



Canon

IXUS 245 HS

Camera User Guide

- Make sure you read this guide, including the “Safety Precautions” section, before using the camera.
- Reading this guide will help you learn to use the camera properly.
- Store this guide safely so that you can use it in the future.

ENGLISH

Package Contents

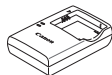
Before use, make sure the following items are included in the package. If anything is missing, contact your camera dealer.



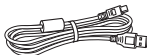
Camera



Battery Pack
NB-11L
(with terminal cover)



Battery Charger
CB-2LD/CB-2LDE



Interface Cable
IFC-400PCU



Wrist Strap
WS-DC10



DIGITAL CAMERA
Solution Disk*
(CD-ROM)



Getting Started




Warranty Card

* Contains software and PDF manuals (📖31).

• A memory card is not included (📖3).

Compatible Memory Cards

The following memory cards (sold separately) can be used, regardless of capacity.

- SD memory cards*
- SDHC memory cards*
- SDXC memory cards* 
- Eye-Fi cards

* Conforms to SD specifications. However, not all memory cards have been verified to work with the camera.

About Eye-Fi Cards

This product is not guaranteed to support Eye-Fi card functions (including wireless transfer). In case of an issue with an Eye-Fi card, please check with the card manufacturer.

Also note that an approval is required to use Eye-Fi cards in many countries or regions. Without approval, use of the card is not permitted. If it is unclear whether the card has been approved for use in the area, please check with the card manufacturer.

Preliminary Notes and Legal Information

- Take and review some test shots initially 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.
- Images recorded by the camera are intended for personal use. Refrain from unauthorized recording that infringes on copyright law, and note that even for personal use, photography may contravene copyright or other legal rights at some performances or exhibitions, or in some commercial settings.
- The camera warranty is valid only in the area of purchase. In case of camera problems while abroad, return to the area of purchase before contacting a Canon Customer Support Help Desk.
- Although the LCD monitor is produced under extremely high-precision manufacturing conditions and more than 99.99% of the pixels meet design specifications, in rare cases some pixels may be defective or may appear as red or black dots. This does not indicate camera damage or affect recorded images.
- The LCD monitor may be covered with a thin plastic film for protection against scratches during shipment. If covered, remove the film before using the camera.
- When the camera is used over an extended period, it may become warm. This does not indicate damage.

Organization of Camera User Guide

The following guides are included, each used for different purposes.

Basic Guide (📖17)

- Gives basic instructions, from initial preparations to shooting, playback, and saving on a computer

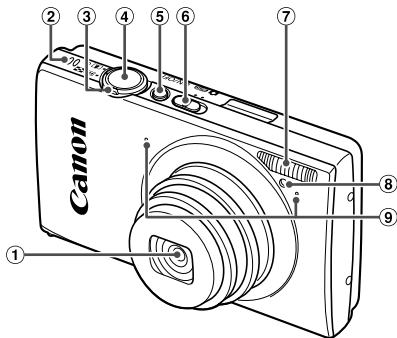
Wireless LAN Guide (📖41)

- Describes how to send images wirelessly from the camera to a variety of compatible devices, and how to use the camera with online services

Advanced Guide (📖81)

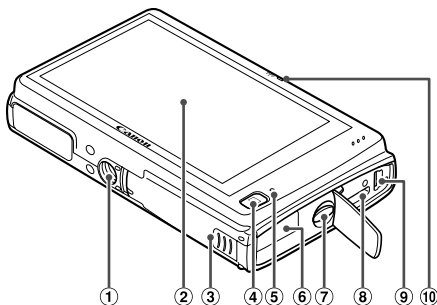
- Practical guide that introduces other camera basics and describes shooting and playback options

Part Names and Conventions in This Guide



- | | |
|--------------------------------|------------------|
| ① Lens | ④ Shutter button |
| ② Speaker | ⑤ Power button |
| ③ Zoom lever | ⑥ Mode switch |
| Shooting: <[telephoto icon]> / | ⑦ Flash |
| <[wide angle icon]> | ⑧ Lamp |
| Playback: <[magnify icon]> / | ⑨ Microphone |
| <[index icon]> | |

- In this guide, icons are used to represent the corresponding camera buttons and switches on which they appear or which they resemble.
- Shooting modes and on-screen icons and text are indicated in brackets.
- ⓘ: Important information you should know
- 📝: Notes and tips for expert camera use
- 📖xx: Pages with related information (in this example, “xx” represents a page number)



- | | |
|-----------------------------|---|
| ① Tripod socket | ⑦ Strap mount |
| ② Screen (LCD monitor) | ⑧ HDMI™ terminal |
| ③ Memory card/battery cover | ⑨ AV OUT (Audio/video output) /
DIGITAL terminal |
| ④ <▶ (Playback)> button | ⑩ Wireless LAN indicator |
| ⑤ Indicator | |
| ⑥ DC coupler cable port | |

- Instructions in this guide apply to the camera under default settings.
- For convenience, all supported memory cards are simply referred to as “the memory card”.
- The tabs shown above titles indicate whether the function is used for still images, movies, or both.

Still Images : Indicates that the function is used when shooting or viewing still images.

Movies : Indicates that the function is used when shooting or viewing movies.

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Safety Precautions

- Before using the product, please ensure that you read the safety precautions described below. Always ensure that the product is used 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.

- **Do not trigger the flash in close proximity to people's eyes.**

Exposure to the intense light produced by the flash could damage eyesight. In particular, remain at least 1 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.

- **Use only recommended power sources.**
- **Do not attempt to disassemble, alter or apply heat to the product.**
- **Avoid dropping or subjecting the product to severe impacts.**
- **To avoid the risk of injury, do not touch the interior of the product if it has been dropped or otherwise damaged.**
- **Stop using the product immediately if it emits smoke, a strange smell, or otherwise behaves abnormally.**
- **Do not use organic solvents such as alcohol, benzene, or thinner to clean the product.**
- **Do not let the product come into contact with water (e.g. sea water) or other liquids.**
- **Do not allow liquids or foreign objects to enter the camera.**

This could result in electrical shock or fire.

If liquids or foreign objects come into contact with the camera interior, immediately turn the camera off and remove the battery.

If the battery charger becomes wet, unplug it from the outlet and consult your camera distributor or a Canon Customer Support Help Desk.

- **Use only the recommended battery.**
- **Do not place the battery near or in direct flame.**
- **Unplug the power cord periodically, and using a dry cloth, 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.**
- **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.**
- **Do not allow dirt or metal objects (such as pins or keys) to contact the terminals or plug.**

The battery may explode or leak, resulting in electrical shock or fire. This could cause injury and damage the surroundings. In the event that a battery leaks and the battery electrolyte contacts eyes, mouth, skin or clothing, immediately flush with water.

- **Turn the camera off in places where camera use is prohibited.**

The electromagnetic waves emitted by the camera may interfere with the operation of electronic instruments and other devices. Exercise adequate caution when using the camera in places where use of electronic devices is restricted, such as inside airplanes and medical facilities.

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

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



Caution

Denotes the possibility of injury.

- **When holding the camera by the strap, be careful not to bang it, subject it to strong impacts or shocks, or let it get caught on other objects.**
- **Be careful not to bump or push strongly on the lens.**

This could lead to injury or damage the camera.

- **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.

- **Avoid using, placing or storing the product 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 cause deformation of the camera or battery charger casing.

-
- **The slideshow transition effects may cause discomfort when viewed for prolonged periods.**

Caution

Denotes the possibility of damage to the equipment.

- **Do not aim the camera at bright light sources (such as the sun on a clear day).**

Doing so may 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 product 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.

-
- **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.

Contacting other metal materials may lead to fire or explosions.

-
- **Before you discard the battery, cover the terminals with tape or other insulators.**

Contacting other metal materials may lead to fire or explosions.

- **Unplug the battery charger from the power outlet after charging 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.

- **Do not place the battery near pets.**

Pets biting the battery could cause leakage, overheating or explosion, resulting in fire or damage.

- **Do not sit down with the camera in your pocket.**

Doing so may cause malfunctions or damage the screen.

- **When putting the camera in your bag, ensure that hard objects do not come into contact with the screen.**

- **Do not attach any hard objects to the camera.**

Doing so may cause malfunctions or damage the screen.



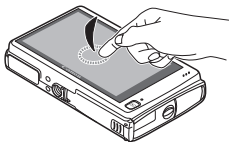
Basic Guide

Gives basic instructions, from initial preparations to shooting, playback, and saving on a computer

Touch-Screen Operations

The camera's touch-screen panel enables intuitive operation simply by touching or tapping the screen.

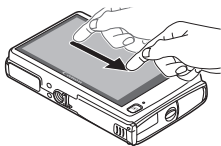
Touch



Touch the screen briefly with your finger.

- This gesture is used to shoot, configure camera functions, and so on.

Drag



Touch the screen and move your finger across it.

- This gesture is used in Playback mode to switch to the next image, or to change the magnified image area, among other operations.




- Gestures may not be detected as easily if you apply a screen protector, because the screen works by detecting finger pressure.

For Easier Touch-Screen Operations



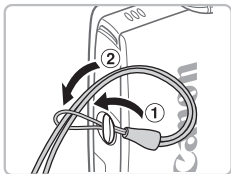
- If you have difficulty operating the camera by touch, use the stylus attached to the strap. Do not use pencils, pens, or sharp objects other than the included stylus to operate the touch-screen.

To correct any discrepancy between the position you touch and the position detected, calibrate the screen ( 218).

Initial Preparations

Prepare for shooting as follows.

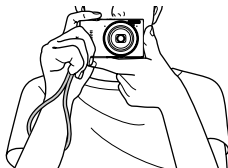
Attaching the Strap



Attach the strap.

- Thread the end of the strap through the strap hole (①), and then pull the other end of the strap through the loop on the threaded end (②).

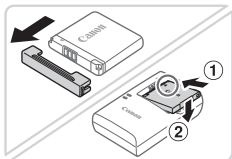
Holding the Camera



- Place the strap around your wrist.
- When shooting, keep your arms close to your body and hold the camera securely to prevent it from moving. Do not rest your fingers on the flash.

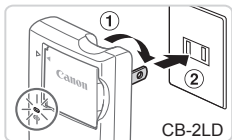
Charging the Battery

Before use, charge the battery with the included charger. Be sure to charge the battery initially, because the camera is not sold with the battery charged.



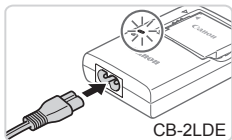
1 Remove the battery cover and insert the battery in the charger.

- Remove the cover from the battery, align the ▲ marks on the battery and charger, and insert the battery by pushing it in (1) and down (2).

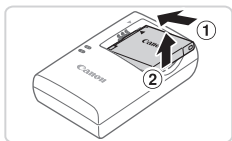


2 Charge the battery.

- **CB-2LD:** Flip out the plug (1) and plug the charger into a power outlet (2).
- **CB-2LDE:** Plug the power cord into the charger, then plug the other end into a power outlet.



- ▶ The charging lamp turns orange and charging begins.
- ▶ When the charging is finished, the lamp turns green.



3 Remove the battery.

- After unplugging the battery charger, remove the battery by pushing it in (1) and up (2).



- To protect the battery and keep it in optimal condition, do not charge it continuously for more than 24 hours.
- For battery chargers that use a power cord, do not attach the charger or cord to other objects. Doing so could result in malfunction or damage to the product.

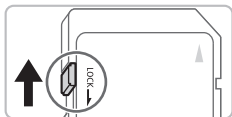


- For details on charging time and the number of shots and recording time possible with a fully charged battery, see "Specifications" (274).

Inserting the Battery and Memory Card

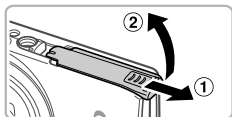
Insert the included battery and a memory card (sold separately).

Note that before using a new memory card (or a memory card formatted in another device), you should format the memory card with this camera (213).



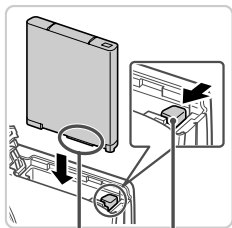
1 Check the card's write-protect tab.

- Recording is not possible on memory cards with a write-protect tab when the tab is in the locked (downward) position. Slide the tab up until it clicks into the unlocked position.



2 Open the cover.

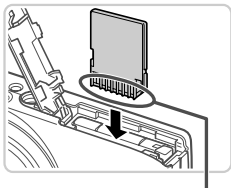
- Slide the cover (1) and open it (2).



Terminals Battery Lock

3 Insert the battery.

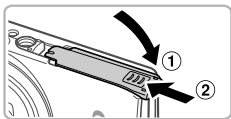
- While pressing the battery lock in the direction of the arrow, insert the battery as shown and push it in until it clicks into the locked position.
- If you insert the battery facing the wrong way, it cannot be locked into the correct position. Always confirm that the battery is facing the right way and locks when inserted.



Terminals

4 Insert the memory card.

- Insert the memory card facing as shown until it clicks into the locked position.
- Make sure the memory card is facing the right way when you insert it. Inserting memory cards facing the wrong way may damage the camera.



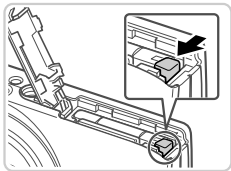
5 Close the cover.

- Lower the cover (①) and hold it down as you slide it, until it clicks into the closed position (②).



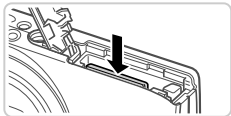
- For guidelines on how many shots or hours of recording can be saved on one memory card, see "Specifications" (📖274).

■ Removing the Battery and Memory Card



Remove the battery.

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

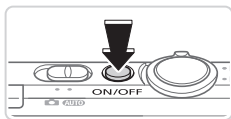


Remove the memory card.

- Push the memory card in until it clicks, and then slowly release it.
- ▶ The memory card will pop up.

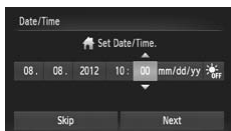
Setting the Date and Time

Set the current date and time correctly as follows if the [Date/Time] screen is displayed when you turn the camera on. Information you specify this way is recorded in image properties when you shoot, and it is used when you manage images by shooting date or print images showing the date. You can also add a date stamp to shots, if you wish (104).



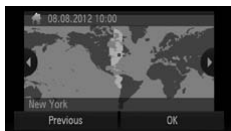
1 Turn the camera on.

- Press the power button.
- ▶ The [Date/Time] screen is displayed.



2 Set the date and time.

- Touch the option to configure, and then touch [▲][▼] to specify the date and time.
- When finished, touch [Next].



3 Set the home time zone.

- Touch [◀][▶] to choose your home time zone.

4 Finish the setup process.

- Touch [OK] when finished. After a confirmation message, the setting screen is no longer displayed.
- To turn off the camera, press the power button.



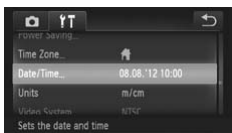
- Unless you set the date, time, and home time zone, the [Date/Time] screen will be displayed each time you turn the camera on. Specify the correct information.



- To set daylight saving time (1 hour ahead), touch [☀️OFF] and choose [☀️] in step 2.

Changing the Date and Time

Adjust the date and time as follows.



1 Access the camera menu.

- Touch [FUNC.], and then touch [MENU].

2 Choose [Date/Time].

- Touch the [↑↓] tab.
- Drag up or down across the screen to choose [Date/Time].
- Touch [Date/Time].

3 Change the date and time.

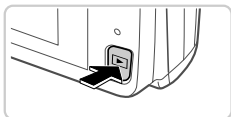
- Follow step 2 on [p23](#) to adjust the settings.
- Double-touch [↵] to close the menu.



- Date/time settings can be retained for about 3 weeks by the camera's built-in date/time battery (backup battery) after the battery pack is removed.
- The date/time battery will be charged in about 4 hours once you insert a charged battery or connect the camera to an AC adapter kit (sold separately, [p223](#)), even if the camera is left off.
- Once the date/time battery is depleted, the [Date/Time] screen will be displayed when you turn the camera on. Follow the steps on [p23](#) to set the date and time.

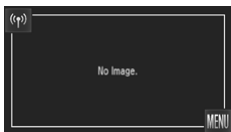
Display Language

The display language can be changed as needed.



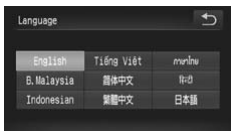
1 Enter Playback mode.

- Press the <▶> button.



2 Access the setting screen.

- Touch and hold [MENU] until the setting screen is displayed.



3 Set the display language.

- Touch a display language to choose it, and then touch [↶].
- ▶ Once the display language has been set, the setting screen is no longer displayed.



- If there are images on the memory card, touch [FUNC.] in the lower left to access [MENU].



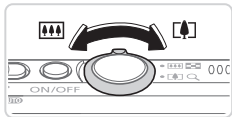
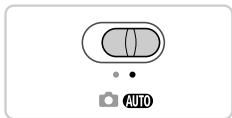
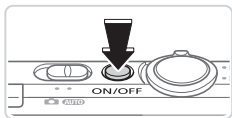
- You can also change the display language by touching [FUNC.] and then [MENU], and then choosing [Language] on the [Y] tab.

Trying the Camera Out

Follow these instructions to turn the camera on, shoot still images or movies, and then view them.

Shooting (Smart Auto)

For fully automatic selection of the optimal settings for specific scenes, simply let the camera determine the subject and shooting conditions.



1 Turn the camera on.

- Press the power button.
- ▶ The startup screen is displayed.

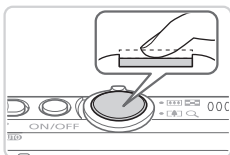
2 Enter <AUTO> mode.

- Set the mode switch to <AUTO>.

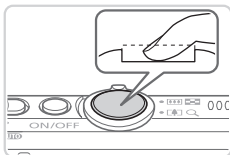
- Aim the camera at the subject. The camera will make a slight clicking noise as it determines the scene.
- ▶ A scene icon is displayed in the upper left of the screen and an image stabilization icon in the upper right.
- ▶ Frames displayed around any detected subjects indicate that they are in focus.
- ▶ Black bars displayed on the left and right edges of the screen indicate image areas not recorded.

3 Compose the shot.

- To zoom in and enlarge the subject, move the zoom lever toward <[Telephoto]> (telephoto), and to zoom away from the subject, move it toward <[Wide angle]> (wide angle).



AF Frames



4 Shoot.

Shooting Still Images

① Focus.

- Press the shutter button lightly, halfway down. The camera beeps twice after focusing, and green frames are displayed to indicate image areas in focus.

② Shoot.

- Press the shutter button all the way down.
- ▶ As the camera shoots, a shutter sound is played, and in low-light conditions, the flash fires automatically.
- Keep the camera still until the shutter sound ends.
- ▶ Your shot remains displayed on the screen for about two seconds.
- Even while the shot is displayed, you can take another shot by pressing the shutter button again.



Elapsed Time



Shooting Movies

① Start shooting.

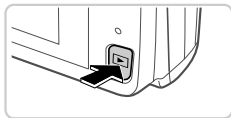
- Touch [●]. The camera beeps once as recording begins, and [●Rec] is displayed with the elapsed time.
- ▶ The camera switches to full-screen display, and the portion of your subject shown on the screen is recorded.
- ▶ Frames displayed around any detected faces indicate that they are in focus.

② Finish shooting.

- Touch [■]. The camera beeps twice as recording stops.

Viewing

After shooting images or movies, you can view them on the screen as follows.



1 Enter Playback mode.

- Press the <▶> button.
- ▶ Your last shot is displayed.



2 Browse through your images.

- To view the next image, drag right to left across the screen, and to view the previous image, drag left to right.



- You can also view the next image by touching the right edge of the screen (in the area indicated by frame ① at left). In this case, [▶] is displayed. Similarly, you can view the previous image by touching the left edge of the screen (in the area indicated by frame ② at left), and in this case, [◀] is displayed.
- Touch and hold [◀][▶] to browse through images quickly.
- Movies are identified by a [▶] icon. To play movies, go to step 3.



3 Play movies.

- Touch [▶] to start playback.
- To adjust the volume, quickly drag up or down across the screen during playback.
- ▶ After the movie is finished, [▶] is displayed.



- To switch to Shooting mode from Playback mode, press the shutter button halfway.

Erasing the Images

You can choose and erase unneeded images one by one. Be careful when erasing images, because they cannot be recovered.



1 Choose an image to erase.

- Drag left or right across the screen to choose an image.



2 Erase the image.

- Touch [FUNC.], drag up or down on the screen, and then touch [Erase] to choose it.



- After [Erase?] is displayed, touch [Erase].
- ▶ The current image is now erased.
- To cancel erasure, touch [Cancel].



- Images can also be erased by using Touch Actions (📖 198).
- You can also erase all images at once (📖 190).

Included Software, PDF Manuals

The software and PDF manuals on the included DIGITAL CAMERA Solution Disk (CD-ROM) (📖2) are introduced below, with instructions for installation, and saving images to a computer.

Software

After installing the software on the CD-ROM, you can do the following things on your computer.

CameraWindow

- Import images and change camera settings

ImageBrowser EX

- Manage images: view, search, and organize
- Print and edit images

Auto Update Function

Using the included software, you can update to the latest version, and download new functions via the Internet (some software excluded). Be sure to install the software on a computer with an Internet connection so you can use this function.



- Internet access is required to use this function, and any ISP account charges and access fees must be paid separately.

PDF Manuals

Camera User Guide

- Refer to this guide for a more in-depth understanding of camera operation.

Software Guide

- Refer to this guide when using the included software. The guide can be accessed from the help system of included software (some software excluded).

System Requirements

The included software can be used on the following computers. Adobe Reader is required to view the PDF manuals.

Operating System	Windows	Macintosh
	Windows 7 SP1 Windows Vista SP2 Windows XP SP3 (Windows 7 SP1 or later required for wireless connections)	Mac OS X 10.6 – 10.7 (OS X 10.6.8 or later required for wireless connections)
Computer	Computers running one of the above operating systems (preinstalled), with an included USB port and Internet connection*	
Processor	Still images 1.6 GHz or higher Movies Core 2 Duo 2.6 GHz or higher	Still images Mac OS X 10.7: Core 2 Duo or higher Mac OS X 10.6: Core Duo 1.83 GHz or higher Movies Core 2 Duo 2.6 GHz or higher
RAM	Still images Windows 7 (64 bit): 2 GB or more Windows 7 (32 bit), Vista: 1 GB or more Windows XP: 512 MB or more Movies 2 GB or more	Still images Mac OS X 10.7: 2 GB or more Mac OS X 10.6: 1 GB or more Movies 2 GB or more
Interfaces	USB and wireless LAN	
Free Hard Disk Space	440 MB or more*	550 MB or more
Display	1024 x 768 resolution or higher	

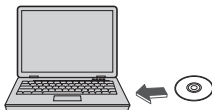
* Silverlight 4 or later (max. 100 MB) must be installed, and in Windows XP, Microsoft .NET Framework 3.0 or later (max. 500 MB) must be installed. Installation may take some time, depending on computer performance.



- Check the Canon website for the latest system requirements, including supported OS versions.

Installing the Software

Windows 7 and Mac OS X 10.6 are used here for the sake of illustration. Using the software auto update function, you can update to the latest version and download new functions via the Internet (some software excluded), so be sure to install the software on a computer with an Internet connection.



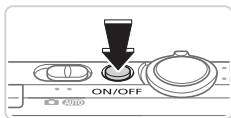
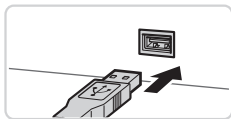
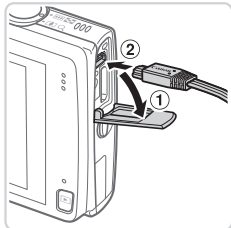
1 Insert the CD-ROM in the computer's CD-ROM drive.

- Insert the included CD-ROM (DIGITAL CAMERA Solution Disk) (📀2) in the computer's CD-ROM drive.
- On a Macintosh computer, after inserting the disc, double-click the desktop disc icon to open it, and then double-click the [📀] icon displayed.

2 Begin the installation.

- Click [Easy Installation] and follow the on-screen instructions to complete the installation process.





3 When a message is displayed prompting you to connect the camera, connect it to a computer.

- With the camera turned off, open the cover (①). With the smaller plug of the included interface cable (②) in the orientation shown, insert the plug fully into the camera terminal (②).

- Insert the larger plug of the interface cable in the computer's USB port. For details about USB connections on the computer, refer to the computer user manual.

4 Install the files.

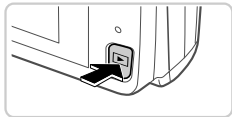
- Turn the camera on, and follow the on-screen instructions to complete the installation process.
- ▶ The software will connect to the Internet to update to the latest version and download new functions. Installation may take some time, depending on computer performance and the Internet connection.
- Click [Finish] or [Restart] on the screen after installation and remove the CD-ROM when the desktop is displayed.
- Turn the camera off and disconnect the cable.



- When not connected to the Internet, there are the following limitations.
 - The screen in step 3 will not be displayed.
 - Some functions may not be installed.
- The first time you connect the camera to the computer, drivers will be installed, so it may take a few minutes until camera images are accessible.
- If you have several cameras that were bundled with ImageBrowser EX on the included CD-ROMs, be sure to use each camera with their included CD-ROM and follow the on-screen installation instructions for each. Doing so will ensure that each camera will receive the correct updates and new functions via the auto update function.

Saving Images to a Computer

Windows 7 and Mac OS X 10.6 are used here for the sake of illustration.

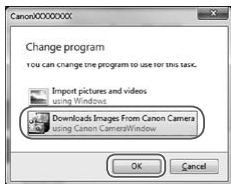


1 Connect the camera to the computer.

- Follow step 3 on 34 to connect the camera to a computer.

2 Turn the camera on to access CameraWindow.

- Press the button to turn the camera on.
- On a Macintosh computer, CameraWindow is displayed when a connection is established between the camera and computer.
- For Windows, follow the steps introduced below.
- In the screen that displays, click the link to modify the program.
- Choose [Downloads Images From Canon Camera using Canon CameraWindow] and then click [OK].



- Double click .

CameraWindow



3 Save the images to the computer.

- Click [Import Images from Camera], and then click [Import Untransferred Images].
- ▶ Images are now saved to the Pictures folder on the computer, in separate folders named by date.
- After images are saved, close CameraWindow, press the <[▶]> button to turn the camera off, and unplug the cable.
- For instructions on viewing images on a computer, refer to the *Software Guide* (📖31).



- In Windows 7, if the screen in step 2 is not displayed, click the [🔌] icon in the taskbar.
- To start CameraWindow in Windows Vista or XP, click [Downloads Images From Canon Camera using Canon CameraWindow] on the screen displayed when you turn the camera on in step 2. If CameraWindow is not displayed, click the [Start] menu and choose [All Programs] ▶ [Canon Utilities] ▶ [CameraWindow] ▶ [CameraWindow].
- On a Macintosh computer, if CameraWindow is not displayed after step 2, click the [CameraWindow] icon in the Dock (the bar at the bottom of the desktop).
- Although you can save images to a computer simply by connecting your camera to the computer without using the included software, the following limitations apply.
 - It may take a few minutes after you connect the camera to the computer until camera images are accessible.
 - Images shot in vertical orientation may be saved in horizontal orientation.
 - Image protection settings may be cleared from images saved to a computer.
 - Some problems may occur when saving images or image information, depending on the operating system version, the software in use, or image file sizes.
 - Some functions provided by the included software may not be available, such as editing movies or returning images to the camera.

