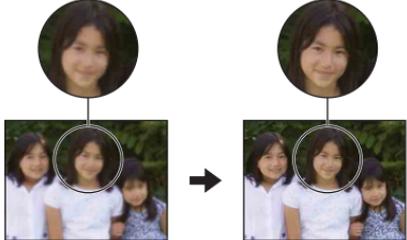
- You can record up to eight pieces of music on the camera (The eight preset pieces (Music 1–8) can be replaced with the ones you transferred).
- A maximum length of each music file for music playback of the camera is about 5 minutes.
- If you cannot playback a music file due to damage or other malfunctions to the file, execute [Format Music] (page 95) and transfer the music again.

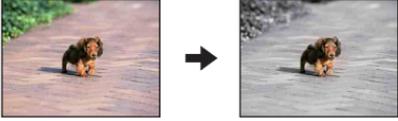
(Retouch): Retouching still images

Adds effects or makes corrections to a recorded image and records it as a new file. The original image is retained.

To retouch the still images

- ① Select the images you want to retouch while displaying in single-image mode.
- ② Press MENU button.
- ③ Select the [Retouch] with /  on the control button, then press  after selecting the desired mode with / .
- ④ Retouch the images following the instructions for each retouching mode below.

 (Trimming)	<p>Playback zoom is performed on the image and part of the image is cropped.</p>  <ol style="list-style-type: none"> Press W/T to zoom in on the trimming range. Set the point with ▲/▼/◀/▶, then press MENU button. Select [Image Size] with ▲/▼, then press ●. Select an image size to record with ▲/▼, then press ● again. Select [OK] with ▲/▼, then press ●. <ul style="list-style-type: none"> The image size that you can trim may vary depending on the image. The quality of trimmed images may deteriorate.
 (Red Eye Correction)	<p>Corrects the red-eye phenomenon caused by flash.</p>  <p>Select [OK] with ▲/▼, then press ●.</p> <ul style="list-style-type: none"> You may not be able to correct the red-eye phenomenon depending on the image.
 (Unsharp masking)	<p>Sharpens the image within a chosen frame.</p>  <ol style="list-style-type: none"> Set the area (frame) of the desired image to retouch with ▲/▼/◀/▶, then press the MENU button. Select [OK] with ▲/▼, then press ●. <ul style="list-style-type: none"> Depending on the image, correction may not be sufficient, or quality of the image may be reduced.

 (Soft Focus)	<p>Blurs the periphery around a chosen point to emphasize a subject.</p>  <ol style="list-style-type: none"> ① Set the center point of the desired image to retouch with ▲/▼/◀/▶, then press MENU button. ② Select [Level] with ▲/▼, then press ●. Select level of retouch with ▲/▼, then press ● again. ③ Adjust the desired range to retouch with W/T. ④ Select [OK] with ▲/▼, then press ●.
 (Partial Color)	<p>Surrounds a chosen point in monochrome to signalize a subject.</p>  <ol style="list-style-type: none"> ① Set the center point of the desired image to retouch with ▲/▼/◀/▶, then press MENU button. ② Adjust the desired range to retouch with W/T. ③ Select [OK] with ▲/▼, then press ●.
 (Fisheye Lens)	<p>Applies a fisheye effect around a chosen point.</p>  <ol style="list-style-type: none"> ① Set the center point of the desired image to retouch with ▲/▼/◀/▶, then press MENU button. ② Select [Level] with ▲/▼, then press ●. Select level of retouch with ▲/▼, then press ● again. ③ Select [OK] with ▲/▼, then press ●.

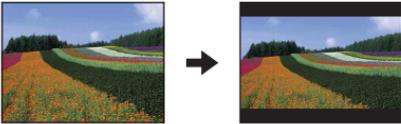
 (Cross Filter)	<p>Adds starburst effects to light sources.</p>  <ol style="list-style-type: none"> ① Select [Level] with ▲/▼, then press ●. Select level of retouch with ▲/▼, then press ● again. ② Adjust the desired length to retouch with W/T. ③ Select [OK] with ▲/▼, then press ●.
 (Radial Blur)	<p>Decides the center point for expressing movement in the still image.</p>  <ol style="list-style-type: none"> ① Set the center point of the desired image to retouch with ▲/▼/◀/▶, then press MENU button. ② Adjust the desired range to retouch with W/T. ③ Select [OK] with ▲/▼, then press ●.
 (Retro)	<p>Softens the image by blurring the focus and lowering the surrounding light so that it appears as if it was taken by an old camera.</p>  <ol style="list-style-type: none"> ① Select [Level] with ▲/▼, then press ●. Select level of retouch with ▲/▼, then press ● again. ② Adjust the desired range to retouch with W/T. ③ Select [OK] with ▲/▼, then press ●.

 (Happy Faces)	<p>Puts a smile on a person's face. When the camera detects a face that can be retouched, a frame appears around the face.</p>  <ol style="list-style-type: none"> ① Select [Level] with ▲/▼, then press ●. Select level of retouch with ▲/▼, then press ● again. ② Select [OK] with ▲/▼, then press ●. <ul style="list-style-type: none"> • Retouching may not be possible depending on the image.
---	---

(Multi-Purpose Resize): Changing the image size according to usage

You can change the aspect ratio and size of the shooting images, then record them as the new files.

You can convert images to the 16:9 aspect ratio for high definition viewing and to the VGA size for blog or e-mail attachments.

HDTV ()	<p>Changes the aspect ratio from 4:3/3:2 to 16:9 and saves as 2M size.</p> 
Blog/E-mail ()	<p>Changes the aspect ratio from 16:9/3:2 to 4:3 and saves as VGA size.</p> 

- ① Select the images you want to retouch while displaying in single-image.
- ② Press the MENU button.
- ③ Select the [Multi-Purpose Resize] with ▲/▼ on the control button, then press ● after selecting the desired size of the image with ◀/▶.
- ④ Press W/T to zoom in from the area you want to trim.
- ⑤ Set the point with ▲/▼/◀/▶, then press the MENU button.
- ⑥ Select [OK] with ▲, then press ●.

- For details about the image size, see page 11.
- You cannot resize movies.
- You cannot resize the images from VGA to [HDTV].
- Enlarging the image and multi resizing can reduce the image quality.

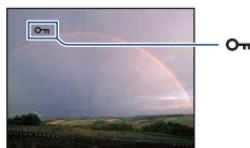
(Protect): Preventing accidental erasure

Protects images against accidental erasure. The  (Protect) indicator appears on a protected image.

 (This Image)	Protects/unlocks the currently selected image.
 (Multiple Images)	Selects and protects/unlocks multiple images.

To protect an image

- ① Select the images you want to protect while displaying images in single-image mode.
- ② Press MENU button.
- ③ Select [Protect] with  on the control button, [This Image] with , and then press .



To select and protect images

- ① Press MENU button in single-image mode or in index mode.
- ② Select [Protect] with  on the control button, and select [Multiple Images] with , then press .

In single-image mode:

- ③ Select the image you want to protect with , then press .
The  is attached to the selected image.
- ④ Press  to display other images you want to protect, then press .
- ⑤ Press MENU button.
- ⑥ Select [OK] with , then press .

In index mode:

- ③ Select the image you want to protect with ▲/▼/◀/▶, then press ●.
The ✓ is attached to the selected image.
- ④ To protect other images, repeat step ③.
- ⑤ To select all the images in a folder, select the folder selection bar with ◀, then press ●.
The ✓ is attached to the selected folder.
- ⑥ Press MENU button.
- ⑦ Select [OK] with ▲, then press ●.

- When there are more than 999 files, all the images cannot be protected.
- Note that the formatting erases all the data stored on the recording media, even if the images are protected, and these images cannot be restored.
- It may take some time to protect an image.

To cancel the protection

Select the image for which you want to cancel protection, and unlock it by performing the same procedure to protect it.

The  indicator disappears.

DPOF : Adding a Print order mark

Adds a print order mark (DPOF) to the image you want to print.

See page 103.

DPOF  (This Image)	Attaches a DPOF mark to the image being selected now. Clears the DPOF mark when the selected image has a DPOF mark.
DPOF  (Multiple Images)	Selects images and attaches DPOF marks to them. Clears DPOF marks already attached.

(Print): Printing images using a printer

Printing images shot with the camera.

See page 100.

 (Rotate): Rotating a still image

Rotates a still image.

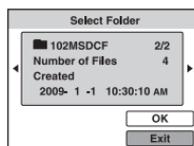
- ① Display the image to be rotated.
- ② Press MENU button to display the menu.
- ③ Select [Rotate] with ▲/▼ on the control button, then press ●.
- ④ Select [↶ ↷], then rotate the image with ◀/▶.
- ⑤ Select [OK] with ▲/▼, then press ●.

- You cannot rotate protected images or movies.
- You may not be able to rotate images shot with other cameras.
- When viewing images on a computer, the image rotation information may not be reflected depending on the software.

 (Select Folder): Selecting the folder for viewing images

Selects the folder containing the image you want to play back when using the camera with a “Memory Stick Duo” media.

- ① Select the desired folder with ◀/▶ on the control button.



- ② Select [OK] with ▲, then press ●.

To cancel selecting the folder

Select [Exit] in step ②, then press ●.

 On the folders

The camera stores images in a specified folder of a “Memory Stick Duo” media. You can change the folder or create a new one.

- To create a new folder → [Create REC.Folder] (page 68)
- To change the folder for recording images → [Change REC.Folder] (page 69)
- When multiple folders are created in the “Memory Stick Duo” media and the first or last image in the folder is displayed, the following indicators appear.

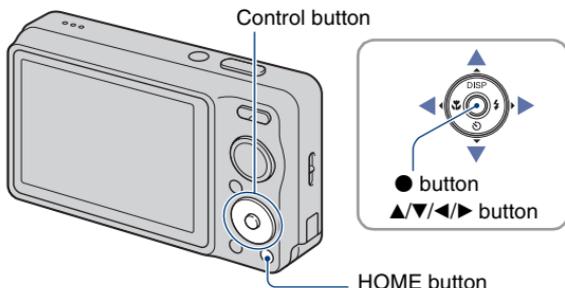
: Moves to the previous folder

: Moves to the next folder

: Moves to either the previous or next folders

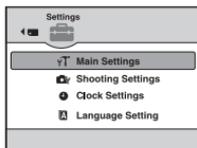
Customizing the Manage Memory feature and the Settings

You can change the default settings using  (Manage Memory) or  (Settings) on the HOME screen.



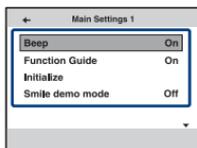
1 Press HOME button to display the HOME screen.

2 Select  (Manage Memory) or  (Settings) with  on the control button.



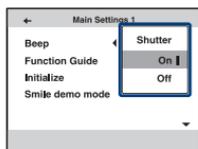
3 Select an item with /▼, then press .

4 Select the desired setting with /▼, then press .



- HOME screen is displayed by pressing .

5 Select a setting with ▲/▼, then press ●.



To cancel the setting change

Select [Cancel] if it is shown as an option on the screen, then press ●.

If not, press ◀.

- This setting is maintained even when the power is turned off.
- The camera is set to the shooting or viewing mode by pressing HOME button again.

