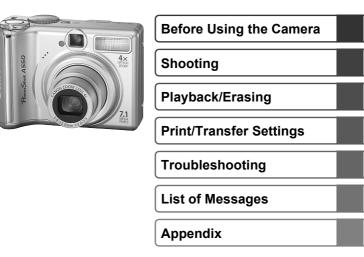
## ENGLISH





# Advanced Camera User Guide

This guide explains camera features and procedures in detail.

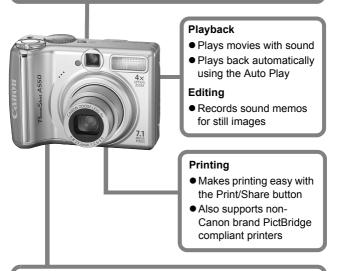






#### Shooting

- Avoid the effects of camera shake or blurry subjects when shooting by using a high ISO speed
- Automatically adjusts shooting settings to match particular conditions
- Automatically detects camera orientation with an Intelligent Orientation sensor



#### Uses of Recorded Images

 Effortlessly transfer them to a computer with the Print/Share button

## **Conventions Used in this Guide**

Icons appearing next to, or below titles indicate the shooting modes in which the procedure can be used. Shooting/ Playback Mode
Postcard Mode
Shooting Mode
UTD 
Shooting Mode
UTD 
Shooting Mode
UTD 
Shooting Mode (p. 117).
In this guide, the Basic Camera User Guide is referred to as the Basic Guide, and the Advanced Camera User Guide is referred to as the Advanced Guide.

- This mark denotes issues that may affect the camera's operation.
  - : This mark denotes additional topics that complement the basic operating procedures.



You can use SD memory cards, SDHC memory cards and MultiMediaCards with this camera. These cards are collectively called memory cards in this guide.

#### Use of genuine Canon accessories is recommended.

This product is designed to achieve excellent performance when used with genuine Canon accessories. Canon shall not be liable for any damage to this product and/or accidents such as fire, etc., caused by the malfunction of non-genuine Canon accessories (e.g., a leakage and/or explosion of a battery pack). Please note that this warranty does not apply to repairs arising out of the malfunction of non-genuine Canon accessories, although you may request such repairs on a chargeable basis.

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Items marked with a  $\star$  are lists or charts that summarize camera functions or procedures.

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## **Please Read**

#### **Test Shots**

Before you try to photograph important subjects, we highly recommend that you shoot several trial images to confirm that the camera is operating and being operated correctly.

Please note that Canon Inc., its subsidiaries and affiliates, and its distributors are not liable for any consequential damages arising from any malfunction of a camera or accessory, including memory cards, that results in the failure of an image to be recorded or to be recorded in a way that is machine readable.

#### Warning Against Copyright Infringement

Please note that Canon digital cameras are intended for personal use and should never be used in a manner that infringes upon or contravenes international or domestic copyright laws and regulations. Please be advised that in certain cases the copying of images from performances, exhibitions, or commercial properties by means of a camera or other device may contravene copyright or other legal rights even if the image was shot for personal use.

#### Warranty Limitations

For information on your camera's warranty, please refer to the Canon European Warranty System (EWS) Booklet supplied with your camera.

For Canon Customer Support contacts, please see the rear of the European Warranty System (EWS) Booklet.

#### **Camera Body Temperature**

If your camera is used for prolonged periods, the camera body may become warm. Please be aware of this and take care when operating the camera for an extended period.

#### About the LCD Monitor

The LCD monitor is produced with extremely high-precision manufacturing techniques. More than 99.99% of the pixels operate to specification. Less than 0.01% of the pixels may occasionally misfire or appear as red or black dots. This has no effect on the recorded image and does not constitute a malfunction.

#### Video Format

Please set the camera's video signal format to the one used in your region before using it with a TV monitor (p. 67).

#### Language Setting

Please see the Basic Guide (p. 8) to change the language setting.

## **Safety Precautions**

- Before using the camera, please ensure that you read the safety precautions described below and in the "Safety Precautions" section of the *Basic Camera User Guide*. Always ensure that the camera is operated correctly.
- The safety precautions noted on the following pages are intended to instruct you in the safe and correct operation of the camera and its accessories to prevent injuries or damage to yourself, other persons and equipment.
- Equipment refers to the camera, battery, battery charger (sold separately) and compact power adapter (sold separately).

## A Warnings

#### Equipment

• Do not point the camera directly at the sun or bright light sources.

Doing so could damage the camera's CCD or your eyesight.

- Store this equipment out of the reach of children and infants.
- Wrist strap: Placement of the strap around the child's neck could result in asphyxiation.
- Memory card: It may be swallowed accidentally. If this occurs, contact a doctor immediately.
- Do not attempt to disassemble or alter any part of the equipment that is not expressly described in this guide.
- To avoid the risk of high-voltage electrical shock, do not touch the flash portion of the camera if it has been damaged.
- Stop operating the equipment immediately if it emits smoke or noxious fumes.
- Do not allow the equipment to come into contact with, or become immersed in, water or other liquids. If the exterior comes into contact with liquids or salt air, wipe it dry with a soft, absorbent cloth.

Continued use of the equipment may result in fire or electrical shock. Immediately turn the camera power off and remove the camera batteries or unplug the battery charger or compact power adapter from the power outlet.

Please consult your camera distributor or the closest Canon Customer Support Help Desk.

- Do not use substances containing alcohol, benzine, thinners or other flammable substances to clean or maintain the equipment.
- Do not cut, damage, alter or place heavy items on the power cord.
- Use only recommended power accessories.
- Remove the power cord on a regular periodic basis and wipe away the dust and dirt that collects on the plug, the exterior of the power outlet and the surrounding area.
- Do not handle the power cord if your hands are wet. Continued use of the equipment may result in fire or electrical shock.

#### Battery

- Do not place the batteries near a heat source or expose them to direct flame or heat.
- The batteries should not be immersed in water or sea water.
- Do not attempt to disassemble, alter or apply heat to the batteries.
- Avoid dropping or subjecting the batteries to severe impacts that could damage the casing.
- Use only recommended batteries and accessories.

Use of batteries not expressly recommended for this equipment may cause explosions or leaks, resulting in fire, injury and damage to the surroundings. In the event that a battery leaks and the eyes, mouth, skin or clothing contact these substances, immediately flush with water and seek medical assistance.

- Disconnect the battery charger and compact power adapter from both the camera and the power outlet after recharging or when not in use to avoid fire and other hazards.
- Do not place anything, such as tablecloths, carpets, bedding or cushions, on top of the battery charger while it is charging.

Leaving the units plugged in for a long period of time may cause them to overheat and distort, resulting in fire.

- When recharging the Canon AA-size NiMH batteries, use only a specified battery charger.
- The compact power adapter is designed for exclusive use with this equipment. Do not use it with other products.

There is a risk of overheating and distortion which could result in fire or electrical shock.

 Before you discard a battery, cover the terminals with tape or other insulators to prevent direct contact with other objects.

Contact with the metallic components of other materials in waste containers may lead to fire or explosions.

#### Others

 Do not trigger the flash in close proximity to human or animal eyes. Exposure to the intense light produced by the flash may damage eyesight.

In particular, remain at least one meter (39 inches) away from infants when using the flash.

• Keep objects that are sensitive to magnetic fields (such as credit cards) away from the speaker of the camera.

Such items may lose data or stop working.

#### Equipment

- Be careful not to bang the camera or subject it to strong impacts or shocks that could lead to injury or damage the equipment when wearing or holding it by the strap.
- Do not store the equipment in humid or dusty areas.
- Do not allow metal objects (such as pins or keys) or dirt to contact the charger terminals or plug.

Such conditions could lead to fire, electrical shock or other damage.

- Avoid using, placing or storing the equipment in places subject to strong sunlight or high temperatures, such as the dashboard or trunk (boot) of a car.
- Do not use the equipment in a manner that exceeds the rated capacity of the electrical outlet or wiring accessories. Do not use if the power cord or plug is damaged, or if not fully plugged into the outlet.
- Do not use in locations with poor ventilation.

The above-mentioned can cause leakage, overheating or explosion, resulting in fire, burns or other injuries. High temperatures may also cause deformation of the casing.

 When not using the camera for extended periods of time, remove the batteries from the camera or battery charger and store the equipment in a safe place.

If the batteries are left inside the camera, damage caused by leakage may occur.

 Do not connect compact power adapters or battery chargers to devices such as electrical transformers for foreign travel because it may lead to malfunctions, excessive heat generation, fire, electric shock or injury.

#### Flash

- Do not operate the flash with dirt, dust or other items stuck to the surface of the flash.
- Be careful not to cover the flash with your fingers or clothing when shooting.

The flash may be damaged and emit smoke or noise. The resulting heat build-up could damage the flash.

## • Do not touch the surface of the flash after taking several pictures in rapid succession.

Doing so could result in burns.

## **Preventing Malfunctions**

#### **Avoid Strong Magnetic Fields**

 Never place the camera in close proximity to electric motors or other equipment generating strong electromagnetic fields.

Exposure to strong magnetic fields may cause malfunctions or corrupt image data.

#### **Avoid Condensation Related Problems**

 When moving the equipment rapidly from a cold place to a hot place, you can avoid condensation by placing the equipment in an airtight, resealable plastic bag and letting it adjust to temperature changes slowly before removing it from the bag.

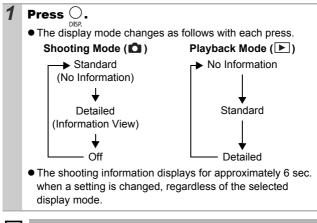
Moving the equipment rapidly from a cold place to a hot place may cause condensation (water droplets) to form on its external and internal surfaces.

#### If Condensation Forms Inside the Camera

#### • Stop using the camera immediately.

Continued use may damage the equipment. Remove the memory card and batteries or compact power adapter from the camera and wait until the moisture evaporates completely before resuming use.

## **Using the LCD Monitor**



- The LCD monitor on or off setting is retained even after the camera power is turned off.
  - The LCD monitor does not shut off in the M mode.
  - The LCD monitor will not switch to the detailed display while in index playback (p. 59).

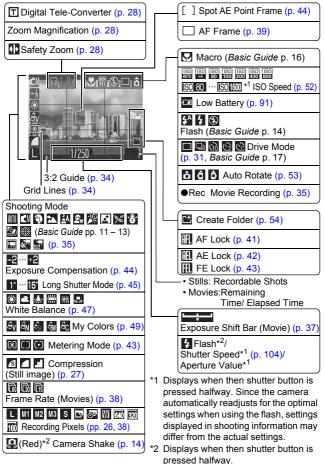
## **Night Display**

When shooting in dark conditions, the camera automatically brightens the LCD monitor to suit the brightness of the subject\*, making it easier to frame the subject.

\* Although noise may appear and the movement of the subject shown on the LCD monitor may appear somewhat jagged, there is no effect on the recorded image. The brightness of the image displayed in the monitor, and the brightness of the actual image recorded will be different.

## Information Displayed on the LCD Monitor

## **Shooting Information (Shooting Mode)**

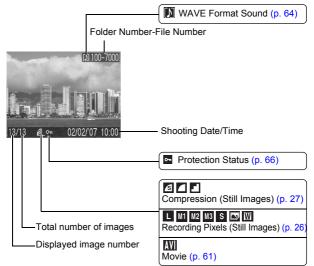


If the indicator blinks orange and the camera shake icon displays, it indicates there is insufficient illumination and a slow shutter speed will be selected. Shoot using the following methods.

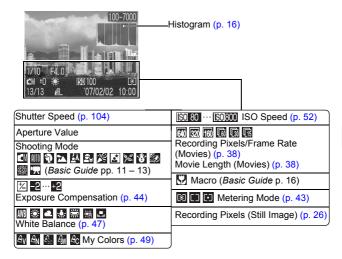
- Raise the ISO speed (p. 52).
- Select a setting other than 🛞 (flash off).
- Attach the camera to a tripod or other device.

## **Playback Information (Playback Mode)**

### ■Standard



#### ■Detailed



The following information may also be displayed with some images.

Ņ	A sound file in a format other than the WAVE format is attached or the file format is not recognized.
A	JPEG image not conforming to Design rule for Camera File System Standards (p. 105)
RAW	RAW image
?	Unrecognized data type



Information for images shot on other cameras may not display correctly.