Using the PDF Manuals

Camera User Guide

- Access this guide by double-clicking the desktop shortcut icon.

Software Guide

- The guide can be accessed from the help system of included software (some software excluded).



- It may not be possible to install the PDF manuals on computers that do not meet the system requirements (32). However, you can view the manuals on a computer that supports Adobe Reader by copying the PDF files in the Readme folder on the CD-ROM directly to a convenient location on the computer.

Accessories

Included Accessories



Wrist Strap
WS-DC10



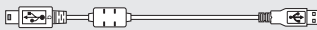
Battery Pack
NB-11L*
(with terminal cover)



Battery Charger
CB-2LD/
CB-2LDE*



DIGITAL
CAMERA
Solution Disk



Interface Cable IFC-400PCU*

Power



AC Adapter Kit
ACK-DC90

Cable



HDMI Cable HTC-100



Stereo AV Cable AVC-DC400ST

Memory Card

Card Reader



Windows/
Macintosh
Computer



TV/Video
System

Flash Unit



High-Power Flash
HF-DC2

Canon PictBridge- Compatible Printers



* Also available for purchase separately.

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.

Wireless LAN Guide

Describes how to send images wirelessly from the camera to a variety of compatible devices, and how to use the camera with online services

What You Can Do With the Wireless LAN Function

This camera is an approved Wi-Fi®* product. You can wirelessly connect to and send images to the following devices.

* Wi-Fi is a brand name that indicates interoperability certification of wireless LAN devices.



Video sharing sites

YouTube

CANON
iMAGE
GATEWAY

Social networking services

facebook
twitter

E-mail

■ Connecting to Web Services

CANON iMAGE GATEWAY is an online photo service available to those who have purchased this product. If you register for free as a member, you can use CANON iMAGE GATEWAY to access various Web services, such as social networking services set on a computer.



■ Connecting to a Smartphone

Send images to smartphones and tablet computers that have wireless functions. You can also geotag your shots from a connected smartphone or tablet. Installation of a dedicated application on the smartphone or tablet is required. See the Canon website for details.



■ Connecting to Another Camera

Use the wireless function to send images between Canon-brand cameras.



■ Connecting to a Computer

Use the included software to wirelessly send images from the camera to a computer.

For details on the included software, see the *Software Guide* (31).



■ Connecting to a Printer

Send images wirelessly to a PictBridge-compatible printer (supporting DPS over IP) to print them.

Terms related to wireless LAN are explained here. Also refer to the explanations of terms given in the respective sections of this guide.

- **Access point**
A device that relays radio wave signals to create a wireless LAN network. This term also refers to a place where you can connect to the Internet via wireless LAN.
- **Firewall**
This is a system that protects computers from electronic viruses, external unauthorized access, and security threats. This is set in your wireless LAN router or computer.
- **SSID/ESSID**
Numbers and letters used to identify a specific existing access point. This is also called the “access point name” or “network name”.
- **Encryption key**
This is a key used to encrypt data for transmission to and from an access point.
- **IP address**
This is an address used to identify a device within a network.
- **MAC address**
This is a unique address pre-assigned to a network device. It is also referred to as a “physical address”.



The camera can print to PictBridge-compatible printers via wireless LAN. PictBridge technical standards make it easy to connect digital cameras, printers, and other devices directly. Additionally, a new standard called DPS over IP enables PictBridge connections in network environments, and the camera is also compatible with this standard.

Wireless LAN Precautions

- The model number is PC1881 (including WLAN module model WM217).
- Countries and Regions Permitting WLAN Use
 - Use of WLAN is restricted in some countries and regions, and illegal use may be punishable under national or local regulations. To avoid violating WLAN regulations, visit the Canon website to check where use is allowed.

Note that Canon cannot be held liable for any problems arising from WLAN use in other countries and regions.
- Doing any of the following may incur legal penalties:
 - Altering or modifying the product
 - Removing the certification labels from the product
- According to foreign exchange and foreign trade law regulations, export permission (or service transaction permission) from the Japanese government is necessary to export strategic resources or services (including this product) outside Japan.
- Because this product includes American encryption software, it falls under U.S. Export Administration Regulations, and cannot be exported to or brought into a country under U.S. trade embargo.
- Be sure to make notes of the wireless LAN settings you use.

The wireless LAN settings saved to this product may be erased due to incorrect operation of the product, the effects of radio waves or static electricity, accident or malfunction. Be sure to make notes of wireless LAN settings as a precaution. Please note that Canon accepts no responsibility for degradation of content, direct or indirect damages or loss of revenue arising from use of the product.
- When transferring this product to another person, disposing of it, or sending it for repair, be sure to note the wireless LAN settings and reset the product to its default settings (erase settings) if necessary.
- Canon will not make compensation for loss or theft of the product.

Canon accepts no responsibility for damages incurred due to unauthorized access to registered data (image transfer destinations, etc.) if the product is lost or stolen.
- Be sure to use the product as directed in this guide.

Be sure to use the wireless LAN function of this product within the guidelines noted in this guide. Canon accepts no responsibility for damages or loss even if the function and product are used in ways other than as described in this guide.

- Do not use the wireless LAN function of this product near medical equipment or other electronic equipment.
Use of the wireless LAN function near medical equipment or other electronic equipment may affect operation of those devices.

Radio Wave Interference Precautions

- This product may receive interference from other devices that emit radio waves. To avoid interference, be sure to use this product as far away as possible from such devices, or avoid using the devices at the same time as this product.

Security Precautions

Since wireless LAN uses radio waves to transmit signals, tighter security precautions are necessary than when using a LAN cable.

When using wireless LAN, keep the following points in mind.

- Only use networks you are authorized to use.

This product searches for wireless LAN networks in the vicinity and displays the results on the screen. Networks you are not authorized to use (unknown networks) may also be displayed. However, connecting to or attempting to use those networks could be regarded as unauthorized access. Be sure to use only networks you are authorized to use, and do not attempt to connect to other unknown networks.

If security settings have not been properly set, the following problems may occur.

- Transmission monitoring

Third parties with malicious intent may monitor wireless LAN transmissions and attempt to acquire the data you are sending.

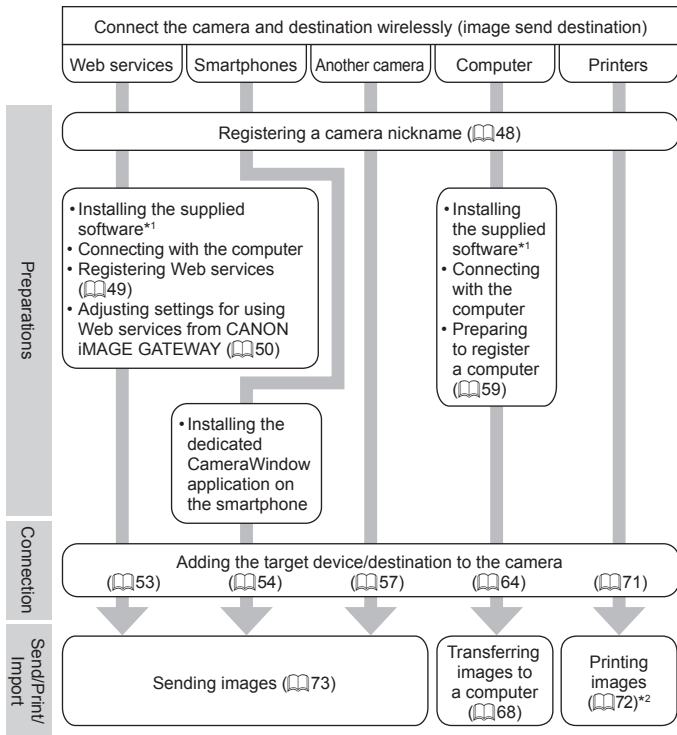
- Unauthorized network access

Third parties with malicious intent may gain unauthorized access to the network you are using and steal, modify, or destroy information. Additionally, you could fall victim to other types of unauthorized access such as impersonation (where someone assumes an identity to gain access to unauthorized information) and springboard attacks (where someone gains unauthorized access to your network as a springboard to cover their tracks when infiltrating other systems).

To prevent these types of problems from occurring, be sure to thoroughly secure your wireless LAN network.

Be sure to use the wireless LAN function of this camera with a proper understanding of wireless LAN security, and balance risk and convenience when adjusting security settings.

Using Wireless LAN to Send Images From the Camera



*1 Instructions in this guide apply when the software has been installed correctly from the included CD-ROM (📖33).

*2 For detailed printing instructions, see 📖232.

Registering a Camera Nickname (First time only)

To start with, register a camera nickname.

This nickname will be displayed on the screen of target devices when connecting to other devices via wireless LAN.



1 Access the wireless LAN screen.

- Press the <▶> button to turn the camera on.
- Touch [(P)].
- [(P)] will be displayed during single-image display. It will not be displayed in index display.

2 Enter a nickname.

- Touch within the frame and then enter a nickname (up to 16 letters and numbers) with the displayed keyboard.
- Touch [↩], and then touch [OK].



- When connecting wirelessly with any device other than a computer, a memory card must be inserted in the camera. Additionally, the memory card must contain images in order for you to access Web services or connect to a smartphone or printer wirelessly.
- To change the camera's nickname, choose [Wireless LAN Settings] on the [(P)] tab, and then choose [Change Device Nickname].

Connecting to Web Services

Set up the camera to use a variety of Web services as follows.

- A computer is required for Web service settings, starting with CANON iMAGE GATEWAY.
- For information on countries and regions where CANON iMAGE GATEWAY is available, visit the Canon website (<http://canon.com/cig>).

Registering Web Services

First, sign up for a free CANON iMAGE GATEWAY account.

CANON iMAGE GATEWAY offers various services, such as the ability to share images in an online photo album. CANON iMAGE GATEWAY also serves as a bridge site to send images wirelessly to e-mail addresses, social networking services, and other Web services. Click <http://canon.com/cig>, access the appropriate CANON iMAGE GATEWAY site for your country of residence, and follow the on-screen instructions to register as a member. You can continue to register other Web services other than CANON iMAGE GATEWAY to your account. For further details, check the websites for each web service you want to register.

CANON iMAGE GATEWAY

In [Camera-linked information], you can check a record of image uploading to Web services, and in [Library], you can view the images, arranged chronologically.





- An Internet connection is required to access CANON iIMAGE GATEWAY (an Internet browser must be installed on the computer, you must have an account with an Internet service provider, and an Internet connection must be established).
- Check CANON iIMAGE GATEWAY for browser (Microsoft Internet Explorer, etc.) settings, conditions and version information when connecting to CANON iIMAGE GATEWAY.
- Separate ISP connection and access point fees may be applicable.

Adjusting Settings for Using Web Services From CANON iIMAGE GATEWAY

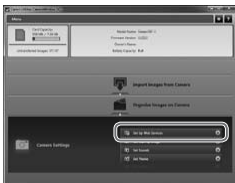
Adjust account settings for the Web services you want to use. Because CameraWindow is used to adjust settings, be sure to install it from the included CD-ROM beforehand. Installation instructions can be found in “Included Software, PDF Manuals” (📖31).

1 Connect the camera to a computer with the interface cable.

- When using a Windows computer, you can connect wirelessly, without using an interface cable, however settings must be completed beforehand (📖61).

2 Start CameraWindow.

- Press the <▶> button to turn the camera on.
- For details on how to start CameraWindow, see “Using CameraWindow to Transfer Images to a Computer” (📖68).



3 Choose [Set Up Web Services].

- Click [Set Up Web Services].



4 Login to CANON iMAGE GATEWAY.

- Enter your CANON iMAGE GATEWAY login name and password, and then click [Login].






5 Set a Web service you want to use.

- Follow the on-screen instructions to complete settings for Web services you want to use.
- Once the Web service settings are complete, click [Finish] at the bottom of the window to close it.



6 Apply Web service settings to the camera.

- Choose the name of the Web service you want to set, and click  in the middle of the lists.
- ▶ The name of the Web service that will be saved to the camera will be displayed in the [Camera] list.
- Click  or  to change the order of the Web services that will be displayed in the camera's wireless LAN menu.
- After you finish adjusting settings in the [Camera] list to your liking, close the window.
- ▶ Web service settings will be applied to the camera.



- If CameraWindow is not displayed in step 2, see “Using CameraWindow to Transfer Images to a Computer” (📖68) for details.
- Up to 20 e-mail addresses can be registered to the camera for sending images as e-mail.
- After logging in to CANON iMAGE GATEWAY the second time in step 4, the screen in step 6 will be displayed. To change settings for Web services you use, click [Edit Web Services].
- To add or change Web services, repeat the above procedures starting from step 1.

Connecting to Web Services

Connect to Web services registered to the camera.



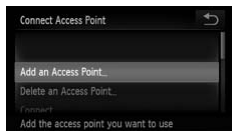
1 Access the wireless LAN screen.

- Touch [☰].



2 Choose a Web service.

- Touch the icon for the Web service you want to send images to.
- If you chose e-mail, touch the addresses you want to send images to in the [Select Destination] screen.



3 Connect to an access point.

- Touch [Add an Access Point].
- ▶ A list of detected access points will be displayed in the [Access Point Connect] screen.
- ▶ For further instructions, see “Preparing to Register a Computer” (159) or “Connecting to Access Points in the List” (167).
- ▶ For instructions after connecting to an access point, see “Adjusting Settings for Using Web Services From CANON iMAGE GATEWAY” (150).



- When a connection destination is set using the Touch Actions setting (198), you can automatically access the function to connect to the last connected destination from the next time by just dragging on the screen without needing to perform the connection operation.

Connecting to a Smartphone

Add a smartphone with wireless LAN functionality to the list of available devices as follows.

Adding a Smartphone

Add a smartphone to your list of devices to connect to via wireless LAN. When establishing a wireless connection with a smartphone, you can either use the camera as an access point (Camera Access Point Mode) or use another access point.

Follow these instructions when using the camera as an access point. When using another access point, see “Connecting to Access Points in the List” (67).



- Before connecting to a camera via wireless LAN, download and install the dedicated CameraWindow (free) application on your smartphone. For details on this application (supported smartphones and included functions), refer to the Canon website.



1 Access the wireless LAN screen.

- Touch [(P)].



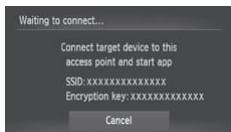
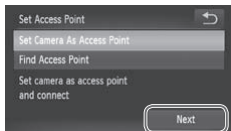
2 Choose a smartphone.

- Touch [☐].



3 Choose [Add a Device].

- Touch [Add a Device].



4 Select the camera as the access point.

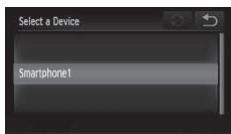
- Touch [Set Camera As Access Point] and then [Next].

5 Use the smartphone to connect to the network displayed on the camera screen.

- Choose the displayed SSID (network name) from the smartphone's Wi-Fi setting menu.
- Enter the encryption key displayed on the camera screen into the password field on the smartphone.

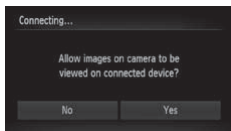
6 Start CameraWindow on the smartphone.

- ▶ Once the smartphone is recognized on the camera, the device connection screen will be displayed on the camera.



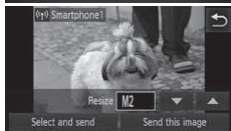
7 Choose a smartphone to connect to.

- Touch the name of the smartphone you want to connect to.



8 Adjust the privacy settings.

- Touch [Yes].
- ▶ You can now use the smartphone to receive images sent from the camera, or to geotag images on the camera (📖 176).
- ▶ When the smartphone has been added successfully, the image transfer screen will be displayed (📖 73).





- All camera images can be viewed from the connected smartphone when you choose [Yes] in step 8. To keep camera images private, so that they cannot be viewed from the smartphone, choose [No] in step 8.
-



- The image quality level for movies that can be sent may differ depending on the smartphone. Refer to the instruction manual provided with your smartphone for details.
- To add multiple smartphones, repeat the above procedures starting from step 1.
- Once a smartphone is added, the smartphone name will be displayed on the screen in step 3. To connect to a smartphone again, simply choose the smartphone name from the list.
- To change privacy settings for smartphones added to the list, choose the smartphone whose settings you want to change from [Edit a Device] in step 3, and then choose [View Settings].
- When a connection destination is set using the Touch Actions setting (198), you can automatically access the function to connect to the last connected destination from the next time by just dragging on the screen without needing to perform the connection operation.

Connecting to Another Camera

Connect two cameras via wireless LAN and send images between them as follows.

Adding a Camera

Add a camera to your list of devices to connect to via wireless LAN.



- Only Canon-brand cameras equipped with a wireless LAN function can be connected to wirelessly. Even Canon-brand cameras that support Eye-Fi cards cannot be connected to if they do not have a wireless LAN function. You cannot connect to PowerShot SD430 DIGITAL ELPH WIRELESS/ DIGITAL IXUS WIRELESS cameras with this camera.



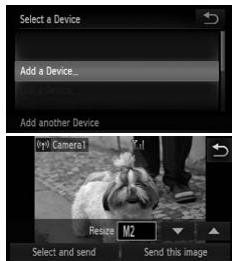
1 Access the wireless LAN screen.

- Touch [☞].



2 Choose a camera.

- Touch [📷].



3 Choose [Add a Device].

- Touch [Add a Device].
- Follow steps 1 – 3 on the target camera.
- ▶ Camera connection information will be added when [Start connection on target camera] is displayed on both camera screens.
- ▶ When the target camera has been added successfully, the image transfer screen will be displayed (📖73).



- To add multiple cameras, repeat the above procedures starting from step 1.
- Once a camera is added, the camera name will be displayed on the screen in step 3. To connect to a camera again, simply choose the camera name from the list.
- When a connection destination is set using the Touch Actions setting (📖198), you can automatically access the function to connect to the last connected destination from the next time by just dragging on the screen without needing to perform the connection operation.

Connecting to a Computer

Configure camera settings for a wireless computer connection, and then transfer images to the computer wirelessly using the included software CameraWindow as follows.



- When connected to a computer, the camera is used to establish the connection and then the computer (included software CameraWindow) is used to transfer images.
- For details on the included software, see the *Software Guide* (📖31).

Preparing to Register a Computer

Prepare to register a computer.

Checking the Computer and Wireless LAN Setup

The camera can connect to the following computers via wireless LAN.

Windows

- Windows 7 Service Pack 1

Macintosh

- Mac OS X 10.6.8 or later



- Windows 7 Starter and Home Basic editions are not supported.
- Windows 7 N (European version) and KN (South Korean version) require a separate download and install of Windows Media Feature Pack.

For further details, see the following websites.

<http://go.microsoft.com/fwlink/?LinkId=159730>

To use wireless LAN, an access point base unit (wireless LAN router, etc.) connected to a computer is required.

Additionally, the included software, CameraWindow must be installed.



- Be sure to use a wireless LAN base unit that conforms to standards listed in "Specifications" (📖274).
- A router is a device that creates a network (LAN) structure for connecting multiple computers. A router that contains an internal wireless function is called a wireless (LAN) router.
- This guide will refer to all wireless routers and base stations as "access points".
- When unsure of your computer setup, refer to the user manual provided with the computer.

■ Checking Your Wireless LAN Settings

If you are already using a wireless LAN, check the following items and mark each one on the check sheet.



- If system administrator status is needed to adjust network settings, contact the system administrator for details.
- These settings are very important for network security. Exercise adequate caution when changing these settings.
- For instructions on how to check settings, refer to the user guide included with your access point.

Check sheet

Network name (SSID/ESSID) The SSID or ESSID for the access point you use.	
Network certificate/data encryption (encryption method/encryption mode) The method for encrypting data during wireless transmission.	<ul style="list-style-type: none"> ○ None ○ WEP (open system authentication) ○ WPA-PSK (TKIP) ○ WPA-PSK (AES) ○ WPA2-PSK (TKIP) ○ WPA2-PSK (AES)
Encryption key (network key) The key used when encrypting data during wireless transmission.	
Key index (sent key) Network certificate/data encryption is the set key when using WEP.	<ul style="list-style-type: none"> ○ 1



- If you use MAC address filtering on your wireless LAN, be sure to enter the camera's MAC address to your access point. You can check the MAC address for your camera by choosing the [fT] tab, [Wireless LAN Settings], and then [Check MAC Address].
- The different types of security are as follows.
 - None: Encryption is not used when connecting to an access point.
 - WEP: A standard of encryption supported by most wireless LAN devices.
 - WPA-PSK (TKIP): An improved WEP standard that uses TKIP encryption.
 - WPA-PSK (AES): An improved WEP standard that uses AES encryption.
 - WPA2-PSK (TKIP): An improved WPA standard that uses TKIP encryption.
 - WPA2-PSK (AES): An improved WPA standard that uses AES encryption.
- AES uses higher security than TKIP.
- There is no difference in security levels between WPA and WPA2.

Computer Settings for Connecting to a Wireless LAN (Windows only)

When using a Windows computer, wireless LAN connection settings on the computer are necessary to connect to a camera wirelessly. Confirm that your computer is connected to a wireless LAN, and then follow each of the next steps.

Turning On Media Streaming and Network Discovery

If you activate media streaming, the camera will be able to detect and search your computer when they are connected wirelessly.

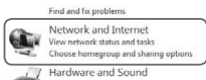
If you activate network discovery, your computer will be able to detect and search the camera.

1 Open the Control Panel window.

- Click [Control Panel] from the Start menu.

2 Choose [Network and Internet].

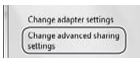
- Click [Network and Internet].



3 Choose [Network and Sharing Center].

- Click [Network and Sharing Center].





When media streaming is on, people and devices
videos on this computer. This computer can also

Choose media streaming options...

File sharing connections

If you turn on media streaming, your current network p
You should turn on media streaming only on networks
networks.

Turn on media streaming

visible to other network computers. What is network di

Turn on network discovery
Turn off network discovery

the network, including homegroup members, can
Public folders

Save changes Cancel

4 Choose [Change advanced sharing settings].

- Click [Change advanced sharing settings].

5 Choose [Choose media streaming options...].

- Click [Choose media streaming options...] for the current profile.

6 Turn on media streaming.

- Click [Turn on media streaming].

7 Choose [OK].

- Click [OK].

8 Turn on network discovery.

- Click [Turn on network discovery] for the current profile.

9 Save the changes.

- Click [Save changes].

10 Close the Control Panel window.

■ Enabling ICMP Inbound Echo Requests and UPnP Services

Enabling ICMP (Internet Control Message Protocol) will allow you to check the network connection status.

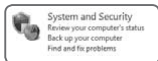
Enabling UPnP (Universal Plug & Play) will allow the network to automatically recognize network devices.

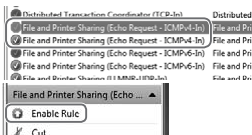
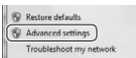
1 Open the Control Panel window.

- Click [Control Panel] from the Start menu.

2 Choose [System and Security].

- Click [System and Security].





3 Choose [Windows Firewall].

- Click [Windows Firewall].

4 Choose [Advanced settings].

- Click [Advanced settings].

5 Choose [Inbound Rules].

- Click [Inbound Rules].

6 Enable ICMP inbound echo requests.

- Choose [File and Printer Sharing] items ending in [ICMPv4], and then click [Enable Rule] on the right side of the window.

7 Turn on UPnP services.

- Choose [Wireless Portable Devices (UPnP-In)], and then click [Enable Rule] on the right side of the window.

8 Close the [Windows Firewall with Advanced Security] window.

9 Close the Control Panel window.



- If [Disable Rule] is displayed in steps 6 – 7, the item is already enabled, and can be left as is.

Adding a Computer

Add a computer to your list of devices to connect to via wireless LAN.



- Be sure to also read the user guide included with your access point.



1 Access the wireless LAN screen.

- Touch [(p)].



2 Choose a computer.

- Touch [Computer].



3 Choose [Add a Device].

- Touch [Add a Device].
 - ▶ A list of detected access points will be displayed in the [Access Point Connect] screen.
 - ▶ Proceed to either “Connecting to a WPS Supported Access Point” (65) or “Connecting to Access Points in the List” (67).
 - ▶ To manually choose and connect to an access point, see the supplemental explanation column (68) in “Connecting to Access Points in the List”.



- Once a computer is added, the computer name will be displayed on the screen in step 3. To connect to a computer again, simply choose the computer name from the list.
- When a connection destination is set using the Touch Actions setting (198), you can automatically access the function to connect to the last connected destination from the next time by just dragging on the screen without needing to perform the connection operation.

■ Connecting to a WPS Supported Access Point

WPS (Wi-Fi Protected Setup) is a structure for simplifying settings when connecting one wireless LAN device to another. You can use either Push Button Configuration Method or PIN Method for settings on a WPS supported device.

The push button configuration method is used in the following explanation.

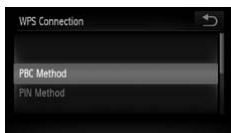


- Refer to the user guide provided with your access point to check if it supports WPS.



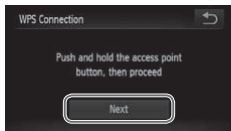
4 Choose [WPS Connection].

- Touch [WPS Connection].



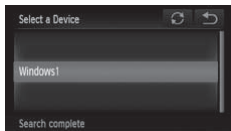
5 Choose [PBC Method].

- Touch [PBC Method].



6 Establish the connection.

- On the access point, hold down the WPS connection button for a few seconds.
- Touch [Next].
 - ▶ The camera will connect to the access point.
 - ▶ A list of computers connected to the access point will appear in the [Select a Device] screen.



7 Choose a computer to connect to.

- Touch the name of the computer you want to connect to.
- When using a Macintosh computer, see “Using CameraWindow to Transfer Images to a Computer” (68).



Hardware and Sound
View devices and printers
Add a device

8 Install drivers (Windows only).

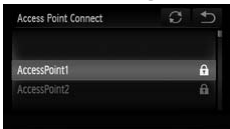
- On the computer, click the Start menu and choose [Control Panel]. Click [Add a device].
 - Double click the connected camera icon.
 - ▶ Driver installation will begin.
 - ▶ After driver installation is complete, and the camera and computer connection is enabled, the AutoPlay screen will be displayed. Nothing will be displayed on the camera screen.
 - Proceed to “Using CameraWindow to Transfer Images to a Computer” (68).





- If you chose [PIN Method] in step 5, a PIN code will be displayed on the screen. Be sure to set this code in the access point. Choose a device in the [Select a Device] screen. For further details, refer to the user guide included with your access point.
- To add multiple computers, repeat the above procedures starting from step 1.
- To complete the registration, touch [↵] in the upper right of the image transfer screen that is displayed after connecting to the target computer in step 7, and then touch [OK] in the confirmation screen.

Connecting to Access Points in the List



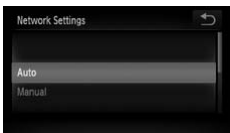
4 Choose an access point.

- Touch an access point.



5 Enter an encryption key.

- Touch inside the frame and a keyboard will be displayed. Enter the encryption key and touch [Next].



6 Choose [Auto].

- Touch [Auto].
- ▶ A list of other devices connected to the access point will appear in the [Select a Device] screen.

7 Choose a computer to connect to.

- Choose the computer to connect to, following step 7 – 8 on [p. 66](#). The computer is now added to the list.



