

Canon

PowerShot G11

Camera User Guide



- Make sure you read this guide before using the camera.
- Store this guide safely so that you can use it in the future.
- Please use this manual along with the PDF manuals included on the CD-ROM (p. 2).

ENGLISH

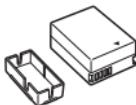


Checking the Package Contents

Check if the following items are included in your camera package. If anything is missing, contact the retailer from which you purchased the camera.



Camera



Battery Pack NB-7L
(with Terminal Cover)



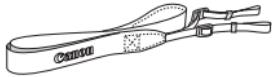
Battery Charger
CB-2LZ/CB-2LZE



Interface Cable
IFC-400PCU



AV Cable
AVC-DC400



Neck Strap NS-DC9



Camera User Guide
(This Guide)



DIGITAL CAMERA
Solution Disk



Warranty
Card



“Canon Customer
Support” Leaflet

Using the PDF Manuals

Also refer to the PDF manuals on the CD-ROM. After installation, shortcut icons appear on the desktop. If the software installation fails, you can find the manuals in the Readme folder on the CD-ROM.

- **Personal Printing Guide**

Read when you want to connect the camera to a printer (sold separately) and print.

- **Software Guide**

Read when you want to use the included software.



- A memory card is not included.
- Adobe Reader is required to view the PDF manuals.

Read This First

Test Shots

Take some initial test shots and play them back to make sure the images were recorded 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

The images recorded with this camera are intended for personal use. Do not record images that infringe upon copyright laws without the prior permission of the copyright holder. 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 there is a problem with the camera while abroad, please return it 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.

LCD Monitor

- The LCD monitor is produced with extremely high-precision manufacturing techniques. More than 99.99% of the pixels operate to specification, but occasionally non-performing pixels may appear as bright or dark dots. This is not a malfunction and has no effect on the recorded image.
- The LCD monitor may be covered with a thin plastic film for protection against scratches during shipment. If so, remove the film before using the camera.

Camera Body Temperature

Please take care when operating the camera for an extended period as the camera body may become warm. This is not a malfunction.

Memory Cards

The various types of memory cards that can be used in this camera are collectively referred to as memory cards in this guide.

What Do You Want to Do?

Shoot



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Take good people shots



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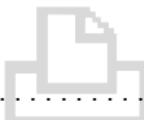


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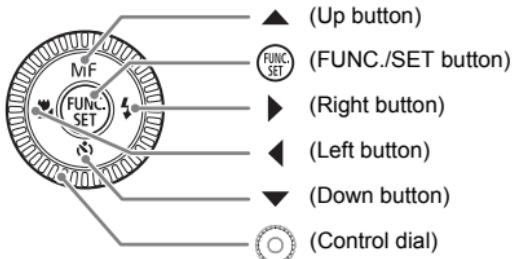
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Conventions Used in this Guide

- Icons are used in the text to represent the camera buttons and switches.
- Language that displays on the screen appears inside [] (square brackets).
- The directional buttons, control dial, and FUNC./SET button are represented by the following icons.



- ?: Troubleshooting tips.
- !: Hints for getting more out of your camera.
- !: Things you should be careful about.
- !: Supplemental information.
- (p. xx): Reference pages. "xx" stands for page number.
- This guide assumes all functions are at their default settings.

Safety Precautions

- Before using the camera, please ensure that you read the safety precautions described below. Always ensure that the camera is operated correctly.
- The safety precautions noted on the following pages are intended to prevent injuries to yourself and other persons, or damage to the equipment.
- Be sure to also check the guides included with any separately sold accessories you use.



Warning Denotes the possibility of serious injury or death.



Caution Denotes the possibility of injury.

Caution Denotes the possibility of damage to the equipment.

⚠ Warning

Camera

- Do not use the camera's viewfinder in the presence of strong light sources (such as the sun on a clear day).**
This could damage your eyesight.
- Do not trigger the flash in close proximity to human eyes.**
Exposure to the intense light produced by the flash could damage eyesight. In particular, remain at least one meter (39 inches) away from infants when using the flash.
- Store this equipment out of the reach of children and infants.**
Strap: Putting the strap around a child's neck could result in asphyxiation.
Memory card: Dangerous if accidentally swallowed. 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 injury, do not touch the interior of the camera if it has been dropped or otherwise damaged.**
- Stop operating the camera immediately if it emits smoke, a strange smell, or otherwise behaves abnormally.**
- Do not use organic solvents such as alcohol, benzine, or thinner to clean the equipment.**
- Do not allow liquids or foreign objects to enter the camera.**
This could result in fire or electrical shock.
If liquid or foreign objects come into contact with the camera interior, immediately turn the camera power off and remove the battery.
- Use only recommended power sources.**
Using other power sources could result in fire or electrical shock.

Battery, Battery Charger

- Use only the recommended battery.
- Do not place the battery near or in direct flame.
- Do not let the battery come into contact with water (e.g. sea water) or other liquids.
- Do not attempt to disassemble, alter or apply heat to the battery.
- Avoid dropping or subjecting the battery to severe impacts.

This 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 contacts these substances, immediately flush with water and seek medical assistance. If the battery charger becomes wet, unplug it from the outlet and consult your camera distributor or the closest Canon Customer Support Help Desk.

- Use only the specified battery charger to charge the battery.
- Do not cut, damage, alter or place heavy items on the power cord.
- Unplug the power cord periodically and wipe away any dust and dirt that has collected on the plug, the exterior of the power outlet, and the surrounding area.
- Do not handle the power cord with wet hands.

This could result in fire or electrical shock.

Other Warnings

- Do not play the supplied CD-ROM(s) in any CD player that does not support data CD-ROMs.

Playing the CD-ROM(s) in an audio CD player (music player) could damage the speakers. It is also possible to suffer hearing loss from listening with headphones to the loud sounds of a CD-ROM played on a music CD player.

⚠ Caution

- Be careful not to bang the camera or subject it to strong impacts or shocks when hanging it by the strap.
 - Be careful not to bump or push strongly on the lens.
This could damage the camera or lead to injury.
 - Do not use the equipment in a manner that exceeds the rated capacity of the electrical outlet or wiring accessories. Do not use if the power cord or plug are damaged, or not fully plugged into the outlet.
This could result in electrical shock or fire.
 - Avoid using, placing or storing the camera in the following places.
 - Places subject to strong sunlight.
 - Places subject to temperatures above 40 °C (104 °F).
 - Humid or dusty areas.
- These could cause leakage, overheating or an explosion of the battery, resulting in electrical shock, fire, burns or other injuries. High temperatures may also cause deformation of the casing.

Safety Precautions

- **Do not allow dirt or metal objects (such as pins or keys) to contact the charger terminals or plug.**
This could result in fire, electrical shock or other damage.
- **When using the separately sold optional lenses, be sure to attach them firmly.**
If the lens becomes loose and falls off, it may crack, and the shards of glass may lead to cuts.
- **The slideshow transition effects may cause discomfort when viewed for prolonged periods.**
- **When using the flash, be careful not to cover it with your fingers or clothing.**
This could result in burns or damage to the flash.

Caution

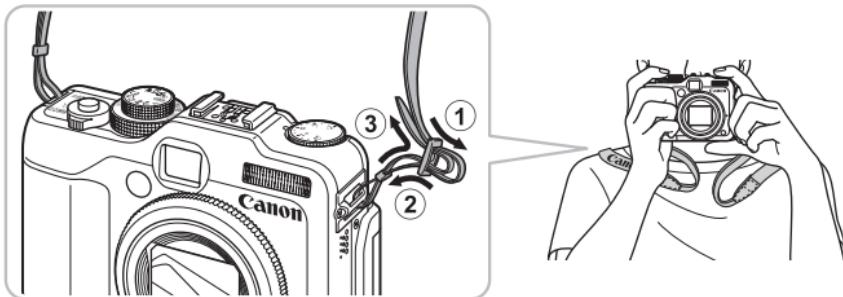
- **Do not aim the camera at bright light sources (the sun, etc.).**
Doing so may cause malfunctions or damage the image sensor.
- **When using the camera on a beach or at a windy location, be careful not to allow dust or sand to enter the camera.**
This may cause the camera to malfunction.
- **In regular use, small amounts of smoke may be emitted from the flash.**
This is due to the high intensity of the flash burning dust and foreign materials stuck to the front of the unit. Please use a cotton swab to remove dirt, dust or other foreign matter from the flash to prevent heat build-up and damage to the unit.
- **Unplug the battery charger from the power outlet after recharging is complete, or when you are not using it.**
- **Do not place anything, such as cloth on top of the battery charger while it is charging.**
Leaving the unit plugged in for a long period of time may cause it to overheat and distort, resulting in fire.
- **Remove and store the battery when you are not using the camera.**
If the battery is left inside the camera, damage caused by leakage may occur.
- **Before you discard the battery, cover the terminals with tape or other insulators.**
Contacting other metal materials in waste containers may lead to fire or explosions.
- **Do not place the battery near pets.**
Pets biting the battery could cause leakage, overheating or explosion, resulting in fire or injuries.
- **When carrying the camera in a bag, close the LCD monitor to face inward to ensure that hard objects do not come into contact with the screen.**
Failure to do so may cause malfunctions or damage the LCD monitor.

Getting Started

This chapter explains preparations before shooting, how to shoot in **AUTO** mode, and then how to view, erase and print the images you take. The latter part of this chapter explains how to shoot and view movies and transfer images to a computer.

Attaching the Strap/Holding the Camera

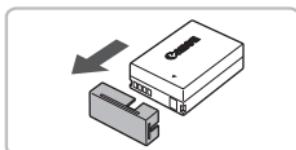
- Attach the included strap and place it around your neck to avoid dropping the camera during use.
- Keep your arms tight against your body while holding the camera firmly by the sides. Be sure that your fingers do not block the flash.



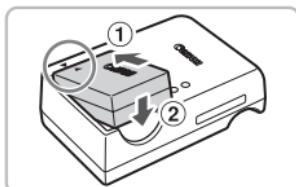
Charging the Battery

Use the included charger to charge the battery.

The battery is not charged at time of purchase. Be sure to charge the battery before use.

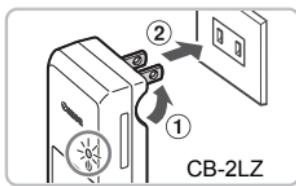


1 Remove the cover.



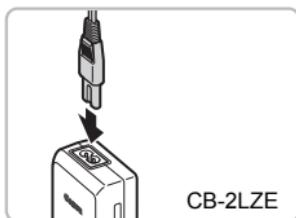
2 Insert the battery.

- Align the ▲ marks on the battery and charger, then insert the battery by sliding it in ① and down ②.



3 Charge the battery.

- For CB-2LZ:** Flip out the plug ① and plug the charger into a power outlet ②.
- For CB-2LZE:** Plug the power cord into the charger, then plug the other end into a power outlet.
 - The charge lamp lights red and charging starts.
 - The charge lamp will light green when charging has finished. Charging takes approx. 2 hours and 20 minutes.



4 Remove the battery.

- Unplug the battery charger from the power outlet, then remove the battery by sliding it in ① and up ②.



To protect the battery and prolong its life, do not charge it for longer than 24 hours continuously.

Approximate Number of Shots That Can Be Taken

Number of shots	LCD Monitor On	390
	LCD Monitor Off	1000
Playback Time (Hours)		7

- The number of shots that can be taken is based on the Camera & Imaging Products Association (CIPA) measurement standard.
- Under some shooting conditions, the number of shots that can be taken may be less than mentioned above.

Battery Charge Indicator

An icon or message will appear on the screen indicating the battery's charge state.

Display	Summary
	Good.
	Slightly depleted, but sufficient.
	Nearly depleted.
"Change the battery pack."	Depleted. Recharge the battery.

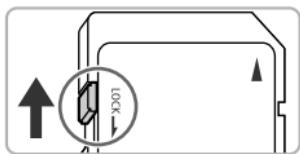


Using the battery and charger effectively

- Charge the battery on the day, or the day before, it will be used.
Charged batteries continue to discharge naturally even if they are not used.
-  Attach the cover to a charged battery so that the ▲ mark is visible.
- How to store the battery for long periods.
Deplete and remove the battery from the camera. Attach the terminal cover and store the battery. Storing a battery for long periods of time (about a year) without depleting it may shorten its life span or affect its performance.
- The battery charger can also be used when abroad.
The charger can be used in regions that have 100 – 240 V (50/60 Hz) AC power. If the plug does not fit the outlet, use a commercially available plug adapter. Do not use electrical transformers for foreign travel as they will cause damage.
- The battery may develop a bulge.
This is a normal characteristic of the battery and does not indicate a problem. However, if the battery bulges to the point where it will no longer fit into the camera, please contact a Canon Customer Support Help Desk.
- If the battery is quickly depleted even after charging, it has reached the end of its life span.
Purchase a new battery.

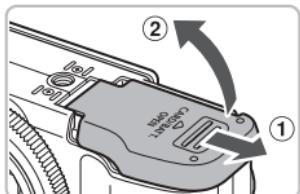
Inserting the Battery and Memory Card

Insert the supplied battery and a commercially available memory card into the camera.



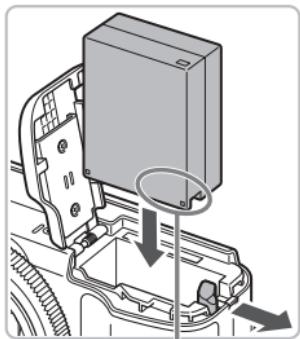
1 Check the card's write-protect tab.

- If the memory card has a write-protect tab, you will not be able to record images if the tab is in the locked position. Slide the tab up until you hear a click.



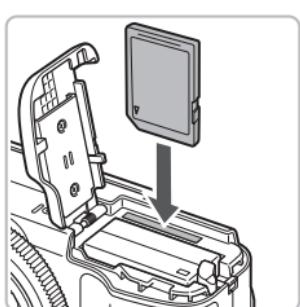
2 Open the cover.

- Slide the cover ①, and open it ②.



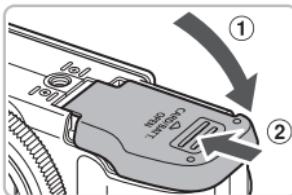
3 Insert the battery.

- Insert the battery as shown until it locks into place with a click.
- Be sure to insert the battery in the correct direction or it will not properly lock into place.



4 Insert the memory card.

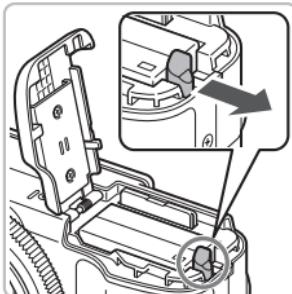
- Insert the memory card as shown until it locks into place with a click.
- Be sure the memory card is oriented correctly. Inserting the memory card in the wrong direction could damage the camera.



5 Close the cover.

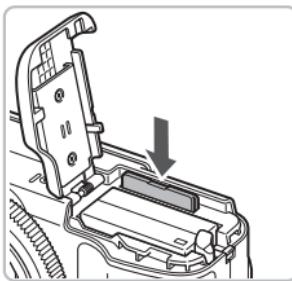
- Close the cover ①, and slide it ② until it locks into place with a click.

Removing the Battery and Memory Card



1 Remove the battery.

- Open the cover and press the battery lock in the direction of the arrow.
- The battery will pop up.



2 Remove the memory card.

- Push the memory card in until you hear a click, then slowly release it.
- The memory card will pop up.

Approximate Number of Shots per Memory Card

Memory Card	2 GB	8 GB
Number of shots	749	2994

- Values are based on the default settings.
- The number of shots that can be taken will vary depending on camera settings, the subject and the memory card used.

Can you check the number of shots that can be taken?

You can check the number of shots that can be taken when the camera is in a Shooting mode (p. 25).

Number of shots that can be taken



Compatible Memory Cards

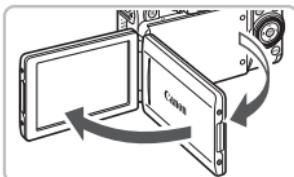
- SD memory cards
- SDHC memory cards 
- MultiMediaCards
- MMCplus memory cards
- HC MMCplus memory cards

What is the write-protect tab?

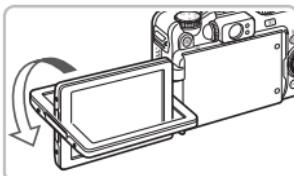
SD and SDHC memory cards have a write-protect tab. If this tab is in the locked position, [Card locked!] will appear on the screen and you will not be able to take or erase images.

Using the LCD Monitor

You can use the LCD monitor to compose pictures before shooting, operate menus or play back images. You can freely adjust the angle and orientation of the LCD monitor to suit your shooting conditions.

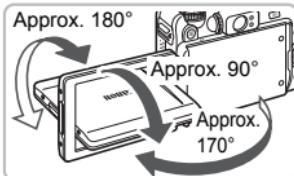


1 Open the LCD monitor.



2 Rotate the LCD monitor.

- Rotate the LCD monitor 180° toward the lens (turn the top edge of the LCD monitor away from you).



3 Close the LCD monitor.

- Close the LCD monitor with the screen facing outwards.



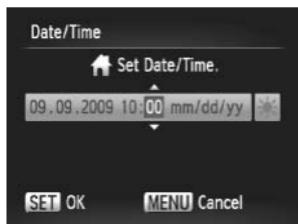
Always keep the LCD monitor closed with the screen facing the camera body when the camera is not in use.



In shooting mode, if the screen is in the position in Step 2, the image will be flipped from left to right (mirror image). To cancel the reverse display function press the MENU button, choose [Reverse Disp.] from the tab, and press the and buttons to choose [Off].

Setting the Date and Time

The Date/Time settings screen will appear the first time the camera is turned on. Since the dates and times recorded into your images are based on these settings, be sure to set them.



1 Turn on the camera.

- Press the power button.
- The Date/Time screen will appear.

2 Set the date and time.

- Press the **◀▶** buttons to choose an option.
- Press the **▲▼** buttons or turn the **(○)** dial to set a value.



3 Make the setting.

- Press the **FUNC/SET** button.
- Once the date and time have been set, the Date/Time screen will close.
- Pressing the power button will turn off the camera.



Reappearing Date/Time screen

Set the correct date and time. If you have not set the date and time, the Date/Time screen will appear each time you turn on the camera.

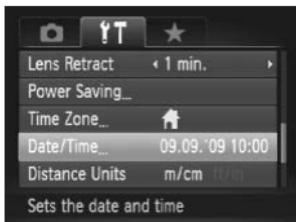


Daylight saving time settings

If you choose in Step 2 and press the **▲▼** buttons or turn the **(○)** dial and choose , you will set the time to daylight saving (1 hour ahead).

Changing the Date and Time

You can change the current date and time settings.



1 Display the menu.

- Press the MENU button.

2 Choose [Date/Time] in the tab.

- Press the buttons to choose the tab.
- Press the buttons or turn the dial to choose [Date/Time], then press the button.

3 Change the date and time.

- Follow Steps 2 and 3 on p. 20 to adjust the setting.
- To close the menu, press the MENU button.

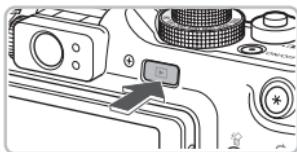


Date/Time battery

- The camera has a built-in date/time battery (backup battery) that allows the date/time settings to be retained for about three weeks after the battery pack has been removed.
- By inserting a charged battery or connecting an AC adapter kit (sold separately, p. 40) the date/time battery can be charged in about 4 hours even if the camera is not turned on.
- If the date/time battery is depleted, the Date/Time menu will appear when you turn the camera on. Follow the steps on p. 20 to set the date and time.

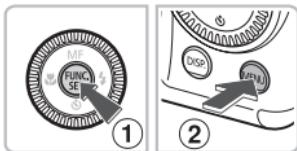
Setting the Display Language

You can change the display language in the screen menus and messages.



1 Enter Playback mode.

- Press the button.



2 Display the settings screen.

- Press and hold the button ①, then immediately press the MENU button ②.

English	Svenska	Türkçe
Deutsch	Español	繁體中文
Français	简体中文	한국어
Nederlands	Русский	menu
Dansk	Português	العربية
Suomi	Ελληνικά	Română
Italiano	Polski	فارسی
Norsk	Čeština	日本語
Українська	Magyar	

3 Set the display language.

- Press the buttons or turn the dial to choose a language, then press the button.
- Once the display language has been set, the settings screen will close.



What if the clock appears when the button is pressed?

The clock will appear if too much time passes between pressing the button and the MENU button in Step 2. If the clock appears, press the button to remove the clock and repeat Step 2.

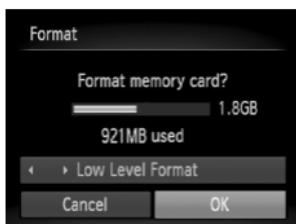
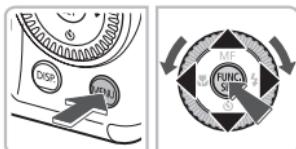


You can also change the display language by pressing the MENU button, choosing the tab, and choosing the [Language] menu item.

Formatting Memory Cards

Before you use a new memory card or one that has been used in other devices, you should format the card with this camera.

Formatting (initializing) a memory card erases all data on the memory card. As you cannot retrieve the erased data, exercise adequate caution before formatting the memory card.



1 Display the menu.

- Press the MENU button.

2 Choose [Format].

- Press the $\blacktriangleleft\triangleright$ buttons to choose the tab.
- Press the $\blacktriangleup\blacktriadown$ buttons or turn the dial to choose [Format], then press the button.

3 Format the memory card.

- Press the $\blacktriangleleft\triangleright$ buttons or turn the dial to choose [OK], then press the button.
 - The memory card will be formatted.
 - When formatting has finished, the menu screen will reappear.



Formatting or erasing data on a memory card merely changes the file management information on the card and does not ensure its contents are completely erased. Be careful when transferring or disposing of a memory card. When disposing of a memory card, take precautions such as physically destroying the card to prevent personal information leaks.



The total capacity of the memory card displayed in the formatting screen may be less than indicated on the memory card.

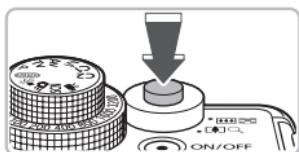
Pressing the Shutter Button

The shutter button has two stops. To take images that are in focus, be sure to first press the shutter button lightly (halfway) to focus, then take the shot.



1 Press halfway (lightly to the first stop).

- ▶ The camera automatically focuses and selects the necessary settings for shooting, such as the brightness.
- ▶ When the camera focuses, it will beep twice.



2 Press fully (to the second stop).

- ▶ The camera plays the shutter sound and takes the shot.
- Since the shot is being taken while the shutter sound plays, be careful not to move the camera.



Does the length of the shutter sound change?

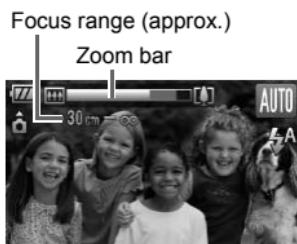
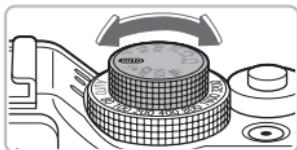
- Since the time required to shoot differs according to the scene you want to take, the length of the shutter sound may change.
- If the camera or subject moves while the shutter sound is playing, the recorded image may be blurry.



If you just press the shutter button fully without pausing halfway, the image may not be in focus.

Taking Pictures

Since the camera can determine the subject and shooting conditions, you can let it automatically select the best settings for the scene and just shoot. The camera can also detect and focus on faces, setting the color and brightness to optimal levels.



1 Turn on the camera.

- Press the power button.
- ▶ The start-up sound will play, and the start-up screen will appear.

2 Choose **AUTO** mode.

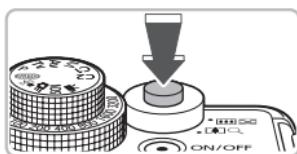
- Set the mode dial to **AUTO**.
- When you point the camera toward the subject, the camera will make a slight noise as it determines the scene.
- ▶ The camera focuses on the subject it judges to be the main subject, and the icon for the determined scene appears in the upper right of the screen.
- ▶ When faces are detected, a white frame appears on the face of the main subject, while gray frames appear on other detected faces.
- ▶ A white frame will follow a detected face that is moving and the gray frames will disappear.

3 Compose the shot.

- Moving the zoom lever toward will zoom in on your subject, making it appear larger. Moving the lever toward will zoom out from your subject, making it appear smaller.



AF Frames



4 Focus.

- Press the shutter button halfway to focus.
- ▶ When the camera focuses, it will beep twice.
- ▶ Green AF frames appear where the subject is in focus.
- ▶ Several AF frames will appear when the camera focuses on more than one point.
- ▶ When a moving face is detected, and you keep the shutter button pressed halfway, a blue AF frame appears and the focus and exposure are continuously adjusted (Servo AF).

5 Shoot.

- Press the shutter button fully.
- ▶ The camera will play the shutter sound and shoot.
- ▶ The indicator will blink green while the image is recorded to the memory card.
- ▶ The image will appear on the screen for about two seconds.
- You can take a second picture even while an image is displayed by pressing the shutter button again.



What if...

• a flashing appears?

Attach the camera to a tripod so that the camera does not move and blur the image.

• the camera does not play any sounds?

Pressing the **MENU** button while turning on the camera power will turn off all sounds except for warning sounds. To turn the sounds on, press the **MENU** button, choose the  tab, and then choose [Mute]. Press the  buttons to choose [Off].

• the image comes out dark even if the flash fired when shooting?

The subject is too far away for the flash to reach. Shoot within the effective flash range of approximately 50 cm – 7.0 m (1.6 – 23 ft.) at maximum wide angle, and approximately 50 cm – 4.0 m (1.6 – 13 ft.) at maximum telephoto.

- **the screen does not turn on when you turn on the camera?**

Press the DISP. button to turn on the screen.

- **the camera beeps once when the shutter button is pressed halfway?**

Your subject is too close. When the camera is at maximum wide angle, move about 1 cm (0.4 in.) or more away from your subject and shoot. Move about 30 cm (12.0 in.) or more away when the camera is at maximum telephoto.