### **Histogram Function**

The histogram is a graph that allows you to judge the brightness of the image. The greater the bias toward the left in the graph, the darker the image. The greater the bias toward the right, the brighter the image.

If the image is too dark, adjust the exposure compensation to a positive value. Similarly, adjust the exposure compensation to a negative value if the image is too bright (p. 44).

Sample Histograms







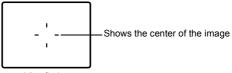
Dark Image

Balanced Image

Bright Image

## **Using the Viewfinder**

The viewfinder (*Basic Guide* p. 2) can be used to conserve power by turning the LCD monitor off (p. 12) while shooting.



Viewfinder

## **Power Saving Function**

This camera is equipped with a power saving function. The power will shut off in the following circumstances. Press the power button again to restore power.

Shooting Mode	Powers down approximately 3 minutes after the last control is accessed on the camera. The LCD monitor automatically turns off 1 minute* after the last control is accessed even if [Auto Power Down] is set to [Off]. Press any button other than the power button or change the camera orientation to turn the LCD monitor back on.
Playback Mode Connected to a Printer	Powers down approximately 5 minutes after the last control is accessed on the camera.

\* This time can be changed.

 The power saving function will not activate during a slide show (Auto Play) or while the camera is connected to a computer.

The power saving function settings can be changed (p. 23).

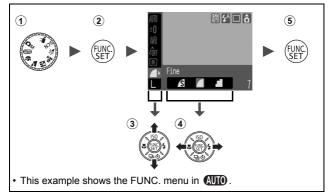
## **Menus and Settings**

Menus are used to set the shooting, playback and print settings as well as such camera settings as the date/time and electronic beep.

- FUNC. Menu
- Rec., Play, Print and Set up Menus

## FUNC. Menu

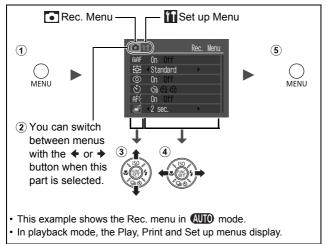
Sets many of the functions commonly used during shooting.



- ①Set the shooting mode dial to the shooting mode you want to use.
- Press the FUNC./SET button.
- ③Use the ★ or ★ button to select a menu item.
  - · Some items may not be selectable in some shooting modes.
- - You can select further options with the MENU button for some options.
  - After selecting an option, you can press the shutter button to shoot immediately.
- **⑤**Press the FUNC./SET button.

### **Rec., Play, Print and Set up Menus**

Convenient settings for shooting, playback or printing can be set with these menus.



#### ①Press the MENU button.

#### **②**Use the $\blacklozenge$ or $\blacklozenge$ button to switch between menus.

• You can also use the zoom lever to switch between menus.

#### (3) Use the $\blacklozenge$ or $\blacklozenge$ button to select a menu item.

· Some items may not be selectable in some shooting modes.

#### 

- Menu items followed by an ellipsis (...) can only be set after pressing the FUNC./SET button to display the next menu.
   Press the FUNC./SET button again to confirm the setting.
- **⑤**Press the MENU button.

## Menu List

See Functions Available in Each Shooting Mode (p. 117).

## FUNC. Menu

The icons shown below are the default settings.

	Menu Item	Reference Page
<b>*</b> •1	Special Scene Mode	Basic Guide p. 12
Ţ	Movie Mode	p. 35
±0	Exposure Compensation	p. 44
ť,	Long Shutter Mode	p. 45
AWB	White Balance	p. 47
√ÔFF	My Colors	p. 49
0	Metering Mode	p. 43
	Compression (Still Image)	p. 26
30	Frame Rate (Movie)	p. 38
L	Recording Pixels (Still Image)	p. 26
640	Recording Pixels (Movie)	p. 38

## Rec. Menu (💽)

\*Default setting

Menu Item	Options	Summary/ Reference Page
AIAF AIAF	On*/Off	p. 39
Digital Zoom		p. 28
(Still Image)	Standard*/Off/1.5x/1.9x	
(Movies)	Standard*/Off (in standard movie mode)	
Slow Synchro	On/Off*	Basic Guide p. 15
Red-Eye	On*/Off	Basic Guide p. 15
Self-timer	₩ */ 😒 / ℃	Basic Guide p. 17
Custom)	Delay: 0 – 10*, 15, 20, 30 sec. Shots: 1 – 10* <sup>1</sup>	
AF-assist Beam	On*/Off	-
Review	Off/2*- 10/seconds/Hold	Basic Guide p. 10
# Disp. Overlay		p. 34
(Still Image)	Off*/Grid Lines/3:2 Guide/Both	
(Movies)	Off*/Grid Lines	
🔊 Date Stamp	Off*/Date/Date & Time	p. 33

\*1 Default setting is 3 shots.

## Play Menu (🗅 )

Menu Item	Reference Page
Auto Play	p. 65
Sound Memo	p. 64
• Protect	p. 66
Rotate	p. 63
Frase all	p. 68
Transfer Order	p. 74

## Print Menu (🕒 )

Menu Item	Reference Page
Print	
Select Image & Qty.	
Select All Images	p. 69
Clear All Selections	
Print Settings	

\*Default setting

Menu Item	Options	Summary/Reference Page
K Mute	On/Off <sup>*</sup>	Set to [On] to silence all operation sounds except for the warning sounds ( <i>Basic</i> <i>Guide</i> p. 9).
2 Volume	Off / 1 /2*/ 3 / 4 / 5	Adjusts the volume of the start-up sound, operation sound, selftimer sound, shutter sound and playback sound. The volume cannot be adjusted if [Mute] is set to [On].
🕎 Start-up Vol.		Adjusts the volume of the start-up sound when the camera is turned on.
Operation Vol.		Adjusts the volume of the operation sound that beeps when any button other than the shutter button is pressed.
Selftimer Vol.		Adjusts the volume of the selftimer sound played 2 sec. before the shutter is released.
Shutter Volume		Adjusts the volume of the sound played when the shutter releases. The shutter sound does not play when a movie is recording.
থ Playback Vol.		Adjusts the volume of movie sounds and sound memos.

Menu Item	Options	Summary/Reference Page
🔣 Start-up Image	On*/Off	Selects whether to display the startup screen when the camera is turned on.
Power Saving		p. 17
S Auto Power Down	On*/Off	Sets whether or not the camera automatically powers down after a set period of time elapses without the camera being operated.
🚰 Display Off	10 sec./20 sec./ 30 sec./1 min.* / 2 min./3 min.	Sets the length of time before the LCD monitor turns off when no camera operation is performed.
🔄 Date/Time		Basic Guide p. 8
🔃 Format		You can also set a low level format (p. 25).
<sup>™</sup> File Numbering	Continuous*/Auto Reset	p. 56
Create Folder		p. 54
Create New Folder	Check mark (On)/ No check mark (Off)	Creates a folder during the next shooting session.
Auto Create	Off*/Daily/Monday- Sunday/Monthly	You can also set an auto creation time.
Auto Rotate	On*/Off	p. 53
Lens Retract	1 minute*/ 0 seconds	Sets the lens retraction timing when switching from shooting mode to playback mode.
🖨 Language		Basic Guide p. 8
Video System	NTSC/ PAL	p. 68
म्रि Print Method	Auto*/ 📶	p. 24* <sup>1</sup>

Menu Item	Options	Summary/Reference Page
🗛 Reset All		p. 24

\*1 The connection method with the printer can be changed. Although it is normally not necessary to change the setting, select if when borderless printing an image shot in i (Widescreen) mode on wide size paper using Canon compact photo printer SELPHY CP730/CP720/CP710/CP510. As this setting will be stored to memory even when the power is turned off, to print using an image size other than i, return the mode to [Auto] (however, the connection method cannot be changed while connected to a printer).

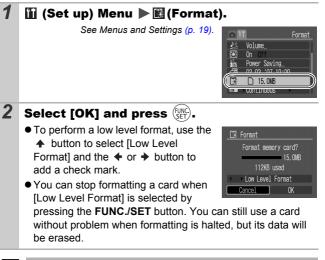
# Resetting Settings to Their Default Values



- Settings cannot be reset when the camera is connected to a computer or to a printer.
- The following cannot be reset.
  - Shooting mode
  - The 🔯 (Date/Time), 🚍 (Language) and 🎆 (Video System) options in the 👔 (Set up) menu (p. 23)
  - White balance data recorded with the custom white balance function (p. 48)

You should always format a new memory card or one from which you wish to erase all images and other data.

Please note that formatting (initializing) a memory card erases all data, including protected images and other file types.



#### Low Level Format

We recommend you select [Low Level Format] when you think that the recording/reading speed of a memory card has dropped. A low level format may require 2 to 3 minutes with some memory cards.

## Shooting



Shooting Mode

auto 💫 🚵 🔣 🕰 🎉 SCN 💻 🗅 M

# FUNC. Menu ► (Compression)/ \*(Recording Pixels).

See Menus and Settings (p. 18).

- \* Default setting.



## **Approximate Values for Recording Pixels**

Recording Pixels			Purpose*
L Large	3072 × 2304 pixels	High ↑	Printing to about A3 size (Approx. 297 × 420 mm (11.7 × 16.5 in.))
M1 Medium 1	2592 × 1944 pixels		Printing to about A4 size (Approx. 210 × 297 mm (8.3 × 11.7 in.)) Printing to about Letter size prints 216 × 279 mm (8.5 × 11 in.)
M2 Medium 2	2048 × 1536 pixels		Printing to about A5 size (Approx. 149 × 210 mm (5.9 × 8.3 in.))
M3 Medium 3	1600 × 1200 pixels		Printing postcard-size prints 148 × 100 mm (6 × 4 in.) Printing L-size prints 119 × 89 mm (4.7 × 3.5 in.)
s Small	640 × 480 pixels	Low	Sending images as e-mail attachments or shooting more images

r or	1600 × 1200 pixels	when printing to postcards (p. 32)
W Widescreen	3072 × 1728	Printing wide size prints (Images are recorded with 16:9 aspect ratios. Areas not recorded will display as black bars on the LCD monitor.)

\* Paper sizes vary according to region.

### **Approximate Values for Compression** Settings

Compression		Purpose
Superfine		Shoot higher quality images
Fine	Quality	Shoot normal quality images
Normal	-	Shoot more images

See Image Data Sizes (Estimated) (p. 110).
 See Memory Cards and Estimated Capacities (pp. 109, 110).

## Using the Digital Zoom/ Digital Tele-Converter

\* Can only be set in 🔚 mode. However, [Digital Tele-converter] cannot be set.

You can combine digital zoom with optical zoom when shooting. The available shooting characteristics and focal lengths (35mm film equivalent) are as follows.

Selection	Focal Length	Shooting Characteristics	
Standard	35 – 560 mm	Enables shooting at zoom factors of up to 16x with digital and optical zoom combined.	
Off	35 – 140 mm	Enables shooting without digital zoom.	
1.5x	52.5 – 210 mm	Digital zoom is fixed at the selected zoom factor, and the focal length shifts to the telephoto end. This enables a faster shutter speed and less chance of camera shake than a shot taken at the same angle of view with [Standard] or [Off].	
1.9x	66.5 – 266 mm		

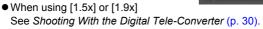
• The digital zoom cannot be used when the LCD monitor is turned off.

● The digital zoom cannot be used in is or is (Postcard), or W (Widescreen) modes.

# Image: Standard]\*/[Off]/[1.5x]/[1.9x].

See Menus and Settings (p. 19).

- \* Default setting.
- When using [Standard] See Shooting With the Digital Zoom (see below).



## **Shooting With the Digital Zoom**



#### Press the zoom lever toward $[]\!\!\!/$ and shoot.

- The combined digital and optical zoom setting will display in the LCD monitor.
- Based on the number of recording pixels set, the Safety Zoom feature calculates the maximum zoom factor

beyond which image quality will begin to deteriorate. The digital zoom pauses at this zoom factor for a moment, and appears on the LCD monitor.

If you press the zoom lever toward [] again, you can zoom in even closer. The color of the zoom factor display represents the following.

- White: The image quality will not deteriorate.
- Blue: The image quality will deteriorate.
- Press the zoom lever toward III to zoom out.