- Up to 16 access points will be displayed. If no access points are detected, choose [Manual Settings] in step 4 to manually set an access point. Follow on-screen instructions and enter an SSID, security settings, and an encryption key.
- [***] is displayed for the encryption key in step 5 when the same access point is used to connect to another device. To continue using the same encryption key, touch [Next].
- To add multiple computers, repeat the above procedures starting from step 1.

Using CameraWindow to Transfer Images to a Computer

Use the computer (included software CameraWindow) to transfer images from the camera to the computer.



- For details on how to use CameraWindow, see the *Software Guide* (31).

Start CameraWindow



Windows

- Click [Downloads Images From Canon Camera using Canon CameraWindow].
- ▶ CameraWindow will be displayed.
- ▶ Proceed to “Importing Untransferred Images to a Computer” (69) or “Choosing Images to Import” (70).

Macintosh

- ▶ CameraWindow will be automatically displayed when a wireless connection is established between the camera and computer.



- If CameraWindow is not displayed when using a Macintosh computer, click the CameraWindow icon in the Dock.

Importing Untransferred Images to a Computer

Import images to a computer that have not yet been transferred.



Import untransferred images.

- Click [Import Images from Camera].
- Click [Import Untransferred Images].
- ▶ Images that have not yet been transferred to a computer will be imported.
- Click [OK] in the screen that is displayed after image import is complete.



- CameraWindow default settings will save images to the Pictures or My Pictures folders on a computer. For details on how to change the destination folders for saved images, see the *Software Guide* (31).
- If you click [Import All Images], all images on the camera will be imported.
- Movies will take longer to import since the file size is larger than still images.
- To disconnect from the camera, turn off the camera.

Choosing Images to Import


Choose whichever images you like to import to a computer.




1 Display the image import screen.

- Click [Import Images from Camera].
- Click [Select Images to Import].

2 Choose an image.

- Click images you want to import.
- ▶ The background of selected images will turn blue. Click  to deselect the images, and the background will turn gray.

3 Import images.

- Click  (import).
- ▶ The selected images will be imported to the computer.
- Click [OK] in the screen that is displayed after image import is complete.



- CameraWindow default settings will save images to the Pictures or My Pictures folders on a computer. For details on how to change the destination folders for saved images, see the *Software Guide* (31).
- Movies will take longer to import since the file size is larger than still images.
- To disconnect from the camera, turn off the camera.

Connecting to a Printer

Add a wireless printer to the list of available devices as follows.

Adding a Printer

Add a printer to your list of devices to connect to via wireless LAN. When establishing a wireless connection with a printer, you can either use the camera as an access point (Camera Access Point Mode) or use another access point.



- Follow these instructions when using the camera as an access point. When using another access point, see "Connecting to Access Points in the List" (p. 67) in "Adding a Computer".



1 Access the wireless LAN screen.

- Touch [📶].



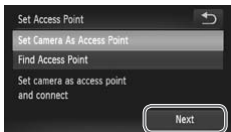
2 Choose a printer.

- Touch [🖨️].



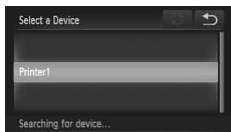
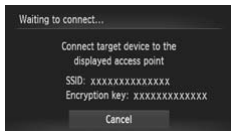
3 Choose [Add a Device].

- Touch [Add a Device].



4 Select the camera as the access point.

- Touch [Set Camera As Access Point] and then [Next].



5 Use the printer to connect to the network displayed on the camera screen.

- Choose the displayed SSID (network name) from the printer's Wi-Fi setting menu.

6 Choose the printer.

- Once the printer is ready for the connection, touch the printer name when it is displayed on the camera.
- ▶ The printer will be added to the list on the camera.

7 Choose an image to print.

- Drag left or right across the screen to choose an image. Touch [FUNC.] and then [📄].
- Touch [Print].
- ▶ Printing now begins.
- For detailed printing instructions, see 232.



- Once a printer is added, the printer name will be displayed on the screen in step 3. To connect to a printer again, simply choose the printer name from the list.
- When a connection destination is set using the Touch Actions setting (198), you can automatically access the function to connect to the last connected destination from the next time by just dragging on the screen without needing to perform the connection operation.

Sending Images

Send images wirelessly to destinations registered on the camera as follows.



- Images can be uploaded to social networking services or sent to email addresses, via CANON iMAGE GATEWAY. For details, visit the CANON iMAGE GATEWAY site.
- You can send up to 50 images together with one send operation. You can send movies together as long as the total playback time is within 2 minutes. However, if the destination is a Web service, the number of movies and images that can be sent may be less depending on the Web service. See the desired Web service for details.
- Depending on the condition of the network you are using, it may take a long time to send movies. Be sure to keep an eye on the camera battery level.
- When connected to a computer, images are transferred using the computer (included software CameraWindow) instead of the camera (📖68).

Sending Images Individually



Choose an image.

- Drag left or right across the screen to choose an image to send.
- Touch [Send this image].
- When sending movies to YouTube, read the terms of service that is displayed, and then touch [I Agree].
 - ▶ Image transfer will begin.
 - ▶ After the image or movie is sent to the desired Web service, touch [OK] on the screen that is displayed to return to the playback mode screen.
 - ▶ After sending images to a camera or smartphone, [Image sent] will be displayed, and the display will return to the image transfer screen.



- To disconnect from the camera, touch [⏏] in the upper right of the screen, and then touch [OK] in the disconnection confirmation screen.
- On the screen, wireless signal strength is indicated by the following icons. [📶] high, [📶] medium, [📶] low, [📶] weak
However, no icon is displayed when the camera is used as an access point.

Choosing the Image Resolution (Size)

On the screen described above, you can choose the resolution (size) of images to send by touching [▲][▼].

- To send images at original size, select [No] as the resizing option.
- Choosing [M2] or [S] will resize images that are larger than the selected size before sending.



- Movies cannot be resized.

Sending Multiple Images



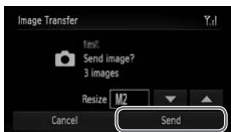
1 Choose [Select and send].

- Touch [Select and send].



2 Choose images.

- Touch the image you want to send.
- ▶ [✓] will be displayed on selected images. Touching the image again will deselect it, and [✓] will disappear. Drag up or down on the screen to scroll through displayed images.
- After you finish choosing images, touch [OK].



3 Send images.

- Touch [Send].



- If you move the zoom lever twice toward <Q> in step 2, the camera will switch to single image display. You can also drag left or right across the screen to choose images.
- In step 3, you can choose the resolution (size) to resize images to before sending (74).

Geotagging Images on the Camera

GPS data recorded using the mobile CameraWindow app (📖54) can be added to images on the camera. Images are tagged with information including the latitude, longitude, and elevation.



- Before shooting, make sure the date and time and your home time zone are set correctly. (See “Setting the Date and Time” (📖23).) Additionally, in [Time Zone] (📖217), specify any shooting destinations that are in other time zones.
- The smartphone you will use for geotagging must be authorized to view the images on the camera (📖55).
- Others may be able to locate or identify you by using location data in your geotagged still images or movies. Be careful when sharing these images with others, as when posting images online where many others can view them.

Other Information

Edit or erase wireless LAN settings as follows.

Editing Connection Information

Edit connection information saved to the camera. You can change device nicknames (display names) that are displayed on the camera, and erase connection information.

The following explains the procedure when the target device is a computer.



1 Access the wireless LAN screen.

- Touch [“☰”].



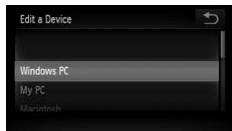
2 Choose a device to edit.

- Touch the icon for the device you want to edit.



3 Choose [Edit a Device].

- Touch [Edit a Device].



4 Choose a device to edit.

- Touch the device you want to edit.

5 Choose an option to edit.

- Touch the option you want to edit.
- For instructions on how to erase connection information or changing nicknames, continue to the next page.

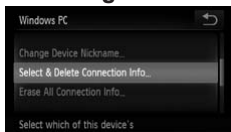


- Editable items differ depending on the device or destination.

Web services	<ul style="list-style-type: none"> • Erase connection information (access points)
Smartphones	<ul style="list-style-type: none"> • Change nickname that is displayed on the camera • Change privacy settings for images • Erase connection information
Another camera/ computer/printer	<ul style="list-style-type: none"> • Change nickname that is displayed on the camera • Erase connection information

- Connection information refers to information on how the camera connects to another device or destination.

Erasing Connection Information



6 Choose [Select & Delete Connection Info].

- Touch [Select & Delete Connection Info].
- When the target device is a camera, touch [Erase All Connection Info].



7 Choose the connection info to delete.

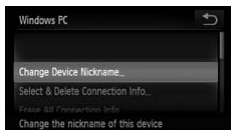
- Touch the connection info you want to delete.
- When [(connection info item) Erase?] is displayed, touch [OK].
 - ▶ The selected connection information item will be erased.
 - ▶ Return to the display in step 6.



- When you erase all connection information from a target device, it is no longer listed, and the display reverts to the screen in step 4.
- When you erase all target devices, the display reverts to the screen in step 3.
- To erase all connection information for a device at once, choose [Erase All Connection Info] in step 6.

Changing a Device Nickname

You can change the device nickname (display name) that is displayed on the camera.

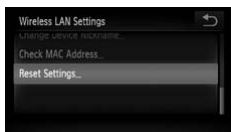


6 Change the nickname.

- Touch [Change Device Nickname].
- Touch inside the frame and a keyboard will be displayed. Enter the new nickname (48).
- ▶ The camera will return to the display in step 4 and the new nickname will be displayed.

Returning the Wireless LAN Settings to Default

Return the wireless LAN settings to default if you transfer ownership of the camera to another person, or dispose of it.



1 Access the menu.

- Touch [FUNC.], and then touch [MENU].

2 Choose [Wireless LAN Settings].

- Touch the [Y/T] tab.
- Touch [Wireless LAN Settings].

3 Choose [Reset Settings].

- Touch [Reset Settings].
- When the [Reset Settings] screen is displayed, touch [OK].
- ▶ Wireless LAN settings will be reset to defaults, and the camera will return to initial screen for this setting.



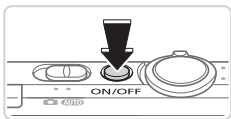
- When returning the wireless LAN settings to defaults, all Web services set using a computer will also be erased from the camera. Be sure to confirm that you want to reset all wireless LAN settings before using this option.
- To reset other settings (aside from wireless LAN) to defaults, choose [Reset All] in the [↑↑] tab.

■ **Advanced Guide**

1

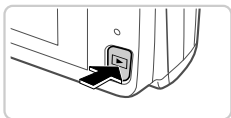
Camera Basics

Practical guide that introduces other camera basics and describes shooting and playback options



Shooting Mode

- Press the power button to turn the camera on and prepare for shooting.
- To turn the camera off, press the power button again.



Playback Mode

- Press the <▶> button to turn the camera on and view your shots.
- To turn the camera off, press the <▶> button again.



- To switch to Playback mode from Shooting mode, press the <▶> button.
- To switch to Shooting mode from Playback mode, press the shutter button halfway (📖83).
- The lens will be retracted after about one minute once the camera is in Playback mode. You can turn the camera off when the lens is retracted by pressing the <▶> button.

Power-Saving Features (Auto Power Down)

As a way to conserve battery power, the camera automatically deactivates the screen (Display Off) and then turns itself off after a specific period of inactivity.

Power Saving in Shooting Mode

The screen is automatically deactivated after about one minute of inactivity. In about two more minutes, the lens is retracted and the camera turns itself off. To activate the screen and prepare for shooting when the screen is off but the lens is still out, press the shutter button halfway (📖83).

Power Saving in Playback Mode

The camera turns itself off automatically after about five minutes of inactivity.

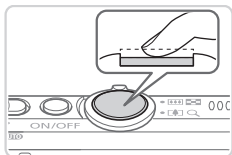


- Adjust the timing of automatic camera and screen deactivation as needed (📖216).
- Power saving is not active while the camera is connected to a computer via USB (📖36), or when connected to other devices wirelessly (📖41).

Shutter Button

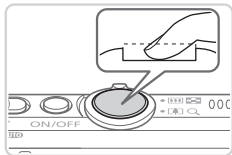
To ensure your shots are in focus, always press the shutter button lightly (halfway) initially. Once the subject is in focus, press the button all the way down to shoot.

In this manual, shutter button operations are described as pressing the button *halfway* or *all the way down*.



1 Press halfway. (Press lightly to focus.)

- Press the shutter button halfway. The camera beeps twice, and AF frames are displayed around image areas in focus.



2 Press all the way down. (From the halfway position, press fully to shoot.)

- ▶ The camera shoots, as a shutter sound is played.
- Keep the camera still until the shutter sound ends.



- Images may be out of focus if you shoot without initially pressing the shutter button halfway.
- Length of shutter sound playback varies depending on the time required for the shot. It may take longer in some shooting scenes, and images will be blurry if you move the camera (or the subject moves) before the shutter sound ends.

Shooting Display Options

Touch [DISP.] to view other information on the screen, or to hide the information. For details on the information displayed, see [book icon](#) 260.



Information is displayed



No information is displayed



- Screen brightness is automatically increased by the night display function when you are shooting under low light, making it easier to check how shots are composed. However, on-screen image brightness may not match the brightness of your shots. Note that any on-screen image distortion or jerky subject motion will not affect recorded images.
- For playback display options, see [book icon](#) 175.

FUNC. Menu

Configure commonly used functions through the FUNC. menu as follows. Note that menu items and options vary depending on the shooting mode (📖 266 – 267) or playback mode (📖 272).



1 Access the FUNC. menu.

- Touch [FUNC.].



2 Choose a menu item.

- Drag the menu up or down to scroll it, or touch an item to choose it.
- You can also scroll the menu by dragging up or down outside of the menu area.
- Touch your chosen menu item again, or touch its description at right.

Options
Menu Items



3 Choose an option.

- Drag the options up or down to scroll them, or touch an option to choose it.
- You can also scroll the options by dragging up or down outside of the option area.

4 Finish the setup process.

- Touch your chosen option again, or touch [↩].
- ▶ The screen before you touched [FUNC.] in step 1 is displayed again, showing the option you configured.



- To undo any accidental setting changes, you can restore the camera's default settings (📖 220).
- On the screen in step 2, you can also choose options by touching their descriptions at right.

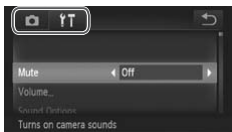
MENU Menu

Configure a variety of camera functions through other menus as follows. Menu items are grouped by purpose on tabs, such as shooting [📷], playback [▶], and so on. Note that available settings vary depending on the selected shooting or playback mode (📖268 – 272).



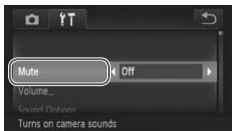
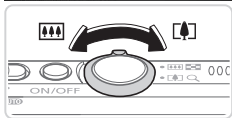
1 Access the menu.

- Touch [FUNC.], and then touch [MENU].



2 Choose a tab.

- Touch a tab or move the zoom lever (📖6) left or right to choose a tab.



3 Choose a setting.

- Drag the settings up or down to scroll them, or touch a setting to choose it.
- To choose settings with options not shown, first touch the setting to switch screens, and then either drag the settings up or down to scroll them or touch a setting to choose it.
- To return to the previous screen, touch [↶].



4 Choose an option.

- For options displayed with [◀][▶] on either side, touch [◀][▶] to change the option.
- For options displayed with a bar to indicate the level, touch the desired position on the bar.

5 Finish the setup process.

- Touch [↶] to return to the screen displayed before you touched [FUNC.] in step 1.



- To undo any accidental setting changes, you can restore the camera's default settings (📖220).

Indicator Display

The indicator on the back of the camera (📖7) lights up or blinks depending on the camera status.

Color	Indicator Status	Camera Status
Green	On	Connected to a computer (📖36), or display off (📖82, 216)
	Blinking	Starting up, recording/reading/transmitting images, or shooting long exposures (📖142)
Blue	On	Wireless LAN connection established
	Blinking	Wireless LAN connection or data transfer in progress



- When the indicator blinks green, never turn the camera off, open the memory card/battery cover, or shake or jolt the camera, which may corrupt images or damage the camera or memory card.

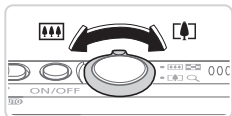
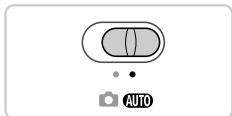
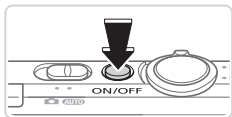
2

Smart Auto Mode

Convenient mode for easy shots with greater control over shooting

Shooting (Smart Auto)

For fully automatic selection at optimal settings for specific scenes, simply let the camera determine the subject and shooting conditions.



Zoom Bar



1 Turn the camera on.

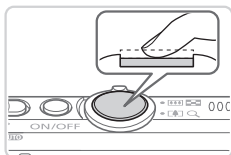
- Press the power button.
- ▶ The startup screen is displayed.

2 Enter <AUTO> mode.

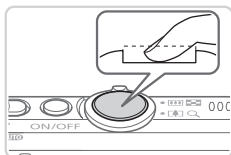
- Set the mode switch to <AUTO>.
- Aim the camera at the subject. The camera will make a slight clicking noise as it determines the scene.
- ▶ A scene icon is displayed in the upper left of the screen and an image stabilization icon in the upper right.
- ▶ Frames displayed around any detected subjects indicate that they are in focus.
- ▶ Black bars displayed on the left and right edges of the screen indicate image areas not recorded.

3 Compose the shot.

- To zoom in and enlarge the subject, move the zoom lever toward <[Tree]> (telephoto), and to zoom away from the subject, move it toward <[Three Bars]> (wide angle). (A zoom bar showing the zoom position is displayed.)
- To zoom in or out quickly, move the zoom lever all the way toward <[Tree]> (telephoto) or <[Three Bars]> (wide angle), and to zoom in or out slowly, move it just a little in the desired direction.



AF Frames



4 Shoot.

Shooting Still Images

① Focus.

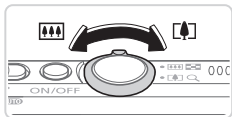
- Press the shutter button halfway. The camera beeps twice after focusing, and green frames are displayed to indicate image areas in focus.
- ▶ Several green frames are displayed when multiple areas are in focus.

② Shoot.

- Press the shutter button all the way down.
- ▶ As the camera shoots, a shutter sound is played, and in low-light conditions, the flash fires automatically.
- Keep the camera still until the shutter sound ends.
- ▶ Your shot remains displayed on the screen for about two seconds.
- Even while the shot is displayed, you can take another shot by pressing the shutter button again.



Elapsed Time



Shooting Movies

① Start shooting.

- Touch [●]. The camera beeps once as recording begins, and [●Rec] is displayed with the elapsed time.
- ▶ The camera switches to full-screen display, and the portion of your subject shown on the screen is recorded.
- ▶ Frames displayed around any detected faces indicate that they are in focus.

② Resize the subject and recompose the shot as needed.

- To resize the subject, do the same thing as in step 3 on [page 90](#). However, note that the sound of camera operations will be recorded, and movies shot at zoom factors shown in blue will look grainy.
- When you recompose shots, the focus, brightness, and colors will be automatically adjusted.

③ Finish shooting.

- Touch [■]. The camera beeps twice as recording stops.
- ▶ Recording will stop automatically when the memory card becomes full.

Still Images



- A flashing [📷] icon warns that images are more likely to be blurred by camera shake. In this case, mount the camera on a tripod or take other measures to keep it still.
- If your shots are dark despite the flash firing, move closer to the subject. For details on the flash range, see “Specifications” (📖274).
- The subject may be too close if the camera only beeps once when you press the shutter button halfway. For details on the focusing range (shooting range), see “Specifications” (📖274).
- To reduce red-eye and to assist in focusing, the lamp may be activated when shooting in low-light conditions.
- A blinking [⚡] icon displayed when you attempt to shoot indicates that shooting is not possible until the flash has finished recharging. Shooting can resume as soon as the flash is ready, so either press the shutter button all the way down and wait, or release it and press it again.
- The shutter sound will not be played when the Sleeping and Babies (Sleeping) icons (📖95) are displayed.

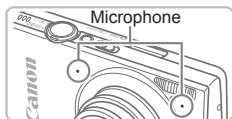


- The flash firing during shots indicates that the camera has automatically attempted to ensure optimal colors in the main subject and background (Multi-area White Balance).

Movies



- The camera may become warm when shooting movies repeatedly over an extended period. This does not indicate damage.



- Keep your fingers away from the microphone while shooting movies. Blocking the microphone may prevent audio from being recorded or may cause the recording to sound muffled.
- Avoid touching camera controls other than the screen when shooting movies, because sounds made by the camera will be recorded.
- To correct suboptimal image color that may occur in [1920] movie shooting (117) after you recompose shots, touch [■] to stop recording, and then touch [●] again to resume recording.



- Audio is recorded in stereo.



Scene Icons

In <AUTO> mode, shooting scenes determined by the camera are indicated by the icon displayed, and corresponding settings are automatically selected for optimal focusing, subject brightness, and color. Depending on the scene, continuous images may be shot (📖 96).

Background		Normal	Backlit	Dark*	Sunsets	Spotlights
		Subject				
People					–	
In Motion				–	–	–
Shadows on Face			–	–	–	–
Smiling				–	–	–
Sleeping				–	–	–
Babies				–	–	–
	Smiling			–	–	–
	Sleeping			–	–	–
Children (In Motion)				–	–	–
Other Subjects						
In Motion				–	–	–
At Close Range				–	–	

* Tripod Used




- The background color of icons is light blue when the background is a blue sky, dark blue when the background is dark, and gray for all other backgrounds.
- The background color of icons is light blue when the background is a blue sky, and gray for all other backgrounds.
- The background color of , , , , and is dark blue, and the background color of is orange.
- When shooting movies, only People, Other Subjects, and At Close Range icons will be displayed.
- When shooting with the self-timer, People (In Motion), Smiling, Sleeping, Babies (Smiling), Babies (Sleeping), Children, Other Subjects (In Motion) icons will not be displayed.




- When the drive mode is set to  (115), and when [Hg Lamp Corr.] is set to [On] and scenes are automatically corrected (116), Smiling, Sleeping, Babies (Smiling), Babies (Sleeping), and Children icons will not be displayed.
- If the flash is set to ^A, the Backlit icons for Smiling and Children will not be displayed.
- Babies, Babies (Smiling), Babies (Sleeping), and Children icons will be displayed when [Face ID] is set to [On], and the face of a registered baby (under two years old) or child (from two to twelve years old) is detected (105). Confirm beforehand that the date and time are correct (23).



- Try shooting in <P> mode (147) if the scene icon does not match actual shooting conditions, or if it is not possible to shoot with your expected effect, color, or brightness.

Continuous Shooting Scenes

If you shoot a still image when the following icons are displayed, the camera will shoot continuously. If you press the shutter button halfway when one of the icons in the table below is displayed, one of the following icons will be displayed to inform you that the camera will shoot continuous images: , , or .

Smiling (including Babies)	 : Consecutive images are captured, and the camera analyzes details such as facial expressions to save the image determined to be the best.
Sleeping (including Babies)	 : Beautiful shots of sleeping faces, created by combining consecutive shots to reduce camera shake and image noise. The AF assist beam will not light up, the flash will not fire, and the shutter sound will not be played.
Children	 : So you don't miss a photo opportunity of children who move around, the camera will capture three consecutive images for each shot.



- In some scenes, expected images may not be saved, and images may not look as expected.
- Focus, image brightness, and color are determined by the first shot.











- When you want to shoot single images only, touch [FUNC.], choose  in the menu, and then choose .

Image Stabilization Icons

Optimal image stabilization for the shooting conditions is automatically applied (Intelligent IS). Additionally, the following icons are displayed in <AUTO> mode.

	Image stabilization for still images		Image stabilization for movies, reducing strong camera shake, as when shooting while walking (Dynamic IS)
	Image stabilization for still images, when panning*		Image stabilization for slow camera shake, such as when shooting movies at telephoto (Powered IS)
	Image stabilization for macro shots (Hybrid IS)		No image stabilization, because the camera is mounted on a tripod or held still by other means

* Displayed when you pan, following moving subjects with the camera. When you follow subjects moving horizontally, image stabilization only counteracts vertical camera shake, and horizontal stabilization stops. Similarly, when you follow subjects moving vertically, image stabilization only counteracts horizontal camera shake.



- To cancel image stabilization, set [IS Mode] to [Off] (📖 169). In this case, an IS icon is not displayed.

On-Screen Frames

A variety of frames are displayed once the camera detects subjects you are aiming the camera at.

- A white frame is displayed around the subject (or person's face) determined by the camera to be the main subject, and gray frames are displayed around other detected faces. Frames follow moving subjects within a certain range to keep them in focus.

However, if the camera detects subject movement, only the white frame will remain on the screen.

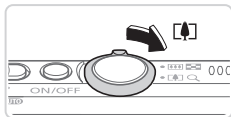
- When you are pressing the shutter button halfway and the camera detects subject movement, a blue frame is displayed, and the focus and image brightness are constantly adjusted (Servo AF).



- Try shooting in <P> mode (📖147) if no frames are displayed, if frames are not displayed around desired subjects, or if frames are displayed on the background or similar areas.
- To choose subjects to focus on, touch the desired subject on the screen. [📖] is displayed, and the camera enters Touch AF mode (📖161). Pressing the shutter button halfway will display a blue AF frame, and the camera will keep the subject in focus and image brightness adjusted (Servo AF).
- Touch AF is not available when shooting movies.

Zooming In Closer on Subjects (Digital Zoom)

When distant subjects are too far away to enlarge using the optical zoom, use digital zoom for up to about 20x enlargement.



1 Move the zoom lever toward

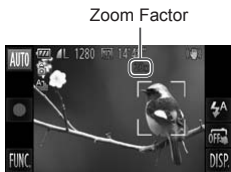


- Hold the lever until zooming stops.
- ▶ Zooming stops at the largest possible zoom factor (before the image becomes noticeably grainy), which is then indicated on the screen.

2 Move the zoom lever toward



- ▶ To continue magnifying the subject, keep zooming.



- Moving the zoom lever will display the zoom bar (which indicates the zoom position). The color of the zoom bar will change depending on the zoom range.
 - White range: optical zoom range where the image will not appear grainy.
 - Yellow range: digital zoom range where the image is not noticeably grainy (ZoomPlus).
 - Blue range: digital zoom range where the image will appear grainy.

Because the blue range will not be available at some resolution settings (📖 114) the maximum zoom factor can be achieved by following step 1.



- Focal length when optical and digital zoom are combined is as follows (35mm film equivalent).
24 – 480 mm (24 – 120 mm with optical zoom alone)
- To deactivate digital zoom, touch [FUNC.] and then [MENU], choose [Digital Zoom] on the [CAM] tab, and then choose [Off].

Still Images

Movies

Using the Self-Timer

With the self-timer, you can include yourself in group photos or other timed shots. The camera will shoot about 10 seconds after you press the shutter button.

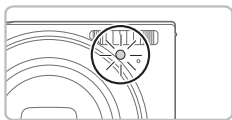


1 Configure the setting.

- Touch [FUNC.], choose [COFF] in the menu, and then choose the [C10] option (85).
- ▶ Once the setting is complete, [C10] is displayed.