- **the lamp lights when the shutter button is pressed halfway?**

To reduce red-eye and to assist in focusing, the lamp may light when shooting in dark areas.

- **the  icon blinks when you try to shoot?**

The flash is charging. You can shoot when recharging ends.

Scene Icons

The camera displays an icon for the scene it has determined and then automatically focuses and selects the optimum settings for subject brightness and color.

Background		Bright	Including Blue Skies		Sunsets	Dark	When Using Tripod
Subject		Backlit		Backlit			
People					-		
					-	-	-
Subjects Other Than People/Landscapes							
Close Subjects					-		-
Icon Background Color	Gray	Light Blue	Orange	Dark Blue			

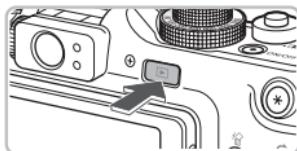
* Appears when the camera is attached to a tripod.



Under certain conditions, the icon that appears may not match the actual scene. Especially when there is an orange or blue colored background (a wall for example),  or the "Blue Skies" icons may appear and it may not be possible to shoot with the appropriate color. If this happens, try shooting in **P** mode (p. 72).

Viewing Images

You can view your images on the screen.



1 Enter Playback mode.

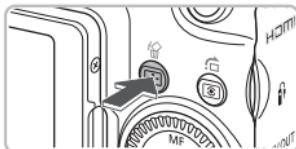
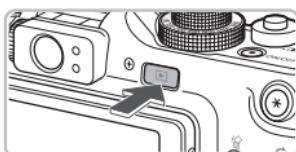
- Press the button.
- ▶ The last image you took will appear.

2 Choose an image.

- Pressing the button will cycle through the images in reverse order.
- Pressing the button will cycle through the images in the order they were taken.
- The images change more quickly if you keep the buttons pressed, but they will appear coarse.
- Turning the dial counter-clockwise displays images in reverse order, while turning it clockwise displays images in the order they were taken.
- Pressing the shutter button halfway in Playback mode switches the camera to Shooting mode.
- The lens will retract after approximately 1 minute elapses.

Erasing Images

You can choose and erase images one at a time. Please note that erased images cannot be recovered. Exercise adequate caution before erasing an image.



1 Enter Playback mode.

- Press the button.
- ▶ The last image you took will appear.

2 Choose an image to erase.

- Press the buttons or turn the dial to display an image to erase.

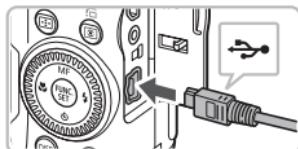
3 Erase the image.

- Press the button.
- ▶ [Erase?] appears.
- Press the buttons or turn the dial to choose [Erase], then press the button.
- ▶ The displayed image will be erased.
- To exit instead of erasing, press the buttons or turn the dial to choose [Cancel], then press the button.

Printing Images

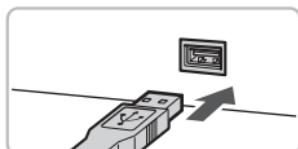
You can easily print the pictures you take by connecting the camera to a PictBridge compatible printer (sold separately) using the supplied interface cable (p. 2).

1 Turn off the camera and printer.

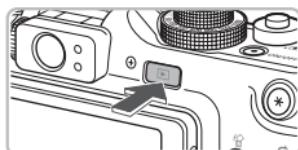


2 Connect the camera to the printer.

- Open the cover, and insert the small end of the plug firmly into the camera terminal in the direction shown.
- Insert the cable's larger plug into the printer. For connection details, refer to the user guide provided with the printer.



3 Turn on the printer.



4 Turn on the camera.

- Press the button to turn on the camera.

5 Choose an image to print.

- Press the or buttons or turn the dial to choose an image.



6 Print images.

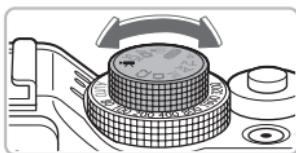
- Press the button.
 - ▶ Printing will start.
- If you want to print additional images, repeat Steps 5 and 6 after printing has completed.
- After printing has completed, turn off the camera and printer, and unplug the interface cable.



- Refer to the *Personal Printing Guide* for details on printing.
- Refer to p. 38 for Canon-brand Pictbridge compliant printers.

Shooting Movies

The camera can automatically select all settings so that you can shoot movies just by pressing the shutter button.



Shooting Time

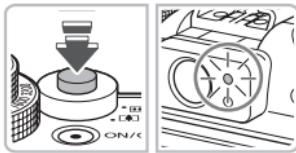


1 Set the mode dial to '■'.



2 Compose the shot.

- Moving the zoom lever toward will zoom in on your subject, making it appear larger. Moving the lever toward will zoom out from your subject, making it appear smaller.

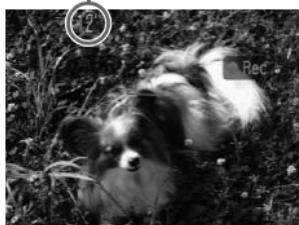


3 Focus.

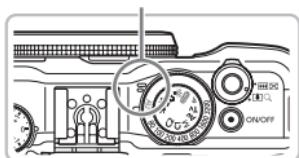
- Press the shutter button halfway to focus.
► When the camera focuses, it will beep twice and the indicator will light green.



Elapsed Time



Microphone



4 Shoot.

- Press the shutter button fully.
- ▶ The camera will start shooting the movie, and [● Rec] and the elapsed time will appear on the screen.
- Once shooting begins, take your finger off the shutter button.
- If you change the composition of your shot during shooting, the focus will stay the same, but the brightness and tone will automatically adjust.
- ▶ You can also zoom in and out with the zoom lever during shooting.
- Do not touch the microphone while shooting.
- Operational sounds will be recorded in the movie.

4 Stop shooting.

- Press the shutter button fully again.
- ▶ The camera will beep once and stop shooting the movie.
- ▶ The indicator will blink green, and the movie will record to the memory card.
- ▶ Shooting will automatically stop when the memory card fills.

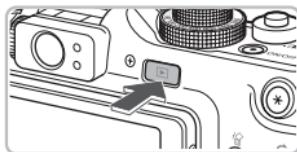
Estimated Shooting Times

Memory Card	2 GB	8 GB
Shooting Time	22 min. 45 sec.	1 hr. 30 min. 57 sec.

- Shooting times are based on default settings.
- Recording will automatically stop when either the clip file size reaches 4 GB or the recording time reaches approximately 1 hour.
- Recording may stop even if the maximum clip length has not been reached on some memory cards. SD Speed Class 4 or higher memory cards are recommended.

Viewing Movies

You can view your movies on the screen.



1 Enter Playback mode.

- Press the **PLAY** button.
- ▶ The last image you shot will appear.
- ▶ **SET** appears on movies.

2 Choose a movie.

- Press the **◀▶** buttons or turn the **(FUNC SET)** dial to choose a movie, then press the **(FUNC SET)** button.
- ▶ The movie control panel will appear on the screen.

3 Play the movie.

- Press the **◀▶** buttons or turn the **(FUNC SET)** dial to choose **▶** (Play), then press the **(FUNC SET)** button.
- ▶ The movie will play.
- You can pause/resume the movie by pressing the **(FUNC SET)** button again.
- Press the **▲▼** buttons to adjust the volume.
- ▶ After the movie finishes, **SET** appears.



When watching a movie on a computer, frames may drop, it may not play smoothly, and the audio may stop suddenly depending on the computer's capabilities.

If you use the supplied software to copy the movie back onto the memory card, you can play back the movie smoothly with the camera. For enhanced playback you can also connect the camera to a TV.

Transferring Images to a Computer

You can use the included software to transfer your camera images to a computer. If you are already using ZoomBrowser EX/ImageBrowser/Digital Photo Professional, install the software from the included CD-ROM, overwriting your current installation.

System Requirements

Windows

OS	Windows Vista (including Service Pack 1 and 2) Windows XP Service Pack 2, Service Pack 3	
Computer model	The above OS should be pre-installed on computers with built-in USB ports.	
CPU	Viewing images	Pentium 1.3 GHz or higher
	Viewing movies	Core2 Duo 1.66 GHz or higher
RAM	1 GB or more	
Interface	USB	
Free Hard Disk Space	ZoomBrowser EX: 200 MB or more* PhotoStitch: 40 MB or more Digital Photo Professional: 200 MB or more	
Display	1,024 x 768 pixels or higher	

* For Windows XP, Microsoft .NET Framework 3.0 or later (max. 500 MB) must be installed. Installation may take some time depending on your computer's capabilities.

Macintosh

OS	Mac OS X (v10.4 – v10.5)	
Computer model	The above OS should be pre-installed on computers with built-in USB ports.	
CPU	Viewing images	PowerPC G4/G5 or Intel Processor
	Viewing movies	Core Duo 1.66 GHz or higher
RAM	1 GB or more	
Interface	USB	
Free Hard Disk Space	ImageBrowser: 300 MB or more PhotoStitch: 50 MB or more Digital Photo Professional: 200 MB or more	
Display	1,024 x 768 pixels or higher	

Preparations

Windows Vista and Mac OS X (v10.5) are used for these explanations.

1 Install the software.



Windows

① Place the DIGITAL CAMERA Solution Disk in the computer's CD-ROM drive.

- Place the supplied CD-ROM (DIGITAL CAMERA Solution Disk) (p. 2) into the computer's CD-ROM drive.

② Begin installation.

- Click [Easy Installation] and follow the onscreen instructions to proceed with the installation.
- If the [User Account Control] window appears, follow the on-screen instructions to proceed.

③ When the install finishes, click [Restart] or [Finish].

④ Remove the CD-ROM.

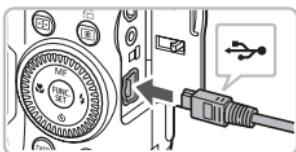
- Remove the CD-ROM when your desktop screen appears.

Macintosh

- Place the CD-ROM in the computer's CD-ROM drive and double-click the  icon.
- Click [Install], and follow the onscreen instructions to proceed with the installation.

2 Connect the camera to the computer.

- Turn off the camera.



- Using the procedures from Step 2 on p. 30, connect the camera to the computer using the supplied interface cable.

3 Turn on the camera.

- Press the  button to turn on the camera.

4 Open CameraWindow.



Windows

- Click [Downloads Images From Canon Camera using Canon CameraWindow].
▶ CameraWindow will appear.
- If CameraWindow does not appear, click the [Start] menu and choose [All Programs], followed by [Canon Utilities], [CameraWindow], [CameraWindow], [CameraWindow].

Macintosh

- ▶ CameraWindow will appear when you establish a connection between the camera and computer.
- If CameraWindow does not appear, click the CameraWindow icon on the Dock (the bar which appears at the bottom of the desktop).

Transfer Images



- Click [Import Images from Camera], and then click [Import Untransferred Images].
▶ All images that have not yet been transferred will transfer to your computer. Transferred images will be sorted by date and saved in separate folders in the Pictures folder.

- After the transfer finishes, click [×] to close CameraWindow, then turn off the camera and unplug the cable.
- For further operations, refer to the *Software Guide*.



Changing the software that displays after images have been transferred



You can choose the software that displays after images have been transferred. Click the icon in the upper right corner of CameraWindow, then click [Import] in the screen that appears. Then, choose the [After Import] tab.

After making your settings, press [OK] and close the [Preferences] screen. Click the [×] icon in the upper right corner of Camera Window to start the selected software.



You can transfer images without installing the included software by simply connecting your camera to a computer. There are, however, the following limitations.

- After connecting to the camera, it may take a few minutes until you can transfer images.
- The camera information may not display correctly.
- Movies will not transfer correctly.
- Images shot vertically may be transferred in the horizontal orientation.
- Protection settings for images may be lost when transferred to a computer.
- RAW images or JPEG images recorded at the same time as RAW images may not transfer.
- There may be problems transferring images or image information correctly depending on the version of the operating system in use, the file size, or the software in use.

Accessories

Supplied with Camera



Neck Strap
NS-DC9



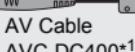
Battery Pack
NB-7L*¹
(with Terminal Cover)



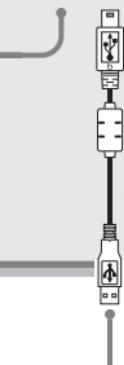
Battery Charger
CB-2LZ/CB-2LZE*¹



DIGITAL CAMERA
Solution Disk



AV Cable
AVC-DC400*¹



Interface Cable IFC-400PCU*¹

AC Adapter Kit
ACK-DC50



Compact Power Adapter
CA-PS700



DC Coupler
DR-50



Power Cord

Canon-Brand PictBridge
Compliant Printers*²



Compact Photo Printers
(SELPHY series)



Inkjet Printers (PIXMA series)

Memory Card



Card Reader



Windows/
Macintosh

CAUTION

RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE.
DISPOSE OF USED BATTERIES ACCORDING TO LOCAL REGULATION.

*1 Also available for purchase separately.

*2 See the user guide supplied with the printer for more information on the printer and interface cables.

*3 Speedlite 430EX and 580EX may also be used.



Speedlite
220EX/270EX/
430EX II*³/580EX II*³



Speedlite Bracket
SB-E2



Speedlite Transmitter
ST-E2



Macro Twin Lite
MT-24EX



Macro Ring Lite
MR-14EX



Off Camera
Shoe Cord OC-E3



Bracket
BKT-DC1



High-Power Flash
HF-DC1



Tele-converter
TC-DC58D



Conversion Lens
Adapter
LA-DC58K



Ring Accessory Kit
RAK-DC2



Remote Switch
RS60-E3



Waterproof Case
WP-DC34



Canon Waterproof
Case Weight
WW-DC1

Soft Case SC-DC65
series

Video IN Terminal



TV/Video

Audio IN Terminal



HDMI Cable HTC-100



High-Definition TV

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.

Separately Sold Accessories

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

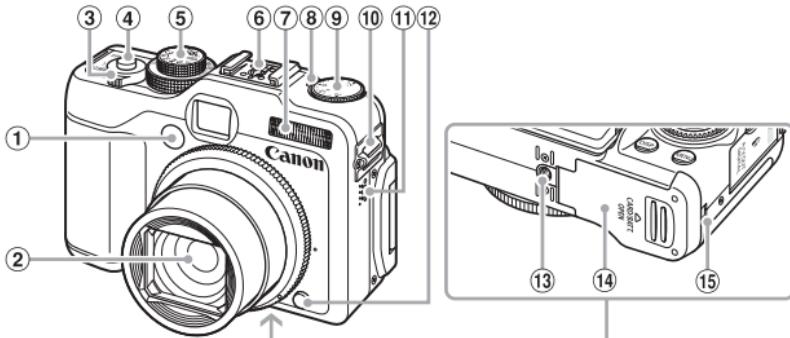
- **Speedlite 220EX/270EX/430EX II*/580EX II***: Speedlites for Canon EOS models. Subjects are optimally illuminated for crisp, natural images. (430EX and 580EX may also be used.)
- **Speedlite Bracket SB-E2**: Prevents unnatural shadows from appearing on the sides of objects when shooting from a vertical position, and is useful for shooting portraits. The Off Camera Shoe Cord OC-E3 is supplied with this bracket.
- **Speedlite Transmitter ST-E2**: Allows the wireless control of slave (remote) Speedlite flashes (except the Speedlite 220EX and 270EX).
- **Macro Twin Lite MT-24EX/Macro Ring Lite MR-14EX**: Specially designed for a wider range of macro shooting with a flash. The Conversion Lens Adapter LA-DC58K, Off Shoe Camera Cord OC-E3, and Bracket BKT-DC1 (all sold separately) are required to attach these flashes to the camera.
- **Off Camera Shoe Cord OC-E3**: Allows you to use a Speedlite up to 60 cm (2.0 ft.) away from the camera.
- **Bracket BKT-DC1**: Used to attach a Macro Ring Lite or Macro Twin Lite flash to the camera.
- **High-Power Flash HF-DC1**: This attachable supplementary flash can be used to capture photographic subjects that are too distant for the built-in flash to illuminate.
- **Tele-converter TC-DC58D**: Allows shooting at a focal length approximately 1.4x that of the camera itself.
- **Conversion Lens Adapter LA-DC58K**: Required for attaching the teleconverter, Macro Ring Lite or Macro Twin Lite flash to the camera.
- **Ring Accessory Kit RAK-DC2**: A set of lens rings in three different colors.
- **Remote Switch RS60-E3**: Connecting the remote switch to the camera allows you to release the shutter button without touching the camera, thereby reducing the risk of camera shake.
- **Waterproof Case WP-DC34**: Use this case to take underwater shots at depths of up to 40 meters (130 ft.), or to shoot in the rain, at the beach, or on the ski slopes.
- **Soft Case SC-DC65 series**: Handle with care as the case's leather material may discolor.
- **HDMI Cable HTC-100**: Used to connect the camera to the HDMI™ terminal on a high-definition TV set.
- **AC Adapter Kit ACK-DC50**: Lets you power the camera using household power when using the camera for an extended period of time or when connecting to a computer or printer. Cannot be used to charge the battery inside the camera.
- **Battery Charger CB-2LZ/CB-2LZE**
- **Battery Pack NB-7L**

2

Learning More

This chapter explains the parts of the camera and what appears on the screen, as well as the basic operating instructions.

Components Guide



- ① Lamp (Self-Timer Lamp (p. 68) / AF Assist Beam (p. 152) / Red-Eye Reduction Lamp (p. 153))
- ② Lens
- ③ Zoom Lever
Shooting: (Telephoto) / (Wide Angle) (p. 25)
Playback: (Magnify) / (Index) (p. 122)
- ④ Shutter Button (p. 24)
- ⑤ Mode Dial
- ⑥ Hot Shoe (p. 167)
- ⑦ Flash (pp. 63, 73)
- ⑧ Exposure Compensation Lamp (p. 73)
- ⑨ Exposure Compensation Dial (p. 73)
- ⑩ Strap Mount (p. 13)
- ⑪ Speaker
- ⑫ Ring Release Button (pp. 163, 169)
- ⑬ Tripod Socket
- ⑭ Memory Card / Battery Cover (p. 16)
- ⑮ DC Coupler Cable Cover (p. 162)

Mode Dial

Use the mode dial to change the Shooting mode.

P, Tv, Av, M, C1, C2 Mode

You can make settings such as the shutter speed and aperture value in order to take the picture you want (pp. 72, 100, 101, 102, 108).

Auto Mode

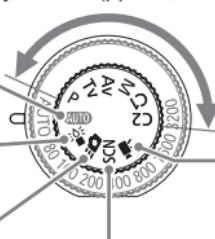
You can leave it to the camera to select settings (p. 25).

Low Light Mode

Allows you to shoot in dimly lit places with reduced camera shake and subject blur (p. 60).

Quick Shot Mode

Use the viewfinder to shoot without missing a great shot (p. 61).

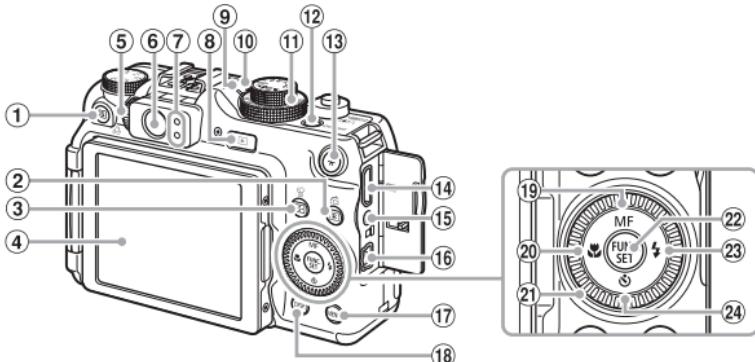


Movie Mode

For shooting movies (p. 31).

Special Scene Mode

The camera can automatically select all settings appropriate for the conditions so that you can take images just by pressing the shutter button (p. 56).



- | | |
|--|--|
| ① (Short Cut) (p. 156) / (Direct Print) (p. 30) Button | ⑬ (AE Lock (pp. 96, 116) / FE Lock (p. 97)) Button |
| ② (Light Metering) (p. 93) / (p. 123) Button | ⑭ HDMI Terminal (p. 129) |
| ③ (AF Frame Selector) (pp. 88, 89) / (Single Image Erase) (p. 29) Button | ⑮ Remote Terminal (p. 166) |
| ④ Screen (LCD Monitor) (pp. 19, 44) | ⑯ A/V OUT (Audio/Video Output) DIGITAL Terminal (p. 128) |
| ⑤ Diopter Adjustment Dial (p. 85) | ⑰ MENU (Menu) Button (p. 49) |
| ⑥ Viewfinder (p. 85) | ⑱ DISP. (Display) Button (p. 45) |
| ⑦ Indicators (p. 47) | ⑲ MF (Manual Focus) (p. 94) / ▲ Button |
| ⑧ (Playback) Button (pp. 28, 121) | ⑳ (Macro) (p. 77) / ◀ Button |
| ⑨ ISO Speed Lamp (p. 78) | ㉑ Control Dial (p. 43) |
| ⑩ Microphone (p. 32) | ㉒ FUNC./SET (Function/Set) Button (p. 48) |
| ⑪ ISO Speed Dial (p. 78) | ㉓ (Flash) (pp. 63, 73) / ▶ Button |
| ⑫ Power Button / Power Lamp (p. 47) | ㉔ (Self-Timer) (pp. 67, 68) / ▼ Button |

Control Dial

Turning the control dial allows you to perform operations such as choosing items or switching images.

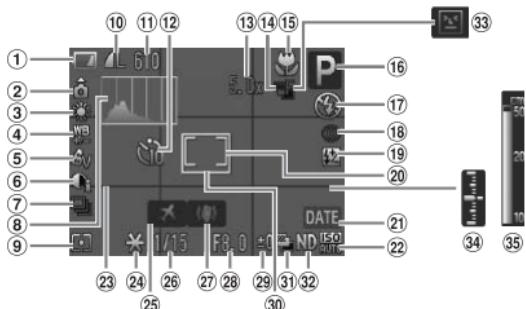


Button

When the lens is extended, you can switch between Shooting and Playback modes. When the lens is retracted, you can use this button to turn the camera on and off in Playback mode.

Information Displayed on the Screen

Shooting (Information Display)



- ① Battery Charge Indicator (p. 15)
- ② Camera Orientation* (p. 15)
- ③ White Balance (p. 79)
- ④ White Balance Correction (p. 80)
- ⑤ My Colors (p. 82)
- ⑥ i-Contrast (p. 103)
- ⑦ Drive Mode (p. 81)
- ⑧ Histogram (p. 46)
- ⑨ Metering Modes (p. 93)
- ⑩ Compression (p. 74), Recording Pixels (p. 74)
- ⑪ Recordable Shots (p. 18), Remaining Time / Elapsed Time (p. 32)
- ⑫ Self-Timer (pp. 67, 68, 83, 84)
- ⑬ Digital Zoom Magnification (p. 64) / Digital Tele-Converter (p. 65)
- ⑭ Focus Bracketing (p. 95)
- ⑮ Macro (p. 77), Manual Focus (p. 94)
- ⑯ Shooting Mode
- ⑰ Flash Mode (pp. 63, 73, 99)
- ⑱ Red-Eye Correction (p. 104)
- ⑲ Flash Exposure Compensation (p. 105), Flash Output (p. 106)
- ⑳ Spot AE Point Frame (p. 93)
- ㉑ Date Stamp (p. 66)
- ㉒ ISO Speed (p. 78)
- ㉓ Grid Lines (p. 154)
- ㉔ AE Lock (pp. 96, 116), FE Lock (p. 97)
- ㉕ Time Zone (p. 150)
- ㉖ Shutter Speed
- ㉗ Image Stabilizer (p. 155)
- ㉘ Aperture Value (pp. 101, 102)
- ㉙ Exposure Compensation (p. 73)
- ㉚ AF Frame (p. 26)
- ㉛ AEB Shooting (p. 98)
- ㉜ ND Filter (p. 99)
- ㉝ Blink Detection (p. 107)
- ㉞ Exposure Level Indicator (p. 102)
- ㉟ MF Indicator (p. 94)

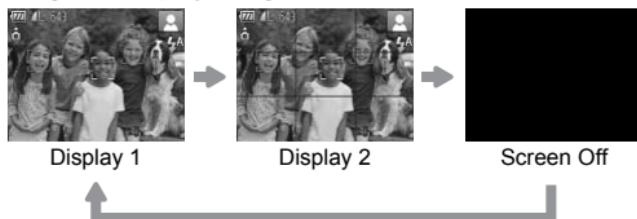
* : Standard, : Held vertically

When shooting, the camera detects if it is held vertically or horizontally, and adjusts settings accordingly for the best shot. It also detects orientation during playback, so you can hold the camera in either orientation and it will automatically rotate images for correct viewing.

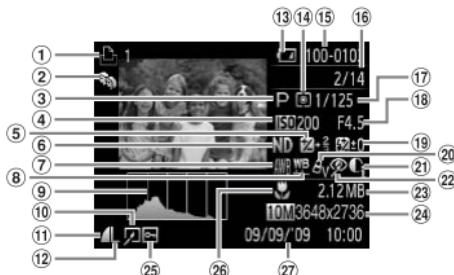
This function may not operate correctly when the camera is pointed straight up or down.

Switching the Display

You can change the display using the DISP. button.