Digital Zoom

Standard

On Ciò

## **Shooting With the Digital Tele-Converter**

# **2** Adjust the angle of view with the zoom lever and shoot.

- T appears on the LCD monitor.
- Depending on the number of recording pixels set, image quality may deteriorate (1) and the zoom factor appear in blue).



### **About the Digital Tele-Converter**

The digital tele-converter feature uses digital zoom to achieve the effects of a tele-converter (a lens used for telephoto shooting).

## Continuous Shooting

## Shooting Mode 🛛 🖓 🏠 👯 😪 🎉 SCN 🖳 🖬

In this mode, the camera shoots continuously while the shutter button is held down.

If you use the recommended memory card\*, you can shoot continuously (smooth continuous shooting) at a set shooting interval until the memory card is full (pp. 109, 110).

#### \* Recommended Memory Card:

Super high-speed SDC-512MSH memory card (sold separately) to which low-level formatting (p. 25) is conducted immediately before shooting.

- This reflects standard shooting criteria established by Canon. Actual results may vary according to the subject and shooting conditions.
- Even if continuous shooting suddenly stops, the memory card may not be full.

## Press the □ button to cycle through continuous shooting settings. Each time you press the □ button.

• Each time you press the 🔄 button, the continuous shooting settings will change.







## 2 Shoot.

• The camera will continue to record successive images while the shutter button is held down. Recording will cease when the shutter button is released.

#### To Cancel Continuous Shooting

Follow Step 1 to select 🔳.



- The interval between shots lengthens when the built-in memory of the camera fills.
- If the flash is used, the interval between shots lengthens because the flash must charge.



You can shoot images with the optimal settings for postcards by composing them inside the print area (width-to-height ratio of approximately 3:2) shown in the LCD monitor.

# FUNC. Menu ► ■ \*(Recording Pixels) ► (Postcard).

- See Menus and Settings (p. 18).
- \* Default setting.
- The recording pixels are set to 113 (1600 × 1200) and the compression to (Fine).

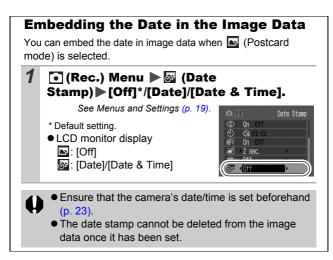


• The area that will not get printed in postcard size grays out.

The digital zoom or digital tele-converter cannot be used in this mode.



For printing instructions, refer to the Direct Print User Guide.



Shooting

## **Setting the Display Overlays**

Shooting Mode

aud 🖗 🚵 🔛 🏤 🎉 scn '🛒 🗅 M

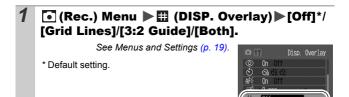
\*1 Only [Grid Lines] can be set.

Ô

You can display vertical and horizontal grid lines, a 3:2 print area guide, or both on the LCD monitor while shooting to help check the position of your subject.

Grid Lines	Displays grid lines to divide the screen into 9 parts. Helps confirm the vertical and horizontal positioning of the subject.
3:2 Guide	Helps confirm the print area for a 3:2 print.* <sup>2</sup> Areas outside the printable area are grayed out.
Both	Displays both the grid lines and the 3:2 guide simultaneously.

\*2 Images are still recorded at the standard aspect ratio of 4:3.





The grid lines and 3:2 guide will not be recorded in the image.

### 🗷 Movie Shooting

Shooting Mode

The following movie modes are available.

For information on the recording pixels and frame rate in each mode, refer to *Recording Pixels and Frame Rates* (p. 38).

auto 🖏 🖍 🔣 🚓 🎉 scn 🆳 🗗

	Standard
	You can select the recording pixels and frame rate and record until the memory card is full (when a super high-speed memory card is used, such as the recommended SDC-512MSH). The digital zoom can be used while shooting in this mode (p. 28).
	Maximum Size: 1 GB/movie <sup>*</sup>
*	Fast Frame Rate
	Use this mode to record fast moving subjects, such as in sports photography.
	Maximum Clip Length: 1 minute
۲ ا	Compact
	Since the recording pixels are few and the data size is small, this mode is convenient for sending movies as e-mail attachments or when the memory card capacity is low.

- Maximum Clip Length: 3 minutes
- The recording time will differ according to the memory card used (p. 110).

\* Even if the size of the movie data has not reached 1 GB, recording will stop when a shooting time of 1 hour has elapsed. Depending on memory card capacity and data write speed, recording may stop before the file size reaches 1 GB or the recording time reaches one hour.

#### 1 FUNC. Menu **FUNC**. Menu **FUNC**. See Menus and Settings (p. 18). \* Default setting. Use the + or + button to select a movie mode and press the FUNC./ Standard SET button. • In 🖬 mode, you can change the recording pixels and frame rate (p. 38). 2 Shoot. • Pressing the shutter button halfway automatically sets the exposure, focus and white balance settings. Pressing the shutter button fully starts recording video and sound simultaneously. • During shooting the recording time and [•Rec] appear on the LCD monitor. Pressing the shutter button fully again stops recording. Recording will stop automatically under the following circumstances - When the maximum recording time elapses - When the built-in memory or memory card become full

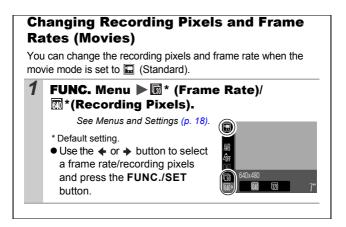
- You are recommended to use a memory card that has been formatted in your camera to shoot movies (p. 25). The memory card supplied with the camera may be used without further formatting.
  - Be careful of the following while recording.
    - Do not touch the microphone (Basic Guide p. 1).
    - Do not press any buttons other than the shutter button. The sound that buttons make will be recorded in the movie.
    - The camera will automatically adjust the exposure and white balance to suit the shooting conditions during recording. Please note, however, that the sounds made by the camera automatically adjusting the exposure may also be recorded.
  - The focus and optical zoom settings remain fixed for subsequent frames at the values selected for the first frame.
  - Do not point the camera at the sun when shooting.

• Before recording, you can set the AE lock (p. 42) and exposure shift.

1. Press the ISO button.

The exposure will lock (AE lock) and the exposure shift bar will appear in the LCD monitor.

- QuickTime is required to play back movies (Data type: AVI/ Compression method: Motion JPEG) on a computer (Windows 2000 only).



#### **Recording Pixels and Frame Rates**

Frame rates indicate the number of frames recorded or played back each second. The higher the frame rate, the smoother the appearance of motion.

	Recording	Frame Rate					
	Pixels	60 frames/sec.	30 frames/sec.	15 frames/sec.			
Standard	640 × 480 pixels	—	O* <sup>1</sup>	0			
	320 × 240 pixels	—	0	0			
Fast Frame Rate* <sup>2</sup>	320 × 240 pixels	0	-	-			
➡ Compact* <sup>2</sup>	160 × 120 pixels	_		0			

\*1 Default setting.

\*2 The recording pixels and frame rate are fixed.



See Image Data Sizes (Estimated) (p. 110).
See Memory Cards and Estimated Capacities (p. 109).



The AF frame indicates the area of the composition on which the camera focuses. You can set the AF frame in the following ways.

On	The camera automatically selects between 9 AF frames to focus on according to the shooting conditions.
Off	The camera focuses using the center AF frame. This is convenient for ensuring that your intended subject is in focus and for composing images.





If the shutter button is pressed halfway while the LCD monitor is on, the AF frame appears as follows:

- Green: Shooting preparations complete
- Yellow: Focusing difficulty (AiAF is set to [Off].)
- Off: Focusing difficulty (AiAF is set to [On].)

### Shooting Hard-to-Focus Subjects (Focus Lock, AF Lock)

Shooting Mode

# AUTO 🖗 🏊 🛃 🍰 🎉 SCN\* 🐂 🖬 M

\*Cannot be used in 🗱 mode.

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It may be difficult to focus on the following types of subjects.

- Subjects with extremely low contrast to the surroundings
- Scenes with a mixture of near and far subjects
- Subjects with extremely bright objects at the center of the composition
- Subjects that are moving quickly
- Subjects through glass: Try to shoot as close to the glass as possible to reduce the chances of light reflecting back off the glass.

### Shooting with the Focus Lock

- **1** Aim the camera so that an object at the same focal distance as the main subject is centered in the viewfinder or in the AF frame displayed on the LCD monitor.
- **2** Press the shutter button halfway to lock the focus.
- **3** Keep the shutter button pressed while you recompose the image and press the shutter button all the way to shoot the image.

#### Shooting with the AF Lock

\*Can be operated in **M** and **M** modes.

Turn on the LCD monitor.
 Aim the camera so that an object at the same focal distance as the main subject is centered in the AF frame.
 Press and hold the shutter button halfway and press the button.

 The III icon will appear on the LCD monitor.

 Re-aim the camera to compose the shot as desired and shoot.

#### To Release the AF Lock

Press the 🖏 button.

When shooting with the focus lock or AF lock using the LCD monitor, setting Mi (AiAF) to [Off] in the (Rec.) menu (p. 39) makes shooting easier since the camera focuses using the center AF frame only.

The AF frame will not appear in Me.

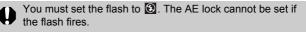
 The AF lock is convenient because you can let go of the shutter button to compose the image. Moreover, the AF lock is still effective after the picture is taken, allowing you to capture a second image with the same focus.

# Locking the Exposure Setting (AE Lock)

Shooting Mode

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You can set the exposure and focus separately. This is effective when the contrast is too strong between the subject and background or when a subject is backlit.



1	Turn on the LCD monitor.
2	Focus on the part of the subject on which you wish to lock the exposure setting.
3	Press and hold the shutter button halfway and press the $ S0$ button.
	● The 🛄 icon will display.
4	Re-aim the camera to compose the shot as desired and press the shutter button fully.

#### To Release the AE Lock

Press the ISO button.

-

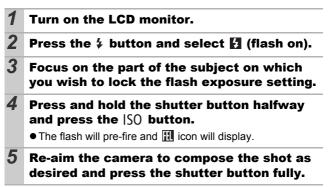
In Mathematical Number of the set o

# Locking the Flash Exposure Setting (FE Lock)

Shooting Mode

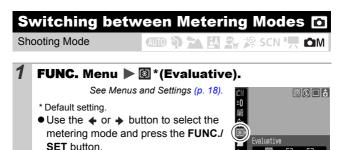
AUTO 🖏 🟡 🤮 🎉 SCN 🆳 🗅 M

You can lock the flash exposure so that the exposure settings are correctly set regardless of the composition of your subject.



# To Release the FE Lock

Press the ISO button.



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43

#### **Metering Methods**

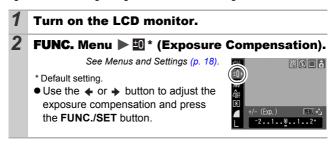
0	Evaluative	Appropriate for standard shooting conditions, including backlit scenes. The camera divides images into several zones for metering. It evaluates complex lighting conditions, such as the position of the subject, the brightness, the direct light, and the backlighting, and adjusts the settings to the correct exposure for the main subject.
[]	Center Weighted Average	Averages the light metered from the entire frame, but gives greater weight to the subject matter at the center.
	Spot	Meters the area within the spot AE point at the center of the LCD monitor. Use this setting when you want to set the exposure on the subject in the center of the monitor.

### Adjusting the Exposure Compensation 🖸

auto 🐑 🐜 🛤 🤐 🎉 SCN 🖳 🖬 M

Shooting Mode

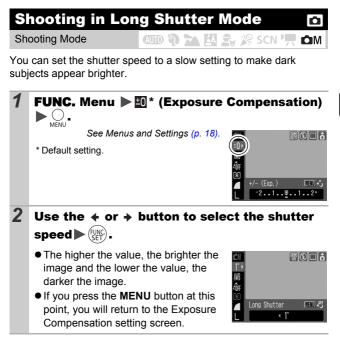
Adjust exposure to the + side to avoid making the subject too dark when shooting in a backlit situation or against a bright background, and adjust exposure to the – side to avoid making the subject too light when shooting at night or with a dark background.



#### To Cancel the Exposure Compensation

Follow Step 2 to restore the compensation value to [0].





