CDI-E364

Canon DIGITAL CAMERA

PowerShot A650 IS

Camera User Guide

Canon

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Camera User Guide

Ensure that you read the Safety Precautions (p. 172-p. 181).

Canon

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DiG!C III   PictBridge   DIRECT PRINT   BUBBLE JET DIRECT   Exif Print   DPOF   USB

# Workflow and Reference Guides

The following guides are available. Refer to them as necessary according to the flowchart below.

: **Contents of This Guide**

Check the package contents

Getting Started (p. 7)

Explains how to complete tasks ranging from installing batteries and inserting memory cards to setting the date and time, shooting, playing and erasing images, and performing simple printing tasks.

Learning More (p. 37)

Names camera components and provides more detailed instructions for shooting and playback. Lists information for more advanced use of your camera.

Connect the camera to other devices

- Connecting to a printer
- Connecting to a TV set
- Connecting to a computer

Camera User Guide

Direct Print User Guide

Software Starter Guide

ZoomBrowser EX/ ImageBrowser Software User Guide
- PDF manuals available on the Canon website. http://web.canon.jp/ Imaging/information-e.html

Checking the Package Contents

The following items are included in the package. If something is missing, please contact the retail outlet at which you purchased the product.

① Camera

② AA Alkaline Batteries (x4)

③ Memory Card (32MB)

④ Interface Cable IFC-400PCU
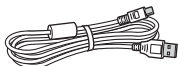
⑤ AV Cable AVC-DC300

⑥ Wrist Strap WS-DC4

⑦ Canon Digital Camera Solution Disk

⑧ Warranty Card

⑨ User Guides
  • Camera User Guide
  • Direct Print User Guide
  • Software Starter Guide
  • "Canon Customer Support" Leaflet

You may not be able to achieve the full performance of this camera with the included memory card.

You can use SD* memory cards, SDHC (SD High Capacity) memory cards, MultiMediaCards, MMCplus cards and HC MMCplus cards in this camera. These memory cards are collectively referred to as memory cards in this guide.
*SD stands for Secure Digital, a copyright protection system.

Table of Contents

Items marked with a ☆ are lists or charts that summarize camera functions or procedures.

■ Symbol Conventions in this Guide

Mode switch position

Available shooting modes

These modes are not available

These modes are available

> This mark denotes issues that may affect the camera's operation.

> This mark denotes additional topics that complement the basic operating procedures.

Explanations in this guide are based on the camera's default settings at time of purchase.

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

This camera's warranty is only effective in the country of sale. If a problem arises while the camera is in use abroad, please convey it back to the country of sale before proceeding with a warranty claim to a Canon Customer Support Help Desk.

For Canon Customer Support contacts, please see the customer support list supplied with your camera.

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.

Language Setting

Please see the *Setting the Display Language* (p. 14) to change the language setting.

Getting Started

Getting Started

Preparations

Installing the Batteries

1. **Slide the battery cover lock (①) and hold it open while sliding the cover (②) and opening it (③).**
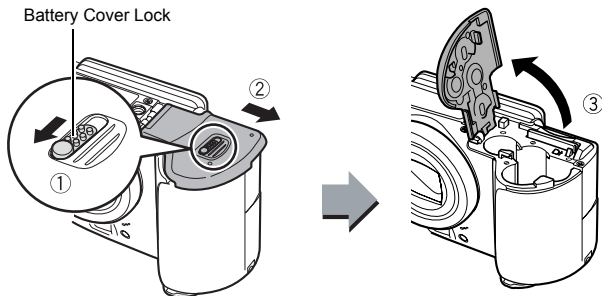
Battery Cover Lock

2. **Install four batteries.**

Negative end (–)   Positive end (+)
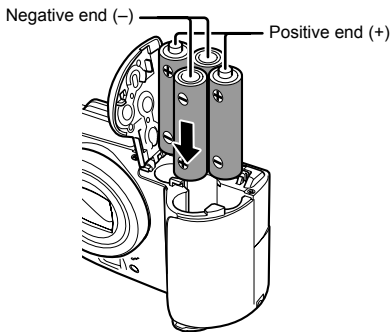
3. Close the cover (①), and press downward as you slide it until it clicks into place (②).
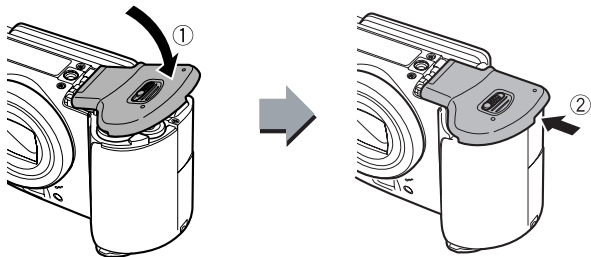
■ Removing the Batteries

Remove the batteries by opening the Memory Card Slot / Battery Cover and tilting the camera at an angle.

■ Attaching the Wrist Strap
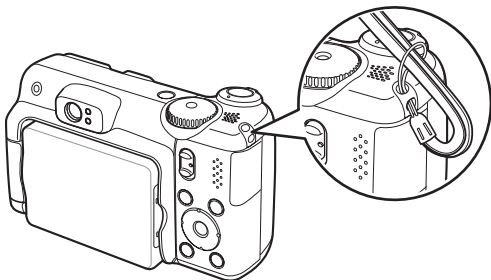
In order to avoid dropping the camera, we recommend attaching the wrist strap before using the camera.

Getting Started

Getting Started

Inserting the Memory Card

1. **Slide the battery cover lock (①) and hold it open while sliding the cover (②) and opening it (③).**

Battery Cover Lock
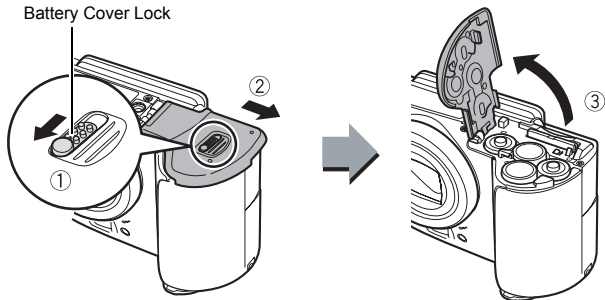
2. **Insert the memory card until it clicks into place.**

Back

Write Protect Tab
(Only SD memory cards)

Canon
SD
SD Memory Card SDC-XXM

Example: SD memory card
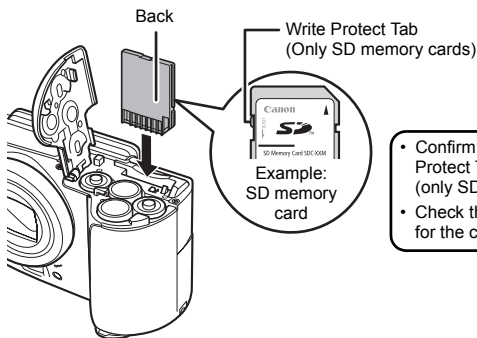
- Confirm that the Write Protect Tab is unlocked (only SD memory cards).
- Check the memory card for the correct orientation.

3. **Close the cover (①), and press downward as you slide it until it clicks into place (②).**
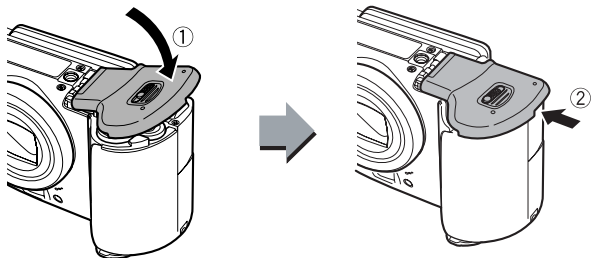
Ensure that the memory card is correctly oriented before inserting it in the camera. Inserting it backward may cause the camera to fail to recognize the memory card or to malfunction.

■ To Remove the Memory Card

Push the memory card with your finger until the memory card clicks and then release it.

Getting Started
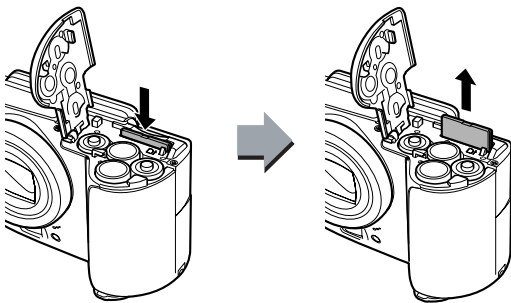
Opening the LCD Monitor

The LCD monitor can be used to check an image during shooting, to play back recorded images or to adjust menu settings. It can be opened to the following range of positions.

1. **Opened right to left 180 degrees.**
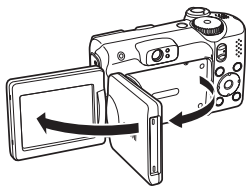
2. **Tilted forward 180 degrees toward the lens or backward 90 degrees.**

   When tilted forward 180 degrees toward the lens, the image shown on the LCD monitor is automatically flipped and reversed so that it appears correctly from in front of the lens.
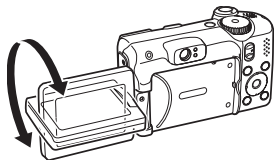
3. **Close the LCD monitor with the LCD monitor facing out.**

   When the LCD monitor clicks into place against the camera body, the image will return to its original, nonreversed orientation.
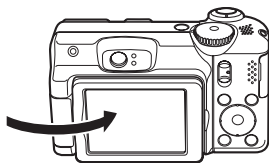
> When not using the camera, close the LCD monitor with the monitor facing in to protect it. The LCD monitor will automatically turn off when it clicks shut against the camera body.

Getting Started

Setting the Date and Time

The Date/Time settings menu will appear the first time the power is turned on. Set the date and time as shown in Step 3 and 4.

Power Button

↑/↓/←/→ Buttons

(FUNC./SET) Button
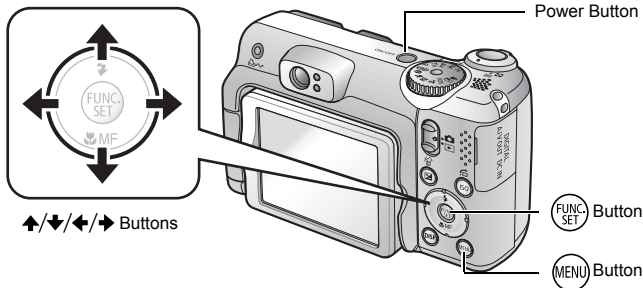
(MENU) Button

1. **Press the power button.**

2. **Select [Date/Time].**

    1. Press the (MENU) button.

    2. Use the ← or → button to select the 🔧 (Set up) menu.

    3. Use the ↑ or ↓ button to select [Date/Time].

    4. Press the (FUNC./SET) button.

	🔧
Mute	On Off
Volume...	
Start-up Image	On Off
Power Saving...	
Date/Time...	09.09.'07 10:00
Format...	🗋 29.5MB

3. **Select the month, day, year and time, and the display order.**

    1. Use the ← or → button to select a category.

    2. Use the ↑ or ↓ button to set the value.

    Date/Time

    Set Date/Time.

    09. 09 . 2007   10 : 00   mm/dd/yy

    SET OK   **MENU** Cancel
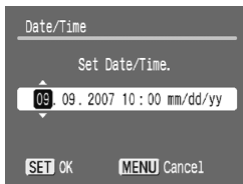
4. **Press the (FUNC./SET) button.**

5. **Press the (MENU) button.**

- You can imprint the date and time you have set onto images (p. 69).
- A rechargeable lithium battery is built into the camera to save such settings as the date/time. Install the batteries into the camera at time of purchase, or recharge batteries for about 4 hours using the separately-sold AC Adapter Kit ACK600. It will charge even if the camera is turned off.
- The date/time settings may be lost after approximately three weeks if you remove the main batteries. Reset the date/time settings if this occurs.

Setting the Display Language

You can change the language displayed in the LCD monitor menus and messages.

◆/◆/◆/◆ Buttons

Mode Switch

(FUNC.)(SET) Button

(MENU) Button
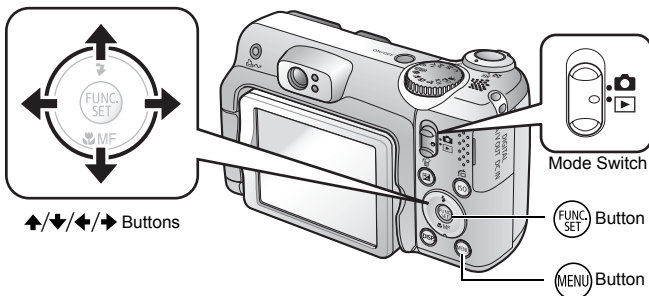
1. **Set the mode switch to ▶ (Playback).**

2. **Hold down the (FUNC.)(SET) button and press the (MENU) button.**

3. **Use the ◆, ◆, ◆ or ◆ button to select a language.**

4. **Press the (FUNC.)(SET) button.**

Shooting Still Images (AUTO Mode)

Indicators — Power Button — Shutter Button

Mode Switch

FUNC. Button

Mode Dial

Getting Started
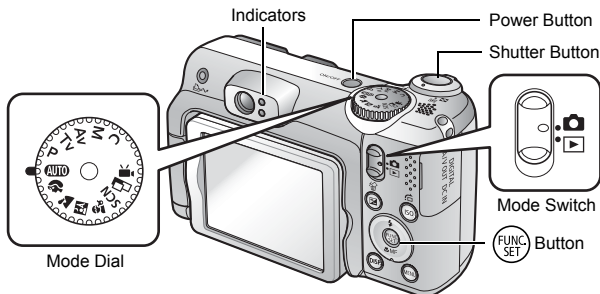
1. Press the power button.

- The start-up sound will play and the start-up image will display in the LCD monitor.
- Pressing the power button again turns the power off.

2. Select a shooting mode.

1. **Set the mode switch to ◘ (Shooting).**
2. **Set the mode dial to AUTO.**

3. Aim the camera at the subject.

Getting Started

4. Press the shutter button lightly (press halfway) to set the focus.

• When the camera focuses, it beeps twice and the indicator lights green (orange when the flash fires).

Shooting Preparations Complete: lights green
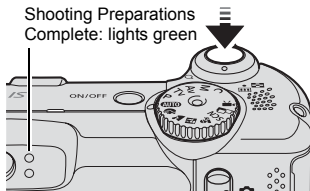
• An AF frame will display in green on the LCD monitor at the point of focus.

AF Frame

5. Without changing anything else, press the shutter button all the way (press fully) to shoot.

• The shutter sound will play once and the image will record.
• The indicator will blink green and the file will record to the memory card.

Recording: blinks green
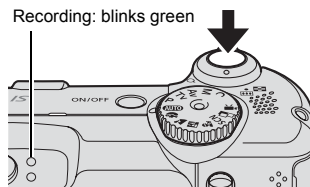
Mute Setting

Pressing the **DISP.** button while turning the camera power on will set the mute setting to [On] to silence all camera sounds except for warning sounds. The setting can be changed with the [Mute] option in the Set up Menu.

Reviewing an Image Right After Shooting (Rec. Review)

Recorded images are displayed on the LCD monitor for approximately 2 seconds immediately after shooting.

Shutter Button

$\binom{FUNC}{SET}$ Button
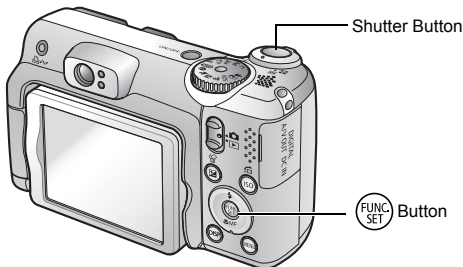
You can also use the following methods to continue displaying the image immediately after shooting so that you can check it.

● Keep the shutter button pressed fully.

● Press the $\binom{FUNC}{SET}$ button while the recorded image displays until it beeps.

 You can shoot by pressing the shutter button even when an image is being displayed.

Change the image display time from [Review] in the Rec. Menu.

Viewing Still Images

Mode Switch
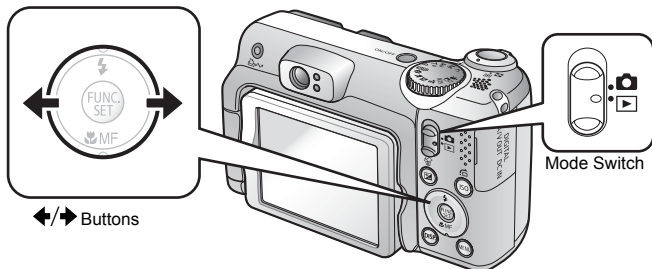
◀/▶ Buttons

1. Set the mode switch to ▶ (Playback).

The last recorded image will display.

2. Use the ◀ or ▶ button to display the image you wish to view.

- Use the ◀ button to move to the previous image and the ▶ button to move to the next image.
- The images advance more quickly if you keep the button pressed continuously, but they will appear coarse.

If you have replayed images, the last image viewed will display (Resume Playback).
If the memory card has been switched, or the images on the memory card have been edited with a computer, the newest image on the memory card appears.

Getting Started

Getting Started

Shooting Movies (Standard Mode)

Microphone

Power Button

Shutter Button

Mode Switch
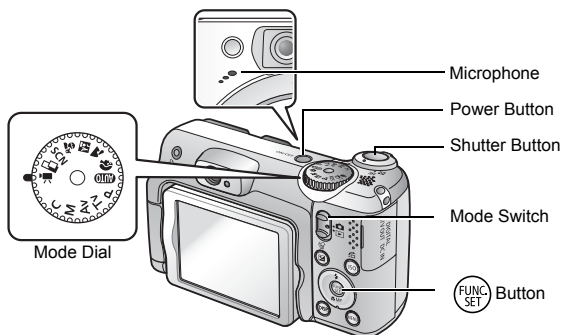
 Button

Mode Dial

1. **Press the power button.**

2. **Select a shooting mode.**

   1. **Set the mode switch to (Shooting).**

   2. **Set the mode dial to (Movie).**

   3. **Confirm that the camera is set to (Standard).**

3. **Aim the camera at the subject.**

Remaining Time

- Do not touch the microphone while recording.
- Do not press any buttons other than the shutter button. The sound that buttons make will be recorded in the movie.

Getting Started

4. Press the shutter button lightly (press halfway) to set the focus.

- An electronic beep will sound twice and the indicator will light green when the camera focuses.
- The exposure, focus and white balance are automatically set when you press the button halfway.

Shooting Preparations Complete: lights green
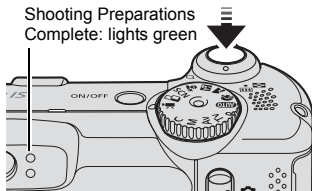
5. Without changing anything else, press the shutter button all the way (press fully) to shoot.

- Recording starts.
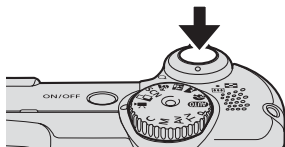
- During the recording, the elapsed recording time and [●Rec.] will display in the LCD monitor.

Elapsed Time

6. Press the shutter button again to stop recording.

- The indicator will blink green and the data will be recorded onto the memory card.
- Recording will stop automatically when the maximum recording time elapses, or the built-in memory or memory card become full.

Recording: blinks green

Getting Started

Viewing Movies

↑/↓/←/→ Buttons
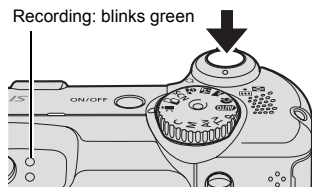
Mode Switch
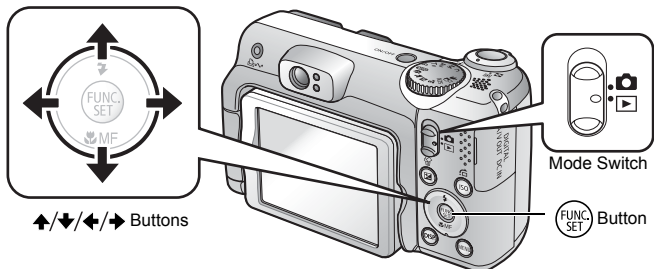
(FUNC./SET) Button

1. **Set the mode switch to ▶ (Playback).**

2. **Use the ← or → button to display a movie and press the ⒡ button.**

   • Images with a SET ⍾ icon are movies.

3. **Use the ← or → button to select ▶ (Play) and press the ⒡ button.**

   • The movie will start playing.
   • If you press the **FUNC./SET** button during playback, you can pause and restart the movie.
   • You can adjust the playback volume with the ↑ or ↓ button.

Getting Started

Erasing

⑰ Button

←/→ Buttons

FUNC. SET Button
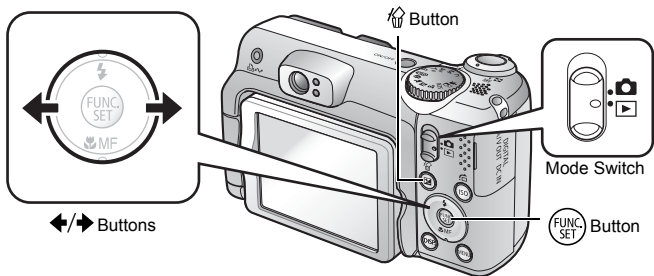
Mode Switch

1. **Set the mode switch to ▶ (Playback).**

2. **Use the ← or → button to select an image to erase and press the ⑰ button.**

3. **Select [Erase] and press the ⓕⓤⓝⓒ button.**

   • To exit instead of erasing, select [Cancel].

   Erase? [Erase] Cancel

Please note that erased images cannot be recovered. Exercise adequate caution before erasing an image.

Getting Started

Printing

- ꁢ Button
- Power Button
- Mode Switch
- DIGITAL Terminal
- Terminal Cover
- ◆/➜ Buttons
- (FUNC. SET) Button
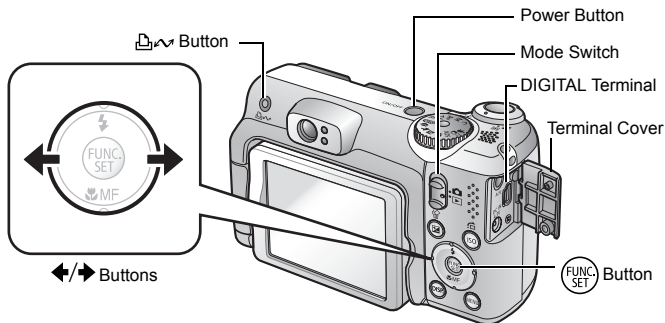
1. Connect the camera to a direct print compatible printer*1.

- Slip a fingernail under the left edge of the terminal cover to open it and insert the interface cable all the way into the connector.
- See the printer's user guide for connection instructions.

DIGITAL Terminal

Interface Cable
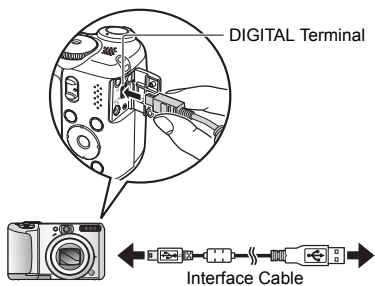
Canon Brand Printers
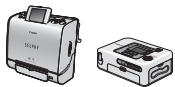
SELPHY Series Compact Photo Printers*2
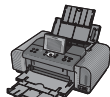
PIXMA Series Bubble Jet Printers

*1 Since this camera uses a standard protocol (PictBridge), you can use it with other PictBridge-compliant printers in addition to Canon-brand printers.
*2 You can also use the CP-10/CP-100/CP-200/CP-300 card photo printers.

2. Turn on the printer.

3. Set the camera's mode switch to ▶ (Playback) and press the power button.

- The ⊡∿ button will light blue.
- A 🗹, 🖉 or 🖪 icon will appear in the LCD monitor if the connection is correct (the displayed icons differ according to the connected printer).
- SET 🖵 will display on movies.