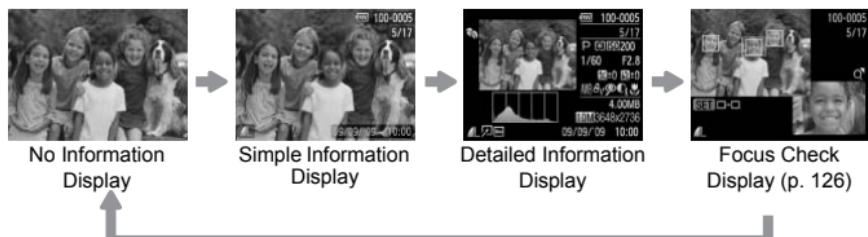
Playback (Detailed Information Display)



- | | | |
|--|---|--|
| ① Print List (p. 143) | ⑫ Recording Pixels (p. 74) | ㉐ My Colors (pp. 82, 140) |
| ② My Category (p. 135) | ⑬ Battery Charge Indicator (p. 15) | ㉑ i-Contrast (pp. 103, 141) |
| ③ Shooting Mode | ⑭ Metering Modes (p. 93) | ㉒ Red-Eye Correction (pp. 104, 142) |
| ④ ISO Speed (p. 78) | ⑮ Folder Number – File Number (p. 148) | ㉓ File Size (p. 74) |
| ⑤ Exposure Compensation (p. 73) / Exposure Shift Amount (p. 116) | ⑯ Displayed image number / Total number of images | ㉔ Still Images: Recording Pixels (p. 74) |
| ⑥ ND Filter (p. 99) | ⑰ Shutter Speed (pp. 100, 102) | Movies: Movie Length (p. 115) |
| ⑦ White Balance (p. 79) | ⑱ Aperture Value, Image Quality (Movies) (p. 115) | ㉕ Protect (p. 130) |
| ⑧ White Balance Correction (p. 80) | ⑲ Flash Exposure Compensation (p. 105), Flash Output (p. 106) | ㉖ Macro (p. 77), Manual Focus (p. 94) |
| ⑨ Histogram (p. 46) | | ㉗ Shooting Date and Time |
| ⑩ Image Editing (pp. 138 – 142) | | |
| ⑪ Compression (p. 74), MOV (Movies) | | |

Switching the Display

You can change the display using the DISP. button.



You can also switch the display by pressing the DISP. button while the image displays shortly after shooting. However, Simple Information will not display. You can set the display that appears first. Press the MENU button to choose the **Review Info**.

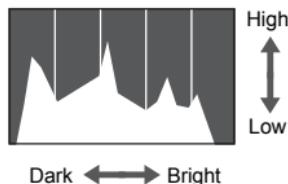
Display in Dark Conditions during Shooting

The display automatically brightens when shooting in dark conditions, allowing you to check the composition (Night Display function). However, the brightness of the image on the screen, and the brightness of the actual image recorded may be different. Screen noise may appear and the movement of the subject may appear somewhat jagged on the screen. This has no effect on the recorded image.

Overexposure Warning during Playback

In "Detailed Information Display" (p. 45), overexposed areas of the image flash on the screen.

Histogram



Dark ← → Bright

- The graph that appears in "Detailed Information Display" (p. 45) is called the histogram. The histogram shows the distribution and amount of brightness of an image. When the graph approaches the right side, the image is bright, but when it approaches the left side, the image is dark, and in this way you can judge the exposure.

The histogram can also be displayed while shooting (p. 154).

Indicators

The indicators on the back of the camera (p. 43) and the power lamp (p. 43) will light or blink depending on the camera's status.

	Color	Status	Operation Status
Upper indicator	Green	Lit	Camera ready (p. 26) / Display off (p. 150)
		Blinking	Recording an image / Reading data / Transmitting data (p. 25)
	Orange	Lit	Shooting preparation complete (flash on) (p. 25)
		Blinking	Camera shake warning (p. 63)
Lower indicator	Yellow	Lit	 (p. 77), Manual focus (p. 94), AF lock (p. 91)
		Blinking	Proximity warning (p. 27) / Cannot focus (p. 176)
Power lamp	Green	Lit	Power on
		Blinking	Battery depleted (p. 15)



When the indicator blinks green, data is being recorded/read or various information is being transmitted. Do not turn off the power, open the memory card slot/battery cover, shake or jolt the camera. These actions may corrupt the image data or cause the camera or memory card to malfunction.

FUNC. Menu – Basic Operations

Commonly used shooting functions can be set with the FUNC. menu. The menu items and options differ depending on the mode (pp. 180 – 183).



1 Choose a shooting mode.

- Set the mode dial to the desired shooting mode.



2 Display the FUNC. menu.

- Press the **FUNC. SET** button.



3 Choose a menu item.

- Press the **▲▼** buttons to choose a menu item.
 - The available options for the menu item appear in the lower part of the screen.



4 Choose an option.

- Press the **◀▶** buttons or turn the **(○)** dial to choose an option.
- You can also choose settings by pressing the **DISP.** button on options that display **DISP.**.



5 Make the setting.

- Press the **FUNC. SET** button.
 - The shooting screen will reappear and the setting you chose will display on the screen.

Menu – Basic Operations

Various functions can be set from the menus. The menu items are organized under tabs, such as for shooting (CAMERA) and playback (PLAY). The available menu items differ depending on the mode (pp. 182 – 185).



1 Display the menu.

- Press the MENU button.

2 Choose a tab.

- Press the $\blacktriangle\blacktriangleright$ buttons, or move the zoom lever (p. 42) left or right to choose a tab.

3 Choose a menu item.

- Press the $\blacktriangle\blacktriangledown$ buttons or turn the \odot dial to choose a menu item.
- Some items require you to press the FUNCSET button or \blacktriangleright button to display a submenu in which you change the setting.

4 Choose an option.

- Press the $\blacktriangle\blacktriangleright$ buttons to choose an option.

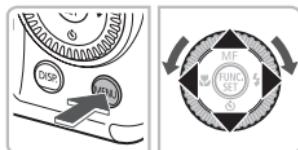
5 Make the setting.

- Press the MENU button.
▶ The normal screen will reappear.

Changing the Sound Settings

You can silence or adjust the volume of camera sounds.

Muting Sounds



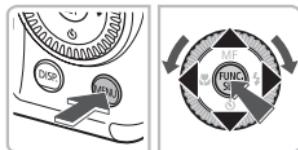
1 Display the menu.

- Press the **MENU** button.

2 Choose [Mute].

- Press the **◀▶** buttons to choose the **¶** tab.
- Press the **▲▼** buttons or turn the **(○)** dial to choose [Mute], then press the **◀▶** buttons to choose [On].

Adjusting the Volume



1 Display the menu.

- Press the **MENU** button.

2 Choose [Volume].

- Press the **◀▶** buttons to choose the **¶** tab.
- Press the **▲▼** buttons or turn the **(○)** dial to choose [Volume], then press the **FUNC./SET** button.

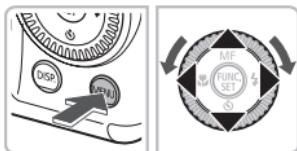
3 Change the volume.

- Press the **▲▼** buttons or turn the **(○)** dial to choose an item, then press the **◀▶** buttons to adjust the volume.

Changing the Screen Brightness

The screen brightness can be changed in two ways.

With the Menu



1 Display the menu.

- Press the MENU button.

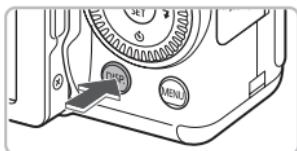
2 Choose [LCD Brightness].

- Press the $\blacktriangle\blacktriangleright$ buttons to choose the FT tab.
- Press the $\blacktriangle\blacktriangledown$ buttons or turn the \odot dial to choose [LCD Brightness].

3 Change the brightness.

- Press the $\blacktriangle\blacktriangleright$ buttons to change the brightness.
- Press the MENU button again to complete the setting.

With the DISP. Button



- Press the DISP. button for more than one second.

► The screen increases to maximum brightness regardless of the setting in the FT tab.

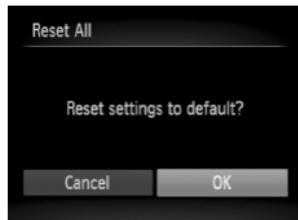
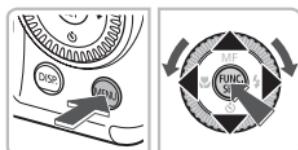
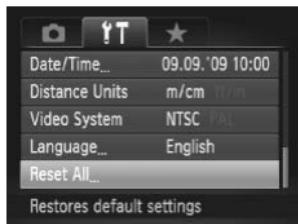
- Pressing the DISP. button again for more than one second will return the screen to the original brightness.



- The next time you turn on the camera, the screen will be at the brightness setting chosen in the FT tab.
- When you have set the brightness to its highest setting in the FT tab, you cannot change the brightness with the DISP. button.

Returning the Camera to Default Settings

When you have mistakenly changed a setting, you can reset the camera to the default settings.



1 Display the menu.

- Press the MENU button.

2 Choose [Reset All].

- Press the $\blacktriangle\blacktriangleright$ buttons to choose the tab.
- Press the $\blacktriangle\blacktriangledown$ buttons or turn the dial to choose [Reset All], then press the button.

3 Reset the settings.

- Press the $\blacktriangle\blacktriangleright$ buttons or turn the dial to choose [OK], then press the button.
▶ The camera will reset to the default settings.

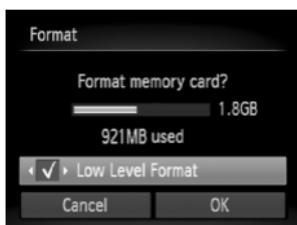
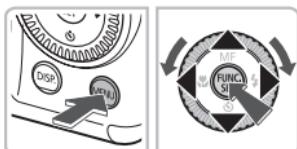


Are there functions that cannot be reset?

- In the tab, [Date/Time] (p. 20), [Language] (p. 22), [Video System] (p. 128), [Time Zone] (p. 150), and the image registered as [Start-up Image] (p. 159).
- The saved data for custom white balance (p. 79).
- Colors that were chosen in Color Accent (p. 109) or Color Swap (p. 110).
- ISO speed (p. 78) or exposure compensation (p. 73) values.

Low Level Memory Card Formatting

Perform low level formatting when you think that the recording/reading speed of a memory card has dropped. As you cannot retrieve the erased data, exercise adequate caution before low level formatting the memory card.



1 Display the menu.

- Press the MENU button.

2 Choose [Format].

- Press the **◀▶** buttons to choose the **FT** tab.
- Press the **▲▼** buttons or turn the **(○)** dial to choose [Format], then press the **FUNC/SET** button.

3 Perform the low level format.

- Press the **▲▼** buttons or turn the **(○)** dial to choose [Low Level Format], then press the **◀▶** buttons to display **✓**.
- Press the **▲▼◀▶** buttons or turn the **(○)** dial to choose [OK], then press the **FUNC/SET** button.

► Low level formatting starts.



About low level formatting

When the [Memory card error] message appears, or when the camera does not work correctly, low level formatting the memory card may solve the problem. Copy the images from the memory card to a computer or other device before low level formatting.



- Low level formatting may take longer than standard formatting (p. 23), since all recorded data are erased.
- You can stop a low level format of a memory card by choosing [Stop]. When stopping low level formatting, the data will be erased but the memory card can be used without problem.

Power Saving Function (Auto Power Down)

To save battery power, the camera shuts down automatically when it is not operated for a certain time.

Power Saving during Shooting

The monitor will turn off approximately 1 minute after the camera is last operated. After about 2 more minutes, the lens will retract and the power will turn off. When the monitor has turned off but the lens has not yet retracted, pressing the shutter button halfway (p. 24) turns on the monitor and shooting can continue.

Power Saving during Playback

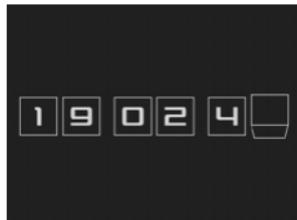
The power will turn off approximately 5 minutes after the camera is last operated.



- You can turn off the Power Saving Function (p. 149).
- You can adjust the time before the monitor turns off (p. 150).

Clock Functions

You can check the current time.



- Press and hold the button.
- ▶ A screen like that on the left appears showing the current time.
- If you hold the camera vertically while using the clock function, it will switch to vertical display. Press the or buttons or turn the dial to change the display color.
- Press the button to cancel the clock display.



When the camera power is off, press and hold the button, then press the power button to display the clock.

3

Shooting in Special Conditions and Commonly Used Functions

This chapter explains how to shoot in different conditions, as well as how to use common functions, such as the flash and self-timer.



- When you choose a Shooting mode that matches a particular set of conditions, the camera will automatically select any necessary settings. All you need do is press the shutter button to take an optimized picture.
- This chapter assumes the mode dial is set to **AUTO** for “Turning the Flash Off” (p. 63) to “Using the Face Self-Timer” (p. 68). When shooting in a scene mode, check which functions are available in that mode (pp. 180 – 183).

Shooting in Various Conditions

The camera will select the necessary settings for the conditions in which you wish to shoot when you choose the matching mode.



1 Choose a Shooting mode.

- Set the mode dial to **SCN**.



- Turn the dial to choose a shooting mode.

2 Shoot.



Take portraits (Portrait)

- Produces a soft effect when photographing people.



Take landscapes (Landscape)

- Lets you shoot majestic landscapes.



Take snapshots at night (Night Snapshot)

- Lets you take beautiful snapshots of people against city nightscapes or night backgrounds.
- If you hold the camera firmly, you can take pictures with reduced camera shake, even without a tripod.



✿ Take shots of kids and pets (Kids&Pets)

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



✿ Take indoor shots (Indoor)

- Lets you shoot indoors with natural colors.



✿ Take shots of moving subjects (Sports)

- Shoots continuous images while focusing automatically.



✿ Shoot sunsets (Sunset)

- Lets you take shots of sunsets in vivid colors.



In **FL**, **✿**, **✿** or **✿** mode, images may appear coarse because the ISO speed (p. 78) is increased to match the shooting conditions.



Take nightscapes (Night Scene)

- Lets you take beautifully lit city nightscapes or night backgrounds.
- You can also take beautifully lit pictures of people along with the backgrounds due to the slower shutter speed.



Take shots of fireworks (Fireworks)

- Lets you take shots of fireworks in vivid colors.



Take shots of people at the beach (Beach)

- Lets you take bright shots of people on sandy beaches where the reflected sunlight is strong.



Shoot Underwater

- While using the Waterproof Case WP-DC34, you can shoot underwater landscapes and creatures with natural tones.



Take shots of aquatic life in an aquarium (Aquarium)

- Lets you take natural-colored shots of aquatic life in indoor aquariums.



Take shots of foliage (Foliage)

- Lets you shoot trees and leaves, such as new growth, autumn leaves or blossoms, in vivid colors.



Take shots of people in snow (Snow)

- Lets you take bright, natural-colored shots of people against snowy backgrounds.



- In or mode, images may appear coarse because the ISO speed (p. 78) is increased to match the shooting conditions.
- In mode, make sure the subject does not move until the shutter sound plays, even after the flash fires.
- In or mode, attach the camera to a tripod to prevent the camera from moving and blurring the image. Additionally, you are recommended to set [IS Mode] to [Off] (p. 155).

Shooting in Mode (Low Light Mode)

The ISO speed will be set automatically between ISO320 and ISO12800. Depending on the scene, the ISO speed will be set higher and the shutter speed faster than in **AUTO** mode so that you can shoot in dark places with reduced camera shake and subject blur.

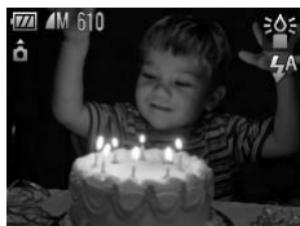
Recommended for shooting in candlelight or similarly lit scenes.



1 Set the camera to  mode.

- Set the mode dial to .

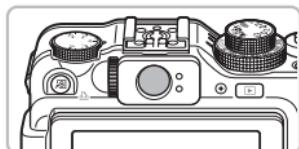
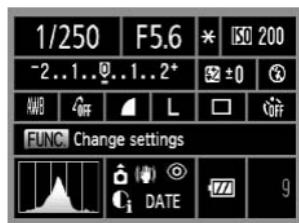
2 Shoot.



In Low Light mode, recording pixels are fixed to **M** size (1824 x 1368).

Shooting in (Quick Shot Mode)

Use the viewfinder (p. 43) to shoot. The camera continuously adjusts the focus and exposure on the subject in the viewfinder, so you never miss a great shot.



1 Set the camera to mode.

- Set the mode dial to .
- ▶ The screen in Step 2 displays.

2 Adjust the settings.

- After pressing the  button, press the , , , and  buttons to choose an item.
- Turn the  dial to choose an option, then press the  button.
- Pressing the **DISP.** button will turn off the display. Press once more to restore the display.

3 Adjust the focus and exposure.

- Arrange your subject in the viewfinder.
- ▶ If a face is detected, the focus and exposure will be adjusted to the face.
- ▶ If no faces are detected, the focus and exposure will be adjusted to the subject in the center of the viewfinder.

4 Shoot.

- When you want to take a picture, press the shutter button halfway, then quickly press the shutter button fully.
- ▶ The image will be displayed on the screen.

Approximate Number of Shots That Can Be Taken in Mode

In  mode, the camera is continuously adjusting focus and exposure, rapidly depleting the battery. The approximate number of shots that can be taken is 340 (p. 15).

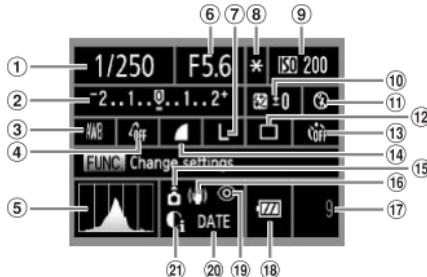


The area visible in the viewfinder may differ slightly from the recorded image.



- Once the shutter button is pressed halfway, the focus will be locked (p. 86).
- You cannot use the screen when shooting. Use the viewfinder for shooting.

Settings Screen



- | | | |
|-------------------------------------|--|------------------------------------|
| ① Shutter Speed (pp. 100, 102) | ⑨ ISO Speed (p. 78) | ⑯ Camera Orientation (p. 44) |
| ② Exposure Compensation (p. 73) | ⑩ Flash Exposure Compensation (p. 105) | ⑰ Image Stabilizer (p. 155) |
| ③ White Balance (p. 79) | ⑪ Flash Mode (pp. 63, 73) | ⑱ Recordable Shots (p. 18) |
| ④ My Colors (p. 82) | ⑫ Drive Mode (p. 81) | ⑲ Battery Charge Indicator (p. 15) |
| ⑤ Histogram (p. 46) | ⑬ Self-Timer (pp. 67, 68, 83, 84) | ⑳ Red-Eye Correction (p. 104) |
| ⑥ Aperture Value (pp. 101, p. 102) | ⑭ Compression (Image Quality) (p. 74) | ㉑ Date Stamp (p. 66) |
| ⑦ Recording Pixels (p. 74) | | ㉒ i-Contrast (p. 103) |
| ⑧ AE Lock (p. 96) / FE Lock (p. 97) | | |



Functions other than those listed on the setting screen or those accessible by pressing the **MENU** button are not available (p. 182).

Turning the Flash Off

You can shoot with the flash turned off.



1 Press the ▶ button.



2 Choose .

- Press the  and  buttons or turn the  dial to choose  button.
 will appear on the screen.
- Follow the steps above to return the setting to .



What if the indicator blinks orange and a flashing  appears?

When you press the shutter button halfway in low light conditions where camera shake is likely, the indicator will blink orange and a flashing  will appear on the screen. Attach the camera to a tripod to prevent it from moving.

Zooming in More Closely on Subjects (Digital Zoom)

You can use the digital zoom to zoom up to a maximum of 20x and capture subjects that are too far away for the optical zoom (p. 25) to enlarge. The images may appear coarse, however, depending on the recording pixel setting (p. 74) and the zoom factor used.



1 Move the zoom lever toward [].

- Hold the lever until zooming stops.
► The zoom will stop when the largest possible zoom factor without image deterioration has been reached, and the zoom factor will appear.



2 Move it toward [] again.

- The digital zoom will zoom in even further on the subject.

Zoom Factors at which Images Deteriorate

Recording Pixels	Optical Zoom (28 – 140 mm)*	Digital Zoom (140 – 560 mm)*
L	5.0x →	
M1	5.0x →	
M2	7.0x →	
M3		11x →
S		20x →

: No image deterioration (zoom factor appears white)

: Image deterioration (zoom factor appears blue)

→ : Maximum zoom factor without deterioration (Safety Zoom)

* Focal length (35mm equivalent)



Turning off the digital zoom

To turn off the digital zoom, press the **MENU** button, choose the **[]** tab, and choose [Digital Zoom] and the [Off] option.

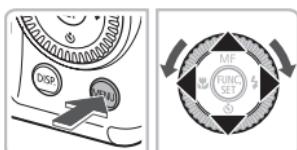


Not available when shooting in **W** and **RAW**.

Digital Tele-Converter

The focal length of the lens can be increased by an equivalent of 1.4x or 2.3x. This enables a faster shutter speed and less chance of camera shake than the zoom (including digital zoom) used by itself at the same zoom factor.

The images may appear coarse, however, depending on the combination of recording pixel (p. 74) and digital tele-converter settings used.



1 Choose [Digital Zoom].

- Press the **MENU** button and choose the **camera** tab, then choose [Digital Zoom].

2 Accept the setting.

- Press the **◀▶** buttons to choose [1.4x] or [2.3x].
- Pressing the **MENU** button will restore the shooting screen.
- ▶ The view will be enlarged and the zoom factor will appear on the screen.
- To return to standard digital zoom, choose [Digital Zoom] and the [Standard] option.

Combinations that Cause Image Deterioration

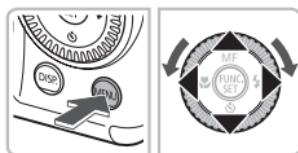
- Using [1.4x] at a recording pixel setting of **L** or **M1** will cause image deterioration (the zoom factor will display in blue).
- Using [2.3x] at a recording pixel setting of **L**, **M1** or **M2** will cause image deterioration (the zoom factor will display in blue).



- The respective focal lengths when using [1.4x] and [2.3x] are 39.2 – 196 mm and 64.4 – 322 mm (35mm film equivalent).
- The digital tele-converter cannot be used together with the digital zoom.
- Not available when shooting in **W** and **RAW**.

Inserting the Date and Time

You can insert the shooting date and time in the lower right corner of an image. Once inserted, however, they cannot be deleted. Be sure to check beforehand that the date and time are correctly set (p. 20).



09/09/2009

1 Choose [Date Stamp].

- Press the MENU button.
- Press the $\blacktriangle\blacktriangleright$ buttons to choose the **camera** tab, then press the $\blacktriangle\blacktriangledown$ buttons or turn the dial to choose [Date Stamp].

2 Accept the setting.

- Press the $\blacktriangle\blacktriangleright$ buttons to choose [Date] or [Date & Time].
- Press the MENU button again to complete the setting.
 - [DATE] will appear on the screen.

3 Shoot.

- The shooting date and time will be recorded in the image's lower right corner.
- To restore to the original setting, choose [Off] in Step 1.



Inserting and printing the date and time in images without an embedded date and time

- Use the DPOF print settings (p. 144) to print.
- Use the included software to print.
Refer to the *Software Guide* for details.
- Connect the camera to a printer to print.
Refer to the *Personal Printing Guide* for details.



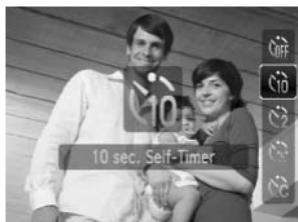
The date cannot be recorded onto **RAW** images.

Using the Self-Timer

The self-timer can be used to shoot a group photo that includes the camera operator. The camera will activate approximately 10 seconds after the shutter button is pressed.



1 Press the ▼ button.



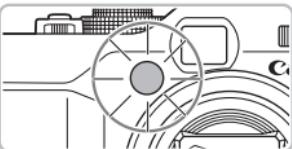
2 Choose 10 .

- Press the $\blacktriangle\blacktriangledown$ buttons or turn the \odot dial to choose 10 , then press the FUNC/SET button.
- ▶ Once set, 10 will appear.



3 Shoot.

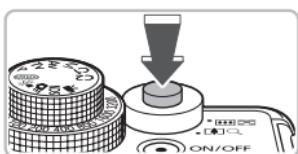
- Press the shutter button halfway to focus on the subject, then press it fully.
- ▶ When the self-timer starts, the lamp blinks and the self-timer sound plays.
- ▶ Two seconds before the shutter releases, the lamp and sound speed up (the lamp remains lit when the flash will fire).
- To cancel shooting with the self-timer after countdown has started, press the \blacktriangledown button.
- To restore the original setting, choose OFF in Step 2.



You can change the delay time and number of shots (p. 84).

Using the Face Self-Timer

Once you compose the shot, such as for a group photo, press the shutter button, and enter the composition, the camera will take three shots in a row two seconds after it detects your face (p. 88).



1 Choose .

- Follow Step 2 on p. 67 and choose .

2 Compose the shot and press the shutter button halfway.

- Make sure a green frame appears on the face focused on and white frames appear on other faces.

3 Press the shutter button fully.

- The camera will enter shooting stand-by, and [Look straight at camera to start count down] will appear on the screen.
- The lamp will blink and the self-timer sound will play.

4 Join the subjects and look at the camera.

- When the camera detects a new face, the lamp and sound will speed up (the lamp remains lit when the flash will fire), and two seconds later the shutter will release.
- To cancel shooting with the self-timer after countdown has started, press the .
- The second and third shots will continue in succession.
- To restore the original setting, choose  in Step 2 on p. 67.



What if a face is not detected?

Even if your face is not detected after joining the subjects, the shutter will release approximately 30 seconds later.



Changing the number of shots

For the screen in Step 1, press the MENU button, then press the $\blacktriangleleft\blacktriangleright$ buttons or turn the \circlearrowright dial to change the number of shots. Press the FUNC/SET button to accept the setting.



4

Choosing Settings Yourself

In this chapter you will learn how to use the various functions in **P** mode to progressively advance your shooting skills.



- This chapter assumes that the mode dial is set to **P**.
- **P** stands for Program AE.
- Before attempting to shoot using a function explained in this chapter in modes other than **P** mode, check if the function is available in those modes (pp. 180 – 183).

Shooting in Program AE

You can choose the settings for various functions to suit your preferences. AE stands for Auto Exposure.



- 1 Set the mode dial to P.**
- 2 Adjust the settings according to your purposes (pp. 73 – 86).**
- 3 Shoot.**

What if the shutter speed and aperture value are displayed in orange?

If a correct exposure cannot be obtained when pressing the shutter button halfway, the shutter speed and aperture value are shown in orange. Try the following settings to obtain the correct exposure.