0	<ul> <li>This setting is reset once the camera is turned off.</li> <li>The nature of CCDs is such that noise in the recorded image increases at long shutter speeds. This camera, however, applies special processing to images shot at shutter speeds slower than 1.3 seconds to eliminate the noise, thereby producing high-quality images. A certain amount of processing time, however, may be required before the next image can be shot.</li> </ul>
	<ul> <li>Use the LCD monitor to confirm that the image was recorded at the desired brightness.</li> <li>Please note that camera shake becomes a factor at low shutter speeds. Shoot with the camera attached to a tripod.</li> <li>Use of the flash may result in an over-exposed image. If this occurs, shoot with the flash set to .</li> <li>The following are unavailable: <ul> <li>Exposure Compensation</li> <li>Metering</li> <li>AE Lock</li> </ul> </li> </ul>

- FE Lock
- ISO speed: 100, 100 Flash: 100
- Slow Synchro

# Adjusting the Tone (White Balance)

#### Shooting Mode

1

Normally, the Image (Auto) white balance setting selects an optimal white balance. When the Image (Auto) setting cannot produce natural looking colors, change the white balance using a setting appropriate for the light source.

# FUNC. Menu ▶∭ \* (Auto).

See Menus and Settings (p. 18).

\* Default setting.

● Use the ← or → button to select a white balance setting and press the **FUNC./SET** button.



auto 🖏 🛰 🔣 🚓 🎉 SCN 🏪 🖬

### White Balance Settings

-		-
AWB	Auto	Settings are automatically set by the camera.
Ċ.	Day Light	For recording outdoors on a bright day.
2	Cloudy	For recording under overcast, shady or twilight skies.
÷	Tungsten	For recording under tungsten and bulb-type 3- wavelength fluorescent lighting.
<u> </u>	Fluorescent	For recording under warm-white, cool-white or warm-white (3-wavelength) fluorescent lighting.
沜	Fluorescent H	For recording under daylight fluorescent, or daylight fluorescent-type 3-wavelength fluorescent lighting.
•	Custom	For recording with the optimal white balance data retained in the camera from a white-colored object, such as white paper or cloth.



The white balance setting cannot be adjusted when set or is selected for My Colors.

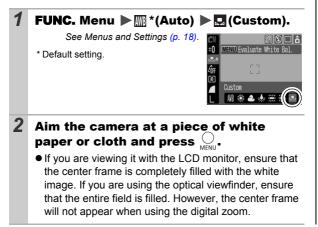
關⑧□貪

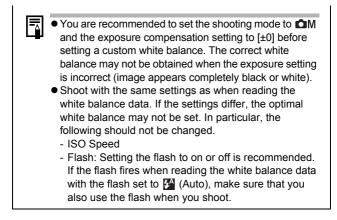
### Using the Custom White Balance

You can set a custom white balance to obtain the optimal setting for the shooting conditions by having the camera evaluate an object, such as a piece of white paper or cloth, or a photo-quality gray card that you wish to establish as the standard white color.

In particular, take a 🔜 (Custom) white balance reading for the following situations that are difficult for the 🕅 (Auto) setting to detect correctly.

- Shooting close-ups (Macro)
- Shooting subjects of monotone color (such as sky, sea or forest)
- Shooting with a particular source of light (such as a mercury-vapor lamp)



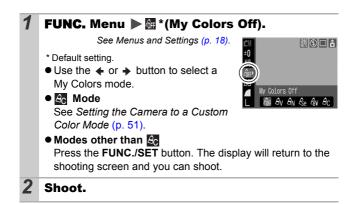


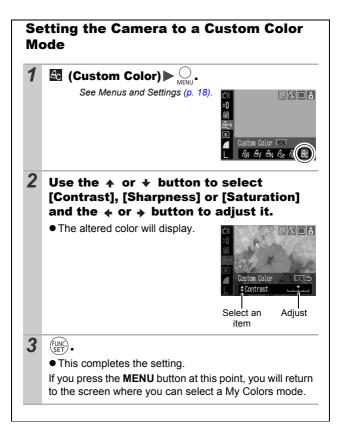
Shooting in a M	y C	ol	ors	6 M	loc	e		Ó
Shooting Mode	AUTO	Ą		<u>3</u> 4	Ŷ	R	SCN 🏴	M C

You can change the look of an image when it is shot.

#### **My Colors Settings**

<b>∕</b> ÔFF	My Colors Off	Records normally.
£γ	Vivid	Emphasizes the contrast and color saturation to record bold colors.
8 <sub>N</sub>	Neutral	Tones down the contrast and color saturation to record neutral hues.
$\mathcal{E}_{Se}$	Sepia	Records in sepia tones.
£w	B/W	Records in black and white.
Вc	Custom Color	Customize contrast, sharpness, and saturation.





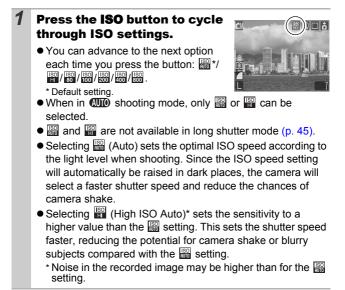
# Adjusting the ISO Speed

Shooting Mode

Raise the ISO speed to use a fast shutter speed when you wish to reduce the effects of camera shake or avoid blurry subjects, or to turn the flash off when shooting in a dark area.

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**O** 



When the camera is set to 🔛 or 🔛 and you press the shutter button halfway, the camera will set and display the ISO speed. This ISO speed will also appear in the playback information.

# Setting the Auto Rotate Function 🗈 🖬

Shooting Mode

Your camera is equipped with an Intelligent Orientation sensor that detects the orientation of an image shot with the camera held vertically and automatically rotates it to the correct orientation when viewing it in the LCD monitor.

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#### 1 (Set up) Menu ► 🖸 (Auto Rotate) ► [On]\*/ [Off].

See Menus and Settings (p. 19).

\* Default setting.

 When the Auto Rotate function is set to [On] and the LCD monitor is set to the detailed display mode during shooting, (normal), (right end

is down) or **o** (left end is down) will appear in the display.

- This function may not operate correctly when the camera is pointed straight up or down. Check that the arrow is pointing in the right direction and if it is not, then set the Auto Rotate function to [Off].
  - Even if the Auto Rotate function is set to [On], the orientation of images downloaded to a computer will depend upon the software used to download the images.
- When the camera is held vertically to shoot, the Intelligent Orientation sensor judges the upper end to be "up" and the lower end to be "down". It then regulates the optimal white balance, exposure and focus for vertical photography. This function operates regardless of the on/off status of the Auto Rotate function.



# Creating an Image Destination (Folder)

#### Shooting Mode

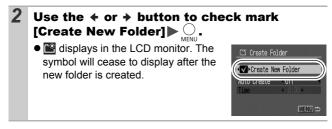
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You can create a new folder at any time and the recorded images will be automatically saved to that folder.

	Creates a new folder the next time you shoot images. To create an additional folder, insert the check mark again.
Auto Create	You can also specify a date and time if you wish to create a new folder using a shooting time after the specified date and time.



#### **Creating a Folder the Next Time You Shoot**



# Setting the Day or Time for Automatic Folder Creation

# **2** Select a day for the [Auto Create] option and a time in the [Time] option $\triangleright$ $\bigcirc$ .

Image: Book of the symbol will constrain the symbol will





Up to 2000 images can be saved into one folder. A new folder will automatically be created when you record more than that number even if you are not creating new folders.



Shooting Mode

1

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The images you shoot are automatically assigned file numbers. You can select how the file number is assigned.

# If (Set up) Menu ▶ I (File Numbering) [Continuous]\*/[Auto Reset].

See Menus and Settings (p. 19).

\* Default setting.



#### **File Number Reset Function**

Continuous	A number one higher than the last one recorded is assigned to the next image. This is convenient for managing all your images together on a computer because you avoid file name duplication when changing folders or memory cards*. * When a blank memory card is used. If a memory card with recorded data is used, the 7-digit number for the last recorded folder and image is compared with the last one on the card, and the larger of the two is utilized as the basis for new images.
Auto Reset	The image and folder number are reset to the starting value (100-0001)*. This is convenient for managing images on a folder-by-folder basis. * When a blank memory card is used. If a memory card with recorded data is used, the number following the 7-digit number for the last recorded folder and image on the card is utilized as the basis for new images.

#### **File and Folder Numbers**

Recorded images are assigned consecutive file numbers starting with 0001 and ranging up to 9999, while folders are assigned numbers starting with 100 and ranging up to 999. Up to 2,000 images can be saved into a single folder.

	New Folder Created	Memory Card Exchanged for Another	
	Memory Card 1	Memory Card 1 Memory Card 2	
Continuous			
	Memory Card 1	Memory Card 1 Memory Card 2	
Auto Reset			

- Images may be saved to a new folder when there is insufficient free space even if the total number of images in a folder is less than 2,000 because the following types of images are always saved together into the same folder.
  - Images from continuous shooting
  - Self-timer images (custom)
- Images cannot be played back when the folder numbers are duplicated or image numbers are duplicated within folders.
- Please refer to the *Software Starter Guide* for information regarding folder structures or image types.

Shooting

# **Playback/Erasing**

Please also see the Basic Camera User Guide (p. 19).

# $\operatorname{Q}\operatorname{Magnifying}\operatorname{Images}$

Press the zoom lever toward 
$${\sf Q}$$
 .

- SET will display and a magnified portion of the image will display.
- Images can be magnified up to a factor of approximately 10x.



# 2 Use the +, +, + or + button to move around the image.

- If you press the FUNC./SET button while in magnified display, the camera switches to image advance mode and sign t will display. You can use the ← or → button to advance to the next or previous image at the same level of magnification. The image advance mode is cancelled when you press the FUNC./SET button again.
- You can change the magnification level with the zoom lever.

#### To Cancel the Magnified Display

Press the zoom lever toward **E**. (You can also cancel it immediately by pressing the **MENU** button.)



1

Movie frames and index playback images cannot be magnified.



►

### Viewing Images in Sets of Nine (Index Playback)



#### Press the zoom lever toward .....

- Up to nine images can be viewed at once in index playback.
- Use the  $\blacklozenge$ ,  $\blacklozenge$ ,  $\blacklozenge$  or  $\blacklozenge$  button to change the image selection.



Movie

#### Switching between Sets of Nine Images

The jump bar will display if you press the zoom lever toward - while in index playback and you can switch the display between sets of nine images.

- Use the + or + button to move to the previous or next set of nine images.
- Hold the FUNC./SET button down and press the + or + button to jump to the first or last set

#### To Return to Single Image Playback

Press the zoom lever toward Q.



# 合Jumping to Images

When you have many images recorded onto a memory card, it is handy to use the five search keys below to jump over images to find the object of your search.

ſ	Jump 10 Images	Jumps over 10 images at a time.
100	Jump 100 Images	Jumps over 100 images at a time.
õ	Shot Date	Jumps to the first image of each shooting date.
Ċ	Movie	Jumps to a movie.
t I	Folder	Jumps to the first image of each folder.

#### 

- The camera will switch to jump search mode.
- The screen sample will vary slightly according to the search key.



Location of image currently being displayed Number of images matching search key

# 2 Use the $\bigstar$ or $\bigstar$ button to select a search key and press the $\bigstar$ or $\blacklozenge$ button.

To Return to Single Image Playback Press the MENU button.

# **Viewing Movies**

Q	Movies cannot be played in the inde	x playback mode.
1	<ul> <li>Display a movie and press</li> <li>(FUNC) -</li> <li>● Images with a  Images with a Images</li> <li>● Images with a Images</li> </ul>	Movie Control Panel Volume Level (Adjust it with the ♠ or ♦ button)
2	<ul> <li>Select (Play) and press</li> <li>The movie will pause if you press the during playback. It will resume when again.</li> <li>When playback ends, the movie store displayed. Press the FUNC./SET but control panel.</li> <li>If playback was halted partway throws session, playback will resume from the store of the session.</li> </ul>	The FUNC./SET button in you press the button ops at the last frame atton to display the movie ugh in the prior viewing

#### **Operating the Movie Control Panel**

÷	Ends playback and returns to single image playback
ð	Prints (An icon will display when a printer is connected. See the <i>Direct Print User Guide</i> for details.)
	Play
▶	Slow Motion Playback (You can use the ← button to slow down or the → button to speed up playback.)
K	Displays the first frame
	Previous Frame (Rewinds if the <b>FUNC./SET</b> button is held down.)
	Next Frame (Fast Forwards if the <b>FUNC./SET</b> button is held down.)
>	Displays the last frame

- Use the television's controls to adjust the volume when playing a movie on a TV set (p. 67).
  - The sound cannot be played in slow motion playback.