4. Use the ← or → button to select an image to print and press the ⊡∿ button.

- The ⊡∿ button will blink blue and printing will start.

After you finish printing, turn off the camera and the printer and disconnect the interface cable.

Downloading Images to a Computer

Items to Prepare
- Camera and computer
- Canon Digital Camera Solution Disk supplied with the camera
- Interface cable supplied with the camera (be sure to use only the supplied cable)

System Requirements
Please install the software on a computer meeting the following minimum requirements.

■ Windows

OS	Windows Vista Windows XP Service Pack 2 Windows 2000 Service Pack 4	
Computer Model	The above OS should be pre-installed on computers with built-in USB ports.	
CPU	Windows Vista Windows XP/Windows 2000	Pentium 1.3 GHz or higher Pentium 500 MHz or higher
RAM	Windows Vista Windows XP/Windows 2000	512 MB or more 256 MB or more
Interface	USB	

Free Hard Disk Space	• Canon Utilities
	  - ZoomBrowser EX
	  - PhotoStitch
	• Canon Camera TWAIN Driver
		200 MB or more
		40 MB or more
		25 MB or more

Display	1,024 x 768 pixels/High Color (16 bit) or better	

■ Macintosh

OS	Mac OS X (v10.3–v10.4)	
Computer Model	The above OS should be pre-installed on computers with built-in USB ports.	
CPU	PowerPC G3/G4/G5 or Intel Processor	
RAM	256 MB or more	
Interface	USB	

Free Hard Disk Space	• Canon Utilities
	  - ImageBrowser
	  - PhotoStitch
		300 MB or more
		50 MB or more

Display	1,024 x 768 pixels/32,000 Colors or better	

Getting Started

Preparing to Download Images

Ensure that you install the software first before connecting the camera to the computer.

1. Installing the software.

■ Windows

1. Place the Canon Digital Camera Solution Disk in the computer's CD-ROM drive.

2. Click [Easy Installation].
Follow the onscreen messages to proceed with the installation.

3. Click [Restart] or [Finish] once the installation is complete.
When the installation is finished, [Restart] or [Finish] will display. Click the button that appears.

4. Remove the CD-ROM from the drive when your normal desktop screen appears.

■ Macintosh

Double-click the 🔊 icon in the CD-ROM window. When the installer panel appears, click [Install]. Follow the onscreen instructions to proceed.

Getting Started

2. Connecting the camera to a computer.

### 1. Connect the supplied interface cable to the computer's USB port and to the camera's DIGITAL terminal.

• Slip a fingernail under the left edge of the terminal cover to open it and insert the interface cable all the way into the connector.

USB Port

DIGITAL Terminal

Terminal Cover

Interface Cable
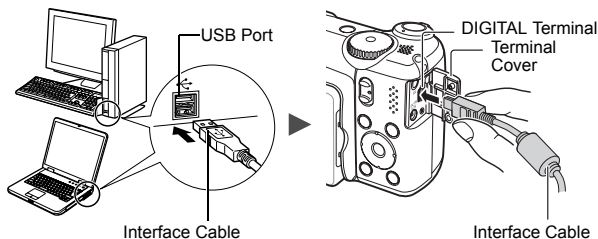
Interface Cable

3. Preparing to download images to the computer.

1. Set the camera's mode switch to ▶ (Playback) and turn on the power.

The camera and computer will be able to communicate.

Power Button

Mode Switch
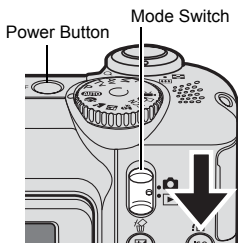
Always grasp the sides of the connector when disconnecting the interface cable from the camera's DIGITAL terminal.

If the Digital Signature Not Found window appears, click [Yes]. The USB driver will automatically finish installing onto the computer when you attach the camera and open a connection.

■ Windows

Select [Canon CameraWindow] and click [OK].

> If the window to the right does not appear, click the [Start] menu and select [All Programs] or [Programs], followed by [Canon Utilities], [CameraWindow], [CameraWindow] and [CameraWindow].

CameraWindow will display.

Preparations for downloading images are now finished. Please proceed to the *Downloading Images Using the Camera (Direct Transfer)* section (p. 29) (except Windows 2000).

> With Windows 2000, you can download images using the computer. Please refer to the *Software Starter Guide* for details.

Getting Started

■ Macintosh

The following window will appear when you establish a connection between the camera and computer. If it fails to appear, click the [CameraWindow] icon on the Dock (the bar which appears at the bottom of the desktop).

Preparations for downloading images are now finished. Please proceed to the *Downloading Images Using the Camera (Direct Transfer)* section (p. 29).

> You can download images using the computer. Please refer to the *Software Starter Guide* for details.

Downloading Images Using the Camera (Direct Transfer)

Install the software before downloading images via the Direct Transfer method for the first time (p. 26).

Use this method to download images using camera operations. (Except Windows 2000)

⊔ฺ∿ Button

(FUNC/SET) Button

(MENU) Button

✦/✦/✦/✦ Buttons

Getting Started
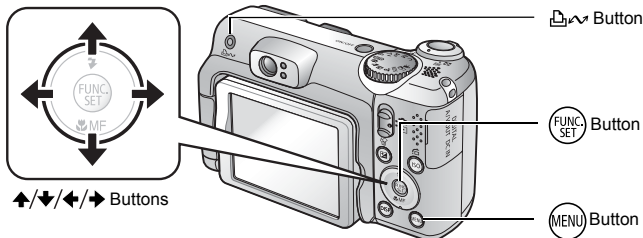
![icon]	**All Images**	Transfers and saves all images to the computer.
![icon]	**New Images**	Transfers and saves to the computer only the images that have not been previously transferred.
![icon]	**DPOF Trans. Images**	Transfers and saves to the computer only the images with DPOF Transfer Order settings.
![icon]	**Select & Transfer**	Transfers and saves single images to the computer as you view and select them.
![icon]	**Wallpaper**	Transfers and saves single images to the computer as you view and select them. The transferred images display as the background on the computer desktop.

1. Confirm that the Direct Transfer menu is displayed on the camera's LCD monitor.

- The △∿ button will light blue.
- Press the **MENU** button if the Direct Transfer menu fails to appear.

Direct Transfer
- All Images…
- New Images…
- DPOF Trans. Images…
- Select & Transfer…
- Wallpaper…
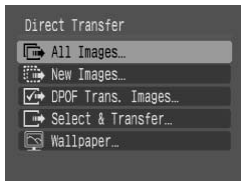
Direct Transfer Menu

■ All Images/New Images/DPOF Trans. Images

2. Use the ▲ or ▼ button to select ![icon], ![icon] or ![icon] and press the △∿ button.

- The images will download. The △∿ button will blink blue while downloading is in progress.
- To cancel the download, press the **FUNC./SET** button.

All Images
☆ Transferring...
7/13

| Cancel | OK |

■ Select & Transfer/Wallpaper

2. **Use the ↑ or ↓ button to select 🖪 or 🖾 and press the 凸⌒ (or ⑅) button.**

3. **Use the ← or → button to select images to download and press the 凸⌒ (or ⑅) button.**

* The images will download. The 凸⌒ button will blink blue while downloading is in progress.
* Pressing the **FUNC./SET** button will cancel a download in progress.

4. **Press the ⑭ button after downloading finishes.**

* You will return to the Direct Transfer menu.

> Only JPEG images can be selected for downloading as [Wallpaper] images.

> The option selected with the 凸⌒ button is retained even when the camera's power is turned off. The previous setting will be in effect the next time the Direct Transfer menu is displayed. The image selection screen will appear directly when the [Select & Transfer] or the [Wallpaper] option was last selected.

Click [X] at the bottom right of the window to close the CameraWindow and the downloaded images will display on the computer.

■ Windows
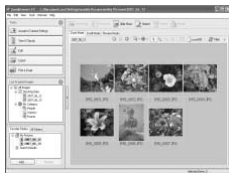
ZoomBrowser EX

■ Macintosh

ImageBrowser

By default, images are saved on the computer in folders according to the shooting date.

System Map

Supplied with Camera

Wrist Strap
WS-DC4
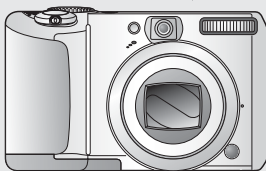
Interface Cable
IFC-400PCU*[1]

Memory Card
(32MB)

AV Cable AVC-DC300*[1]

AA Alkaline
Batteries (x4)

Canon Digital Camera
Solution Disk

Waterproof Case
WP-DC18

Waterproof Case
Weight WW-DC1

**Battery and Charger Kit
CBK4-300*[5]**
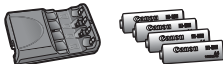
■ **Battery Charger CB-5AH/
CB-5AHE**
■ **AA-size NiMH batteries NB-
3AH (x4)**
• NiMH Battery NB4-300 (set of 4
AA-size) also available separately

**AC Adapter Kit
ACK600**

■ Compact Power
Adapter
CA-PS500
■ Power Cord

Getting Started

High-Power Flash
HF-DC1

Wide Converter
WC-DC58B

Tele-converter
TC-DC58C

Conversion Lens
Adapter
LA-DC58J

Compact Photo Printers*2 *3
(SELPHY Series)

Direct Interface Cable

PCMCIA
Adapter

USB Card
Reader

Direct Print Compatible
Bubble Jet Printers
(PIXMA Series)*4

SD Memory Card*6
• SDC-128M
• SDC-512MSH

USB Port

PC Card Slot

Windows/Macintosh

Video IN Terminal

Audio IN Terminal

TV/Video

*1 Also available for purchase separately.
*2 See the user guide supplied with the printer for more information on the printer.
*3 This camera can also be connected to the CP-10/CP-100/CP-200/CP-300.
*4 See the user guide supplied with the Bubble Jet printer for more information on the printer and interface cables.
*5 Battery and Charger Kit CBK4-200 can also be used.
*6 Not sold in some regions.

Optional Accessories

The following camera accessories are sold separately.
Some accessories are not sold in some regions, or may no longer be available.

■ Lenses, Lens Adapter

• **Conversion Lens Adapter LA-DC58J**
This adapter is required for mounting the wide converter and tele-converter to the camera.

• **Wide Converter WC-DC58B**
Converts the focal distance of the body lens by a factor of approximately 0.75x when attached.

• **Tele-converter TC-DC58C**
Converts the focal distance of the body lens by a factor of approximately 2x when attached.

■ Flash

• **High-Power Flash HF-DC1**
This supplementary flash can be attached to your camera when a photographic subject is too distant for the built-in flash to illuminate.

■ Power Supplies

• **AC Adapter Kit ACK600**
This kit lets you power the camera from any standard household power outlet. Recommended to power a camera for an extended period of time or when connecting to a computer.

• **Battery and Charger Kit CBK4-300**
This dedicated battery charger kit includes both a charger unit and four rechargeable AA-size NiMH (nickel metal hydride) batteries. Convenient when taking or playing back large numbers of images.

• **NiMH Battery NB4-300**
A set of four rechargeable AA-size NiMH batteries.

■ Other Accessories

• **SD Memory Card**
SD memory cards and SDHC memory cards are used to store images recorded by the camera.
Canon brand memory cards are available in 128 MB and 512 MB capacities.

• **Interface Cable IFC-400PCU**
Use this cable to connect the camera to a computer, Compact Photo Printer (SELPHY series), or to a Bubble Jet printer (refer to your Bubble Jet printer user guide).

• **AV Cable AVC-DC300**
Use this cable to connect the camera to a TV set.

• **Waterproof Case WP-DC18**
When you attach this waterproof case to the camera, you can use it to take underwater shots at depths of up to 40 meters (130 feet), and of course it is ideal for taking worry-free pictures in the rain, at the beach, or on the ski slopes.

Direct Print Compatible Printers

Canon offers the following separately sold printers for use with the camera. You can produce photo quality prints quickly and easily by connecting them to the camera with a single cable and operating the camera's controls.

• **Compact Photo Printers (SELPHY series)**
• **Bubble Jet Printers (PIXMA series)**

For more information, visit your nearest Canon retailer.

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.

Learning More

Components Guide

■ Front View
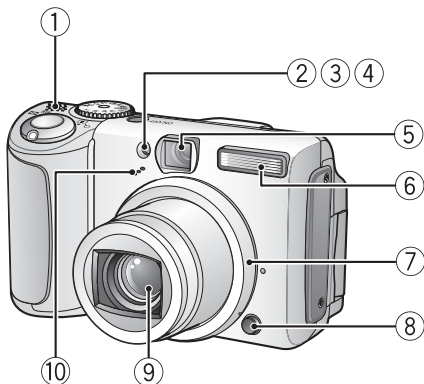
① Speaker
② AF-assist Beam (p. 45)
③ Red-Eye Reduction Lamp (p. 89)
④ Self-Timer Lamp (p. 64)
⑤ Viewfinder Window (p. 39)
⑥ Flash (p. 62)
⑦ Ring (p. 186)
⑧ Ring Release Button (p. 186)
⑨ Lens
⑩ Microphone (p. 147)

■ Back View
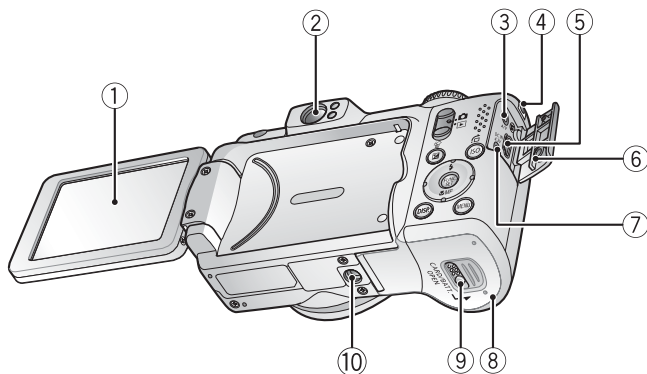
① LCD Monitor (p. 49)
② Viewfinder
③ A/V OUT (Audio/Video Output) Terminal (p. 157)
④ Wrist Strap Mount (p. 9)
⑤ DIGITAL Terminal (pp. 23, 27)
⑥ Terminal Cover
⑦ DC IN (Power Input) Terminal (p. 184)
⑧ Memory Card Slot / Battery Cover (p. 8)
⑨ Memory Card Slot / Battery Cover Lock (p. 8)
⑩ Tripod Socket

Using the Viewfinder

The viewfinder can be used to conserve power by turning the LCD monitor off (p. 49) while shooting.

■ Controls
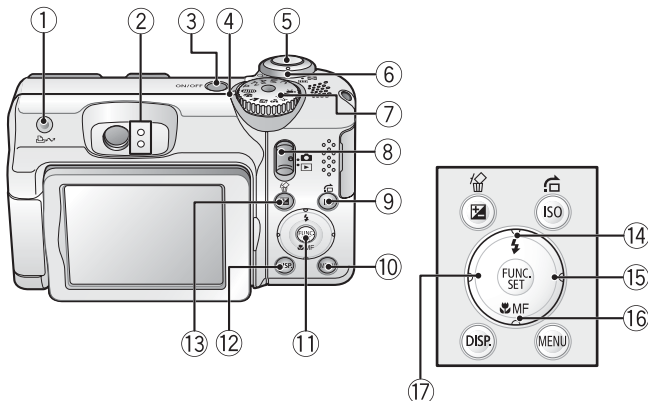
1. ⎙∿ (Print/Share) Button (p. 121)
2. Indicators (p. 41)
3. Power Button (p. 13)
4. Power Lamp
5. Shutter Button (p. 16)
6. Zoom Lever (pp. 57, 130)
   Shooting: ▥ (Wide Angle)/ ▯ (Telephoto)
   Playback: ▦ (Index)/ ⎙ (Magnify)
7. Mode Dial (p. 72)
8. Mode Switch (pp. 15, 18, 21)
9. ISO/⌂ (Jump) Button (pp. 105, 134)
10. **MENU** Button (p. 43)
11. **FUNC./SET** Button (pp. 42, 44)
12. **DISP.** Button (p. 49)
13. ▨ (Exposure)/ ⌦ (Single Image Erase) Button (pp. 108, 22)
14. ⚡ (Flash)/ ▲ Button (p. 62)
15. ➔ Button
16. ❀ (Macro)/ MF (Manual Focus)/ ↓ Button (pp. 63, 99)
17. ← Button

Indicators

The indicators on the back of the camera will light or blink under the following conditions.

• **Upper Indicator**

Green:	Ready to shoot (camera beeps twice)
Blinking Green:	Image recording/reading/erasing/transferring (when connected to a computer/printer)
Orange:	Ready to shoot (flash on)
Blinking Orange:	Ready to shoot (camera shake warning), charging flash

• **Lower Indicator**

Yellow:	Macro mode/Manual focus mode/AF lock mode
Blinking Yellow:	Focusing difficulty (camera beeps once)

Never do the following while the indicator blinks green. These actions may corrupt image data.
- Shake or jolt the camera
- Shut off the power, or open the memory card slot/battery cover

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 an Auto Play or while the camera is connected to a computer.
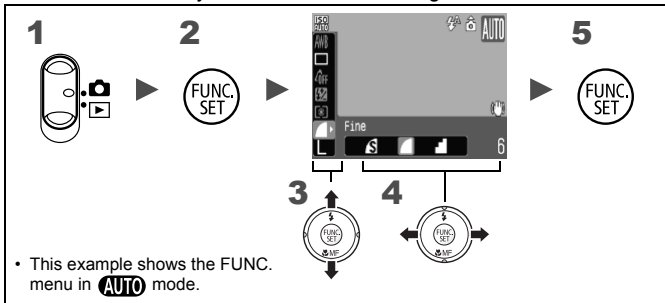● The power saving function settings can be changed (p. 47).

Basic Operations

Menus and Settings

Settings for the shooting or playback modes, or camera settings such as the print, date/time, and sound settings are set using the FUNC./ SET button or the MENU button.

■ (FUNC·SET) Button (Func. Menu)

This menu sets many of the common shooting functions.

• This example shows the FUNC. menu in **AUTO** mode.

1 Set the mode switch to ▲.

2 Press the (FUNC·SET) button.

3 Use the ↑ or ↓ button to select a menu item.

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

4 Use the ← or → button to select an option for the menu item.

• You can change the settings for options indicated with DISP. using the **DISP.** Button.
• After selecting an option, you can press the shutter button to shoot immediately. After shooting, this menu will appear again, allowing you to adjust the settings easily.

5 Press the (FUNC·SET) button.

■ (MENU) Button (Rec., Play, Print and Set up Menus)

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

• This example shows the Rec. menu in **AUTO** mode.
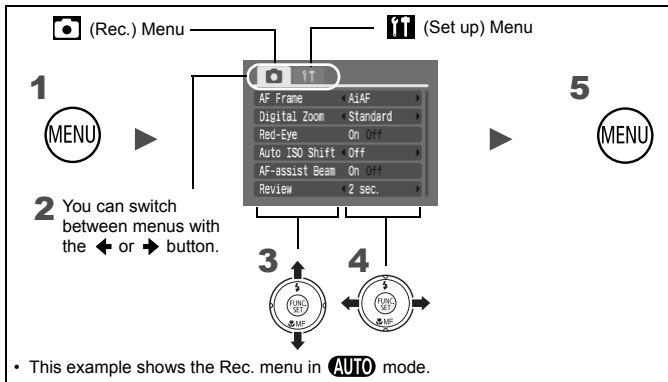
1 Press the (MENU) button.

2 Use the ← or → button to switch between menus.

• You can also use the zoom lever to switch between menus.
• The following menus are displayed.
  - Shooting: ● Rec. / ⑪ Set up
  - Playback: ► Play / 凸 Print / ⑪ Set up

3 Use the ↑ or ↓ button to select a menu item.

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

4 Use the ← or → button to select an option.

• 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, then press the **MENU** button to return to the menu screen.

5 Press the (MENU) button.

Menus and Default Settings

See *Functions Available in Each Shooting Mode*

FUNC. Menu

The icons shown here indicate the default settings (factory settings).

Menu Item		Reference Page	Menu Item		Reference Page
![]	White Balance	p. 111	![]	Metering Mode	p. 109
![]	Drive Mode	pp. 64, 88	![]	Compression (Still image)	p. 67
![]	My Colors	p. 114	![]	Recording Pixels (Still image)	p. 66
![]	+/- (Flash) / Flash Output	p. 116	![]	Recording Pixels (Movie)	p. 79

Rec. Menu ⬤

*Default setting

Menu Item	Options	Contents/ Reference Page
AF Frame		
⬤ / 🐿 / 🏔 / 🎇 / 🎆 / SCN	Face Detect*/AiAF/Center	p. 93
P / Tv / Av / M	Center*/FlexiZone/Face Detect/ AiAF	
AF Frame Size	Normal*/Small	p. 95
Digital Zoom		
(Still image)	Standard*/Off/1.5x/2.0x	p. 58
(Movie)	Standard*/Off (In standard movie mode only)	
Flash Sync	1st-curtain*/2nd-curtain	p. 119
Slow Synchro	On/Off*	p. 90
Flash Adjust	Auto*/Manual	p. 116
Red-Eye	On*/Off	p. 89

Menu Item	Options	Contents/Reference Page
Safety FE	On*/Off	p. 120
Spot AE Point	Center*/AF Point	p. 110
Safety Shift	On/Off*	p. 86
Auto ISO Shift	Off*/ 凸∿ Button/On	p. 106
MF-Point Zoom	On/Off*	p. 99
Safety MF	On/Off*	p. 100
AF-assist Beam	On*/Off	—
Review	Off/2*–10 seconds/Hold	You can set the length of time images display after being shot (p. 17).
Review Info	Off*/Detailed/Focus Check	p. 91
Reverse Disp.	On*/Off	—
Disp. Overlay		
(Still image)	Off*/Grid Lines/3:2 Guide/Both	p. 122
(Movie)	Off*/Grid Lines	
IS Mode		
(Still image)	Continuous*/Shoot Only/Panning/Off	p. 70
(Movie)	Continuous*/Off	
Converter	None*/WC-DC58B/TC-DC58C	p. 185
Date Stamp	Off*/Date/Date & Time	p. 69
Set 凸∿ button	🖾*/ ▥▥/ ▣/ ┳/ ▦/ ᵇ	p. 121
Save Settings		p. 123

Play Menu ▶

Menu Item		Reference Page
🔁	Auto Play	p. 139
👁	Red-Eye Correction	p. 140
📐	Resize	p. 145
🎤	Sound Memo	p. 147
🔒	Protect	p. 148
🔄	Rotate	p. 137
🗑	Erase all	p. 149
➡	Transfer Order	p. 155
▋	Transition	p. 138

Print Menu 🖨

Menu Item	Reference Page
Print	
Select Image & Qty.	
Select All Images	p. 150
Clear All Selections	
Print Settings	

Set up Menu 🔧

*Default setting

Menu Item	Options	Contents/Reference Page
Mute	On/Off*	Set to [On] to silence all operation sounds except for the warning sounds.
Volume	Off/1/2*/3/4/5	Adjusts the volume of the start-up sound, operation sound, self-timer 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 self-timer 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.

Menu Item		Options	Contents/Reference Page
	Playback Vol.		Adjusts the playback volume of movies and sound memos.
Start-up Image		On*/Off	Sets whether or not the Start-up Image appears when the camera is powered on.
Power Saving			p. 41
	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			p. 13
Format			You can also select a low level format (p. 56).
File Numbering		Continuous*/ Auto Reset	p. 128
Create Folder			p. 126
	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. 125
Distance Units		m/cm* /ft/in	Sets the units for the MF indicator distance unit (p. 99).
Lens Retract		1 minute* / 0 seconds	Sets the lens retraction timing when switching from shooting mode to playback mode.
Language			p. 14
Video System		NTSC/PAL	p. 157

Menu Item	Options	Contents/Reference Page
Print Method	Auto*/▧	See below*[1].
Reset All		p. 55

*[1] The connection method with the printer can be changed for printing. Although it is normally not necessary to change the setting, select ▧ when borderless printing an image shot in ▧ (Widescreen) mode on wide size paper using Canon compact photo printer SELPHY CP750/CP740/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 ▧, return the mode to [Auto] (however, the connection method cannot be changed while connected to a printer).