- Turn on the flash (p. 73)
- Choose a higher ISO speed (p. 78)

Adjusting the Brightness (Exposure Compensation)

You can adjust the standard exposure set by the camera in 1/3-stop increments in the range of -2 to +2.



1 Adjust the brightness.

- Turn the exposure compensation dial to correct the exposure.
- ▶ In shooting modes that allow exposure correction the exposure compensation lamp lights orange.
- ▶ When shooting in AEB, (p. 98), the AEB exposure compensation range will display.

Turning the Flash On

You can make the flash fire every time you shoot. At maximum wide angle, the flash range is approximately 50 cm – 7.0 m (1.6 – 23 ft.), and at maximum telephoto, it is 50 cm – 4.0 m (1.6 – 13 ft.)



1 Choose \blacktriangleleft .

- After pressing the \blacktriangleright button, press the $\blacktriangleleft\blacktriangleright$ buttons or turn the \odot dial to choose \blacktriangleleft , then press the FUNC./SET button.
- ▶ Once set, \blacktriangleleft will appear.

Changing the Recording Pixels (Image Size)

You can choose from seven recording pixels settings.



1 Choose the recording pixels.

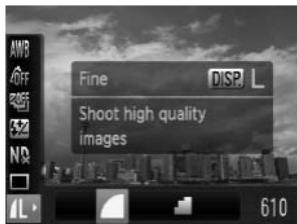
- After pressing the button, press the buttons to choose .

2 Choose an option.

- Press the buttons or turn the dial to choose an option, then press the button.
▶ The setting you chose will display on the screen.

Changing the Compression Ratio (Image Quality)

You can choose from the following two levels of compression ratio (image quality): (Fine), (Normal).



1 Choose the recording pixels.

- After pressing the button, press the buttons to choose .

2 Choose the compression ratio.

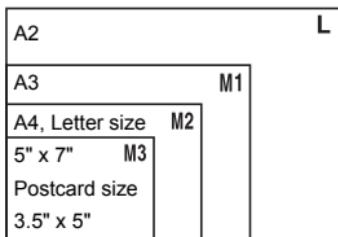
- Press the DISP. button.
- Press the buttons or turn the dial to choose an option, then press the button.
▶ The setting you chose will display on the screen.

Approximate Values for Recording Pixels and Compression Ratio

Recording Pixels	Compression Ratio	Single Image Data Size (Approx. KB)	Number of Recordable Images	
			2 GB	8 GB
L (Large) 10 M/3648 x 2736		2565	749	2994
		1226	1536	6140
M1 (Medium 1) 6 M/2816 x 2112		1620	1181	4723
		780	2363	9446
M2 (Medium 2) 4 M/2272 x 1704		1116	1707	6822
		556	3235	12927
M3 (Medium 3) 2 M/1600 x 1200		558	3235	12927
		278	6146	24562
S (Small) 0.3 M/640 x 480		150	10245	40937
		84	15368	61406
W (Widescreen) 3648 x 2048		1920	1007	4026
		918	2048	8187
RAW (RAW) 3648 x 2736	—	12825	135	540
RAW + L 3648 x 2736	—	15390	113	455

- The values in the table are measured according to Canon standards and may change depending on the subject, memory card and camera settings.

Approximate Values for Paper Size



- S** Suitable for sending images as e-mail attachments.
- W** For printing on wide size paper.

Shooting in RAW

A RAW image is raw data recorded with nearly no deterioration in image quality resulting from image processing inside the camera. You can use the supplied software to broadly adjust the image with minimal loss in image quality.



1 Choose RAW.

- Follow Steps 1 and 2 on p. 74 to choose RAW.

2 Shoot.



Differences between RAW images and JPEG images.

• JPEG images L / M1/M2/M3 / S / W

When JPEG images are recorded, the images are processed inside the camera for optimum image quality, and also compressed to allow a larger number of images to be stored on the memory card. However, the compression process is irreversible, meaning that the raw data cannot be recovered once it has been compressed. Moreover, the image processing results in a deterioration in quality.

• RAW images RAW

A RAW image is raw data recorded with nearly no deterioration in image quality resulting from image processing inside the camera. This data cannot be used as is for viewing or printing on a computer. The supplied software (Digital Photo Professional) must first be used to convert the image data to a JPEG or TIFF file. When converting the image data, you can adjust the image with minimal deterioration in image quality.

Simultaneously Recording RAW and JPEG Images

Two images, a RAW image and a JPEG image will be recorded with each shot.

Since a JPEG image is also recorded, you can print the image or view it on a computer without using the supplied software.

The file extension for RAW images is ".CR2", and the extension for JPEG images is ".JPG". The JPEG images will be recorded with L recording pixels with ■ image compression.



1 Choose [Record RAW + **AL**].

- Press the MENU button, choose [Record RAW + **AL**] from the **Camera** tab, and then press the **◀▶** buttons to choose [On].



Be sure to use the supplied software to transfer both the RAW images and the JPEG images that were recorded at the same time.

Shooting Close-ups (Macro)

You can shoot an object at a close distance or even shoot extreme close-ups of it. The shooting range is approximately 1 – 50 cm (0.4 in. – 1.6 ft.) from the end of the lens (when the zoom lever is pushed to the maximum .



1 Choose .

- Press the **◀** button to choose .
- The shooting mode will switch between  with each press.
- Once set, 

How can I take better close-ups?

- You are recommended to attach the camera to a tripod and shoot in , to prevent the camera from moving and blurring the image (p. 83).
- You can reduce the AF frame size when you want to focus on a specific portion of the subject (p. 89).



The edges of the image may darken if the flash fires.

Changing the ISO Speed



Choose the ISO speed.

- Turn the ISO speed dial to choose the ISO speed.
- ▶ When an available ISO setting is chosen, the ISO speed lamp will light orange.
- ▶ If the chosen ISO setting is not available, the ISO speed lamp will not light, and **ISO AUTO** will be automatically selected (in **M**, **ISO 80** will be selected).
- ▶ The setting you chose will display on the screen.

ISO AUTO	Automatically adjusts the ISO speed to the Shooting mode and shooting conditions.
ISO 80 ISO 100 ISO 200	Low Fine weather conditions, outdoor shooting.
ISO 400 ISO 800	Cloudy, Twilight
ISO 1600 ISO 3200	High Nightscapes, Dark interiors



Changing the ISO speed

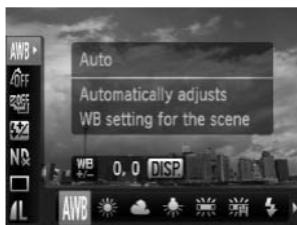
- Lowering the ISO speed results in sharper images, but there may be an increased chance of image blurring in certain shooting conditions.
- Raising the ISO speed results in a faster shutter speed, reducing camera shake and letting the flash reach greater distances to the subject. The images, however, will appear coarse. If **ISO 3200** is insufficient to reduce blurring, you are recommended to use **ISO** mode (p. 60).



- When the camera is set to **ISO AUTO**, you can press the shutter button halfway to display the automatically set ISO speed.
- In **ISO** mode, ISO speeds will automatically be set higher than in **AUTO** mode, depending on the shooting scene. (p. 60)

Adjusting the White Balance

The white balance (WB) function sets the optimal white balance for natural looking colors.



1 Choose the white balance.

- After pressing the button, press the buttons to choose .

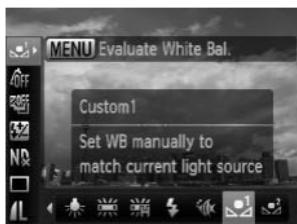
2 Choose an option.

- Press the buttons or turn the dial to choose an option, then press the .
- The setting you chose will display on the screen.

	Auto	Automatically sets the optimal white balance for the shooting conditions.
	Day Light	Fine weather conditions, outdoor shooting
	Cloudy	Cloudy, shady, twilight conditions
	Tungsten	Tungsten, bulb-type (3-wavelength) fluorescent lighting
	Fluorescent	Warm-white fluorescent, cool-white fluorescent, warm-white-type (3-wavelength) fluorescent lighting
	Fluorescent H	Daylight fluorescent, daylight-type (3-wavelength) fluorescent lighting
	Flash	When shooting with the flash.
	Underwater	Sets the optimal white balance for shooting underwater. Reduces blue tones to produce natural, vibrant hues.
	Custom	Manually sets a custom white balance.

■ Custom White Balance

You can adjust the white balance to the light source at the shooting location. Make sure that you set the white balance under the light source of the actual scene you will shoot.

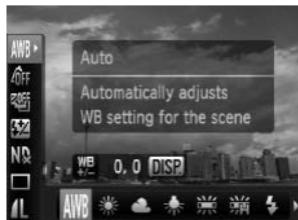


- In Step 2 above, choose or .
- Make sure the entire screen is filled with a white colored subject, then press the MENU button (Press the DISP. button when in mode).
- The tint on the screen will change when a white balance data is set.

 If you change camera settings after recording white balance data, the tone may not turn out properly.

Manually Correcting the White Balance

You can manually correct the white balance. This adjustment will have the same effect as using a commercially-available color temperature conversion filter or color compensating filter.



1 Choose the white balance.

- After pressing the  button, press the  buttons to choose **AWB**, then press the  buttons or turn the  dial to choose an option.

2 Adjust the setting.

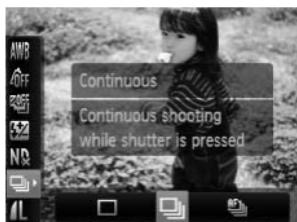
- Press the **DISP.** button to display the adjustments screen.
- Press the   buttons to adjust the level of correction.
- To reset the correction level, press the **MENU** button.
- Press the **DISP.** button to complete the setting.



- B stands for blue, A for amber, M for magenta, and G for green.
- Even if you change the white balance setting in Step 1 after making adjustments in the correction level, those adjustments will be retained. However, the adjustments will be reset if Custom White Balance data is recorded.
- One level of the blue/amber correction is equivalent to 7 mireds of a color temperature conversion filter. (Mired: Measuring unit indicating the density of a color temperature conversion filter.)

Continuous Shooting

You can shoot continuously at a fixed interval.



1 Choose a Drive mode.

- After pressing the button, press the buttons to choose .

2 Choose an option.

- Press the buttons or turn the dial to choose or , then press the .

3 Shoot.

- As long as you hold the shutter button down, the camera will shoot successive images.

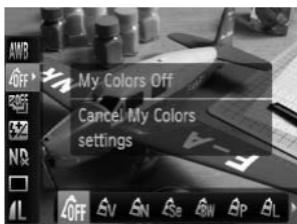
Drive Mode	Description
Continuous	Approx. 1.1 images/sec. For continuous shooting, the focus and exposure are locked when the shutter button is pressed halfway.
Continuous Shooting AF	Approx. 0.7 images/sec. The camera shoots continuously and focuses. The [AF Frame] is set to [Center].
Continuous Shooting LV	Approx. 0.8 images/sec. The camera shoots continuously with the focus fixed to the position set in manual focus. In , the focus is fixed to the first shot.



- Cannot be used with the self-timer (pp. 67, 68, 83, 84).
- In mode (p. 60), the shooting interval will be faster.
- As the number of images increases, the shooting interval may take longer.
- If the flash fires, the shooting interval may take longer.
- When in , AF lock (p. 91) or manual focus (p. 94) modes, will change to .

Changing the Tone of an Image (My Colors)

You can change the tone of an image to sepia or black and white when shooting.



1 Choose My Colors.

- After pressing the button, press the and buttons to choose .

2 Choose an option.

- Press the and buttons or turn the dial to choose an option, then press the .
- The setting you choose will display on the screen.

My Colors Off	—
Vivid	Emphasizes the contrast and color saturation for a vivid impression.
Neutral	Tones down the contrast and color saturation for neutral hues.
Sepia	Sepia tones.
B/W	Black and white.
Positive Film	Combines the effects of Vivid Red, Vivid Green and Vivid Blue to produce intense natural appearing colors like those obtained with positive film.
Lighter Skin Tone	Makes skin tones lighter.
Darker Skin Tone	Makes skin tones darker.
Vivid Blue	Emphasizes blue tints. Makes the sky, ocean and other blue subjects more vivid.
Vivid Green	Emphasizes green tints. Makes mountains, foliage and other green subjects more vivid.
Vivid Red	Emphasizes red tints. Makes red subjects more vivid.
Custom Color	You can adjust contrast, sharpness, and color saturation etc. to your preference (p. 83).



- Not available when shooting in .
- The white balance cannot be set in the and modes (p. 79).
- In the and mode, colors other than people's skin color may change. You may not obtain the expected results with some skin colors.

Custom Color

The contrast, sharpness, color saturation, red, green, blue, and skin tones in an image can be chosen and set from 5 different levels.



- Follow Step 2 on p. 82 to choose , then press the DISP. button.
- Press the $\blacktriangle\blacktriangledown$ buttons to choose an option, then press the $\blacktriangleleft\blacktriangleright$ buttons or turn the  dial to choose a value.
- The more to the right, the stronger/deeper the effect gets, the more to the left, the weaker/lighter the effect gets.
- Press the DISP. button to accept the setting.

Shooting Using the Two Second Self-Timer

You can set the self-timer to a delay of approximately two seconds.

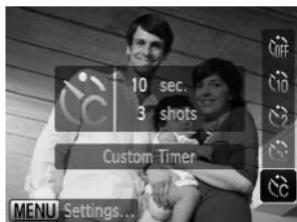


Choose .

- After pressing the \blacktriangledown button, press the $\blacktriangle\blacktriangledown$ buttons or turn the  dial to choose , then press the .
- ▶ Once set,  will appear on the screen.
- Follow Step 3 on p. 67 to shoot.

Customizing the Self-Timer

You can set the time delay (0 – 30 seconds) and the number of shots (1 – 10 shots).



1 Choose .

- After pressing the  button, press the  buttons or turn the  dial to choose , then press the **MENU** button.



2 Choose the settings.

- Press the  buttons to choose [Delay] or [Shots].
- Press the  buttons or turn the  dial to choose a value, then press the  button.
- Follow Step 3 on p. 67 to shoot.



What if the number of shots is set to two or more shots?

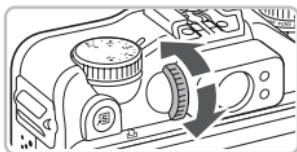
- Exposure and white balance settings are set with the first shot.
- When you set the time delay for more than 2 seconds, the self-timer lamp and sound speed up 2 seconds before the shutter releases (when the flash will fire, the lamp lights).



- If the flash fires, the shooting interval may be longer.
- If you set a high number of shots, the shooting interval may be longer.
- If the memory card becomes full, shooting stops automatically.

Shooting Using the Viewfinder

If you want to save battery power, you can use the viewfinder for shooting, instead of the screen. Shooting procedures are the same as when using the screen.



1 Turn off the screen.

- Press the DISP. button to turn off the screen.

2 Compose and shoot.

- Use the viewfinder to compose and shoot.
 - Adjustments of -3.0 to $+1.0\text{m}^{-1}$ (dpt) can be made.



The view in the viewfinder and the image taken may differ.



- The viewfinder has a field of vision of approximately 77% of the actual shooting image.
- You may be able to see part of the lens through the viewfinder depending on the zoom setting.

Shooting Using a TV Monitor

You can use a TV to display the camera screen content while shooting.

- Connect the camera to a TV as described in “Viewing Images on a TV” (p. 128).
- Shooting procedures are the same as when using the camera’s monitor.



TV display is not available when using HDMI Cable HTC-100 (sold separately) to connect the camera to a high-definition TV.

Changing the Composition with the Focus Lock

While you keep the shutter button pressed halfway, the focus and exposure are locked. You can now recompose and shoot. This is called Focus Lock.



1 Focus.

- Center the subject you want in focus, and press the shutter button halfway.
- Confirm that a green AF Frame appears around the subject.



2 Recompose.

- Keep the shutter button pressed halfway and recompose the scene.

3 Shoot.

- Press the shutter button fully.

5

Getting More Out of Your Camera

This chapter serves as the advanced version of Chapter 4 and explains how to take pictures using various functions.



- This chapter assumes that the mode dial is set to **P**.
- The sections “Setting the Shutter Speed” (p. 100), “Setting the Aperture Value” (p. 101), “Setting the Shutter Speed and Aperture Value” (p. 102), assume that the mode dial is set to these modes.
- The section “Adjusting the Flash Output” (p. 106) assumes that the mode dial is set to **M**.
- This chapter explains the modes available in “Changing the Color and Shooting” (p. 109) and “Shooting Stitch Assist Images” (p. 112), and assumes the mode dial is set to **SCN**.
- Before attempting to shoot using a function explained in this chapter in modes other than **P** mode, check if the function is available in those modes (pp. 180 – 183).

Changing the AF Frame Mode

You can change the AF (Auto Focus) frame mode to match the conditions you want to shoot.



Choose [AF Frame].

- Press the MENU button, choose the tab, and then choose the [AF Frame] menu item. Press the and buttons to choose an option.

You can switch between AF frames by pressing the button followed by the button.

Face AiAF

- Detects people's faces and sets the focus, exposure (evaluative metering only) and white balance (only).
- When the camera is pointed at subjects, a white frame appears on the face the camera judges to be the main subject, and gray frames (max. 2) will appear on other faces. When the shutter button is pressed halfway, up to 9 green frames will appear on faces on which the camera focuses. However, if either Servo AF (p. 91) or Continuous AF (p. 152) is set to [On] and no faces are detected, the AF frame will appear in the center.

• If a face is not detected or only gray frames (no white frame) appear, up to 9 green frames will appear on the areas the camera focuses on when the shutter button is pressed halfway.
• Examples of faces that cannot be detected:

- Subjects that are far away or extremely close.
- Subjects that are dark or light.
- Faces turned to the side or at a diagonal, or faces with a portion hidden.

• The camera may mistakenly identify non-human subjects as a face.
• If the camera cannot focus when you press the shutter button halfway, the AF frame will not appear.

FlexiZone/Center

A single AF frame will be used. This is effective for focusing on a specific point.

In [FlexiZone], you can change the position and size of the AF frame. In [Center], the frame will appear in the center.



If the camera cannot focus when you press the shutter button halfway the AF frame will turn yellow, and will appear.

Changing the AF Frame Position and Size

When the AF frame mode is set to [FlexiZone] (p. 89) you can change the position and size of the AF frame.



1 Press the button.

► The AF frame will turn orange.



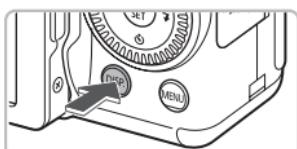
2 Move the AF frame.

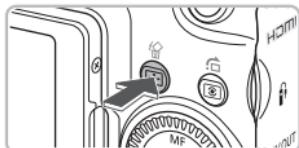
- Turn the dial to move the AF frame.
- Press the buttons to make fine adjustments.
- When faces are detected, each press of the MENU button will move the AF frame to another face.
- If you keep the button pressed, the AF frame will return to the original position (center).



3 Change the AF frame size.

- Press the DISP. button.
- The AF frame will become small.
- Pressing the DISP. button again will restore the AF frame to normal size.





4 Complete settings.

- Press the button.



- The Spot AE Point frame can be linked with the AF frame (p. 93).
- The AF frame will be set to normal size when using Digital Zoom (p. 64) or Digital Tele-Converter (p. 65).

Magnifying the Focal Point

You can push the shutter button halfway to magnify the AF frame and check the focus.



1 Choose [AF-Point Zoom].

- Press the MENU button, choose the tab, and then choose the [AF-Point Zoom] menu item. Press the buttons to choose [On].



2 Check the focus.

- Press the shutter button halfway.
- In [Face AiAF], the face selected as the main subject will appear magnified.
- In [FlexiZone] the contents of the AF frame will appear magnified.



What if the display does not magnify?

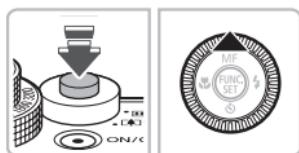
The display will not appear magnified in [Face AiAF] if a face cannot be detected or is too big in relation to the screen (p. 88). In [FlexiZone] it will not appear magnified if the camera cannot focus.



The magnified display will not appear when using Digital Zoom (p. 64) or Digital Tele-Converter (p. 65), Servo AF (p. 91), or when connected to a TV (p. 86).

Shooting with the AF Lock

The focus can be locked. After locking the focus, the focal distance will not change even when you release your finger from the shutter button.



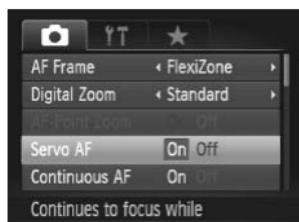
1 Lock the focus.

- Keep the shutter button pressed halfway and press the **▲** button.
- MF** and the MF indicator appear. You can check the distance to the subject.

2 Compose the scene and shoot.

Shooting with Servo AF

While the shutter button is pressed halfway, the focus and exposure will continue to adjust, allowing you to take pictures of moving subjects without missing a shot.



1 Choose [Servo AF].

- Press the **MENU** button and choose [Servo AF] from the **CAMERA** tab, and press the **◀▶** buttons to choose [On].

2 Focus.

- The focus and exposure will be maintained where the blue AF frame appears while you press the shutter button halfway.



- The camera may not be able to focus in some conditions.
- If a correct exposure cannot be obtained, the shutter speed and aperture value display in orange. Release your finger from the shutter button, then press it again halfway.
- You cannot shoot with the AF lock in this mode.
- The [AF-Point Zoom] option in the **CAMERA** tab is not available in Servo AF mode.
- Not available in Self-Timer (pp. 67, 68, 83, 84).

Choosing the Person to Focus On (Face Select)

You can choose a specific person's face to focus on and then shoot.

1 Set the camera to [Face AiAF] (p. 88).

2 Set Face Select mode.

- Point the camera toward the face of the subject and press the button.
- After [Face Select : On] displays, an orange face frame will appear around the face detected as the main subject.
- Even if the subject moves, the face frame will follow the subject within a certain range.
- If a face is not detected, will not appear.

3 Choose the face on which to focus.

- If you press the or turn the dial, the face frame will move to another face detected by the camera.
- If you press the or the , the frame around the chosen face will turn white.

4 Shoot.

- Press the shutter button halfway. The face frame of the chosen face will change into a green .
- Press the shutter button fully to shoot.



Confirming the number of detected faces

Pressing the DISP. button will display the number of faces detected by the camera (35 at the most) (orange: main subject's face, white: detected face).



Pressing the in Step 3, and choosing , or holding down the in Step 4, will cancel Face Select mode.

Changing the Metering Mode

You can change the Metering mode (brightness measuring function) to match the shooting conditions.



1 Choose the Metering mode.

- After pressing the button, turn the dial to choose the Metering mode.

<input checked="" type="checkbox"/> Evaluative	Suitable for standard shooting conditions, including back lit shots. Automatically adjusts the exposure to match the shooting conditions.
<input type="checkbox"/> Center Weighted Avg.	Averages the light metered from the entire frame, but gives greater weight to the center.
<input type="checkbox"/> Spot	Only meters within the [] (Spot AE Point frame) that appears at the center of the screen. The Spot AE Point frame can be linked to the AF frame.

Linking the Spot AE Point Frame to the AF Frame



1 Choose .

2 Set the AF Frame to [FlexiZone] (p. 89).

3 Choose [Spot AE Point].

- Press the MENU button, choose the tab, and then choose [Spot AE Point] menu item. Press the buttons to choose [AF Point].
- The Spot AE Point frame (p. 89) will be linked to the AF frame that was moved.

Shooting in Manual Focus Mode

You can use manual focus when auto focus is not possible. If you press the shutter button halfway after roughly focusing manually, you can fine tune the focus.



1 Choose MF.

- Press the **▲** button.
- MF** and the MF indicator will appear.

2 Focusing roughly.

- Using the bar that shows the distance display and AF point zoom as a guide, turn the **○** dial while looking at the magnified display to adjust the focus.
- The image at the center of the AF frame is displayed enlarged.

3 Fine tuning the focus.

- If you press the shutter button halfway or press the **[]** button, you can fine tune the focus (Safety MF).



- You cannot change the AF frame setting or size while focusing manually (p. 88). If you want to change the AF frame mode or size, cancel Manual focus mode first.
- In order to focus accurately, you are recommended to fix the camera to a tripod.
- Magnified display cannot be used with the Digital Zoom (p. 64), the Digital Tele-Converter (p. 65) or when connected to a TV (p. 86), however the focus can be adjusted.
- If [MF-Point Zoom] is set to [Off] in the **[]** tab, the magnified display will not be available.
- If [Safety MF] is set to [Off] in the **[]** tab, you will not be able to fine tune the focus even if you press the shutter button.

Focus Bracketing (Focus-BKT Mode)

The camera automatically takes three shots in the following order: one at the manual focus position, and one each with focus positions preset farther and nearer. The focus adjustment can be set in 3 levels.



1 Choose .

- After pressing the  button, press the  buttons to choose , then press the  buttons or turn the  dial to choose .

2 Set the focus adjustment level.

- Press the DISP. button.
- Press the  buttons or turn the  dial.
- Pressing the  button will widen the interval, and pressing the  button will narrow the interval. The camera will focus on the spot nearest the center (where the focus is set).

3 Shoot.

- Shoot in manual focus (p. 94).



- In flash settings other than (p. 63), Focus Bracketing is not available.
- Continuous shooting (p. 81) cannot be used in this mode.

Shooting with the AE Lock

When you wish to take several shots with the same exposure, you can set the exposure and focus separately using the AE lock. AE stands for "Auto Exposure".



1 Lock the exposure.

- Point the camera toward the subject and press the ***** button while pressing the shutter button halfway.
- ▶ When ***** appears, the exposure will be set.
- If you release your finger from the shutter button and press another button, ***** will disappear and the AE will unlock.

2 Compose the scene and shoot.



Program Shift

If you lock the exposure and then turn the **(○)** dial, you can change the shutter speed and aperture value combination.

Shooting with the FE Lock

Just as with the AE lock (p. 96), you can lock the exposure for shooting with the flash. FE stands for “Flash Exposure”.

1 Choose (p. 73).



2 Lock the exposure.

- Point the camera toward the subject and press the  button while pressing the shutter button halfway.
- ▶ The flash will fire and when  appears, the flash output will be retained.
- If you release your finger from the shutter button and press another button,  will disappear and the FE will unlock.