Memory Tool — Memory Stick Tool

This item appears only when a “Memory Stick Duo” media is inserted in the camera.

Format

Formats the “Memory Stick Duo” media. A commercially available “Memory Stick Duo” media is already formatted, and can be used immediately.

- Note that formatting permanently erases all data on a “Memory Stick Duo” media, including even protected images.

- ① Select [Format] with ▲/▼ on the control button, then press ●.
The message “All data on Memory Stick will be erased” appears.
- ② Select [OK] with ▲, then press ●.
Formatting starts.

To cancel formatting

Select [Cancel] in step ②, then press ●.

Create REC.Folder

Creates a folder in a “Memory Stick Duo” media for recording images.

- ① Select [Create REC.Folder] with ▲/▼ on the control button, then press ●.
The folder creation screen appears.



- ② Select [OK] with ▲, then press ●.
A new folder is created with a number incremented one higher than the largest number, and the folder becomes the current recording folder.

To cancel the folder creation

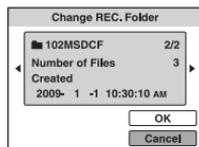
Select [Cancel] in step ②, then press ●.

- When not creating a new folder, the “101MSDCF” folder is selected as the recording folder.
- You can create folders designated up to “999MSDCF”.
- You cannot delete a folder with the camera. To delete a folder, use your computer, etc.
- Images are recorded in the newly created folder until you create another folder or select another recording folder.
- Up to 4,000 images can be stored in one folder. When the folder capacity is exceeded, a new folder is automatically created.
- For details, see “Image file storage destinations and file names” (page 90).

Change REC.Folder

Changes the folder currently used for recording images.

- ① Select [Change REC.Folder] with ▲/▼ on the control button, then press ●.
The folder selection screen appears.



- ② Select the desired folder with ◀/▶, and [OK] with ▲, then press ●.

To cancel changing the recording folder

Select [Cancel] in step ②, then press ●.

- You cannot select the “100MSDCF” folder as a recording folder.
- You cannot move recorded images to another folder.

Copy

Copies all images in the internal memory to a “Memory Stick Duo” media.

- ① Insert a “Memory Stick Duo” media having sufficient free capacity.
- ② Select [Copy] with ▲/▼ on the control button, then press ●.
The message “All data on internal memory will be copied” appears.
- ③ Select [OK] with ▲, then press ●.
Copying starts.

To cancel copying

Select [Cancel] in step ③, then press ●.

- Use a fully charged battery pack. If you attempt to copy image files using a battery pack with little remaining charge, the battery pack may run out, causing copying to fail or possibly corrupting the data.
- You cannot select images to copy.
- The original images in the internal memory are retained even after copying. To delete the contents of the internal memory, remove the “Memory Stick Duo” media after copying, then format the internal memory ([Format] in [Internal Memory Tool]) (page 70).
- A new folder is created on the “Memory Stick Duo” media and all the data will be copied to it. You cannot choose a specific folder and copy images to it.
- The **DPOF** (Print order) marks on the images are not copied.



Memory Tool — Internal Memory Tool

This item does not appear when a “Memory Stick Duo” media is inserted in the camera.

Format

Formats the internal memory.

- Note that formatting permanently erases all data in the internal memory, including even protected images.

- ① Select [Format] with ▲/▼ on the control button, then press ●.
The message “All data on internal memory will be erased” appears.
- ② Select [OK] with ▲, then press ●.
Formatting starts.

To cancel formatting

Select [Cancel] in step ②, then press ●.

Main Settings — Main Settings 1

The default settings are marked with .

Beep

Selects the sound produced when you operate the camera.

	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.

Function Guide

When you operate the camera, the function guide appears.

	On	Displays the function guide.
	Off	Does not display the function guide.

Initialize

Initializes the setting to the default setting. Even if you execute this function, the images stored in the internal memory are retained.

- ① Select [Initialize] with / on the control button, then press .
- ② Select [OK] with , then press .

To cancel initializing

Select [Cancel] in step ②, then press .

- Be sure not to power off the camera while initializing.

Smile demo mode

You can view a demonstration of the Smile Shutter mode.

	On	Executes a demonstration when using Smile Shutter mode.
✓	Off	Does not execute.

- ① Select 😊 (Smile Shutter) mode from the mode dial (page 28).
 - ② Aim the camera at the subject and press the shutter button all the way down.
The demonstration starts.
- If you do not operate the camera for about 15 seconds, the demonstration starts automatically even if the shutter button is not pressed.
 - You can temporarily exit the demonstration after it starts by pressing the shutter button all the way down.
 - Although the shutter is released when the camera detects a smile, no image is recorded.
 - Always set to [Off] to take an actual Smile Shutter shot.

Main Settings — Main Settings 2

The default settings are marked with .

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.

	Auto	The camera recognizes automatically and sets up communication with a computer or PictBridge compliant printer (pages 88 and 100). <ul style="list-style-type: none"> • If you cannot connect the camera to a PictBridge compliant printer with the [Auto] setting, select [PictBridge]. • If you cannot connect the camera to a computer or a USB device with the [Auto] setting, select [Mass Storage].
	PictBridge	Connects the camera to a PictBridge compliant printer (page 100).
	PTP/MTP	When you connect the camera to a computer, the copy wizard starts automatically, and the images in the recording folder on the camera are copied to the computer. (with Windows Vista/XP, Mac OS X)
	Mass Storage	Establishes a Mass Storage connection between the camera and a computer or other USB device (page 88).

COMPONENT

Selects the video signal output type from SD and HD(1080i), according to the TV connected (page 81).

	HD(1080i)	Select this item to connect the camera to a 1080i-capable High Definition TV.
	SD	Select this item to connect the camera to a TV that is not compatible with an HD(1080i) signal.

Video Out

Sets the video signal output according to the TV color system of the connected video equipment. The TV color systems differ depending on the country and region.

To view images on a TV screen, check the TV color system of the country or region of use (page 83).

NTSC	Sets the video output signal to NTSC mode (e.g., for the USA, Japan).
PAL	Sets the video output signal to PAL mode (e.g., for Europe).

Wide Zoom Display

During playback on High Definition TV, still images at a 4:3 and 3:2 aspect ratio are played at a 16:9 aspect ratio. In this case the top and bottom of the image will be slightly cropped.

<input type="checkbox"/>	On	Plays at a 16:9 aspect ratio. 
<input checked="" type="checkbox"/>	Off	Does not use Wide Zoom Display.

- The only images that can be played in Wide Zoom are 4:3 and 3:2 images. Movies, 16:9 images, and portrait images cannot be zoomed.
- The image displayed on the LCD screen of the camera does not change.

Shooting Settings — Shooting Settings 1

The default settings are marked with .

AF Illuminator

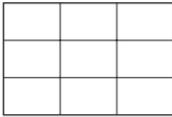
The AF illuminator supplies fill light to focus more easily on a subject in dark surroundings. The AF illuminator emits red light allowing the camera to focus easily when the shutter button is pressed halfway, until the focus is locked. The  indicator appears at this time.

	Auto	Uses the AF illuminator.
	Off	Does not use AF illuminator.

- If the AF illuminator light does not reach the subject sufficiently or the subject has no contrast, focus will not be achieved.
- Focus is achieved as long as the AF illuminator light reaches the subject, regardless of whether light fails to reach the center of the subject.
- You cannot use the AF illuminator when:
 - Semi manual is set (page 50).
 -  (Landscape) mode,  (Twilight) mode or  (Fireworks) mode is selected in the Scene Selection mode.
- When you use AF illuminator, the normal AF range finder frame is disabled and new AF range finder frame is displayed by a dotted line. AF operates with priority on subjects located near the center of the frame.
- The AF illuminator emits very bright light. Although there is no health hazard, do not look directly into the AF illuminator emitter at close range.

Grid Line

With reference to the grid lines, you can easily set a subject in a horizontal/vertical position.

	On	Displays the grid lines. 
	Off	Does not display the grid lines.

- The grid lines are not recorded.

AF Mode

Selects the auto focus operation mode.

✓	Single	Automatically adjusts the focus when you press and hold the shutter button halfway down. This mode is useful for shooting stationary subjects.
	Monitor	Automatically adjusts the focus before you press and hold the shutter button halfway down. This mode shortens the time needed for focusing. <ul style="list-style-type: none"> • Battery consumption is faster than in [Single] mode.

- AF mode setting is invalid when the Face Detection function or the Smile Detection function is activated.
- When using Semi manual, auto focus operates the same as in [Single] mode.

Digital Zoom

Selects the Digital Zoom mode. The camera enlarges the image using optical zoom (up to 4 \times). When the zoom scale exceeds 4 \times , the camera uses either smart or precision digital zoom.

✓	Smart (Smart zoom) (sQ)	Enlarges the image digitally within the range where the image will not be distorted, according to the image size. This is not available when the image size is set to [12M], [3:2(11M)] or [16:9(9M)]. <ul style="list-style-type: none"> • The total zoom scale of Smart zoom is shown in the following table.
	Precision (Precision digital zoom) (PQ)	Enlarges all image sizes by the total zoom scale of approximately 8 \times , including the optical zoom 4 \times . However, note that the picture quality deteriorates when the optical zoom scale is exceeded.
	Off	Does not use the Digital Zoom.

Image size and total zoom scale using Smart zoom (Including optical zoom 4×)

Size	Total zoom scale
8M	Approx. 4.9×
5M	Approx. 6.2×
3M	Approx. 7.8×
VGA	Approx. 25×
16:9(2M)	Approx. 8.3×

- You cannot use the Digital Zoom when:
 -  (Smile Shutter) mode is selected in the Scene Selection mode.
 - Shooting movies.

Conversion Lens

Sets for achieving appropriate focus when attaching a conversion lens (sold separately). Attach the lens adaptor (sold separately), then attach a conversion lens.

<input type="checkbox"/>	Tele ()	Attaches a tele conversion lens.
<input type="checkbox"/>	Wide ()	Attaches a wide conversion lens.
<input checked="" type="checkbox"/>	Off	Does not attach a lens.

- When using the built-in flash, the flash light may be blocked, causing the shadow to appear.
- A reflected image of the lens may appear in images due to reflection between this lens and the conversion lens.
- The macro setting is fixed to [Auto].
- The available zoom area is limited.
- The available focusing area is limited.
- AF illuminator does not emit light.
- You cannot select semi manual.
- If you shoot images with tele conversion lens (sold separately), the camera may also focus on close subjects in  (Landscape) mode and  (Twilight) mode.
- If you shoot images with conversion lens (sold separately), you may not be able to record images in  (Fireworks) mode with its optimal effect.
- Refer also to the operating instructions supplied with your conversion lens.

Shooting Settings — Shooting Settings 2

The default settings are marked with .

Auto Orientation (DSC-W220/W230 only)

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.

	On	Records the image with the correct orientation.
	Off	Does not use Auto Orientation.

- Black is displayed to the left and right of vertical orientation images.
- Depending on the shooting angle of the camera, the orientation of the image may not be recorded correctly. If an image is not recorded in the correct orientation, you can rotate the image, following the procedure on page 65.
- You cannot use the Auto Orientation when  (Underwater) mode is selected in the Scene Selection mode.