Using the LCD Monitor

1 Press the (DISP.) button.

- The display mode changes as follows with each press.

  Shooting Mode (◻)
  → Standard
  (No Information)
  ↓
  Detailed
  (Information View)
  ↓
  Off

  Playback Mode (▶)
  → No Information
  ↓
  Standard
  ↓
  Detailed
  ↓
  Focus Check
  (Still images only)
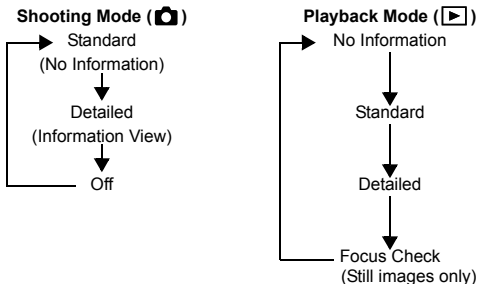
- The shooting information displays for approximately 6 sec. when a setting is changed, regardless of the selected display mode.

- 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 ⬚ or '🎥 mode.
- The LCD monitor will not switch to the detailed display or focus check display while in magnified display or index playback mode.

Night Display

When shooting at dusk or during the evening when the dark surroundings make it difficult to view the LCD monitor, the camera's "night view" option* displays the subject brightly in the LCD monitor. This will allow you to compose a shot even in dark environments (this setting cannot be turned off).

* 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)

Grid Lines — 3:2 Guide

① ②

[ ] Spot AE Point Frame/
[ ] □ AF Frame

③

④
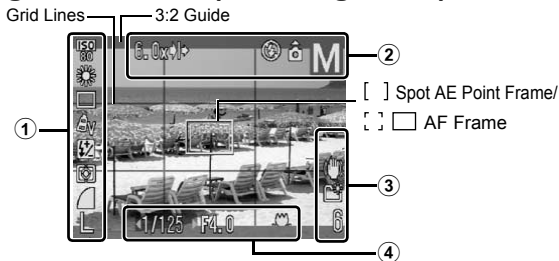
①	ISO Speed	ISO ISO ISO ISO ISO ISO ISO ISO / ISO (ISO 80 … ISO 3200) *	p. 104
	White Balance	☀ ☁ ⚡ ☼ ☼ 🏠 ⚘	p. 111
	Drive Mode	□ ▣ ⏱ ⏱ ⏱	pp. 64, 88
	My Colors	⒜ᵥ ⒜ₙ ⒜ₛₑ ⒜ᵦw ⒜c	p. 114
	Flash Exposure Compensation/Flash Output	⚡	p. 116
	Metering Mode	◉ ▣ ◙	p. 109
	Compression (Still image)	�s ◢ ◣	p. 67
	Recording Pixels (Still image)	L M1 M2 M3 S ⬟ W	p. 66
	Recording Pixels (Movies)	640 640 320 160	p. 79
②	Digital Tele-Converter/Zoom Magnification	T /1.5x/2.0x	p. 58
	Flash	⚡ᴬ ⚡ ⊗	p. 62
	Auto Rotate	⊡ ⊡ ⊡	p. 125
	Shooting Mode	AUTO ▦ ▲ ⒜ 🎇 ⒮ 🎆 ⚡ ⒮ ⒮ ▦ ◉ ⓦ ISO ⬛ ⬛ ⬛ P Tv Av M C	p. 72
	Movie Recording	[● Rec.] (Red)	p. 19
	Low Battery	⬛ (Red)	p. 178
	Zoom Bar		p. 57
	MF Indicator		p. 99

	Image Stabilizer	🤚 ⓞ ➡ 🤚 ⓞ 🤚	p. 70
	Create Folder	📁	p. 126
③	Stills: Recordable Shots Movies: Remaining Time/Elapsed Time		pp. 19, 197, 198
	Camera Shake Warning	📷 (Red)	pp. 51, 160
	AE Lock/FE Lock	✴	pp. 101, 103
	Shutter Speed*	15–1/2000	pp. 83, 87
④	Aperture Value*	F2.8–F8.0	pp. 85, 87
	Exposure Compensation	🔲 ⁻2 ··· ⁺2	p. 108
	Macro	🌷	p. 63
	AF Lock/Manual Focus	MF	p. 97

* Displays when the shutter button is pressed halfway. Since the camera automatically readjusts for the optimal settings when using the flash, settings displayed in shooting information may differ from the actual settings.

If the indicator blinks orange and the camera shake warning icon (📷) is displayed, this indicates that a slow shutter speed may have been selected due to insufficient illumination. Use the following methods to shoot:
- Set the IS mode to any setting other than [Off] (p. 70)
- Raise the ISO speed (p. 104)
- Set the Auto ISO Shift to any setting other than [Off].
- Select a setting other than 🚫 (flash off) (p. 62)
- Attach the camera to a tripod or other device

Playback Information (Playback Mode)

■ Standard

①	Displayed Image Number/Total Number of Images		–
	Folder Number-File Number		p. 128
②	Compression (Still Images)	ⓢ ◢ ◢	p. 67
	Recording Pixels (Still Images)	L M1 M2 M3 S XS ⬛ W	p. 66
	Movie	AVI	p. 21
	WAVE Format Sound	🎵	p. 147
	Red-Eye Corrected/Resized	🖳	pp. 140, 145
	Protection Status	⚷	p. 148
	Shooting Date/Time		p. 13

■ Detailed

Histogram (p. 54)
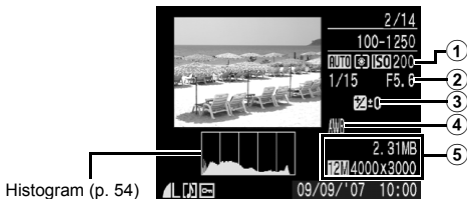
①	Shooting Mode	[icons]	p. 72
	Metering Mode	◉ ▣ ▣	p. 109
	ISO Speed	ISO 80 ⋯ ISO 3200	p. 104

②	Shutter Speed	15–1/2000	pp. 84, 87
	Aperture Value	F2.8–F8.0	pp. 85, 87
	Recording Pixels/Frame Rate (Movies)	🔲 🔲 🔲 🔲 🔲 🔲	p. 79
③	Exposure Compensation	🔲 -2 ··· +2	p. 108
	Flash Exposure Compensation/Flash Output	🔲 -2 ··· +2	p. 117
④	White Balance	🔲 🔲 🔲 🔲 🔲 🔲 🔲	p. 111
	My Colors	🔲 🔲 🔲 🔲 🔲	p. 114
	Red-Eye Correction Function	🔲	p. 140
	AF Lock/Manual Focus	🔲	pp. 98, 99
	Macro	🔲	p. 63
⑤	File Size		p. 198
	Still Image: Recording Pixels Movies: Movie Length		pp. 197, 198

■ Focus Check Display

①	Displayed Image Number/Total Number of Images		–
②	Compression (Still Images)	🔲 🔲 🔲	p. 67
	Recording Pixels (Still Images)	🔲 M1 M2 M3 S XS 🔲 🔲	p. 66

The Focus Check display cannot be selected for movies.

The following information may also be displayed with some images.

🎵?	A sound file in a format other than the WAVE format is attached or the file format is not recognized.
⚠	JPEG image not conforming to Design rule for Camera File System Standards (p. 194).
RAW	RAW image
？	Image recording pixel setting not recognized

- Information for images shot on other cameras may not display correctly.
- Overexposure Warning
  In the following cases, overexposed portions of the image blink.
  - When reviewing an image right after shooting in the LCD monitor (information view)
  - When using the detailed display mode of the playback mode

Histogram Function

The histogram is a graph that allows you to check 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. 108).

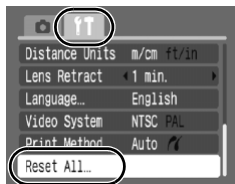Sample Histograms

Dark Image   Balanced Image   Bright Image
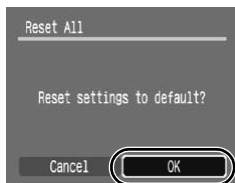
Resetting Settings to Their Default Values
🔘 ▶

1 Select [Reset All].

1. Press the (MENU) button.

2. Use the ← or → button to select the
🔧 menu.

3. Use the ↑ or ↓ button to select
[Reset All].

4. Press the (FUNC/SET) button.

🔘 🔧	
Distance Units	m/cm ft/in
Lens Retract	◀ 1 min. ▶
Language...	English
Video System	NTSC PAL
Print Method	Auto 🖨
Reset All...	

2 Accept the setting.

1. Use the ← or → button to select
[OK]

2. Press the (FUNC/SET) button.

Reset All

Reset settings to default?

Cancel   OK

- When the camera is in shooting mode and the mode dial is
  set to **C**, only the settings saved for **C** mode will return to
  default settings. This is the only way to return **C** mode
  settings to defaults.
- 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 🔧 menu (pp. 46, 47)
  - White balance data recorded with the custom white
    balance function (p. 112)

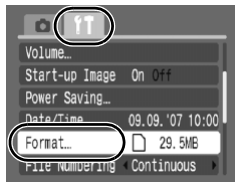## Formatting Memory Cards 🔘 ▶

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.
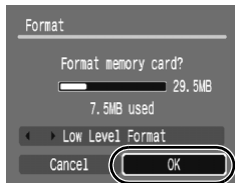
1 Select [Format].

1. Press the MENU button.
2. Use the ← or → button to select the 📶 menu.
3. Use the ↑ or ↓ button to select [Format].
4. Press the FUNC./SET button.

2 Accept the setting.

1. Use the ← or → button to select [OK]
2. Press the FUNC./SET button.
- To perform a low level format, use the ↑ button to select [Low Level Format] and the ← or → button to add a check mark.
- You can stop formatting a memory card when [Low Level Format] is selected by pressing the **FUNC./SET** button. You can still use a memory card without problem when formatting is halted, but its data will be erased.

- 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.

Commonly Used Shooting Functions
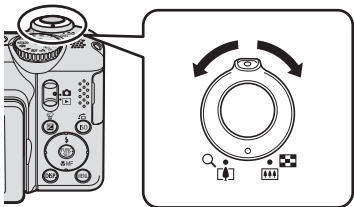
📷🔭 Shooting with the Optical Zoom 📷

Shooting Mode   **AUTO** 🐾 🏔 🎨 👥 SCN 🎞 🎥 P Tv Av M
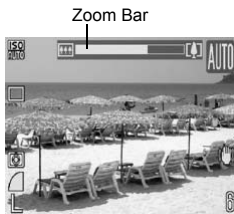
The zoom can be adjusted from 35 mm – 210 mm (focal length) in 35mm film equivalent terms. The zoom bar will display while you adjust the zoom.

---

1. Press the zoom lever toward 📷 or 🔭.

- **📷 Wide Angle:** Zooms out from the subject.
- **🔭 Telephoto:** Zooms in on the subject.

Zoom Bar

Using the Digital Zoom/Digital Tele-Converter 📷

→ See *Functions Available in Each Shooting Mode* (p. 214).

Shooting Mode   AUTO 🎨 🏔 🖼 🎿 SCN* ⬜ 🎥*P Tv Av M

* Cannot be set in 🔲 and 🔲 modes.

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

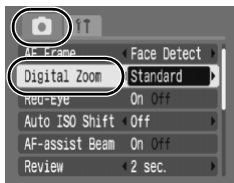| Selection	Focal Length	Shooting Characteristics
Standard	35 – 840 mm	Enables shooting at zoom factors of up to 24x with digital and optical zoom combined.
Off	35 – 210 mm	Enables shooting without digital zoom.
1.5x*	52.5 – 315 mm	Digital zoom is fixed at the selected zoom factor, and the focal length shifts to maximum telephoto. 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].
2.0x*	70 – 420 mm	

* Cannot be set in 🎥 mode.

- ● The digital zoom cannot be used when the LCD monitor is turned off.
- ● The digital zoom cannot be used in 🔲 or 🔲 (Postcard), or 🔲 (Widescreen) modes.
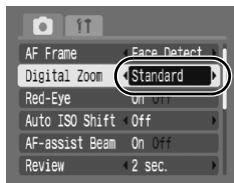
Shooting with the Digital Zoom

1 Select [Digital Zoom].

1. Press the (MENU) button.
2. In the 📷 menu, use the ↑ or ↓ button to select [Digital Zoom].

AF Frame	Face Detect
Digital Zoom	Standard
Red-Eye	On Off
Auto ISO Shift	Off
AF-assist Beam	On Off
Review	2 sec.

2 Accept the setting.

1. Use the ← or → button to select [Standard].

2. Press the (MENU) button.

○	↑↑	
AF Frame	Face Detect	
Digital Zoom	Standard	
Red-Eye	On Off	
Auto ISO Shift	Off	
AF-assist Beam	On Off	
Review	2 sec.	

3 Press the zoom lever toward [●] and shoot.

- The combined digital and optical zoom setting will display in the LCD monitor.
- Press the zoom lever toward [●●●] to zoom out.
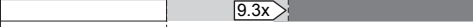- The image may appear coarse depending upon the selected recording pixels (the zoom factor appear in blue).

Optical Zoom Zone (White)
Digital Zoom Zone (Blue)

Approx. 2 seconds
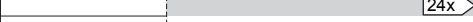
Combined optical and digital zoom factor
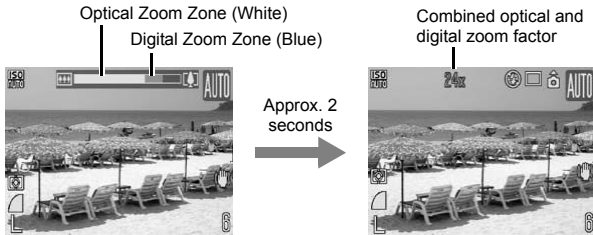
Safety Zoom Zone

Depending on the number of recording pixels set, you can zoom without pausing up to a factor where the image quality does not deteriorate (Safety Zoom).

The ⚓ icon displays when reaching the maximum zoom factor without image deterioration. At this point, the image can be further magnified by pressing the zoom lever toward ▐♦▌ (telephoto) again.

• Depending on the number of recording pixels set, the Safety Zoom zone varies as follows.

Recording Pixels	Optical Zoom	Digital Zoom
L (4000×3000)	6.0x	
M1 (3264×2448)		7.4x
M2 (2592×1944)		9.3x
M3 (1600×1200)		15x
S (640×480)		24x

• ☐ White : Optical Zoom (Zone without deterioration)
• ☐ Yellow : Digital Zoom (Zone without deterioration)
• ■ Blue : Digital Zoom (Zone with deterioration)

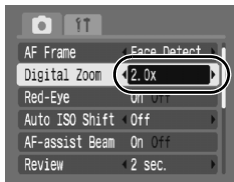## Shooting with the Digital Tele-Converter

1 Select [Digital Zoom].

1. Press the (MENU) button.

2. In the ![icon] menu, use the ↑ or ↓ button to select [Digital Zoom].

AF Frame	Face Detect
Digital Zoom	Standard
Red-Eye	On Off
Auto ISO Shift	Off
AF-assist Beam	On Off
Review	2 sec.

2 Accept the setting.

1. Use the ← or → button to select [1.5x] or [2.0x].

2. Press the (MENU) button.

AF Frame	Face Detect
Digital Zoom	2.0x
Red-Eye	On Off
Auto ISO Shift	Off
AF-assist Beam	On Off
Review	2 sec.

3 Adjust the angle of view with the zoom lever and shoot.

- **T** will appear on the LCD monitor.
- The image may appear coarse depending upon the selected recording pixels (the **T** icon and the zoom factor appear in blue).

Digital Tele-Converter

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

$\sharp$ Using the Flash

$\boxed{\bullet}$

$\rightarrow$ See *Functions Available in Each Shooting Mode* (p. 214).

Shooting Mode	AUTO 🐾 🛥 🏖 🎇 SCN* 🗂 🎥 P Tv Av M

* Cannot be set in 🎆 and 🔢 modes.

1 Press the $\sharp$ button.

1. Use the $\spadesuit$ or $\blacktriangledown$ button to change the flash mode.

- 🚫 : [Off]
- $\sharp$: [On]
- $\sharp^A$: [Auto]

> You are recommended to shoot with the camera attached to a tripod or other device if the camera shake warning icon 🖐 appears.

❀ Shooting Close-ups (Macro) 📷

Shooting Mode	🔘 🎿 🏔 🎨 ≈ SCN* 🖥 🎥 P Tv Av M

* Cannot be set in 🎴 mode.

Use this mode to shoot close-ups of flowers or small items. At maximum wide angle, the image area is 28 x 20 mm (1.1 x 0.79 in.) when at the minimum focusing distance (1 cm (0.4 in.) from the end of the lens to the subject).

1 Press the ❀ button.

1. Use the ↑ or ↓ button to select ❀.

• The zoom bar will display while you adjust the zoom. At zoom ranges not possible for macro photography, the bar will appear yellow and the ❀ icon will gray out. The image will be recorded at standard focusing distance.

To Cancel the Macro Mode

Press ❀ and use the ↑ or ↓ button to select 🔺 (Normal).

> • Use the LCD monitor to compose close-ups in macro mode since images composed with the viewfinder may be off-center.
> • Using the flash in macro mode may cause image edges to darken.

♦ Using the Self-Timer 🔲

➡ See *Functions Available in Each Shooting Mode* (p. 214).

Shooting Mode **AUTO** 🐾 ☎ 🖾 🐾 SCN 🖵* 🎥*P Tv Av M

* Cannot be set in 🏃 mode.

You can set the time delay and the numbers of shots you wish to take in advance.

🕙	**10 sec. Self-Timer: shoots 10 seconds after you press the shutter button.** • 2 seconds before the shutter releases, the self-timer lamp and sound speed up.
🕑	**2 sec. Self-Timer: shoots 2 seconds after you press the shutter button.** • The self-timer sound beeps quickly when you press the shutter button and the shutter releases 2 seconds later.
🕐	**Custom Timer: you can change the delay time (0-10, 15, 20, 30 sec.) and number of shots (1-10*).** • When [Delay] is set to 2 or more seconds, the self-timer sound beeps quickly 2 seconds before the shutter releases.

1 Configure the self-timer mode.

1. Press the ⊕ button.

2. Use the ↑ or ↓ button to select 🔲 and the ← or → button to change the option.

3. Press the ⊕ button.
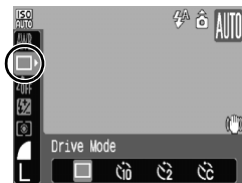
2 Shoot.

• When the shutter button is pressed fully, the self-timer will activate and the self-timer lamp will blink (when using red-eye reduction, it will stay lit for the last 2 seconds).

To Cancel the Self-Timer

Follow Step 1 to display 🔲.

* Default setting is 3 shots.

Changing the Delay Time and Number of Shots

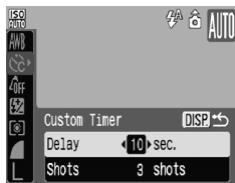### 1 Select 🛇.

1. Press the (FUNC) button.

2. Use the ↑ or ↓ button to select ▢ and choose 🛇 with the ← or → button.

3. Press the (DISP) button.

Drive Mode
▢ 🕙 ⏱ 🛇

▼

Drive Mode [DISP]
▢ 🕙 ⏱ 🛇

2 Accept the setting.

1. Use the ↑ or ↓ button to select [Delay] or [Shots] and change the settings with the ← or → button.

2. Press the (DISP) button.

3. Press the (FUNC) button.

Custom Timer   [DISP] ↰
Delay   ← 10 → sec.
Shots   3 shots

If the [Shots] option is set to 2 or more shots, the following occurs.
- The exposure and white balance are locked at the settings selected for the first shot.
- If the flash is used, the interval between shots lengthens because the flash must charge.
- The interval between shots may lengthen when the built-in memory of the camera fills.
- Shooting will automatically cease if the memory card becomes full.

Changing the Recording Pixels (Still Images) 📷

Shooting Mode **AUTO** 🦯 🔺 🖾 🐾 SCN* �da 💻 P Tv Av M

* Cannot be set in 🔢 mode.

1 Select a recording pixels setting.

1. Press the 🔘 button.

2. Use the ↑ or ↓ button to select **L** and the ← or → button to change the option.

3. Press the 🔘 button.

Approximate Values for Recording Pixels

Recording Pixels				Purpose*1
L (Large)	12M	4000 x 3000	High ↑	Printing to about A2-size 420 x 597 mm (16.5 x 23.4 in.)
M1 (Medium 1)	8M	3264 x 2448		Printing to about A3-size 297 x 420 mm (11.7 x 16.5 in.)
M2 (Medium 2)	5M	2592 x 1944		Printing to about A4-size 210 x 297 mm (8.3 x 11.7 in.) Printing to about Letter-size 216 x 279 mm (8.5 x 11 in.)
M3 (Medium 3)	2M	1600 x 1200		Print postcard-size prints 148 x 100 mm (6 x 4 in.) Print L-size prints 119 x 89 mm (4.7 x 3.5 in.)
S (Small)	0.3M	640 x 480	↓ Low	Send images as e-mail attachments or shoot more images
🖼*2 or 🖼*2 (Postcard)	1600 x 1200			When printing to postcards (p. 68).
🖵*2 (Widescreen)	4000 x 2248			Printing on wide size paper (you can check the composition at a 16:9 aspect ratio. Areas that will not be recorded appear on the LCD monitor as a black border.)

*1 Paper sizes vary according to region.
*2 Cannot be set in 🔢 mode.

▨ : Approximate recording pixels. (M is short for megapixels.)

Changing the Compression (Still Images) 📷

See *Functions Available in Each Shooting Mode* (p. 214).

Shooting Mode   **AUTO** 🐟 ▲ 🖼 ♨ SCN* ❏ 🎥 P Tv Av M

1 Select a compression setting.

1. Press the ⊛ button.
2. Use the ↑ or ↓ button to select □ and the ← or → button to change the option.
3. Press the ⊛ button.

Approximate Values for Compression Settings

Compression		Purpose
S Superfine	High Quality	Shoot higher quality images
□ Fine	↕	Shoot normal quality images
□ Normal	Normal	Shoot more images

- See *Image Data Sizes (Estimated)* (p. 198).
- See *Memory Cards and Estimated Capacities* (p. 197).

Configuring the Postcard Mode 📷

Shooting Mode	AUTO 🏃 🎿 🖼 🎉 SCN* 🎬 🎥 P Tv Av M

* Cannot be set in 🌠 mode.

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.

1 Select 📮.

1. Press the ⒡ button.
2. Use the ↑ or ↓ button to select ⬛ and choose 📮 with the ← or → button.
3. Press the ⒡ button.

- The recording pixel and compression settings are fixed (2 megapixels, 1600 x 1200, ▱).
- The area that will not print displays in gray.

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

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

Embedding the Date in the Image Data 📷

→ See *Functions Available in Each Shooting Mode* (p. 214).

Shooting Mode   **AUTO** 🐾 🏔 🎨 🗐 SCN* ⬜ 🎥 **P Tv Av M**

* Cannot be set in 🔲 mode.

You can embed the date in the image data when 🔲 (Postcard) is selected.

1 Select 🔲.

1. Press the 🔘 button.

2. Use the ↑ or ↓ button to select 🇱
and choose 🔲 with the ← or →
button.

3. Press the 🔘 button.

12M 4000x3000
L M1 M2 M3 S 🔲 ▸ 6

Postcard 1600x1200
🔲 ◂ M1 M2 M3 S 🔲 M 39

2 Select [Date Stamp].

1. Press the (MENU) button.

2. In the 📷 menu, use the ↑ or ↓
button to select [Date Stamp].

Reverse Disp.	On Off
Disp. Overlay	Off
IS Mode	Continuous
Converter	None
Date Stamp	Off
Set ⬛~ button...	