3 Compose the scene and shoot.

Auto Exposure Bracketing (AEB Mode)

The camera automatically changes the exposure while taking three continuous shots. The images are shot in the following order: standard exposure, underexposure, and overexposure.



1 Choose .

- After pressing the button, press the buttons to choose , then press the buttons or turn the dial to choose .

2 Set the exposure compensation amount.

- Press the **DISP.** button.
- Press the buttons or turn the dial to adjust the setting.
- From the exposure set by the camera, you can adjust the amount of compensation ± 2 stops in 1/3-stop increments.
If exposure compensation (p. 73) is already being used, settings are made with the compensated value as the base.



- In flash settings other than (p. 63), AEB is not available.
- Continuous shooting (p. 81) cannot be used in this mode.

Using the ND Filter

The ND filter reduces light intensity to 1/8 (3 stops) of the actual level, allowing for slower shutter speeds and smaller aperture values.



1 Choose ND.

- After pressing the button, press the buttons to choose .

2 Set [ND Filter] to [On].

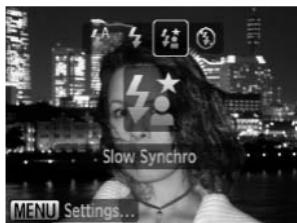
- Press the buttons or turn the dial to choose , then press the button.



Attach the camera to a tripod to prevent camera shake.

Shooting with Slow Synchro

You can make the main subject, such as people, appear bright by having the camera provide the appropriate illumination with the flash. At the same time, you can use a slow shutter speed to brighten the background that the light from the flash cannot reach.



1 Choose .

- After pressing the button, press the buttons or turn the dial to choose , then press the button.
- Once set, will appear on the screen.

2 Shoot.

- Even if the flash fires, ensure that the subject does not move until the shutter sound ends.



Attach the camera to a tripod to prevent the camera from moving and blurring the image. It is recommended to set the [IS Mode] to [Off] when shooting with a tripod (p. 155).

Setting the Shutter Speed

You can set the shutter to the speed at which you want to shoot. The camera will set the appropriate aperture value for the shutter speed you set.

Tv stands for “Time value”.



1 Set the mode dial to **Tv.**

2 Make the setting.

- Turn the dial to set the shutter speed.

3 Shoot.

Available Shutter Speeds

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, 1/2500, 1/3200, 1/4000

- 2" indicates 2 seconds, 0"3 indicates 0.3 second and 1/160 indicates 1/160 second.
- The fastest shutter speed when using the flash is 1/2000 second. Even if a speed faster than 1/2000 second is chosen, the camera automatically sets the speed to 1/2000 second or lower. However, if [Safety FE] is set to [Off] (p. 105), the fastest speed is 1/500 second.
- Depending on the zoom position, some shutter speeds may not be available.



What if aperture value is displayed in orange?

If the aperture value displays in orange when the shutter button is pressed halfway, the scene has exceeded the correct exposure limits. Adjust the shutter speed until the aperture value displays in white. Safety shift can also be used (p. 101).



- When shutter speeds of 1.3 seconds or slower are used, images are processed to eliminate noise after being taken. A certain amount of processing time may be needed before you can take the next shot.
- It is recommended to set the [IS Mode] to [Off] when lowering the shutter speed and shooting with a tripod (p. 155).

Setting the Aperture Value

You can set the aperture to a value at which you want to shoot. The camera will set the appropriate shutter speed for the aperture value you set.

Av stands for “Aperture value”.



- 1 Set the mode dial to **Av**.**
- 2 Make the setting.**
 - Turn the dial to set the aperture value.
- 3 Shoot.**

Available Aperture Values

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

- The fastest shutter speed when using the flash is 1/2000 second. Even if a speed faster than 1/2000 second is chosen, the camera automatically sets the speed to 1/2000 second or lower. However, if [Safety FE] is set to [Off] (p. 105), the fastest speed is 1/500 second.
- Depending on the zoom position, some aperture values may not be available.



What if shutter speed is displayed in orange?

If the shutter speed displays in orange when the shutter button is pressed halfway, the scene has exceeded the correct exposure limits. Adjust the aperture value until the shutter speed displays in white. Safety shift can also be used.



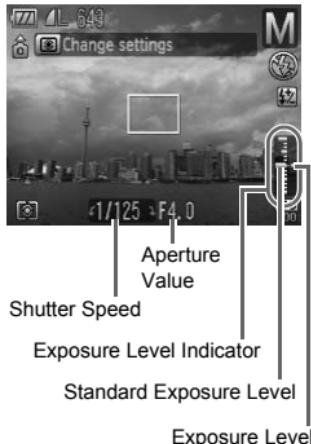
Safety Shift

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

Setting the Shutter Speed and Aperture Value

You can manually set the shutter speed and aperture to shoot images. **M** stands for “Manual”.

1 Set the mode dial to **M**.



2 Make the setting.

- Press the button to choose the shutter speed or aperture value.
- Turn the dial to set a value.
- ▶ The set exposure level appears on the indicator. You can check the difference against the standard exposure level.
- ▶ When the difference is more than ±2 stops, the set exposure level appears in orange. When you press the shutter button halfway, “–2” or “+2” appears in orange.



- The standard exposure is calculated according to the metering method chosen (p. 93).
- If you use the zoom after making settings or change the composition, the exposure level may change.
- Depending on the shutter speed or aperture value set, the monitor brightness may change. If the flash is set to , the monitor brightness will not change.
- If you press the button, the shutter speed or aperture value (whichever was not chosen in Step 2) will automatically adjust to obtain the correct exposure. However, the correct exposure may not be obtained depending on the settings.

Correcting the Brightness and Shooting (i-Contrast)

The camera can detect the brightness of areas in the scene, such as faces or backgrounds. It can then keep highlights from blowing out in light areas (ISO AUTO only (p. 78)), and automatically adjust dark areas to the optimum brightness. Also, when the overall image is lacking in contrast, the camera will automatically correct the image for a sharper impression when shooting.



Choose [i-Contrast].

- Press the MENU button, choose the  tab, and then choose the [i-Contrast] menu item. Press the   buttons to choose [Auto].
- ▶  will appear on the screen.



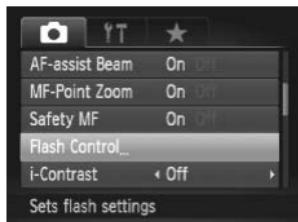
Under some conditions, the image may appear coarse or may not be corrected properly.



You can correct recorded images (p. 141).

Red-Eye Correction

You can automatically correct red-eye that occurs in images taken with the flash.



1 Choose [Flash Control].

- Press the MENU button, choose [Flash Control] from the tab and press the button.



2 Adjust the setting.

- Press the buttons or turn the dial to choose [Red-Eye Corr.] and press the buttons to choose [On].
- will appear on the screen.



Red-eye correction may be applied to red areas other than red eyes. For example, when red make-up has been used around eyes.



- You can correct recorded images (p. 142).
- To display the screen in Step 2 from the shooting screen, press the button, then the MENU button. Alternatively, you can press and hold the button.

Adjusting the Flash Exposure Compensation

Just like with exposure compensation (p. 73), you can adjust the exposure ± 2 stops in 1/3-stop increments when using the flash.



1 Choose .

- After pressing the  button, press the  buttons to choose .

2 Make the setting.

- Press the  buttons or turn the  dial to choose the flash exposure compensation, then press the 
▶  will appear on the screen.



You can also set the flash exposure compensation by pressing the **MENU** button, choosing [Flash Control] from the  tab, and then pressing the  button. Choose [Flash Exp. Comp] and use the  buttons to make the setting. Alternatively, you can press the  button, then the **MENU** button. Or, you can press and hold the  button.



Safety FE

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 the  tab, if [Safety FE] in [Flash Control] is set to [Off], the shutter speed and aperture value will not automatically adjust.

Adjusting the Flash Output

In **M** mode, you can choose 3 levels of flash output.



1 Set the camera to **M** mode.

2 Choose the flash output.

- After pressing the button, press the buttons to choose .

3 Make the setting.

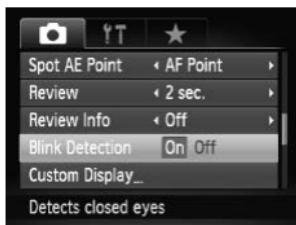
- Press the buttons or turn the dial to choose the flash output, then press the button.



- You can also set the flash output by pressing the **MENU** button, choosing [Flash Control] from the tab, and then pressing the button. Choose [Flash Output] and use the buttons to make the setting. Alternatively, you can press the button, then the **MENU** button. Or, you can press and hold the button.
- In **Tv** and **Av** modes, you can set the flash output if you choose the tab, then [Flash Control] and set the [Flash Mode] option to [Manual].

Checking for Shut Eyes

When the camera detects the possibility that people have their eyes shut,  appears.



1 Choose [Blink Detection].

- Press the MENU button, choose the  tab, and then choose the [Blink Detection] menu item. Press the  and  buttons to choose [On].

2 Shoot.

- When a person with shut eyes is detected, a frame and  appear.



- In , , , and  modes, this function is only available for the last image shot.
- Not available in , , or .

Registering Shooting Settings

You can register commonly used shooting modes and settings. By simply turning the mode dial to **C1** or **C2**, you can switch to your registered settings. Even if you switch shooting modes or turn off the power, settings that usually cancel (self timer, etc.) will be saved.

Settings that Can be Registered

- Shooting modes (**P**, **Tv**, **Av** or **M**)
- Items set in **P**, **Tv**, **Av** or **M** (pp. 73 – 102)
- Items in the shooting menu
- Zoom position
- Manual focus position (p. 94)
- My Menu items (p. 157)

1 Enter the Shooting mode you want to register and make the settings.

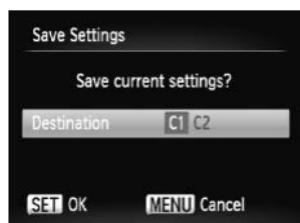


2 Choose [Save Settings].

- Press the MENU button, choose [Save Settings] from the **camera** tab and press the **FUNC./SET** button.

3 Register the settings.

- Press the **◀▶** buttons or turn the **○** dial to choose the destination, then press the **FUNC./SET** button.



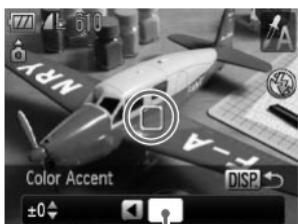
- To change part of an already registered setting (except for Shooting modes), choose **C1** or **C2**, make the changes, then register the setting again. These settings will not be reflected in other Shooting modes.
- To return contents registered to **C1** or **C2** to the default settings, turn the mode dial to **C1** or **C2** and choose [Reset All] (p. 52).

Changing the Color and Shooting

You can change the look of an image when shooting. However, the shooting conditions may cause the image to become coarse, or the colors may not come out as expected.

1 Color Accent

You can choose to retain a single color and change the rest to black and white in a composition.



Recorded color

1 Choose **A**.

- Follow Step 1 on p. 56 to choose **A**.

2 Press the DISP. button.

- The unchanged image and the Color Accent image will both display.
- The color for default settings is green.

3 Specify the color.

- Position the center frame so it is filled with the color you want and press the **◀** button.
- The specified color will be recorded.

4 Specify the range of colors.

- Press the **▲▼** buttons or turn the **○** dial to change the range of colors to be retained.
- Choose a negative value to limit the range of colors. Choose a positive value to extend the range of colors to similar colors.
- Pressing the DISP. button accepts the setting and restores the shooting screen.



Using the flash may cause unexpected results in this mode.

1's Color Swap

You can swap one color in an image for another when recording it. You can only swap one color.



1 Choose 1's.

- Follow Step 1 on p. 56 to choose 1's.



2 Press the DISP. button.

- The unchanged image and the Color Swap image will both display.
- The default setting is to change green to gray.



3 Specify the color to be swapped.

- Position the center frame so it is filled with the color you want and press the **◀** button.
- The specified color will be recorded.



4 Specify the target color.

- Position the center frame so it is filled with the color you want and press the **▶** button.
- The specified color will be recorded.

5 Specify the range of colors to be swapped.

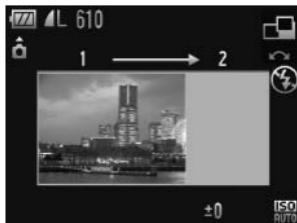
- Press the $\blacktriangle\blacktriangledown$ buttons or turn the  dial to adjust the range of colors affected.
- Choose a negative value to limit the range of colors. Choose a positive value to extend the range of colors to similar colors.
- Pressing the **DISP.** button accepts the setting and restores the shooting screen.



- Using the flash may cause unexpected results in this mode.
- Under some conditions, the image may appear coarse.

Shooting Stitch Assist Images

Large subjects can be split into several shots that can later be merged together using the included software on a computer to create a panoramic image.



1 Set the mode dial to SCN.

2 Choose a or .

- Follow Step 1 on p. 56 to choose or .

3 Take the first shot.

- The exposure and white balance will be set with the first shot.



4 Take subsequent shots.

- Overlap part of the first shot when taking the second shot.
- Minor discrepancies in the overlapping portions will be corrected when the images are merged.
- Up to 26 shots can be recorded with the same procedures.

5 Finish shooting.

- Press the button.



6 Merge the images on a computer.

- For details on how to merge the images, refer to the *Software Guide*.



- This function is not available when a TV is used as the monitor (p. 86).
- To use AF lock, register AFL to the button (p. 156).

6

Using Various Functions for Shooting Movies

This chapter provides more advanced information than the “Shooting Movies” and “Viewing Movies” sections of Chapter 1.



- This chapter assumes that the mode dial is set to .

Changing the Movie Mode

You can choose between three Movie modes.



1 Set the mode dial to .

2 Choose a Movie mode.

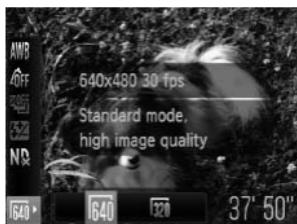
- Turn the dial to choose a Shooting mode.

Standard	Normal mode.
Color Accent	These Shooting modes let you change all colors except the chosen color to black and white, or exchange the chosen color for another color, when shooting. See "Changing the Color and Shooting" (p. 109) for details.
Color Swap	

Under some conditions, colors may not turn out as expected in the and mode.

Changing the Image Quality

You can choose between two image quality settings.



1 Choose the image quality.

- After pressing the button, press the buttons to choose .

2 Choose an option.

- Press the buttons or turn the dial to choose an option, and press the button.
- The setting will display on the screen.

Image Quality Table

Image Quality (Recording Pixels/Frame Rate)	Content
640 x 480 pixels, 30 frames/sec.	For shooting standard quality movies.
320 x 240 pixels, 30 frames/sec.	Since the number of recording pixels is smaller, the image quality will be lower than with , but you can record three times the length.

Estimated Shooting Time

Image Quality	Shooting Time	
	2 GB	8 GB
	22 min. 45 sec.	1 hr. 4 min. 1 sec.
	1 hr. 30 min. 57 sec.	4 hrs. 15 min. 51 sec.

- Based on Canon's testing standards.
- Recording will automatically stop when either the clip file size reaches 4 GB or the recording time reaches approximately 1 hour.
- On some memory cards, recording may stop even if the maximum clip length has not been reached. SD Speed Class 4 or higher memory cards are recommended.

Using the Wind Filter

Wind Filter suppresses noise when the wind is strong. However, unnatural sound may result when used to record in locations with no wind.



- Press the MENU buttons to choose [Wind Filter] from the tab, then press the buttons to choose [On].

AE Lock/Exposure Shift

You can set the exposure or change it in 1/3 steps within a range of ±2 before shooting.



1 Focus.

- Press the shutter button halfway to focus.

2 Lock the exposure.

- Press the button to lock the exposure. The exposure shift bar appears.
- Press the button again to release the lock.

3 Change the exposure.

- While watching the screen, turn the dial to adjust the brightness.

4 Shoot.

Other Shooting Functions

The following functions can be used in the same way as for still images. Functions marked with a * can be used in the same way as for still images when in A or S .

When shooting with the AF Lock, you can register AFL to the S button to easily call it up for use (p. 156).

- **Zooming in More Closely On Subjects**

The digital zoom (p. 64) is available.

- **Using the Self-Timer (p. 67)***

- **Shooting Close-ups (Macro) (p. 77)***

- **Adjusting the White Balance (p. 79)**

- **Changing the Tone of an Image (My Colors) (p. 82)**

- **Shooting Using the Two Second Self-Timer (p. 83)***

- **Shooting Using a TV Monitor (p. 86)***

- **Shooting in Manual Focus Mode (p. 94)***

- **Shooting with the AE Lock (p. 96)**

- **Using the ND Filter (p. 99)**

- **Turning off the AF Assist Beam (p. 152)***

- **Customizing Display Information (p. 154)***

- **Changing the IS-Mode Settings (p. 155)***

You can switch between [Continuous] and [Off].

- **Registering Functions to the S Button (p. 156)***

Playback Functions

The following functions can be used in the same way as for still images.

- **Erasing Images (p. 29)**
- **Quickly Searching Images (p. 122)**
- **Viewing Images in Filtered Playback (p. 123)**
- **Viewing Slideshows (p. 125)**
- **Changing Image Transitions (p. 127)**
- **Viewing Images on a TV (p. 128)**
- **Protecting Images (p. 130)**
- **Erasing All Images (p. 133)**
- **Organizing Images by Category (My Category) (p. 135)**
- **Rotating Images (p. 137)**

Summary for “Viewing Movies” (p. 33)

	Exit
	Playback
	Slow Motion Playback (you can use the buttons to adjust the speed. Sound will not play back.)
	Display the first frame
	Previous frame (Rewind if you hold down the button.)
	Next frame (Fast forward if you hold down the button.)
	Display the last frame
	Edit (p. 119)
	Appears when connected to a PictBridge compliant printer (p. 30). Refer to the <i>Personal Printing Guide</i> for details.

Editing

You can trim the beginnings and ends of recorded movies in one-second increments.



Movie Editing Panel



Movie Editing Bar

1 Choose %.

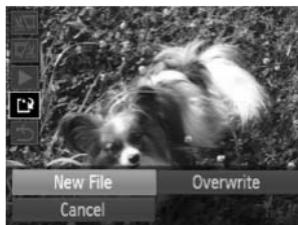
- Follow Steps 1 and 3 on p. 33, choose % and press the FUNC SET button.
 - The movie editing panel and the movie editing bar will appear.

2 Set the editing range.

- Press the $\blacktriangle\blacktriangledown$ buttons and choose $\text{始}%$ or $\text{終}%$.
- Press the $\blacktriangle\blacktriangleright$ buttons or turn the dial to move \blacktriangledown . \blacktriangledown will display at each one-second interval. If you choose $\text{始}%$, you can trim the beginning of the movie from \blacktriangledown . If you choose $\text{終}%$, you can trim the end of the movie from \blacktriangledown .
 - Even if you move \blacktriangledown to a point other than a \blacktriangledown point, only the portion from the nearest \blacktriangledown to the left will be trimmed when $\text{始}%$ is chosen. Only the portion from the nearest \blacktriangledown to the right will be trimmed when $\text{終}%$ is chosen.
 - The section indicated with \blacktriangledown will be the section of the movie that remains after editing.

3 Check the edited movie.

- Press the $\blacktriangle\blacktriangledown$ buttons to choose \blacktriangleright (Play), then press the  button. The edited movie will play.
- To edit the movie again, repeat Step 2.
- To cancel editing, press the $\blacktriangle\blacktriangledown$ buttons, and choose \leftarrow . After pressing the  button, press the $\blacktriangle\blacktriangleright$ buttons or turn the  dial to choose [OK], and press the  button again.



4 Save the edited movie.

- Press the $\blacktriangle\blacktriangledown$ buttons to choose , then press the  button.
 - Press the $\blacktriangle\blacktriangleright$ buttons or turn the  dial to choose [New File], then press the  button.
- ▶ The movie will be saved as a new file.



- When [Overwrite] is chosen in Step 4, the unedited movie is overwritten with the edited movie, erasing the original movie.
- When there is not enough space left on the memory card, only [Overwrite] can be chosen.
- If the battery is depleted partway through editing, the edited movie clips may not be saved. When editing movies, you should use a fully charged battery or the separately sold AC adapter kit (p. 40).

7

Using Playback and Other Functions

The first part of this chapter explains various ways to play back and edit images. The latter part explains how to specify images for printing.

- Press the **■** button to enter Playback mode before operating the camera.

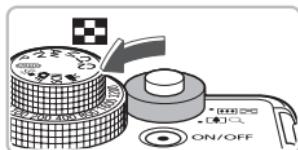


- It may not be possible to play back or edit images that have been edited on a computer, had their file name changed, or have been taken on a different camera.
- The edit function (pp. 138 – 142) cannot be used if the memory card does not have free space available.

Quickly Searching Images

Searching Images Using Index Display

Displaying multiple images at a time lets you quickly find the image you want.



1 Move the zoom lever toward

- ▶ Images will display in an index.
- Move the zoom lever toward to increase the number of images. The number of images increases each time you move the lever.
- Move the zoom lever toward to reduce the number of images. The number of images will reduce each time you move the lever.

2 Change the displayed images.

- Turn the dial to switch to the next set of images set in Step 1.

3 Choose an image.

- Press the buttons to choose an image.
- An orange frame appears on the chosen image.
- Press the button to display the chosen image by itself.

Searching Images Using the Control Dial

Turn the control dial to quickly search images. You can also jump by the shooting date (Scroll Display).



Choose an image.

- If you set single image playback and turn the dial quickly, the images will display as shown on the left.
- If you press the buttons, you can search images by the shooting date.
- Pressing the button restores single image playback.



To turn off this function, press the MENU button, choose the ▶ tab and [Scroll Display], then choose [Off].

Viewing Images in Filtered Playback

When there are many images on the memory card, you can filter and display them by a specified filter. You can also protect (p. 130) or delete (p. 133) all images at once while filtered.

Jump Shot Date	Displays the images shot on a specified date.
Jump to My Category	Displays the images of a specified category (p. 135).
Jump to first	Jumps to still images only.
Jump to Movie	Jumps to a movie.
Jump 10 Images	Jumps over 10 images at a time.
Jump 100 Images	Jumps over 100 images at a time.

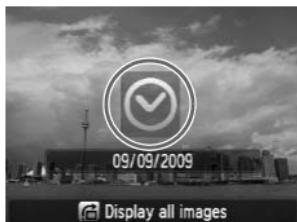
Search by , , and



Target Filters

1 Choose a target filter.

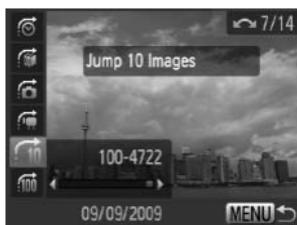
- In single image playback, press the button, then press the and buttons to choose a jump method.
- In or , press the and buttons to choose a filter. Turning the dial will display only images that have the same shooting date (category) as the currently chosen image.
- Press the DISP. button to switch between Information Display and No Information Display.
- Pressing the MENU button restores the single image display.



2 Viewing images using filtered playback.

- Pressing the button will start filtered playback, and the jump method and a yellow frame will appear.
- If you press the buttons or turn the dial, the chosen target images will display.
- Pressing the button displays [Filtered playback settings cleared]. Pressing the button cancels filtered playback.

Jump by and Images



- In single image playback, press the button, then press the buttons to choose a jump method.
- If you press the buttons, the display will advance to the image that is the chosen number of images away.
- Pressing the **MENU** button restores the single image display.

What if you can't choose a filter?

When you choose in Step 1 on p. 123, if there are only images with the same date, you can only choose one filter. Also, you can only choose if there are no images sorted into categories in .

Filtered playback

In filtered playback (Step 2), you can view filtered images with “ Searching Images Using Index Display” (p. 122), “Viewing Slideshows” (p. 125), and “Magnifying Images” (p. 127). You can process all filtered images at once while performing operations in “Protecting Images” (p. 130), “Erasing All Images” (p. 133), or “Printing from the Print List (DPOF)” (p. 143), by choosing [All Filtered Images]. However, if you change the category (p. 135), or edit an image and save it as a new image (p. 138), a message will appear, and filtered playback will cancel.

Viewing Slideshows

You can automatically play back images recorded to a memory card.



1 Choose [Slideshow].

- Press the MENU button, choose [Slideshow] from the tab and press the button.

2 Make the setting.

- Press the or turn the dial to choose an item, and press the buttons to adjust the setting.

Repeat	Repeats playback of images
Play Time	Display time for each image
Effect	Transition effects when switching between images

3 Choose [Start].

- Press the or turn the dial to choose [Start], the press the button.
 - The slideshow will start a few seconds after [Loading image...] displays.
- You can pause/restart a slideshow by pressing the button again.



- If you press the buttons or turn the dial during playback, the image will switch. If you keep the buttons pressed, you can fast-forward through images.
- The power saving function does not work during slideshows (p. 54).
- You cannot change [Play Time] if [Bubble] is chosen in [Effect].

Checking the Focus

You can magnify the area of a recorded image that was inside the AF Frame, or the area of a face that was detected, to check the focus.



1 Press the DISP. button, and switch to the focus check display (p. 46).

- ▶ A white frame will appear where the AF frame or face was when the focus was set.
- ▶ A gray frame will appear on a face detected during playback.
- ▶ The area within the orange frame appears magnified.



2 Switch frames.

- Move the zoom lever toward Q once.
- ▶ The screen at the left will appear.
- Press the button to move to a different frame when multiple frames appear.

3 Change the magnification level or location.

- Use the zoom lever to change the display size, and the buttons to change the display position while checking the focus.
- Pressing the MENU button resets the display to Step 1.

Magnifying Images



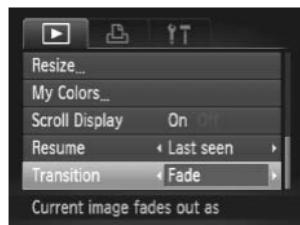
Approximate Location
of Displayed Area

Move the zoom lever toward Q.