# **Rotating Images in the Display**

Images can be rotated clockwise  $90^\circ$  or  $270^\circ$  in the display.



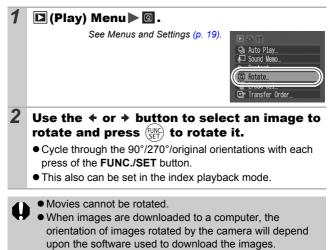






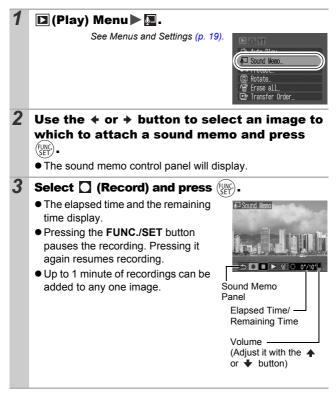
270°

Original



# Attaching Sound Memos to Images 回

In playback mode (including single image playback and index playback), you can attach sound memos (up to 1 min.) to an image. The sound data is saved in the WAVE format.



#### **Sound Memo Panel**

ţ	Exit
	Record
	Pause
	Play
1	Erase Select [Erase] in the confirmation screen and press the <b>FUNC.</b> / <b>SET</b> button.

• You cannot attach sound memos to movies.

Sound memos for protected images cannot be erased.

### **Automated Playback (Auto Play)**

Use this feature to automatically play back all of the images in the memory card. The LCD monitor displays each image for approximately 3 seconds.



# • During automated playback, the following functions are possible:

- Pausing/resuming the Auto Play: Press the **FUNC./SET** button
- Stopping the Auto Play: Press the MENU button

# **Protecting Images**

2

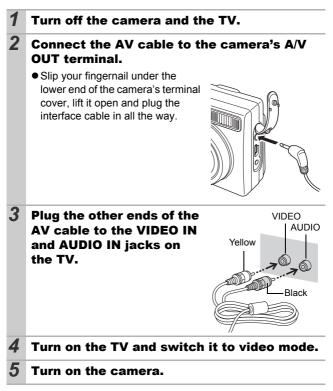
Press (FUNC

You can protect important images and movies from accidental erasure.





You can play back images on a television with the supplied AV cable.

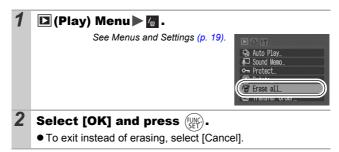


- When the camera is set to shooting mode, you can take pictures while displaying images on the television.
- The video output signal can be switched (NTSC or PAL) to accommodate different regional standards (p. 23). The default setting varies between regions.
  - NTSC: Japan, U.S.A., Canada, Taiwan and others
  - PAL: Europe, Asia (excluding Taiwan), Oceania and others

If the video system is set incorrectly, the camera output may not display properly.

### **Erasing All Images**

- Note that erased images cannot be recovered. Exercise adequate caution before erasing an image.
  - Protected images cannot be erased with this function.



Please format the memory card when you want to erase not only image data but also all the data contained on the memory card (p. 25).

# **Print Settings/Transfer Settings**

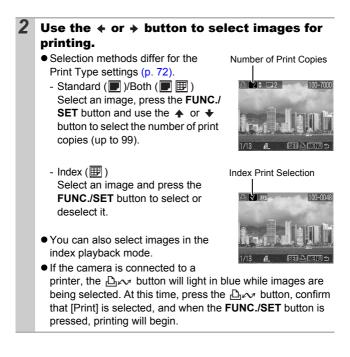
### **Setting the DPOF Print Settings**

You can select images on a memory card for printing and specify the number of print copies in advance using the camera. The settings used on the camera comply with the Digital Print Order Format (DPOF) standards. This is extremely convenient for printing on a direct print compatible printer, or for sending the images to a photo developing service that supports DPOF.

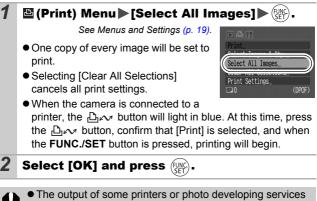
The <u>A</u> icon may display for a memory card with print settings set by a different DPOF-compliant camera. These settings will be overwritten by those set by your camera.

### Single Images





# All the Images on a Memory Card



- may not reflect the specified print settings.
- Print settings cannot be set for movies.

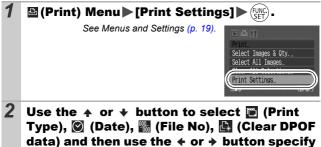


- Images are printed in order according to the file number.
   A maximum of 998 images can be selected.
- When [Print Type] is set to [Both], the number of copies can be set. When it is set to [Index], the number of copies cannot be set (only one copy will be printed).

## **Setting the Print Style**

After setting the print style, select the images for printing. The following settings can be selected.

Print Type	Standard*		Prints one image per page.
	Index	₽	Prints the selected images together at a reduced size in an index format.
	Both		Prints the images in both the standard and index formats.
Date (On/Off*)		Adds the date to the print.	
🌇 File No. (On/Off*)		Adds the file number to the print.	
Clear DPOF data (On*/Off)		Clears all print settings after the images print.	



# the settings.

• The Date and File No. settings change according to the Print Type as follows.

- Index

(Date) and I (File No.) cannot be set to [On] at the same time.

- Standard or Both
   (Date) and (File No.) can be set to [On] at the same time, however, the printable information may vary between printers.
- Images dated using (Postcard Date Imprint mode)
   (p. 33) are always printed with the date, regardless of the
   (Date) setting. As a result, if (Date) is also set to
   [On], the date will end up being printed twice on these images.
- Dates print in the style specified in the 🛃 (Date/Time) menu (p. 23, Basic Guide p. 8).

# Setting the DPOF Transfer Settings

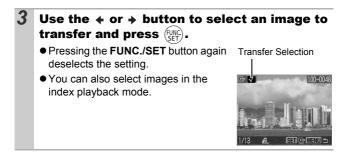
You can use the camera to specify settings for images before downloading to a computer. Refer to the *Software Starter Guide* for instructions on how to transfer images to your computer. The settings used on the camera comply with the Digital Print Order Format (DPOF) standards.

The **A** icon may display for a memory card with transfer settings set by a different DPOF-compliant camera. These settings will be overwritten by those set by your camera.



### **Single Images**





### All the Images on a Memory Card



- Images are transferred in order according to the file number.
- A maximum of 998 images can be selected.

# Troubleshooting

# Camera

Camera will not operate.		
Power is not turned on.	• Press the power button ( <i>Basic Guide</i> p. 9).	
Memory card slot/battery cover is open.	• Confirm that the memory card slot/ battery cover is securely closed ( <i>Basic Guide</i> p. 5).	
Batteries are loaded in the wrong direction.	<ul> <li>Reload the batteries in the correct direction (<i>Basic Guide</i> p. 5).</li> </ul>	
Batteries are not the right type.	<ul> <li>Use only unused AA-size alkaline batteries or Canon AA-size NiMH batteries (p. 91).</li> </ul>	
Battery charge is low and the camera will not operate. ("Change the batteries" message displays).	<ul> <li>Replace the camera batteries with two unused or fully charged batteries (<i>Basic Guide</i> p. 5).</li> <li>Use the AC Adapter Kit ACK800 (sold separately) (p. 98).</li> </ul>	
Poor contact between camera and battery terminals.	<ul> <li>Wipe the battery terminals with a clean dry cloth.</li> <li>Reload the batteries several times.</li> </ul>	
Sounds come from the camera interior.		
The camera's horizontal/ vertical orientation was changed.	<ul> <li>The camera's orientation mechanism is operating. There is no malfunction.</li> </ul>	

# When the power is turned on

#### "Card locked!" message appears.

The SD memory card or SDHC memory card's write protect tab is set to "Write protect". • When recording to, erasing from or formatting the memory card, slide the write protect tab upward (p. 93).

#### The Date/Time menu appears.

The lithium coin battery charge is low.

 Replace the lithium date battery (p. 101).

# **LCD** monitor

Nothing displays.		
The LCD monitor is set not to display.	<ul> <li>Press the <b>DISP.</b> button to turn on the LCD monitor (p. 12).</li> </ul>	
The display darkens.		
The image in the LCD monitor will darken in strong sunlight or bright light.	<ul> <li>This is a normal occurrence in devices containing CCDs and does not constitute a malfunction. This image will not be recorded when shooting still images, but it will be recorded when shooting movies.</li> </ul>	
Display flickers.		
Display flickers when shot under fluorescent lighting.	<ul> <li>This is not a camera malfunction (flickering recorded in movies, but not in still images).</li> </ul>	

A bar of light (red, purple) appears on the LCD		
Sometimes appears when shooting a bright subject, such as the sun or other light source.	• This is a normal occurrence in devices containing CCDs and does not constitute a malfunction. This bar of light will not be recorded when shooting still images, but it will be recorded when shooting movies.	
🕒 appears.		
A slow shutter speed has likely been selected because of insufficient lighting.	<ul> <li>Raise the ISO speed (p. 52).</li> <li>Set the flash to any setting other than </li> <li>(flash off) (<i>Basic Guide</i> p. 14).</li> <li>Set the self-timer and secure the camera to something, such as a tripod.</li> </ul>	
▲ appears.		
This displays when using a memory card that has print settings or transfer settings set by other DPOF-compliant cameras.	<ul> <li>These settings will be overwritten by those set by your camera (p. 69).</li> </ul>	
Noise displays./Subject's movements are		
irregular.		
Camera automatically lightened the image displayed on the LCD monitor to make it easier to see when shooting in a dark area (p. 12).	<ul> <li>There is no effect on the recorded image.</li> </ul>	

Shooting		
Mode is set to <b>&gt;</b> (playback).	<ul> <li>Press the shutter button halfway, or press / button to switch to the shooting mode (<i>Basic Guide</i> p. 7).</li> </ul>	
Flash is charging.	<ul> <li>When the flash is charged, the indicator will light orange. Shooting is now possible (<i>Basic Guide</i> p. 4).</li> </ul>	
Memory card is full.	<ul> <li>Insert a new memory card (<i>Basic Guide</i> p. 5).</li> <li>If required, download the images to a computer and erase them from the memory card to make space.</li> </ul>	
Memory card is not formatted correctly.	<ul> <li>Format the memory card (p. 25).</li> <li>If reformatting does not work, the memory card logic circuits may be damaged. Consult the nearest Canon Customer Support Help Desk.</li> </ul>	
SD memory card or SDHC memory card is write protected.	• Slide the write protect tab upward (p. 93).	
Image seen in viewfinder vs. recorded image.		
Usually the recorded image contains more of the scene than is seen in the viewfinder.	<ul> <li>Confirm the actual image size with the LCD monitor. Use the LCD monitor when taking close-up shots (p. 12).</li> </ul>	

Image is blurred or out of focus.			
The camera moves when the shutter button is pressed.	<ul> <li>Confirm the procedures in</li> <li>" appears" (p. 78).</li> </ul>		
AF-assist Beam is set to [Off].	<ul> <li>In dark places where it is difficult for the camera to focus, the AF- assist Beam will emit to assist focusing. As the AF-assist Beam will not function when turned off, set it [On] to activate it (p. 21). Take care not to obstruct the AF- assist Beam with your hand when used.</li> </ul>		
Subject is out of focal range.	<ul> <li>Shoot with the subject at the correct focusing distance (p. 104).</li> </ul>		
The subject is hard to focus on.	• Use the focus lock or AF lock to shoot (p. 40).		
Subject in recorded	Subject in recorded image is too dark.		
Insufficient light for shooting.	<ul> <li>Set the flash to  (Flash on) (Basic Guide p. 14).</li> </ul>		
The subject is underexposed because the surroundings are too bright.	<ul> <li>Set the exposure compensation to a positive (+) setting (p. 44).</li> <li>Use the AE lock or spot metering function (pp. 42, 44).</li> </ul>		
Subject is too far away for flash to reach.	<ul> <li>Shoot within correct flash range of the subject when using the built-in flash (p. 105).</li> <li>Raise the ISO speed and then shoot (p. 52).</li> </ul>		
Subject in recorded image is too bright, or image flashes white.			
Subject is too close, making the flash too strong.	<ul> <li>Shoot within correct flash range of the subject when using the built-in flash (p. 105).</li> </ul>		