Auto Review

Displays the recorded image on the screen for approximately two seconds immediately after shooting a still image.

	On	Uses the Auto Review.
	Off	Does not use Auto Review.

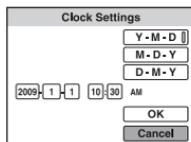
- If you press the shutter button halfway down, the recorded image display disappears and you can immediately shoot the next image.
- You cannot use the Auto Review when:
 - Burst/Bracket shooting
 - [Scene Recognition] is set to [Auto] or [Advanced].

Clock Settings

Clock Settings

Sets the date and time.

- 1 Select [ Clock Settings] from  (Settings) on the HOME screen.



- 2 Press  on the control button.
 - 3 Select the date display format with /, then press .
 - 4 Select each item with / and set the numeric value with /, then press .
 - 5 Select [OK], then press .
- Midnight is indicated as 12:00 AM, and noon as 12:00 PM.

To cancel the clock setting

Select [Cancel] in step ⑤, then press .

A Language Setting

Language Setting

Selects the language to be used in the menu items, warnings and messages.



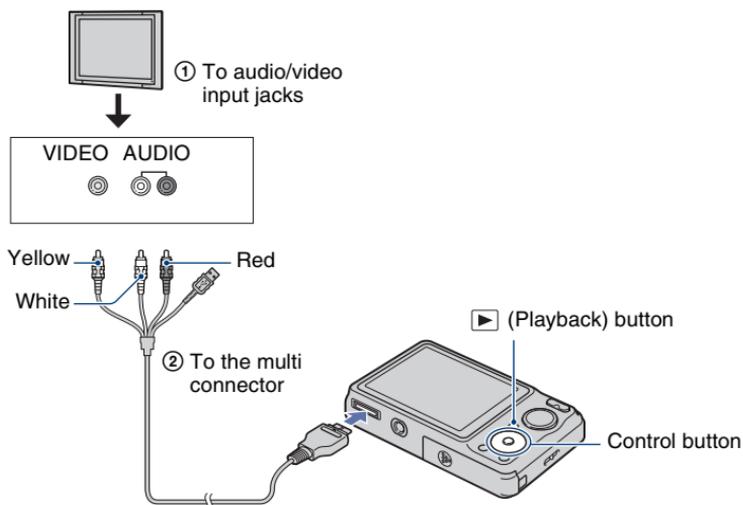
Viewing images on a TV

You can view images on a TV by connecting the camera to a TV.
The connection varies according to the type of TV the camera is connected to.

Viewing images by connecting the camera to a TV with the supplied cable for multi-use terminal

Turn off both the camera and the TV before connecting the camera to the TV.

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



2 Turn on the TV and set the input.

- Refer also to the operating instructions supplied with the TV.

3 Press (Playback) button to turn on the camera.

Images shot with the camera appear on the TV.

Press   on the control button to select the desired image.

- When using the camera abroad, it may be necessary to switch the video signal output to match that of your TV system (page 74).
- Audio output is monaural.

Viewing an image by connecting the camera to an HDTV

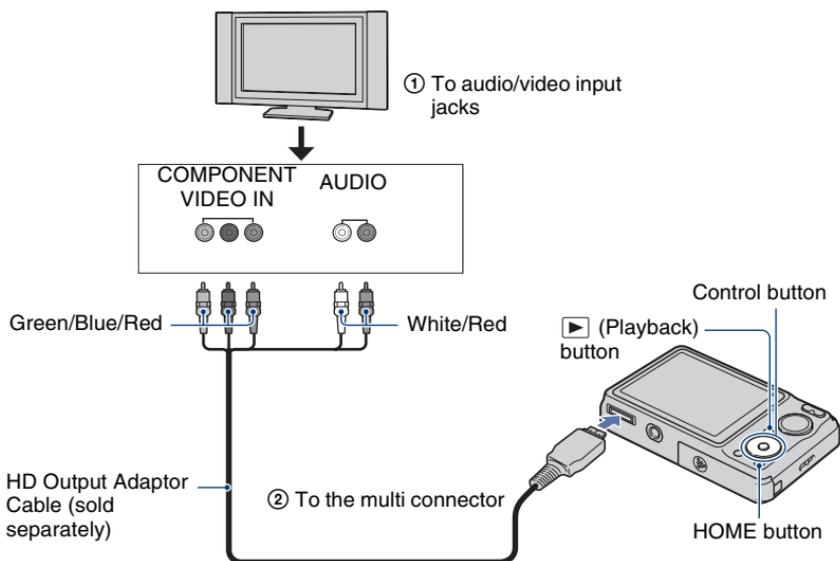
You can view an image with high quality* recorded on the camera by connecting the camera to an HD (High Definition) TV with the HD Output Adaptor Cable (sold separately).

Turn off both the camera and the TV before connecting the camera to the TV.

* Images shot in [VGA] image size cannot be played back in HD format.

- In [Wide Zoom Display], still images with an aspect of 4:3 or 3:2 can be displayed with an aspect of 16:9 (page 74).
- With [Multi-Purpose Resize], the aspect ratio can be converted to 16:9 for high definition viewing (page 62).

1 Connect the camera to an HD (High Definition) TV with a HD Output Adaptor Cable (sold separately).



2 Turn on the TV and set the input.

- Refer also to the operating instructions supplied with the TV.

3 Press (Playback) button to turn on the camera.

Images shot with the camera appear on the TV.

Press /▶ on the control button to select the desired image.

- Set [COMPONENT] to [HD(1080i)] in [Main Settings 2] by selecting  (Settings) on the HOME screen (page 73).
- When using the camera abroad, it may be necessary to switch the video signal output to match that of your TV system (page 74).
- You cannot view movies output in [HD(1080i)] signal format. Set [COMPONENT] to [SD] when viewing movies.
- Use a Type2b-compliant HD Output Adaptor Cable.

On “PhotoTV HD”

This camera is compatible with the “PhotoTV HD” standard.

By connecting Sony PhotoTV HD-compatible devices using an HD output adaptor cable (sold separately), whole new world of photos can be comfortably enjoyed in breathtaking Full HD quality.

PhotoTV HD allows for a highly-detailed, photo-like expression of subtle textures and colors.

- The settings are also required to be made on the TV. For details, refer to the operating instruction of the TV.

On TV color systems

If you want to view images on a TV screen, you need a TV with a video input jack and the cable for multi-use terminal. The color system of the TV must match that of the digital still camera. Check the following lists for the TV color system of the country or region where the camera is used.

NTSC system

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

PAL system

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

PAL-M system

Brazil

PAL-N system

Argentina, Paraguay, Uruguay

SECAM system

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

For details on using a Macintosh computer, refer to “Using your Macintosh computer” (page 96).
Illustrations of screens used in this section are based on the English version.



Install the software (supplied) first (page 86)



- Installing the software as follows:
 - “PMB”
 - “Music Transfer”

Copying images to your computer (page 88)



- Copying images to your computer using “PMB”.
- Enjoying images using “PMB” and “Music Transfer” as follows:
 - Viewing images saved on your computer
 - Editing images
 - Displaying the shooting locations of still images on maps online (This requires an Internet connection.)
 - Creating a disc with the images shot (requires CD or DVD disc writing drive)
 - Printing or saving still images with the date
 - Uploading images to a media service (This requires an Internet connection.)
 - Adding/changing Music for slideshow (using “Music Transfer”)

Additional information on this product and answers to frequently asked questions can be found at the Sony Customer Support Website.
<http://www.sony.net/>

Recommended computer environment

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

Recommended environment for copying images

OS (pre-installed): Microsoft Windows 2000 Professional SP4/Windows XP^{*1} SP3/Windows Vista^{*2} SP1

- Operation is not assured in an environment based on an upgrade of the operating systems described above or in a multi-boot environment.

USB jack: Provided as standard

Recommended environment for using “PMB” and “Music Transfer”

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 are not supported.

^{*2} Starter (Edition) is not supported.

Notes on connecting the camera to a computer

- The computer environment must also satisfy the operating requirements of the OS.
- Operations are not guaranteed for all the recommended computer environments mentioned above.
- If you connect two or more USB devices to a single computer at the same time, some devices, including the camera, may not operate, depending on the types of USB devices you are using.
- Operations are not guaranteed when using a USB hub.
- Connecting the camera using a USB interface that is compatible with Hi-Speed USB (USB 2.0 compliant) allows advanced transfer (high speed transfer) as the camera is compatible with Hi-Speed USB (USB 2.0 compliant).
- There are four modes for a USB connection when connecting a computer, [Auto] (default setting), [Mass Storage], [PictBridge] and [PTP/MTP] modes. This section describes the [Auto] and [Mass Storage] as examples. For details on [PictBridge] and [PTP/MTP], see page 73.
- When your computer resumes from a suspend or sleep mode, communication between the camera and your computer may not recover at the same time.

Installing the software (supplied)

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

- Log on as Administrator.

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

The installation menu screen appears.

- If it does not appear, double-click [Computer] (in Windows XP, [My Computer]) →  (SONYPICUTIL).
- Under Windows Vista, the AutoPlay screen may appear. Select “Run Install.exe.” and follow the instructions that appear on the screen to proceed with the installation.

2 Click [Install].

The “Choose Setup Language” screen appears.

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

The “License Agreement” screen appears.

4 Read the agreement carefully. If you accept the terms of the agreement, click the radio button next to [I accept the terms of the license agreement] and then click [Next].

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

- When the restarting confirmation message appears, restart the computer following the instructions on the screen.
- DirectX may be installed depending on the system environment of your computer.

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

- Installing software as follows:
 - PMB
 - Music Transfer

After you install the software, the short cut icons for “PMB”, “PMB Guide”, “Music Transfer” are created on the desktop.

 PMB	Double-click to start “PMB”.
 PMB Guide	Double-click to start “PMB Guide”.
 Music Transfer	Double-click to start “Music Transfer”.

On the “PMB (Picture Motion Browser)” (supplied)

You can use still images and movies from the camera more than ever by taking advantage of the software.

This section summarizes the “PMB”.
For details, see the “PMB Guide”.

“PMB” overview

With the “PMB” you can:

- Import images shot with the camera and display them on the computer.
- Organize images on the computer on a calendar by shooting date to view them.
- Copy images on the computer to the recording media.
- Retouch (Red Eye Correction, etc.), print, and send still images as e-mail attachments, change the shooting date and more.
- You can display information on the positions where you shot the images on a map. (This requires an Internet connection.)
- Still images can be printed or saved with the date.
- You can create a data disc using a CD burner drive or DVD burner drive.
- You can upload the image to a media service. (This requires an Internet connection.)

Starting the “PMB Guide”

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

To access “PMB Guide” from the Start menu, click [Start] → [All Programs] → [Sony Picture Utility] → [Help] → [PMB Guide].

Starting and exiting the “PMB”

Starting the “PMB”

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

Or, from the Start menu: Click [Start] → [All Programs] → [Sony Picture Utility] → [PMB].

- The confirmation message of the Information tool appears on the screen when starting the “PMB” for the first time. Select [Start]. This function informs you of news, such as software updates. You can change the setting later.