- The display will zoom in on the image and, if you continue to hold the zoom lever, it will continue to zoom in up to a factor of 10x.
- If you press the **▲▼◀▶** buttons, you can move the location of the displayed area.
- Move the zoom lever toward to zoom out or return to Single Image Playback.
- If you turn the dial, you can switch images in the zoomed state.

Changing Image Transitions

You can choose from three transition effects when switching between images in single image playback.



Choose [Transition].

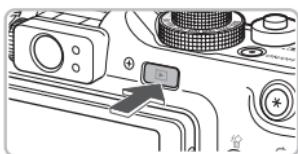
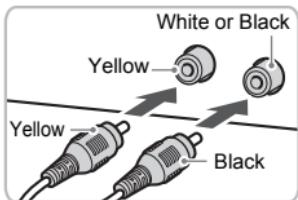
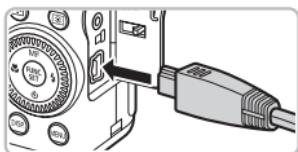
- Press the MENU button and choose the tab, then choose [Transition] and press the **◀▶** buttons to choose a transition effect.

Viewing Images on a TV

Using the supplied AV cable, you can connect the camera to a TV to view images you have shot.

Items to Prepare

- Camera and TV
- AV cable supplied with the camera (p. 2)



1 Turn off the camera and TV.

2 Connect the camera to the TV.

- Open the camera's terminal cover and fully insert the plug of the cable into the camera's terminal.
- Insert the cable plug fully into the video input terminals as shown in the illustration.

3 Turn on the TV and switch it to the input to which the cable is connected.

4 Turn on the camera.

- Press the **REC** button to turn on the camera.
- The image will appear on the TV (nothing will appear on the monitor of the camera).
- After you finish viewing, turn off the camera and TV, and unplug the cable.

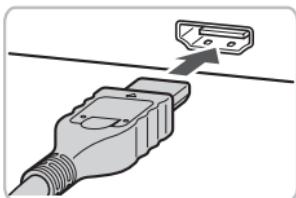
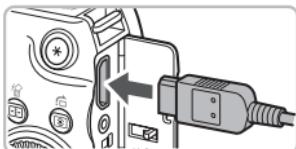


What if the images don't properly display on the TV?

Images will not display correctly if the camera's video output setting (NTSC/PAL) does not match the TV system. Press the **MENU** button, choose the **SET** tab and [Video System] to switch to the correct video system.

Viewing Images on a High-Definition TV

Use the separately sold HDMI Cable HTC-100 to connect the camera to a high-definition TV for enhanced viewing experience.



1 Turn off the camera and TV.

2 Connect the camera to the TV.

- Open the cover and fully insert the cable plug into the camera's HDMI terminal.
- Fully insert the cable plug into the TV's HDMI terminal.
- Follow Steps 3 and 4 on p. 128 to display the images.



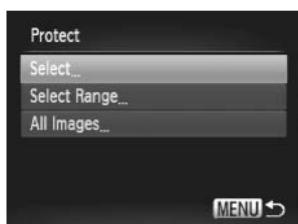
The Remote Switch RS60-E3 and the HDMI cable HTC-100 cannot be plugged into the camera simultaneously. Attempting to forcibly insert both cables could result in equipment damage.



Operation sounds will not play when connected to a high-definition TV.

Protecting Images

You can protect important images so that they cannot be erased by the camera (pp. 29, 133).



1 Choose [Protect].

- Press the MENU button, choose the tab and [Protect], and then press the button.

2 Choose a selection method.

- Press the buttons or turn the dial to choose a selection method, and press the button.
- Pressing the MENU button will restore the menu screen.



If you format the memory card (pp. 23, 53), protected images will also be erased.



Protected images cannot be erased with the camera's erase function. To erase an image, cancel protection first.

Choosing Images Individually



1 Choose [Select].

- Follow Step 2 above to choose [Select] and press the button.

2 Choose images.

- Press the buttons or turn the dial to choose the image and press the button.
 - Once set, will appear on the screen.
 - Pressing the button once more will cancel the selection, and will disappear.
 - To choose multiple images, repeat the above operation.

Select Range

1 Choose [Select Range].

- Follow Step 2 on p. 130 to choose [Select Range] and press the  button.



2 Choose the starting image.

- Press the  button.
- Press the  buttons or turn the  dial to choose the image and press the  button.

3 Choose the ending image.

- Press the  button, choose [Last image] and press the .
- Press the  buttons, or turn the  dial to choose an image, and press the  button.
- You cannot choose images before the first image.



4 Protect images.

- Press the **▼** button, choose [Protect] and press the **FUNC SET** button.



Choose images with the **○** dial

You can also choose the first or last image by turning the **○** dial when the upper screen in Steps 2 and 3 is displayed.

Choose All Images



1 Choose [All Images].

- Follow Step 2 on p. 130 to choose [All Images] and press the **FUNC SET** button.

2 Protect images.

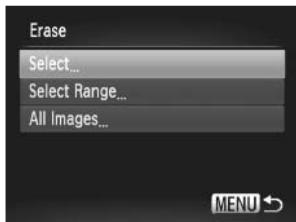
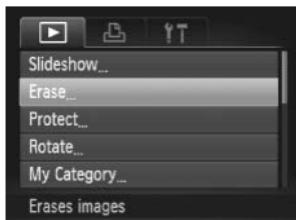
- Press the **▲▼** buttons or turn the **○** dial to choose [Protect] and press the **FUNC SET** button.



You can unlock groups of protected images if you choose [Unlock] in Step 4, while in [Select Range] or Step 2 while in [All Images].

Erasing All Images

You can choose images and erase them in groups. Since erased images cannot be recovered, exercise adequate caution before erasing. Protected images (p. 130) cannot be erased.



1 Choose [Erase].

- Press the MENU button, choose the tab and [Erase], and press the button.

2 Choose a selection method.

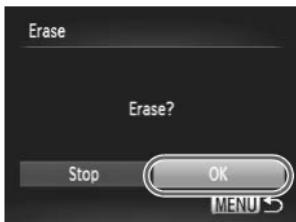
- Press the buttons or turn the dial to choose a selection method, and press the button.
- Pressing the MENU button will restore the menu screen.

Choosing Images Individually



1 Choose [Select].

- Follow Step 2 above to choose [Select] and press the button.
- Press the buttons or turn the dial to choose the image and press the button.
 - Once set, will appear on the screen.
- Pressing the button once more will cancel the selection, and will disappear.
- To choose multiple images, repeat the above operation.



2 Press the MENU button.

3 Erase.

- Press the $\blacktriangleleft\blacktriangleright$ buttons or turn the \odot dial to choose [OK] and press the FUNC/SET button.

Select Range

1 Choose [Select Range].

- Follow Step 2 on p. 133 to choose [Select Range] and press the FUNC/SET button.
- Follow Steps 2 and 3 on p. 131 to choose images.



2 Erase.

- Press the \blacktriangledown button to choose [Erase], then press the FUNC/SET button.

Choose All Images

1 Choose [All Images].

- Follow Step 2 on p. 133 to choose [All Images] and press the FUNC/SET button.

2 Erase.

- Press the $\blacktriangleleft\blacktriangleright$ buttons or turn the \odot dial to choose [OK] and press the FUNC/SET button.

Organizing Images by Category (My Category)

You can organize images in categories. You can display the images in a category in Filtered Playback (p. 123) and process all images at once by using the functions below.

- Viewing Slideshows (p. 125), Protecting Images (p. 130), Erasing All Images (p. 133), Choosing Images for Printing (DPOF) (p. 144)



Images are automatically categorized by shooting condition as they are shot.

: Images with faces detected, or images shot as , , .

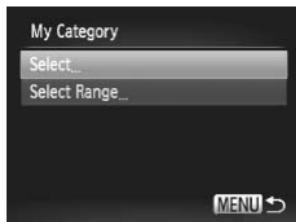
: Images detected as or in **AUTO** mode, or images shot in ,

, or .

: Images shot in , , , , .

1 Choose [My Category].

- Press the **MENU** button and choose the tab, then choose [My Category] and press the button.



2 Make the setting.

- Press the / buttons or turn the dial to choose a category and press the button.
- Press the **MENU** button to return to the menu screen.

Choosing Images Individually



Choose [Select].

- Follow Step 2 above to choose [Select] and press the  button.
- Press the  buttons or turn the  dial to choose the image and press the  button.
- Press the  buttons, choose a category and press the  button.
- Once set,  will appear on the screen.
- Pressing the  button again deselects the category and  disappears.
- To choose multiple images, repeat the above operation.

Select Range



1 Choose [Select Range].

- Follow Step 2 on p. 135 to choose [Select Range] and press the  button.
- Follow Steps 2 and 3 on p. 131 to choose images.
- Press the  button, choose the item and press the  buttons, or turn the  dial to choose a type.

2 Choose the setting.

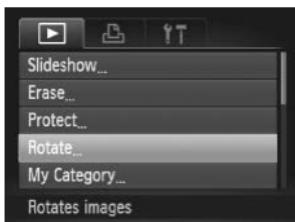
- Press the  button to choose [Select] and press the  button.



If you choose [Deselect] in Step 2, you can deselect all of the images in the [Select Range] category.

Rotating Images

You can change the orientation of an image and save it.



1 Choose [Rotate].

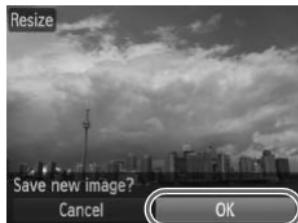
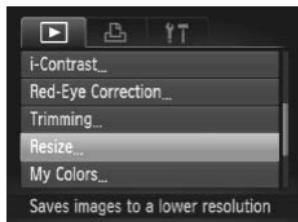
- Press the **MENU** button, choose the **▶** tab and [Rotate], and press the **FUNC/SET** button.

2 Rotate the image.

- Press the **◀▶** buttons or turn the **○** dial to choose an image.
- The image will rotate 90° with each press of the **FUNC/SET** button.
- Pressing the **MENU** button will restore the menu screen.

Resizing Images

You can resize images to a lower pixel setting and save the resized image as a separate file.



- You cannot resize an image to a larger size.
- You cannot resize images taken with the **W**, **XS** or **RAW** settings.

1 Choose [Resize].

- Press the MENU button and choose the **■** tab, then choose [Resize] and press the **FUNC/SET** button.

2 Choose an image.

- Press the **◀▶** buttons or turn the **○** dial to choose the image and press the **FUNC/SET** button.

3 Choose an image size.

- Press the **◀▶** buttons or turn the **○** dial to choose an option, then press the **FUNC/SET** button.
 - ▶ The [Save new image?] screen will appear.

4 Save the new image.

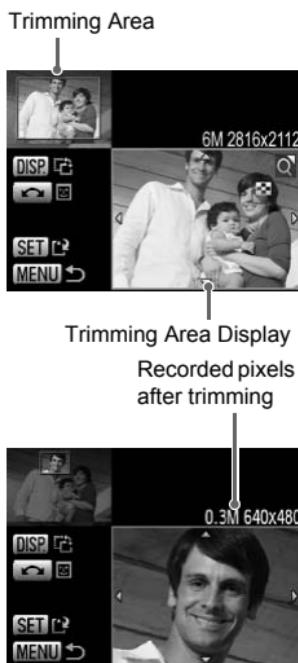
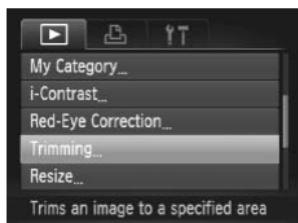
- Press the **◀▶** buttons or turn the **○** dial to choose [OK] and press the **FUNC/SET** button.
 - ▶ The image will be saved as a new file.

5 Display the new image.

- When you press the MENU button, the [Display new image?] screen will appear.
- Press the **◀▶** buttons, or turn the **○** dial to choose [Yes] and press the **FUNC/SET** button.
 - ▶ The saved image will display.

Trimming

You can cut out a portion of a recorded image and save it as a new image file.



1 Choose [Trimming].

- Press the **MENU** button, choose the **Trimming** tab and [Trimming], then press the **FUNC/SET** button.

2 Choose an image.

- Press the **◀▶** buttons or turn the **(O)** dial to choose the image and press the **FUNC/SET** button.

3 Adjust the trimming area.

- A frame will appear around the portion of the image to be trimmed.
- The original image will display in the upper left and the trimmed image will display in the lower right.
- If you move the zoom lever to the left or right, you can change the frame size.
- If you press the **▲▼◀▶** buttons, you can move the frame.
- If you press the **DISP.** button, you can change the frame size.
- In an image with detected faces, gray frames appear around the faces located in the upper left image. The frames can be used for trimming. You can switch between frames by turning the **(O)** dial.
- Press the **FUNC/SET** button.

4 Save as a new image and display.

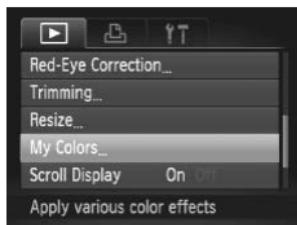
- Perform Steps 4 and 5 on p. 138.



- **W**, **S** and **RAW** images cannot be trimmed.
- The width and height ratio of an image that can be changed is fixed at 4:3 (for a vertical image 3:4).
- The number of recorded pixels in a trimmed image will be smaller than before trimming.

Adding Effects with the My Colors Function

You can change the color of an image and save it as a separate image. Refer to p. 82 for details on each menu item.



1 Choose [My Colors].

- Press the MENU button, choose the tab and [My Colors], and press the button.

2 Choose an image.

- Press the and buttons or turn the dial to choose the image and press the button.

3 Choose a menu option.

- Press the and buttons or turn the dial to choose an option.
- After choosing the menu option, you can magnify the image by following the operations in "Magnifying Images" (p. 127).
- If you press the button during magnified display, you can switch to the original image. Pressing the MENU button restores the menu screen.
- Press the button.

4 Save as a new image and display.

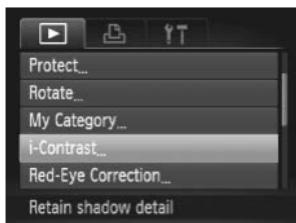
- Perform Steps 4 and 5 on p. 138.



- If you repeatedly change the color of an image, the quality will gradually deteriorate and you may not achieve the expected color.
- The coloration of images changed with this function may vary from those recorded with the My Colors function (p. 82).
- My Colors settings cannot be performed on images.

Correcting the Contrast (i-Contrast)

The camera can detect areas in an image, such as faces or backgrounds, that are too dark and automatically adjust them to the optimum brightness. Also, when the overall image is lacking in contrast, the camera will automatically correct the image for a sharper impression. You can choose 4 levels of correction: [Auto], [Low], [Medium] or [High]. Corrected images will be saved as a new file.



1 Choose [i-Contrast].

- Press the MENU button, choose the **■** tab and [i-Contrast], then press the **FUNC/SET** button.

2 Choose an image.

- Press the **◀▶** buttons or turn the **(○)** dial to choose the image and press the **FUNC/SET** button.

3 Choose a menu item.

- Press the **◀▶** buttons or turn the **(○)** dial to choose an option, then press the **FUNC/SET** button.

4 Save as a new image and display.

- Perform Steps 4 and 5 on p. 138.



What if the image wasn't corrected by the [Auto] option as well as you would like?

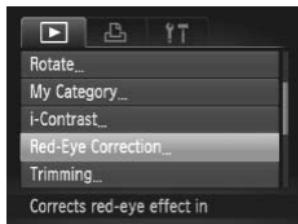
Choose [Low], [Medium] or [High] and adjust the image.



- Under some conditions, the image may appear coarse or the exposure setting may not be suitable.
- Repeatedly adjusting the same image may cause the quality to deteriorate.
- Contrast correction cannot be performed on **RAW** images.

Correcting the Red-Eye Effect

You can automatically correct red eyes in images and save them as new files.



1 Choose [Red-Eye Correction].

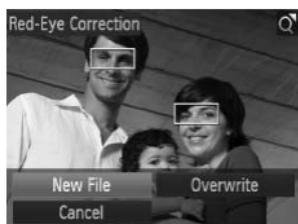
- Press the MENU button, choose the tab and [Red-Eye Correction], then press the button.

2 Choose an image.

- Press the buttons or turn the dial to choose an image.

3 Correct the image.

- Press the button.
▶ Red-eye detected by the camera will be corrected and a frame will appear around the corrected portion.
- You can zoom the image using the procedures in "Magnifying Images" (p. 127).



4 Save as a new image and display.

- Press the , , , or turn the dial to choose [New File], and press the button.
▶ The image will be saved as a new file.
- Perform Step 5 on p. 138.



- Some images may not be properly corrected.
- When [Overwrite] in Step 4 is chosen, the uncorrected image is overwritten with the corrected data, erasing the original image.
- Protected images cannot be overwritten.
- Red-eye correction cannot be performed on images.
- When shooting in + recording pixels, red-eye correction can be performed on the JPEG image, but the original image cannot be overwritten.

Printing from the Print List (DPOF)

You can add images to the print list (DPOF) directly after shooting or while in playback by pressing the button. You can print from a print list simply by connecting your camera and printer. These selection methods comply with the DPOF (Digital Print Order Format) standards.

Easily Add Images to the Print List



1 Choose an image.

- Press the buttons or turn the dial and choose the image.

2 Press the button (RAW images and videos will be excluded).

3 Print list.

- Press the buttons and choose the number of prints, press the buttons or turn the dial to choose [Add] and press the button.
- To cancel adding images, choose the added images and press the button, then press the buttons, or turn the dial to choose [Remove] and press the button.

Print Added Images

The following examples use the Canon SELPHY series printers. Please also refer to the *Personal Printing Guide*.



1 Connect the camera to the printer (p. 30).

2 Print.

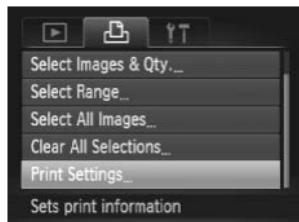
- Press the buttons, choose [Print now] and press the button.
▶ Printing will start.
- If you stop the printer during printing and start again, it will start from the next print.

Choosing Images for Printing (DPOF)

You can choose up to 998 images on a memory card for printing and specify settings such as the number of print copies so that they can be printed together or processed at a photo developer service. These selection methods comply with the DPOF (Digital Print Order Format) standards.

Print Settings

You can set the print type, date and file number. These settings apply to all images chosen for printing.



1 Choose [Print Settings].

- Press the MENU button and choose the tab, then choose [Print Settings] and press the button.

2 Adjust the settings.

- Press the buttons or turn the dial to choose a menu item, then press the buttons to choose an option.
- ▶ Pressing the MENU button accepts the settings and restores the menu screen.

Print Type	Standard	Prints one image per page.
	Index	Prints several reduced size images per page.
	Both	Prints both standard and index formats.
Date	On	Prints the date from the shooting information.
	Off	-
File No.	On	Prints the file number.
	Off	-
Clear DPOF data	On	Removes all print settings after printing.
	Off	-



- Some printers or photo developer services may not be able to reflect all of the print settings in the output.
- may appear when using a memory card with print settings set by a different camera. These settings will be overwritten with those set by your camera.
- Images with the date embedded always print 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].



- With [Index] chosen, the [Date] and [File No.] options cannot be set to [On] at the same time.
- The date will be printed in the style set in the [Date/Time] function in the **TT** tab (p. 20).
- RAW** images and videos cannot be set for printing.

Choosing the Number of Copies



1 Choose [Select Images & Qty.]

- Press the **MENU** button and choose the **Print** tab, then choose [Select Images & Qty.] and press the **FUNC/SET** button.

2 Choose an image.

- Press the **◀▶** buttons or turn the **(○)** dial to choose an image, then press the **FUNC/SET** button.
- You will be able to set the number of print copies.
- If you choose [Index], **✓** appears on the screen. Press the **FUNC/SET** button again to deselect the images. **✓** will disappear.



3 Set the number of prints.

- Press the **▲▼** buttons or turn the **(○)** dial to set the number of prints (maximum 99).
- Repeat Steps 2 and 3 to choose other images and the number of prints for each.
- You cannot set the number of print copies for index prints. You can only choose which images to print.
- Pressing the **MENU** button accepts the settings and restores the menu screen.

Choose Range



1 Choose [Select Range].

- Choose [Select Range] in Step 1 on p. 145 and press the button.
- Choose images according to Steps 3 and 4 on p. 131.

2 Make print settings.

- Press the buttons, choose [Order] and press the button.

Set All Images to Print Once



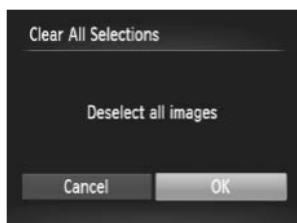
1 Choose [Select All Images].

- Choose [Select All Images] from the screen in Step 1 on p. 145 and press the button.

2 Make print settings.

- Press the buttons or turn the dial to choose [OK] and press the button.

Clearing All Selections



1 Choose [Clear All Selections].

- Choose [Clear All Selections] in Step 1 on p. 145, and press the button.

2 All selections will be cleared.

- Press the buttons or turn the dial to choose [OK], then press the button.

8

Customizing the Camera

You can customize various functions to suit your shooting preferences. The first part of this chapter explains convenient and commonly used functions. The latter part explains how to change shooting and playback settings to suit your purposes.



Changing Functions

You can customize convenient and commonly used functions from the **Fn** tab (p. 49).

Turning off Hints & Tips

When you choose an item in the FUNC. menu (p. 48) or Menu (p. 49), hints and tips display. You can turn off this function.



- Choose [Hints & Tips], then press the **◀▶** buttons to choose [Off].

Changing the File Number Assignment

Images you shoot are automatically assigned file numbers in the order they were taken, from 0001 – 9999, and saved to folders of up to 2,000 images. You can change the file number assignment.



- Choose [File Numbering], then press the **◀▶** buttons to choose an option.

Continuous	Even if you shoot using a new memory card, the file numbers are assigned consecutively until an image with the number 9999 is taken/saved.
Auto Reset	If you replace the memory card with a new one, file numbering begins with 0001 again.



- If you use a memory card already containing images, the newly assigned file numbers may continue the existing numbering for both the [Continuous] and [Auto Reset] settings. If you want to start over with file number 0001, format the memory card before use (p. 53).
- Refer to the *Software Guide* for information regarding folder structure or image types.

Creating Folders by Shooting Date

Images are saved into folders created each month, however, you can also create folders by shooting date.



- Choose [Create Folder] and press the **◀▶** buttons to choose [Daily].
- Images will be saved into folders created on each shooting date.

Changing the Lens Retract Time

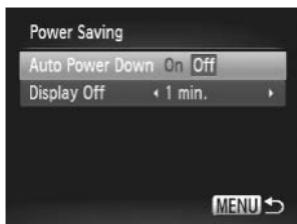
For safety reasons, the lens retracts about 1 minute after pressing the **■** button when in a Shooting mode (p. 28). You can set the retraction time to [0 sec.].



- Choose [Lens Retract], then press the **◀▶** buttons to choose [0 sec.].

Turning off the Power Saving Function

You can set the power saving function (p. 54) to [Off]. Setting it to [On] is recommended to save battery power.



- Choose [Power Saving], then press the **FUNC/SET** button.
- Press the **▲▼** buttons or turn the **○** dial to choose [Auto Power Down], then press the **◀▶** buttons to choose [Off].
- If you set the power saving function to [Off], be careful not to forget to turn off the camera after use.

Setting the Screen Shut-Off Time

You can adjust the time the screen takes to shut off automatically (p. 54). This also works when [Auto Power Down] is set to [Off].



- Choose [Power Saving], then press the button.
- Press the buttons or turn the dial to choose [Display Off], then press the buttons to choose a time.
- In order to save battery power, it is recommended to choose less than [1 min.].

Using the World Clock

When traveling abroad, you can record images with local dates and times simply by switching the time zone setting if you pre-register the destination time zones. You can enjoy the convenience of not having to switch the Date/Time settings.



1 Set the home time zone.

- Choose [Time Zone] and press the button.
- When setting this for the first time, check the information that displays on the screen at the left, and press the button.
- Press the buttons or turn the dial to choose the home time zone, then press the button. To set daylight saving time (adds 1 hour), press the buttons to choose .



2 Set the world time zone.

- Press the **▲▼** buttons or turn the **(○)** dial to choose **☒**, then press the **FUNC/SET** button.
- Press the **◀▶** buttons or turn the **(○)** dial to choose the destination time zone, then press the **FUNC/SET** button.
- You can also set the daylight saving time as in Step 1.

3 Choose the world time zone.

- Press the **▲▼** buttons or turn the **(○)** dial to choose [Home/World].
- Press the **◀▶** buttons to choose **☒**, then press the **MENU** button.
- **☒** will appear in the [Time Zone] or shooting screen (p. 44).



If you change the date or time in the **☒** setting (p. 20), your **🏡** time and date will automatically change.

Changing Distance Units

You can change the distance units that display in the zoom bar (p. 25) and the MF indicator (p. 94) from m/cm to ft/in.



- Choose [Distance Units], then press the **◀▶** buttons to choose [ft/in].

Changing Shooting Functions

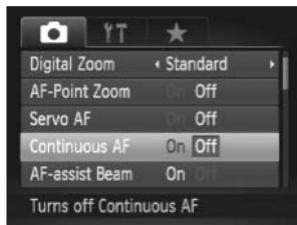
If you set the mode dial to **P**, you can change the settings in the tab (p. 49).



Before attempting to shoot using a function explained in this chapter in modes other than **P** mode, check if the function is available in those modes (pp. 180 – 183).

Switching the Focus Setting

The camera focuses on whatever it is aimed at even when the shutter button is not pressed. However, you can set it so that the camera only focuses when the shutter button is pressed halfway.

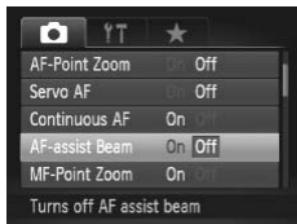


- Choose [Continuous AF], then press the buttons to choose [Off].

On	The camera focuses continuously until you press the shutter button halfway, allowing you to shoot without missing opportunities.
Off	This conserves battery power.