The subject is overexposed because the surroundings are too dark.	<ul> <li>Set the exposure compensation to a negative (-) setting (p. 44).</li> <li>Use the AE lock or spot metering function (pp. 42, 44).</li> </ul>	
Too much light is shining directly into the camera, or is being reflected off the subject.	<ul> <li>Change the shooting angle.</li> </ul>	
Flash is set to on.	<ul> <li>Set the flash to (Flash off) (Basic Guide p. 14).</li> </ul>	
Image contains noise.		
ISO speed is too high.	<ul> <li>Higher ISO speeds or may increase image noise. For higher image quality, use as low an ISO speed as possible (p. 52).</li> <li>In M, and modes in the mode, the ISO speed increases and noise can appear.</li> </ul>	
White dots appear on the image.		
Light from the flash has reflected off dust particles or insects in the air. This is particularly noticeable when shooting at wide angle settings.	<ul> <li>This is a phenomenon that occurs with digital cameras and does not constitute a malfunction.</li> </ul>	

Eyes appear red.		
Light is reflected back from the eyes when the flash is used in dark areas.	<ul> <li>Shoot with (Red-Eye) set to [On] (Basic Guide p. 15). For this mode to be effective, the subject must be looking right at the red-eye reduction lamp. Try asking them to look directly at the lamp.</li> <li>Even better results can be obtained by increasing the lighting in indoor settings or approaching closer to the subject. The shutter will not activate for approximately 1 second after the red-eye reduction lamp fires in order to improve the effect.</li> </ul>	
Continuous shooting slows down.		
The memory card's performance has dropped.	• To enhance the continuous shooting performance, you are recommended to low level format the memory card in the camera after you save all its images to your computer (p. 25).	
	to memory card takes a	
long time.	• Lice a memory card formatted in	
Memory card was formatted in another device.	<ul> <li>Use a memory card formatted in your camera (p. 25).</li> </ul>	
Lens will not retract.		
Memory card slot cover/ battery cover was opened with power on.	<ul> <li>After closing the memory card slot/ battery cover, turn the power on then back off (<i>Basic Guide</i> p. 5).</li> </ul>	

The recording time may not display properly or shooting may stop unexpectedly.		
<ul> <li>The following types of memory cards are used.</li> <li>Slow recording cards.</li> <li>Cards formatted on a different camera or a computer.</li> <li>Cards which have had images recorded and erased repeatedly.</li> </ul>	• Although the recording time may not display properly during shooting, the movie will be recorded correctly on the memory card. Recording time will display properly if you format the memory card in this camera (excluding slow recording memory cards) (p. 25).	
"!" displays on the LCD monitor in red and		
shooting automatic	ally stopped.	
There is insufficient free space in the camera's builtin memory.	<ul> <li>Try the following procedures.</li> <li>Format the card with a low level format before shooting (p. 25)</li> <li>Lower the recording pixels or the frame rate (p. 38)</li> <li>Use a high-speed memory card (SDC-512MSH, etc.)</li> </ul>	
Zoom does not operate.		
Zoom lever was pressed while shooting in movie mode.	<ul> <li>Operate the zoom before shooting in movie mode (<i>Basic Guide</i> p. 14). Note the digital zoom is available while shooting, but only in Standard movie mode.</li> </ul>	

### Cannot play back.

You attempted to play back images shot with another camera or images edited with a computer.	<ul> <li>Computer images that cannot be played back may play back if they are added to the camera using the supplied software program ZoomBrowser EX or ImageBrowser.</li> </ul>
File name was changed with a computer or file location was changed.	• Set the file name or location on the file format/structure of the camera. (Refer to the Software Starter Guide for details).

#### Movies do not play back correctly.

Movies recorded with high recording pixels and frame rates may momentarily stop playing if played on slow reading memory cards.

You may experience frame dropping and audio breakup when playing back a movie on a computer with insufficient system resources.

Movies recorded at the (Fast Frame Rate) setting and with the video signal set to the PAL format, may play back with a frame rate lower than the recorded one when output to a TV or video. You can play every frame by using the slow motion playback.	• To check the images at the original frame rate, you are recommended to play the movie back on the camera's LCD monitor or on a computer.
---	--

### Reading images from memory card is slow.

Memory card was formatted in another device.

 Use a memory card formatted in your camera (p. 25).

# Battery

Batteries consumed quickly.		
Batteries are not the right type.	<ul> <li>Use only unused AA-size alkaline batteries or Canon AA-size NiMH batteries (p. 91).</li> </ul>	
Battery capacity drops due to low ambient temperatures.	<ul> <li>If shooting in a cold location, warm the batteries such as by placing them in your pocket before using them.</li> </ul>	
Battery terminals are dirty.	<ul> <li>Wipe the terminals well with a dry cloth before use.</li> <li>Reload the batteries several times.</li> </ul>	
If using Canon AA-size NiMH batteries		
As the batteries have not been used for over a year, their recharging capacity has decreased.	• Their charging performance should return to normal after fully recharging and depleting them over several times.	
Battery life has been exceeded.	<ul> <li>Replace both batteries with new ones.</li> </ul>	

# **TV monitor output**

# Image is distorted or not showing on TV monitor.

Incorrect video system setting.

 Set the video system to the appropriate setting, NTSC or PAL, for your TV (p. 23).

# Printing with a direct print compatible printer

### **Cannot print.**

-	
The camera and printer are not properly connected.	<ul> <li>Securely connect the camera and printer with the specified cable.</li> </ul>
The printer power is not turned on.	Turn on the printer power.
The print connection method is not correct.	<ul> <li>In the (i) (Set up) menu, select [Print Method] and select [Auto] (p. 23).</li> </ul>

# List of Messages

The following messages may appear on the LCD monitor during shooting or playback.

Please refer to the *Direct Print User Guide* for the messages that display during a printer connection.

#### Busy...

Image is being recorded to the memory card, or the playback mode is starting up.

#### No memory card

You turned on the camera without a memory card installed, or with a memory card installed in the wrong orientation (*Basic Guide* p. 5).

#### Card locked!

The SD memory card or SDHC memory card is write-protected.

#### Cannot record!

You attempted to shoot an image without a memory card installed, with a memory card installed in the wrong orientation, or attempted to attach a sound memo to a movie.

#### Memory card error

The memory card may be malfunctioning. By formatting the malfunctioning memory card with the camera, you may be able to continue using it. However, if this error message appears even when using the supplied memory card, contact your Canon Customer Support Help Desk as there may be a problem with the camera.

#### Memory card full

Memory card is full of images and no more can be recorded or saved. Or no more image settings or sound memos can be recorded.

#### Naming error!

The file name could not be created because there is an image with the same name as the folder that the camera is attempting to create, or the highest possible file number has already been reached. In the Set up menu, set  $\blacksquare$  (File Numbering) to [Auto Reset]; alternatively, save all the images you wish to retain onto a computer, then reformat the memory card. Please note that formatting will erase all the existing images and other data.

#### Change the batteries

Battery charge is insufficient to operate the camera. Replace both batteries immediately with unused AA-size alkaline batteries or fully charged Canon AA-size NiMH batteries. Also refer to *Battery Handling* (p. 91).

#### No image

No images recorded on memory card.

#### Image too large

You attempted to play back an image larger than 4992 × 3328 pixels or with a large data size.

#### Incompatible JPEG

You attempted to play back an incompatible JPEG image (an image that has been downloaded to a computer and altered., etc.).

#### RAW

You attempted to play back a RAW image.

#### Unidentified Image

You attempted to play back a corrupted image, an incompatible image (proprietary format used by another manufacturer's camera, etc.), an image edited on a computer or a movie clip recorded by another camera.

#### Cannot magnify!

You attempted to magnify an image recorded in a different camera or data type, an image edited with a computer, or a movie.

#### **Cannot rotate**

You attempted to rotate an image recorded in a different camera or data type, an image edited with a computer or a movie.

#### **Incompatible WAVE**

A sound memo cannot be added to this image since the data type of the existing sound memo is incorrect, or the sound memo cannot be played back.

#### Cannot transfer!

When transferring images to your computer using the Direct Transfer menu, you attempted to select an image with corrupted data, an image taken with a different camera or data type. You may have also attempted to select a movie when 🛐 (Wallpaper) was selected in the Direct Transfer menu.

#### Protected!

You attempted to erase or edit a protected image, movie or sound memo.

#### Too many marks

Too many images have been marked with print settings or transfer settings. Cannot process any more.

#### Cannot complete!

Could not save a part of the print, transfer or slide show settings.

#### Unselectable image

You attempted to set the print settings for a non-JPEG image.

#### Communication error

The computer was unable to download the image due to the large amount of images (approx. 1000) stored on the memory card.

#### Lens error, restart camera

An error was detected while the lens was in motion, and the power has been automatically turned off. This error can occur if you hold the lens while it is in motion or you operate it in a location with excessive dust or sand in the air. Try turning the power back on, and resume shooting or playback. If this message continues to display, contact your Canon Customer Support Help Desk as there may be a problem with the lens.

#### Exx

(xx: number) Camera detected an error. Turn the power off and then back on, then shoot or play back. A problem exists if the error code reappears. Note the number and contact your Canon Customer Support Help Desk. If an error code displays directly after taking a picture, the shot may not have been recorded. Check image in playback mode. 

# **Battery Handling**

### **Battery Charge**

The following icon and message will display.

### Change the batteries

Battery charge is low. If using the camera for an extended period, replace the batteries as soon as possible. Batteries are depleted and the camera can no longer operate. Replace the batteries immediately.

### **Battery Handling Precautions**

This camera uses AA-size alkaline batteries or Canon AA-size NiMH batteries (sold separately). While it is possible to use AA-size nickel-cadmium batteries, performance is unreliable and their use is not recommended.
Since the performance of alkaline batteries may differ according to brand, the operating time of the batteries you purchase may not be as long as the batteries that came with the camera.
When using the camera under low temperature conditions or over long periods, you are recommend to use of Canon AA-size NiMH batteries (sold separately).

Camera operating time may shorten at low temperatures when alkaline batteries are used. Also due to their specifications, alkaline batteries may expire faster than NiMH batteries.

- Never mix unused and partially used batteries. The partially used batteries may leak.
- $\bullet$  Do not install the batteries with their terminals ( $\oplus$  and  $\bigcirc$ ) reversed.
- Do not mix batteries of different types or from different manufacturers.

Appendix

• Before installing the batteries, wipe the battery terminals well with a dry cloth. If the battery terminals are soiled with oil from one's skin or other

dirt, the number of recordable images may be considerably diminished, or the amount of time the camera can be used reduced.

- At low temperatures, battery performance may be reduced and the low battery icon ( ) may appear earlier than usual. Under these conditions, restore the battery performance by warming it in a pocket immediately before use.
- Do not put the batteries into a pocket together with metallic items such as a key ring.

The batteries may be short circuited.

 When not using the camera for long periods, remove the batteries from the camera and store them separately.
 If the batteries are left inside the camera, the camera may become damaged from battery leakage.

# \land WARNING

Never use damaged batteries or batteries whose outer seal is completely or partially missing or peeled off, as there is risk that such batteries may leak, overheat, or burst. Always check the seals on store-bought batteries before loading them, as some batteries may come with defective seals. Do not use batteries with defective seals.

### Never use batteries that look like this.



Batteries with all or part of the seal (electrical insulation sheath) peeled off.



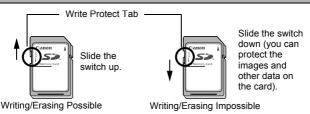
The positive electrode (plus terminal) is flat.



The negative terminal is correctly formed (protruding from the metal base), but the seal does not extend up over the edge of the metal base.

# Handling the Memory Card

### SD Memory Card or SDHC Memory Card Write Protect Tab



### **Cautions When Handling**

- Memory cards are high-precision electronic devices. Do not bend them, apply force to them, or subject them to shocks or vibration.
- Do not attempt to disassemble or alter the memory card.
- Do not allow dirt, water or foreign objects to contact the terminals on the back of the card. Do not touch the terminals with your hands or metal objects.
- Do not peel away the original label on the memory card or cover it with another label or sticker.
- When writing on the memory card, do not use a pencil or ball-point pen. Only use a soft point pen (e.g. felt-tip pen).
- Do not use or store memory cards in the following locations.
  - · Locations subject to dust or sand
  - · Locations subject to high humidity and high temperatures
- Since some or all of the data recorded on the memory card may be corrupted or erased by electrical noise, static electricity, camera or card malfunction, making a backup copy of important data is recommended.