Exiting the “PMB”

Click  button in the top right corner of the screen.

Copying images to your computer using the “PMB”

Preparing the camera and the computer

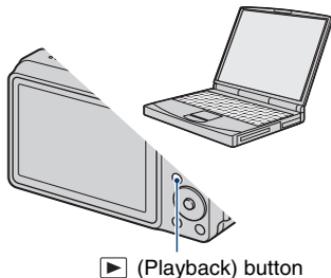
1 Insert a “Memory Stick Duo” media with recorded images into the camera.

- When copying images in the internal memory, this step is unnecessary.

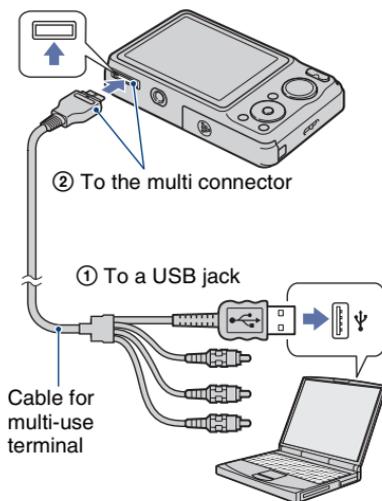
2 Insert the sufficiently charged battery pack into the camera, or connect the camera to a wall outlet (wall socket) with the AC Adaptor (sold separately) and the USB / A/V / DC IN cable for multi-use terminal (sold separately).

- Use a Type2b-compliant USB / A/V / DC IN cable (sold separately).
- When you copy images to your computer using a battery pack with little remaining charge, copying may fail or image data may become corrupted if the battery pack shuts down too soon.

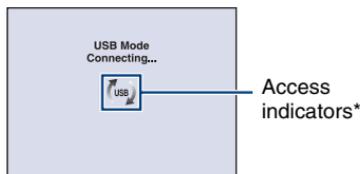
3 Turn on the computer, then press  (Playback) button.



Connecting the camera to your computer



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



When a USB connection is established for the first time, your computer automatically runs a program to recognize the camera. Wait for a while.

*  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.

- If “Mass Storage” does not appear, set [USB Connect] to [Mass Storage] (page 73).

Copying images to a computer

1 Connects the camera to a computer as described in “Connecting the camera to your computer”.

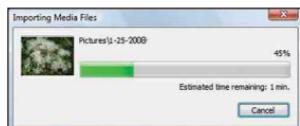
After making a USB connection, the [Import Media Files] screen of “PMB” appears automatically.



- If you use the “Memory Stick” media slot, refer to page 92.
- If the AutoPlay Wizard appears, close it.

2 Import the images.

To start importing images, click the [Import] button.



By default, images are imported into a folder created in “Pictures” (in Windows XP, “My Pictures”) that is named with the date of importing.

- For details on the “PMB”, refer to “PMB Guide”.

Viewing images on your computer

When importing is complete, the “PMB” starts. Thumbnails of the imported images are displayed.



- The “Pictures” (in Windows XP, “My Pictures”) folder is set as the default folder in “Viewed folders”.

Organize images on the computer on a calendar by shooting date to view them. For details, see the “PMB Guide”.



Example: Month display screen

To delete the USB connection

Perform the procedures from step ① to ④ below before:

- Disconnecting the cable for multi-use terminal.
- Removing a “Memory Stick Duo” media.
- Inserting a “Memory Stick Duo” media into the camera after copying images from the internal memory.
- Turning off the camera.

- ① Double-click the disconnect icon on the taskbar.

Windows Vista



Double-click here

Windows XP/Windows 2000



Double-click here

- ② Click  (USB Mass Storage Device) → [Stop].

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

- ④ Click [OK].

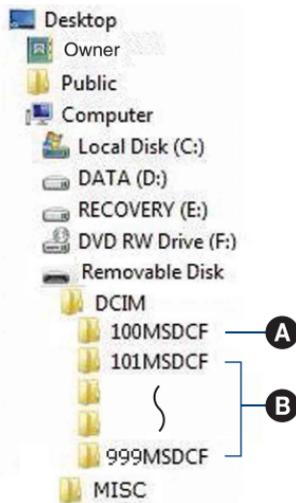
The device is disconnected.

- Step ④ is unnecessary for Windows Vista/XP.

Image file storage destinations and file names

The image files recorded with the camera are grouped as folders on the “Memory Stick Duo” media or the internal memory.

Example: viewing folders on Windows Vista



- A** Folder containing image data recorded using a camera not equipped with the folder creating function.

- B** Folder containing image data recorded using the camera.
When no new folders are created, there are folders as follows:

- “Memory Stick Duo” media: “101MSDCF” only
 - Internal memory: “101_SONY” only
- You cannot record any images to the “100MSDCF” folder. The images in this folder are available only for viewing.
 - You cannot record/play back any images to the “MISC” folder.

- Image files are named as follows:
 - Still image files: DSC0□□□□.JPG
 - Movie files: MOV0□□□□.MPG
 - Index image files that are recorded when you record movies: MOV0□□□□.THM□□□□ stands for any number within the range from 0001 to 9999. The numerical portions of the name of a movie file recorded in movie mode and its corresponding index image file are the same.
- For more information about folders, see pages 65 and 68.

Copying images to a computer without “PMB”

You can copy images to your computer without “PMB” as follows.

For a computer with a “Memory Stick” media slot:

Remove the “Memory Stick Duo” media from the camera and insert it in the “Memory Stick Duo” media Adaptor. Insert the “Memory Stick Duo” media Adaptor in the computer and copy the images.

- Even when you are using Windows 95/98/98 Second Edition/NT/Me, you can copy images by inserting the “Memory Stick Duo” media into the “Memory Stick” media slot on your computer.
- If the “Memory Stick PRO Duo” media is not recognized, see page 111.

For a computer without a “Memory Stick” media slot:

Make a USB connection and follow Stages to copy images.

- The screen displays shown in this section are the examples for copying images from “Memory Stick Duo” media.
- The camera is not compatible with Windows 95/98/98 Second Edition/NT/Me of the Windows operating system.

When you use a computer without a “Memory Stick” media slot, use a commercially available “Memory Stick” media Reader/Writer to copy images from a “Memory Stick Duo” media to your computer.

To copy images in the internal memory to your computer, copy the images to a “Memory Stick Duo” media first, then copy them to your computer.

Copying images to a computer –Windows Vista/XP

This section describes an example of copying images to the “Documents” (For Windows XP: “My Documents”).

1 Prepare the camera and a computer.

Perform the same procedure as described in “Preparing the camera and the computer” on page 88.

2 Connect the camera to your computer with the cable for multi-use terminal.

Perform the same procedure as described in “Connecting the camera to your computer” on page 88.

- If “PMB” is already installed, [Import Media Files] on “PMB” starts. Select [Cancel] to finish [Import Media Files].

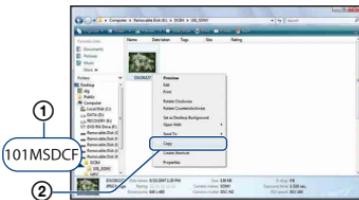
3 Click [Open folder to view files] (For Windows XP: [Open folder to view files] → [OK]) as the wizard screen appears automatically on the desktop.



- When the wizard screen does not appear automatically, follow the procedure: → “For Windows 2000”.

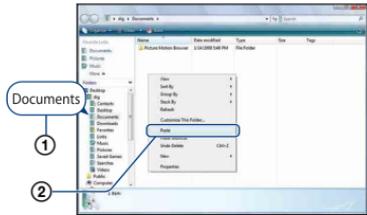
4 Double-click [DCIM].

5 Double-click the folder where the image files you want to copy are stored. Then, right-click an image file to display the menu and click [Copy].



- On the storage destination of the image files, see page 90.

6 Click the [Documents] (For Windows XP: [My Documents]) folder. Then, right-click on the “Documents” window to display the menu and click [Paste].



The image files are copied to the [Documents] (For Windows XP: [My Documents]) folder.

- When an image with the same file name exists in the copy destination folder, the overwrite confirmation message appears. When you overwrite an existing image with a new one, the original file data is deleted. To copy an image file to the computer without overwriting, change the file name and then copy the image file. However, note that if you change the file name (page 94), you may not play back that image with the camera.

For Windows 2000

Double-click [My Computer] → [Removable Disk] after connecting the camera to your computer. Then, perform from step 4.

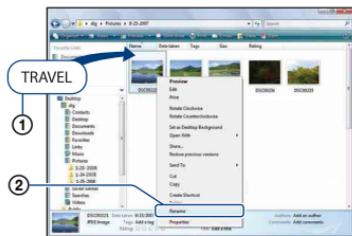
Viewing image files stored on a computer with the camera copying to the “Memory Stick Duo” media

This section describes the process using a Windows computer as an example. When an image file copied to a computer no longer remains on a “Memory Stick Duo” media, you can view that image again on the camera by copying the image file on the computer to a “Memory Stick Duo” media.

- Skip step 1 if the file name set with the camera has not been changed.
- You may not be able to play back some images depending on the image size.
- Sony does not guarantee playback of image files on the camera if the files have been processed using a computer or recorded with another camera.
- When there are no folders in a “Memory Stick Duo” media, create a folder (page 68) with the camera first, then copy the image files.

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

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



- If the overwrite confirmation message appears, enter a different number.
- An extension may be displayed depending on the computer settings. The extension for still images is JPG, and the extension for movies is MPG. Do not change the extension.

2 Copy the image file to the “Memory Stick Duo” media folder in the following order.

- ① Right-click the image file, then click [Copy].
- ② Double-click [Removable Disk] or [SonyMemoryStick] in [Computer] (in Windows XP, [My Computer]).
- ③ Right-click the [□□□MSDCF] folder in the [DCIM] folder, then click [Paste].
 - □□□ stands for any number within the range from 100 to 999.



Using the “Music Transfer” (supplied)

You can change the Music files that are preset at the factory to the desired Music files using “Music Transfer” in the CD-ROM (supplied). You can also delete or add these files whenever you want.

Adding/Changing Music using “Music Transfer”

The music formats you can transfer with “Music Transfer” are listed below:

- MP3 files stored on the hard disk drive of your computer
- Music on CDs
- Preset-music saved on the camera

1 Press HOME button to display the HOME screen.

2 Select  (Slideshow) with  on the control button, select  Music Tool] with , then press .

3 Select [Download Music] with , then press .

The message “Connect to PC” appears.

4 Make a USB connection between the camera and your computer.

5 Start “Music Transfer”.

6 Follow the instructions on the screen to add/change Music files.

- To restore the music preset at the factory to the camera:

① Perform [Format Music] in step 3.

② Execute [Restore defaults] on “Music Transfer”.

All Music files return to the preset-music, and [Music] in the [Slideshow] menu is set to [Off].

- You can reset the Music files to the preset ones using [Initialize] (page 71), however, other settings will also be reset.
- For details on using “Music Transfer”, see the on-line help in “Music Transfer”.

Using your Macintosh computer

You can copy images to your Macintosh computer.

- “PMB” is not compatible with Macintosh computers.