Turning off the AF Assist Beam

The lamp will automatically light to assist focusing in low light conditions when you press the shutter button halfway. You can turn off the lamp.



- Choose [AF-assist Beam], then press the buttons to choose [Off].

Changing the Flash Timing

You can change the timing for the flash and shutter.



- Choose [Flash Control] and press the button.
- Press the buttons or turn the dial to choose [Shutter Sync.] and press the buttons to choose a setting.

1st-curtain	The flash fires right after the shutter opens.
2nd-curtain	The flash fires right before the shutter closes.

Turning off the Red-Eye Reduction Function

The red-eye reduction lamp lights in order to reduce the red-eye effect that occurs when shooting in dark conditions with the flash. You can turn off this function.



- Choose [Flash Control], then press the button.
- Press the buttons or turn the dial to choose [Red-Eye Lamp], then press the buttons to choose [Off].

Changing the Image Display Time

You can change the length of time the images display directly after shooting.

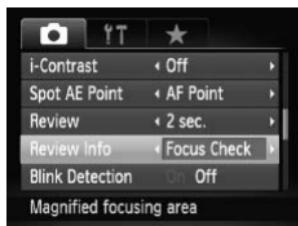


- Choose [Review], then press the buttons to choose an option.

2 – 10 sec.	Displays images for the set time.
Hold	The image displays until you press the shutter button halfway.
Off	No image displays.

Changing the Way the Image Displays Right After Shooting

You can change the way the image displays after shooting.



- Choose [Review Info], then press the **◀▶** buttons to choose an option.

Off	Displays the image only.
Detailed	Displays detailed information (p. 45).
Focus Check	The area inside the AF frame is magnified, allowing you to check the focus. The procedure is the same as in "Checking the Focus" (p. 126).

Customizing Display Information

You can change which information is displayed by switching between custom displays with each press of the **DISP.** button.



- Choose [Custom Display], then press the **FUNC/SET** button.
- Press the **▲▼◀▶** buttons or turn the **(○)** dial to select an item and press the **FUNC/SET** button. A **✓** mark will appear on items that will display.
- Press the **▲▼◀▶** buttons or turn the **(○)** dial to choose **LCD**, **EVF**, or **LVF** and press the **FUNC/SET** button to set the custom displays that appear when the **DISP.** button is pressed. Custom displays marked with a **(○)** will not appear when the **DISP.** button is pressed. The custom display currently being used cannot be marked with a **(○)**.

► Items with a ✓ will display.

Shooting Info	Displays shooting information (p. 44).
Grid Lines	A grid overlays the display.
3:2 Guide	The areas outside the 3:2 range are grayed out. This area will not print when printing on paper with a 3:2 aspect ratio.
Histogram	Histogram displays in shooting modes P , Tv , Av , M (p. 46).

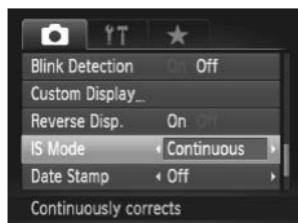


If you press the shutter button halfway and return to the shooting screen from the custom display settings screen, the settings will not be saved.



Gray items can also be set, however, they may not display depending on the Shooting mode.

Changing the IS-Mode Settings



- Choose [IS Mode], then press the **◀▶** buttons to choose an option.

Continuous	Image stabilization is always on. You can confirm the result directly on the display, which makes it easier to check the composition or focus.
Shoot Only	Image stabilization is only active at the moment of shooting.
Panning	Image stabilization only counters up and down motion. This option is recommended for shooting objects moving horizontally.



- If camera shake is too strong, attach the camera to a tripod. It is recommended to set the IS Mode to [Off] when the camera is attached to a tripod.
- When using [Panning], hold the camera horizontally. Image stabilization does not work when the camera is held vertically.

Registering Functions to the **S** Button



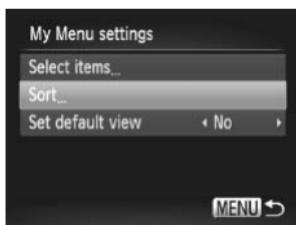
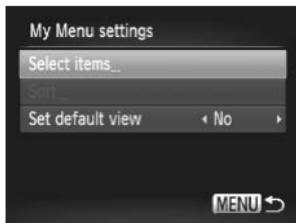
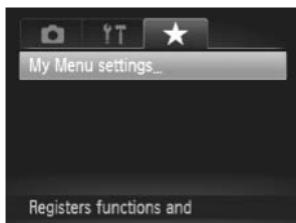
- Choose [Set Shortcut button], then press the button.
- Press the buttons or turn the dial to choose the functions to register, then press the button.
- Pressing the button will call up the registered function.



- Choose if you want to cancel registration.
- When this symbol is shown on the bottom right of an icon, the function cannot be used in the current Shooting mode or function setting.
- In and , each press of the button records white balance data (p. 79), and the white balance settings change to or , respectively.
- In AFL, each press of the button will adjust the focus, and AFL will appear on the screen.
- If you press the button in , the screen will turn off. Perform one of the following operations to solve the problem.
 - Press any button other than the power button
 - Change the camera's vertical or horizontal orientation
 - Open and close the LCD monitor

Registering Commonly Used Shooting Menus

You can register shooting menu items in the ★ tab to fit your preferences. You can quickly access commonly used menu items from a single screen by registering them in My Menu.



1 Choose [My Menu settings].

- Choose [My Menu settings], in the ★ tab, then press the **FUNC.
SET** button.

2 Choose the menu items to register.

- Press the ▲▼ buttons to choose [Select items], then press the **FUNC.
SET** button.
- Press the ▲▼ buttons to choose a menu to register (up to 5) and press the **FUNC.
SET** button.
▶ ✓ will appear.
- To cancel registration, press the **FUNC.
SET** button, and the ✓ will disappear.
- Press the **MENU** button.

3 Change the order in which menu items are displayed.

- Press the ▲▼ buttons to choose [Sort], then press the **FUNC.
SET** button.
- Press the ▲▼ buttons to choose the menu item you would like to move, and press the **FUNC.
SET** button.
- Press the ▲▼ buttons to change the order, then press the **FUNC.
SET** button.
- Press the **MENU** button.

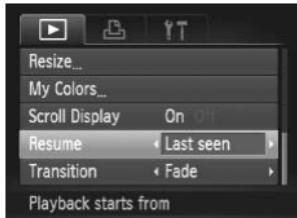


- Gray items in Step 2 can also be set, however, they may not be available depending on the Shooting mode.
- Choose [Set default view] and press the **◀▶** buttons to choose [Yes]. My Menu can now be displayed by pressing the **MENU** button when in a shooting mode.

Changing Playback Functions

You can adjust the settings in the **▶** tab by pressing the **▶** button (p. 49).

Choosing the Image that First Displays in Playback



- Choose [Resume], then press the **◀▶** buttons to choose an option.

Last seen	Resumes with the image last viewed.
Last shot	Resumes with the most recently shot image.

Changing the Start-up Image or Sound

In the  tab, you can change the sounds played for each camera operation or set the start-up image that appears when the camera power is turned on.

Change Sounds



- Choose [Sound Options], then press the  button.
- Press the  buttons or turn the  dial to choose an option.
- Press the  buttons to choose a setting.

1, 2 Preset sounds.

3 You can register your sounds using the supplied software (p. 160).

Changing the Start-up Screen



- Choose [Start-up Image], then press the  button.
- Press the  buttons to choose a setting.

No start-up image.

1, 2 Preset images.

3 You can register your images. You can register the start-up image using the supplied software.

Setting a Recorded Image as the Start-up Screen Image

When you press the  button and set the camera to Playback mode, you can register sounds and images.



- Choose [Start-up Image], then press the  button.
- Press the  buttons to choose [3], then press the  button.

Changing the Start-up Image or Sound



- Press the **◀▶** buttons or turn the  dial to choose an image, then press the  button.
- Press the **◀▶** buttons or turn the  dial to choose [OK], then press the  button to complete registration.

 Any previously registered start-up image will be overwritten when registering a new start-up image.

Using the included software to register sounds and the start-up screen image

You can register sounds and start-up screen images that come with the included software to the camera. Refer to the *Software Guide* for details.

9

Useful Information

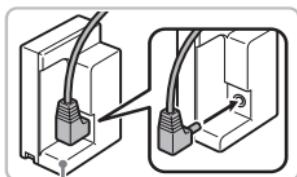
This chapter introduces how to use the separately sold accessories, troubleshooting tips, and contains lists of functions.

The index also appears at the end.



Using Household Power

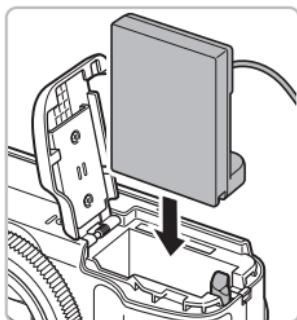
If you use AC Adapter Kit ACK-DC50 (sold separately), you can use the camera without worrying about how much charge is left in the battery.



DC Coupler DR-50

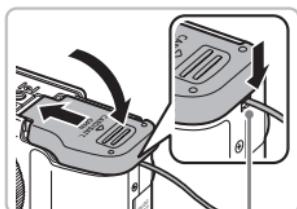
1 Insert the plug into the coupler.

- Firmly insert the DC plug of the compact power adapter cable into the DC Coupler terminal.



2 Insert the coupler.

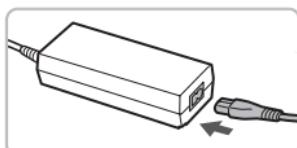
- Open the cover (p. 16) and insert the coupler as shown until it locks into place with a click.



DC Coupler Cable Cover

3 Close the cover.

- Press and hold the DC Coupler cable cover using the cable, then close the memory card/battery cover.



4 Connect the power cord.

- Connect the power cord to the compact power adapter, then plug the other end into a power outlet.
- You can turn the camera on to use it.
- After you finish, turn off the camera and unplug the power cord from the power outlet.



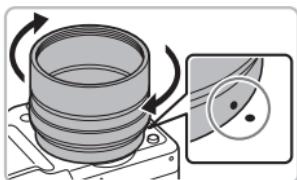
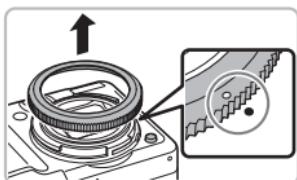
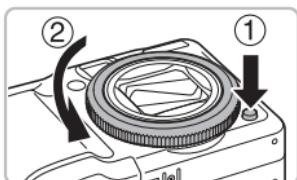
The AC adapter kit can also be used when abroad

The AC adapter kit can be used in regions that have 100 - 240 V (50/60 Hz) AC power. If the plug does not fit the outlet, use a commercially available plug adapter. Do not use devices such as electrical transformers for foreign travel because they will cause malfunctions.

! Do not unplug the plug and power cord with the camera turned on. This could erase images you have taken or damage the camera.

Using the Lenses (Sold Separately)

When attaching the Tele-converter TC-DC58D, you can take shots from even further away. (The lens changes the focal length of the camera body's lens by a factor of 1.4x) To attach the tele-converter lens, you also need the Conversion Lens Adapter LA-DC58K (sold separately).

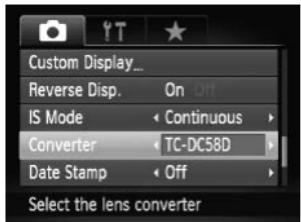
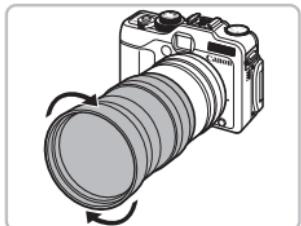


1 Remove the ring.

- Be sure the camera is turned off.
- While pressing the ring release button (①), turn the ring in the direction of the arrow (②).
- When the “○” mark on the ring and the “●” mark on the camera are aligned, lift off the ring.

2 Attach the conversion lens adapter.

- Align the “●” mark on the conversion lens adapter with the “●” mark on the camera and turn the adapter in the direction of the arrows until it locks.
- To remove, hold down the ring release button while turning the adapter in the opposite direction.



3 Attach the tele-converter lens.

- Turn the lens in the direction of the arrow to attach it securely to the camera.

4 Adjust converter settings.

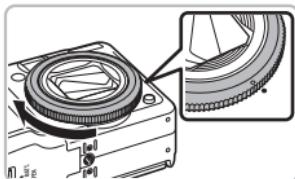
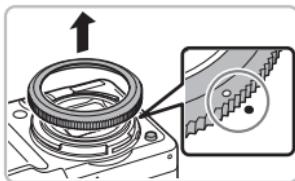
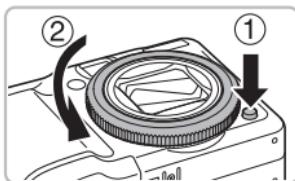
- Turn on the camera.
- Choose [Converter] from the **Camera** tab and press the **◀▶** buttons to choose [TC-DC58D].
- If [IS Mode] is set to [Off], it is not necessary to make converter settings.
- When you remove the converter from the camera, return the converter setting to [None].



- When using the built-in flash, the outer edges of images (especially the lower right) may be darkened.
- When using the tele-converter, set the camera near the maximum telephoto. At other zoom settings, the image will appear as if its corners have been cut off.
- Use the screen for shooting. If you use the viewfinder for shooting, a portion of the view will be blocked by the attachments.
- EB** mode is not available.
- Completely remove all dust and dirt from conversion lenses with a lens blower brush before use.
- If you shoot in **□** while using these lens attachments, the supplied software cannot be used to accurately stitch the images back together.

Changing the Ring Color (Sold Separately)

You can change the color of the ring using the separately sold Ring Accessory Kit RAK-DC-2.



1 Remove the ring.

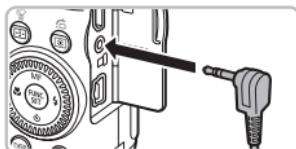
- Be sure the camera is turned off.
- While pressing the ring release button (①), turn the ring in the direction of the arrow (②).
- When the “○” mark on the ring and the “●” mark on the camera are aligned, lift off the ring.

2 Attach the ring.

- Align the “○” mark on the ring with the “●” mark on the camera and turn the ring in the direction of the arrow.

Using the Remote Switch (Sold Separately)

By using the RS60-E3 Remote Switch (sold separately), you can avoid any camera shake that may occur when you press the shutter button. The remote switch is useful when using slow shutter speeds.



1 Connect the remote switch.

- Be sure the camera is turned off.
- Open the terminal cover and insert the remote switch plug.



2 Shoot.

- Press the release button on the remote switch to shoot.



Bulb photographs cannot be taken with this camera.

Using an Externally Mounted Flash (Sold Separately)

You can make your flash photography even clearer and more natural appearing with the use of a separately sold externally mounted flash. You are recommended to set the white balance to \downarrow .

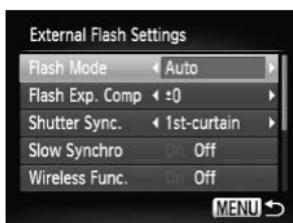


- When an external flash is mounted, you cannot set the built-in flash.
- Some functions on Speedlite 220EX, 270EX, 430EX II, and 580EX II cannot be used with this camera.
- The flash may not fire when using Canon brand flashes other than Speedlite EX series models. Also, automatic red-eye correction is not available.
- Using a non-Canon brand flash (particularly a high-voltage flash) or flash accessories may inhibit normal operation or damage the camera.

Speedlite 220EX, 270EX, 430EX II, and 580EX II



- 1 Attach the flash to the camera's hot shoe.
- 2 Turn the external flash on and turn the camera on.
 - ▶ \downarrow (red) appears on the screen.
 - ▶ When the flash is charged, its pilot lamp will light.
- 3 Display the flash settings screen.
 - Choose the [Flash Control] from the tab, then press the button.
 - ▶ The options set on the flash will appear.
- 4 Make the setting.
 - Press the $\blacktriangle\blacktriangledown$ buttons or turn the dial to choose a menu item, then press the $\blackleftarrow\blackrightarrow$ buttons to complete the setting.
 - The available settings differ depending on the flash (p. 167).

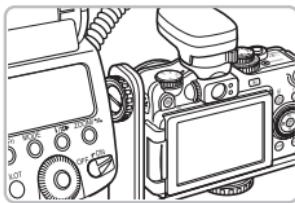


Using an Externally Mounted Flash (Sold Separately)

- In modes other than **P**, **Tv**, **Av**, **M** and **EZ**, flash settings cannot be changed since the flash adjusts and fires automatically.



Using Speedlite 430EX II and 580EX II



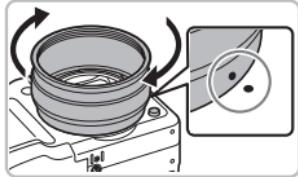
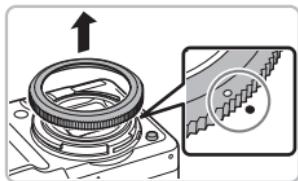
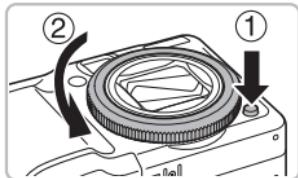
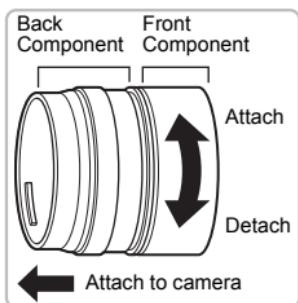
Using the separately sold Speedlite Bracket SB-E2 prevents unnatural shadows from appearing on the sides of objects when shooting from a vertical position. However, depending on the angle, the bracket may interfere with opening the LCD monitor. Please use the camera with the LCD monitor closed and the screen facing outward.



You can use the Speedlite 380EX, 420EX, 430EX, 550EX, and 580EX in the same manner.

Macro Ring Lite MR-14EX and Macro Twin Lite MT-24EX

The Conversion Lens Adapter LA-DC58K, Off Camera Shoe Cord OC-E3, and Bracket BKT-DC1 (all sold separately) are required to attach the Macro Ring Lite MR-14EX or Macro Twin Lite MT-24EX to the camera.



1 Prepare the conversion lens adapter.

- Rotate the conversion lens adapter in the direction indicated by the arrow to detach the front and back components.
- Only the back component is required when attaching the Macro Ring Lite MR-14EX or Macro Twin Lite MT-24EX.

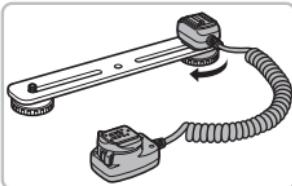
2 Remove the ring.

- Be sure the camera is turned off.
- While pressing the ring release button (①), turn the ring in the direction of the arrow (②).
- When the “○” mark on the ring and the “●” mark on the camera are aligned, lift off the ring.

3 Attach the back component of the conversion lens adapter.

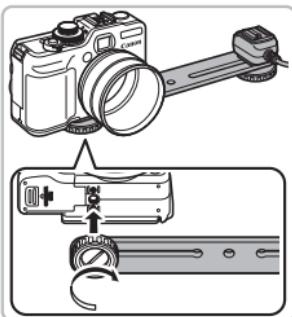
- Align the “●” mark on the back component of the conversion lens adapter with the “●” mark on the camera and turn the adapter in the direction of the arrows until locked.
- To remove, hold down the ring release button while turning the adapter in the opposite direction.

Using an Externally Mounted Flash (Sold Separately)



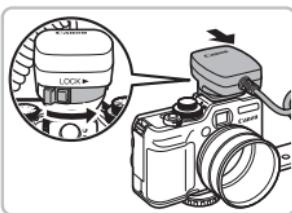
4 Attach the Off Camera Shoe Cord to the bracket.

- Slide the bracket screw to the outer end of the bracket, and secure the screw into the tripod socket on the Off Camera Shoe Cord.



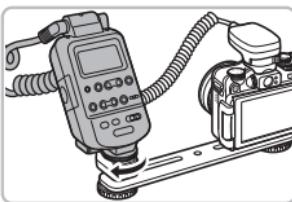
5 Attach the bracket.

- Slide the bracket screw to the outer end of the bracket, and secure the screw into the tripod socket on the bottom of the camera.



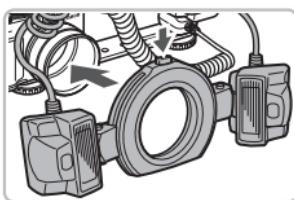
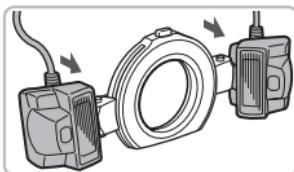
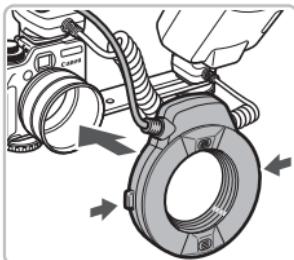
6 Attach the Off Camera Shoe Cord.

- Attach the camera connection component of the Off Camera Shoe Cord to the hot shoe on top of the camera.



7 Attach the controller.

- Attach the controller for the Macro Ring Lite or Macro Twin Lite to the flash connection component of the Off Camera Shoe Cord.



8 Attach the flash to the conversion lens adapter.

- When attaching the Macro Ring Lite MR-14EX, press and hold the release buttons on both sides of the Macro Ring Lite and fit it onto the conversion lens adapter.
- When attaching the Macro Twin Lite MT-24EX, attach the flash heads to their respective flash head mounts (①). Press and hold the release button on the top of the external ring and fit it onto the conversion lens adapter (②).

9 Set the camera to mode.

- Press the button to choose .
- ▶ The shooting mode will switch between and with each press.

10 Set [ND Filter] to [On].

- Press the and use the buttons to choose , then press the or use the dial to choose .

11 Configure the externally mounted flash.

- Make settings as shown on Steps 4 – 5 on p. 167.

12 Configure the externally mounted flash.

- You can shoot in E-TTL automatic flash exposure compensation mode just by setting the camera's shooting mode to **P**, **Av**, or **Tv**.
- Set the aperture values in **Av** or **M**, then shoot.



- Be sure the cords from the Off Camera Shoe Cord, Macro Ring Lite or Macro Twin Lite do not obstruct or interfere with the flash.
- While shooting with a tripod, adjust the direction of the camera so that the flash heads do not contact the tripod or bracket.
- Depending on the placement of the controller, it may come into contact with the LCD monitor.
- Use the screen for shooting. The viewfinder cannot be used.
- mode is not available.

Configuring the Externally Mounted Flash (Sold Separately)

- The maximum flash synchro shutter speed is 1/250 second.
- The flash will automatically adjust its output when [Flash Mode] is set to [Auto]. Flash exposure compensation and safety FE can be set when the flash is set to auto exposure. However, when performing flash exposure compensation with the camera, make sure to set the flash exposure compensation on the flash to [+0].
- The flash output can be adjusted on the camera or the flash if [Flash Mode] is set to [Manual]. (With Speedlite 220EX and 270EX, settings cannot be made on the flash.) In **M** mode, you can set the flash output with the camera even if the flash unit is set to E-TTL automatic flash exposure compensation. [E-TTL] will display on the flash, but the flash will fire manually. Also, if the flash compensation value is changed on the flash, the flash output will also change.
- Settings available on the camera are as follows.

Item	Options	Shooting mode				
		P	Tv	Av	M	
Flash Mode	Auto/Manual	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	*1	<input type="radio"/>
Flash Exp.Comp	-3 to +3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	-	<input type="radio"/>
Flash Output	1/128 ² to 1/1 (in 1/3 steps)	<input type="radio"/>				
Shutter Sync.	1st-curtain/2nd-curtain/Hi-Speed ³	<input type="radio"/>				
Slow Synchro	On/Off	<input type="radio"/>	*4	<input type="radio"/>	*4	<input type="radio"/>
Wireless Func. ⁵	On/Off	<input type="radio"/>				
Red-Eye Corr.	On/Off	<input type="radio"/>				
Red-Eye Lamp	On/Off	<input type="radio"/>				
Safety FE	On/Off	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	-	<input type="radio"/>
Clear Flash Settings ⁶	Resets settings to their default values.	<input type="radio"/>				

*1 Fixed to [Manual].

*2 1/64 for Speedlite 220EX, 270EX and 430EX II.

*3 Not available with Speedlite 220EX.

*4 Fixed to [On].

*5 Settings aside from On/Off are set on the flash. Not available with Speedlite 220EX, 270EX or 430EX II. When set to [On], [Shutter Sync.] cannot be set to [2nd-curtain]. Even if you set [Shutter Sync.] to [2nd-curtain] with the camera, it will change to [1st-curtain].

*6 [Slow Synchro], [Safety FE], [Red-Eye Corr.] and [Red-Eye Lamp] can also be returned to their default values using [Reset All] in the camera's menu (p. 52). Setting is not available with the Speedlite 220EX.

Using an Externally Mounted Flash (Sold Separately)

- The settings from the flash are applied to the flash mode, flash exposure compensation, flash output, shutter synchro, and wireless function when you turn on the camera.
- The following functions can be used.
 - Auto Exposure (Set the camera to E-TTL mode)
 - FE Lock (When [Flash Mode] is [Auto])
 - Auto Zoom (Not available with the 220EX or 270EX)



- Please read the manuals that came with the flash and speedlite transmitter.
- For continuous shooting, the flash can be used in quick flash mode (pilot lamp lit green). In this case, light emission may be less than with full flash (pilot lamp lit red) (580EX II only).
- If the external flash has been set to stroboscopic flash, the flash's set up menu cannot be chosen (580EX II only).



Other Canon flashes.

Canon flashes other than the Speedlite EX series will fire at their full strength. For the optimal aperture values and ISO speeds for the distance to the subject, refer to the guide number listed in the flash's user guide.

Troubleshooting

If you think there is a problem with the camera, first check the following. If the items below do not solve your problem, contact a Canon Customer Support Help Desk as listed on the included customer support list.

Power

You pressed the power button, but nothing happened.

- Confirm that the battery is properly inserted (p. 16).
- Confirm that the memory card/battery cover is securely closed (p. 16).
- If the battery terminals are dirty, battery performance will decrease. Clean the terminals with a cotton swab and re-insert the battery several times.

Battery is consumed quickly.

- Battery performance decreases at low temperatures. Warm the battery by placing it, for example, in your pocket with the terminal cover on.