Appendix

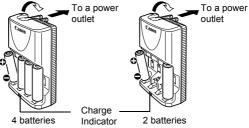
### Formatting

	•
	Please note that formatting (initializing) an memory card erases all data, including protected images.
• `	You are recommended to use memory cards that have been
f	formatted in your camera.
	<ul> <li>The card supplied with the camera may be used without further formatting.</li> </ul>
	<ul> <li>When the camera is malfunctioning, a corrupted memory card might be the cause. Reformatting the memory card may solve the problem.</li> </ul>
	<ul> <li>When a non-Canon brand memory card is malfunctioning, reformatting it may solve the problem.</li> </ul>
	<ul> <li>Memory cards formatted in other cameras, computers, or peripheral devices may not operate correctly in this camera.</li> <li>When that happens, reformat the memory card with this camera.</li> </ul>
	If formatting in the camera does not work properly, turn the camera off and re-insert the memory card. Then turn the camera back on and format again.
	Be careful when transferring or disposing of a memory card. Formatting or erasing the data on a memory card merely changes the file management information on the card and does not ensure that its contents are completely deleted.
i	When disposing of a memory card, take precautions, such as physically destroying the card, to prevent personal information leaks.

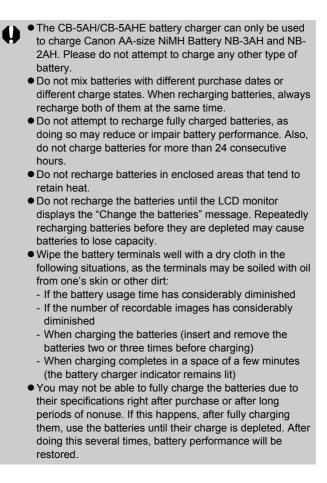
# Using the Power Kits (Sold Separately)

# Using Rechargeable Batteries (Battery and Charger Kit CBK4-300)

This kit includes a battery charger and four rechargeable AA-size NiMH (nickel metal hydride) batteries. Charge batteries as shown below. Recharging is also possible using two batteries.



- After inserting the batteries, plug the charger (CB-5AH) into an outlet, or attach the power cord to the charger (CB-5AHE, not shown) and plug the other end into an outlet.
- Do not insert and charge additional batteries once charging has begun.
- The charge indicator blinks while charging, then remains lit when charging is finished.



If you store batteries for a long period of time (about 1 year), it is recommended that you deplete the batteries in the camera and to then store them at room temperature (0 to 30 °C/32 to 90 °F) in low humidity. Storing them in a fully charged condition can shorten their lifespan or degrade their performance.

Again, if you do not use batteries for more than 1 year, fully charge them once a year and fully deplete in the camera before storing them.

- If the battery usage time has become considerably low despite wiping the terminals and charging them until the battery charger indicator remains lit, this may indicate that the batteries have reached the end of their lifespan.
   Replace them with new batteries. If you are purchasing new batteries, look for Canon AA-size NiMH batteries.
- Leaving batteries in the camera or charger may result in damage from battery leakage. When not in use, remove the batteries from the camera or charger and store them in a cool, dry location.
- It takes approximately 4 hours 40 minutes for the charger to fully recharge the batteries after they have been fully discharged. When two batteries are placed on each side of the charger, recharging will take approximately two hours (as determined by testing at Canon facilities). Charge batteries in an environment where the temperature is in the range of 0 to 35 °C (32 to 95 °F).
  - The charging time varies according to the ambient temperature and to the battery charge state.
  - The battery charger may emit noise while charging. This is not a malfunction.
  - Battery and Charger Kit CBK4-200 can also be used.

Appendix

# **Using the AC Adapter Kit ACK800**

It is best to power the camera with AC Adapter Kit ACK800 (sold separately) when you are using it for long periods of time or connecting it to a computer.



Turn the camera power off before connecting or disconnecting the AC adapter.

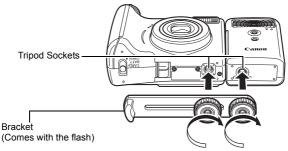
Connect the power cord to the compact power adapter first and then plug the other end into the power outlet.
Open the terminal cover and attach the cord to the DC IN terminal.

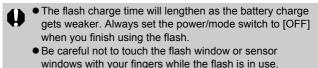
# Using an Externally Mounted Flash (Sold Separately)

# **High-Power Flash HF-DC1**

This flash is used to supplement the camera's built-in flash when the subject is too far away for proper illumination. Use the following procedures to affix the camera and High-Power Flash to the supporting bracket.

Please read the instructions accompanying the flash along with this explanation.





- The flash may fire if another flash is being used in close proximity.
- The High-Power Flash may not fire outdoors in daylight or when there are no reflective items.
- For continuous shooting, although the flash fires for the first shot, it does not fire for subsequent shots.

• Fasten the attachment screws securely so that they do not loosen. Failure to do so may lead to the dropping of the camera and flash resulting in damage to both.

- Before attaching the bracket to the flash, check that the lithium battery (CR123A or DL123) is installed.
  - To illuminate the subjects properly, install the flash so that it is up against the side of the camera and parallel with the camera's front panel.
  - A tripod can be used even when the flash is attached.

### ■Batteries

### Charge becomes Severely Limited

If the battery usage time has considerably diminished, wipe the battery terminals well with a dry cloth. The terminals may be dirty from fingerprints.

### Usage in Cold Temperatures

Get a spare generic lithium battery (CR123A or DL123). You are recommended to place the spare battery in your pocket to warm it up before switching it for the battery in the flash.

### Non-Use over Extended Periods

Leaving batteries in the High-Power Flash could allow the battery fluid to leak, damaging the product. Remove the batteries from the High-Power Flash and store them in a cool, dry place.

# **Replacing the Date Battery**

If the LCD monitor displays the Date/Time menu when you turn on the camera, this means that the date battery has run down and the clock has stopped running. Please purchase a replacement battery (lithium coin battery CR1220) and install it as follows.

The date battery is preinstalled at the factory and may therefore expire earlier than its rated lifespan after the camera has been purchased.

- Be particularly careful to keep the date batteries out of the reach of children. Seek medical assistance immediately if a child swallows a battery since corrosive battery fluids could damage the stomach or intestinal wall.
- **1** Confirm that the camera is turned off.
- **2** Slide the memory card slot/battery cover lock and open the cover.
- Hook your nail onto the date battery holder
   (1) and lightly pull it up in the direction indicated by the arrow (2).





**4** Remove the battery by pulling it up in the direction indicated by the arrow.



- **5** Insert a new battery with the (-) side facing up.
- 6 Replace the battery holder and close the memory card slot/battery cover.
  - When the Date/Time menu appears, set the date and time (*Basic Guide* p. 8).

7

After purchasing the camera and turning on the power for the first time, although the Date/Time menu will appear, you do not need to replace the date battery.

If you ever dispose of your camera, first remove the date battery for recycling according to the recycling system of your country.

# **Camera Care and Maintenance**

Never use thinners, benzine, detergents or water to clean the camera. These substances may distort or damage the equipment.

### **Camera Body**

Gently wipe dirt off the camera body with a soft cloth or eyeglass lens wiper.

### Lens

First use a lens blower brush to remove dust and dirt, then remove any remaining dirt by wiping the lens lightly with a soft cloth.

Never use organic solvents on the camera body or lens. If dirt remains, contact the closest Canon Customer Support Help Desk as listed on the rear of the European Warranty System (EWS) Booklet.

### **Viewfinder and LCD Monitor**

Use a lens blower brush to remove dust and dirt. If necessary, gently wipe with a soft cloth or an eyeglass lens wiper to remove stubborn dirt.



Never rub or press strongly on the LCD monitor. These actions may damage it or lead to other problems.

# **Specifications**

All data is based on Canon's standard testing methods. Subject to change without notice.

### **PowerShot A550**

Camera Effective Pixels	: Approx. 7.1 million
Image Sensor	: 1/2.5-inch type CCD (Total number of pixels: Approx. 7.4 million)
Lens	: 5.8 (W) – 23.2 (T) mm (35mm film equivalent: 35 (W) – 140 (T) mm) f/2.6 (W) – f/5.5 (T)
Digital Zoom	: Still images/Movies: Approx. 4.0x (Up to approx. 16x in combination with the optical zoom)
Optical Viewfinder	: Real-image zoom viewfinder
LCD Monitor	: 2.0-inch, low-temperature polycrystalline silicon TFT color LCD, approx. 86,000 pixels (Picture coverage 100%)
AF System	: TTL autofocus AF lock available Focusing frame: 9-point (AiAF) / 1-point (AF) (1-point focusing frame: fixed to center)
Focusing Range	: Normal: 45 cm (1.5 ft.) – infinity Macro: 5 – 45 cm (W)/33 – 45 cm (T) (2.0 in. – 1.5 ft. (W)/1.1 – 1.5 ft. (T)
Shutter	: Mechanical shutter + electronic shutter
Shutter Speeds	<ul> <li>: 15 – 1/2000 sec.</li> <li>The shutter speed varies according to the shooting mode.</li> <li>Slow shutter speeds of 1.3 sec. or slower operate with noise reduction.</li> </ul>
Metering System	: Evaluative, Center-weighted average or Spot* (*Fixed to center)
	(W): Max. wide angle (T): Max. telephoto

	· · · O O stans in 1/O stan in successful
Exposure Compensation	: ±2.0 stops in 1/3-stop increments
ISO Speed (Standard Output Sensitivity, Recommended Exposure Index)	<ul> <li>Auto*, High ISO Auto**, ISO 80/100/200/ 400/800</li> <li>* Camera automatically sets the optimal speed according to subject brightness.</li> <li>**Camera automatically sets the optimal speed according to subject brightness. However, the ISO speed is set relatively higher than Auto (maximum ISO speed is ISO 800.)</li> </ul>
White Balance	: Auto, Day Light, Cloudy, Tungsten, Fluorescent, Fluorescent H or Custom
Built-in Flash	: Auto*, on*, off * Red-eye reduction and Slow Synchro are available.
Flash Range	: Normal: $45 \text{ cm} - 3.5 \text{ m} (1.5 - 11 \text{ ft.}) (W)/$ 45  cm - 2.2  m (1.5 - 7.2  ft.) (T) Macro: $30 - 45 \text{ cm} (12 \text{ in.} - 1.5 \text{ ft}) (W)/$ 33 - 45  cm (1.1 - 1.5  ft.) (T) (When ISO speed is set to AUTO.)
Shooting (Still images) Modes	: Auto, Manual*, Portrait, Landscape, Night Snapshot, Kids&Pets, Indoor and Special Scene** * Long Shutter mode available. **Night Scene, Foliage, Snow, Beach and Fireworks
(Movies)	: Standard, Fast Frame Rate and Compact
Continuous Shooting	: Approx. 1.7 shots/sec. (Large/Fine mode)
Self-timer	: Activates shutter after an approx. 10-sec./ approx. 2-sec. delay, Custom Timer
Recording Media	: SD memory card or SDHC memory card/ MultiMediaCard
File Format	: Design rule for camera file system and DPOF compliant
	(W): Max. wide angle (T): Max. telephoto

Data Type (Still images) :	Exif 2.2 (JPEG)* Sound Memo: WAVE (monaural) * This digital camera supports Exif 2.2 (also called "Exif Print"). Exif Print is a standard for enhancing the communication between digital cameras and printers. By connecting to an Exif Print-compliant printer, the camera's image data at the time of shooting is used and optimized, yielding extremely high quality prints.
(Movies) :	AVI (Image data: Motion JPEG; Audio data: WAVE (monaural))
Compression :	Superfine, Fine, Normal
Number of (Still images) : Recording Pixels (Movies) :	Large         :         3072 × 2304 pixels           Medium 1         :         2592 × 1944 pixels           Medium 2         :         2048 × 1536 pixels           Medium 3         :         1600 × 1200 pixels           Small         :         640 × 480 pixels           Postcard         :         1600 × 1200 pixels           Widescreen         :         3072 × 1728 pixels

Playback Modes	: Single (histogram displayable), Index (9 thumbnail images), Magnified (approx. 10x (max.) in LCD monitor, advance or reverse through magnified images possible), Jump (it is possible to jump to every tenth or hundredth image, to the first image of each shooting date, to the first image in each folder, or to movies. In index playback mode, it displays 9 images at once.), Auto Play, Sound memos (up to 1 min.) or Movie (slow motion play back possible).
Direct Print	: PictBridge compliant, and Canon Direct Print and Bubble Jet Direct compatible
Interface	: USB 2.0 Hi-Speed (mini-B) Audio/Video output (NTSC or PAL selectable, monaural audio)
Communication Settings	S: MTP, PTP
Power Source	: AA alkaline batteries (included in the camera kit) AA NiMH batteries (NB4-300) (sold separately) AC Adapter Kit ACK800 (sold separately)
Operating Temperatures	s : 0 – 40 °C (32 – 104 °F) (when a NB4-300 is used, 0 – 35 °C (32 – 95 °F))
Operating Humidity	: 10 – 90%
Dimensions (excluding protrusions)	: 91.2 × 64.0 × 43.1 mm (3.59 × 2.52 × 1.70 in.)
Weight (camera body only)	: Approx. 160 g (5.64 oz.)