Recommended computer environment

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

Recommended environment for copying images

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

USB jack: Provided as standard

Recommended environment for using “Music Transfer”

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

Notes on connecting the camera to a computer

- Operations are not guaranteed for all the recommended computer environments mentioned above.
- If you connect two or more USB devices to a single computer at the same time, some devices, including the camera, may not operate depending on the types of USB devices you are using.
- Operations are not guaranteed when using a USB hub.
- Connecting the camera using a USB interface that is compatible with Hi-Speed USB (USB 2.0 compliant) allows advanced transfer (high speed transfer) as the camera is compatible with Hi-Speed USB (USB 2.0 compliant).

- There are four modes for a USB connection when connecting a computer, [Auto] (default setting), [Mass Storage], [PictBridge] and [PTP/MTP] modes. This section describes the [Auto] and [Mass Storage] as examples. For details on [PictBridge] and [PTP/MTP], see page 73.
- When your computer resumes from the suspend or sleep mode, communication between the camera and your computer may not recover at the same time.

Copying and viewing images on a computer

1 Prepare the camera and a Macintosh computer.

Perform the same procedure as described in “Preparing the camera and the computer” on page 88.

2 Connect the camera to your computer with the cable for multi-use terminal.

Perform the same procedure as described in “Connecting the camera to your computer” on page 88.

3 Copy image files to the Macintosh computer.

- ① Double-click the newly recognized icon → [DCIM] → the folder where the images you want to copy are stored.
 - ② Drag and drop the image files to the hard disk icon.
The image files are copied to the hard disk.
- For details on the storage location of the images and file names, see page 90.

4 View images on the computer.

Double-click the hard disk icon → the desired image file in the folder containing the copied files to open that image file.

To delete the USB connection

Drag and drop the drive icon or the icon of the “Memory Stick Duo” media to the “Trash” icon beforehand when you perform the procedures listed below, or the camera is disconnected from the computer.

- Disconnecting the cable for multi-use terminal.
- Removing a “Memory Stick Duo” media.
- Inserting a “Memory Stick Duo” media into the camera after copying images from the internal memory.
- Turning off the camera.

Adding/Changing Music using “Music Transfer”

You can change the Music files that are preset at the factory to the desired Music files. You can also delete or add these files whenever you want.

The music formats you can transfer with “Music Transfer” are listed below:

- MP3 files stored on the hard disk drive of your computer
- Music on CDs
- Preset-music saved on the camera

To install “Music Transfer”

- Shut down all other application software before you install “Music Transfer”.
- For installation, you need to log on as Administrator.
 - ① Turn on your Macintosh computer, and insert the CD-ROM (supplied) into the CD-ROM drive.
 - ② Double-click  (SONYPICTUTIL).
 - ③ Double-click the [MusicTransfer.pkg] file in [MAC] folder.

The installation of the software starts.

To add/change Music files

See “Adding/Changing Music using “Music Transfer”” on page 95.

Technical Support

Additional information on this product and answers to frequently asked questions can be found at the Sony Customer Support Website.
<http://www.sony.net/>

Viewing “Cyber-shot Step-up Guide”

When you install “Cyber-shot Handbook”, “Cyber-shot Step-up Guide” is also installed. “Cyber-shot Step-up Guide” further introduces how to use the camera and optional accessories.

Viewing on Windows

Double-click  (Step-up Guide) on the desktop.

To access “Step-up Guide” from the Start menu, click [Start] → [All Programs] (in Windows 2000, [Programs]) → [Sony Picture Utility] → [Step-up Guide].

Viewing on Macintosh

- 1** Copy the [stepupguide] folder in the [stepupguide] folder to your computer.
 - 2** Select [stepupguide], [language] and then [GB] folder stored in the CD-ROM (supplied), and copy all the files in the [GB] folder to the [img] folder in the [stepupguide] folder that you copied to your computer in step 1. (Overwrite the files in the [img] folder with the files from the [GB] folder.)
 - 3** After copying is complete, double-click “stepupguide.hqx” in the [stepupguide] folder to uncompress it, then double-click the generated file “stepupguide”.
 - If an uncompress tool for HQX file is not installed, install the Stuffit Expander.
-



How to print still images

When you print images shot in [16:9] mode, both edges may be cut off, so be sure to check before printing (page 113).

Printing directly using a PictBridge compliant printer (page 100)



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

Printing directly using a “Memory Stick” media compliant printer



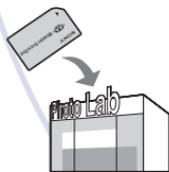
You can print images with a “Memory Stick” media compliant printer.
For details, see the operating instructions supplied with the printer.

Printing using a computer



You can copy images to a computer using the supplied “PMB” software and print the images.
You can insert the date on the image and print it (page 87).

Printing at a shop (page 103)



You can take a “Memory Stick Duo” media containing images shot with the camera to a photo printing service shop. You can make a DPOF (Print order) mark on the images which you want to print out in advance.

Printing images directly using a PictBridge compliant printer

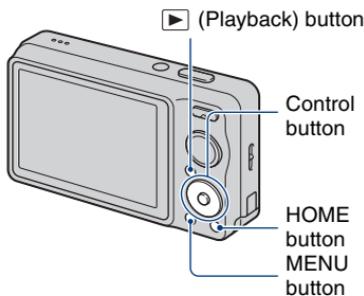
Even if you do not have a computer, you can print images shot using the camera by connecting the camera directly to a PictBridge compliant printer.

PictBridge

- “PictBridge” is based on the CIPA standard. (CIPA: Camera & Imaging Products Association)
- You cannot print movies.
- If the  indicator flashes on the screen of the camera (error notification), check the connected printer.

Stage 1: Preparing the camera

Prepare the camera for connection to the printer, using the cable for multi-use terminal. When [USB Connect] is set to [Auto], the camera will automatically recognize certain printers when connected. Skip Stage 1, if this is the case.



- It is recommended to use a fully charged battery pack to prevent the power from turning off partway through printing.

1 Press **HOME** button to display the **HOME** screen.

2 Select  (Settings) with **◀/▶** on the control button, and select [**⌂ Main Settings**] with **▲/▼**, then press **●**.

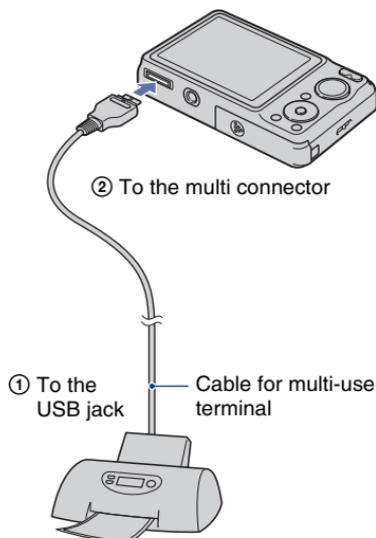
3 Select [**Main Settings 2**] with **▲/▼**, and select [**USB Connect**], then press **●**.

4 Select [**PictBridge**] with **▲/▼**, then press **●**.

The USB mode is set.

Stage 2: Connecting the camera to the printer

- 1** Connect the camera to the printer.

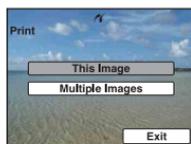


- 2** Turn on the printer. Press (Playback) button and turn on the camera.

After the connection is made, the indicator appears.



- 3** Press MENU button, select [Print] with / on the control button, then press .



The camera is set to playback mode, then an image and the print menu appear on the screen.

Stage 3: Selecting images you want to print

Select [This Image] or [Multiple Images] with /, then press .

When you select [This Image]

You can print the selected image. Move on to Stage 4.

When you select [Multiple Images]

You can print multiple selected images.

- ① Select the image you want to print with /, then press . appears on the selected image.
 - ② Press MENU to display the menu.
 - ③ Select [OK] with , then press .
- After you select [Multiple Images] on the index screen, you can print all the images in a folder by selecting the folder selection bar with and attaching a mark on the folder.

Stage 4: Printing

- 1 Select print settings with ▲/▼/◀/▶.



[Quantity]

Selects the number of copies of the specified image to be printed.

- The designated number of images may not all fit onto a single sheet depending on the quantity of images.

[Layout]

Selects the number of image you want to print side by side on a sheet.

[Size]

Selects the size of the printing sheet.

[Date]

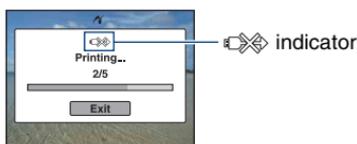
Selects [Day&Time] or [Date] to insert the date and time on images.

- When you choose [Date], the date will be inserted in the order you select (page 79). This function may not be provided depending on the printer.

- 2 Select [OK] with ▲, then press ●.

The image is printed.

- Do not disconnect the cable for multi-use terminal while the  (PictBridge Connecting) indicator appears on the screen.



Stage 5: Completing the printing

Make sure the screen has returned to Stage 2, and disconnect the cable for multi-use terminal from the camera.

Printing at a shop

You can take a “Memory Stick Duo” media containing images shot with the camera to a photo printing service shop. As long as the shop supports photo printing services conforming to the DPOF, you can make a **DPOF** (Print order) mark on images in advance so that you do not need to reselect them when you print them out at the 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.

What is DPOF?

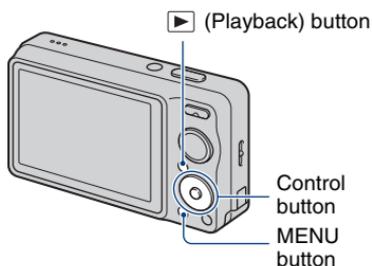
DPOF (Digital Print Order Format) is a function allowing you to make a **DPOF** (Print order) mark on images of “Memory Stick Duo” media that you want to print out later.

- You cannot mark movies.
- You can make a **DPOF** (Print order) mark on up to 999 images.

When taking a “Memory Stick Duo” media to a shop

- Consult your photo printing service shop as to what types of “Memory Stick Duo” media they handle.
- If a “Memory Stick Duo” media is not handled by your photo printing service shop, copy the images you want to print out to another medium such as a CD-R and take it to the shop.
- Be sure to take the “Memory Stick Duo” media Adaptor with it.
- Before you take image data to a shop, always copy (back up) your data to a disk.
- You cannot set the number of prints.
- When you want to superimpose dates on images, consult your photo printing service shop.

Marking a selected image



1 Press  (Playback) button.

2 Select the image you want to print.

3 Press MENU button to display the menu.

4 Select [DPOF] with / on the control button and select [This Image] with /, then press .

The **DPOF** (Print order) mark is attached to the image.



To remove the mark

Select the image from which you want to remove the mark, then repeat steps 3 and 4.

Selecting and marking the images

1 Press MENU button while displaying images in single-image mode or in index mode.

2 Select [DPOF] with ▲/▼ on the control button, [Multiple Images] with ◀/▶, and then press ●.

3 Select an image to mark with the control button, then press ●.

The ✓ mark is attached to the selected image.

Single Image



Index Display



4 Press MENU button.

5 Select [OK] with ▲, then press ●.

The DPOF mark appears on the screen.

Single Image



Index Display



To cancel the selection

Select [Exit] in step 5, then press ●.