Lens will not retract.

- Confirm that the memory card/battery cover is securely closed. After closing the memory card/battery cover, turn the power on then back off (p. 17).

TV output

Image is distorted or not showing on TV (p. 128).

Shooting

Cannot shoot.

- When in Playback mode (p. 28), press the shutter button halfway (p. 24).

The screen is off (p. 44).

Screen does not display properly in dark places (p. 46).

Screen does not display properly while shooting.

Please note, the following will not be recorded in still images, but will be recorded in movies.

- When the camera is subjected to powerful light sources, the display may darken.
- Under fluorescent lighting, the screen may flicker.
- When shooting bright light sources, a bar of light (purplish red) may appear on the screen.

⚡ appears on the screen and the shot cannot be taken even though the shutter button was pressed fully (p. 27).

⌚ appears when the shutter button was pressed halfway (p. 26).

- Set the [IS mode] to [Continuous] (p. 155).
- Set the flash to ⚡ (p. 73).
- Increase the ISO speed (p. 78).
- Attach the camera to a tripod.

Image is blurred.

- Press the shutter button halfway to focus on the subject, then press fully to shoot (p. 24).
- Shoot the subject within the focusing distance (p. 187).
- Set the [AF-assist Beam] to [On] (p. 152).
- Confirm that functions which you do not intend to use (macro, etc.) are not set.
- Shoot using the focus lock or AF lock (pp. 86, 91).

Even when you press the shutter button halfway, the AF frame does not appear, and the camera does not focus.

- If you center on the light and dark contrasting area of the subject and push the shutter button halfway, or repeatedly push the shutter button halfway, the frame will appear and the camera will focus.

Subject is too dark.

- Set the flash to  (p. 73).
- Adjust the brightness with exposure compensation (p. 73).
- Adjust the brightness with the i-Contrast function (pp. 103, 141).
- Use the AE lock, or spot metering to shoot (p. 96).

Subject is too bright (overexposed).

- Set the flash to  (p. 63).
- Adjust the brightness with exposure compensation (p. 73).
- Use the AE lock, or spot metering to shoot (p. 96).
- Reduce the light illuminating the subject.

Image is dark even though the flash fired (p. 26).

- Increase the ISO speed (p. 78).
- Shoot within an appropriate distance for flash photography (p. 73).
- Adjust the flash exposure compensation or the flash output (pp. 105, 106).

Image taken using the flash is too bright (overexposed).

- Shoot within an appropriate distance for flash photography (p. 73).
- Set the flash to  (p. 63).
- Adjust the flash exposure compensation or the flash output (pp. 105, 106).

White dots appear on the image when shooting with the flash.

- Light from the flash has reflected off dust particles or other objects in the air.

Image appears rough or grainy.

- Shoot with the ISO speed on a lower setting (p. 78).
- Depending on the Shooting mode, when shooting in a high ISO speed the image may appear rough or grainy (pp. 57, 59).

Eyes appear red (p. 104).

- Set the [Red-Eye Lamp] to [On] (p. 153). When shooting with the flash, the lamp (on the front of the camera) lights (p. 42), and for approximately 1 second while the camera is reducing red-eye, it is not possible to shoot. It is more effective if the subject is looking directly at the lamp. Even better results can be obtained by increasing the lighting in indoor settings or approaching closer to the subject.

Recording images to the memory card takes a long time, or continuous shooting slows down.

- Perform a low-level format of the memory card in the camera (p. 53).

When you can't make settings for shooting functions or FUNC. menu.

- The items in which settings can be made differ depending on the shooting mode. Refer to "Functions Available in Each Shooting Mode" (p. 180).

Shooting movies

Correct shooting time does not display, or stops.

- Format the memory card in the camera (p. 53), or use a memory card capable of recording at high speeds. Even when the shooting time does not display properly, the recorded video will be the length that it was actually shot (p. 32).

appeared on the screen, and shooting ended automatically.

The camera's internal memory was insufficient. Try one of the following.

- Perform a low-level format of the memory card in the camera (p. 53).
- Change the image quality setting (p. 115).
- Use a memory card capable of recording at high speeds (p. 115).

Playback

Cannot play back images or movies.

- If the file name or folder structure is changed on a computer, you may not be able to play back images or movies. Refer to the *Software Guide* for information regarding folder structure or file names.

Playback stops, or audio cuts out.

- Use a memory card that has been formatted on this camera (p. 53).
- If you copy a movie to a memory card that reads slowly, playback may interrupt momentarily.
- Depending on its capabilities, the computer may drop frames, or the audio may cut out, when playing movies.

Computer

Cannot transfer images to a computer.

It may be possible to solve the problem when the camera is connected to the computer via cable by slowing the transfer speed.

- Remove the cable, then press and hold the **MENU** button and press the **▲** and  buttons. In the screen that appears, choose [B].

List of Messages that Appear on the Screen

If error messages appear on the screen, try one of the following solutions.

No memory card

- The memory card is not installed in the correct direction. Install the memory card in the correct direction (p. 16).

Card locked!

- The SD memory card or SDHC memory card's write protect tab is set to "LOCK". Unlock the write protect tab (p. 18).

Cannot record!

- You attempted to shoot an image without a memory card, or with a memory card installed incorrectly. Install the memory card in the correct direction when shooting (p. 16).

Memory card error (p. 53)

- Contact your Canon Customer Support Help Desk as there may be a problem with the camera.

Memory card full

- There is not enough free space on the memory card to shoot (pp. 25, 55, 71, 87) or edit images (pp. 138 – 142). Erase the images (pp. 29, 133) to open space for new images, or insert an empty memory card (p. 16).

Change the battery pack (p. 14)

No image.

- There are no images recorded on the memory card that can be displayed.

Protected! (p. 130)

Unidentified Image/Incompatible JPEG/Image too large./Cannot play back AVI/RW

- Unsupported images or data, or corrupted image data cannot be displayed.
- Images manipulated on a computer, that have had their file name changed, or have been taken with a different camera may not display.

Cannot magnify!/Cannot rotate/Cannot modify image/Cannot register this image!/Cannot modify/Cannot assign to category

- Incompatible images cannot be magnified (p. 127), rotated (p. 137), edited (pp. 138 – 142), registered to the start-up screen (p. 159), categorized (p. 135), or added to a print list (p. 144).
- Images manipulated on a computer, that have had their file name changed, or have been taken with a different camera may not be magnified, rotated, edited, registered to the start-up screen, categorized, or added to a print list.
- Movies cannot be magnified (p. 127), edited (pp. 138 – 142), added to a print list (p. 143), or registered to the start-up screen (p. 159).

Cannot select!

- When choosing the selection range (pp. 131, 134, 146), you tried to choose a starting image that was after the last image or you tried to choose an ending image that was before the starting image.
- You tried to choose more than 501 images in the selection range (pp. 131, 134, 146).

Too many marks.

- You chose more than 998 images in print settings. Choose less than 998 images (p. 144).

Cannot complete!

- Print settings could not be saved correctly. Reduce the number of selected images and try again (p. 144).

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 (p. 149). In the  menu, change [File Numbering] to [Auto Reset] (p. 148) or format the memory card (p. 53).

Communication error

- Images could not be transferred to the computer or printed due to the large amount of images (approx. 1000) stored on the memory card. Use a commercially available USB card reader to transfer the images. Insert the memory card into the printer's card slot to print.

Lens error, restart camera

- A lens error was detected. Press the power button to turn the camera off and back on (p. 43). If this error message continues to appear, contact your Canon Customer Support Help Desk as there may be a problem with the lens.
- This error can occur if you hold the lens while it is in motion or when using it in a location with excessive dust or sand in the air.

Exx (xx: number)

- A camera error was detected. Press the power button to turn the camera off and back on (p. 43).
- If an error code appears directly after taking a picture, the shot may not have been recorded. Check image in Playback mode.
- If this error code reappears, note the number and contact your Canon Customer Support Help Desk as there may be a problem with the camera.

Functions Available in Each Shooting Mode

	Shooting modes	C1	C2	M	Av	Tv	P
Function							
Exposure Compensation (p. 73)/Exposure Shift (p. 116)		*1	—	○	○	○	○
ISO Speed (p. 78)		*1	—	○	○	○	○
		*1	○	○	○	○	○
Self-Timer (pp. 67, 68, 83, 84)	 	*1	○	○	○	○	○
Flash (p. 73)		*1	—	—	—	—	○
Program Shift (p. 96)		*1	—	○	○	○	○
AE Lock/FE Lock (pp. 96, 97, 116)		*1	—	○	○	○	○
AF Lock (p. 91)		*1	○	○	○	○	○
Focusing Zone (p. 77)		*1	○	○	○	○	○
	All Range	—	—	—	—	—	—
Manual Focus (p. 94)		*1	○	○	○	○	○
Changing AF Frame Position and Size (p. 89)		*1	○	○	○	○	○
Face Selection (p. 92)		*1	○	○	○	○	○

FUNC. Menu									
	AWB		*1	○	○	○	○	○	○
White Balance (p. 79)									
My Colors (p. 82)			*1	○	○	○	○	○	○
Bracketing (pp. 95, 98)									
Flash Exposure Compensation (p. 105)			*1	○	○	○	○	○	○
Flash Output Settings (p. 106)			*1	—	○	○	○	○	○
ND Filter (p. 99)			*1	○	○	○	○	○	○
Drive Mode (p. 81)			*1	○	○	○	○	○	○
			*1	○	○	○	○	○	○
			*1	○	○	○	○	○	○
Recording Pixels (pp. 74, 115)/Compression Ratio (Image Quality) (p. 74)			*1	○	○	○	○	○	○

*1 The available settings depend on the registered shooting modes. *2 if the flash fires

*3 MF, AF lock and set to . *4 not available. *5 not selectable. *6 Fixed to .

Functions Available in Each Shooting Mode

FUNC. Menu

○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
—	—	○	—	—	—	—	—	—	—	—	—	—	—	—	—	○	*4	—	—	
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
—	—	○	—	—	—	—	—	—	—	—	—	—	—	—	—	○	○	—	—	
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	○	○	—	
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	—	
—	○	○	○	○	○	○	○	—	○	○	○	○	○	○	○	○	○	—	—	
—	○	—	○	○	○	○	○	○	○	○	○	○	○	○	○	○	—	—	—	
*5	*6	○	*5	*5	*5	*5	*5	*5	*5	*5	*5	*5	*5	*5	*5	*5	*5	*7	○	○

*7 Recording pixel setting **W** not selectable.

Selectable, or set automatically. — Not selectable

Menus

Shooting Menu

Function	Shooting modes		C1	C2	M	Av	Tv	P
			*	*	O	O	O	O
AF Frame (p. 88)	Face AiAF		*	*	O	O	O	O
	Center		*	*	*2	*2	*2	*2
	FlexiZone		*	*	*2	*2	*2	*2
Digital Zoom (p. 64)	Standard		*	*	O	O	O	O
	Off		*	*	O	O	O	O
	Digital Tele-Converter (1.4x/2.3x)		*	*	O	O	O	O
AF-Point Zoom (p. 90)	On/Off		*	*	O	O	O	O
Servo AF (p. 91)	On/Off		*	*	O	O	O	O
Continuous AF (p. 152)	On/Off		*	*	O	O	O	O
AF-assist Beam (p. 152)	On/Off		*	*	O	O	O	O
MF-Point Zoom (p. 94)	On/Off		*	*	O	O	O	O
Safety MF (p. 94)	On/Off		*	*	O	O	O	O
Flash Control (pp. 104, 105, 106, 153)	Flash Mode	Auto	*	—	O	O	O	O
		Manual	*	*	O	O	O	—
	Flash Exp. Comp.	-2 to +2	*	*	—	O	O	O
	Flash Output	Minimum/Medium/Maximum	*	*	O	O	O	—
	Shutter Sync.	1st-curtain/2nd-curtain	*	*	O	O	O	O
	Red-Eye Corr.	On/Off	*	*	O	O	O	O
	Red-Eye Lamp	On/Off	*	*	O	O	O	O
	Safety FE	On/Off	*	*	—	O	O	O
i-Contrast (p. 103)	Auto/Off		*	*	O	O	O	O
Spot AE Point (p. 93)	Center/AF Point		*	*	O	O	O	O
Safety Shift (p. 101)	On/Off		*	*	—	O	O	—
Wind Filter (p. 116)	On/Off		*	*	—	—	—	—
Review (p. 153)	Off/2 – 10 sec./Hold		*	*	O	O	O	O
Review Info (p. 154)	Off/Detailed/Focus Check		*	*	O	O	O	O
Blink Detection (p. 107)	On/Off		*	*	O	O	O	O
Custom Display (p. 154)	Shooting Info		*	*	O	O	O	O
	Grid Lines		*	*	O	O	O	O
	3:2 Guide		*	*	O	O	O	O
	Histogram		*	*	O	O	O	O
Reverse Disp. (p. 19)	On/Off		*	*	O	O	O	O
IS Mode (p. 155)	Continuous/Off/Shoot Only/Panning		*	*	O	O	O	O
Converter (p. 163)	None/TC-DC58D		*	*	O	O	O	O
Date Stamp (p. 66)	Off/Date/Date & Time		*	*	O	O	O	O
Record +	(p. 76) On/Off		*	*	O	O	O	O
Set Shortcut button (p. 156)			*	*	O	O	O	O
Save Settings (p. 108)			O	O	O	O	O	O

*1 The available settings depend on the registered shooting modes.

*2 [Center] when the LCD monitor is off; [FlexiZone] when it is on.

AUTO		FLASH	SCN	SCENE MODE
ICON	NAME	ICON	NAME	ICON
○	○	○	○	○
—	—	○	○	○
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○	—	○	○	○
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*3	○	—	○	○
*5	—	*5	○	○
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*5	○	○	○	○
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—	○	—	—	—
○	○	○	○	○
—	—	—	—	—

*3 [On] when subject movement is detected. *4 Fixed to [Auto]. *5 Fixed to [On]. *6 AiAF

○ Selectable, or set automatically. △ Selectable only, no settings available. — Not selectable

¶ Set up Menu

Item	Options/Summary	Ref. Page
Mute	On/Off*	p. 50
Volume	Set all operation sounds (5 levels).	p. 50
Sound Options	Set the sounds for each camera operation.	p. 159
Hints & Tips	On*/Off	p. 148
LCD Brightness	Set within a range of ±2.	pp. 19, 51
Start-up Image	Add an image as start-up image.	p. 159
Format	Formats memory card, erasing all data	p. 53
File Numbering	Continuous*/Auto Reset	p. 148
Create Folder	Monthly*/Daily	p. 149
Lens Retract	1 min.*/0 sec.	p. 149
Power Saving	Auto Power Down: On*/Off Display Off: 10, 20 or 30 sec./1*, 2 or 3 min.	p. 54
Time Zone	Home/World	p. 150
Date/Time	Date and time settings	p. 21
Distance Units	m/cm* ft/in	p. 151
Video System	NTSC/PAL	p. 128
Language	Choose display language.	p. 22
Reset All	Returns camera to default settings.	p. 52

* Default setting

Playback Menu

Item	Options/Summary	Ref. Page
Slideshow	Plays back images automatically.	p. 125
Erase	Erases images.	p. 133
Protect	Protects images.	p. 130
Rotate	Rotates images.	p. 137
My Category	Categorizes images.	p. 135
i-Contrast	Corrects dark portions and contrast in still images.	p. 141
Red-Eye Correction	Corrects red eyes in still images.	p. 142
Trimming	Trims portions of still images.	p. 139
Resize	Resizes and saves still images.	p. 138
My Colors	Adjusts colors in still images.	p. 140
Scroll Display	On*/Off	p. 123
Resume	Last seen*/Last shot	p. 158
Transition	Fade*/Slide 1/Slide 2/Off	p. 127

* Default setting

Print Menu

Item	Options/Summary	Ref. Page
Print	Displays printing screen.	p. 30
Select Images & Qty.	Chooses individual images for printing.	p. 145
Select Range	Chooses starting and ending images for printing.	p. 146
Select All Images	Chooses all images for printing.	p. 146
Clear All Selections	Cancels all settings for printing.	p. 146
Print Settings	Sets the printing style.	p. 144

Handling Precautions

- This camera is a high-precision electronic device. Do not drop it or subject it to strong impacts.
- Never place the camera close to magnets or motors that generate strong electromagnetic fields. Exposure to strong magnetic fields may cause malfunctions or corrupt image data.
- If water droplets have fallen onto, or dirt is stuck on the camera or LCD monitor, wipe with a dry soft cloth or eyeglass wiper. Do not rub or apply force.
- Never use cleaners containing organic solvents to wipe the camera or LCD monitor.
- Use a commercially available blower brush to remove dust from the lens. For stubborn dirt contact the closest Canon Customer Support Help Desk as listed on the customer support leaflet supplied with your camera.
- When you move the camera rapidly from cold to hot temperatures, condensation may form on the internal or external surfaces of the camera. To avoid condensation, put the camera in an airtight, resealable plastic bag and let it adjust to temperature changes slowly before removing it from the bag.
- If condensation has formed, stop using the camera immediately. Continued use may damage the camera. Remove the battery and memory card, and wait until the moisture has completely evaporated before resuming use.

Specifications

Camera Effective Pixels	Approx. 10 million
Image Sensor	1/1.7-inch type CCD (Total number of pixels: Approx. 10.4 million)
Lens	6.1 (W) – 30.5 (T) mm 35mm film equivalent: 28 (W) – 140 (T) mm f/2.8 (W) – f/4.5 (T)
Digital Zoom	Approx. 4.0x (Up to approx. 20x in combination with the optical zoom)
Viewfinder	Real-image zoom viewfinder Picture coverage approx. 77% (representative value) Eyepoint: 15 mm (0.59 in.) Dioptric adjustment: -3.0 to +1.0 m ⁻¹ (dpt)
LCD Monitor	2.8 TFT LCD color monitor Approx. 461,000 dots, Picture coverage 100%
AF Frame Mode	Face AiAF/Center/FlexiZone
Servo AF	On/Off
Focusing Range (from end of lens)	Auto, Low Light: 1 cm (0.4 in.) – infinity (W)/ 30 cm (12.0 in.) – infinity (T) Normal: 50 cm (1.6 ft.) – infinity Macro: 1 – 50 cm (0.4 in. – 1.6 ft.) (W)/30 – 50 cm (12.0 in. – 1.6 ft.) (T) Manual Focus: 1 cm (0.4 in.) – infinity (W)/ 30 cm (12.0 in.) – infinity (T) Sports mode: 1.0 m (3.3 ft.) – infinity (W)/ 2.0 m (6.6 ft.) – infinity (T) Kids & Pets: 1.0 m (3.3 ft.) – infinity
Shutter	Mechanical shutter and electronic shutter
Shutter Speed	1 – 1/4000 sec. 15 – 1/4000 sec. (Total shutter speed range)
Image Stabilization	Lens-shift type
Metering System	Evaluative, Center-weighted average or Spot
Exposure Compensation	±2 stops in 1/3-stop increments
ISO speed	Auto, ISO 80/100/200/400/800/1600/3200
(Standard Output Sensitivity, Recommended Exposure Index)	
White Balance	Auto, Day Light, Cloudy, Tungsten, Fluorescent, Fluorescent H, Flash, Underwater, Custom1, Custom2
Built-in Flash	Auto, On, Slow Synchro, Off * Flash exposure compensation/Flash output/2nd- curtain synchro/Red-eye reduction/Red-eye correction/FE lock/Safety FE settings available
Built-in Flash Range	50 cm – 7.0 m (1.6 – 23 ft.) (W)/ 50 cm – 4.0 m (1.6 – 13 ft.) (T)
Terminals for External Flash	Hot shoe flash-sync contacts

Specifications

Shooting Modes	C1, C2, M, Av, Tv, P, Auto, Low Light, Quick Shot, SCN, Movie
	SCN Mode: Portrait, Landscape, Night Snapshot, Kids & Pets, Indoor, Sports, Sunset, Night Scene, Fireworks, Beach, Underwater, Aquarium, Foliage, Snow, Color Accent, Color Swap, Stitch Assist
	Movie Mode: Standard, Color Accent, Color Swap
Continuous Shooting.....	Continuous: Approx. 1.1 images/sec. (Auto), Approx. 2.4 images/sec. (Low Light) Continuous Shooting AF: Approx. 0.7 images/sec. Continuous Shooting LV: Approx. 0.8 images/sec.
Self-timer.....	FaceSelf-Timer, Approx. 10-sec./Approx. 2-sec. delay, Custom Timer
i-Contrast.....	Auto/Off
Recording Media.....	SD memory card, SDHC memory card, MultiMediaCard, MMCplus memory card, HC MMCplus memory card
File Format	Design rule for Camera File system and DPOF compliant
Data Type	Still images: Exif 2.2 (JPEG), RAW (CR2)* Movies: MOV (Image data: H.264, Audio data: Linear PCM (Mono)) * Use Digital Photo Professional for processing.
Compression.....	Fine, Normal
Number of Recording Pixels (Still images)	Large: 3648 x 2736 pixels Medium 1: 2816 x 2112 pixels Medium 2: 2272 x 1704 pixels Medium 3: 1600 x 1200 pixels Small: 640 x 480 pixels Widescreen: 3648 x 2048 pixels RAW: 3648 x 2736 pixels
(Movies).....	640 x 480 pixels (30 frames/sec.) 320 x 240 pixels (30 frames/sec.)
Number of Possible Shots.....	LCD Monitor On: Approx. 390 images LCD Monitor Off: Approx. 1000 images (Based on CIPA standardized measurement)
Playback Function.....	Single Image, Movie, Magnified Focus, Index, Magnified, Filtered Playback, Slideshow, Scroll Display
Editing Function.....	Erase, Protect, My Category, Resize, My Colors, i-Contrast, Trimming, Rotate, Red-Eye Correction
Direct Print Type	PictBridge capable
Interface	Hi-Speed USB (Dedicated connector with unified type of digital, audio and video*) HDMI (HDMI mini connector) * mini-B compatible Video/Audio output (NTSC and PAL capable, mono audio)
Communication Settings	MTP, PTP

Power	Battery Pack NB-7L (rechargeable lithium-ion battery) AC adapter kit ACK-DC50
Operating Temperatures	0 – 40 °C (32 – 104 °F)
Operating Humidity	10 – 90%
Dimensions (excluding protrusions)	112.1 x 76.2 x 48.3 mm (4.41 x 3.00 x 1.90 in.)
Weight (camera body only)	Approx. 355 g (12.5 oz.)

Battery Pack NB-7L

Type	Rechargeable lithium-ion battery
Voltage	7.4 V DC
Capacity	1050 mAh
Charging cycles	Approx. 300 times
Operating temperature	0 – 40 °C (32 – 104 °F)
Dimensions	32.5 x 45.4 x 17.7 mm (1.28 x 1.79 x 0.70 in.)
Weight	Approx. 47 g (1.7 oz.)

Battery Charger CB-2LZ/CB-2LZE

Rated input	100 – 240 V AC (50/60 Hz), 0.14 A (100 V) – 0.08 A (240 V), 14 VA (100 V) – 19.2 VA (240 V)
Rated output	8.4 V DC, 0.70 A
Charge time	Approx. 2 hours 20 min. (for Battery Pack NB-7L)
Operating temperature	0 – 40 °C (32 – 104 °F)
Dimensions	92.5 x 27.0 x 62.0 mm (3.64 x 1.06 x 2.44 in.)
Weight	Approx. 92 g (3.6 oz.) (CB-2LZ) Approx. 85 g (3.0 oz.) (CB-2LZE) (excluding power cord)

Tele-converter TC-DC58D (Sold Separately)

Magnification	1.4x
Focal Length ¹	196 mm (35mm film equivalent)
Focusing Range ¹	55 cm (1.8 ft.) – infinity (T) ²
Thread Diameter	58 mm standard filter thread ³
Dimensions Diameter x Length	69.0 x 41.2 mm (2.72 x 1.62 in.)
Weight	Approx. 140 g (4.94 oz.)

Conversion Lens Adapter LA-DC58K (Sold Separately)

Thread Diameter	58 mm standard filter thread
Dimensions Diameter x Length	63.8 x 51.6 mm (2.51 x 2.03 in.)
Weight	Approx. 30 g (1.06 oz.)

¹ When mounted on PowerShot G11 (Max. telephoto).

² From front of the mounted conversion lens during normal shooting, (T): Max. telephoto.

³ Conversion Lens Adapter LA-DC58K is required when mounted on PowerShot G11.

Bracket BKT-DC1 (Sold Separately)

Dimensions	220.0 x 32.0 x 19.0 mm (8.66 x 1.26 x 0.75 in.)
Weight	Approx. 90 g (3.2 oz.)

- All data is based on tests by Canon.
- Camera specifications or appearance are subject to change without notice.



USA and Canada only:

The Lithium ion/polymer battery that powers the product is recyclable.

Please call 1-800-8-BATTERY for information on how to recycle this battery.

For CA, USA only

Included lithium battery contains Perchlorate Material - special handling may apply.

See www.dtsc.ca.gov/hazardouswaste/perchlorate/ for details.

About MPEG-4 Licensing

This product is licensed under AT&T patents for the MPEG-4 standard and may be used for encoding MPEG-4 compliant video and/or decoding MPEG-4 compliant video that was encoded only (1) for a personal and non-commercial purpose or (2) by a video provider licensed under the AT&T patents to provide MPEG-4 compliant video.

No license is granted or implied for any other use for MPEG-4 standard.

* Notice displayed in English as required.

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MEMO

FCC Notice

(Digital Camera, Model PC1428 systems)

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.

Battery Charger CB-2LZ

This product is not intended to be serviced. Should the product cease to function in its intended manner, it should be returned to the manufacturer or be discarded.

This power unit is intended to be correctly orientated in a vertical or floor mount position.

IMPORTANT SAFETY INSTRUCTIONS-SAVE THESE INSTRUCTIONS.

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

For connection to a supply not in the U.S.A., use an attachment plug adapter of the proper configuration for the power outlet.

This battery charger is for exclusive use with Battery Pack NB-7L (1.05 Ah). There is a danger of explosion if other battery packs are used.

Trademark Acknowledgments

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- HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.

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