#### **Battery Capacity**

	Number of Images Shot		
	LCD Monitor On (Based on the CIPA standard)	LCD Monitor Off	Playback Time
AA-size Alkaline Batteries (included with the camera)	Approx. 140 images	Approx. 1000 images	Approx. 9 hours
AA-size NiMH Batteries (NB-3AH (fully charged))	Approx. 550 images	Approx. 1400 images	Approx. 11 hours

- The actual figures will vary according to the shooting conditions and settings.
- Movie data is excluded.
- At low temperatures, the battery performance may diminish and the low battery icon may appear very rapidly. In these circumstances, the performance can be improved by warming the battery in a pocket before use.

#### **Test Conditions**

- Shooting: Normal temperature (23 °C ±2 °C/73 °F ±3.6 °F), normal relative humidity (50% ±20%), alternating wide angle end and telephoto end shots at 30 second intervals with the flash fired once every two shots and the camera power turned off after every tenth shot. Power is left off for a sufficient amount of time\*, then the power is turned back on and the testing procedure is repeated.
  - A Canon-brand memory card is used.
  - \* Until the battery returns to normal temperature
- Playback: Normal temperature (23 °C ±2 °C/73 °F ±3.6 °F), normal relative humidity (50% ±20%), continuous playback at 3 seconds per image.



See Battery Handling Precautions (p. 91).

## **Memory Cards and Estimated Capacities**

Recording Pixels	Compression	16MB	SDC-128M	SDC-512MSH
	S	4	40	156
L (Large) 3072 × 2304 pixels		7	64	251
		16	134	520
	<b>B</b>	5	49	190
M1 (Medium 1) 2592 × 1944 pixels		10	87	339
		21	173	671
	<b>B</b>	9	76	295
M2 (Medium 2) 2048 × 1536 pixels		16	136	529
		33	269	1041
	Ø	14	121	471
M3 (Medium 3) 1600 × 1200 pixels		26	217	839
		50	411	1590
	<b>B</b>	56	460	1777
S (Small) 640 × 480 pixels		88	711	2747
		138	1118	4317
(Postcard) 1600 × 1200 pixels		26	217	839
	ß	6	53	207
W (Widescreen) 3072 × 1728 pixels		10	86	335
		21	177	686

 Capable of smooth continuous shooting (p. 31) (When card has been formatted with a low level format).

 This reflects standard shooting criteria established by Canon. Actual results may vary according to the subject and shooting conditions. Appendix

#### Movie

: Card included with the camera

	Recording Pixels	Frame Rate	16MB	SDC-128M	SDC- 512MSH
640	[30	7 sec.	1 min. 4 sec.	4 min. 9 sec.	
	640 × 480 pixels	ដា	15 sec.	2 min. 7 sec.	8 min. 14 sec.
	図 320 × 240 pixels	[30	22 sec.	3 min. 1 sec.	11 min. 42 sec.
		ជ្រ	43 sec.	5 min. 55 sec.	22 min. 53 sec.
Fast Frame Rate	IN 320 × 240 pixels	6	11 sec.	1 min. 32 sec.	5 min. 59 sec.
Compact	160 × 120 pixels	۳	1 min. 47 sec.	14 min. 29 sec.	55 min. 57 sec.

\* Maximum clip length at 🔛 : 1 min and 🔜 : 3 min. The figures indicate the maximum continuous recording time.

### **Image Data Sizes (Estimated)**

Recording Pixels		Compression			
	Recording Fixels	ß			
L	3072 × 2304 pixels	3045 KB	1897 KB	902 KB	
M1	2592 × 1944 pixels	2503 KB	1395 KB	695 KB	
M2	2048 × 1536 pixels	1602 KB	893 KB	445 KB	
М3	1600 × 1200 pixels	1002 KB	558 KB	278 KB	
S	640 × 480 pixels	249 KB	150 KB	84 KB	
$\square$	1600 × 1200 pixels	_	558 KB	_	
W	3072 × 1728 pixels	2304 KB	1420 KB	678 KB	

	Recording Pixels	Frame Rate	File size
	🚮 640 × 480 pixels	<b>1</b> 30	1920 KB/sec.
🗔 Standard		<b>L</b> 15	960 KB/sec.
Diandard	顾 320 × 240 pixels	<b>1</b> 30	660 KB/sec.
	Mai 020 × 240 pixels	<b>[</b> ]5	330 KB/sec.
Rate	🕅 320 × 240 pixels	60	1320 KB/sec.
🔄 Compact	160 × 120 pixels	<b> 1 1 1 1 1 1 1 1 1 </b>	120 KB/sec.

#### MultiMediaCard

Interface	Compatible with MultiMediaCard standards
Dimensions	32.0 × 24.0 × 1.4 mm (1.3 × 0.9 × 0.06 in.)
Weight	Approx. 1.5 g (0.05 oz.)

#### **SD Memory Card**

Interface	Compatible with SD memory card standards
Dimensions	32.0 × 24.0 × 2.1 mm (1.3 × 0.9 × 0.1 in.)
Weight	Approx. 2 g (0.07 oz.)

#### NiMH Battery NB-3AH

(Supplied with the separately sold NiMH Battery NB4-300 set or the Battery and Charger Kit CBK4-300)

Туре	AA-size rechargeable nickel metal hydride battery
Nominal Voltage	1.2 V DC
Typical Capacity	2500 mAh (min.: 2300 mAh)
Cycle Life	Approx. 300 times
Operating Temperatures	0 – 35 °C (32 – 95 °F)
Diameter × Length	14.5 × 50.0 mm (0.57 × 2.0 in.)
Weight	Approx. 30 g (1.06 oz.)

#### Battery Charger CB-5AH/CB-5AHE

(Supplied with the separately sold Battery and Charger Kit CBK4-300)

Rated Input	100 – 240 V AC (50/60 Hz)
Rated Output	565 mA* <sup>1</sup> , 1275 mA* <sup>2</sup>
Charging Time	Approx. 4 hours 40 min.* <sup>1</sup> , approx. 2 hours* <sup>2</sup>
Operating Temperatures	0 – 35 °C (32 – 95 °F)
Dimensions	65.0 × 105.0 × 27.5 mm (2.56 × 4.13 × 1.08 in.)
Weight (body only)	95 g (3.35 oz.)

\*1 When charging four NB-3AH batteries

\*2 When charging two NB-3AH batteries loaded one on each side of the battery charger

#### **Compact Power Adapter CA-PS800**

(Included with the separately sold AC Adapter Kit ACK800)

Rated Input	100 – 240 V AC (50/60 Hz)
Rated Output	3.15 V DC, 2.0 A
Operating Temperatures	0 – 40 °C (32 – 104 °F)
Dimensions	42.6 × 104.0 × 31.4 mm (1.68 × 4.09 × 1.24 in.)
Weight	Approx. 180 g (6.35 oz.) (excluding power cord)

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## Disclaimer

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The following chart shows the functions and settings available in each shooting mode.

F	Functions		auto	\$ <b>A</b> ∦ ₩ £	SCN	•	۵M	Ref. Page
	Large	L	•	•	•	-		-
	Medium 1	M1	0	0	0	-	0	
	Medium 2	M2	0	0	0	-	0	
Recording Pixels (Still Image)	Medium 3	М3	0	0	0	-	0	p. 26
(Still Illage)	Small	S	0	0	0	-	0	
	Postcard	5	0	0	0	-	0	
	Widescreen	W	0	0	0	-	0	
Compression	n (Movie)		-	-	_	O <sup>(1)</sup>	-	p. 38
	Super Fine	S	0	0	0	_	0	p. 27
Compression	Fine		•	•	•	_		
	Normal		0	0	0	_	0	
Frame Rate	(Movie)		-	-	_	O <sup>(1)</sup>	_	p. 38
	Auto	<b>\$</b> A	0	0	0	_	O <sup>(2)</sup>	Basic Guide p. 14
Flash <sup>(3)</sup>	On	4	-	0	0	_	0	
	Off	3	0	0	0	_	0	
Red-Eye Reduction		•	•	• (4)	_	•	Basic Guide p. 15	
Slow Synchro		-	(5)	(6)	-	O <sup>(2)</sup>	p. 15	
Macro Mode		Ŷ	0	O <sup>(7)</sup>	O <sup>(4)</sup>	0	0	Basic Guide p. 16

F	unctions	AUTO	≈ ≈ 8 8	SCN	•	۵M	Ref. Page
Drive Mode	Single	•	•	•	٠	•	-
	Continuous 🖳	-	0	0	_	0	p. 31
	10-sec. self-timer Vio	0	0	0	0	0	Basic Guide p. 17
	2-sec. self-timer 🔯	0	0	0	0	0	
	Custom Timer	0	0	0	_	0	
Date Stamp	1	0	0	0	_	0	p. 33
AiAF		0	0	O <sup>(4)</sup>	_	0	p. 39
AF Lock		_	-	_	0	0	p. 41
AF-assist Be	am	•	•	•(4)			p. 21
Digital Zoom		•	•	•	• (8)		p. 28
Digital Tele-0	Converter	0	0	0	_	0	p. 28
Exposure Co	ompensation	_	0	0	_	O <sup>(2)</sup>	p. 44
ISO Speed		O <sup>(9)</sup>	(10)	(10)	_(10)	O <sup>(11)</sup>	p. 52
White Balan	ce <sup>(12)</sup>	(10)	(10)	(10)	0	0	p. 47
Long Shutter		-	-	_	_	0	p. 45
	Evaluative	٠	•	•	٠	•	
Metering Method	Center Weighted Avg.	-	Ι	-	-	O <sup>(2)</sup>	
	Spot	-	-	-	_	O <sup>(2)</sup>	
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My Colors		-	-	-	0	0	p. 49
Disp. Overlay		0	0	0	O <sup>(13)</sup>	0	p. 34
Auto Rotate					_		p. 53

\*  $\bigcirc$ : Setting available ( $\bullet$ : Default settings.) — : Setting selection is not possible.

(Shaded Area): Setting is retained even when the camera power is shut off.

 With the exception of the [Date/Time], [Language] and [Video System] settings, all the other menu settings and changes made with the camera buttons can be reset to the default values in a single operation (p. 24).

- (2) This cannot be set in Long Shutter mode.
- (3) Auto is the default setting in 4000, 孙, 浴, 涂, 金, 松 and SCN (述 图 40) modes. Off is the default setting in 本, SCN (图 翻) and 内M modes.
  - You cannot use flash in mode.
- (4) This cannot be set in mode.
- (5) Slow Synchro will be fixed to [On] in the 🚵 or 💹 modes. [Off] cannot be selected.
- (6) Slow Synchro will be fixed to [On] in the mode. [Off] cannot be selected.
- (7) This cannot be set in 🚵 or 🚔 mode.
- (8) Can only be set and used in the 🔛 mode.
- (9) Only switching between 150 and 150 is available.
- (10) Automatically set by the camera.
- (11) iso or iso cannot be set in Long Shutter mode.
- (12) This cannot be set when My Colors is set to [Sepia] or [B/W].
- (13) Only Grid Lines can be set.

# Canon

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