3 Set the date and time.

1. Use the ← or → button to select
[Date] or [Date & Time].

2. Press the (MENU) button.

• LCD Monitor Display
- 🔲 : [Off]
- 🔯 : [Date]/[Date & Time]

Reverse Disp.	On Off
Disp. Overlay	Off
IS Mode	Continuous
Converter	None
Date Stamp	Date
Set ⬛~ button...	
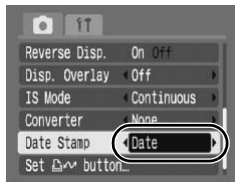
- Ensure that the camera's date/time is set beforehand (p. 13).
- The date stamp cannot be deleted from the image data once it has been embedded.

To imprint the date on all but ◻ size images, use the supplied software (ZoomBrowser EX or ImageBrowser) or printer settings. For details, please see the user guide for each product.

Setting the Image Stabilizer Function ◻

→ See *Functions Available in Each Shooting Mode* (p. 214).

Shooting Mode   ⬜ 🐠 🔺 🔳 🎿 SCN ⬜ 🎥*P Tv Av M

* Only [Continuous] and [Off] can be set.

The lens shift image stabilizer function (IS mode) allows you to minimize the camera shake effect (blurred images) when you shoot distant subjects that have been magnified or when you shoot in dark conditions without a flash.

	Off	Turns off the image stabilizer function.
🖐	Continuous	You can check the effect of the IS mode on image blur on the LCD monitor since the IS mode runs continually. This makes it easier to compose images and focus on subjects.
🔘	Shoot Only	IS mode is only activated when the shutter button is pressed, so subjects will be captured with reduced blur even if their movements on the LCD monitor are not smooth.
🔲	Panning	This option only stabilizes the effect of up and down camera motions on the image. This option is recommended for shooting objects moving horizontally.

1 Select [IS Mode].

1. Press the MENU button.

2. In the ● menu, use the ↑ or ↓ button to select [IS Mode].

Review	2 sec.
Review Info	Off
Reverse Disp.	On Off
Disp. Overlay	Off
IS Mode	Continuous
Converter	None
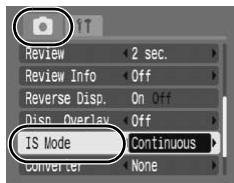
2 Accept the setting.

1. Use the ← or → button to select [Continuous], [Shoot Only], [Panning] or [Off].

2. Press the MENU button.

Review	2 sec.
Review Info	Off
Reverse Disp.	On Off
Disp. Overlay	Off
IS Mode	Shoot Only
Converter	None
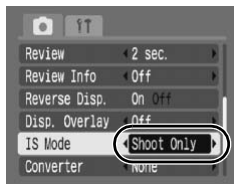
LCD Monitor Icons

[Continuous]	[Shoot Only]	[Panning]	[Converter] setting in Rec. menu	Reference Page
〔🖐〕	〔◎〕	〔➡〕	None	p. 200
🖐	◎	➡	WC-DC58B/ TC-DC58C	

- Camera shake may not be fully corrected when shooting with slow shutter speeds, such as with evening shots. Switch the Auto ISO Shift to a setting other than [Off], or use a tripod to shoot.
- If camera shake is too strong, it may not be fully corrected.
- Hold the camera horizontally while panning (stabilization does not work when the camera is held vertically).
- If you select [Shoot Only] or [Panning] in shooting mode (still images) and then switch to '🎬 mode, the setting will change to [Continuous]. (If you further switch to a different shooting mode from '🎬, the settings will change back to the original condition.)

Shooting Using the Mode Dial

Mode Dial 📷

Creative Zone
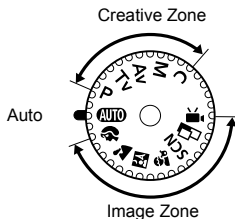
Auto

Image Zone

■ Auto (p. 15)

The camera automatically selects settings.

AUTO

■ Image Zone (pp. 73-81)

When a shooting mode appropriate for the shooting conditions is selected, the camera automatically adjusts settings for optimal shooting.

- 🍷 : Portrait
- 🏔 : Landscape
- 🌃 : Night Snapshot
- 🐾 : Kids & Pets
- **SCN** : Special Scene
  - 🌃 : Night Scene
  - 🏠 : Indoor
  - 🍂 : Foliage
  - ❄ : Snow
  - 🏖 : Beach
  - 🎆 : Fireworks
  - 🐠 : Aquarium
  - 🤿 : Underwater
  - 📷 : ISO 3200
- 🔲 : Stitch Assist
- 🎥 : Movie (Standard/Compact)

■ Creative Zone (pp. 82-87, 123)

With these settings, you select parameters such as the shutter speed or aperture value to achieve a range of effects.

P : Program AE
Tv : Setting the Shutter Speed
Av : Setting the Aperture
M : Manually Setting the Shutter Speed and Aperture
C : Register regularly used shooting modes and settings.

Shooting Modes for Specific Scenes

Shooting Mode   📷 🐾 ⛰ 🏛 😊 SCN 🎞 🎥 P Tv Av M

When a shooting mode appropriate for specific scenes is selected, the camera automatically adjusts settings for optimal shooting.

1 Set the mode dial to 🐾, ⛰, 🏛 or 😊.
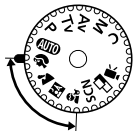
🐾 Portrait

Produces a soft effect when photographing people.

⛰ Landscape

Optimized for shooting landscape scenes which contain both near and far subjects.

Night Snapshot

Allows you to take snapshots of people against twilight or night backgrounds by reducing the effects of camera shake even without using a tripod.

Kids&Pets

Allows you to capture subjects that move around, such as children and pets, without missing photo opportunities.

SCN (Special Scene)

You can shoot with the most appropriate settings for the scene.

1 Set the mode dial to SCN.
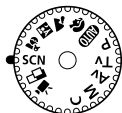
2 Select a shooting mode.

1. Use the ← or → button to select a shooting mode.

Night Scene

Allows you to capture people against the backdrop of an evening sky or night scene. The flash is directed at the person and the shutter speed is slow, so both the person and the background can be beautifully shot.

Indoor

Prevents camera shake and maintains the subject's true color when shooting under fluorescent or tungsten lighting.
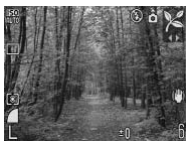
Foliage

Shoots trees and leaves—such as new growth, autumn leaves or blossoms—in vivid colors.

Snow

Shoots without a blue tinge and without making people appear dark against a snowy background.

Beach

Shoots without making people appear dark near water or sand where reflected sunlight is strong.
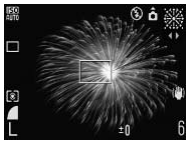
Fireworks

Captures fireworks in the sky sharply and at optimal exposure.

Aquarium

Selects the optimal ISO speed, white balance and color balance to capture sea life and other items in an indoor aquarium.

<img> Underwater

Appropriate for shooting images with Waterproof Case WP-DC18 (sold separately). This mode uses an optimal white balance setting to reduce bluish tones and record images with a natural hue.
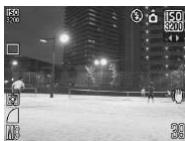
<img> ISO 3200

The ISO speed is set to 3200. Use it to set ISO speeds for high sensitivity imaging (twice that of ISO 1600). It will reduce subject blurring and camera shake when shooting.
Settings will be fixed at M3 recording pixels (1600 x 1200 pixels).

- The shutter speed is slow in <img> or <img> mode. Always use a tripod to avoid camera shake.
- In <img>, <img>, <img>, <img> or <img> mode, the ISO speed may increase and cause noise in the image depending on the scene being shot.
- In <img> mode, noise in the image may become noticeable.

- To shoot underwater, install the camera in Waterproof Case WP-DC18 (sold separately).
- We recommend you use the separately sold Waterproof Case WP-DC18 for shooting in rain, at ski resorts, and at beaches.

🎥 Movie Shooting 📷

➡ See *Functions Available in Each Shooting Mode* (p. 214).

Shooting Mode   📷 🐾 🏔 🎆 🎇 SCN 🔲 🎥 P Tv Av M

The following movie modes are available.
The recording time will vary according to the capacity of the memory card you use (p. 198).

🔲 **Standard**
You can select the recording pixels 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. 57)
• Maximum Size: 4 GB*

📧 **Compact**
Since there are few recording pixels and also 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

* Even if the clip size has not reached 4 GB, recording will stop at the moment the clip length reaches 1 hour. Depending on the volume and data writing speed of the memory card, recording may stop before reaching 1 hour or before the recorded data volume has reached 4 GB.

1   Set the mode dial to 🎥.

2   Select a shooting mode.

1. Use the ← or → button to select a shooting mode.

3 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 or the maximum recording capacity is reached
  - When the built-in memory or memory card becomes full

● You are recommended to use a memory card that has been formatted in your camera to shoot movies (p. 56). 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 (pp. 19, 38).
  - 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.

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

Changing Recording Pixels

You can change the recording pixels when the movie mode is set to
 (Standard) (frame rate is fixed).

1 Select the number of recording pixels.

1. Press the (FUNC) button.

2. Use the ↑ or ↓ button to select
 and the ← or → button to
change the option.

3. Press the (FUNC) button.
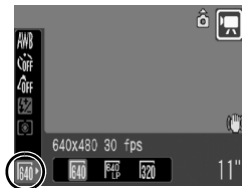
Recording Pixels and Frame Rates

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

Standard	640	640 x 480 pixels, 30 frames/sec.
	640*	640 x 480 pixels, 30 frames/sec., LP
	320	320 x 240 pixels, 30 frames/sec.
Compact	160	160 x 120 pixels, 15 frames/sec.

* To give priority to recording length over quality, select the option displaying 640
(Long Play). For the same file size, you can record approximately twice the length.

- See *Image Data Sizes (Estimated)* (p. 198).
- See *Memory Cards and Estimated Capacities* (p. 197).

Shooting Panoramic Images (Stitch Assist)

See *Functions Available in Each Shooting Mode* (p. 214).

Shooting Mode

Stitch Assist can be used to shoot overlapping images that can later be merged (stitched) to create one panoramic image on a computer.

The overlapping seams of several adjacent images can be joined into a single panoramic image.

1 Set the mode dial to .

2 Select a shooting direction.

1. Use the ← or → button to select a shooting direction.

: → Left to right horizontally

: ← Right to left horizontally

3 Shoot the first image in the sequence.

- The exposure and white balance are set and locked with the first image.

4 Compose the second image so that it overlaps a portion of the first and shoot.

- You can press the ← or → button to return to the previously recorded image to retake the shot.
- Minor discrepancies in the overlapping portions will be corrected when the images are stitched together.

5 Repeat the step for additional images.

- A sequence may contain up to 26 images.

6 Press the ⓕⓤⓝⓒ button after taking the last shot.

- You cannot display the images on a TV when shooting in Stitch Assist mode.
- The settings for the first image are applied to the second image onward (except for Macro setting).

- Use PhotoStitch, a supplied software program, to merge the images on a computer.
- When the ☒ button is pressed, you can switch between the items which you can set.
  - Exposure compensation/Shooting direction selection

P Program AE 📷

→ See *Functions Available in Each Shooting Mode* (p. 214).

Shooting Mode   AUTO 🐾 🏔 🖼 ⚡ SCN ⊑ 🎥 **P** Tv Av M

The camera automatically sets the shutter speed and aperture value to match the brightness of the subject. You can freely configure such settings as the ISO speed, exposure compensation and white balance.

1 Set the mode dial to P.

2 Shoot.

When a correct exposure cannot be obtained, the shutter speed and aperture values are shown in red on the LCD monitor when the shutter button is pressed halfway. Use the following shooting methods to obtain the correct exposure and make them show in white.
- Using the flash
- Changing the ISO speed
- Changing the metering method

Tv Setting the Shutter Speed 🔘

Shooting Mode ⬜ 🎐 🔺 🔳 🎿 SCN 🖼 '🎥 P **Tv** Av M

When you set the shutter speed, the camera automatically selects an aperture value to match the brightness of the subject. Faster shutter speeds allow you to catch an instantaneous image of a moving subject, while slower speeds create a flowing effect and allow you to shoot without a flash in dark areas.

1 Set the mode dial to Tv.
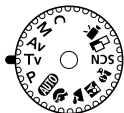
2 Configure the shutter speed.

- Use the ← or → button to change the shutter speed.
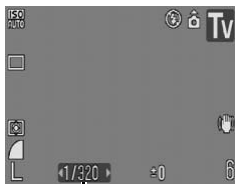
Shutter Speed

3 Shoot.

- If the aperture value is shown in red, the image is underexposed (insufficient light) or overexposed (too much light). Use the ← or → button to adjust the shutter speed until the aperture value shows in white.

The nature of CCDs is such that noise in the recorded image increases at slow 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. (However, a certain amount of processing time may be required before the next image can be shot.)

● The aperture value and shutter speed change according to the zoom state as follows

	Aperture Value	Shutter Speed (seconds)
Maximum Wide Angle	f/2.8 – 3.5	15 – 1/1250
	f/4.0 – 8.0	15 – 1/2000
Maximum Telephoto	f/4.8 – 6.3	15 – 1/1250
	f/7.1 – 8.0	15 – 1/2000

● The fastest shutter speed for flash synchronization is 1/500 second. Therefore, even if the shutter speed is preset to a speed higher than 1/500 second, the camera automatically resets the shutter speed to 1/500 second during shooting.

Shutter Speed Display

● The following shutter speeds can be set. 1/160 indicates 1/160 second. Also, 0"3 indicates 0.3 second and 2" indicates 2 seconds.

15" 13" 10" 8" 6" 5" 4" 3"2 2"5 2" 1"6 1"3 1" 0"8 0"6 0"5 0"4 0"3
1/4 1/5 1/6 1/8 1/10 1/13 1/15 1/20 1/25 1/30 1/40 1/50 1/60
1/80 1/100 1/125 1/160 1/200 1/250 1/320 1/400 1/500 1/640
1/800 1/1000 1/1250 1/1600 1/2000

Av Setting the Aperture 📷

Shooting Mode   🔘 🐾 ▲ 🏖 🎇 SCN ⟷ 🎥 P Tv **Av** M

The aperture adjusts the amount of light entering through the lens. When you set the aperture value, the camera automatically selects a shutter speed to match the brightness.

Selecting a lower aperture value (opening the aperture) allows you to blur the background and create a beautiful portrait. A higher aperture value (closing it) brings the entire range from foreground to background into focus. The larger the aperture value, the greater the range of the image brought into clear focus.

1 Set the mode dial to Av.

2 Configure the aperture setting.

- Use the ← or → button to change the aperture value.

Aperture Value

3 Shoot.

- If the shutter speed is shown in red, the image is underexposed (insufficient light) or overexposed (too much light). Adjust the aperture value using the ← or → button until the shutter speed display turns to white.

> Some aperture values may not be available with certain zoom positions (p. 87).

- The maximum shutter speed with synchronized flash is 1/500 second. Therefore, even if an aperture value is preset, the aperture value may automatically be reset to match the synchronized flash speed.

Aperture Value Display

- The larger the aperture value, the smaller the lens aperture.

F2.8 F3.2 F3.5 F4.0 F4.5 F4.8 F5.0 F5.6 F6.3 F7.1 F8.0

Safety Shift

With Tv and Av modes, if [Safety Shift] is turned [On] in the Rec. menu, the shutter speed or aperture value is automatically adjusted for the correct exposure when it cannot be otherwise obtained. Safety Shift is disabled when the flash is enabled.

M Manually Setting the Shutter Speed and Aperture 🔘

Shooting Mode   🅰🆄🆃🅾 🐟 🔺 🎆 🎇 SCN 🖵 🎬 P Tv Av **M**

You can manually set the shutter speed and aperture to shoot images.

1   Set the mode dial to M.

2   Configure the shutter speed and aperture setting.

1. Use the ⚡ button to select shutter speed or aperture.

2. Use the ◀ or ▶ button to change the option.

3   Shoot.

- When you press the shutter button halfway, the difference between the correct exposure* and the selected exposure appears on the LCD monitor. If the difference is more than ±2 stops, "–2" or "+2" appears in red.

* Correct exposure levels are calculated by measuring light according to the currently selected metering mode.

- If the zoom is adjusted after these values are set, the shutter speed or aperture value may change in accordance with the zoom position (p. 85).
- The LCD monitor's brightness matches the selected shutter speed and aperture value.
  When you select a fast shutter speed or shoot a subject in a dark place, the image will always be bright if the flash is set to ⚡ (Flash on).

Various Shooting Methods

⚅ Continuous Shooting

Shooting Mode ⚇ 🐾 🛥 🎿 🏂 SCN ⌷ 🎥 P Tv Av M

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 (p. 197).

---

*Recommended Memory Card:
Super high-speed SDC-512MSH Memory Card (sold separately) to which low-level formatting (p. 56) 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.

---

1 Select ⚅.

1. Press the ⒡ button.
2. Use the ↑ or ↓ button to select ☐ and choose ⚅ with the ← or → button.
3. Press the ⒡ button.
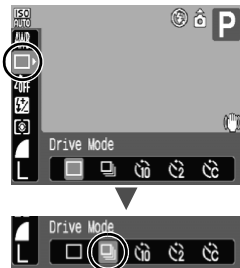
2 Shoot.

• 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 display ☐.

- 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.

Setting the Red-Eye Reduction Function 📷

See *Functions Available in Each Shooting Mode* (p. 214).

Shooting Mode   **AUTO** 🎐 ▲ 🖪 🎇 SCN* ▭ 🎥 **P Tv Av M**

* Cannot be set in 🔲 and 🔢 modes.

This function reduces the red-eye effect which results when the eyes reflect light back from the flash.

1 Select [Red-Eye].

1. Press the (MENU) button.
2. In the 📷 menu, use the ▲ or ▼ button to select [Red-Eye].
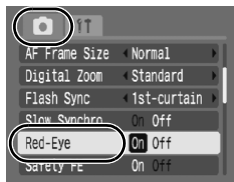
📷	🕍	
AF Frame Size	Normal	
Digital Zoom	Standard	
Flash Sync	1st-curtain	
Slow Synchro	On Off	
Red-Eye	On Off	
Safety FE	On Off	

2 Accept the setting.

1. Use the ← or → button to select [On] or [Off].
2. Press the (MENU) button.

📷	🕍	
AF Frame Size	Normal	
Digital Zoom	Standard	
Flash Sync	1st-curtain	
Slow Synchro	On Off	
Red-Eye	On Off	
Safety FE	On Off	
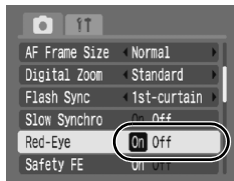
When [On] is selected, the Red-Eye Reduction Lamp lights orange before the flash fires.

Setting the Slow Synchro Function 📷

➡ See *Functions Available in Each Shooting Mode* (p. 214).

Shooting Mode   AUTO 🐟 🔺 🏔 🎨 SCN 🎬 💻 P Tv Av M

You can shoot with the flash at slow shutter speeds. When shooting at night or under artificial indoor lighting, this function reduces the effect of background darkening when the flash fires.

1 Select [Slow Synchro].

1. Press the (MENU) button.

2. In the 📷 menu, use the ↑ or ↓ button to select [Slow Synchro].

📷	🎛	
AF Frame	‹ Center ›	
AF Frame Size	‹ Normal ›	
Digital Zoom	‹ Standard ›	
Flash Sync	‹ 1st-curtain ›	
Slow Synchro	On **Off**	
Red-Eye	On Off	

2 Set Slow Synchro.

1. Use the ← or → button to select [On] or [Off].

2. Press the (MENU) button.

📷	🎛	
AF Frame	‹ Center ›	
AF Frame Size	‹ Normal ›	
Digital Zoom	‹ Standard ›	
Flash Sync	‹ 1st-curtain ›	
Slow Synchro	On **Off**	
Red-Eye	On Off	
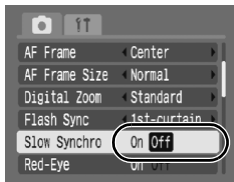
- In 🔺, 🏔 and 📷 modes Slow Synchro is set to [On].
- Please note that camera shake becomes a factor when [Slow Synchro] is set to [On]. If this occurs, you are recommended to fix the camera to a tripod to shoot in this mode.

Checking the Focus and
Peoples' Expressions (Focus Check)   📷

→ See *Functions Available in Each Shooting Mode* (p. 214).

Shooting Mode   📷🆄🆃🅾 🎣 🔺 🔎 🏃 SCN 🔲 🎥 P Tv Av M

Allows you to check the focus of an image taken.
Face Detect displays a frame adjusted to the size of a face in an image, allowing you to easily check facial expressions or whether a subject's eyes are closed. It is recommended to set [Review] to [Hold] in the 📷 menu.

1 Select [Review Info].

1. Press the ⓜ button.

2. In the 📷 menu, use the ↑ or ↓ button to select [Review Info].

📷	
Red-Eye	On Off
Auto ISO Shift	Off
AF-assist Beam	On Off
Review	Hold
Review Info	Off
Reverse Disp.	On Off
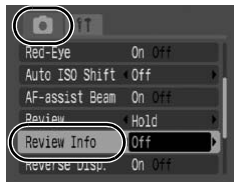
2 Accept the setting.

1. Use the ← or → button to select [Focus Check].

2. Press the ⓜ button.

📷	
Red-Eye	On Off
Auto ISO Shift	Off
AF-assist Beam	On Off
Review	Hold
Review Info	Focus Check
Reverse Disp.	On Off

3 Shoot.

- The image is displayed.
- Frames are displayed as follows.

Image Shot

Frame color	Content
Orange	Displays the range of the image displayed at bottom right.
White	The frame is displayed at a position at which the image is in focus (AF Frame).
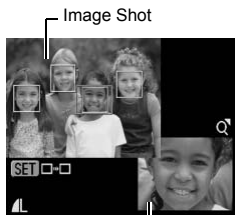
Displays the image enclosed by the orange frame

- The orange frame allows you to change the display magnification, move the display position, and switch display frames (p. 93).

To Cancel the Focus Check

Press the shutter button halfway.

- Pressing the 🗑 button while the image is displayed will erase the image (p. 22).
- You can check the focus even during playback mode (p. 132).

Selecting an AF Frame Mode 📷

➡ See *Functions Available in Each Shooting Mode* (p. 214).

Shooting Mode   📷 🐾 ⛰ 🎆 ⛄ SCN* 🔲 🎥 P Tv Av M

* Cannot be set in 🔲 mode.

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

⌐ ¬	**Face Detect**	You can have the camera automatically detect the position of a face and use this data to set the focus and exposure* while shooting. In addition, the camera will meter the subject so that the face is correctly illuminated when the flash fires. If a face is not detected, shooting will take place with [AiAF]. * Only in evaluative metering mode (p. 109).
☐☐☐ ☐☐☐ ☐☐☐	**AiAF**	The camera automatically selects between 9 AF frames to focus on according to the shooting conditions.
☐☐☐ ☐■☐ ☐☐☐	**Center**	The camera fixes the AF frame at the center. This is convenient for making sure the focus is exactly where you want it.
↑ ←☐→ ↓	**FlexiZone**	Shooting mode: **P** / **Tv** / **Av** / **M** The camera sets the focus from an AF frame you select. This is convenient for ensuring that the intended subject is in focus.

1 Select [AF Frame].

1. Press the (MENU) button.
2. In the 📷 menu, use the ▲ or ▼ button to select [AF Frame].

📷	
AF Frame	Face Detect ▶
Digital Zoom	Standard
Red-Eye	On Off
Auto ISO Shift	Off
AF-assist Beam	On Off
Review	2 sec.