2 Shoot.

- For Still Images: Press the shutter button halfway to focus on the subject, and then press it all the way down.
- For Movies: Touch [●].
- ▶ Once you start the self-timer, the lamp will blink and the camera will play a self-timer sound.
- ▶ Two seconds before the shot, the blinking and sound will speed up. (The lamp will remain lit in case the flash fires.)
- To cancel shooting after you have triggered the self-timer, touch the screen.
- To restore the original setting, choose [COFF] in step 1.



Using the Self-Timer to Avoid Camera Shake

This option delays shutter release until about two seconds after you have pressed the shutter button. If the camera is unsteady while you are pressing the shutter button, it will not affect your shot.

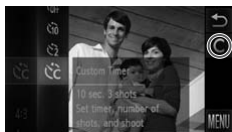


Configure the setting.

- Follow step 1 on 100 and choose [⌚].
- ▶ Once the setting is complete, [⌚] is displayed.
- Follow step 2 on 100 to shoot.

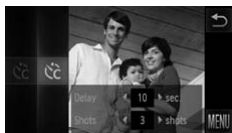
Customizing the Self-Timer

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



1 Choose [⌚].

- Following step 1 on 100 choose [⌚] and touch [C] on the right edge of the screen.



2 Configure the setting.

- Touch [◀][▶] to choose a value for the desired option, and then double-touch [↻].
- ▶ Once the setting is complete, [⌚] is displayed.
- Follow step 2 on 100 to shoot.



- For movies shot by touching [●], [Delay] represents the delay before recording begins, but the [Shots] setting has no effect.



- When you specify multiple shots, image brightness and white balance are determined by the first shot. More time is required between shots when the flash fires or when you have specified to take many shots. Shooting will stop automatically when the memory card becomes full.
- When a delay longer than two seconds is specified, two seconds before the shot, the lamp blinking and self-timer sound will speed up. (The lamp will remain lit in case the flash fires.)

Still Images

Shooting By Touching the Screen (Touch Shutter)

With this option, instead of pressing the shutter button, you can simply touch the screen and release your finger to shoot. The camera will focus on subjects and adjust image brightness automatically.



1 Prepare to use touch shutter.

- Touch [OFF] and change the mode to [Touch Shutter].

2 Choose a subject to focus on.

- Touch the subject on the screen and keep your finger on the screen.
- The camera beeps twice after focusing. A blue frame is displayed, and the camera will keep the subject in focus and image brightness adjusted (Servo AF).

3 Shoot.

- Release your finger from the screen. A shutter sound is played as the camera shoots.
- To cancel touch shutter, touch [Touch Shutter Off] and change the mode to [OFF].

- You can also configure touch-shutter settings by touching [FUNC.] and then [MENU], and then choosing [Touch Shutter] on the [CAMERA] tab of the menu screen.
- Even while the shot is displayed, you can prepare for the next shot by touching [↩].

Deactivating the Flash

Prepare the camera for shooting without the flash as follows.



Configure the setting.

- Touch [⚡A], touch [⚡/] to choose it, and then touch [⚡/] again.
- ▶ Once the setting is complete, [⚡/] is displayed.
- To restore the original setting, repeat this process but choose [⚡A].

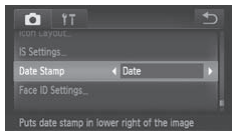
- If a flashing [⚡/] icon is displayed when you press the shutter button halfway in low-light conditions, mount the camera on a tripod or take other measures to keep it still.



- This setting can also be configured by touching [⚡A] and then [↩] on the next screen.

Adding a Date Stamp

The camera can add the shooting date to images, in the lower-right corner. However, note that date stamps cannot be edited or removed, so confirm beforehand that the date and time are correct (📖23).



1 Configure the setting.

- Touch [FUNC.], touch [MENU], choose [Date Stamp] on the [📷] tab, and then choose the desired option (📖86).
- ▶ Once the setting is complete, [DATE] is displayed.

2 Shoot.

- ▶ As you take shots, the camera adds the shooting date or time to the lower-right corner of images.
- To restore the original setting, choose [Off] in step 1.



- Date stamps cannot be edited or removed.



- Shots taken without adding a date stamp can be printed with one as follows. However, adding a date stamp this way to images that already have one may cause it to be printed twice.
 - Use the included software to print
For details, refer to the *Software Guide* (📖31).
 - Print using printer functions (📖232)
 - Use camera DPOF print settings (📖239) to print

Using Face ID

If you register a person ahead of time, the camera will detect that person's face, and prioritize focus, brightness, and color for that person when shooting. In <AUTO> mode, the camera can detect babies and children based on registered birthdays and optimize settings for them when shooting.

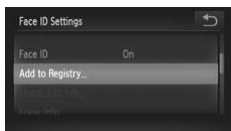
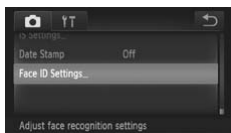
This function is also useful when searching for a specific registered person among a large number of images (📖179).

Personal Information

- Information such as images of a face (face info) registered with Face ID, and personal information (name, birthday) will be saved on the camera. Additionally, when registered people are detected, their names will be recorded in still images. When using the Face ID function, be careful when sharing the camera or images with others, and when posting images online where many others can view them.
- When disposing of a camera or transferring it to another person after using Face ID, be sure to erase all information (registered faces, names, and birthdays) from the camera (📖112).

Registering Face ID Information

You can register information (face info, name, birthday) for up to 12 people to use with Face ID.



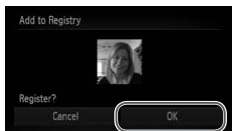
1 Access the setting screen.

- Touch [FUNC.], touch [MENU], and then touch [Face ID Settings] on the [📷] tab to choose it (📖86).
- Choose [Add to Registry], and then choose [Add a New Face].



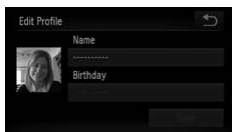
2 Register face information.

- Aim the camera so that the face of the person you want to register is inside the gray frame at the center of the screen.
- A white frame on the person's face indicates that the face is recognized. Make sure a white frame is displayed on the face, and then shoot.
- If the face is not recognized, you cannot register face information.



3 Save the settings.

- After [Register?] is displayed touch [OK].

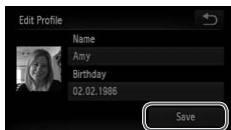


▶ The [Edit Profile] screen is displayed.



4 Enter a name.

- Touch the name text box.
- Touch the desired character to input it.
- Touch [◀|▶] to move the cursor.
- Touch [↵] to enter capital letters.
- Touch [123] to enter numbers or symbols.
- Touch [✕] to delete the previous character.
- To return to the profile edit screen, touch [↶].



5 Enter a birthday.

- Touch the birthday text box.
- Touch an item to set it.
- Touch [▲][▼] to specify the date.
- When finished, touch [↩].

6 Save the settings.

- Touch [Save].
- After a message is displayed, touch [Yes].

7 Continue registering face information.

- To register up to 4 more points of face information (expressions or angles), repeat steps 2 – 3.
- Registered faces are more easily recognized if you add a variety of face information. In addition to a head-on angle, add a slight side angle, a shot when smiling, and shots inside and outside.



- The flash will not fire when following step 2.
- If you do not register a birthday in step 5, Babies or Children icons (📖95) will not display in <AUTO> mode.



- You can overwrite registered face info, and add face info later if you have not filled all 5 face info slots (📖110).

Shooting

If you register a person ahead of time, the camera will prioritize that person as the main subject, and optimize focus, brightness, and color for that person when shooting.



- ▶ When you point the camera toward a subject, the names of up to 3 registered people will be displayed when they are detected.
- Shoot.
- ▶ Displayed names will be recorded in still images. Even if people are detected, but their names are not displayed, the names (up to 5 people) will be recorded in the image.



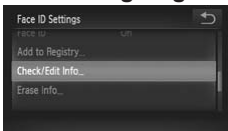
- People other than those registered may be mistakenly detected as the registered person if they share similar facial features.



- Registered people may not be correctly detected if the captured image or scene differs drastically from the registered face information.
- If a registered face is not detected, or not easily detected, overwrite registered information with new face info. Registering face info right before shooting will allow for easier detection of registered faces.
- If a person is mistakenly detected as another person and you continue shooting, you can edit or erase the name recorded in the image during playback (📖 182).
- Because faces of babies and children change quickly as they grow, you should update their face info regularly (📖 110).
- When information display is set to off (📖 84), names will not display, but will be recorded in the image.
- If you don't want names to be recorded in still images, choose [Face ID Settings] on the [📷] tab, choose [Face ID], and then choose [Off].
- You can check names recorded in images in the playback screen (simple information display) (📖 172).

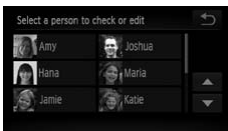
Checking and Editing Registered Information

Checking Registered Face ID Information



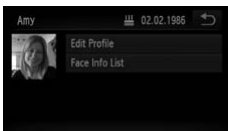
1 Access the [Check/Edit Info] screen.

- Following step 1 on 105, touch [Check/Edit Info].



2 Choose a person to check.

- Touch the image of the person you want to check.



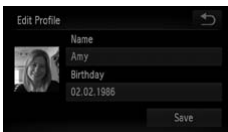
3 Check the registered information.

- Touch the item you want to check.
- Check the registered information.

Changing the Name or Birthday

1 Access the [Edit Profile] screen.

- Following steps 1 – 3 above, touch [Edit Profile].



2 Input changes.

- Follow steps 4 – 5 on 106 – 107 to input changes.



- Even if you change names in [Edit Profile], the names recorded in previously shot images will remain the same.



- You can use the included software to edit registered names. Some characters entered with the included software may not display on the camera, but will be correctly recorded in images.

■ Overwriting and Adding Face Information

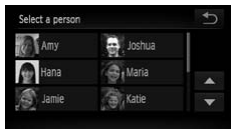
You can overwrite existing face information with new face info. You should update face information regularly, especially with babies and children, as their faces change quickly as they grow.

You can also add face information when all 5 face info slots have not been filled.



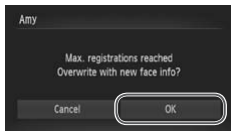
1 Access the [Add Face Info] screen.

- On the screen in step 1 on 105, touch [Add Face Info].



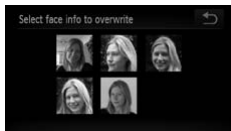
2 Choose the name of the person to overwrite.

- Touch the name of the person to overwrite.
- If 4 or less face information slots are registered, follow step 5 on 111 to add more face info.



3 Access the face info screen.

- Read the message that displays and touch [OK].
- ▶ The face info screen is displayed.



4 Choose the face info to overwrite.

- Touch the image of the face info you want to overwrite.



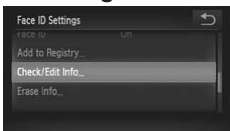
5 Register face information.

- Follow steps 2 – 3 on 106 to shoot, and then register the new face information.
- Registered faces are more easily recognized if you add a variety of face information. In addition to a head-on angle, add a slight side angle, a shot when smiling, and shots inside and outside.



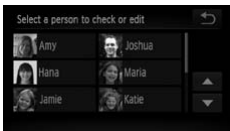
- You cannot add face information if all 5 information slots are filled. Follow the steps above to overwrite face information.
- You can follow the above steps to register new face info when there is at least one slot open, however you cannot overwrite any face information. Instead of overwriting face info, first erase unwanted existing info, and then register new face information as needed.

Erasing Face Information



1 Access the [Check/Edit Info] screen.

- Following step 1 on 105, touch [Check/Edit Info].



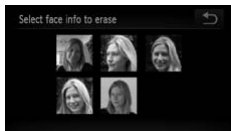
2 Choose the name of the person whose face info you want to erase.

- Touch the name of the person to erase.



3 Access the [Face Info List] screen.

- Touch [Face Info List].

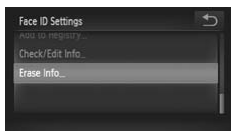


4 Choose the face info to erase.

- Touch [Erase], and then touch the face info you want to erase.
- After [Erase?] is displayed, touch [OK].
- ▶ The selected face info will be erased.

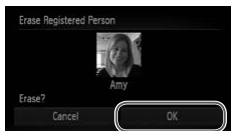
Erasing Registered Information

You can erase information (face info, name, birthday) registered to Face ID. However, names recorded in previously shot images will not be erased.



1 Access the [Erase Info] screen.

- Follow step 1 on [105](#) and choose [Erase Info].



2 Choose the name of the person whose info you want to erase.

- Touch the name of the person to erase.
- After [Erase?] is displayed touch [OK].



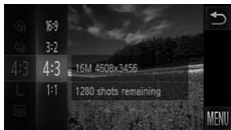
- If you erase a registered person's info, you will not be able to display their name ([108](#)), overwrite their info ([182](#)), or search images for them ([179](#)).



- You can also erase a person's name only from images ([182](#)).

Changing the Aspect Ratio

Change the image aspect ratio (ratio of width to height) as follows.



Configure the setting.

- Touch [FUNC.], choose [4:3] in the menu, and choose the desired option (📖85).
- ▶ Once the setting is complete, the screen aspect ratio will be updated.
- To restore the original setting, repeat this process but choose [4:3].

16:9	Native aspect ratio of the camera screen, also used for display on widescreen HDTVs or similar display devices.
3:2	Same aspect ratio as 35mm film, used for printing images at 5 x 7-inch or postcard sizes.
4:3	Used for display on standard-definition televisions or similar display devices. Also used for printing images at 3.5 x 5-inch or A-series sizes.
1:1	Square aspect ratio.



- For full-screen display, choose [16:9]. However, note that printing shots taken in this aspect ratio at 3.5 x 5 in. or A-series sizes may leave blank borders, or some image areas may not be printed.
- At aspect ratios other than [4:3], digital zoom (📖99) is not available ([Digital Zoom] is set to [Off]).

Changing Image Resolution (Size)

Choose from 4 levels of image resolution, as follows. For guidelines on how many shots at each resolution setting can fit on a memory card, see “Specifications” (274).



Configure the setting.

- Touch [FUNC.], choose [L] in the menu, and choose the desired option (85).
- ▶ The option you configured is now displayed.
- To restore the original setting, repeat this process but choose [L].

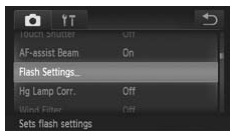
Guidelines for Choosing Resolution Based on Paper Size (for 4:3 Images)

A2 (16.5 x 23.4 in.)	L
A3 – A5 (11.7 x 16.5 – 5.8 x 8.3 in.)	M1
5 x 7 in. Postcard 3.5 x 5 in.	M2

- [S]: For e-mailing images.

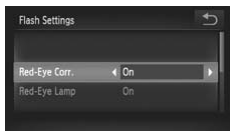
Red-Eye Correction

Red-eye that occurs in the flash photography can be automatically corrected as follows.



1 Access the [Flash Settings] screen.

- Touch [FUNC.], touch [MENU], and then touch [Flash Settings] on the [CAMERA] tab to choose it (📖86).



2 Configure the setting.

- Choose [Red-Eye Corr.], and then choose [On] (📖86).
- ▶ Once the setting is complete, [⊕] is displayed.
- To restore the original setting, repeat this process but choose [Off].



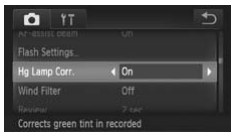
- Red-eye correction may be applied to image areas other than eyes (if the camera misinterprets red eye makeup as red pupils, for example).



- You can also correct existing images (📖204).

Correcting Greenish Image Areas from Mercury Lamps

In shots of evening scenes with subjects illuminated by mercury lamps, the subjects or background may appear to have a greenish tinge. This greenish tinge can be corrected automatically when shooting, using Multi-area White Balance.



Configure the setting.

- Touch [FUNC.], touch [MENU], and then touch [Hg Lamp Corr.] on the [📷] tab to choose [On] (📖 86).
- ▶ Once the setting is complete, [📷] is displayed.
- To restore the original setting, repeat this process but choose [Off].



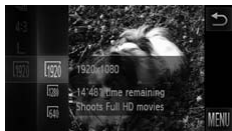
- After you are finished shooting under mercury lamps, you should set [Hg Lamp Corr.] back to [Off]. Otherwise, green hues not caused by mercury lamps may be corrected by mistake.



- Try taking some test shots first to make sure you obtain the desired results.

Changing Movie Image Quality

3 image quality settings are available. For guidelines on the maximum movie length at each level of image quality that will fit on a memory card, see “Specifications” (8274).



Configure the setting.

- Touch [FUNC.], choose [1920] in the menu, and choose the desired option (85).
- ▶ The option you configured is now displayed.
- To restore the original setting, repeat this process but choose [1920].

Image Quality	Resolution	Frame Rate	Details
1920	1920 x 1080	24 fps	For shooting in Full HD
1280	1280 x 720	30 fps	For shooting in HD
640	640 x 480	30 fps	For shooting in standard definition



- In [640] mode, black bars displayed on the left and right edges of the screen indicate image areas not recorded.

Using the Wind Filter

Distorted audio caused by recording when the wind is strong can be reduced. However, the recording may sound unnatural when this option is used when there is no wind.

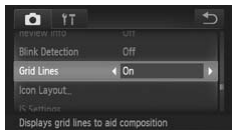


Configure the setting.

- Touch [FUNC.], touch [MENU], choose [Wind Filter] on the [CAMERA] tab, and then choose [On] (86).
- To restore the original setting, repeat this process but choose [Off].

Displaying Grid Lines

Grid lines can be displayed on the screen for vertical and horizontal reference while shooting.



Configure the setting.

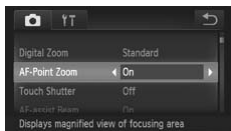
- Touch [FUNC.], touch [MENU], choose [Grid Lines] on the [CAMERA] tab, and then choose [On] (📖 86).
- ▶ Once the setting is complete, grid lines are displayed on the screen.
- To restore the original setting, repeat this process but choose [Off].



- Grid lines are not recorded in your shots.

Magnifying the Area in Focus

You can check the focus by pressing the shutter button halfway, which will enlarge the portion of the image in focus in the AF frame.



1 Configure the setting.

- Touch [FUNC.], touch [MENU], choose [AF-Point Zoom] on the [CAMERA] tab, and then choose [On] (📖86).



2 Check the focus.

- Press the shutter button halfway. The face detected as the main subject is now magnified.
- To restore the original setting, choose [Off] in step 1.




- The area in focus will not be magnified when you press the shutter button halfway if a face was not detected, if the person is too close to the camera and their face is too large for the screen, or if the camera detects subject movement.





- The display will not magnify when using the digital zoom (📖99).

Checking for Closed Eyes


[>] is displayed when the camera detects that people may have closed their eyes.






1 Configure the setting.

- Touch [FUNC.], touch [MENU], choose [Blink Detection] on the [] tab, and then choose [On] ( 86).

2 Shoot.

- A frame, accompanied by [>], is displayed when the camera detects a person whose eyes are closed.
- To restore the original setting, choose [Off] in step 2.



- When you have specified multiple shots in [] mode, this function is only available for the final shot.
- This feature is not available during continuous shooting in [] mode ( 96).

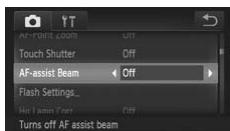
Customizing Camera Operation

Customize shooting functions on the [CAMERA] tab of the menu as follows. For instructions on menu functions, see “MENU Menu” (86).

Still Images

Deactivating the AF Assist Beam

You can deactivate the lamp that normally lights up to help you focus when you press the shutter button halfway in low-light conditions.



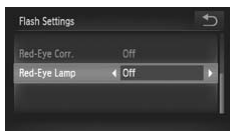
Configure the setting.

- Touch [FUNC.], touch [MENU], choose [AF-assist Beam] on the [CAMERA] tab, and then choose [Off] (86).
- To restore the original setting, repeat this process but choose [On].

Still Images

Deactivating the Red-Eye Reduction Lamp

You can deactivate the red-eye reduction lamp that lights up to reduce red-eye when the flash is used in low-light shots.



1 Access the [Flash Settings] screen.

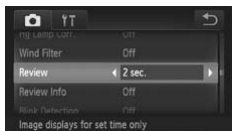
- Touch [FUNC.], touch [MENU], and then touch [Flash Settings] on the [CAMERA] tab to choose it (86).

2 Configure the setting.

- Choose [Red-Eye Lamp], and then choose [Off] (86).
- To restore the original setting, repeat this process but choose [On].

Changing the Image Display Period After Shots

Change how long images are displayed after shots as follows.



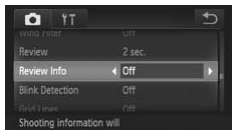
Configure the setting.

- Touch **[FUNC.]**, touch **[MENU]**, choose **[Review]** on the **[📷]** tab, and then choose the desired option (📖86).
- To restore the original setting, repeat this process but choose **[2 sec.]**.

2 – 10 sec.	Displays images for the specified time.
Hold	Displays images until you press the shutter button halfway.
Off	No image display after shots.

Changing the Image Display Style After Shots

Change the way images are displayed after shots as follows.



Configure the setting.

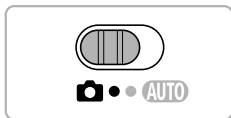
- Touch **[FUNC.]**, touch **[MENU]**, choose **[Review Info]** on the **[📷]** tab, and then choose the desired option (📖86).
- To restore the original setting, repeat this process but choose **[Off]**.

Off	Displays only the image.
Detailed	Displays shooting details (📖262).
Focus Check	Shows the area in the AF frame magnified, enabling you to check the focus. Follow the steps in “Checking the Focus” (📖177).

3

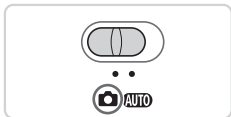
Other Shooting Modes

Shoot more effectively in various scenes, and take shots enhanced with unique image effects or captured using special functions



Specific Scenes

Choose a mode matching the shooting scene, and the camera will automatically configure the settings for optimal shots.



1 Enter mode.

- Set the mode switch to .



2 Choose a shooting mode.

- Touch [P].
- To view other shooting modes, touch [] [] or quickly drag left or right on the screen.
- Touch the desired mode to view a description.
- To confirm your choice, touch [OK].
- Touch [] to return to the shooting mode selection screen.

3 Shoot.

Still Images

Movies



 Shoot portraits (Portrait)

- Take shots of people with a softening effect.



Still Images

Shoot evening scenes without using a tripod (Handheld NightScene)

- Beautiful shots of evening scenes without the need to hold the camera very still, as with a tripod.
- A single image is created by combining consecutive shots, reducing camera shake and image noise.



Still Images

Shoot under low light (Low Light)

- Shoot with minimal camera shake and subject blur even in low-light conditions.







Still Images

Movies






Shoot with snowy backgrounds (Snow)

- Bright, natural-colored shots of people against snowy backgrounds.



- In  mode, shots may look grainy because the ISO speed ( 150) is increased to suit the shooting conditions.
- Because the camera will shoot continuously in  mode, hold it steady while shooting.
- In  mode, excessive camera shake or certain shooting conditions may prevent you from obtaining the desired results.



- When you use a tripod for evening scenes, shooting in  mode instead of  mode will give better results ( 90).
-  mode resolution is  (2304 x 1728) and cannot be changed.

Making Skin Look Smoother (Smooth Skin)

You can apply a smoothening effect when shooting images of people. The effect level and color ([Lighter Skin Tone], [Darker Skin Tone]) can be chosen as follows.



1 Choose [👤].

- Follow steps 1 – 2 on 124 and choose [👤].

2 Access the setting screen.

- Touch [].

3 Configure the setting.

- Touch [][] to choose an option.
- ▶ A preview is shown of how your shot will look with the effect applied.

4 Shoot.



- Areas other than people's skin may be modified.
- Try taking some test shots first to make sure you obtain the desired results.




- The effect will be stronger for the face of the person detected as the main subject.

Applying Special Effects

Add a variety of effects to images when shooting.

1 Choose a shooting mode.

- Follow steps 1 – 2 on  124 to choose a shooting mode.

2 Shoot.



Still Images

Movies

Shoot in vivid colors (Super Vivid)

- Shots in rich, vivid colors.





Still Images

Movies

Posterized shots (Poster Effect)

- Shots that resemble an old poster or illustration.



- In [] and [] modes, try taking some test shots first, to make sure you obtain the desired results.

Shooting with a Fish-Eye Lens Effect (Fish-eye Effect)

Shoot with the distorting effect of a fish-eye lens.



1 Choose [📷].

- Follow steps 1 – 2 on 124 and choose [📷].

2 Choose an effect level.

- Touch [⏏], touch [◀|▶] to choose an effect level, and then touch [↺].
- ▶ A preview is shown of how your shot will look with the effect applied.

3 Shoot.



- Try taking some test shots first, to make sure you obtain the desired results.

Shots Resembling Miniature Models (Miniature Effect)

Creates the effect of a miniature model, by blurring image areas above and below your selected area.

You can also make movies that look like scenes in miniature models by choosing the playback speed before the movie is recorded. People and objects in the scene will move quickly during playback. Note that sound is not recorded.

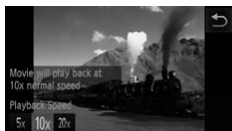
1 Choose [📷].

- Follow steps 1 – 2 on 124 and choose [📷].
- ▶ A white frame is displayed, indicating the image area that will not be blurred.



2 Choose the area to keep in focus.

- To adjust the area in focus, either touch the screen or drag the white frame up or down.
- To change the size of the area in focus, touch [M], touch [S], [M], or [L] to choose the option, and then touch [↵].



3 For movies, choose the movie playback speed.

- Touch [10x], touch [5x], [10x], or [20x] to choose the speed, and then touch [↵].

4 Shoot.

Playback Speed and Estimated Playback Time (for One-Minute Clips)

Speed	Playback Time
5x	Approx. 12 sec.
10x	Approx. 6 sec.
20x	Approx. 3 sec.



- The zoom is not available when shooting movies. Be sure to set the zoom before shooting.
- Try taking some test shots first, to make sure you obtain the desired results.




- To switch the orientation of the frame to vertical, touch [V] in step 2. Touch the screen to move the frame. To return the frame to horizontal orientation, touch [V] again.
- Holding the camera vertically will change the orientation of the frame.
- Movie image quality is [640] at an aspect ratio of [4:3] and [720] at an aspect ratio of [16:9] (113). These quality settings cannot be changed.

Shooting with a Toy Camera Effect (Toy Camera Effect)

This effect makes images resemble shots from a toy camera by vignetting (darker, blurred image corners) and changing the overall color.

1 Choose [📷].

- Follow steps 1 – 2 on  124 and choose [📷].

2 Choose a color tone.

- Touch [🎨], touch [◀|▶] to choose a color tone, and then touch [↶].
- ▶ A preview is shown of how your shot will look with the effect applied.

3 Shoot.



Standard	Shots resemble toy camera images.
Warm	Images have a warmer tone than with [Standard].
Cool	Images have a cooler tone than with [Standard].




- Try taking some test shots first, to make sure you obtain the desired results.

Shooting With a Soft Focus Effect

This function allows you to shoot images as if a soft focus filter is attached to the camera. You can adjust the effect level as desired.

1 Choose [👤].

- Follow steps 1 – 2 on  124 and choose [👤].

2 Choose an effect level.

- Touch [E], touch [◀][▶] to choose an effect level, and then touch [↶].
- ▶ A preview is shown of how your shot will look with the effect applied.