To remove the mark

Select the images that you want to remove the marks, then press ● in step 3.

To mark all the images in the folder

In step 3, move the frame to the folder selection bar with ◀, then press ● during the index mode.

The ✓ mark is attached to the selected folder and all the images.





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

1 Check the items on pages 106 to 115.

If a code such as “C/E:□□:□□” appears on the screen, see page 116.

2 Remove the battery pack, wait for about one minute, reinsert the battery pack, then turn on the power.

3 Initialize the settings (page 71).

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

Be aware that by sending the camera for repair, you give consent that the contents of the internal memory, Music files may be checked.

Click one of the following items to jump to the page explaining the symptom and cause or the appropriate corrective action.

Battery pack and power	106	“Memory Stick Duo” media	112
Shooting still images/movies	107	Internal memory	113
Viewing images	110	Printing	113
Deleting	111	PictBridge compliant printer	114
Computers	111	Others	115

Battery pack and power

Cannot insert the battery pack.

- Insert the battery pack correctly by pushing the battery eject lever.
-

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.
 - The battery pack is discharged. Insert a charged battery pack.
 - The battery pack is dead (page 123). Replace it with a new one.
 - Use a recommended battery pack.
-

The power turns off suddenly.

- 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.
 - The battery pack is dead (page 123). Replace it with a new one.
 - Depending on the temperature of the camera and the battery pack, the power may turn off automatically to protect the camera. In this case, a message appears on the LCD screen before the camera turns off.
-

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.
 - The battery pack is discharged. Insert a charged battery pack.
 - The battery pack is dead (page 123). Replace it with a new one.
-

Cannot charge the battery pack.

- 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). Refer to page 124 for details.

Shooting still images/movies

Cannot record images.

- Check the free capacity of the internal memory or “Memory Stick Duo” media. If it is full, do one of the following:
 - Delete unnecessary images (page 34).
 - Change the “Memory Stick Duo” media.
- You cannot record images while charging the flash.
- When shooting a still image, set the mode dial to a position other than .
- Set the mode dial to  when shooting movies.
- The image size is set to [640(Fine)] when recording movies. Do one of the following:
 - Set the image size to other than [640(Fine)].
 - Insert a “Memory Stick PRO Duo” media.

Cannot shoot in Smile Shutter mode.

- Press the shutter button all the way down.
- No image is shot unless a smile is detected (page 30).
- [Smile demo mode] is set to [On]. Set [Smile demo mode] to [Off] (page 72).

This subject is not visible on the screen.

- The camera is set to the playback mode. Press  (Playback) button to change to the recording mode (page 32).

Anti-blur function does not work.

- The anti-blur function does not work when  appears on the display (DSC-W220/W230 only).
- The anti-blur function may not work properly when shooting night scenes.
- Shoot after pressing the shutter button halfway down; do not press it fully down suddenly.
- Confirm that the [Conversion Lens] setting is correct (page 77).
- Set the mode dial to  (SteadyShot) (DSC-W210/W215 only).

Recording takes a long time.

- The NR slow shutter function is activated (page 17). This is not a malfunction.
- [DRO] is set to [DRO plus] (page 54). This is not a malfunction.

The image is out of focus.

- The subject is too close. Make sure to position the lens farther away from the subject than the shortest shooting distance, approximately 4 cm (1 5/8 inches) (W)/50 cm (1 foot 7 3/4 inches) (T), when shooting (page 24).
 -  (Twilight) mode,  (Landscape) mode or  (Fireworks) mode is selected in the Scene Selection mode when shooting still images.
 - The Semi manual function is selected. Select the auto focus mode (page 49).
 - Confirm that the [Conversion Lens] setting is correct (page 77).
 - Refer to “If the subject is out of focus” on page 50.
-

Zoom does not work.

- You cannot use the Smart zoom depending on the image size (page 76).
 - You cannot use the Digital Zoom when shooting movies.
 - You cannot change the zoom scale when:
 - The Smile Shutter is in standby (page 30).
 - While shooting movies.
 - Confirm that the [Conversion Lens] setting is correct (page 77).
-

The flash does not work.

- The flash is set to  (Flash forced off) (page 25).
 - You cannot use the flash when:
 - [REC Mode] is set to [Burst] or Exposure Bracket (page 44).
 -  (High Sensitivity) mode,  (Twilight) mode or  (Fireworks) mode is selected in the Scene Selection mode (page 29).
 - Shooting movies.
 - Set the flash to  (Flash forced on) when  (Landscape) mode,  (Gourmet) mode,  (Beach) mode,  (Snow) mode or  (Underwater) mode is selected in the Scene Selection mode (page 25).
-

Fuzzy white circular spots appear in images shot using the flash.

- Particles (dust, pollen, etc.) in the air reflected the flash light and appeared in the image. This is not a malfunction (page 13).
-

The close-up shoot function (Macro) does not work.

-  (Landscape) mode,  (Twilight) mode or  (Fireworks) mode is selected in the Scene Selection mode (page 29).
-

Macro shooting cannot be turned off.

- There is no function for forcibly turning off macro shooting. In [Auto] mode, telephoto shooting is possible even in the macro shooting condition.

The date and time are not displayed on the LCD screen.

- While shooting, the date and time are not displayed. They are displayed only during playback.

Cannot insert dates on image.

- The camera does not have a feature for superimposing dates on images (page 113). By using “PMB”, you can print or save images with the date (page 87).

The F value and shutter speed flash when you press and hold the shutter button halfway down.

- The exposure is incorrect. Correct the exposure (page 46).

The screen is too dark or too bright.

- Adjust the brightness of the LCD backlight (page 20).

The image is too dark.

- You are shooting a subject with a light source behind the subject. Select [Metering Mode] (page 48) or [EV] (page 46).

The image is too bright.

- Adjust the exposure (page 46).

The image colors are not correct.

- Set [Color Mode] to [Normal] (page 54).
- Adjust the white balance (page 51).

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.

Noise appears in the image when you view the screen in a dark place.

- The camera is attempting to increase the visibility of the screen by temporarily brightening the image under conditions of low illumination. There is no effect on the recorded image.

The eyes of the subject come out red.

- Set [Red Eye Reduction] to [On] (page 53).
- Shoot the subject at a distance closer than the flash range using the flash.
- Light the room and shoot the subject.
- Retouch the image using [Red Eye Correction] or with the supplied software “PMB” (pages 59, 87).

Dots appear and remain on the screen.

- This is not a malfunction. These dots are not recorded (page 2).

Cannot shoot images in succession.

- The internal memory or “Memory Stick Duo” media is full. Delete unnecessary images (page 34).
- The battery level is low. Insert the charged battery pack.

The same image is shot several times.

- [REC Mode] is set to [Burst] or Exposure Bracket. Or, [Scene Recognition] is set to [Advanced] (pages 44, 45).

Viewing images

Cannot play back images.

- Press  (Playback) button (page 32).
- The folder/file name has been changed on your computer (page 94).
- Sony does not guarantee playback of image files on the camera if the files have been processed using a computer or recorded with another camera.
- The camera is in USB mode. Delete the USB connection (page 90).
- Playback is impossible if the Smile Shutter is in standby mode. Exit standby mode by pressing the shutter button all the way down.

The date and time are not displayed.

- The display indicators are turned off. Show the display indicators by pressing  (DISP) on the control button (page 20).

The image appears rough right after playback starts.

- This may happen due to image processing. This is not a malfunction.

Left and right sides of the screen are shown in black.

- [Auto Orientation] is set to [On] (DSC-W220/W230 only) (page 78).

Cannot hear music during slideshow.

- Transfer music files to the camera with “Music Transfer” (page 95).
- Confirm that the volume setting and slideshow setting are correct (page 56).

The image does not appear on the TV screen.

- Check [Video Out] to see if the video output signal of the camera is set to the color system of your TV (page 74).
- Check whether the connection is correct (page 81).
- If the USB connector of the cable for multi-use terminal is connected to another device, disconnect it (page 90).
- You are trying to play back movies during HD(1080i) output. Movies cannot be viewed at high-definition image quality. Set [COMPONENT] to [SD] (page 73).

Deleting

Cannot delete an image.

- Cancel the protection (page 64).

Computers

Computer OS compatibility with camera is unknown.

- Check “Recommended computer environment” on page 85 for Windows, and page 96 for Macintosh.

“Memory Stick PRO Duo” media is not recognized by a computer with a “Memory Stick” media slot.

- Check that the computer and the “Memory Stick” media Reader/Writer support “Memory Stick PRO Duo” media. Users of computers and “Memory Stick” media Readers/Writers made by manufacturers other than Sony should contact those manufacturers.
- If “Memory Stick PRO Duo” media is not supported, connect the camera to the computer (pages 88, 96). The computer recognizes the “Memory Stick PRO Duo” media.

Your computer does not recognize the camera.

- Turn on the camera.
- When the battery level is low, insert the charged battery pack or use the AC adaptor (sold separately) (page 88).
- Set [USB Connect] to [Mass Storage] (page 73).
- Use the cable for multi-use terminal (supplied) (page 88).
- Disconnect the cable for multi-use terminal from both the computer and the camera, and connect it again firmly.
- Disconnect all equipment other than the camera, the keyboard and the mouse from the USB connectors of your computer.
- Connect the camera directly to your computer without passing through a USB hub or other device (page 88).

Cannot copy images.

- Connect the camera and your computer correctly making a USB connection (page 88).
 - Follow the designated copy procedure for your OS (pages 92, 96).
 - When you shoot images with a “Memory Stick Duo” media formatted by a computer, you may not be able to copy the images to a computer. Shoot using a “Memory Stick Duo” media formatted by the camera (page 68).
-

After making a USB connection, “PMB” does not start automatically.

- Make the USB connection after the computer is turned on (page 88).
-

Cannot play back images on your computer.

- If you are using “PMB”, refer to “PMB Guide” (page 87).
 - Consult the computer or software manufacturer.
-

You do not know how to use “PMB”.

- Refer to “PMB Guide” (page 87).
-

The image and sound are interrupted by noise when you view a movie on a computer.

- You are playing back the movie directly from the internal memory or the “Memory Stick Duo” media. Copy the movie to the hard disk of your computer, then play back the movie from the hard disk (page 92).
-

Cannot print an image.

- Refer to the operation manual of the printer.
-

Images once copied to a computer cannot be viewed on the camera.

- Copy them to a folder recognized by the camera, such as “101MSDCF” (page 90).
 - Follow the correct procedures (page 94).
-

“Memory Stick Duo” media

Cannot insert a “Memory Stick Duo” media.

- Insert it in the correct direction.
-

You have formatted a “Memory Stick Duo” media by mistake.

- All the data on the “Memory Stick Duo” media is deleted by formatting. You cannot restore it.

Internal memory

Cannot playback or record images using the internal memory.

- There is a “Memory Stick Duo” media inserted in the camera. Remove it.

Cannot copy the data stored in the internal memory to a “Memory Stick Duo” media.

- The “Memory Stick Duo” media is full. Copy the image to the “Memory Stick Duo” media with sufficient free capacity.

Cannot copy the data on the “Memory Stick Duo” media or the computer to the internal memory.

- This feature is not available.

Printing

See “PictBridge compliant printer” together with the following items.