2 Accept the setting.

1. Use the ← or → button to select [Face Detect], [AiAF], [Center] or [FlexiZone].

2. Press the (MENU) button.

- Changing the AF Frame Size (p. 95)
- Changing the AF Frame Position (p. 96)

◌ ↑↑	
AF Frame	◄ Face Detect ►
Digital Zoom	◄ Standard
Red-Eye	On Off
Auto ISO Shift	◄ Off ►
AF-assist Beam	On Off
Review	◄ 2 sec. ►
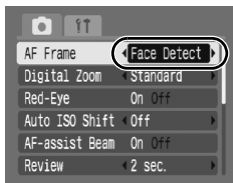
> [Face Detect] and [FlexiZone] cannot be used when the LCD monitor is turned off.

- The AF frame appears as follows (when the LCD monitor is on) when the shutter button is pressed halfway.
  - Green : In focus
  - Yellow : Focusing difficulty ([Center], [FlexiZone] options)
  - No AF frame: Focusing difficulty ([Face Detect], [AiAF] options)

Face Detect Feature

- Maximum of three AF frames will be displayed at the position of the face the camera recognizes. At this point, the frame the camera judges to be the main subject appears in white while the others appear in gray. When the shutter button is pressed halfway, up to 9 green AF frames may appear.
- The camera will shoot using [AiAF] not the [Face Detect] function if a white frame fails to appear and only gray frames display, or if a face is not detected.
- The camera may mistakenly identify non-human subjects as a face. In this case, select another AF frame.
- In certain cases, faces may not be detected.
  Examples:
  - If faces are at the edge of the screen, or appear extremely small, large, dark or bright, relative to the overall composition.
  - Faces turned to the side or at a diagonal, or faces with a portion hidden.

Changing the AF Frame Size ([Center] or [Flexi-Zone])

You can change the AF frame size to match the size of a subject.
You reduce the area used to set the focus when you reduce the AF frame to match a small subject or to focus on a particular portion of a subject.

---

1 Select [AF Frame Size].

1. Press the (MENU) button.
2. In the ○ menu, use the ↑ or ↓ button to select [AF Frame Size].

○ ¶T	
AF Frame	‹ Center ›
AF Frame Size	Normal
Digital Zoom	‹ Standard ›
Flash Sync	‹ 1st-curtain ›
Slow Synchro	On Off
Red-Eye	On Off

---
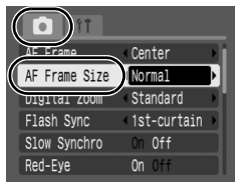
2 Accept the setting.

1. Use the ← or → button to select [Normal] or [Small].
2. Press the (MENU) button.

○ ¶T	
AF Frame	Center
AF Frame Size	‹ Normal ›
Digital Zoom	Standard
Flash Sync	‹ 1st-curtain ›
Slow Synchro	On Off
Red-Eye	On Off
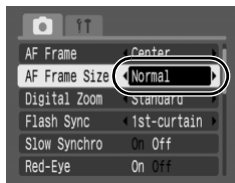
The setting changes to [Normal] when the digital zoom, digital tele-converter or MF (p. 99) is used.

Changing the AF Frame Position ([FlexiZone])

You can move the AF frame to any position. This allows you to set the focus more precisely on your target subject.

1 Press ⚡ repeatedly until the AF frame turns green.

- In some shooting modes, pressing the ⚡ button switches between the following settings categories.

P	Exposure compensation/AF Frame
Tv	Shutter speed/Exposure compensation/AF Frame
Av	Aperture value/Exposure compensation/AF Frame
M	Shutter speed/Exposure compensation/AF Frame

2 Use the ↑, ↓, ← or → button to move the AF frame to the desired position and press the ⚡ button.

- Pressing the **MENU** button shifts the AF frame to a face detected by the camera.
- You can change the AF frame size by pressing the **DISP.** button (the change remains in effect even after the camera power is switched off).
- Continuing to press the ⚡ button causes the AF frame to return to its original position in the center (and it also switches between the settings categories shown above).
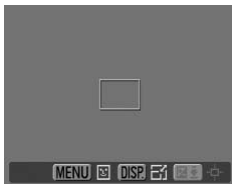
- When the metering option is set to [Spot], you can make the AF frame and spot metering frame correspond (p. 110).
- This option cannot be selected in manual focusing mode (p. 97).
- The AF frame returns to the center position when the power is switched off.

Shooting Hard-to-Focus Subjects (Focus Lock, AF Lock, Manual Focus, Safety MF)

📷

Shooting Mode 　**AUTO 🐟 🏔 🎨 🎣 SCN* 🖵 '🎥 P Tv Av M**

* Cannot be used in 🖼 mode.

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 halfway while you recompose the image and press the shutter button all the way to shoot the image.**

Shooting with the AF Lock

* Not available in AUTO or 🗂 mode.

1 Turn on the LCD monitor.

2 Aim the camera so that an object at the same focal distance as the main subject is centered in the AF frame.

3 Press and hold the shutter button halfway and press the MF button.

- The MF icon and the MF indicator will appear on the LCD monitor.

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

To Release the AF Lock
Press the MF button and use the ↑ or ↓ button to select 🔺 (Normal).

- Since AF frames do not display in 🎥 mode, aim the camera so that the focus is on the target subject.
- When shooting with the focus lock or AF lock using the LCD monitor, setting [AF Frame] to [Center] (p. 93) makes shooting easier since the camera focuses using the center AF frame only.
- 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.

Shooting in Manual Focus Mode

The focus can be manually set.

* Not available in **AUTO** or ⬜ mode.

1 | Turn on the LCD monitor.

2 | Press the MF button several times.

- The MF icon and the MF indicator are displayed.
- When the ● menu's [MF-Point Zoom] is set to [On], the portion of the image in the AF frame will appear magnified*. The magnified position will differ depending on the AF Frame Mode (p. 93) setting.

MF Indicator

- When set to [Face Detect], [AiAF] or [Center], the center of the LCD monitor is magnified.
- When set to [FlexiZone], the location of the AF frame displayed immediately prior to setting the manual focus will display magnified.
- * The image will not appear magnified in ' mode, when the digital zoom or digital tele-converter is activated or when a TV is used as the display.
- * Can also be set so that the image displayed is not magnified (p. 45).
- Depending on the shooting mode, pressing the 🔆 button will switch between the setting items as follows:

🐟, 🏖, 🎿, 🏔, P	Exposure compensation/MF
SCN	SCN mode/Exposure compensation/MF
'	' mode/MF
Tv	Shutter speed/Exposure compensation/MF
Av	Aperture value/Exposure compensation/MF
M	Shutter speed/Aperture value/MF

3 | Press the ← or → button and adjust the focus.

- The MF indicator shows approximate figures. Use them as a shooting guideline only.

To Cancel the Manual Focus

Press the **MF** button and use the ↑ or ↓ button to select 🔺 (Normal).

> You cannot change the position of the AF frame in **MF** mode.

Using the Manual Focus in Combination with the Auto Focus (Safety MF)

* Not available in **AUTO** or 🔲 mode.

First, manual focus is used to roughly focus, then from that focus position the camera automatically focuses more accurately.

1 Select [Safety MF].

1. Press the ⓜ button.

2. In the 🔘 menu, use the ↑ or ↓ button to select [Safety MF].

Safety FE	On Off
Spot AE Point	◄ Center ►
Auto ISO Shift	◄ Off ►
MF-Point Zoom	On Off
Safety MF	On Off
AF-assist Beam	On Off
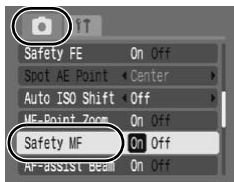
2 Accept the setting.

1. Use the ← or → button to select [On].

2. Press the ⓜ button.

Safety FE	On Off
Spot AE Point	◄ Center ►
Auto ISO Shift	◄ Off ►
MF-Point Zoom	On Off
Safety MF	On Off
AF-assist Beam	On Off

3 First focus manually and then press the shutter button halfway.

• The focus will be fine-tuned at the optimal point of focus.

4 To shoot, press the shutter button all the way down (press fully).

Locking the Exposure Setting (AE Lock) 🔘

Shooting Mode   📷 🐟 🏔 🏖 👥 SCN 🔲 🎬 **P Tv Av** M

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   Press the ↯ button and select 🔅.

2   Aim the camera at the subject on which you wish to lock the exposure.

3   Press the shutter button halfway and press the 🔆 button.

• The exposure setting will lock and 🔆 will display.

4   Re-aim the camera to compose the shot as desired and press the shutter button fully.

To Release the AE Lock
Operate a button other than the ◀ or ▶ button.

You can use the FE lock when using the flash (p. 103).

Changing the Shutter Speed and Aperture Value Combination

The automatically selected combinations of shutter speeds and aperture values can be freely changed without altering the exposure to shoot images (Program Shift).

1 **Aim the camera at the subject on which you wish to lock the exposure.**

2 **Press the shutter button halfway and press the ⚡ button.**

- The exposure setting will lock and ⚡ will display.

ISO200

★ 1/250 F3.6 ±0

3 **Change the shutter speed and aperture value combination with the ✦ or ✦ buttons.**

4 **Recompose the image and shoot.**

- The setting will cancel after the shot is taken.

Locking the Flash Exposure Setting (FE Lock) 🔘

Shooting Mode   AUTO 🏃 ☁ 🖼 🎆 SCN ☐ 🎥 **P Tv Av** M

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

1 Press the ↯ button and select 🔅 (flash on).

2 Aim the camera at the subject on which you wish to lock the exposure.

3 Press the shutter button halfway and press the ⚖ button.

• The flash will pre-fire and 🔅 will display.

4 Re-aim the camera to compose the shot as desired and press the shutter button fully.

To Release the FE Lock
Operate a button other than the ← or → button.

> The FE lock cannot be used when the auto flash feature is set to [Off].

ISO Adjusting the ISO Speed

➡ See *Functions Available in Each Shooting Mode* (p. 214).

Shooting Mode	AUTO 🐾 🏔 🖼 🐾 SCN* 🔲 🎥 P Tv Av M

* Only $\frac{ISO}{3200}$ can be set.

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.

	AUTO	SCN	P	Tv	Av	M
Auto	○*	–	○*	○*	○*	–
High ISO Auto	○	–	○	–	–	–
ISO 80	–	–	○	○	○	○*
ISO 100	–	–	○	○	○	○
ISO 200	–	–	○	○	○	○
ISO 400	–	–	○	○	○	○
ISO 800	–	–	○	○	○	○
ISO 1600	–	–	○	○	○	○
ISO 3200	–	○★	–	–	–	–

○: Available   *: Default

★ ➡ See *ISO 3200 setting method* (p. 76)

1 Adjust the ISO Speed.

1. Press the ISO button.

2. Use the ← or → buttons to change the setting.

3. Press the ⊕ button.

- Selecting 📷 puts priority on image quality in setting the optimal ISO speed for the light level when shooting. As the imaging sensitivity will automatically be raised in dark places, shutter speed will increase, reducing camera shake and subject blurring.

- Selecting 📷 (High ISO Auto)* sets a higher sensitivity than for 📷. As the shutter speed becomes even faster, camera shake and blurred photos caused by subject movement will be reduced even more than when shooting the same scene in 📷.
  * Noise may increase in the captured image compared to 📷.

- ● The camera automatically applies noise reduction processing when you shoot at a high ISO speed.
- ● If the camera is set at 📷 or 📷, the ISO speed automatically set by the camera will be displayed when pressing the shutter button halfway or in playback information.

Reducing Camera Shake When Shooting (Auto ISO Shift)

See *Functions Available in Each Shooting Mode* (p. 214).

Shooting Mode   **AUTO** 🦊 🖼️ 🖼️ ஃ SCN 🖵 🎥 **P Tv Av** M

When the camera shake warning icon (📳) appears during shooting, this function allows you to increase ISO sensitivity and to shoot at a shutter speed which minimizes the effects of camera shake.

Off	—
⎙⌁ button	Allows you to confirm the ISO speed and shutter speed before and after adjustment in the LCD monitor while shooting.
On	The ISO speed is automatically adjusted to an optimal setting which minimizes camera shake.

- Does not function when the flash fires in 🔅, 🔅, or 🔅 mode.
- Depending on shooting conditions, the camera shake warning icon (📳) may not go out even if the ISO speed is increased.

1 Select [Auto ISO Shift].

1. Press the (MENU) button.
2. In the 🔘 menu, use the ↑ or ↓ button to select [Auto ISO Shift].

2 Accept the setting.

1. Use the ← or → button to select [⎙⌁ button] or [On].
2. Press the (MENU) button.
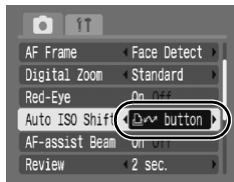
⚙ Button

3 Press the shutter button halfway.

- When 🔄 is displayed, the ⚙ button lights in blue.

4 Press ⚙ the shutter button halfway.

- The ISO speed after adjustment is displayed.
- While pressing the shutter button halfway, pressing the ⚙ button again will return the ISO speed to its original condition.
- When the AE lock is activated after the ISO speed is raised, the ISO speed will not return to its original setting even if you release the shutter button.

5 Press the shutter button all the way down (press fully).

Auto

3 Press the shutter button halfway.

- The ISO speed is automatically set to an optimal setting which minimizes camera shake.

4 Press the shutter button all the way down (press fully).

✢ Adjusting the Exposure Compensation 📷

➡ See *Functions Available in Each Shooting Mode* (p. 214).

Shooting Mode   📷 🎐 🏔 🖼 🐟 SCN* 🗖 '🎥 P Tv Av M

* Cannot be used in 🔲 mode.

Adjust the exposure compensation to a positive value to avoid making the subject too dark when it is backlit or shot against a bright background. Adjust the exposure compensation to a negative value to avoid making the subject too bright in night shots or when shot against a dark background.

1 Turn on the LCD monitor.

2 Press ✢ repeatedly to display the exposure compensation bar.

3 Configure the setting.

1. Use the ◀ or ▶ button to select a compensation setting.
2. Press ✢.

- Each press of the ✢ button switches between the following categories of settings that can be adjusted according to the selected shooting mode.

SCN	SCN mode/Exposure compensation/AF Frame* or MF
🗖	Sequence Direction Selection/Exposure compensation
P	Exposure compensation/AF Frame* or MF
Tv	Shutter speed/Exposure compensation/AF Frame* or MF
Av	Aperture value/Exposure compensation/AF Frame* or MF

* Only with the [FlexiZone] selection for the AF frame type (p. 96).

To Cancel the Exposure Compensation

Follow Step 3 to restore the compensation value to [0].

Switching between Metering Modes 🔘

Shooting Mode   AUTO 🏃 ⛰ 🏛 🎆 SCN 🖵 🎥 **P Tv Av M**

The following metering modes are available.

🔘	**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 Avg.**	Averages the light metered from the entire frame, but gives greater weight to the subject matter at the center.
⊡	**Spot**	Meters within the spot metering frame.
	Center	Fixes the spot metering frame to the center of the LCD monitor.
	AF Point	Causes the position of the spot metering frame to correspond to the AF frame.

1 Change the metering method.

1. Press the 🔘 button.

2. Use the ↑ or ↓ button to select 🔘 and the ← or → button to change the option.
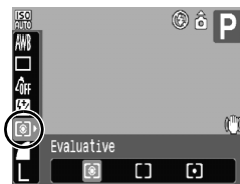
3. Press the 🔘 button.

Lock the Spot AE Point to the Center/Couple the Spot AE Point to the AF Frame

1 Select [Spot AE Point].

1. Press the ⓂⒺⓃⓊ button.

2. In the ⚫ menu, use the ▲ or
▼ button to select [Spot AE
Point].
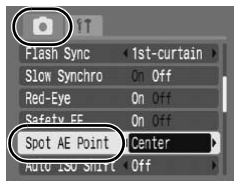
2 Accept the setting.

1. Use the ◆ or ➔ button to select
[Center] or [AF Point].

2. Press the ⓂⒺⓃⓊ button.

- The display on the LCD monitor
will appear as follows.
  - [Center]: spot AE point frame
  appears at the center
  - [AF Point]: spot AE point frame appears inside the
  selected AF frame
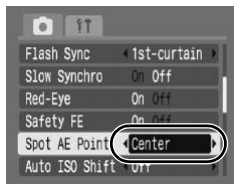
You can only select [AF Point] when the AF frame is set to
[FlexiZone] (p. 96).

Adjusting the Tone (White Balance) 📷

➡ See *Functions Available in Each Shooting Mode* (p. 214).

Shooting Mode   AUTO 🎐 📷 🎆 🎇 SCN 🔲 '🎥 P Tv Av M

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

🎛	Auto	Settings are automatically set by the camera.
☀	Day Light	For recording outdoors on a bright day.
☁	Cloudy	For recording under overcast, shady or twilight skies.
💡	Tungsten	For recording under tungsten and bulb-type 3-wavelength fluorescent lighting.
🔆	Fluorescent	For recording under warm-white, cool-white or warm-white (3-wavelength) fluorescent lighting.
🔆	Fluorescent H	For recording under daylight fluorescent, or daylight fluorescent-type 3-wavelength fluorescent lighting.
🐠	Underwater	Appropriate for shooting images underwater with the Waterproof Case WP-DC18 (sold separately). This mode yields image data in the optimal white balance to record images with natural hues by reducing the bluish tone.
🎨	Custom	For recording with the optimal white balance data retained in the camera from a white-colored object, such as white paper or cloth.

1 Select a white balance setting.

1. Press the 🔘 button.
2. Use the ↑ or ↓ button to select 🎛 and the ← or → button to change the option.
3. Press the 🔘 button.

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

Using the Custom White Balance

Take a custom white balance ⬛ reading for the following situations that are difficult for the ⬛ (auto white balance) 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)

1 Select ⬛.

1. Press the ⬛ button.

2. Use the ↑ or ↓ button to select ⬛ and choose ⬛ with the ← or → button.

2 Aim the camera at a piece of white paper or cloth and press ⬛.

- If you are viewing it with the LCD monitor, ensure that the center frame is completely filled with the white image. If you are using the optical viewfinder, ensure that the entire field is filled. Please note, however, that the center frame will not display when the digital zoom is used or when **T** is displayed.

3 Press the ⬛ button.

- You are recommended to set the shooting mode to **P** and the exposure compensation setting to [±0] before setting a custom white balance.
  The correct white balance may not be obtained when the exposure setting is incorrect (image appears completely black or white).
- Shoot with the same settings as when reading the white balance data. If the settings differ, the optimal white balance may not be set.
  In particular, the following should not be changed.
  - ISO Speed
  - Flash
    Setting the flash to 🔆 or 🚫 is recommended. If the flash fires when reading the white balance data with the flash set to 🔄, make sure that you also use the flash when you shoot.
- Since the white balance data cannot be read in Stitch Assist mode, preset the white balance in another shooting mode beforehand.
- Recorded white balance data will be retained even when the camera's power is turned off.

Shooting in a My Colors Mode ▣

➡ See *Functions Available in Each Shooting Mode* (p. 214).

Shooting Mode   📷 🐾 ⛰ 🅰 ❄ SCN ⭐ 🎬 P Tv Av M

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

🎨	**My Colors Off**	Records normally with this setting.
🎨	**Vivid**	Emphasizes the contrast and color saturation to record bold colors.
🎨	**Neutral**	Tones down the contrast and color saturation to record neutral hues.
🎨	**Sepia**	Records in sepia tones.
🎨	**B/W**	Records in black and white.
🎨	**Custom Color**	Use this option to adjust contrast, sharpness and saturation before shooting.

Configuring My Colors Settings (🎨/🎨/🎨/🎨)

1 Select a My Colors setting.

1. Press the ⏺ button.
2. Use the ↑ or ↓ button to select 🎨 and the ← or → button to change the option.
3. Press the ⏺ button.

2 Shoot.

Setting the Camera to a Custom Color Mode (⚙c)

1 Select ⚙c.

1. Press the ⏺ button.

2. Use the ↑ or ↓ button to select ⚙ᴏꜰꜰ and choose ⚙c with the ← or → button.

My Colors Off
⚙ᴏꜰꜰ ⚙ᵥ ⚙ɴ ⚙ₛₑ ⚙ᴮᵂ ⚙c

▼

Custom Color **DISP**
⚙ᴏꜰꜰ ⚙ᵥ ⚙ɴ ⚙ₛₑ ⚙ᴮᵂ ⚙c

2 Select the mode.

1. Press the ⏺ button.

2. Use the ↑ or ↓ button to select [Contrast], [Sharpness] or [Saturation].

3. Use the ← or → button to adjust the setting.

Custom Color **DISP**
⇕ Contrast

• The adjustment results show in the LCD monitor.
• If you press the **DISP.** button, you will return to the screen where you can select a My Colors mode.

3 Press the ⏺ button.

Switching between Flash Adjustment Settings 🔾

Shooting Mode   **AUTO** 🐎 🔺 ⚙ 🏃 SCN ⬛ 💻 P **Tv Av** M

Although the built-in flash will fire with automatic flash adjustments, it is also possible to set it so that it fires without any adjustments.

1 Select [Flash Adjust].

1. Press the ⓜ button.

2. In the ⬛ menu, use the ▲ or ▼ button to select [Flash Adjust].
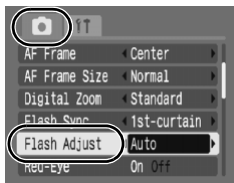
2 Accept the setting.

1. Use the ◀ or ▶ button to select [Auto] or [Manual].

2. Press the ⓜ button.

- Flash compensation can be set to [Manual] (p. 117).
- Flash output can be set to [Auto] (p. 117).
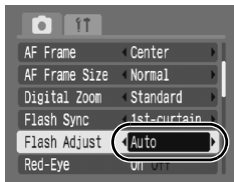
Adjusting Flash Compensation Settings ◻

Shooting Mode ⬛ 🐟 🔺 🖼 🌄 SCN ⬜ 🎥 **P Tv Av** M

Flash exposure compensation can be adjusted in the range of -2 to +2 stops in 1/3-stop increments. You can combine the flash exposure compensation with the camera's exposure compensation function for balanced exposure of the background when shooting with a flash. In **Tv** and **Av** shooting modes, please set [Flash Adjust] to [Auto].

1 Adjust the flash compensation setting.

1. Press the ⓕⓤⓝⓒ button.
2. Use the ↑ or ↓ button to select 🔢 and the ← or → button to change the option.
3. Press the ⓕⓤⓝⓒ button.
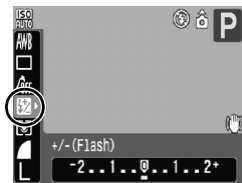
Setting the Flash Output 📷

Shooting Mode   📷 🏃 🏔 🏛 👥 SCN 🔲 🎬 P **Tv Av M**

When shooting, the flash output can be controlled in three steps, up to FULL. In **Tv** and **Av** shooting modes, please set [Flash Adjust] to [Manual].

1 Configure the flash output setting.

1. Press the ⒡ button.

2. Use the ↑ or ↓ button to select 🔅 and the ← or → button to change the option.

3. Press the ⒡ button.
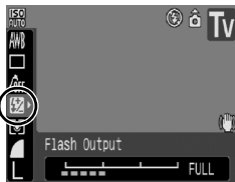
Switching the Timing at which the Flash Fires 📷

→ See *Functions Available in Each Shooting Mode* (p. 214).

Shooting Mode	AUTO 🐟 ᐃ 🖼 🎿 SCN 🗖 🎥 P Tv Av M

1st-curtain	The flash fires right after the shutter opens, regardless of the shutter speed. Usually, the 1st-curtain is used when shooting.
2nd-curtain	The flash fires right before the shutter closes. Compared with the 1st-curtain, the flash fires later and allows you to shoot images in which, for example, a car's taillights seem to trail off behind.