3 Shoot.




- Try taking some test shots first, to make sure you obtain the desired results.

Shooting in Monochrome

Shoot images in black and white, sepia, or blue and white.

1 Choose [📷].

- Follow steps 1 – 2 on  124 and choose [📷].

2 Choose a color tone.

- Touch [📷], touch [⏪][▶] to choose a color tone, and then touch [↶].
- ▶ A preview is shown of how your shot will look with the effect applied.

3 Shoot.



B/W	Black and white shots.
Sepia	Sepia tone shots.
Blue	Blue and white shots.

Shooting with Color Accent

Choose a single image color to keep and change other colors to black and white.



1 Choose [A].

- Follow steps 1 – 2 on [page 124](#) and choose [A].

2 Access the setting screen.

- Touch [A].
- ▶ The original image and the Color Accent image are displayed one after another.
- ▶ By default, green is the color that will be kept.

3 Specify the color.

- Position the center frame over the color to keep, and then touch the frame at the bottom of the screen.
- ▶ The specified color is recorded.



Recorded Color

4 Specify the range of colors to keep.

- Touch [▲][▼] to adjust the range.
- To keep only your specified color, choose a large negative value. To keep colors similar to your specified color as well, choose a large positive value.
- Touch [↶] to return to the shooting screen.

5 Shoot.



- Using the flash in this mode may cause unexpected results.
- In some shooting scenes, images may look grainy and colors may not look as expected.

Still Images

Movies

Shooting with Color Swap

You can replace one image color with another before shooting. Note that only one color can be replaced.



1 Choose [F/S].

- Follow steps 1 – 2 on 124 and choose [F/S].



2 Access the setting screen.

- Touch [Pencil icon].
- ▶ The original image and the Color Swap image are displayed one after another.
- ▶ By default, green will be replaced with gray.



3 Specify the color to replace.

- Position the center frame over the color to replace, and then touch the frame at the bottom left of the screen.
- ▶ The specified color is recorded.



4 Specify the new color.

- Position the center frame over the new color, and then touch the frame at the bottom right of the screen.
- ▶ The specified color is recorded.

5 Specify the range of colors to replace.

- Touch [▲][▼] to adjust the range.
- To replace only your specified color, choose a large negative value. To replace colors similar to your specified color as well, choose a large positive value.
- Touch [↶] to return to the shooting screen.

6 Shoot.



- Using the flash in this mode may cause unexpected results.
- In some shooting scenes, images may look grainy and colors may not look as expected.

Auto Clip Recording (Movie Digest)

You can make a short movie of a day just by shooting still images. Before each shot, the camera will automatically record a movie clip of the scene. Each clip recorded that day is combined into a single file.



1 Choose [M].

- Follow steps 1 – 2 on 124 and choose [M].

2 Shoot.

- To shoot a still image, press the shutter button all the way down.
- ▶ Before shooting, the camera will automatically record a clip about 2 – 4 seconds long.



- Clips may not be recorded if you shoot a still image immediately after turning the camera on, choosing [M] mode, or operating the camera in other ways.
- Battery life is shorter in this mode than in <AUTO> mode, because clips are recorded for each shot.
- Any sounds from camera operations during movie recording will be included in the movie.



- Movies created in [📷] mode are saved as iFrame movies (📖145).
- Clips are saved as separate movie files in the following cases even if they were recorded on the same day in [📷] mode.
 - If the movie file size reaches about 4 GB or the total recording time reaches approx. 29 minutes and 59 seconds
 - If a movie is protected (📖187)
 - If a movie has been edited (📖206)
 - If the daylight saving time (📖23) or time zone (📖217) settings have been changed
 - If a new folder is created (📖215)
- Some camera sounds will be muted. Sounds are not played when you press the shutter button halfway, use camera controls, or trigger the self-timer (📖211).
- Movies created in [📷] mode can be viewed by date (📖180).

Auto Shooting After Face Detection (Smart Shutter)

Auto Shooting After Smile Detection

The camera shoots automatically after detecting a smile, even without you pressing the shutter button.



1 Choose [☺].

- Follow steps 1 – 2 on [124](#) and choose [☺], and then touch [☺].
- Touch [☺] to choose it, and then touch [☺].

2 Aim the camera at a person.

- Each time the camera detects a smile, it will shoot after the lamp lights up.
- To pause smile detection, touch [☺_{off}]. Touch [☺_{on}] to resume detection.



Smile Detection On/Off

No. of Shots, Mode Switching
([139](#), [140](#))



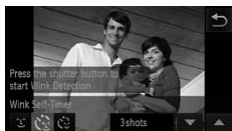
- Switch to another mode when you finish shooting, or the camera will continue shooting each time a smile is detected.



- You can also shoot as usual by pressing the shutter button.
- The camera can detect smiles more easily when subjects face the camera and open their mouth wide enough so that teeth are visible.
- You can change the number of shots by touching [☺] and then [▲][▼] to choose the number of shots, and then touching [☺]. [Blink Detection] ([120](#)) is only available for the final shot.

Using the Wink Self-Timer

Aim the camera at a person and press the shutter button all the way down. The camera will shoot about two seconds after a wink is detected.



1 Choose [Wink].

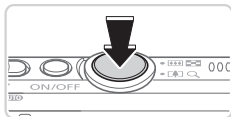
- Follow steps 1 – 2 on [124](#) and choose [Wink], and then touch [Wink].
- Touch [Wink] to choose it, and then touch [Wink].

2 Compose the shot and press the shutter button halfway.

- On the screen, touch the face of the person who will wink to choose it (Touch AF), and then press the shutter button halfway.
- Make sure a green frame is displayed around the face of the person who will wink.

3 Press the shutter button all the way down.

- ▶ The camera now enters shooting standby mode, and [Wink to take picture] is displayed.
- ▶ The lamp blinks and the self-timer sound is played.



4 Face the camera and wink.

- ▶ The camera will shoot about two seconds after detecting a wink by the person whose face is inside the frame.
- To cancel shooting after you have triggered the self-timer, touch the screen.



- If the wink is not detected, wink again slowly and deliberately.
- Winking may not be detected if eyes are obscured by hair, a hat, or glasses.
- Closing and opening both eyes at once will also be detected as a wink.
- If winking is not detected, the camera will shoot about 15 seconds later.
- You can change the number of shots by touching [👁️] on the screen in step 1, touching [▲][▼] to choose the number of shots, and then touching [↩️]. [Blink Detection] (📖120) is only available for the final shot.
- If no one is in the shooting area when the shutter button is pressed all the way down, the camera will shoot after a person enters the shooting area and winks.

Still Images

Using the Face Self-Timer

The camera will shoot about two seconds after detecting that the face of another person (such as the photographer) has entered the shooting area (📖158). This is useful when including yourself in group photos or similar shots.



1 Choose [👁️].

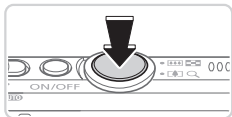
- Follow steps 1 – 2 on 📖124 and choose [📷], and then touch [👁️].
- Touch [👁️] to choose it, and then touch [↩️].

2 Compose the shot and press the shutter button halfway.

- Make sure a green frame is displayed around the face you focus on and white frames around other faces.

3 Press the shutter button all the way down.

- ▶ The camera now enters shooting standby mode, and [Look straight at camera to start count down] is displayed.
- ▶ The lamp blinks and the self-timer sound is played.





4 Join the subjects in the shooting area and look at the camera.

- ▶ After the camera detects a new face, the lamp blinking and self-timer sound will speed up. (When the flash fires, the lamp will remain lit.) About two seconds later, the camera will shoot.
- To cancel shooting after you have triggered the self-timer, touch the screen.



- Even if your face is not detected after you join the others in the shooting area, the camera will shoot about 15 seconds later.
- You can change the number of shots by touching [📷] on the screen in step 1, touching [▲][▼] to choose the number of shots, and then touching [📷]. [Blink Detection] (📖 120) is only available for the final shot.

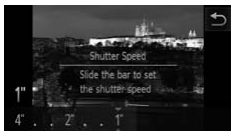
Shooting Long Exposures (Long Shutter)

Specify a shutter speed of 1 – 15 seconds to shoot long exposures. In this case, mount the camera on a tripod or take other measures to prevent camera shake.



1 Choose [***⁺**].

- Follow steps 1 – 2 on 124 and choose [***⁺**].



2 Choose the shutter speed.

- Touch [**1\"**], choose the shutter speed (by touching the desired position on the bar or dragging the bar left or right), and then touch [**↶**].

3 Check the exposure.

- Press the shutter button halfway to view the exposure for your selected shutter speed.

4 Shoot.



- On-screen image brightness in step 3, when you pressed the shutter button halfway, may not match the brightness of your shots.
- With shutter speeds of 1.3 seconds or slower, there will be a delay before you can shoot again, as the camera processes images to reduce noise.
- Set [IS Mode] to [Off] when using a tripod or other means to hold the camera still (169).



- If the flash fires, your shot may be overexposed. In this case, set the flash to [**☒**] and shoot again.
- You can also configure this setting in the <FUNC.> menu, accessed by touching [FUNC.] (85).

High-Speed Continuous Shooting (High-speed Burst)

You can shoot a series of shots in rapid succession by holding the shutter button all the way down. For details on the continuous shooting speed, see “Specifications” (📖274).



1 Choose [C].

- Follow steps 1 – 2 on 📖124 and choose [C].


2 Shoot.

- ▶ Hold the shutter button all the way down to shoot continuously.



- The resolution is [M] (2304 x 1728) and cannot be changed.
- Focus, image brightness, and color are determined by the first shot.
- Shooting may stop momentarily or continuous shooting may slow down depending on shooting conditions, camera settings, and the zoom position.
- As more shots are taken, shooting may slow down.

















■ Images Displayed During Playback

Each set of images shot continuously is managed as a single group, and only the first image in that group will be displayed. To indicate that the image is part of a group,  is displayed.



- If you erase a grouped image (, 190), all images in the group are also erased. Be careful when erasing images.
-



- Grouped images can be played back individually and ungrouped (, 181).
- Protecting (, 187) a grouped image will protect all images in the group.
- Grouped images can be viewed individually when played back using Image Search (, 179) or Smart Shuffle (, 186). In this case, images are temporarily ungrouped.
- Grouped images cannot be sent individually (, 74), and Face ID information cannot be edited (, 182). They cannot be manipulated with some touch actions (, 198), tagged as favorites (, 195), edited (, 193 – 204), categorized (, 197), assigned as a start-up image (, 212), printed (, 232), specified for printing individually (, 241), or added to a photobook (, 243). To do these things, either view grouped images individually (, 181) or cancel grouping (, 181) first.

Shooting Various Movies

Shooting iFrame Movies

Shoot movies that can be edited with iFrame-compatible software or devices. You can quickly edit, save, and manage iFrame movies using the included software (📖31).



1 Choose [📷].

- Follow steps 1 – 2 on 📖124 and choose [📷].

2 Shoot.

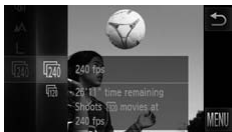
- Touch [●].
- To stop movie recording, touch [■].



- The resolution is [1280] (📖117) and cannot be changed.
- iFrame is a video format developed by Apple.

Shooting Super Slow Motion Movies

You can shoot fast-moving subjects for playback later in slow motion. Note that sound is not recorded.



1 Choose [📷].

- Follow steps 1 – 2 on [📖 124](#) and choose [📷].

2 Choose a frame rate.

- Touch [FUNC.], choose [240] in the menu, and choose the desired frame rate ([📖 85](#)).
- ▶ The option you configured is now displayed.

3 Shoot.

- Touch [●].
- ▶ A bar showing the elapsed time is displayed. Maximum clip length is approx. 30 sec.
- To stop movie recording, touch [■].

Frame Rate	Image Quality	Playback Time (For a 30-sec. Clip)
240 240 fps	320 (320 x 240)	Approx. 4 min.
120 120 fps	640 (640 x 480)	Approx. 2 min.



- Zooming is not available during recording, even if you move the zoom lever.
- Focus, exposure, and color are determined when you touch [●].

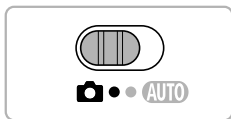


- The movie will be played back in slow motion when you follow steps 1 – 3 on [📖 172 – 173](#).
- You can change the playback speed of movies shot in [📷] mode by using the included software. For details, refer to the *Software Guide* ([📖 31](#)).

4

P mode

More discerning shots, in your preferred shooting style



- Instructions in this chapter apply to the camera in <P> mode, with the mode switch set to <P>.
- <P>: Program AE; AE: Auto Exposure
- Before using a function introduced in this chapter in modes other than <P>, make sure the function is available in that mode (📖264 – 269).

Shooting in Program AE Mode (<P> Mode)

You can customize many function settings to suit your preferred shooting style.



1 Enter <P> mode.

- Follow steps 1 – 2 on 124 and choose [**P**].

2 Customize the settings as desired (149 – 169), and then shoot.



- If adequate exposure cannot be obtained when you press the shutter button halfway, shutter speeds and aperture values are displayed in orange. To obtain adequate exposure, try adjusting the following settings.
 - Activate the flash (164)
 - Change the ISO speed (150)
- Movies can be recorded in <P> mode as well, by touching [**●**]. However, some FUNC. (85) and Menu (86) settings may be automatically adjusted for movie recording.
- For details on the shooting range in <P> mode, see “Specifications” (274).

Image Brightness (Exposure Compensation)

Still Images

Movies

Adjusting Image Brightness (Exposure Compensation)

The standard exposure set by the camera can be adjusted in 1/3-stop increments, in a range of -2 to +2.



- Touch [± 0] and adjust brightness by touching the desired position on the bar or dragging the bar up or down (85).
- ▶ The correction level you specified is now displayed.



- You can also configure this setting in the <FUNC.> menu, accessed by touching [FUNC.] (85).

Still Images

Movies

Locking Image Brightness/Exposure (AE Lock)

Before shooting, you can lock the exposure, or you can specify focus and exposure separately.



1 Lock the exposure.

- Aim the camera at the subject to shoot with the exposure locked. With the shutter button pressed halfway, touch the bottom of the screen (in the frame shown at left).
- To unlock AE, release the shutter button and touch the screen again. In this case, [AEL] is no longer displayed.

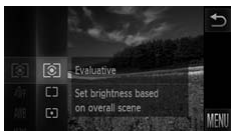
2 Compose the shot and shoot.






- AE: Auto Exposure

Changing the Metering Method

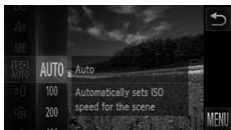
Adjust the metering method (how brightness is measured) to suit shooting conditions as follows.







- Touch [FUNC.], choose [☉] in the menu, and choose the desired option (📖85).
- ▶ The option you configured is now displayed.

 Evaluative	For typical shooting conditions, including backlit shots. Automatically adjusts exposure to match the shooting conditions.
 Center Weighted Avg.	Determines the average brightness of light across the entire image area, calculated by treating brightness in the central area as more important.
 Spot	Metering restricted to within the [] (Spot AE Point frame), displayed in the center of the screen. Note that in [1-point] (📖160) AF frame mode, the Spot AE Point frame links to the AF frame.

Changing the ISO Speed



- Touch [FUNC.], choose [ISO AUTO] in the menu, and choose the desired option (📖85).
- ▶ The option you configured is now displayed.

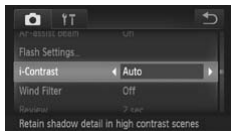
 ISO AUTO	Automatically adjusts the ISO speed to suit the shooting mode and conditions.
 ISO 100 200	Low For shooting outdoors in fair weather.
 ISO 400 800	↑ ↓ High For shooting in cloudy conditions, or at twilight.
 ISO 1600 3200	High For shooting night scenes, or in dark rooms.



- To view the automatically set ISO speed when the camera is set to [ISO AUTO], press the shutter button halfway.
- Although choosing a lower ISO speed may reduce image graininess, there may be a greater risk of subject blurriness in some shooting conditions.
- Choosing a higher ISO speed will increase shutter speed, which may reduce subject blurriness and increase the flash range. However, shots may look grainy.

Correcting Image Brightness (i-Contrast)

Before shooting, excessively bright or dark image areas (such as faces or backgrounds) can be detected and automatically adjusted to the optimal brightness. Insufficient overall image contrast can also be automatically corrected before shooting to make subjects stand out better.



- Touch [FUNC.], touch [MENU], choose [i-Contrast] on the [CAMERA] tab, and then choose [Auto] (86).
- ▶ Once the setting is complete, [Ci] is displayed.



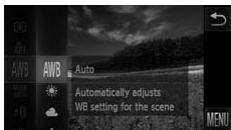
- Under some shooting conditions, correction may be inaccurate or may cause images to appear grainy.



- You can also correct existing images (203).

Adjusting White Balance

By adjusting white balance (WB), you can make image colors look more natural for the scene you are shooting.

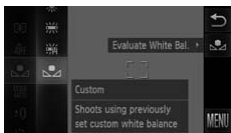


- Touch [FUNC.], choose [AWB] in the menu, and choose the desired option (📖85).
- ▶ The option you configured is now displayed.

AWB	Auto	Automatically sets the optimal white balance for the shooting conditions.
	Day Light	For shooting outdoors in fair weather.
	Cloudy	For shooting in cloudy conditions, in the shade, or at twilight.
	Tungsten	For shooting under ordinary incandescent (tungsten) lighting and similarly colored fluorescent lighting.
	Fluorescent	For shooting under warm-white (or similarly colored) or cool-white fluorescent lighting.
	Fluorescent H	For shooting under daylight fluorescent and similarly colored fluorescent lighting.
	Custom	For manually setting a custom white balance.

Custom White Balance

For image colors that look natural under the light in your shot, adjust white balance to suit the light source where you are shooting. Set the white balance under the same light source that will illuminate your shot.



- Follow the steps above to choose [📷].
- Aim the camera at a plain white subject, so that the entire screen is white. Touch [📷] on the right edge of the screen.
- ▶ The tint of the screen changes once the white balance data has been recorded.



- Colors may look unnatural if you change camera settings after recording white balance data.

Still Images

Movies

Changing Image Color Tones (My Colors)

Change image color tones as desired, such as converting images to sepia or black and white.



- Touch [FUNC.], choose [OFF] in the menu, and choose the desired option (📖 85).
- ▶ The option you configured is now displayed.

My Colors Off	—
Vivid	Emphasizes contrast and color saturation, making images sharper.
Neutral	Tones down contrast and color saturation for subdued images.
Sepia	Creates sepia tone images.
B/W	Creates black and white images.
Positive Film	Combines the effects of Vivid Blue, Vivid Green, and Vivid Red to produce intense yet natural-looking colors resembling images on positive film.
Lighter Skin Tone	Lightens skin tones.
Darker Skin Tone	Darkens skin tones.
Vivid Blue	Emphasizes blues in images. Makes the sky, ocean, and other blue subjects more vivid.
Vivid Green	Emphasizes greens in images. Makes mountains, foliage, and other green subjects more vivid.
Vivid Red	Emphasizes reds in images. Makes red subjects more vivid.
Custom Color	Adjust contrast, sharpness, color saturation, and other qualities as desired (📖 154).



- White balance (📖 152) cannot be set in [A_{Se}] or [A_{BW}] modes.
- With [A_L] and [A_D] modes, colors other than people's skin tone may be modified. These settings may not produce the expected results with some skin tones.

Still Images

Movies

■ Custom Color

Choose the desired level of image contrast, sharpness, color saturation, red, green, blue, and skin tones in a range of 1 – 5.



1 Access the setting screen.

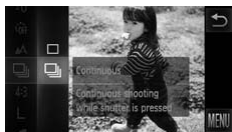
- Follow the steps on 📖 153 to choose [A_C], and then touch [C] on the right edge of the screen.

2 Configure the setting.

- Touch [◀][▶] to choose an option, and then touch the desired position on the bar to specify the value.
- For stronger/more intense effects (or darker skin tones), adjust the value to the right, and for weaker/lighter effects (or lighter skin tones), adjust the value to the left.
- Touch [↶] to complete the setting.

Continuous Shooting

Hold the shutter button all the way down to shoot continuously.
For details on the continuous shooting speed, see “Specifications” (📖274).



1 Configure the setting.

- Touch [FUNC.], choose [] in the menu, and then choose [] (📖85).
- ▶ Once the setting is complete, [] is displayed.

2 Shoot.

- ▶ Hold the shutter button all the way down to shoot continuously.



- Cannot be used with the self-timer (📖100) or [Blink Detection] (📖120).
- During continuous shooting, focus and exposure are locked at the position/level determined when you pressed the shutter button halfway.
- Shooting may stop momentarily or continuous shooting may slow down depending on shooting conditions, camera settings, and the zoom position.
- As more shots are taken, shooting may slow down.
- Shooting may slow down if the flash fires.
- With Touch Shutter (📖102), the camera will only take one shot instead of shooting continuously.



- If you use Face ID (📖105), the name recorded in the image will be fixed to the location where it is displayed in the first shot. Even if the subject moves, the name will stay fixed in the same position for any subsequent shots.

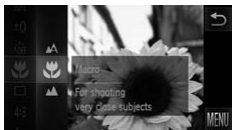
Shooting Range and Focusing

Still Images

Movies

Shooting Close-ups (Macro)

To restrict the focus to subjects at close range, set the camera to [🌸]. For details on the focusing range, see “Specifications” (📖274).



- Touch [FUNC.], choose [▲] in the menu, and then choose [🌸] (📖85).
- ▶ Once the setting is complete, [🌸] is displayed.



- In the yellow bar display area below the zoom bar, [🌸] will turn gray and the camera will not focus.



- To prevent camera shake, try mounting the camera on a tripod and shooting with the camera set to [🌸] (📖101).

Still Images

Movies

Shooting Distant Subjects (Infinity)

To restrict the focus to distant subjects, set the camera to [▲]. For details on the focusing range, see “Specifications” (📖274).



- Touch [FUNC.], choose [▲] in the menu, and then choose [▲] (📖85).
- ▶ Once the setting is complete, [▲] is displayed.

Digital Tele-Converter

The focal length of the lens can be increased by approximately 1.6x or 2.0x. This can reduce camera shake because the shutter speed is faster than it would be if you zoomed (including using digital zoom) in to the same zoom factor.



- Touch **[FUNC.]**, touch **[MENU]**, choose **[Digital Zoom]** on the **[CAMERA]** tab, and then choose the desired option (📖86).
- ▶ The view is enlarged and the zoom factor is displayed on the screen.



- The digital tele-converter cannot be used with digital zoom (📖99) and AF-point zoom (📖119).
- The digital tele-converter is only available when the aspect ratio is **[4:3]**.



- The respective focal lengths when using **[1.6x]** and **[2.0x]** are 38.4 – 192 mm and 48.0 – 240 mm (35mm film equivalent).
- The shutter speed may be equivalent when you move the zoom lever all the way toward **<[T]>** for maximum telephoto, and when you zoom in to enlarge the subject to the same size following step 2 on 📖99.

Changing the AF Frame Mode

Change the AF (auto focus) frame mode to suit the shooting conditions as follows.



- Touch **[FUNC.]**, touch **[MENU]**, choose **[AF Frame]** on the **[CAMERA]** tab, and then choose the desired option (📖 86).

Face AiAF

- Detects people's faces, and then sets the focus, exposure (evaluative metering only), and white balance (**[AWB]** only).
- After you aim the camera at the subject, a white frame is displayed around the person's face determined by the camera to be the main subject, and up to two gray frames are displayed around other detected faces.
- When the camera detects movement, frames will follow moving subjects, within a certain range.
- After you press the shutter button halfway, up to nine green frames are displayed around faces in focus.



- If faces are not detected, or when only gray frames are displayed (without a white frame), up to nine green frames are displayed in the areas in focus when you press the shutter button halfway.
- If faces are not detected when Servo AF (📖 160) is set to [On], the AF frame is displayed in the center of the screen when you press the shutter button halfway.
- Examples of faces that cannot be detected:
 - Subjects that are distant or extremely close
 - Subjects that are dark or light
 - Faces in profile, at an angle, or partly hidden
- The camera may misinterpret non-human subjects as faces.
- No AF frames are displayed if the camera cannot focus when you press the shutter button halfway.

1-point

One AF frame is displayed. Effective for reliable focusing.



- A yellow AF frame is displayed with [!] if the camera cannot focus when you press the shutter button halfway. Note that AF-point zooming (📖 119) is not possible.



- To reduce the AF frame size, touch [FUNC.], touch [MENU], choose [AF Frame Size] on the [📷] tab, and then choose [Small] (📖 86).
- The AF frame size is set to [Normal] when you use the digital zoom (📖 99) or digital tele-converter (📖 157).
- To compose shots so that subjects are positioned at the edge or in a corner, first aim the camera to capture the subject in an AF frame, and then hold the shutter button halfway down. As you continue to hold the shutter button halfway, recompose the shot as desired, and then press the shutter button all the way down (Focus Lock).

Shooting with Servo AF

This mode helps avoid missing shots of subjects in motion, because the camera continues to focus on the subject and adjust the exposure as long as you press the shutter button halfway.



1 Configure the setting.

- Touch [FUNC.], touch [MENU], choose [Servo AF] on the [📷] tab, and then choose [On] (📖 86).

2 Focus.

- The focus and exposure are maintained where the blue AF frame is displayed while you are pressing the shutter button halfway.



- Focusing may not be possible in some shooting conditions.
- In low-light conditions, Servo AF may not be activated (AF frames may not turn blue) when you press the shutter button halfway. In this case, the focus and exposure are set according to the specified AF frame mode.
- If adequate exposure cannot be obtained, shutter speeds and aperture values are displayed in orange. Release the shutter button, and then press it halfway again.
- AF lock shooting is not available.
- [AF-Point Zoom] on the tab is not available.
- Not available when using the self-timer (100).

Still Images

Movies

Choosing Subjects to Focus On (Touch AF)

You can shoot after the camera focuses on your selected subject, person's face, or location shown on the screen.



1 Choose a subject, a person's face, or a location to focus on.

- Touch the subject or person on the screen.
- ▶ When the AF frame mode is set to [Face AiAF], the camera beeps and displays when a face is detected. Focus is maintained even if the subject moves.
- ▶ When the AF frame mode is set to [1-point], an AF frame is displayed where you touched.
- To cancel Touch AF, touch .





2 Shoot.

- Press the shutter button halfway. After the camera focuses, [] changes to a green [].
- Press the shutter button all the way down to shoot.



- If Touch AF does not work, prepare the camera for Touch AF. Either touch [] to change the mode to [OFF] (102) or touch [FUNC.], touch [MENU], and set [Touch Shutter] on the [] tab to [Off].
- If a border was displayed when you touched the screen, move the camera to position the person's face or the subject inside the border before touching the screen.
- Tracking may not be possible when subjects are too small or move too rapidly, or when there is inadequate contrast between subjects and the background.
- When shooting in [] or [] (156) with the AF frame mode set to [Face AiAF], touching a location to focus on returns the camera to [].
- If [Face ID] is set to [On], names will not display when registered people are detected, but the names will be recorded in the still images (105). However, a name will display if the subject chosen to focus on is the same as a person detected with Face ID.

Shooting with the AF Lock

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



1 Lock the focus.

- With the shutter button pressed halfway, touch the top of the screen (inside the frame shown at left).
- ▶ The focus is now locked, and [AFL] is displayed.
- To unlock the focus, release the shutter button and touch the screen again. In this case, [AFL] is no longer displayed.