Images are printed with both edges cut off.

- Depending on your printer, all the edges of the image may be cut off. Especially when you print an image shot with the image size set to [16:9], the lateral end of the image may be cut off.
- When printing images using your printer, cancel the trimming or borderless settings. Consult the printer manufacturer as to whether the printer provides these functions or not.
- When having images printed at a digital print shop, ask the shop whether they can print the images without cutting off both edges.

Cannot print images with the date.

- Using “PMB”, you can print images with date (page 87).
- The camera does not have a feature for superimposing dates on images. However, because the images shot with the camera include information on the recording date, you can print images with the date superimposed if the printer or the software can recognize Exif information. For compatibility with Exif information, consult the manufacturer of the printer or the software.
- If you use a photo printing service, ask them to superimpose the dates on images.

PictBridge compliant printer

A connection cannot be established.

- The camera cannot be connected directly to a printer that is not compliant with the PictBridge standard. Consult the printer manufacturer as to whether the printer is compliant with PictBridge or not.
- Check that the printer is turned on and can be connected to the camera.
- Set [USB Connect] to [PictBridge] (page 73).
- Disconnect and connect the cable for multi-use terminal again. If an error message is indicated on the printer, refer to the operating instructions supplied with the printer.

Cannot print images.

- Check that the camera and the printer are properly connected using the cable for multi-use terminal.
- Turn on the printer. For further information, refer to the operating instructions supplied with the printer.
- If you select [Exit] during printing, images may not be printed. Disconnect and connect the cable for multi-use terminal again. If you still cannot print your images, disconnect the cable for multi-use terminal, turn the printer off and then on, then connect the cable for multi-use terminal again.
- Movies cannot be printed.
- Images shot using cameras other than the camera or images modified with a computer may not be printed.

Printing is canceled.

- Confirm that you have disconnected the cable for multi-use terminal before the  (PictBridge Connecting) mark disappears.

Cannot insert the date or print images in the index mode.

- The printer does not provide these functions. Consult the printer manufacturer as to whether the printer provides these functions or not.
- The date may not be inserted in the index mode depending on the printer. Consult the printer manufacturer.

“---- --” is printed on the date-inserted part of the image.

- The image does not have the recording data so the date cannot be inserted. Set [Date] to [Off] and print the image again (page 102).

Cannot select the print size.

- Consult the printer manufacturer as to whether the printer can provide the desired size.

Cannot print the image at the size selected.

- When you use paper of a different size after connecting the printer to the camera, disconnect and then reconnect the cable for multi-use terminal.
- The print setting of the camera differs from that of the printer. Change the setting of either the camera (page 102) or the printer.

Cannot operate the camera after canceling printing.

- Wait for a while as the printer is carrying out the cancellation. It may take some time depending on the printer.

Others

Cannot reset the file-number.

- If you replace a recording medium, you cannot initialize file numbers with the camera. To initialize file numbers, perform [Format] (pages 68, 70), and then perform [Initialize] (page 71). However, the data on the “Memory Stick Duo” media or the internal memory will be deleted and all settings, including date, will be initialized.

The camera does not function with the lens portion extended.

- Do not attempt to force the lens that has stopped moving.
- Insert a charged battery pack, then turn on the camera again.

The lens gets fogged.

- Moisture condensation has occurred. Turn off the camera and leave it for about an hour before using it.

The lens does not move when you turn off the camera.

- The battery pack is discharged. Replace it with a charged battery pack.

The camera becomes warm when you use it for a long time.

- This is not a malfunction.

The Clock Set screen appears when you turn on the camera.

- Set the date and time again (page 79).
- The internal rechargeable backup battery has discharged. Insert a charged battery and set aside for 24 hours or more with the power left off.

You want to change the date or time.

- Set the date and time again (page 79).

Warning indicators and messages

Self-diagnosis display

If a code starting with a letter of the alphabet appears, the self-diagnosis function on the camera is working. The last two digits (indicated by □□) will differ depending on the state of the camera.

If you cannot solve the problem even after trying the following corrective actions a few times, the camera may need repair. Contact your Sony dealer or local authorized Sony service facility.

C:32:□□

- There is trouble with the camera's hardware. Turn the power off and on again.

C:13:□□

- The camera cannot read or write data on the "Memory Stick Duo" media. Try turning off and on the camera again, or taking out and inserting the "Memory Stick Duo" media several times.
- The internal memory has experienced a format error, or an unformatted "Memory Stick Duo" media is inserted. Format the internal memory or the "Memory Stick Duo" media (pages 68, 70).
- The inserted "Memory Stick Duo" media cannot be used with the camera, or the data is damaged. Insert a new "Memory Stick Duo" media.

E:61:□□

E:62:□□

E:91:□□

- A camera malfunction has occurred. Initialize the camera (page 71), then turn the power on again.

Messages

If the following messages appear, follow the instructions.



- The battery level is low. Charge the battery pack immediately. Depending on the conditions of use or the type of battery pack, the indicator may flash even though there are still 5 to 10 minutes of remaining battery time left.

For use with compatible battery only

- The battery inserted is not an NP-BG1 battery pack (supplied) or NP-FG1 battery pack (sold separately).

System error

- Turn the power off and then on again.

Camera overheating Allow it to cool

- The power turns off automatically when the camera temperature rises. Leave the camera in a cool place until the camera cools down.

Internal memory error

- Turn the power off and then on again.

Reinsert the Memory Stick

- Insert the "Memory Stick Duo" media correctly.
- The inserted "Memory Stick Duo" media cannot be used in the camera (page 121).
- The "Memory Stick Duo" media is damaged.
- The terminal section of the "Memory Stick Duo" media is dirty.

Memory Stick type error

- The inserted “Memory Stick Duo” media cannot be used in the camera (page 121).

Cannot access Memory Stick Access denied

- You are using the “Memory Stick Duo” media with the access controlled.

Error formatting Memory Stick Error formatting internal memory

- Format the media again (pages 68, 70).

Memory Stick locked

- You are using the “Memory Stick Duo” media with the write-protect switch, and the switch is set to the LOCK position. Set the switch to the recording position.

No memory space on internal memory No memory space on Memory Stick

- Delete unnecessary images or files (page 34).

Read only memory

- The camera cannot record or delete images on this “Memory Stick Duo” media.

No images

- No images that can be played back have been recorded in the internal memory.
- No images that can be played back have been recorded on the “Memory Stick Duo” media.
- The selected folder does not contain a file that can be played back in a slideshow.

Folder error

- A folder with the same first three digit number already exists on the “Memory Stick Duo” media (for example: 123MSDCF and 123ABCDE). Select another folder, or create a new folder (pages 68, 69).

Cannot create more folders

- The folder with a name beginning with “999” exists on the “Memory Stick Duo” media. You cannot create any folders if this is the case.

File error

- An error occurred while the image was playing back. Sony does not guarantee playback of image files on the camera if the files have been processed using a computer or recorded with another camera.

Read only folder

- You have selected a folder that cannot be set as a recording folder on the camera. Select another folder (page 69).

File protected

- Release the protection (page 64).

Image size over limit

- You are playing back an image with size that cannot be played back on the camera.



(Vibration warning indicator)

- Camera shake may occur due to insufficient light. Use the flash, select the anti-blur function, or mount the camera on a tripod to secure the camera.

640(Fine) is not available

- 640(Fine) size movies can be recorded only using a “Memory Stick PRO Duo” media. Insert a “Memory Stick PRO Duo” media or set the image size to a size other than [640(Fine)].

Macro is invalid

- The macro is unavailable under the current settings (page 29).

Flash settings cannot be changed

- The flash is unavailable under the current settings (page 29).

Maximum number of images already selected

- You can select up to 100 images. Remove the checkmark.
- You can add the **DPOF** (Print order) mark to a maximum 999 files. Cancel the selection.

Low battery power

- When copying an image recorded in the internal memory to the “Memory Stick Duo” media, use a fully charged battery.

Printer busy

Paper error

No paper

Ink error

Low ink

No ink

- Check the printer.

Printer error

- Check the printer.
- Check if the image you want to print is corrupted.



- The data transmission to the printer may not be completed yet. Do not disconnect the cable for multi-use terminal.

Processing...

- The printer is canceling the current print job. You cannot print until it is finished. This may take time, depending on the printer.

Error Playing Music

- Delete the Music file, or replace it with a normal Music file.
- Execute [Format Music], then download a new Music files.

Error Formatting Music

- Execute [Format Music].

Operation cannot be executed for movie files

- You have selected a function that is not available for movies.

Operation cannot be executed in unsupported files

- Processing and other editing functions of the camera cannot be performed on image files that have been processed using a computer or images that were recorded with another camera.

Operation cannot be executed when using a PictBridge connection

- Some functions are restricted while the camera is connected to a PictBridge compliant printer.

Operation cannot be executed during HD(1080i) output

- Some functions are restricted while the camera is connected to a High Definition TV.

Unable to detect face for retouch

- Retouching may not be possible depending on the image.

Turn the power off and on again

- The lens malfunction.

Self-Timer is invalid

- The self-timer is unavailable under these settings (page 29).



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, 50/60 Hz.

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

On the “Memory Stick Duo” media

A “Memory Stick Duo” media is a compact, portable IC recording medium. The types of “Memory Stick Duo” media that can be used with the camera are listed in the table below. However, proper operation cannot be guaranteed for all “Memory Stick Duo” media functions.

“Memory Stick” media type	Recording/ Playback
Memory Stick Duo (without MagicGate)	○*1
Memory Stick Duo (with MagicGate)	○*2
MagicGate Memory Stick Duo	○*1+2
Memory Stick PRO Duo	○*2+3
Memory Stick PRO-HG Duo	○*2+3+4

- *1) The camera is not compatible with high-speed data transfer using a parallel interface.
 - *2) “Memory Stick Duo” media, “MagicGate Memory Stick Duo” media and “Memory Stick PRO Duo” media are equipped with MagicGate functions. MagicGate is copyright protection technology that uses encryption technology. Data recording/playback that requires MagicGate functions cannot be performed with the camera.
 - *3) [640(Fine)] size movies can be recorded.
 - *4) The camera is not compatible with 8-bit parallel data transfer. Supports 4-bit parallel data transfer equivalent to “Memory Stick PRO Duo” media.
- This product is compatible with “Memory Stick Micro” media (“M2”). “M2” is an abbreviation for “Memory Stick Micro” media.
 - A “Memory Stick Duo” media formatted with a computer is not guaranteed to operate with the camera.
 - Data read/write speeds differ depending on the combination of the “Memory Stick Duo” media and the equipment used.
 - Do not remove the “Memory Stick Duo” media while reading or writing data.
 - Data may be corrupted in the following cases:
 - When the “Memory Stick Duo” media is removed or the camera is turned off during a read or write operation.
 - When the “Memory Stick Duo” media is used in locations subject to static electricity or electrical noise.
 - We recommend backing up important data on a hard disk of your computer.
 - Do not press down hard when you write down on the memo area.
 - Do not attach a label on the “Memory Stick Duo” media itself nor on a “Memory Stick Duo” media Adaptor.
 - When you carry or store the “Memory Stick Duo” media, put it in the case supplied with it.
 - Do not touch the terminal section of the “Memory Stick Duo” media with your hand or a metal object.
 - Do not strike, bend or drop the “Memory Stick Duo” media.
 - Do not disassemble or modify the “Memory Stick Duo” media.
 - Do not expose the “Memory Stick Duo” media to water.
 - Do not leave the “Memory Stick Duo” media within the reach of small children. They might accidentally swallow it.
 - Do not insert anything other than a “Memory Stick Duo” media into the “Memory Stick Duo” media slot. Otherwise, a malfunction may result.
 - Do not use or store the “Memory Stick Duo” media under the following conditions:
 - High temperature locations such as the hot interior of a car parked in direct sunlight
 - Locations exposed to direct sunlight
 - Humid locations or locations with corrosive substances present

Notes on using the “Memory Stick Duo” media Adaptor (sold separately)

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

Note on using “Memory Stick PRO Duo” media (sold separately)

“Memory Stick PRO Duo” media with a capacity up to 16 GB have been confirmed to operate properly with the camera.