1 Select [Flash Sync].

1. Press the (MENU) button.

2. In the 📷 menu, use the ↑ or ↓ button to select [Flash Sync].

AF Frame · Center
AF Frame Size · Normal
Digital Zoom · Standard
Flash Sync · 1st-curtain
Slow Synchro · On Off
Red-Eye · On Off
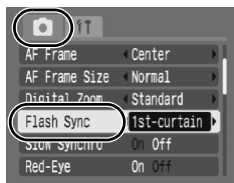
2 Accept the setting.

1. Use the ← or → button to select [1st-curtain] or [2nd-curtain].

2. Press the (MENU) button.

AF Frame · Center
AF Frame Size · Normal
Digital Zoom · Standard
Flash Sync · 1st-curtain
Slow Synchro · On Off
Red-Eye · On Off
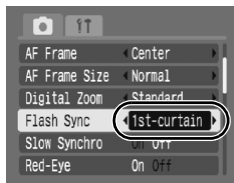
Image shot with the 1st-curtain setting

Image shot with the 2nd-curtain setting

Adjusting Exposure for Built-in Flash Shooting (Safety FE)

📷

➡ See *Functions Available in Each Shooting Mode* (p. 214).

Shooting Mode   **AUTO** 🐾 🏔 📷 ☃ SCN 🖵 🎬 **P Tv Av M**

The camera automatically changes the shutter speed or aperture value when the flash fires to avoid overexposing and blowing out the highlights in the scene. In **Tv** and **Av** shooting modes, ensure that the flash adjustment setting is configured to [Auto] in advance (p. 116).

1 Select [Safety FE].

1. Press the (MENU) button.

2. In the 📷 menu, use the ↑ or ↓ button to select [Safety FE].
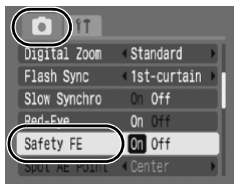
📷	⚙	
Digital Zoom	‹ Standard ›
Flash Sync	‹ 1st-curtain ›
Slow Synchro	On **Off**
Red-Eye	On Off
Safety FE	**On** Off
Spot AE Point	‹ Center ›

2 Accept the setting.

1. Use the ← or → button to select [On] or [Off].

2. Press the (MENU) button.

📷	⚙	
Digital Zoom	‹ Standard ›
Flash Sync	‹ 1st-curtain ›
Slow Synchro	On Off
Red-Eye	On Off
Safety FE	**On** Off
Spot AE Point	‹ Center ›

⚏ Registering Settings to the Print/ Share Button

📷

➡ See *Functions Available in Each Shooting Mode* (p. 214).

Shooting Mode   **AUTO 🐾 🔺 🏔 🎛 SCN 🖵 🎥 P Tv Av M**

You can register a function that you often use when shooting with the
⚏ button. The following functions can be registered.

Menu Item	Page	Menu Item	Page
📷 Not Assigned	—	⊤ Digital Tele-converter	p. 61
🏳 White Balance	p. 111	⊞ DISP. Overlay	p. 122
😄 Custom White Balance	p. 112	📺 Display Off	p. 122

1 Select [Set ⚏ button].

1. Press the ⒨ button.

2. In the 📷 menu, use the ✦ or ✦ button to select [Set ⚏ button].

3. Press the ⒡ button.

📷 🎛	
Reverse Disp.	On Off
Disp. Overlay	‹ Off ›
IS Mode	‹ Continuous ›
Converter	‹ None ›
Date Stamp	‹ Off ›
Set ⚏ button...	
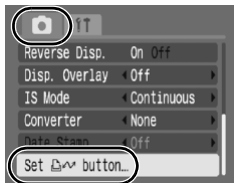
2 Accept the setting.

1. Use the ✦ or ✦ button to select the function you wish to register.

2. Press the ⒡ button.

• If ◌ displays to the icon's lower right, you can register the function, but you may not be able to use it with some shooting modes or settings even if you press the ⚏ button.

Set ⚏ button

Not Assigned

📷 🏳 😄 ⊤ # 📺

SET OK   MENU Cancel

3 Press the ⓜ button.

To Cancel the Shortcut Button
Select 🔳 in Step 2.

Using the 🖶∿ Button

1 Press the 🖶∿ button.

- For **T** or **⊞**, each time that the 🖶∿ button is pressed, the settings are switched.
- For **⬛**, the corresponding setup screen is displayed.
- Each press of the 🖶∿ button records the white balance data with the 🔲 option. Since the frame does not appear at this point, ensure that the white paper or cloth is positioned so it appears at the center of the LCD monitor and then press the 🖶∿ button. After using this function once, the white balance setting changes to the 🔲 setting.
- For 🛌, pressing the 🖶∿ button turns off the LCD monitor. The display turns on again with any button operation.

> Depending on the shooting mode or settings, this function may not be available even if the 🖶∿ button is pressed.

Setting the Display Overlays ▣

➡ See *Functions Available in Each Shooting Mode* (p. 214).

Shooting Mode   **AUTO** 🐠 🏔 🎨 🎿 SCN ⬜ '🎥*¹ P Tv Av M

*1 Only [Grid Lines] can be set.

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.

Off	—
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.*² 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.

1 Select [Disp. Overlay].

1. Press the (MENU) button.

2. In the ◯ menu, use the ↑ or ↓ button to select [Disp. Overlay].

AF-assist Beam	On Off
Review	2 sec.
Review Info	Off
Reverse Disp.	On Off
Disp. Overlay	Off
IS Mode	Continuous

2 Accept the setting.

1. Use the ← or → button to select [Off], [Grid Lines], [Both] or [3:2 Guide].

2. Press the (MENU) button.

AF-assist Beam	On Off
Review	2 sec.
Review Info	Off
Reverse Disp.	On Off
Disp. Overlay	Off
IS Mode	Continuous
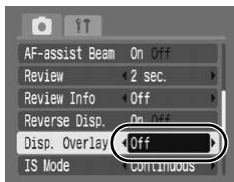
- Only grid lines can be configured for the ◪ or ⊞ mode.
- The grid lines and 3:2 guide will not be recorded in the image.

C Saving Custom Settings

See *Functions Available in Each Shooting Mode* (p. 214).

Shooting Mode   AUTO 🦆 ⛰ 🏖 🎇 SCN 🎬 🎥 **P Tv Av M**

You can save frequently used shooting modes and various shooting settings to the **C** (Custom) mode. When necessary, you can then shoot images with previously saved settings by simply turning the mode dial to **C**. Settings that are not retained when the shooting mode is changed or when the power is turned off (such as continuous shooting or self-timer) are instead retained.

1 Register the desired contents.

- Adjust the mode dial to the mode you wish to register.
- Set the shooting function you wish to register C.
    - Shooting mode (P, Tv, Av, M)
    - Items which can be set in P, Tv, Av and M modes (p. 214)
    - Rec. menu settings
    - Zoom location
    - Manual focus location
- To change some of the settings saved in C (other than shooting mode), select C.

2 Select [Save Settings].

1. Press the (MENU) button.

2. In the ● menu, use the ↑ or ↓ button to select [Save Settings].

3. Press the (FUNC/SET) button.

●	↓↑	
Disp. Overlay	◄ Off	►
IS Mode	◄ Continuous	►
Converter	◄ None	►
Date Stamp	◄ Off	►
Set ❏❍ button		
Save Settings...		

3 Register.

1. Use the ← or → buttons to select [OK].

2. Press the (FUNC/SET) button.

3. Press the (MENU) button.

4 Adjust the mode dial to C and shoot.

- The setting contents do not influence other shooting modes.
- Saved settings can be reset (p. 55).

Setting the Auto Rotate Function 🔘 ▣

➡️ See *Functions Available in Each Shooting Mode* (p. 214).

Shooting Mode　　**🔘 🐾 📷 🎆 🎇 SCN 🔲 🎥 P Tv Av M**

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.

1 Select [Auto Rotate].

1. Press the 🔘 button.

2. Use the ◀ or ▶ button to select the 🔧 menu.

3. Use the ▲ or ▼ button to select [Auto Rotate].

Date/Time...	09.09.'07 10:00
Format...	🗋 29.5MB
File Numbering	Continuous ▶
Create Folder.	
Auto Rotate	**On** Off
Distance Units	m/cm ft/in
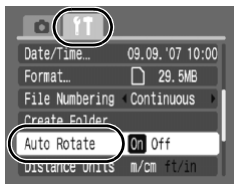
2 Accept the setting.

1. Use the ◀ or ▶ button to select [On] or [Off].

2. Press the 🔘 button.

• When the Auto Rotate function is set to [On] and the LCD monitor is set to the detailed display mode in the shooting mode, 🔼 (normal), 🔽 (right end is down) or 🔼 (left end is down) will appear in the display.

Date/Time...	09.09.'07 10:00
Format...	🗋 29.5MB
File Numbering	Continuous
Create Folder.	
Auto Rotate	**On** Off
Distance Units	m/cm ft/in
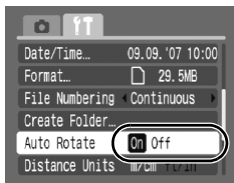
⚠️
- This function may not operate correctly when the camera is pointed straight up or down. Check that the arrow 🔼 is pointing in the right direction and if it is not, then set the Auto Rotate function to [Off].
- Even if the Auto Rotate function is set to [On], the orientation of images downloaded 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)

→ See *Functions Available in Each Shooting Mode* (p. 214).

Shooting Mode   **AUTO** 🐾 🐜 🖼 🎨 SCN ⌫ 🎥 P Tv Av M

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

Create New 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.

1 Select [Create Folder].

1. Press the (MENU) button.
2. Use the ← or → button to select the 📁 menu.
3. Use the ↑ or ↓ button to select [Create Folder].
4. Press the (FUNC.) button.

Power Saving…	
Date/Time…	09.09.'07 10:00
Format…	🗋 29.5MB
File Numbering	Continuous
Create Folder…	
Auto Rotate	On Off
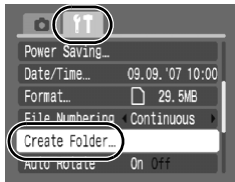
2 Accept the setting.

1. Use the ← or → button to check mark [Create New Folder].
2. Press the (MENU) button two times.

• ▣ will be displayed on the LCD monitor when shooting. ▣ will disappear from the screen when a new folder is created.

```
Create Folder
◀ ☑ Create New Folder
  Auto Create  ◀ Off
  Time           ◀ 0:00 ▶
              MENU ↰
```
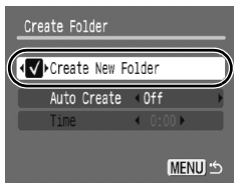
Setting the Day or Time for Automatic Folder Creation.

1 Select [Create Folder].

1. Press the (MENU) button.
2. Use the ← or → button to select the 📷 menu.
3. Use the ↑ or ↓ button to select [Create Folder].
4. Press the (FUNC) button.

```
📷 🎚
Power Saving…
Date/Time…    09.09. '07 10:00
Format…        🗋 29.5MB
File Numbering Continuous
Create Folder…
Auto Rotate    On Off
```
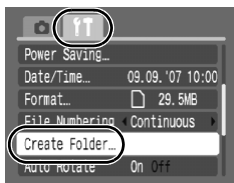
2 Accept the setting.

1. Use the ↑ or ↓ button to select [Auto Create] and the ← or → button to select a creation date.
2. Use the ↑ or ↓ button to select [Time] and the ← or → button to select a time.
3. Press the (MENU) button two times.

```
Create Folder
◀ Create New Folder
  Auto Create  ◀ Daily ▶
  Time           ◀ 10:00 ▶
              MENU ↰
```

• ▣ displays when the specified time arrives. The symbol will cease to display after the new folder is created.
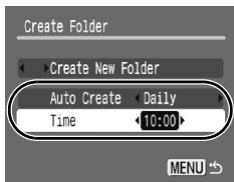
Up to 2000 images can be saved into one folder. A new folder will automatically be created when you record more than that number even if you are not creating new folders.

Resetting the File Number 🔘 ▣

➡ See *Functions Available in Each Shooting Mode* (p. 214).

Shooting Mode   **AUTO 🏃 ▲ 🏔 🎿 SCN 🖵 🎬 P Tv Av M**

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

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 memory 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 memory card is utilized as the basis for new images.

1 Select [File Numbering].

1. Press the ⓂⒺⓃⓊ button.
2. Use the ◀ or ▶ button to select the 📋 menu.
3. Use the ▲ or ▼ button to select [File Numbering].
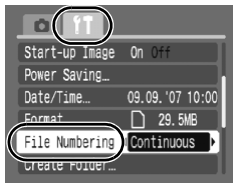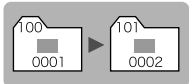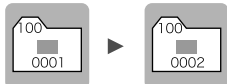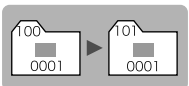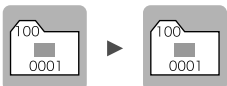
2 Accept the setting.

1. Use the ◀ or ▶ button to select [Continuous] or [Auto Reset].
2. Press the ⓂⒺⓃⓊ button.
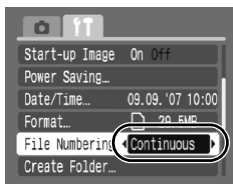
File and Folder Numbers

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 2000 images can be saved into a single folder.

	New Folder Created	Memory Card Exchanged for Another
Continuous	Memory Card 1 100 ▶ 101 0001 0002	Memory Card 1 Memory Card 2 100 ▶ 100 0001 0002
Auto Reset	Memory Card 1 100 ▶ 101 0001 0001	Memory Card 1 Memory Card 2 100 ▶ 100 0001 0001

• 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 2000 because the following types of images are always saved together into the same folder.
  - Images from continuous shooting
  - Self-timer images (custom)
  - Stitch Assist mode images
• 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.

Playback/Erasing

Magnifying Images ▶

1 Press the zoom lever toward 🔍.

- The image is magnified and 🔤 🕀 will display at the top right of the screen.
- Images can be magnified up to a factor of 10x.

Approximate location of the displayed area

2 Use the ↑, ↓, ← or → button to move the image around.

- If you press the **FUNC./SET** button while in magnified display, the camera switches to image advance mode and 🔤 🕀 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 🔍. (You can also cancel it immediately by pressing the **MENU** button.)

Movie frames and index playback images cannot be magnified.

Viewing Images in Sets of Nine (Index Playback)

▶

1 Press the zoom lever toward .

- Up to nine images can be viewed at once in index playback.
- Use the ↑, ↓, ← or → button to change the image selection.

Selected Image

Movie
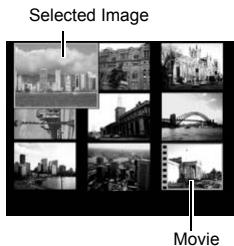
To Return to Single Image Playback
Press the zoom lever toward Q.

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 9 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.

Jump Bar

Checking the Focus and Peoples' Expressions (Focus Check Display) ▶

Focus Check display allows you to check the focus of images taken. At this time, faces in the image are detected and frames matching the size of these facial images are displayed. Moreover, as you can change the display magnification and switch images, you can easily check facial expressions and whether a subject's eyes are closed.

1 Press the ⓘ button several times until the Focus Check displays.

- Frames in the image are displayed as follows.

Frame color	Content
Orange	Displays the range of the image displayed at bottom right.
White	The frame is displayed at a position at which the image is in focus (AF Frame).
Gray	Displays frames in positions where faces were detected during playback.

- The orange frames allow you to change the display magnification, move the display position, and switch between display frames (p. 133).

Changing the Display Magnification

1 Press the zoom lever toward Q.

- The bottom right of the screen is magnified.

Switching Frames

1 Press 🔘.

• When multiple in-focus frames are displayed, or when multiple faces are detected, the position of the orange colored frame will change each time the **FUNC./SET** button is pressed. After you change the display magnification, the orange frame will adjust to the size of the face when you switch the position of the frame.

Changing the Display Position

1 Press the zoom lever toward Q.

• The bottom right of the screen is magnified.

2 Use the ↑, ↓, ← or → button to change the display position.

• Pressing the **FUNC./SET** button will return the orange colored frame to its original position. If multiple frames are displayed for an image, the position of the orange colored frame will change.

To Return to Single Image Playback
Press the 🔘 button.

🛱 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.

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

1 In single image playback mode, press the 🛱 button.

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

Number of images matching search key

Location of image currently being displayed

2 Use the ↑ or ↓ button to select a search key and press the ← or → button.

To Return to Single Image Playback
Press the (MENU) button.

Viewing Movies
(Movie Replay Control Panel)

▣

Movies cannot be played in the index playback mode.

1 Display the movie file.

1. Use the ← or → button to select a movie.

2. Press the ⓕ button.

• Images with a 〔SET〕🎥 icon are movies.

• The Movie Control Panel is displayed.

2 Play the movie.

1. Use the ← or → button to select ▶.

2. Press the ⓕ button.

Movie Control Panel

Playback Progress Bar

Time movie was shot

Volume Level
(Adjust it with the ▲ or ▼ button)

• The movie will pause if you press the **FUNC./SET** button during playback. It will resume when you press the button again.

• When playback ends, the movie stops at the last frame displayed. Press the **FUNC./SET** button to display the movie control panel.

• You can switch between showing/ hiding the playback progress bar by pressing the **DISP.** button while playing a movie.

• If playback was halted partway through in the prior viewing session, playback will resume from the last frame displayed.

Operating the Movie Control Panel

Use the ← or → button to select and press the **FUNC./SET** button.

🔄	Exit	Ends playback and returns to single image playback
🖺	Print	Prints (An icon will display when a printer is connected. See the *Direct Print User Guide* for details.)
▶	Play	Play
🔽	Slow Motion	Slow Motion Playback (You can use the ← button to slow down or the → button to speed up playback.)
🔢	First Frame	Displays the first frame
◀‖	Previous Frame	Previous Frame (Rewinds if the **FUNC./SET** button is held down.)
‖▶	Next Frame	Next Frame (Fast Forwards if the **FUNC./SET** button is held down.)
▶▶	Last Frame	Displays the last frame

- Use the television's controls to adjust the volume when playing a movie on a TV set (p. 157).
- The sound cannot be played in slow motion playback.

Rotating Images in the Display ▶

Images can be rotated clockwise 90° or 270° in the display.
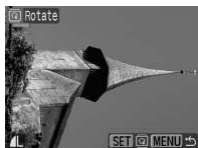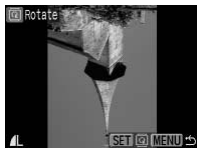
Original   90°   270°

1 Select [Rotate].

1. Press the (MENU) button.

2. In the ▶ menu, use the ↑ or ↓
button to select [🔯 Rotate].

3. Press the (FUNC) button.
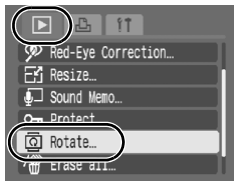
2 Rotate the image.

1. Use the ← or → button to select an image to rotate.

2. Press the (FUNC) button.

- Cycle through the 90°/270°/original orientations with each press of the **FUNC./SET** button.
- This also can be set in the index playback mode.

When images are downloaded to a computer, the orientation of images rotated by the camera will depend upon the software used to download the images.

As the orientation of an image is recorded, the image will be shown in its rotated orientation the next time it is displayed.

Playback with Transition Effects ▶

You can select the transition effect displayed when switching between images.

🔳	No transition effect.
▦	The displayed image darkens and the next image gradually brightens until it is displayed.
◧	Press the ← button to have the previous image display from the left and the → button to have the next image display from the right.

1 Select [Transition].

1. Press the (MENU) button.
2. In the ▣ menu, use the ↑ or ↓ button to select [▮ Transition].

2 Accept the setting.

1. Use the ← or → button to select a transition effect.
2. Press the (MENU) button.

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.

1 Select [Auto Play].

1. Press the (MENU) button.

2. In the ▶ menu, use the ↑ or ↓ button to select [🗘 Auto Play].

3. Press the (FUNC./SET) button.

- During automated playback, the following functions are possible:
  - Pause/Resume: Press the **FUNC./SET** button
  - Fast forward/Rewind: Press the ← or → button (holding down the button will increase the speed of the Fast Forward)
  - Stop: Press the **MENU** button

If Transition is selected (p. 138), the selected transition effects appear between images.

Red-Eye Correction Function ▶

You can correct red eyes in recorded images.

> ❗ Red eyes may not be automatically detected in some images or the results may not turn out as you intended.
> Examples:
> - Faces near the screen edges or faces that appear extremely small, large, dark or bright in relation to the overall image.
> - Faces turned to the side or at a diagonal, or faces with a portion hidden.

1 Select [Red-Eye Correction].

1. Press the (MENU) button.

2. In the ▶ menu, use the ↑ or ↓ button to select [Ⓡ Red-Eye Correction].

3. Press the (FUNC) button.
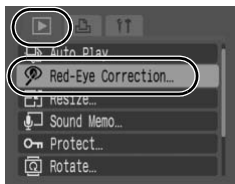
2 Select an image.

1. Use the ← or → button to select the image you wish to correct red eyes.

2. Press the (FUNC) button.

- A frame will automatically display where a red eye is detected.

- If red-eye is not automatically detected, select [Add Frame] with ← or → button and press the **FUNC./SET** button (p. 143).

- To cancel the correction frame, select [Remove Frame] and press the **FUNC./SET** button (p. 144).

3 Correct the image.

1. Use the ↑, ↓, ← or → button to select [Start].
2. Press the (FUNC) button.

4 Save the image.

1. Use the ↑, ↓, ← or → button to select [New File] or [Overwrite].
2. Press the (FUNC) button.
• [New File]: Saved as new file with a new name. The uncorrected image is stored. The new image is stored as the last file.
• [Overwrite]: Saved with the same file name as the uncorrected image. The uncorrected image is erased.
• When [New File] is selected, proceed to the Step 5.

5 Display the saved image.

1. Press the (MENU) button.
2. Use the ← or → button to select [Yes].
3. Press the (FUNC) button.
• Selecting [No] returns to the Play menu.

● Red-eye correction cannot be performed on movies.
● Overwriting cannot be performed on protected images.

- When there is not enough space left on the memory card, red-eye correction cannot be performed.
- Although you can apply red-eye correction any number of times to an image, the image quality will gradually deteriorate with each application.
- Since the correction frame will not appear automatically on images that have already been corrected once with the (Red-Eye Correction) function, use the [Add Frame] option to correct them.

Add Correction Frame

1 Select [Add Frame].

1. Use the ↑, ↓, ← or → button to select [Add Frame].

2. Press the (FUNC) button.

• A green frame will display.

2 Adjust the position of the frame.

1. Use the ↑, ↓, ← or → button to move the frame.

• Size of the frame can be changed with the zoom lever.

3 Add additional correction frames.

1. Press the (FUNC) button.

• A correction frame is added and the frame color changes to white.

• If you wish to add additional frames, adjust the position and press the **FUNC./SET** button.

• Up to 35 additional frames can be added.

• To end the adding of correction frames, press the **MENU** button.

To correctly perform red-eye correction, take note of the following (refer to the image in Step 2):
- Adjust the correction frame size so that it only surrounds the red-eye portion to be corrected.
- When there are several subjects with red-eye, be sure to add one correction frame per subject.

Removing Correction Frames

1 Select [Remove Frame].

1. Use the ↑, ↓, ← or → button to select [Remove Frame].

2. Press the ⊛ button.

2 Adjust the position of the frame.

1. Use the ← or → button to select a frame to remove.

• The selected frame will appear in green.

3 Delete the frame.

1. Press the ⊛ button.

• The selected frame will disappear.
• To continue deleting frames, return to Step 2.
• When you finish deleting frames, press the **MENU** button.

Resizing Images $\boxed{\blacktriangleright}$

You can resave images that were recorded at high recording pixel settings at lower settings.