2 Compose the shot and shoot.



- Cannot be used with Touch Shutter (📖102).

Activating Flash

You can have the flash fire for each shot. For details on the flash range, see “Specifications” (📖274).



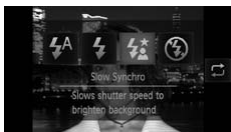
- Touch [⚡^A], touch [⚡] to choose it, and then touch [⚡] again.
- ▶ Once the setting is complete, [⚡] is displayed.



- This setting can also be configured by touching [↺] on the screen shown above.

Shooting with Slow Synchro

With this option, the flash fires to increase the brightness of the main subject (such as people) while the camera shoots at a slow shutter speed to increase the brightness of the background that is out of the flash range. For details on the flash range, see “Specifications” (📖274).




1 Configure the setting.

- Touch [⚡^A], touch [⚡^S] to choose it, and then touch [⚡^S] again.
- ▶ Once the setting is complete, [⚡^S] is displayed.

2 Shoot.

- Even after the flash fires, ensure that the main subject does not move until the shutter sound is finished playing.

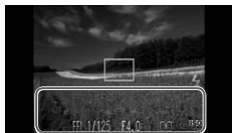
-  Mount the camera on a tripod or take other measures to keep it still and prevent camera shake. Additionally, you should set [IS Mode] to [Off] when using a tripod or other means to hold the camera still (📖169).



- This setting can also be configured by touching [🔄] on the screen on 📖164.

Shooting with the FE Lock

Just as with the AE lock (📖149), you can lock the exposure for the flash shots.




1 Set the flash to [🔚] (📖164).

2 Lock the flash exposure.

- Aim the camera at the subject to shoot with the exposure locked. With the shutter button pressed halfway, touch the bottom of the screen (in the frame shown at left).
 - ▶ The flash fires, and when [FEL] is displayed, the flash output level is retained.
- To unlock FE, release the shutter button and touch the screen again. In this case, [FEL] is no longer displayed.

3 Compose the shot and shoot.

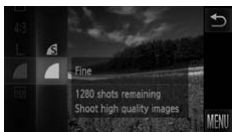
-  FE Lock cannot be used with Touch Shutter (📖102) or Touch AF (📖161), because touching the screen will cancel FE Lock.



- FE: Flash Exposure

Changing the Compression Ratio (Image Quality)

Choose from two compression ratios, as follows: [S] (Super Fine), [L] (Fine). For guidelines on how many shots at each compression ratio can fit on a memory card, see “Specifications” (8274).



Configure the setting.

- Touch [FUNC.], choose [L] in the menu, and choose the desired option (85).

Rearranging Icons (Icon Layout)

Add icons to the shooting screen or rearrange them as desired.

Adding Icons



1 Access the setting screen.

- On the shooting screen, touch and hold one of the icons.



- ▶ The screen at left is displayed.



2 Add an icon.

- Drag an icon from the center of the screen in step 1 to the desired position for display.
- An orange frame is displayed when you drag the icon near an available position. To add the icon there, lift your finger from the screen. If another icon is already there, it will be replaced by the icon you dragged.
- Icons cannot be added to positions with grayed-out icons.

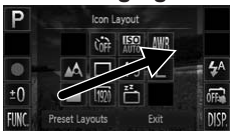
3 Finish the setup process.

- Touch [Exit].



- If you have added an icon to the upper right of the screen and then touch and hold that icon in step 1, [!] is displayed and the setting screen will not be displayed. Choose a different icon instead.

Rearranging Icons



- On the setting screen in step 1 on 166, drag an icon to the desired position to rearrange the layout.
- ▶ If another icon is already in that position, it will be replaced by the icon you dragged.

Removing Icons



- Drag the unwanted icon from the setting screen in step 1 on 166 to the center of the screen and then over the [EXIT] icon that will be displayed.
- If [EXIT] is not displayed when you drag an icon, the icon cannot be removed.

Changing Layouts

Choose from three preset icon layouts. Note that these layouts include only default icons, not icons you have added.



- Touch [Preset Layouts] on the setting screen in step 1 on [166](#).
- Touch the desired icon layout, and then touch [OK].
- If you prefer not to change the layout, touch [Cancel]. The setting screen is displayed again.

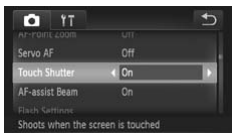


- You can also access the setting screen by touching [FUNC.] and then [MENU], and then touching [Icon Layout] on the tab.

Still Images

Shooting By Touching the Screen (Touch Shutter)

Follow these steps to prepare the camera for Touch Shutter, which takes shots when you touch the screen.

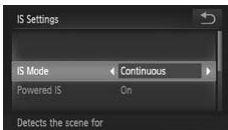


- Touch [FUNC.], touch [MENU], choose [Touch Shutter] on the tab, and then choose [On] ([85](#)).
- Follow steps 2 – 3 on [102](#) to shoot.



- The camera performs the same operations for touch-shutter shooting as for regular shooting with the shutter button, but the following features are not available. AF Lock ([163](#)), AE Lock ([149](#)), FE Lock ([165](#))
- When shooting in or ([156](#)) with the AF frame mode set to [Face AiAF], using Touch Shutter returns the camera to .
- Even if mode ([143](#)) or ([155](#)) is selected, when [Touch Shutter] is [On], only one shot is taken.

Changing the IS Mode Settings



1 Access the setting screen.

- Touch [FUNC.], touch [MENU], and then touch [IS Settings] on the [CAMERA] tab to choose it (86).

2 Configure the setting.

- Choose [IS Mode], and then choose the desired option (86).

Continuous	Optimal image stabilization for the shooting conditions is automatically applied (Intelligent IS) (97).
Shoot Only*	Image stabilization is active only at the moment of shooting.
Off	Deactivates image stabilization.

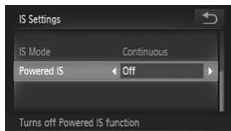
* The setting is changed to [Continuous] for movie recording.



- If image stabilization cannot prevent camera shake, mount the camera on a tripod or take other measures to hold it still. In this case, set [IS Mode] to [Off].

Deactivating Powered IS

Powered IS reduces slow camera shake that may occur when recording telephoto movies. However, this option may not produce the expected results when used for the stronger camera shake that may occur when shooting while walking or when moving the camera to match subject movement. In this case, set Powered IS to [Off].



- Follow the steps on 169 to access the [IS Settings] screen.
- Choose [Powered IS], and then choose [Off] (86).



- [Powered IS] settings are not applied when [IS Mode] is set to [Off].

5

Playback Mode

Have fun reviewing your shots, and browse or edit them in many ways

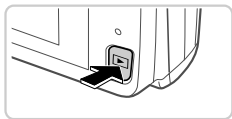
- To prepare the camera for these operations, press the <▶> button to enter Playback mode.



- It may not be possible to play back or edit images that were renamed or already edited on a computer, or images from other cameras.

Viewing

After shooting images or movies, you can view them on the screen as follows.



1 Enter Playback mode.

- Press the <▶> button.
- ▶ Your last shot is displayed.



2 Browse through your images.

- To view the next image, drag right to left across the screen, and to view the previous image, drag left to right.



- You can also view the next image by touching the right edge of the screen (in the area indicated by frame ① at left). In this case, [▶] is displayed. Similarly, you can view the previous image by touching the left edge of the screen (in the area indicated by frame ② at left), and in this case, [◀] is displayed.
- Touch and hold [◀][▶] to browse through images quickly.



- Display will switch to Scroll Display mode if you continue scrolling.
- In this mode, scroll left or right to choose an image.
- Touching the central image will restore single-image display.



- To browse images grouped by shooting date in Scroll Display mode, scroll up or down.



- Movies are identified by a [▶] icon. To play movies, go to step 3.

3 Play movies.

- Touch [▶] to start playback.

4 Adjust the volume.

- Scroll up or down to adjust the volume.

5 Pause playback.

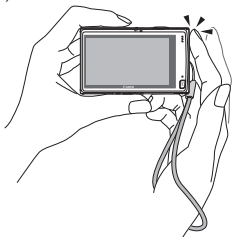
- To pause playback, touch the screen. The movie control panel is displayed. To resume playback, touch [▶].
- ▶ After the movie is finished, [▶] is displayed.



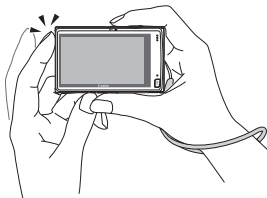
- To switch to Shooting mode from Playback mode, press the shutter button halfway.
- To deactivate Scroll Display, touch [FUNC.], touch [MENU], choose [Scroll Display] on the [▶] tab, and then touch [◀][▶] to choose [Off].
- If you prefer to have the most recent shot displayed when you enter playback mode, touch [FUNC.], touch [MENU], and on the [▶] tab, choose [Resume] and then [Last shot].
- To change the transition shown between images, touch [FUNC.], touch [MENU], choose [Transition] on the [▶] tab, and then touch [◀][▶] to choose the effect.

Active Display

To switch images during image display, you can tap the camera gently on the side, as shown below.



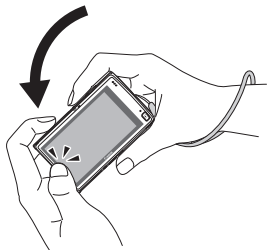
Switch to next image



Switch to previous image



- Always keep the strap around your wrist and hold the camera securely to avoid dropping it.
- Images may not be switched in some cases, depending on how the camera is tapped.



Tilt the camera while browsing images.

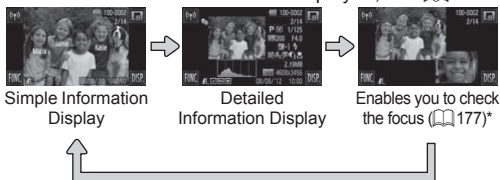
- To browse through images quickly while touching and holding [◀] on the left edge of the screen (📖 172), tilt the camera as shown as you browse images. Tilt the camera in the opposite direction while holding [▶]. Images appear grainy at this time.



- To deactivate Active Display, touch [FUNC.], touch [MENU], choose [Active Display] on the [▶] tab, and then choose [Off] (📖 86).

Switching Display Modes

Touch **[DISP.]** to view other information on the screen, or to hide the information. For details on the information displayed, see [1260](#).



*Not shown for movies.

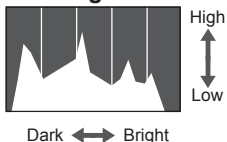


- Touching **[OFF]** in Playback mode hides all information and icons, but you can still browse images ([172](#), [174](#)). To restore the original display, touch the screen again.
- You can also change the display style used after shots by touching the screen immediately after shooting and then touching **[DISP.]**. However, simple information display is not available, and no shooting information is shown. Change the initial display mode as needed, in **[Review Info]** on the **[CAMERA]** tab ([122](#)).
- Switching display modes is not possible while the camera is wirelessly connected to devices other than printers.

Overexposure Warning (for Image Highlights)

Washed-out highlights in the image flash on the screen in detailed information display.

Histogram



- The graph in detailed information display is a histogram showing the distribution of brightness in the image. The horizontal axis represents the degree of brightness, and the vertical axis, how much of the image is at each level of brightness. Viewing the histogram is a way to check exposure.

GPS Information Display



- Using a smartphone connected wirelessly to the camera, you can geotag images on the camera, adding information such as latitude, longitude, and elevation (📖 54). Geotagged images are labeled with a 📍 icon. Touching these images will show the GPS information. Latitude, longitude, elevation, and UTC (shooting date and time) are listed from top to bottom.



- [---] is shown instead of numerical values for items not available on your smartphone or items not recorded correctly.



- UTC: Coordinated Universal Time, essentially the same as Greenwich Mean Time.

Still Images

Checking People Detected in Face ID

If you switch the camera to simple information display mode (📖 175), the names of up to five detected people registered in Face ID (📖 105) will be displayed.



Switch to simple information display mode and check.

- Touch **[DISP.]** repeatedly to enter simple information display, and then choose an image by dragging left or right on the screen.
- Names will be displayed on detected people.



- If you do not want names to display on images shot using Face ID, touch **[FUNC.]**, touch **[MENU]**, choose **[Face ID Info]** on the **[📷]** tab, and then set **[Name Display]** to **[Off]**.

Checking the Focus

To check the focus of your shots, you can magnify the area of the image that was in the AF frame at the time of shooting.



1 Access Focus Check.

- Touch [DISP.] (175).
- ▶ A white frame is displayed where the AF frame was when the focus was set.
- ▶ Gray frames are displayed over faces detected later, in Playback mode.
- ▶ The portion of the image in the orange frame is magnified.



2 Switch frames.

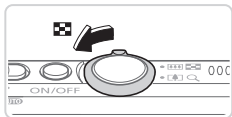
- Touch the image in the lower right of the screen, or move the zoom lever toward <Q> once.
- ▶ The screen at left is displayed.
- To switch to a different frame when there are multiple frames, touch [□□].

3 Zoom in or out, or view other image areas.

- To zoom in or out, use the zoom lever, touch the magnified image in the lower right, or touch [Q] or [Q].
- To adjust the display position, drag across the image in the lower right of the screen.
- Touch [↶] or the upper-left image to restore the original display in step 1.

Navigating Through Images in an Index

By displaying multiple images in an index, you can quickly find the images you are looking for.



1 Display images in an index.

- Move the zoom lever toward <checkerboard> to display images in an index. Moving the lever again will increase the number of images shown.
- To display fewer images, move the zoom lever toward <Q>. Fewer images are shown each time you move the lever.



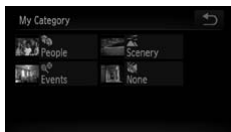
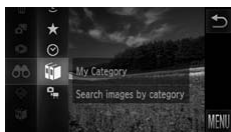
2 Choose an image.

- Drag up or down on the screen to scroll through displayed images.
- Touch an image to choose it, and touch it again to view it in single-image display.
- You can also drag left or right across the screen to move the orange frame, and then hold the zoom lever toward <Q> to view an image in single-image display.

Finding Images Matching Specified Conditions

Find desired images quickly on a memory card full of images by filtering image display according to your specified conditions. You can also protect (📖187) or delete (📖190) these images all at once.

👤 Name	Displays images of a registered person (📖105).
★ Favorites	Displays images tagged as favorites (📖195).
📅 Shot Date	Displays the images shot on a specific date.
📁 My Category	Displays the images of a specific category (📖197).
📷 Still Image/Movie	Displays still images, movies, or movies shot in [📷] mode.



1 Choose the first condition for image display or navigation.

- Touch [FUNC.] choose [👤] in the menu, and then choose a condition (📖85).
- When choosing [★], go to step 3.

2 Choose the second condition for image display or navigation.

- Touch a condition to choose it.

3 View the filtered images.

- Images matching your conditions are displayed in yellow frames. To view only these images, drag left or right across the screen.
- To cancel filtered display, choose [📷] in step 1.



- When the camera has found no corresponding images for some conditions, those conditions will not be available.



- Options for viewing filtered images (step 3) include “Navigating Through Images in an Index” (📖178), “Viewing Slideshows” (📖184), and “Magnifying Images” (📖183). You can protect, erase, or print all filtered images at once by choosing [Select All Images in Search] in “Protecting Images” (📖187), “Erasing All Images” (📖190), “Adding Images to the Print List (DPOF)” (📖239), or “Adding Images to a Photobook” (📖243).
- However, if you recategorize images (📖197) or edit them and save them as new images (📖200 – 204), a message is displayed and filtered image display ends.

Movies

Viewing Movie Digest Movies

Movies created in [📷] mode (📖136) can be viewed by date.



1 Choose a movie.

- Touch [FUNC.] and choose [📷] in the menu (📖85).

2 Play the movie.

- Touch the date to start movie playback.

Viewing Individual Images in a Group

Grouped images shot in [H] mode (143) are generally displayed together, but they can also be viewed individually.



1 Choose an image group.

- Browse images by dragging left or right until you find a desired image labeled [G]. Touch [G].



2 View individual images in the group.

- Dragging images left or right will display only images in the group.
- To cancel group playback, touch [R].



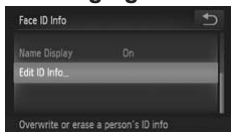
- During group playback (step 2), you can use the menu functions accessed by touching [FUNC.] button. You can also browse through images quickly ("Navigating Through Images in an Index" (178)) and magnify them ("Magnifying Images" (183)). You can protect, erase, or print all images in a group at once by choosing [All Images in Group] in "Protecting Images" (187), "Erasing All Images" (190), "Adding Images to the Print List (DPOF)" (239), or "Adding Images to a Photobook" (243).
- To ungroup images so that you can view them individually, touch [FUNC.], touch [MENU], choose [Group Images] on the [G] tab, and then choose [Off] (86). However, grouped images cannot be ungrouped during individual playback.

Editing Face ID Information

If you notice that a name is incorrect during playback, you can change it or erase it.

However, you cannot add names for people who are not detected by Face ID (names are not displayed), and for people whose names have been erased.

Changing Names



1 Access the setting screen.

- Touch [FUNC.], touch [MENU], and choose [Face ID Info] on the [▶] tab (86).
- Touch [Edit ID Info].

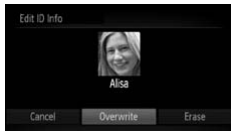
2 Choose an image.

- Choose an image after dragging left or right to browse. Touch [OK].
- To choose the name you want to overwrite, touch the face of the appropriate person.



3 Choose the item to edit.

- Touch [Overwrite].



4 Choose the name of the person to overwrite.

- Touch the name of the person to overwrite.

Erasing Names

- Following step 3 above, touch [Erase].
- After [Erase?] is displayed, touch [OK].

Magnifying Images




1 Magnify an image.

- Touching the screen will zoom in and magnify the image, and [⊕] and [⊖] are displayed.
- You can magnify images up to about 10x, centered around where you touch, by touching repeatedly.
- You can also zoom in or out by touching [⊕] or [⊖]. To zoom in or out continuously, touch and hold [⊕] or [⊖].
- To zoom out, move the zoom lever toward . You can return to single-image display by continuing to hold it.



Approximate Position
of Displayed Area

2 Move the display position and switch images as needed.

- To move the display position, drag across the screen.
- Touch [↶] to restore single-image display.
- You can also switch images while zoomed by tapping the side of the camera gently ( 174, Active Display).



- You can also zoom in by moving the zoom lever toward , and you can magnify images up to about 10x by continuing to hold the zoom lever. To zoom out, move the lever toward . You can return to single-image display by continuing to hold it.

Viewing Slideshows

Automatically play back images from a memory card as follows. Each image is displayed for about three seconds.



Choose a slideshow transition and start playback.

- Touch [FUNC.], choose [◀▶] in the menu, and choose the desired option (📖85).
- ▶ The slideshow will start a few seconds after [Loading image...] is displayed.
- To end the slideshow, touch the screen.



- The camera's power-saving functions (📖82) are deactivated during slideshows.



- In image search mode (📖179), only images matching search conditions are played.
- You can switch images during slideshows by tapping the side of the camera gently (📖174, Active Display).
- Slideshows can also be started by using Touch Actions (📖198).

Changing Slideshow Settings

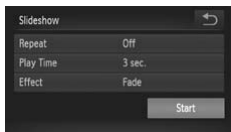
You can set up slideshows to repeat, and you can change the transitions between images and the display duration of each image.

1 Access the setting screen.

- Touch [FUNC.], touch [MENU], and choose [Slideshow] on the [▶] tab (📖 86).

2 Configure the settings.

- Choose a menu item to configure, and then choose the desired option (📖 86).
- Touch [Start] to start the slideshow with your settings.
- To return to the menu screen during playback, touch the screen.



- [Play Time] cannot be modified when [Bubble] is chosen in [Effect].

Auto Playback of Similar Images (Smart Shuffle)

Based on the current image, the camera offers four images similar to it that you may wish to view. After you choose to view one of those images, the camera offers four more images. This is an enjoyable way to play back images in an unexpected order. Try this feature after you have taken many shots, in many kinds of scenes.



1 Choose Smart Shuffle.

- Touch [FUNC.] and choose [🔍] in the menu (📖85).
- ▶ Four candidate images are displayed.



2 Choose an image.

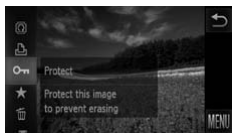
- Touch the image you want to view next.
- ▶ Your chosen image is displayed in the center, surrounded by the next four candidate images.
- For full-screen display of the center image, touch the center image. To restore the original display, touch it again.
- Touch [↶] to restore single-image display.



- Only still images shot with this camera are played back using Smart Shuffle.
- [Smart Shuffle] is not available in the following cases:
 - There are less than 50 shots taken with this camera
 - An unsupported image is currently displayed
 - Images are shown in filtered display (📖179)
 - During group playback (📖181)

Protecting Images

Protect important images to prevent accidental erasure by the camera (📖190).



- Touch [FUNC.] and choose [🛡️] in the menu (📖85). [Protected] is displayed.
- To cancel protection, repeat this process and touch [🛡️] again to choose it.



- Protected images on a memory card will be erased if you format the card (📖213, 214).



- Protected images cannot be erased using the camera's erasure function. To erase them this way, first cancel protection.

Using the Menu



1 Access the setting screen.

- Touch [FUNC.], touch [MENU], and choose [Protect] on the [▶] tab (📖86).



2 Choose a selection method.

- Choose a menu item and a setting as desired (📖86).
- Touch [↶] to return to the menu screen.

Adding Images Individually

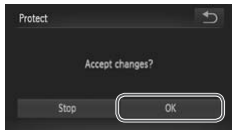


1 Choose [Select].

- Following step 2 on 187, touch [Select].

2 Choose an image.

- Choose an image after dragging left or right to browse. Once you touch the screen, [✓] is displayed.
- To cancel protection, touch the screen again. [✓] is no longer displayed.
- Repeat this process to specify other images.
- Touch [OK]. A confirmation message is displayed.



3 Protect the image.


- Touch [OK].



- Images will not be protected if you switch to Shooting mode or turn the camera off before finishing the setup process in step 3.

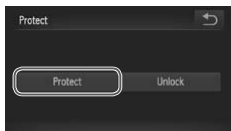
Specifying All Images at Once

1 Choose [Select All Images].

- Following step 2 on  187, touch [Select All Images].

2 Protect the images.

- Touch [Protect].



- To cancel protection for groups of images, choose [Unlock] in step 2.

Erasing Images

You can choose and erase unneeded images one by one. Be careful when erasing images, because they cannot be recovered. However, protected images (📖187) cannot be erased.

1 Choose an image to erase.

- Drag left or right across the screen to choose an image.

2 Erase the image.

- Touch [FUNC.] and choose [🗑️] in the menu (📖85).
- After [Erase?] is displayed, touch [Erase].
- ▶ The current image is now erased.
- To cancel erasure, touch [Cancel].

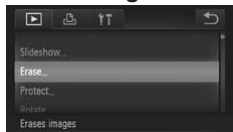


- Images can also be erased by using Touch Actions (📖198).

Erasing All Images

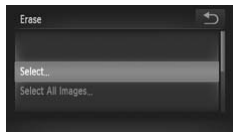
You can erase all images at once. Be careful when erasing images, because they cannot be recovered. However, protected images (📖187) cannot be erased.

Choosing a Selection Method



1 Access the setting screen.

- Touch [FUNC.], touch [MENU], and choose [Erase] on the [▶] tab (📖86).



2 Choose a selection method.

- Choose a menu item and a setting as desired (📖86).
- Touch [↩️] to return to the menu screen.

■ Choosing Images Individually



1 Choose [Select].

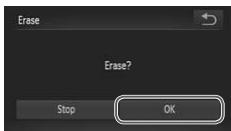
- Following step 2 above, touch [Select].

2 Choose an image.

- Choose an image after dragging left or right to browse. Once you touch the screen, [✓] is displayed.
- To cancel erasure, touch the screen again. [✓] is no longer displayed.
- Repeat this process to specify other images.
- Touch [OK]. A confirmation message is displayed.

3 Erase the image.

- Touch [OK].



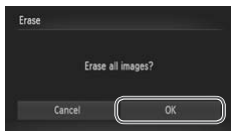
■ Specifying All Images at Once

1 Choose [Select All Images].

- Following step 2 in “Choosing a Selection Method” (📖 190), touch [Select All Images].

2 Erase the images.

- Touch [OK].



Rotating Images

Change the orientation of images and save them as follows.



1 Choose [Q].

- Touch [FUNC.] and choose [Q] in the menu (📖85).



2 Rotate the image.

- Touch [↶] or [↷], depending on the desired direction. Each time you touch, the image is rotated 90°. Touch [↷] to complete the setting.



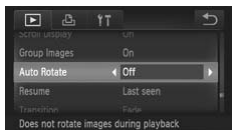
- Movies with an image quality of [F1920] or [F1280] cannot be rotated.
- Rotation is not possible when [Auto Rotate] is set to [Off].



- You can also choose [Rotate] on the [▶] tab by touching [MENU] after touching [FUNC.] to display the screen in step 2 (📖86).

Deactivating Auto Rotation

Follow these steps to deactivate automatic rotation by the camera, which rotates images shot in vertical orientation so they are displayed vertically on the camera.



- Touch [FUNC.], touch [MENU], choose [Auto Rotate] on the [▶] tab, and then choose [Off] (📖86).



- Images cannot be rotated (📖 193) when you set [Auto Rotate] to [Off]. Additionally, images already rotated will be displayed in the original orientation.
- In Smart Shuffle (📖 186) mode, even if [Auto Rotate] is set to [Off], images shot vertically will be displayed vertically, and rotated images will be displayed in the rotated orientation.

Image Categories

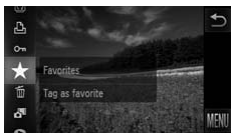
You can tag images as favorites or assign them to My Category (📖197) groups. By choosing a category in filtered playback, you can restrict the following operations to all of those images.

- Viewing (📖172), Viewing Slideshows (📖184), Protecting Images (📖187), Erasing Images (📖190), Adding Images to the Print List (DPOF) (📖239), Adding Images to a Photobook (📖243)

Still Images

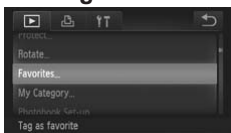
Movies

Tagging Images as Favorites



- Touch [FUNC.] and choose [★] in the menu.
- ▶ [★] is displayed.
- To untag the image, repeat this process and choose [★] again.

Using the Menu



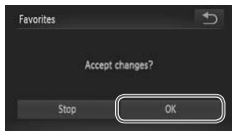
1 Choose [Favorites].

- Touch [FUNC.], touch [MENU], and choose [Favorites] on the [▶] tab (📖86).



2 Choose an image.

- Choose an image after dragging left or right to browse. Once you touch the screen, [✓] is displayed.
- To untag the image, touch the screen again. [✓] is no longer displayed.
- Repeat this process to choose additional images.
- Touch [OK]. A confirmation message is displayed.



3 Finish the setup process.

- Touch [OK].



- Images will not be tagged as favorites if you switch to Shooting mode or turn the camera off before finishing the setup process in step 3.



- Favorite images will have a three-star rating (★★★☆☆) when transferred to computers running Windows 7 or Windows Vista. (Does not apply to movies.)
- Images can also be tagged as favorites by using Touch Actions (📖198).

Organizing Images by Category (My Category)

You can organize images into categories. Note that images are automatically categorized at the time of shooting, according to shooting conditions.