Notes on using “Memory Stick Micro” media (sold separately)

- To use a “Memory Stick Micro” media with the camera, be sure to insert the “Memory Stick Micro” media into a Duo-sized “M2” Adaptor. If you insert a “Memory Stick Micro” media into the camera without a Duo-sized “M2” Adaptor, you might not be able to remove it from the camera.
- Do not leave the “Memory Stick Micro” media within the reach of small children. They might accidentally swallow it.

On the battery pack

On charging the battery pack

- We recommend charging the battery pack in an ambient temperature of between 10°C to 30°C (50°F to 86°F). The battery pack may not be effectively charged in temperatures outside this range.

Effective use of the battery pack

- Battery performance decreases in low temperature surroundings. So in cold places, the operational time of the battery pack is shorter. We recommend the following to ensure longer battery pack use:
 - Put the battery pack in a pocket close to your body to warm it up, and insert it in the camera immediately before you start shooting.
- The battery pack will run out quickly if you use the flash or zoom frequently.
- We recommend having spare battery packs handy for two or three times the expected shooting time, and making trial shots before taking the actual shots.
- Do not expose the battery pack to water. The battery pack is not water-resistant.
- Do not leave the battery pack in extremely hot places, such as in a car or under direct sunlight.

How to store the battery pack

- Fully discharge the battery pack before storing and store it in a cool, dry place. To maintain the battery pack's function, fully charge the battery pack and then fully discharge it on the camera at least once a year while storing.
- To use the battery pack up, leave the camera in slideshow (page 56) playback mode until the power goes off.
- To prevent staining the terminal, short-circuiting, etc., be sure to use a supplied battery case when carrying and storing.

On battery life

- The battery life is limited. Battery capacity decreases over time and through repeated use. If decreased usage time between charges becomes significant, it is probably time to replace it with a new one.
- The battery life varies according to how it is stored and the operating conditions and environment in which each battery pack is used.

Compatible battery pack

- The NP-BG1 (supplied) can be used only in G type compatible Cyber-shot models.
- If you use the NP-FG1 battery pack (sold separately), the minutes also appear after the battery remaining indicator (🔋 60 Min).

On the battery charger

On the battery charger

- Do not charge any battery pack other than the NP-BG type or NP-FG type battery packs in the battery charger (supplied). Batteries other than the specified kind may leak, overheat, or explode if you attempt to charge them, posing a risk of injury from electrocution and burns.
- Remove the charged battery pack from the battery charger. If you leave the charged battery pack in the charger, battery life may be shortened.
- The CHARGE lamp of the supplied battery charger flashes in either way:
 - Fast flashing: Turns the light on and off repeatedly at the interval of 0.15 seconds.
 - Slow flashing: Turns the light on and off repeatedly at the interval of 1.5 seconds.
- When the CHARGE lamp flashes fast, remove the battery pack being charged, and then insert the same battery pack into the battery charger securely again. When the CHARGE lamp flashes fast again, this may indicate a battery error or that a battery pack other than the specified type has been inserted. Check that the battery pack is the specified type. If the battery pack is the specified type, remove the battery pack, replace it with a new one or another one and check if the battery charger operates correctly. If the battery charger operates correctly, a battery error may have occurred.
- When the CHARGE lamp flashes slowly, it indicates that the battery charger stops charging temporarily on standby. The battery charger stops charging and enters the standby status automatically when the temperature is outside of the recommended operating temperature. When the temperature gets back within the appropriate range, the battery charger resumes charging and the CHARGE lamp lights up again. We recommend charging the battery pack in an ambient temperature of between 10°C to 30°C (50°F to 86°F).



- A**
- Adjusting EV20, 46
 - AE/AF lock indicator.....24, 50
 - AF Illuminator75
 - AF lock50
 - AF Mode.....76
 - AF range finder frame49
 - Aperture9
 - Auto Adjustment.....23
 - Auto Focus.....7
 - Auto Orientation78
 - Auto Review78
- B**
- B & W.....55
 - Battery charger.....124
 - Battery pack123
 - Beach28
 - Beep71
 - Blur8
 - Burst.....44
- C**
- Cable for multi-use terminal
.....88, 101
 - Center AF49
 - Center-weighted metering48
 - Change REC. Folder69
 - Clock Settings79
 - Cloudy51
 - Color Mode.....54
 - COMPONENT73
 - Computer.....84
 - Copying images 88, 96
 - Macintosh.....96
 - Recommended environment 85, 96
 - Software.....86
 - Viewing image files stored on a computer with the camera.....94
 - Windows84
 - Connecting
 - Computer88
 - Printer.....101
 - TV81
 - Conversion Lens77
 - Copy69
 - Copying images to your computer88
 - Create REC. Folder.....68
 - Cross Filter.....61
- D**
- Date79, 102
 - Daylight.....51
 - Delete34, 56
 - Format68, 70
 - Deleting images.....34
 - Digital Zoom76
 - DirectX.....86
 - DISP.....20
 - Download Music95
 - DPOF64, 103
 - DRO54
- E**
- Easy Shooting24
 - EV46
 - Exposure Bracket44
 - Extension.....94
- F**
- Face Detection42
 - File name90
 - File storage destination.....90
 - Fireworks28
 - Fisheye Lens60
 - Flash (White Balance)52
 - Flash Level53
 - Flash25, 42
 - Fluorescent Light 151
 - Fluorescent Light 251
 - Fluorescent Light 351
 - Focus.....7, 24, 49
 - Folder
 - Changing69
 - Creating68
 - Selecting65
 - Format.....68, 70
 - Format Music.....95
 - Function Guide71
- G**
- Gourmet28
 - Grid Line75
- H**
- Happy Faces62
 - High Sensitivity28
 - Histogram20
 - HOME36
- I**
- Identifying parts.....14
 - Image file storage destinations and file names.....90
 - Image size.....11, 41
 - Incandescent52
 - Index screen.....33
 - Indicator.....16
 - Initialize71

- Install 86
 - Internal memory 21
 - Internal Memory Tool 70
 - ISO 9, 10, 47
- L**
- Landscape 28
 - Language Setting 80
 - LCD Screen 20
- M**
- Macintosh computer 96
 - Macro 25
 - Main Settings 1 71
 - Main Settings 2 73
 - Manage Memory 68
 - Mass Storage 73
 - “Memory Stick Duo” media
..... 121
 - Memory Stick Tool 68
 - Menu
 - Items 39
 - Shooting 41
 - Viewing 56
 - Metering Mode 48
 - Mode Dial 22
 - Monitor 76
 - MTP 73
 - Multi AF 49
 - Multi connector 15
 - Multi-pattern metering 48
 - Multi-Purpose Resize 62
 - Music 57
 - Music Tool 95
 - Music Transfer 95, 97
- N**
- NR slow shutter 17
 - NTSC 74
- O**
- Optical zoom 76
 - OS 85, 96
 - Overexposure 9
- P**
- PAL 74
 - Partial Color 60
 - PC 84
 - PictBridge 73, 100
 - Pixel 11
 - Playback zoom 32
 - PMB 87
 - Precision digital zoom 76
 - Pressing halfway down 7
 - Print order mark 64, 103
 - Print 64, 99
 - Printing at a shop 103
 - Printing directly 100
 - Program Auto 22
 - Protect 63
 - PTP 73
- R**
- Radial Blur 61
 - REC Mode 44
 - Red Eye Correction 59
 - Red Eye Reduction 53
 - Retouch 58
 - Retro 61
 - Rotate 65
- S**
- Scene Recognition 45
 - Scene Selection 27, 41
 - Screen
 - Changing the display 20
 - Indicator 16
 - LCD backlight 20
 - Select Folder 65
 - Self-diagnosis display 116
 - Self-Timer 26
 - Semi manual 50
 - Sepia 55
 - Settings 71
 - Shooting
 - Movies 23
 - Still image 23
 - Shooting Settings 1 75
 - Shooting Settings 2 78
 - Shutter speed 9
 - Single 76
 - Slideshow 56
 - Slow Synchro 25
 - Smart zoom 76
 - Smile demo mode 72
 - Smile Detection 43
 - Smile Detection Sensitivity
..... 43
 - Smile Shutter 28, 30
 - Snow 28
 - Soft Focus 60
 - Soft Snap 28
 - Software 86, 87, 95
 - Spot AF 49
 - Spot metering 48
 - Spot metering cross hairs 48
 - SteadyShot 28, 55
- T**
- Trimming 59
 - Troubleshooting 105
 - TV 81
 - Twilight 28
 - Twilight Portrait 28

U

Underexposure	9
Underwater	28
Underwater White Balance	52
Unsharp masking	59
USB Connect	73
Using the camera abroad	120

V

VGA.....	12
Video Out	74
Viewing images	32
Viewing menu.....	56
Vivid	54
Volume	32

W

Warning indicators and messages.....	116
White Balance.....	51
Wide Zoom Display.....	74
Windows computer.....	84

Z

Zoom.....	25
-----------	----

Notes on the License

“C Library”, “Expat” and “zlib” software are provided in the camera. We provide this software based on license agreements with their owners of copyright. Based on requests by the owners of copyright of these software applications, we have an obligation to inform you of the following. Please read the following sections.

Read “license1.pdf” in the “License” folder on the CD-ROM. You will find licenses (in English) of “C Library”, “Expat” and “zlib” software.

On GNU GPL/LGPL applied software

The software that is eligible for the following GNU General Public License (hereinafter referred to as “GPL”) or GNU Lesser General Public License (hereinafter referred to as “LGPL”) are included in the camera.

This informs you that you have a right to have access to, modify, and redistribute source code for these software programs under the conditions of the supplied GPL/LGPL.

Source code is provided on the web. Use the following URL to download it.

<http://www.sony.net/Products/Linux/>

We would prefer you do not contact us about the contents of source code.

Read “license2.pdf” in the “License” folder on the CD-ROM. You will find licenses (in English) of “GPL”, and “LGPL” software.

To view the PDF, Adobe Reader is needed.

If it is not installed on your computer, you can download it from the Adobe Systems web page:

<http://www.adobe.com/>

Additional information on this product and answers to frequently asked questions can be found at our Customer Support Website.

<http://www.sony.net/>