M3	1600 x 1200 pixels
S	640 x 480 pixels
XS	320 x 240 pixels

1 Select [Resize].

1. Press the (MENU) button.
2. In the ▶ menu, use the ↑ or ↓ button to select [📝 Resize].
3. Press the (FUNC) button.
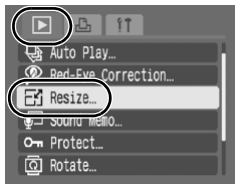
2 Select an image.

1. Use the ← or → button to select an image to resize.
2. Press the (FUNC) button.

• The **FUNC./SET** button is not selectable for images that cannot be resized.

3 Select a resolution.

1. Use the ← or → button to select M3, S or XS.
2. Press the (FUNC) button.

• Some recording pixel settings cannot be selected depending on the available space of the memory card.

4 Save the image.

1. Use the ← or → button to select [OK].

2. Press the (FUNC/SET) button.

- The resized image will be saved in a new file.
- If you wish to continue resizing of another image, repeat Step 2.

5 Display the saved image.

1. Press the (MENU) button.

2. Use the ← or → button to select [Yes].

3. Press the (FUNC/SET) button.

- Selecting [No] returns to the Play menu.

Movies and images shot in Widescreen mode cannot be resized.

Attaching Sound Memos to Images ▶

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

1 | Select [Sound Memo].

1. Press the (MENU) button.

2. In the ▶ menu, use the ▲ or ▼ button to select [🎤 Sound Memo].

3. Press the (FUNC.SET) button.

▶	🕮	🕧
📖 Auto Play...
🔴 Red-Eye Correction...
⬜ Resize
🎤 Sound Memo...
⚙ Protect...
⟳ Rotate...
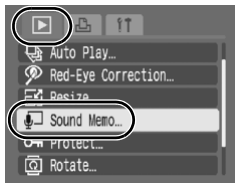
2 | Select an image.

1. Use the ← or → button to select an image to which you wish to attach a sound memo.

2. Press the (FUNC.SET) button.

• The sound memo control panel will display.

3 | Record the memo.

1. Use the ← or → button to select ⬤.

2. Press the (FUNC.SET) button.

• The elapsed time and the remaining time display.

• Pressing the **FUNC./SET** button pauses the recording. Pressing it again resumes recording.

• Up to 1 minute of recordings can be added to any one image.

• Press the **MENU** button several times to complete the setting.

Sound Memo Panel

Elapsed Time/
Remaining Time

Volume
(Adjust it with the ▲ or ▼ button)

Sound Memo Panel

Use the ← or → button to select an option and press **FUNC./SET**

⏏	Exit	Returns to the playback screen.
⬤	Record	Starts recording.
⏸	Pause	Pauses recording or playback.
▶	Play	Begins playback.
🗑	Erase	Erases sound memos.

- You cannot attach sound memos to movies.
- Sound memos for protected images cannot be erased.

Protecting Images

You can protect important images and movies from accidental erasure.

1 Select [Protect].

1. Press the (MENU) button.
2. In the ▣ menu, use the ↑ or ↓ button to select [○ Protect].
3. Press the (FUNC) button.
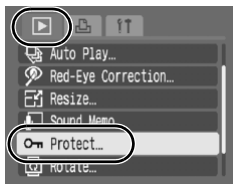
2 Protect the image.

1. Use the ← or → button to select an image to protect.
2. Press the (FUNC) button.

- Pressing the **FUNC./SET** button again cancels the setting.
- You can also protect images in the index playback mode.

Protection Icon

- Press the **MENU** button several times to complete the setting.

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.

1 Select [Erase all].

1. Press the (MENU) button.

2. In the 🔲 menu, use the ↑ or ↓ button to select [🗑 Erase All].

3. Press the (FUNC) button.

Resize...
Sound Memo...
Protect...
Rotate
Erase all...
Transfer Order...
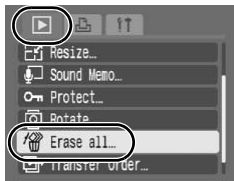
2 Erase the images.

1. Use the ← or → button to select [OK].

2. Press the (FUNC) button.

- To exit instead of erasing, select [Cancel].

🗑 Erase all

Erase all images?

Cancel   OK
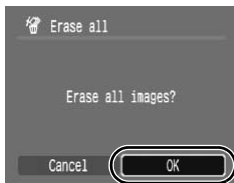
Please format the memory card when you want to erase not only image data but also all the data contained on the memory card (p. 56).

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 ⚠ 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.

Setting the Print Style

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

* Default setting

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.

1 Select [Print Settings].

1. Set the mode switch to ▶.

2. Press the MENU button.

3. Use the ← or → button to select the 凸 menu.

4. Use the ↑ or ↓ button to select [Print Settings].

5. Press the FUNC./SET button.
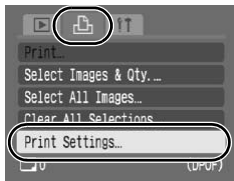
2 Accept the setting.

1. Use the ↑ or ↓ button to select [Print Type], [Date], [File No.] or [Clear DPOF data].

2. Use the ← or → button to select a setting to configure.

3. Press the MENU button.
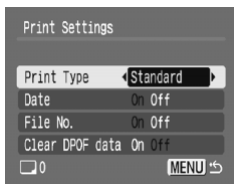
- The Date and File No. settings change according to the Print Type as follows.
  - Index
    [Date] and [File No.] cannot be set to [On] at the same time.
  - Standard or Both
    [Date] and [File No.] can be set to [On] at the same time, however, the printable information may vary between printers.
- Printing more than two copies
  1. Set [Print Type] in [Print Settings] to [Standard] or [Both].
  2. Select [Select Images & Qty.], choose the image you wish to print, and press the **FUNC./SET** button.
  3. Use the ↑ or ↓ buttons to set the number of copies.
- Images dated using 🖼 (Postcard Date Imprint mode) (p. 69) are always printed with the date, regardless of the [Date] setting. As a result, some printers may print the date twice on these images if [Date] is also set to [On].
- Dates print in the style specified in the [Date/Time] menu (p. 13).

Single Images

1 Select [Select Images & Qty.].

1. Set the mode switch to ▶.
2. Press the (MENU) button.
3. Use the ← or → button to select the 🕒 menu.
4. Use the ↑ or ↓ button to select [Select Images & Qty.].
5. Press the (FUNC./SET) button.

• Selecting [Clear All Selections] cancels all print settings.
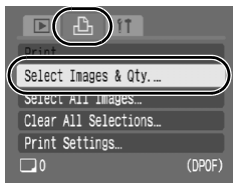
2 Select the images.

• Selection methods differ for the Print Type settings (p. 150).

● **Standard (■) / Both (■ ▦)**

1. Use the ← or → button to select the images.
2. Press the (FUNC./SET) button.
3. Use the ↑ or ↓ button to select the number of print copies (up to 99).
4. Press the (MENU) button.
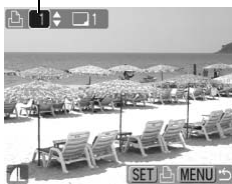
• If the camera is connected to a printer, the 凸∿ button will light in blue while images are being selected. At this time, press the 凸∿ button, confirm that [Print] is selected, and when the (FUNC./SET) button is pressed, printing will begin.

Number of Print Copies

● **Index (☰)**

  1. Use the ◆ or → button to select the images.

  2. Select and deselect with (FUNC./SET)

  3. Press the (MENU) button.

  Index Print Selection

  • You can also select images in the index playback mode.

  • If the camera is connected to a printer, the 凸∼ button will light in blue while images are being selected. At this time, press the 凸∼ button, confirm that [Print] is selected, and when the **FUNC./SET** button is pressed, printing will begin.

All the Images on a Memory Card

1 Select [Select All Images].

  1. Set the mode switch to ▶.

  2. Press the (MENU) button.

  3. Use the ◆ or → button to select the 凸 menu.

  4. Use the ♠ or ♦ button to select [Select All Images].

  5. Press the (FUNC./SET) button.

  • One copy of every image will be set to print.

  • Selecting [Clear All Selections] cancels all print settings.

  • When the camera is connected to a printer, the 凸∼ button will light blue. At this time, press the 凸∼ button, confirm that [Print] is selected, and when the **FUNC./SET** button is pressed, printing will begin.

2 Select [OK].

1. Use the ← or → button to select [OK].

2. Press the (FUNC) button.

Select All Images

Set 1 print per image

Cancel   OK
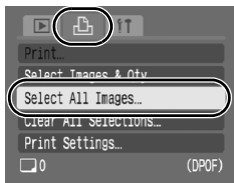
- The output of some printers or photo developing services may not reflect the specified print settings.
- Print settings cannot be set for movies.

- 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 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 DPOF standards.

The ⚠ 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

1 Select [Transfer Order].

1. Set the mode switch to ▶.
2. Press the (MENU) button.
3. In the ▶ menu, use the ▲ or ▼ button to select [🖶 Transfer Order].
4. Press the (FUNC) button.

2 Select [Order].

1. Use the ← or → button to select [Order].
2. Press the (FUNC) button.
- Selecting [Reset] cancels all transfer order settings.
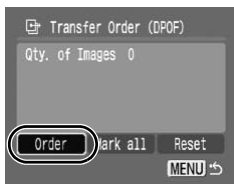
3 Select the images.

1. Use the ← or → button to select images to transfer.
2. Press the (FUNC) button.
- Pressing the **FUNC./SET** button again deselects the setting.
- You can also select images in the index playback mode.
3. Press the (MENU) button.

Transfer Selection

All the Images on a Memory Card

1 Select [Transfer Order].

1. Set the mode switch to ▶.
2. Press the (MENU) button.
3. In the ▶ menu, use the ↑ or ↓ button to select [Transfer Order].
4. Press the (FUNC/SET) button.

2 Select [Mark all].

1. Use the ← or → button to select [Mark all].
2. Press the (FUNC/SET) button.
• Selecting [Reset] cancels all transfer order settings.

3 Select [OK].

1. Use the ← or → button to select [OK].
2. Press the (FUNC/SET) button.
3. Press the (MENU) button several times to complete the setting.

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

Connecting to a TV

Shooting/Playback Using a TV ◯ ▣

You can use the supplied AV cable to shoot or playback images using a TV.

1 Turn off the camera and the TV.

2 Connect the AV cable to the camera's A/V OUT terminal.

- Open the terminal cover by slipping a fingernail under the left edge and plug the AV cable in all the way.
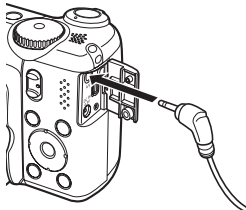
3 Plug the other ends of the AV cable to the VIDEO IN and AUDIO IN jacks on the TV.

Yellow

VIDEO

AUDIO

Black
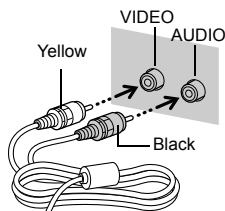
4 Turn on the TV and switch it to video mode.

5 Turn on the camera.

- The video output signal can be switched (NTSC or PAL) to accommodate different regional standards (p. 47). 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.

Troubleshooting

Camera

Camera will not operate.

Power is not turned on.	● Press the power button (p. 13).
Memory card slot/battery cover is open.	● Confirm that the memory card slot / battery cover is securely closed (p. 9).
Batteries are loaded in the wrong direction.	● Reload the batteries in the correct direction (p. 8).
Batteries are not the right type.	● Use only unused AA-size alkaline batteries or Canon AA-size NiMH batteries (p. 178).
Battery charge is low and the camera will not operate. ("Change the batteries" message displays).	● Replace the camera batteries with 4 unused or fully charged batteries (p. 8). ● Use the AC Adapter Kit ACK600 (sold separately) (p. 182).
Poor contact between camera and battery terminals.	● Wipe the battery terminals with a clean dry cloth. ● Reload the batteries several times.

Sounds come from the camera interior.

The camera's horizontal/vertical orientation was changed.	● The camera's orientation mechanism is operating. There is no malfunction.

When the power is turned on

"Card locked!" message appears.

The SD memory card's 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. 180).

The Date/Time menu appears.

The lithium date battery charge is depleted.	● Replace the lithium date battery (p. 14).

LCD monitor

Not displayed.

LCD monitor is turned off.	● Press **DISP.** button and turn on the LCD monitor (p. 49).

The display darkens.

The image in the LCD monitor will darken in strong sunlight or bright light.	● This is a normal occurrence in devices containing CCDs and does not constitute a malfunction. This image will not be recorded when shooting still photos, but it will be recorded when shooting movies.

Display flickers.

Display flickers when shot under fluorescent lighting.	● This is not a camera malfunction (flickering recorded in movies, but not in still images).

A bar of light (purplish red) appears on the LCD monitor.

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 photos, but it will be recorded when shooting movies.

🎯 appears.

A slow shutter speed has likely been selected because of insufficient lighting.	● Set the IS Mode to any setting other than [Off] (p. 70). ● Raise the ISO speed (p. 104). ● Set the Auto ISO Shift to any setting other than [Off]. ● Select a setting other than 🚫 (flash off) (p. 62). ● Set the self-timer and attach the camera to a tripod or other device (p. 64).

⚠ appears.

This displays when using a memory card that has print settings or transfer settings set by other DPOF-compliant cameras.	● These settings will be overwritten by those set by your camera (pp. 150, 155).

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. 49).	● There is no effect on the recorded image.

Shooting

Camera will not record.

Mode switch is set to ▶ (playback).	● Set the mode switch to ▲ (shooting) (p. 15).
Flash is charging.	● When the flash is charged, the indicator will light orange. Shooting is now possible (p. 41).
Memory card is full.	● Insert a new memory card (p. 10). ● If required, download the images to a computer and erase them from the memory card to make space.
Memory card is not formatted correctly.	● Format the memory card (p. 56). ● If reformatting does not work, the memory card logic circuits may be damaged. Consult the nearest Canon Customer Support Help Desk.
SD memory card or SDHC memory card is write protected.	● Slide the write protect tab upward (p. 180).
LCD monitor is closed.	● When the shooting mode is ⊡ or 🎥, open the LCD monitor and shoot subject.

Image seen in viewfinder vs. recorded image

Usually the recorded image contains more of the scene than is seen in the viewfinder.	● Confirm the actual image size with the LCD monitor. Use the LCD monitor when taking close-up shots (p. 49).

Image is blurred or out of focus.

The camera moves when the shutter button is pressed.	● Confirm the steps in "🔱 appears" (p. 160).

AF-assist Beam is set to [Off].	● 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. 45). Take care not to obstruct the AF-assist Beam with your hand when used.
Subject is out of focal range.	● Shoot with the subject at the correct focusing distance (p. 192). ● The camera may be set to an unintended function (such as ![macro] (macro) or ![MF] (manual focus)). Cancel the setting.
The subject is hard to focus on.	● Use the focus lock, AF lock or manual focus to shoot (p. 97).

Subject in recorded image is too dark.

Insufficient light for shooting.	● Set the flash to ![flash] (Flash on) (p. 62).
The subject is underexposed because the surroundings are too bright.	● Set the exposure compensation to a positive (+) setting (p. 108). ● Use the AE Lock or spot metering functions (pp. 101, 109).
Subject is too far away for flash to reach.	● Shoot within correct flash range of the subject when using the built-in flash (p. 193). ● Raise the ISO speed and then shoot (p. 104).

Subject in recorded image is too bright, or image flashes white.

Subject is too close, making the flash too strong.	● Shoot within correct flash range of the subject when using the built-in flash (p. 193). ● Turn [On] the Safety FE (p. 120).
The subject is overexposed because the surroundings are too dark.	● Set the exposure compensation to a negative (–) setting (p. 108). ● Use the AE Lock or spot metering functions (pp. 101, 109).

Too much light is shining directly into the camera, or is being reflected off the subject.	● Change the shooting angle.
Flash is set to on.	● Set the flash to 🚫 (Flash off) (p. 62).

Image contains noise.

ISO speed is too high.	● Higher ISO speeds and 🖽 (High ISO Auto) setting may increase image noise. For higher image quality, use as low an ISO speed as possible (p. 104). ● In 🏖, 🎇 and 🎆, 🔲, 🍸, 🖽 modes in the SCN mode, the ISO speed increases and noise can appear.

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 using the wide angle or when you increase the aperture value in the aperture-priority **Av** mode.	● This is a phenomenon that occurs with digital cameras and does not constitute a malfunction.

Eyes appear red.

Light is reflected back from the eyes when the flash is used in dark areas.	● Turn [On] the Red-Eye setting in the Rec. menu (p. 89). 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. Even better results can be obtained by increasing the lighting in indoor settings or approaching closer to the subject. ● You can correct red eyes in images using the Red-Eye Correction function (p. 140).

Continuous shooting slows down.

The memory card's performance has dropped.	● To enhance the continuous shooting performance, you are recommended to format the memory card in the camera after you save all its images to your computer (p. 56).

Recording images to memory card takes a long time.

Memory card was formatted in another device.	● Use a memory card formatted in your camera (p. 56).

Lens will not retract.

Memory card slot/battery cover was opened with power on.	● After closing the memory card slot/ battery cover, turn the power on then back off (p. 9).

Shooting movies

The recording time may not display properly or shooting may stop unexpectedly.

The following types of memory cards are used. - Slow recording memory cards. - Memory cards formatted on a different camera or a computer. - Memory cards which have had images recorded and erased repeatedly.	● 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. 56).

"!" displayed on the LCD monitor in red and shooting automatically stopped.

There is insufficient free space in the camera's built-in memory.	● Try the following steps.
	  - Format the memory card with a low level format before shooting (p. 56)
	  - Lower the recording pixels (p. 79)
	  - Use a high-speed memory card (SDC-512MSH, etc.)

Zoom does not operate.

Zoom lever was pressed while shooting in movie mode.	● Operate the zoom before shooting in movie mode (p. 57). Note the digital zoom is available while shooting, but only in Standard movie mode.

Playback

Cannot play back.

You attempted to play back images shot with another camera or images edited with a computer.	● 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. See *ZoomBrowser EX/ ImageBrowser Software User Guide* (PDF).
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 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.

Reading images from memory card is slow.

Memory card was formatted in another device.	● Use a memory card formatted in your camera (p. 56).

Battery

Batteries consumed quickly.

Battery is not being used to its full capacity.	● See *Battery Handling Precautions* (p. 178)
Batteries are not the right type.	● Use only unused AA-size alkaline batteries or Canon AA-size NiMH batteries (p. 178).
Battery capacity drops due to low ambient temperatures.	● If shooting in a cold location, warm the batteries such as by placing them in your pocket before using them.
Battery terminals are dirty.	● Wipe the terminals well with a dry cloth before use. ● Reload the batteries several times.

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.	● Replace both batteries with new ones.

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. 47).
Shooting in Stitch Assist mode.	● The output will not appear on a TV in Stitch Assist mode. Shoot in a different shooting mode (p. 80).

Printing with a direct print compatible printer

Cannot print

The camera and printer are not properly connected.	● Securely connect the camera and printer with the specified cable.
The printer power is not turned on.	● Turn on the printer power.
The print connection method is not correct.	● In the 🔧 menu, select [Print Method] and select [Auto] (p. 48).

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 (p. 10).

Card locked!

The SD memory card or SDHC memory card is write-protected (pp. 10, 180).

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

There may be something wrong with the memory card. 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, sound recorder files 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 [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 batteries immediately with unused AA-size alkaline batteries or fully charged Canon AA-size NiMH batteries. Also refer to *Battery Handling Precautions* (p. 178).

No image.

No images recorded on memory card.

Image too large.

You attempted to play back an image larger than 5616 x 3744 pixels or with a large data size.

Incompatible JPEG

You attempted to play back an incompatible JPEG image (edited with a computer, etc.).

RAW

You attempted to play back a RAW image.

Unidentified Image

You attempted to play back an image with corrupted data, an image with a recording type specific to another manufacturer's camera, or an image that has been downloaded to a computer and altered.

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 the image shot with a different camera or data type, or an image edited with a computer.

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 modify image

You attempted to resize or perform red-eye correction on a movie or an image recorded with another camera.
You attempted to resize an image already resized to 🔲 or an image shot in 🔲.

Cannot modify

Cannot apply red-eye correction as no red-eye is detected.

Cannot transfer!

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

Protected!

You attempted to erase 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 or transfer 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.
Use a USB card reader or a memory card adapter to download images.

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 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.

Appendix

Safety Precautions

● Before using the camera, please ensure that you read the safety precautions described below and in the "Safety Precautions" section. 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).

⚠ 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. Accidental damage by a child could result in serious injury.**
• 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.

Equipment

- **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 it 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.**
  Failure to follow these precautions 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.

Battery

● **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.

● **Exercise due caution when screwing on the separately sold wide converter, tele-converter lens and conversion lens adapter.**
If they loosen, fall off and shatter, the glass shards may cause injury.

⚠ Cautions

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 or use the equipment in humid or dusty areas.**

● **During shooting, 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. Or, do not use the equipment if the cable or plug is damaged, or if the plug is not fully inserted into the power 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 cold to hot temperatures, 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 cold to hot temperatures 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.

Battery Handling

Battery Charge

The following icon and message will display.

🔲 The battery indicator blinks green.
Battery charge is low. If using the camera for an extended period, replace the batteries as soon as possible.

Change the batteries

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.

● **Do not install the batteries with their terminals (⊕ and ⊖) reversed.**

● **Do not mix batteries of different types or from different manufacturers.**

● **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 may be 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.

⚠ 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

Write Protect Tab

Slide the tab up.

Writing/Erasing Possible

Slide the tab down (you can protect the images and other data on the memory card)

Writing/Erasing Impossible
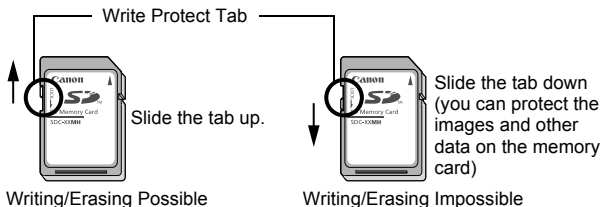
Cautions When Handling

- **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 memory 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 memory card malfunction, making a backup copy of important data is recommended.**

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 formatted in your camera.**
   • The memory card supplied with the camera may be used without further formatting.
   • When the camera is malfunctioning, a corrupted memory card might be the cause. Reformatting the memory card may solve the problem.
   • When a non-Canon brand memory card is malfunctioning, reformatting it may solve the problem.
   • Memory cards formatted in other cameras, computers, or peripheral devices may not operate correctly in this camera. When that happens, reformat the memory card with this camera.

● **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 memory card and does not ensure that its contents are completely deleted. When disposing of a memory card, take precautions, such as physically destroying the memory 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.

To a power outlet

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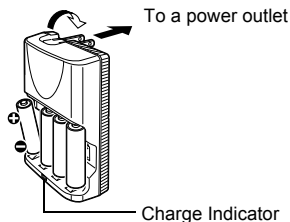
- After inserting the batteries, plug the charger (CB-5AH) into an outlet, or attach the power cord to the charger (CB-5AHE, not shown) and plug the other end into an outlet.
- Do not insert and charge additional batteries once charging has begun.
- The charge indicator blinks while charging, then remains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

- The CB-5AH/CB-5AHE battery charger can only be used to charge Canon AA-size NiMH batteries NB-3AH and NB-2AH. Please do not attempt to charge other type of battery.
- Do not mix batteries with different purchase dates or different charge states. When recharging batteries, always recharge both of them at the same time.
- Do not attempt to recharge fully charged batteries, as doing so may reduce or impair battery performance. Also, do not charge batteries for more than 24 consecutive hours.
- Do not recharge batteries in enclosed areas that tend to retain heat.
- Do not recharge the batteries until the LCD monitor displays the "Change the batteries" message. Repeatedly recharging batteries before they become depleted may cause batteries to lose capacity.