: Images with detected faces, or images shot in [A] or [A] mode.

: Images detected as [M], [L], or [M] in <AUTO> mode, or images shot in [P] mode.

: Images shot in [M] mode.



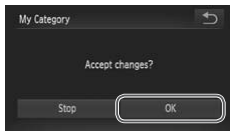
1 Choose a category.

- Touch [FUNC.] and choose in the menu.



2 Choose images.

- Choose an image after dragging left or right to browse. Touch the desired category. The category is now shown in orange.
- Touch the category again to cancel selection. The item is now displayed in white.
- Repeat this process to specify other images.



3 Finish the setup process.

- Touch [↵]. A confirmation message is displayed.
- Touch [OK].



- Images will not be assigned to a category if you switch to Shooting mode or turn the camera off before finishing the setup process in step 3.



- You can also access the screen shown in step 2 by touching [FUNC.] and then [MENU], and then touching [My Category] on the tab.

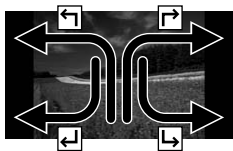
Convenient Control: Touch Actions

You can quickly and easily activate functions that you have assigned to four touch gestures (Touch Actions), in single-image display.

Using a Function Assigned to [↶]



- Drag across the screen as shown.
- ▶ The function assigned to [↶] is now activated.



- Similarly, you can also activate functions assigned to [↷], [↵], and [↴] by dragging across the screen.
- Customize functions assigned to Touch Actions as desired.

Changing Touch Actions Functions

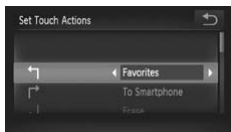
Simplify your preferred camera operations by reassigning dragging patterns to them as desired.

1 Access the setting screen.

- Touch [FUNC.], touch [MENU], and choose [Set Touch Actions] on the [▶] tab (📖86).

2 Assign a function to a dragging pattern.

- Drag up or down across the screen to choose a dragging pattern.
- Touch [◀][▶] to choose a function to assign.



Assignable Functions

Favorites	Tag images as favorites, or untag the image.
Next Favorite	Switch to displaying the next image tagged as a favorite.
Previous Favorite	Switch to displaying the previous image tagged as a favorite.
Next Date	Switch to displaying the first image with the next shooting date.
Previous Date	Switch to displaying the first image with the previous shooting date.
Smart Shuffle	Start Smart Shuffle playback.
To Camera	Access the wireless LAN connection screen. For instructions on the wireless LAN function, refer to the <i>Wireless LAN Guide</i> (📖41).
To Smartphone	
To Computer	
To Printer	
To Web Service	
Slideshow	Start a slideshow.
Erase	Erase an image.
Protect	Protect an image or cancel protection.
Rotate	Rotate an image.

Editing Still Images

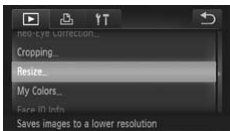


- Image editing (📖200 – 204) is only available when the memory card has sufficient free space.

Still Images

Resizing Images

Save a copy of images at a lower resolution.



1 Choose [Resize].

- Touch [FUNC.], touch [MENU], and choose [Resize] on the [▶] tab (📖86).

2 Choose an image.

- Choose an image after dragging left or right to browse. Touch [OK].



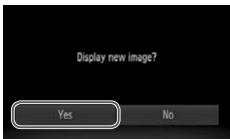
3 Choose an image size.

- Touch [M2], [S], or [XS], and then touch [OK].
 - ▶ [Save new image?] is displayed.



4 Save the new image.

- Touch [OK].
 - ▶ The image is now saved as a new file.



5 Review the new image.

- Touch [↩]. [Display new image?] is displayed.
- Touch [Yes].
 - ▶ The saved image is now displayed.



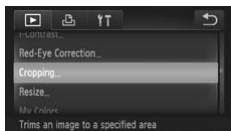
- Editing is not possible for images saved as [XS] in step 3.



- Images cannot be resized to a higher resolution.

Cropping

You can specify a portion of an image to save as a separate image file.



1 Choose [Cropping].

- Touch [FUNC.], touch [MENU], and choose [Cropping] on the [▶] tab (📖86).

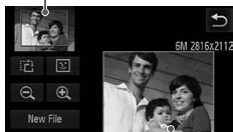
2 Choose an image.

- Choose an image after dragging left or right to browse. Touch [OK].

3 Adjust the cropping area.

- ▶ A frame is displayed around the portion of the image to be cropped.
- ▶ The original image is shown in the upper left, and a preview of the image as cropped is shown in the lower right.
- To resize the frame, either touch the lower-right image or the [⊕] or [⊖] controls, or move the zoom lever left or right.
- To move the frame, drag either image.
- To change the frame orientation, touch [↔].
- Faces detected in the image are enclosed in gray frames in the upper-left image. To crop the image based on this frame, touch [☺] to switch to the other frame.
- Touch [New File].

Cropping Area



Preview of Image After Cropping

Resolution After Cropping



4 Save as a new image and review.

- Follow steps 4 – 5 on 200.



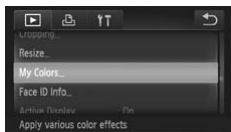
- Editing is not possible for images shot at a resolution of [S] (114) or resized to [XS] (200).



- Images supported for cropping will have the same aspect ratio after cropping.
- Cropped images will have a smaller resolution than uncropped images.

Changing Image Color Tones (My Colors)

You can adjust image colors and then save the edited image as a separate file. For details on each option, see 153.



1 Choose [My Colors].

- Touch [FUNC.], touch [MENU], and choose [My Colors] on the tab (86).

2 Choose an image.

- Choose an image after dragging left or right to browse. Touch [OK].

3 Choose an option.

- Touch an option, and then touch [OK].
- To view other available options, touch [][].



4 Save as a new image and review.

- Follow steps 4 – 5 on 200.



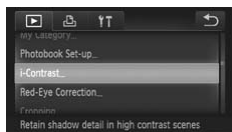
- Image quality of pictures you repeatedly edit this way will be a little lower each time, and you may not be able to obtain the desired color.



- The color of images edited using this function may vary slightly from the color of images shot using My Colors (📖153).

Correcting Image Brightness (i-Contrast)

Excessively dark image areas (such as faces or backgrounds) can be detected and automatically adjusted to the optimal brightness. Insufficient overall image contrast is also automatically corrected, to make subjects stand out better. Choose from four correction levels, and then save the image as a separate file.



1 Choose [i-Contrast].

- Touch [FUNC.], touch [MENU], and choose [i-Contrast] on the [▶] tab (📖86).

2 Choose an image.

- Choose an image after dragging left or right to browse. Touch [OK].

3 Choose an option.

- Touch [◀][▶] to choose an option, and then touch [OK].



4 Save as a new image and review.

- Follow steps 4 – 5 on 📖200.



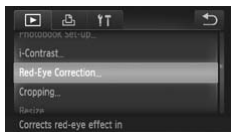
- For some images, correction may be inaccurate or may cause images to appear grainy.
- Images may look grainy after repeated editing using this function.





- If [Auto] does not produce the expected results, try correcting images using [Low], [Medium], or [High].

Correcting Red-Eye

Automatically corrects images affected by red-eye. You can save the corrected image as a separate file.




1 Choose [Red-Eye Correction].

- Touch [FUNC.], touch [MENU], and choose [Red-Eye Correction] on the  tab ( 86).


2 Choose an image.

- Choose an image after dragging left or right to browse. Touch [OK].

3 Correct the image.

- Touch [OK].
- ▶ Red-eye detected by the camera is now corrected, and frames are displayed around corrected image areas.
- Enlarge or reduce images as needed. Follow the steps in  183.

4 Save as a new image and review.

- Touch [New File].
- ▶ The image is now saved as a new file.
- Follow step 5 on  200.

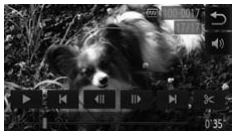




- Some images may not be corrected accurately.
- To overwrite the original image with the corrected image, choose [Overwrite] in step 4. In this case, the original image will be erased.
- Protected images cannot be overwritten.

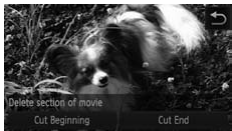
Editing Movies

You can cut movies to remove unneeded portions at the beginning or end.



1 Specify portions to cut.

- Touch the screen during movie playback to access the movie control panel.
- Touch [◀||], [||▶], or the scroll bar to display the trimming point.
- ▶ [◀◀] changes to [◀] to indicate that you can trim from the current frame.

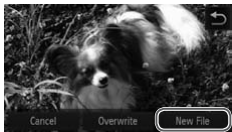


2 Touch [◀] or [▶].

- ▶ [Delete section of movie] is displayed.
- Touching [◀] when it is displayed will only trim from the nearest [◀] to the beginning when you chose [Cut Beginning] or from the nearest [▶] to the end when you chose [Cut End].

3 Specify which portion to remove.


- Touch [Cut Beginning] or [Cut End].
- [Cut Beginning] removes the beginning of the movie, up to the current scene.
- [Cut End] removes the end of the movie, after the current scene.



4 Save the edited movie.

- Touch [New File].
- ▶ The movie is now saved as a new file.
- To cancel trimming, touch [Cancel].
- To clear your trimming points and try again, touch [↶].



- To overwrite the original movie with the cut one, choose [Overwrite] in step 4. In this case, the original movie will be erased.
- [Overwrite] is only available when memory cards lack sufficient free space.
- Movies may not be saved if the battery runs out while saving is in progress.
- When editing movies, you should use a fully charged battery or an AC adapter kit (sold separately,  223).

6

Setting Menu

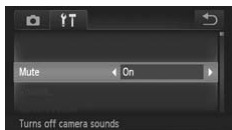
Customize or adjust basic camera functions for greater convenience

Adjusting Basic Camera Functions

Functions can be configured on the [⏏] tab. Customize commonly used functions as desired, for greater convenience (📖 86).

Silencing Camera Operations

Silence camera sounds and movies as follows.



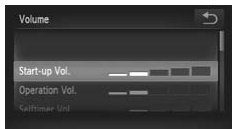
- Choose [Mute], and then choose [On].



- Sound is not played during movies if you mute camera sounds (📖 172). To restore sound during movies, drag up across the screen. Adjust volume by dragging up or down, as needed.

Adjusting the Volume

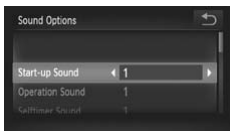
Adjust the volume of individual camera sounds as follows.



- Touch [Volume].
- Drag up or down to choose an item, and then adjust the volume by touching the desired position on the bar.

Customizing Sounds

Customize camera operating sounds as follows.



- Touch [Sound Options].
- Drag up or down across the screen to choose an item, and then touch [◀] [▶] to choose an option.

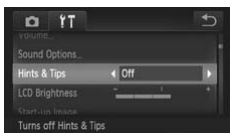
1	Preset sounds (cannot be modified)
2	Preset sounds Can be changed by using the included software.



- The default shutter sound is used in [H₁] mode (143), regardless of any changes to [Shutter Sound].

Hiding Hints and Tips

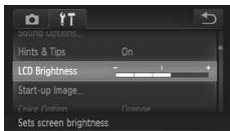
Display of hints and tips for camera functions can be deactivated, but menu (86) explanations will still be displayed.



- Choose [Hints & Tips], and then choose [Off].

Screen Brightness

Adjust screen brightness as follows.



- Choose [LCD Brightness], and then touch the desired position on the bar to adjust the brightness.

Start-up Screen

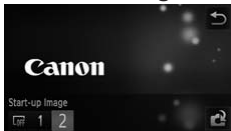
Customize the start-up screen shown after you turn the camera on as follows.



- Touch [Start-up Image].
- Touch an option.

OFF	No start-up image
1	Preset image (cannot be modified)
2	Preset image Assign a desired shot, or use the included software to change the image.

Customizing the Start-up Screen



1 Access the [Start-up Image] screen in Playback mode.

- Press the <▶> button.
- Touch [Start-up Image].
- Touch [2], and then touch [OK].



2 Choose one of your shots.

- Choose an image and touch [OK]. After [Register?] is displayed, touch [OK].

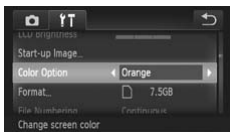


- The previous start-up setting is overwritten when you assign a new start-up image.



- You can assign the operating sounds and start-up image for your camera from the included software. Refer to the *Software Guide* (31) for details.

Screen Color Scheme



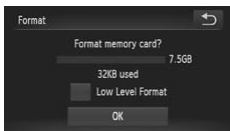
- Choose [Color Option], and then choose an option.

Formatting Memory Cards

Before using a new memory card or a card formatted in another device, you should format the card with this camera.

Formatting erases all data on a memory card. Before formatting, copy images on the memory card to a computer, or take other steps to back them up.

An Eye-Fi card (📖246) contains software on the card itself. Before formatting an Eye-Fi card, install the software on a computer.

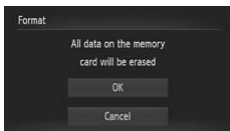


1 Access the [Format] screen.

- Touch [Format].

2 Choose [OK].

- Touch [OK].



3 Format the memory card.

- To begin the formatting process, touch [OK].
- When formatting is finished, [Memory card formatting complete] is displayed. Touch [OK].



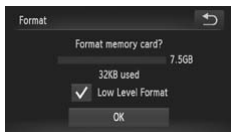
- Formatting or erasing data on a memory card only changes file management information on the card and does not erase the data completely. When transferring or disposing of memory cards, take steps to protect personal information if necessary, as by physically destroying cards.



- The total card capacity indicated on the formatting screen may be less than the advertised capacity.

■ Low-Level Formatting

Perform low-level formatting in these cases: [Memory card error] is displayed, the camera is not working correctly, card image reading/writing is slower, continuous shooting is slower, or movie recording suddenly stops. Low-level formatting erases all data on a memory card. Before low-level formatting, copy images on the memory card to a computer, or take other steps to back them up.



Perform low-level formatting.

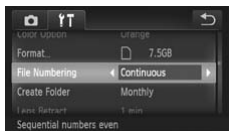
- Touch the field to the left of [Low Level Format] to select it (mark with a [✓]).
- Follow steps 2 – 3 on 213 to continue with the formatting process.



- Low-level formatting takes longer than “Formatting Memory Cards” (213), because data is erased from all storage regions of the memory card.
- You can cancel low-level formatting in progress by touching [Stop]. In this case, all data will be erased, but the memory card can be used normally.

File Numbering

Your shots are automatically numbered in sequential order (0001 – 9999) and saved in folders that store up to 2,000 images each. You can change how the camera assigns file numbers.



- Choose [File Numbering], and then choose an option.

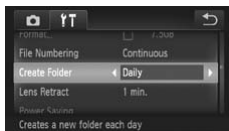
Continuous	Images are numbered consecutively (until the 9999th shot is taken/saved) even if you switch memory cards.
Auto Reset	Image numbering is reset to 0001 if you switch memory cards, or when a new folder is created.



- Regardless of the option selected in this setting, shots may be numbered consecutively after the last number of existing images on newly inserted memory cards. To start saving shots from 0001, use an empty (or formatted (📖213)) memory card.
- Refer to the *Software Guide* (📖31) for information on the card folder structure and image formats.

Date-Based Image Storage

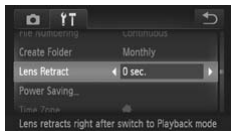
Instead of saving images in folders created each month, you can have the camera create folders each day you shoot to store shots taken that day.



- Choose [Create Folder], and then choose [Daily].
- ▶ Images will now be saved in folders created on the shooting date.

Lens Retraction Timing

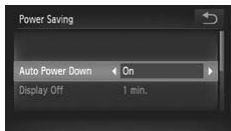
The lens is normally retracted for safety about one minute after you press the <▶> button in Shooting mode (82). To have the lens retracted immediately after you press the <▶> button, set the retraction timing to [0 sec.].



- Choose [Lens Retract], and then choose [0 sec.].

Power-Saving Adjustment

Adjust the timing of automatic camera and screen deactivation (Auto Power Down and Display Off, respectively) as needed (82).



1 Access the [Power Saving] screen.

- Touch [Power Saving].

2 Configure the settings.

- After choosing an item, touch [◀][▶] to adjust it as needed.



- To conserve battery power, you should normally choose [On] for [Auto Power Down] and [1 min.] or less for [Display Off].

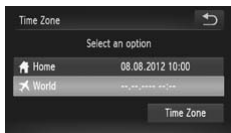


- The [Display Off] setting is applied even if you set [Auto Power Down] to [Off].

World Clock

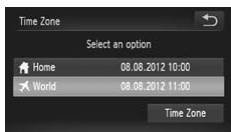
To ensure that your shots will have the correct local date and time when you travel abroad, simply register the destination in advance and switch to that time zone. This convenient feature eliminates the need to change the Date/Time setting manually.

Before using the world clock, be sure to set the date and time in “Setting the Date and Time” (📖23) and your home time zone.



1 Specify your destination.

- Touch [Time Zone].
- Touch [World], and then touch [Time Zone].
- Touch [][] to choose the destination time zone.
- To set daylight saving time (1 hour ahead), touch [Off].
- Touch [].



2 Switch to the destination time zone.

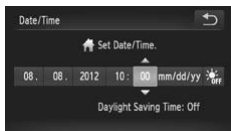
- Touch [World], and then touch [].
- ▶ [] is now shown on [Time Zone] and shooting screens (📖260).



- Adjusting the date or time while in [] mode (📖24) will automatically update your [Home] time and date.

Date and Time

Adjust the date and time as follows.



1 Access the [Date/Time] screen.

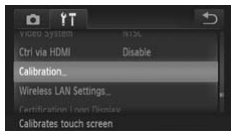
- Touch [Date/Time].

2 Configure the setting.

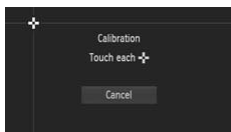
- Touch the item to configure, and then touch [▲][▼] to adjust the setting.

Touch-Screen Calibration

Calibrate the touch-screen panel if you are having difficulty choosing items or buttons by touch. For greater calibration accuracy, always use the stylus attached to the strap.



- Touch [Calibration].



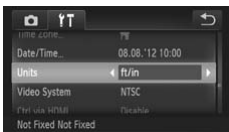
- Use the stylus attached to the strap to touch the screen where [✚] is displayed (18).
- Following the on-screen instructions, touch the screen in four positions, one after another: upper left, lower left, lower right, and upper right.



- Do not use pencils, pens, or sharp objects other than the included stylus to operate the touch-screen.

Metric/Non-Metric Display

Change the unit of measurement shown in GPS information for elevation (📖176) and elsewhere from m/cm to ft/in as needed.



- Choose [Units], and then choose [ft/in].

Display Language

Change the display language as needed.



1 Access the [Language] screen.

- Touch [Language] (🗨️).

2 Configure the setting.

- Touch a display language to choose it, and then touch (↩️).



- You can also access the [Language] screen in Playback mode by touching [FUNC.] and then touching and holding [MENU].

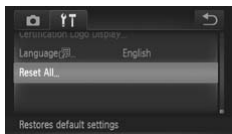
Adjusting Other Settings

The following settings can also be adjusted on the [🔧] tab.

- [Video System] (📖229)
- [Ctrl via HDMI] (📖227)
- [Wireless LAN Settings] (📖41)
- [Eye-Fi Settings] (📖246)

Restoring Defaults

If you accidentally change a setting, you can restore default camera settings.



1 Access the [Reset All] screen.

- Touch [Reset All].

2 Restore default settings.

- Touch [OK].
- ▶ Default settings are now restored.



- The following functions are not restored to default settings.
 - [Y] tab settings [Date/Time] (📖23), [Language] (📖25), [Time Zone] (📖217), [Calibration] (📖218), [Video System] (📖229), and the image assigned to [Start-up Image] (📖212)
 - Information registered using Face ID (📖105)
 - The shooting mode (📖123)
 - Colors chosen in Color Accent (📖133) or Color Swap (📖134)
 - Custom white balance data you have recorded (📖152)
 - Wireless network settings (📖41)

Checking Certification Logos

Some logos for certification requirements met by the camera can be viewed on the screen. Other certification logos are printed in this guide, on the camera packaging, or on the camera body.



- Touch [Certification Logo Display].

7

Accessories

Use included accessories effectively and enjoy the camera in more ways with optional Canon accessories and other compatible accessories sold separately

Effective Battery and Charger Use

- **Charge the battery on (or immediately before) the day of use**

Charged batteries gradually lose their charge, even when they are not used.

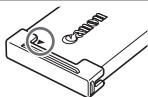
You can easily check the charge state of the battery by attaching the cover so that ▲ is visible on a charged battery, and attaching it so that ▲ is not visible on an uncharged battery.

- **Long-term battery storage**

After using up all remaining battery power, remove the battery from the camera. Store the battery with the cover attached. Storing a partially charged battery over extended periods (about a year) may shorten its life or affect performance.

- **Using the battery charger abroad**

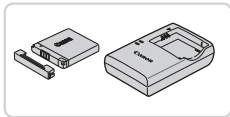
The charger can be used in areas with 100 – 240 V AC power (50/60 Hz). For power outlets in a different format, use a commercially available adapter for the plug. Never use an electrical transformer designed for traveling, which may damage the battery.



Optional Accessories

The following camera accessories are sold separately. Note that availability varies by area, and some accessories may no longer be available.

Power Supplies

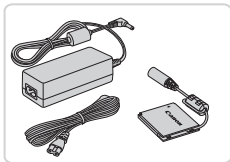


Battery Pack NB-11L

- Rechargeable lithium-ion battery

Battery Charger CB-2LD/CB-2LDE

- Charger for Battery Pack NB-11L



AC Adapter Kit ACK-DC90

- For powering the camera using household power. Recommended when using the camera over extended periods, or when connecting the camera to a printer or computer. Cannot be used to charge the camera battery.



- The battery charger and AC adapter kit can be used in areas with 100 – 240 V AC power (50/60 Hz).
- For power outlets in a different format, use a commercially available adapter for the plug. Never use an electrical transformer designed for traveling, which may damage the battery.

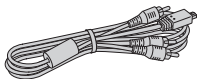
Flash Units



High-Power Flash HF-DC2

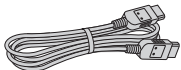
- External flash for illuminating subjects that are out of range of the built-in flash.

Other Accessories



Stereo AV Cable AVC-DC400ST

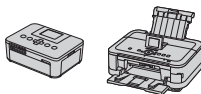
- Connect the camera to a TV to enjoy playback on the larger TV screen.



HDMI Cable HTC-100

- For connecting the camera to an HDMI input of a high-definition TV.

Printers



Canon PictBridge-Compatible Printers

- Printing images without a computer is possible by connecting the camera to a Canon PictBridge-compatible printer. For details, visit your nearest Canon dealer.

Using Optional Accessories

Playback on a TV

By connecting the camera to a TV, you can view your shots on the larger screen of the TV.

For details on connection or how to switch inputs, refer to the TV manual.



- The following camera functions are available when using a TV for display.
 - Browsing images
 - Either drag left or right across the screen or tap the camera gently on the side (📖28, 174).
 - Playing movies (📖28, 172)
 - Zooming in (📖183)
 - Move the zoom lever toward <Q>.
 - Group playback (📖181)
 - Touch Actions (📖198)
 - Smart Shuffle and erasing are not available.

Note that when the camera is connected to a TV, nothing is displayed on the camera screen. Watch the TV screen as you control the camera.

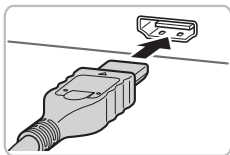
Playback on a High-Definition TV

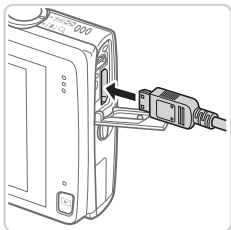
Connecting the camera to an HDTV with the HDMI Cable HTC-100 (sold separately) enables you to view your shots on the larger screen of the TV. Movies shot at a resolution of [1920] or [1280] can be viewed in high-definition.

1 Make sure the camera and TV are off.

2 Connect the camera to the TV.

- On the TV, insert the cable plug fully into the HDMI input as shown.





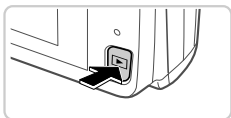
- On the camera, open the terminal cover and insert the cable plug fully into the camera terminal.

3 Turn the TV on and switch to video input.

- Switch the TV input to the video input you connected the cable to in step 2.

4 Turn the camera on.

- Press the <▶> button to turn the camera on.
 - ▶ Images from the camera are now displayed on the TV. (Nothing is displayed on the camera screen.)
- When finished, turn off the camera and TV before disconnecting the cable.



- It is not possible to connect the included interface cable or an optional stereo AV cable at the same time as an HDMI Cable HTC-100. Forcing the cables into the camera at the same time may damage the camera or cables.

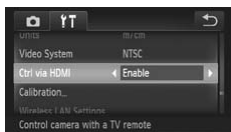


- Camera operating sounds are not played while the camera is connected to an HDTV.

Controlling the Camera with a TV Remote

Connecting the camera to an HDMI CEC-compatible TV enables playback (including slideshow playback) using the TV remote control.

In this case, you will need to adjust some TV settings. For details, refer to the TV user manual.



1 Configure the setting.

- Touch [FUNC.], touch [MENU], choose [Ctrl via HDMI] on the [TV] tab, and then choose [Enable].

2 Connect the camera to the TV.

- Follow steps 1 – 2 on [p.225](#) to connect the camera to the TV.






3 Display images.

- Turn on the TV. On the camera, press the <▶> button.
 - ▶ Images from the camera are now displayed on the TV. (Nothing is displayed on the camera screen.)

4 Control the camera with the TV remote.

- Press the <◀>>> buttons on the remote to browse images.
- To display the camera control panel, press the OK/Select button. Select control panel items by pressing the <◀>>> buttons to choose an item, and then pressing the OK/Select button again.

Camera Control Panel Options Shown on the TV

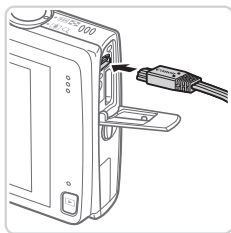
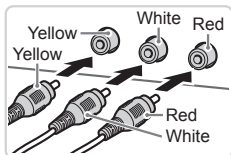
 Return	Closes the menu.
 Group Playback	Displays sets of images shot in [H] mode (143). (Only displayed when a grouped image is selected.)
 Play Movie	Starts movie playback. (Only displayed when a movie is selected.)
 Slideshow	Starts slideshow playback. To switch images during playback, press the <<>> buttons on the remote control.
 Index Playback	Displays multiple images in an index.



- Moving the zoom lever on the camera will switch control to the camera itself, which will prevent remote control until you return to single-image display.
- The camera may not always respond correctly even if the remote is for an HDMI CEC-compatible TV.

Playback on a Standard-Definition TV

Connecting the camera to a TV with the Stereo AV Cable AVC-DC400ST (sold separately) enables you to view your shots on the larger screen of the TV as you control the camera.



1 Make sure the camera and TV are off.

2 Connect the camera to the TV.

- On the TV, insert the cable plugs fully into the video inputs as shown.
- On the camera, open the terminal cover and insert the cable plug fully into the camera terminal.

3 Display images.

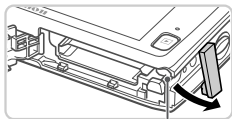
- Follow steps 3 – 4 on 226 to display images.