- Wipe the battery terminals well with a dry cloth in the following situations, as the terminals may be soiled with oil from one's skin or other dirt:
  - If the battery usage time has considerably diminished
  - If the number of recordable images has considerably diminished
  - When charging the batteries (insert and remove the batteries two or three times before charging)
  - When charging completes in a space of a few minutes (the battery charger indicator remains lit)
- You may not be able to fully charge the batteries due to their specifications right after purchase or after long periods of nonuse. If this happens, after fully charging them, use the batteries until their charge is depleted. After doing this several times, battery performance will be restored.
- 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 deplete them 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 depleted. 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.

Using the AC Adapter Kit ACK600

It is best to power the camera with AC Adapter Kit ACK600 (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.

1 Connect the power cord to the compact power adapter first and then plug the other end into the power outlet.
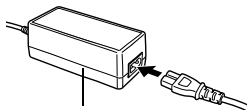
Compact Power Adapter CA-PS500

2 Open the terminal cover and attach the cord to the DC IN terminal.
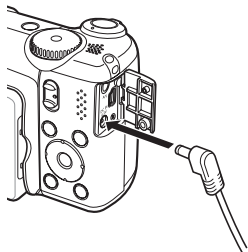
Using the Lenses (Sold Separately)

The camera supports use of the separately sold Wide Converter WC-DC58B and Tele-converter TC-DC58C. In order to attach these lenses, you also need to use the separately sold Conversion Lens Adapter LA-DC58J.

⚠
- When attaching the wide converter, tele-converter, be sure to screw it on securely. If they come loose, they may fall from the lens adapter, posing risk of injury from shattered glass.
- Never look into the sun or into strong light through the wide converter, tele-converter lens as this can result in blindness or impairment of vision.

- If you use the flash when shooting with these attachments, the outer area of the recorded image (especially lower right corner) will come out relatively dark.
- When using the tele-converter, please set the focal length to the telephoto end. At other zoom settings, the image will appear as if its corners have been cut off.
- When using the wide converter, please set the camera to the wide angle end.
- If you use the viewfinder for shooting, a portion of the view will be blocked by these attachments. Please use the LCD monitor.

■ Wide Converter WC-DC58B

Use this converter for taking wide-angle shots. The wide converter changes the focal length of the camera body's lens by a factor of 0.75x (the thread diameter is 58 mm).

■ Tele-converter TC-DC58C

This lens is used for taking telephoto shots. The lens changes the focal length of the camera body's lens by a factor of 2x (the thread diameter is 58 mm).

It is not possible to attach a lens hood or filter to the wide converter or tele-converter.

■ Conversion Lens Adapter LA-DC58J

This is the lens adapter for attaching the wide converter and tele-converter to the camera (the thread diameter is 58 mm).

Attaching a Lens

1 **Be sure that the camera is turned off.**

2 **Press the ring release button and hold it down (①), and turn the ring in the direction of the arrow (②).**

Ring

Ring Release Button
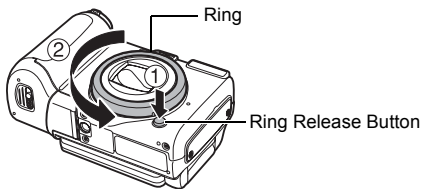
3 **When the ○ mark on the camera and the ⌂ mark on the ring are aligned, lift off the ring.**
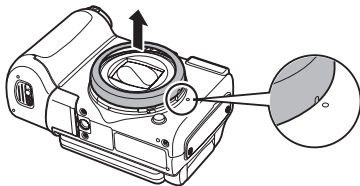
4 **Align the ● mark on the conversion lens adapter with the ○ mark on the camera, and turn the adapter in the direction of the arrows as far as the ⬚ mark on the camera.**
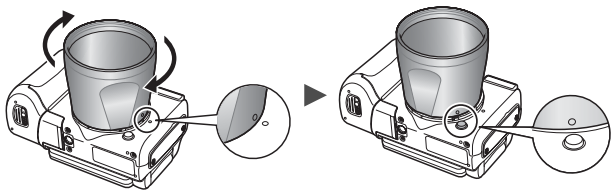
• To remove the conversion lens adapter, turn the adapter in the opposite direction with holding down the ring release button.

5 **Set the lens on the adapter, and turn it in the indicated direction to attach it securely.**
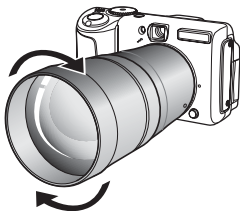
● Completely remove all dust and dirt from conversion lenses with a lens blower brush before use. The camera may focus on any dirt that remains.
● Be careful when handling the lenses since it is easy to get finger prints on them.
● Be careful not to drop the camera or adapter when removing the ring.
● When using these lens attachments, you should not shoot images in 🔲 mode. It will not be possible to use the PhotoStitch software from your computer to accurately stitch the images together.

Converter Settings

Settings for when shooting using [IS Mode] (p. 70) with the separately sold Wide Converter WC-DC58B or Tele-converter TC-DC58C attached.

1 Set the mode switch to ▶.

2 Select [Converter].

1. Press the (MENU) button.
2. In the ▶ menu, use the ↑ or ↓ button to select [Converter].

3 Accept the setting.

1. Use the ← or → button to select [WC-DC58B] or [TC-DC58C].
2. Press the (MENU) button.
• Select the attached converter.

When you remove the converter from the camera, return the converter setting to [Off].

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.

Tripod Sockets

Bracket
(Comes with the flash)
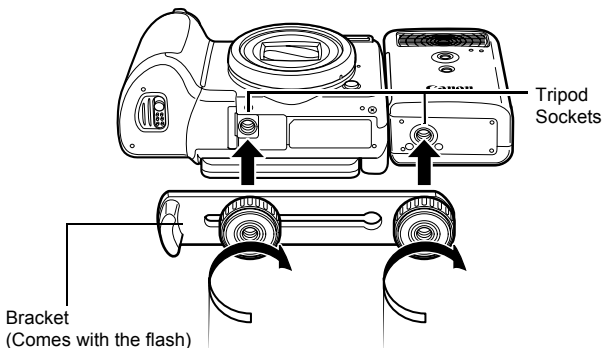
- The High-Power Flash will not fire in the following situations:
  - When shooting in **M** mode
  - When Flash Sync is set to [2nd-curtain]
  - When Flash Adjust is set to [Manual]
- The flash charge time will lengthen as the battery charge gets weaker. Always set the power/mode switch to [OFF] when you finish using the flash.
- Be careful not to touch the flash window or sensor windows with your fingers while the flash is in use.
- 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.

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 customer support list supplied with your camera.

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 A650 IS

(W): Max. wide angle   (T): Max. telephoto

Camera Effective Pixels	: Approx. 12.1 million
Image Sensor	: 1/1.7-inch type CCD (Total number of pixels: Approx. 12.4 million)
Lens	: 7.4 (W) – 44.4 (T) mm (35mm film equivalent: 35 (W) – 210 (T) mm) f/2.8 (W) – f/4.8 (T)
Digital Zoom	: Approx. 4.0x (Up to approx. 24x in combination with the optical zoom)
Optical Viewfinder	: Real-image zoom viewfinder
LCD Monitor	: 2.5-inch type, low-temperature polycrystalline silicon TFT color LCD, approx. 173,000 pixels (Picture coverage 100%)
AF System	: TTL autofocus AF lock and Manual focus are available Focusing frame: Face Detect/AiAF(9-point)/ Center*/FlexiZone * Size of AF frame can be selected
Focusing Range	: Normal: 50 cm (1.6 ft.) – infinity Macro: 1 – 50 cm (W) (0.4 in. – 1.6 ft. (W)) Manual focus: 1 cm (0.4 in.) – infinity (W), 50 cm (1.6 ft.) – infinity (T) Kids&Pets: 1 m (3.3 ft.) - infinity (W/T)
Shutter	: Mechanical shutter + electronic shutter
Shutter Speeds	: 15 – 1/2000 sec. • The shutter speed varies depending on the shooting mode. • Slow shutter speeds of 1.3 sec. or slower operate with noise reduction.
Image Stabilization	: Lens shift type Continuous/Shoot Only*/Panning*/Off * Still images only

Metering System	: Evaluative*1, Center-weighted average or Spot*2
	*1 When [AF Frame] is set to [Face Detect], the brightness of the face is also evaluated
	*2 Fixed to center/AF Point
Exposure Compensation	: ±2 stops in 1/3-stop increments
	Safety Shift is available.
ISO speed (Standard Output Sensitivity, Recommended Exposure Index)	: Auto*, High ISO Auto*, ISO 80/100/200/400/ 800/1600
	* Camera automatically sets the optimal speed when Auto or High ISO Auto is set.
White Balance	: Auto, Day Light, Cloudy, Tungsten, Fluorescent, Fluorescent H, Underwater or Custom
Built-in Flash	: Auto*, on*, off
	* Red-eye reduction and Slow Synchro are available. FE Lock /2nd-curtain /Flash output /Safety FE settings are available.
Compensation Range of Built-In Flash	: 50 cm – 3.5 m (1.6 – 11 ft.) (W), 50 cm – 2.0 m (1.6 – 6.6 ft.) (T) (ISO speed: Auto)
Flash Exposure Compensation	: ±2 stops in 1/3-stop increments
Shooting Modes	: Auto
	Creative zone:
	P Program, Tv Shutter-speed priority, Av Aperture priority, M Manual, C Custom
	Image zone:
	Portrait, Landscape, Night Snapshot, Kids&Pets, Special Scene*1, Stitch Assist and Movie*2
	*1 Night Scene, Indoor, Foliage, Snow, Beach, Fireworks, Aquarium, Underwater and ISO 3200.
	*2 Standard and Compact.
Continuous Shooting	: Approx. 1.2 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/SDHC memory card/ MultiMediaCard/MMCplus card/HC MMCplus card
File Format	:	Design rule for camera file system and DPOF compliant
Data Type (Still images)	:	Exif 2.2 (JPEG)*
		Sound memos: 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	:	Large: 4000 x 3000 pixels
		Medium 1: 3264 x 2448 pixels
		Medium 2: 2592 x 1944 pixels
		Medium 3: 1600 x 1200 pixels
		Small: 640 x 480 pixels
		Postcard: 1600 x 1200 pixels
		Widescreen: 4000 x 2248 pixels
(Movies)	:	Standard:
		640 x 480 pixels (30 frames/sec.)
		640 x 480 pixels (30 frames/sec., LP)
		320 x 240 pixels (30 frames/sec.)
		Recording can continue until the memory card is full[1] (can record up to a maximum of 4 GB at one time)[2]
		Compact: (can record for 3 min.)
		160 x 120 pixels (15 frames/sec.)
		[1] Using super high-speed memory cards (SDC-512 MSH recommended).
		[2] Even if the clip size has not reached 4 GB, recording will stop at the moment the clip length reaches 1 hour. Depending on the volume and data writing speed of the memory card, recording may stop before reaching 1 hour or before the recorded data volume has reached 4 GB.

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 movies or to the first image in each folder. 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	MTP, PTP
Power Source	: 2 AA-size alkaline batteries 2 AA-size NiMH batteries NB4-300 (sold separately) AC Adapter Kit ACK600 (sold separately)
Operating Temperatures	: 0 – 40 °C (32 – 104 °F) (0 – 35 °C (32 – 95 °F) when NB-3AH is used.)
Operating Humidity	: 10 – 90%
Dimensions (excluding protrusions)	: 112.1 x 67.8 x 56.2 mm (4.41 x 2.67 x 2.21 in.)
Weight (camera body only)	: Approx. 300 g (10.58 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. 300 images	Approx. 1000 images	Approx. 18 hours
AA-size NiMH Batteries (NB-3AH (fully charged))	Approx. 500 images	Approx. 1400 images	Approx. 19 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. 178).

Memory Cards and Estimated Capacities

☐ : Memory card included with the camera

Recording Pixels	Compression	32MB	SDC-128M	SDC-512MSH
L (Large) 4000 x 3000 pixels	ⓢ	5	23	91
	◤	9	39	155
	◢	19	82	321
M1 (Medium 1) 3264 x 2448 pixels	ⓢ	8	35	139
	◤	14	59	231
	◢	29	123	479
M2 (Medium 2) 2592 x 1944 pixels	ⓢ	11	49	190
	◤	20	87	339
	◢	41	173	671
M3 (Medium 3) 1600 x 1200 pixels	ⓢ	29	121	471
	◤	52	217	839
	◢	99	411	1590
S (Small) 640 x 480 pixels	ⓢ	111	460	1777
	◤	171	711	2747
	◢	270	1118	4317
Postcard (Postcard) 1600 x 1200 pixels	◤	52	217	839
W (Widescreen) 4000 x 2248 pixels	ⓢ	7	31	122
	◤	12	53	206
	◢	26	109	425

• ▓ Capable of smooth continuous shooting (p. 88) when memory 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.

Movie

□:Memory card included with the camera

		Recording Pixels /Frame Rate	32MB	SDC-128M	SDC-512MSH
Standard	640	640 x 480 pixels 30 frames/sec.	15 sec.	1 min. 4 sec.	4 min. 9 sec.
	640 LP	640 x 480 pixels 30 frames/sec., LP	30 sec.	2 min. 7 sec.	8 min. 14 sec.
	320	320 x 240 pixels 30 frames/sec.	43 sec.	3 min. 1 sec.	11 min. 42 sec.
Compact	160	160 x 120 pixels 15 frames/sec.	3 min. 30 sec.	14 min. 29 sec.	55 min. 57 sec.

· Maximum movie clip length at 🎞: 3 min. The figures indicate the maximum continuous recording time.

Image Data Sizes (Estimated)

Recording Pixels		Compression		
		S	**◣**	**◢**
L	4000 x 3000 pixels	5208 KB	3084 KB	1474 KB
M1	3264 x 2448 pixels	3436 KB	2060 KB	980 KB
M2	2592 x 1944 pixels	2503 KB	1395 KB	695 KB
M3	1600 x 1200 pixels	1002 KB	558 KB	278 KB
S	640 x 480 pixels	249 KB	150 KB	84 KB
▤	1600 x 1200 pixels	—	558 KB	—
W	4000 x 2248 pixels	3903 KB	2311 KB	1105 KB

		Frame Rate/Recording Pixels	File size
Standard	640	640 x 480 pixels, 30 frames/sec.	1920 KB/sec.
	640 LP	640 x 480 pixels, 30 frames/sec., LP	960 KB/sec.
	320	320 x 240 pixels, 30 frames/sec.	660 KB/sec.
Compact	160	160 x 120 pixels, 15 frames/sec.	120 KB/sec.

MultiMediaCard

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

SD Memory Card

Interface	Compatible with SD memory card standards
Dimensions	32.0 x 24.0 x 2.1 mm (1.3 x 0.9 x 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)

Type	AA-size 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)
Dimensions	Diameter: 14.5 mm (0.57 in.) Length: 50.0 mm (1.97 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[1], 1275 mA[2]
Charging Time	Approx. 4 hours 40 min.[1], Approx. 2 hours[2]
Operating Temperatures	0 – 35 °C (32 – 95 °F)
Dimensions	65.0 x 105.0 x 27.5 mm (2.56 x 4.13 x 1.08 in.)
Weight (body only)	Approx. 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-PS500

(Included with the separately sold AC Adapter Kit ACK600)

Rated Input	100 – 240 V AC (50/ 60 Hz)
Rated Output	4.3 V DC, 1.5 A
Operating Temperatures	0 – 40 °C (32 – 104 °F)
Dimensions	42.6 x 104.4 x 31.4 mm (1.68 x 4.11 x 1.24 in.)
Weight	Approx. 180 g (6.35 oz.) (excluding power cord)

Wide Converter WC-DC58B (Sold Separately)

Magnification	Approx. 0.75x
Focal Length[1]	26.3 mm (35mm film equivalent)
Focusing Range[1]	Approx. 30 cm (12 in.) – infinity (W)[2]
Thread Diameter	58 mm standard filter thread[3]
Dimensions	Diameter: 97 mm (3.82 in.) Length: 49.5 mm (1.95 in.)
Weight	Approx. 365 g (12.9 oz.)

Tele-converter TC-DC58C (Sold Separately)

Magnification	Approx. 2x
Focal Length*4	420 mm (35mm film equivalent)
Focusing Range*4	Approx. 1.8 m (5.9 ft.) – infinity (T)*2
Thread Diameter	58 mm standard filter thread*3
Dimensions	Diameter: 80.0 mm (3.15 in.) Length: 81.3 mm (3.20 in.)
Weight	Approx. 335 g (11.8 oz.)

Conversion Lens Adapter LA-DC58J (Sold Separately)

Thread Diameter	58 mm
Dimensions Diameter x Length	Diameter: 62.9 mm (2.48 in.) Length: 52.5 mm (2.07 in.)
Weight	Approx. 32 g (1.13 oz.)

(W): Max. wide angle (T): Max. telephoto

*1 When mounted on PowerShot A650 IS (Max. wide angle)
*2 From front of the mounted tele-converter.
*3 Conversion Lens Adapter LA-DC58J is required when mounted on PowerShot A650 IS
*4 When mounted on PowerShot A650 IS (Max. telephoto)

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FCC Notice

(Digital Camera, Model PC1252 system)

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions;

(1) this device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for Class B digital devices, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

• Reorient or relocate the receiving antenna.
• Increase the separation between the equipment and receiver.
• Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
• Consult the dealer or an experienced radio/TV technician for help.

The cable with the ferrite core provided with the digital camera must be used with this equipment in order to comply with Class B limits in Subpart B of Part 15 of the FCC rules.

Do not make any changes or modifications to the equipment unless otherwise specified in the manual. If such changes or modifications should be made, you could be required to stop operation of the equipment.

Canon U.S.A., Inc.

One Canon Plaza, Lake Success, NY 11042, U.S.A.

Tel No. (516) 328-5600

Canadian Radio Interference Regulations

This Class B digital apparatus complies with Canadian ICES-003.

Réglementation canadienne sur les interférences radio

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Disclaimer

- While every effort has been made to ensure that the information contained in this guide is accurate and complete, no liability can be accepted for any errors or omissions.
- Canon reserves the right to change the specifications of the hardware and software described herein at anytime without prior notice.
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- The SDHC logo is a trademark.

For CA, USA only
Included lithium battery contains Perchlorate Material - special handling may apply.
See www.dtsc.ca.gov/hazardouswaste/perchlorate/ for details.

Functions Available in Each Shooting Mode

Set each function according to the shooting conditions and then shoot.

		C	M	Av	Tv	P	🗂	AUTO	🎥	🎥
+/- (Exp.)		□	–	○	○	○	○	–	–	–
ISO Speed	Auto	□	–	○	○	○	○	○	○	○
	High ISO Auto	□	–	–	–	–	–	○	–	–
	ISO 80/100/200/400/800/1600	□	○	○	○	○	–	–	–	–
White Balance	Auto	□	○	○	○	○	○	○	○	○
	Day Light/Cloudy/Tungsten/Fluorescent/Fluorescent H/Underwater/Custom	□	○	○	○	○	○	–	○	○
Drive Mode	Single Shot	□	○	○	○	○	○	○	○	○
	Continuous Shooting	□	○	○	○	○	–	–	–	–
	Self-Timer (2 sec., 10 sec.)	□	○	○	○	○	○	○	○	○
	Custom Timer	□	○	○	○	○	–	○	–	–
Self-Timer (Custom Setting)		□	○	○	○	○	–	○	–	–
My Colors		□	○	○	○	○	○	–	○	○
Flash Adjust		□	–	○	○	○	○	–	–	–
Flash Output		□	○	○	○	–	–	–	–	–
Metering Mode	Evaluative	□	○	○	○	○	○	○	○	○
	Center Weighted Avg.	□	○	○	○	○	–	–	–	–
	Spot	□	○	○	○	○	–	–	–	–
Selecting the Recording Pixels/Compression (Still Images)		□	○	○	○	○	○[1]	○	–	–
Selecting the Recording Pixels/Frame Rate (Movies)	640 x 480, 30 fps, 30 fps LP	–	–	–	–	–	–	–	○	–
	320 x 240, 30 fps	–	–	–	–	–	–	–	○	–
	160 x 120, 15 fps	–	–	–	–	–	–	–	–	○
Av/Tv Setting		□	○	○[3]	○[4]	–	–	–	–	–
Program Shift		□	–	–	–	○	–	–	–	–
AE/FE Lock		□	–	○	○	○	–	–	–	–
Image Area (during Macro Mode)		□	○	○	○	○	○	○	○	○
Manual Focus		□	○	○	○	○	–	–	○	○
Flash	Auto	□	–	–	–	○	–	○	–	–
	On	□	○	○	○	○	○	–	–	–
	Off	□	○	○	○	○	○	○	–	–
LCD Monitor Display Status	Off	□	○	○	○	○	–	○	–	–
	No Information	□	○	○	○	○	–	–	○	○
	Information View	□	○	○	○	○	○	○	○	○
Switch Direction Selection (right-left)		–	–	–	–	–	○	–	–	–
AF Frame	Face Detect	□	○	○	○	○	–	○	–	–
	AiAF (9-point)	□	○	○	○	○	–	○	○	○
	Center	□	○	○	○	○	○	○	–	–
	FlexiZone	□	○	○	○	○	–	–	–	–

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		C	M	Av	Tv	P	🗗	AUTO	🎬	
									📷	✉
AF Frame Size		□	○	○	○	○	—	—	—	—
Digital Zoom	Standard	□	○	○	○	○	—	○	○	—
	Digital Tele-converter	□	○	○	○	○	—	○	—	—
Flash Sync	Flash Output (2nd-curtain)	□	○	○	○	○	—	—	—	—
	Slow Synchro	□	○5)	○	○5)	○	○	—	—	—
	Flash Adjust (Manual)	□	○6)	○	○	—	—	—	—	—
	Red-eye	□	○	○	○	○	○	○	—	—
Safety FE		□	—	○	○	○	—	—	—	—
Spot AE Point	Center	□	○	○	○	○	○	○	○	○
	AF Point	□	○	○	○	○	—	—	—	—
Safety Shift		□	—	○	○	—	—	—	—	—
Auto ISO Shift	⧉∿ button/Auto	□	—	○	—	○	—	○	—	—
	Off	□	○	○	○	○	○	○	○	○
MF-Point Zoom		□	○	○	○	○	—	—	—	—
Safety MF		□	○	○	○	○	—	—	○	○
AF-assist Beam		□	○	○	○	○	○	○	○	○
Review		□	○	○	○	○	○	○	—	—
Review Info.	Off	□	○	○	○	○	○	○	—	—
	Detailed/Focus Check	□	○	○	○	○	—	○	—	—
Reverse Disp.		□	○	○	○	○	—	○	○	○
Disp. Overlay	Grid Lines	□	○	○	○	○	—	○	○	○
	3:2/Both	□	○	○	○	○	—	○	—	—
IS Mode	Continuous	□	○	○	○	○	○	○	○	○
	Shoot only/Panning	□	○	○	○	○	○	○	—	—
Converter		□	○	○	○	○	○	○	○	○
Date Stamp		□	○	○	○	○	—	○	—	—
Set ⧉∿ button		□	○	○	○	○	○	○	—	—
Save Settings		○	○	○	○	○	—	—	—	—

○ : Can be selected, or automatically set by the camera. In Stitch Assist, in principle, only the first shot can be selected.

□ : Can be configured. (values conforming to custom shooting modes can be set)

— : Cannot be selected

▨ : Cannot be cancelled even when the power is turned off.

(1) Widescreen is not possible.
(2) Recording pixels fixed at M3 (1600 x 1200).
(3) Configured only in **Av** (Aperture Priority) mode.
(4) Configured only in **Tv** (Shutter-speed Priority) mode.
(5) Always set to [On].
(6) Always set to [Off].
(7) Only available when 🔆 is set to [On]

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