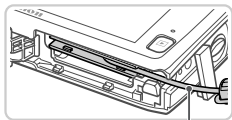
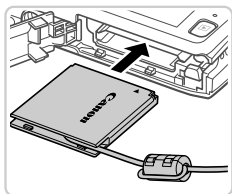
- Correct display is not possible unless the camera video output format (NTSC or PAL) matches the TV format. To change the video output format, touch [FUNC.], touch [MENU], and then choose [Video System] on the [YT] tab.

Powering the Camera with Household Power

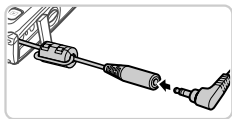
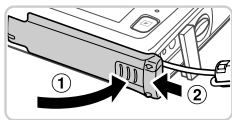
Powering the camera with AC Adapter Kit ACK-DC90 (sold separately) eliminates the need to monitor the remaining battery level.



Coupler Cable Port



Cable



1 Make sure the camera is off.

2 Open the cover.

- Follow step 2 on 21 to open the memory card/battery cover, and then open the coupler cable port cover as shown.

3 Insert the coupler.

- Insert the coupler facing the direction shown, just as you would a battery (following step 3 on 21).

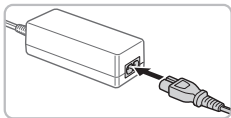
- Make sure the coupler cable passes through the port.

4 Close the cover.

- Lower the cover (①) and hold it down as you slide it, until it clicks into the closed position (②).

5 Connect the power cord.

- Insert the adapter plug into the end of the coupler cable.



- Insert one end of the power cord into the compact power adapter, and then plug the other end into a power outlet.
- Turn the camera on and use it as desired.
- When finished, turn the camera off and unplug the power cord from the outlet.



- Do not disconnect the adapter or unplug the power cord while the camera is still on. This may erase your shots or damage the camera.
- Do not attach the adapter or adapter cord to other objects. Doing so could result in malfunction or damage to the product.

Printing Images

Your shots can easily be printed by connecting the camera to a printer. On the camera, you can specify images to set up batch printing, prepare orders for photo development services, and prepare orders or print images for photobooks.

A Canon SELPHY CP series compact photo printer is used here for the sake of illustration. Screens displayed and available functions vary by printer. Also refer to the printer manual for additional information.

Still Images

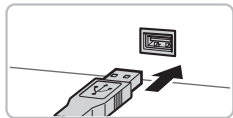
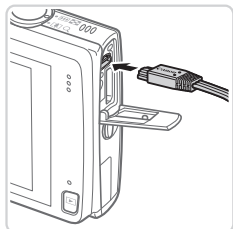
Easy Print

Easily print your shots by connecting the camera to a PictBridge-compatible printer (sold separately) with the included interface cable (📖2).

1 Make sure the camera and printer are off.

2 Connect the camera to the printer.

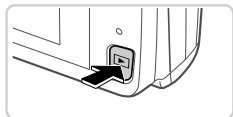
- Open the cover. Holding the smaller cable plug in the orientation shown, insert the plug fully into the camera terminal.
- Connect the larger cable plug to the printer. For other connection details, refer to the printer manual.



3 Turn the printer on.

4 Turn the camera on.

- Press the <▶> button to turn the camera on.



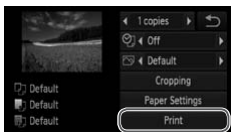
5 Choose an image.

- Browse images by dragging left or right, and then touch an image to choose it.



6 Access the printing screen.

- Touch [FUNC.], and then touch [Print].



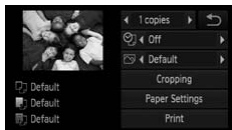
7 Print the image.

- Touch [Print].
- ▶ Printing now begins.
- To print other images, repeat steps 5 – 6 after printing is finished.
- When you are finished printing, turn the camera and printer off and disconnect the interface cable.



- For Canon PictBridge-compatible printers (sold separately), see [224](#).

Configuring Print Settings



1 Access the printing screen.

- Follow steps 1 – 6 on [232 – 233](#) to access the screen at left.

2 Configure the settings.

- Touch an item, and then touch [**◀**][**▶**] to choose an option.

–	No. of Copies	Choose the number of copies to print.
	Default	Matches current printer settings.
	Date	Prints images with the date added.
	File No.	Prints images with the file number added.
	Both	Prints images with both the date and file number added.
	Off	–
	Default	Matches current printer settings.
	Off	–
	On	Uses information from the time of shooting to print under optimal settings.
	Red-Eye 1	Corrects red-eye.
Cropping	–	Specify a desired image area to print (235).
Paper Settings	–	Specify the paper size, layout, and other details (236).

Cropping Images Before Printing (Cropping)

By cropping images before printing, you can print a desired image area instead of the entire image.



1 Choose [Cropping].

- After following step 1 on [page 234](#) to access the printing screen, touch [Cropping].
- ▶ A cropping frame is now displayed, indicating the image area to print.

2 Adjust the cropping frame as needed.

- To resize the frame, move the zoom lever.
- To move the frame, drag it.
- To rotate the frame, touch [⌘].
- Touch [OK] to complete the setting.

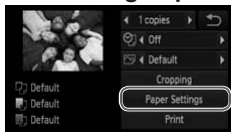
3 Print the image.

- Follow step 7 on [page 233](#) to print.



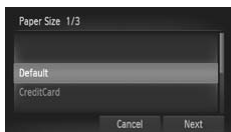
- Cropping may not be possible at small image sizes, or at some aspect ratios.
- Dates may not be printed correctly if you crop images shot with [Date Stamp] selected.

Choosing Paper Size and Layout Before Printing



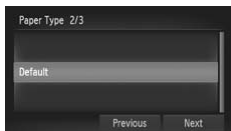
1 Choose [Paper Settings].

- After following step 1 on [234](#) to access the printing screen, touch [Paper Settings].



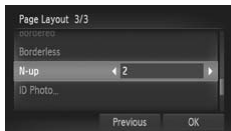
2 Choose a paper size.

- Touch an option to choose it, and then touch [Next].



3 Choose a type of paper.

- Touch an option to choose it, and then touch [Next].



4 Choose a layout.

- Drag up or down to choose an option.
- When choosing [N-up], touch [◀][▶] to specify the number of images per sheet.
- Touch [OK].

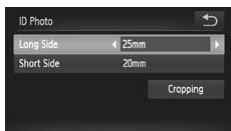
5 Print the image.

Available Layout Options

Default	Matches current printer settings.
Bordered	Prints with blank space around the image.
Borderless	Borderless, edge-to-edge printing.
N-up	Choose how many images to print per sheet.
ID Photo	Prints images for identification purposes. Only available for images with a resolution of L and an aspect ratio of 4:3.
Fixed Size	Choose the print size. Choose from 3.5 x 5 in., postcard, or wide-format prints.

Still Images

Printing ID Photos



1 Choose [ID Photo].

- Following steps 1 – 4 on [page 236](#), choose [ID Photo] and touch [Next].

2 Choose the long and short side length.

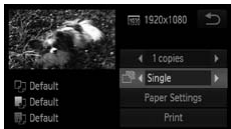
- Touch an item to choose it. Touch [◀] [▶] to choose the length, and then touch [Cropping].

3 Choose the printing area.

- Follow step 2 on [page 235](#) to choose the printing area.

4 Print the image.



Printing Movie Scenes



1 Access the printing screen.

- Follow steps 1 – 6 on [p. 232 – 233](#) to choose a movie. The screen at left is displayed.

2 Choose a printing method.

- Touch , and then touch  to choose the printing method.

3 Print the image.

Movie Printing Options

Single	Prints the current scene as a still image.
Sequence	Prints a series of scenes, a certain interval apart, on a single sheet of paper. You can also print the folder number, file number, and elapsed time for the frame by setting [Caption] to [On].



- To cancel printing in progress, touch [Cancel].
- [ID Photo] and [Sequence] cannot be chosen on Canon PictBridge-compatible printers from CP720/CP730 and earlier models.

Adding Images to the Print List (DPOF)

Batch printing (243) and ordering prints from a photo development service can be set up on the camera. Choose up to 998 images on a memory card and configure relevant settings, such as the number of copies, as follows. The printing information you prepare this way will conform DPOF (Digital Print Order Format) standards.

Adding Images to the Print List via the FUNC. Menu

You can add images to the print list (DPOF) after your shot or later during playback via the FUNC. menu.

1 Choose an image.

- Browse images by dragging left or right, and then touch an image to choose it.

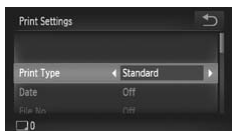
2 Add the image to the print list.

- Touch [FUNC.], and then touch [] in the menu.
- Touch [▲][▼] to specify the number of prints, and then touch [Add].



Configuring Print Settings

Specify the printing format, whether to add the date or file number, and other settings as follows. These settings apply to all images in the print list.



- Touch **[FUNC.]**, touch **[MENU]**, and choose **[Print Settings]** on the **[P]** tab. Choose and configure settings as desired (86).

Print Type	Standard	One image is printed per sheet.
	Index	Smaller versions of multiple images are printed per sheet.
	Both	Both standard and index formats are printed.
Date	On	Images are printed with the shooting date.
	Off	–
File No.	On	Images are printed with the file number.
	Off	–
Clear DPOF data	On	All image print list settings are cleared after printing.
	Off	–



- Not all of your DPOF settings may be applied in printing by the printer or photo development service, in some cases.
- **[!]** may be displayed on the camera to warn you that the memory card has print settings that were configured on another camera. Changing the print settings using this camera may overwrite all previous settings.
- Setting **[Date]** to **[On]** may cause some printers to print the date twice.



- Specifying [Index] will prevent you from choosing [On] for both [Date] and [File No.] at the same time.
- Index printing is not available on some Canon PictBridge-compatible printers (sold separately).
- The date is printed in a format matching setting details in [Date/Time] on the [Y↑] tab (📖23).

Still Images

Setting Up Printing for Individual Images



1 Choose [Select Images & Qty.].

- Touch [FUNC.], touch [MENU], and then touch [Select Images & Qty.] on the [📄] tab to choose it.

2 Choose an image.

- Browse images by dragging left or right, and then touch an image to choose it.
- ▶ You can now specify the number of copies.
- To specify index printing for the image, touch the screen. The image is now labeled with a [✓] icon. To cancel index printing for the image, touch inside the field again. [✓] is no longer displayed.

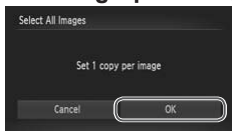


3 Specify the number of prints.

- Touch [▲][▼] to specify the number of prints (up to 99).
- To set up printing for other images and specify the number of prints, repeat steps 2 – 3.
- Printing quantity cannot be specified for index prints. You can only choose which images to print, by following step 2.
- When finished, touch [↩] to return to the menu screen.
- When specifying index printing, touch [OK] to return to the menu screen after selecting or clearing images for index printing.

Still Images

Setting Up Printing for All Images



1 Choose [Select All Images].

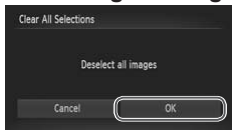
- Following step 1 on [p241](#), touch [Select All Images] to choose it.

2 Configure the print settings.

- Touch [OK].

Still Images

Clearing All Images from the Print List



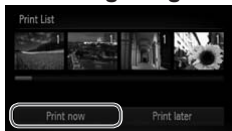
1 Choose [Clear All Selections].

- Following step 1 on [p241](#), touch [Clear All Selections] to choose it.

2 Confirm clearing the print list.

- Touch [OK].

Printing Images Added to the Print List (DPOF)

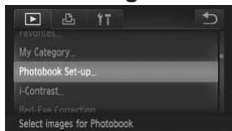


- When images have been added to the print list (📖 239 – 242), the screen at left is displayed after you connect the camera to a PictBridge-compatible printer. Simply touch [Print now] to print images in the print list.
- Any DPOF print job that you temporarily stop will be resumed from the next image.

Adding Images to a Photobook

Photobooks can be set up on the camera by choosing up to 998 images on a memory card and importing them into the included software on your computer, where they are stored in their own folder. This is convenient when ordering printed photobooks online or printing photobooks with your own printer.

Choosing a Selection Method



- Touch [FUNC.], touch [MENU], and then touch [Photobook Set-up] on the [▶] tab, and then choose how you will select images.

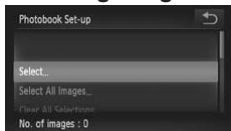


- [!] may be displayed on the camera to warn you that the memory card has print settings that were configured on another camera. Changing the print settings using this camera may overwrite all previous settings.



- After importing images to your computer, also refer to the *Software Guide* (📖 31) and the printer manual for further information.

Adding Images Individually



1 Choose [Select].

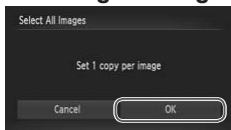
- Following the previous procedure, touch [Select] to choose it.



2 Choose an image.

- Drag left or right to browse images, and then touch an image to choose it.
- ▶ [✓] is displayed.
- To remove the image from the photobook, touch the screen again. [✓] is no longer displayed.
- Repeat this process to specify other images.
- When finished, touch [OK] to return to the menu screen.

Adding All Images to a Photobook



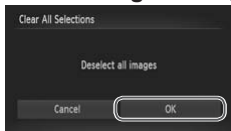
1 Choose [Select All Images].

- Following the procedure on [p. 244](#), touch [Select All Images] to choose it.

2 Configure the print settings.

- Touch [OK].

Removing All Images from a Photobook



1 Choose [Clear All Selections].

- Following the procedure on [page 244](#), touch [Clear All Selections] to choose it.

2 Confirm clearing the photobook.

- Touch [OK].

Using an Eye-Fi Card

Before using an Eye-Fi card, always confirm that local use is permitted (📖3).

Inserting a prepared Eye-Fi card enables automatic wireless transfer of images to a computer or uploading to a photo-sharing website.

Images are transferred by the Eye-Fi card. Refer to the card's user manual or contact the manufacturer for instructions on preparing and using cards or resolving transfer problems.



- When using an Eye-Fi card, keep the following points in mind.
 - Cards may continue to transmit radio waves even when [Eye-Fi trans.] is set to [Disable] (📖247). Remove the Eye-Fi card before entering hospitals, aircraft, or other areas where transmission is prohibited.
 - When troubleshooting image transfer issues, check the card and computer settings. For details, refer to the card's user manual.
 - Poor Eye-Fi connections may cause image transfer to take a long time, and transfer may be interrupted in some cases.
 - Eye-Fi cards may become hot, due to their transfer functions.
 - Battery power will be consumed faster than in normal use.
 - Camera operation may become sluggish. To resolve this, try setting [Eye-Fi trans.] to [Disable].
 - Eye-Fi transmission is not possible when the camera is connected to a wireless LAN.

Connection status of Eye-Fi cards in the camera can be checked on the shooting screen (in regular information display mode) or playback screen (in simple information display mode).

(Gray)	Not connected
(Blinking white)	Connecting
(White)	Connected
(Animated)	Transfer in progress
(Interrupted)	Interrupted
(Not communicating)	Not communicating
(Error)	Error acquiring Eye-Fi card information (Restart the camera. Repeated display of this icon may indicate a problem with the card.)

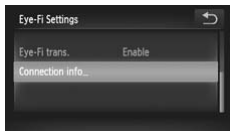
Images labeled with a [] icon have been transferred.



- Power saving (82) on the camera is temporarily disabled during image transfer.
- Choosing [M] mode will interrupt the Eye-Fi connection. Although the Eye-Fi connection will be restored after you choose another shooting mode or enter Playback mode, the camera may transfer any movies made in [M] mode again.

Checking Connection Information

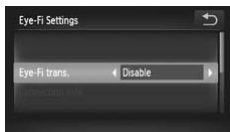
Check the access point SSID used by the Eye-Fi card or the connection status, as needed.



- Touch [FUNC.], touch [MENU], and then touch [Eye-Fi Settings] on the [↑↑] tab to choose it.
- Touch [Connection info].
- ▶ The connection information screen is displayed.

Disabling Eye-Fi Transfer

Configure the setting as follows to disable Eye-Fi transfer by the card, if necessary.



Choose [Disable] in [Eye-Fi trans.].

- Touch [FUNC.], touch [MENU], and then touch [Eye-Fi Settings] on the [↑↑] tab to choose it.
- Choose [Eye-Fi trans.], and then choose [Disable].



- [Eye-Fi Settings] is not shown unless an Eye-Fi card is in the camera with its write-protect tab in the unlocked position. For this reason, you cannot change settings for an inserted Eye-Fi card if the write-protect tab is in the locked position.

8

Appendix

Helpful information when using the camera

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.

Power

Nothing happens when the power button is pressed.

- Confirm that the battery is charged (📖20).
- Confirm that the battery is inserted facing the correct way (📖21).
- Confirm that the memory card/battery cover is fully closed (📖22).
- Dirty battery terminals reduce battery performance. Try cleaning the terminals with a cotton swab and reinserting the battery a few times.

The battery is depleted quickly.

- Battery performance decreases at low temperatures. Try warming the battery a little by putting it in your pocket, for example, with the terminal cover on.
- If these measures do not help and the battery is still depleted soon after charging, it has reached the end of its life. Purchase a new battery.

The lens is not retracted.

- Do not open the memory card/battery cover while the camera is on. Close the cover, turn the camera on, and then turn it off again (📖22).

The battery is swollen.

- Battery swelling is normal and does not pose any safety concerns. However, if battery swelling prevents the battery from fitting in the camera, contact a Canon Customer Support Help Desk.

Display on a TV

Camera images look distorted or not displayed on a TV (📖229).

Shooting

Cannot shoot.

- In Playback mode (📖25), press the shutter button halfway (📖83).

Strange display on the screen under low light (📖84).

Strange display on the screen when shooting.

Note that the following display problems are not recorded in still images but are recorded in movies.

- The screen may flicker and horizontal banding may appear under fluorescent or LED lighting.

Full-screen display is not available while shooting (📖113).

[📷] flashes on the screen when the shutter button is pressed, and shooting is not possible (📖93).

No date stamp is added to images.

- Configure the [Date Stamp] setting (📖104). Note that date stamps are not added to images automatically, merely because you have configured the [Date/Time] setting (📖23).
- Date stamps are not added in shooting modes (📖268 – 269) in which this setting cannot be configured (📖104).

[📷] is displayed when the shutter button is pressed halfway (📖103).

- Set [IS Mode] to [Continuous] (📖169).
- Set the flash mode to [📷] (📖164).
- Increase the ISO speed (📖150).
- Mount the camera on a tripod or take other measures to keep it still. In this case, you should set [IS Mode] to [Off] (📖169).

Shots are out of focus.

- Press the shutter button halfway to focus on subjects before pressing it all the way down to shoot (📖83).
- Make sure subjects are within focusing range (📖274).
- Set [AF-assist Beam] to [On] (📖121).
- Confirm that unneeded functions such as macro are deactivated.
- Try shooting with focus lock or AF lock (📖160, 163).

Shots are blurry.

- Blurring may occur more often when Touch Shutter is used to shoot, depending on shooting conditions. Hold the camera still when shooting.

No AF frames are displayed and the camera does not focus when the shutter button is pressed halfway.

- To have AF frames displayed and the camera focus correctly, try composing the shot with higher-contrast subject areas centered before you press the shutter button halfway. Otherwise, try pressing the shutter button halfway repeatedly.

Subjects in shots look too dark.

- Set the flash mode to [📷] (📖164).
- Adjust brightness by using exposure compensation (📖149).
- Adjust contrast by using i-Contrast (📖151, 203).
- Use AE lock or spot metering (📖149, 150).

Subjects look too bright, highlights are washed-out.

- Set the flash mode to [☀] (📖103).
- Adjust brightness by using exposure compensation (📖149).
- Use AE lock or spot metering (📖149, 150).
- Reduce the lighting on subjects.

Shots look too dark despite the flash firing (📖93).

- Shoot within flash range (📖274).
- Increase the ISO speed (📖150).

Subjects in flash shots look too bright, highlights are washed-out.

- Shoot within flash range (📖274).
- Set the flash mode to [☀] (📖103).

White dots or similar image artifacts appear in flash shots.

- This is caused by light from the flash reflecting off dust or airborne particles.

Shots look grainy.

- Lower the ISO speed (📖150).
- High ISO speeds in some shooting modes may cause grainy images (📖125).

Subjects are affected by red-eye (📖115).

- Set [Red-Eye Lamp] to [On] (📖121) to activate the red-eye reduction lamp (📖6) in flash shots. Note that while the red-eye reduction lamp is on (for about one second), it is not possible to shoot, because the lamp is counteracting red-eye. For best results, have subjects look at the red-eye reduction lamp. Also try increasing the lighting in indoor scenes and shooting at closer range.
- Edit images using red-eye correction (📖204).

Recording to the memory card takes too long, or continuous shooting is slower.

- Use the camera to perform low-level formatting of the memory card (📖214).

Shooting settings or FUNC. menu settings are not available.

- Available setting items vary by shooting mode. Refer to “Functions Available in Each Shooting Mode”, “FUNC. Menu”, and “Shooting Menu” (📖264 – 269).

The Babies or Children icon does not display.

- The Babies and Children icons will not display if the birthday is not set in face information (📖105). If the icons still do not display even when you set the birthday, re-register face information (📖110), or make sure that the date/time are set correctly (📖23).

Shooting Movies

The elapsed time shown is incorrect, or recording is interrupted.

- Use the camera to format the memory card, or switch to a card that supports high-speed recording. Note that even if the elapsed time display is incorrect, the length of movies on the memory card corresponds to the actual recording time (📖213).

[🔴] is displayed and shooting stops automatically.

The camera's internal memory buffer filled up as the camera could not record to the memory card quickly enough. Try one of the following measures.

- Use the camera to perform low-level formatting of the memory card (📖214).
- Lower the image quality (📖117).
- Switch to a memory card that supports high-speed recording (📖274).

Subjects look distorted.

- Subjects that pass in front of the camera quickly may look distorted. This is not a malfunction.

Playback

Playback is not possible.

- Image or movie playback may not be possible if a computer is used to rename files or alter the folder structure. Refer to the *Software Guide* (📖31) for details on folder structure and file names.

Playback stops, or audio skips.

- Switch to a memory card that you have performed low-level formatting on with the camera (📖214).
- There may be brief interruptions when playing movies copied to memory cards that have slow read speeds.
- When movies are played on a computer, frames may be dropped and audio may skip if computer performance is inadequate.

Sound is not played during movies.

- Adjust the volume (📖210) if you have activated [Mute] (📖210) or the sound in the movie is faint.
- No sound is played for movies shot in [📹] (📖128) or [📹] (📖146) modes because audio is not recorded in these modes.

Touch-Screen

Having difficulty choosing items or buttons by touch.

- Operations may be easier if you press a little harder or use the stylus attached to the strap, because the touch-screen panel works by detecting pressure (📖18).
- Try calibrating the screen (📖218).

[!] is displayed in the upper right.

- Your finger is resting on the screen in the upper-right corner. Lift your finger off the screen.

Computer

Cannot transfer images to a computer.

When attempting to transfer images to the computer via a cable, try reducing the transfer speed as follows.

- Turn the camera off. Hold the shutter button all the way down, hold the zoom lever toward <[▲]>, and press the <[▶]> button. Next, move the zoom lever toward <[⏏]>. On the next screen, touch [B] to choose it, and then touch it again.

Eye-Fi Cards

Cannot transfer images (📖246).

Wireless LAN

[Wi-Fi] is not displayed, and you cannot access the wireless LAN menu.

- You cannot access the wireless LAN menu from a shooting mode. Switch to playback mode and try again.
- [Wi-Fi] will not be displayed even in playback mode, when using magnified display or index display. Switch to single image display and try again. [Wi-Fi] will also not be displayed when an image is displayed by specifying search conditions. Cancel the playback state of the image in image search mode.
- [Wi-Fi] will not be displayed when the camera is connected to a printer or computer with a cable. Disconnect the cable.

Cannot add a device/destination.

- A total of 20 items of connection information can be added to the camera. Erase unneeded connection information from the camera first, and then add new devices/destinations (📖77).
- E-mail is the only web service for which multiple accounts can be set. Use CameraWindow to change the desired Web service (📖50).
- To add a smartphone as a device, first install the dedicated application CameraWindow on your smartphone.

- To add a computer as a device, first install the included software CameraWindow on the computer. Also check the environment and settings of your computer and wireless LAN (📖32, 59).
- Avoid using the camera's wireless LAN function around microwave ovens, Bluetooth devices, and other devices that operate on the 2.4 GHz band, as this will weaken wireless LAN signals.
- Bring the camera closer to the other device you are trying to connect to (such as the access point), and make sure there are no objects between the devices.

Cannot send images.

- The destination device has insufficient storage space. Increase the storage space on the destination device and resend the images.
- Images shot in [H] mode are grouped. Cancel grouping and then send the images.
- The write-protect tab of the SD/SDHC/SDXC memory card or Eye-Fi card of the destination camera is set to the locked position. Slide the write-protect tab to the unlocked position.

Cannot resize images for sending.

- Images cannot be resized to be bigger than the resolution setting of their original size.
- Movies cannot be resized.

Images take a long time to send/The wireless connection is disrupted.

- Multiple images may take a long time to send. Try resizing the image to [M2] or [S] to reduce sending time (📖74).
- Movies may take a long time to send.
- Avoid using the camera's wireless LAN function around microwave ovens, Bluetooth devices, and other devices that operate on the 2.4 GHz band, as this will weaken wireless LAN signals. Note that images may take a long time to send even when [Y,i] is displayed.
- Bring the camera closer to the other device you are trying to connect to (such as the access point), and make sure there are no objects between the devices.
- When sending images to a computer from a memory card with a large amount of images (approximately 1,000), the connection may be disrupted. Import any necessary images to a computer, and then reduce the number of images on the memory card by erasing unnecessary images.

Erasing wireless connection information when transferring ownership of or disposing of the camera.

- Reset the wireless LAN to default settings (📖79).

On-Screen Messages

If an error message is displayed, respond as follows.

No memory card

- The memory card may be inserted facing the wrong way. Reinsert the memory card facing the correct way (📖22).

Memory card locked

- The write-protect tab of the memory card is set to the locked position. Switch the write-protect tab to the unlocked position (📖21).

Cannot record!

- Shooting was attempted without a memory card in the camera. To shoot, insert a memory card facing the correct way (📖22).

Memory card error (📖214)

- If the same error message is displayed even when you have inserted a formatted memory card facing the correct way, contact a Canon Customer Support Help Desk (📖22).

Insufficient space on card

- There is not enough free space on the memory card to shoot (📖89, 123, 147) or edit images (📖200 – 204). Either erase unneeded images (📖190) or insert a memory card with enough free space (📖21).

Touch Shutter unavailable/Touch AF unavailable

- Your finger is resting on the screen in the upper-right corner (📖254).
- Touch AF is not available in the current shooting mode (📖264).

Touch AF canceled

- The subject selected for Touch AF can no longer be detected (📖161).

Charge the battery (📖20)

No Image.

- The memory card does not contain any images that can be displayed.

Protected! (📖187)

Unidentified Image/Incompatible JPEG/Image too large./Cannot play back AVI/RAW

- Unsupported or corrupt images cannot be displayed.
- It may not be possible to display images that were edited or renamed on a computer, or images shot with another camera.

**Cannot magnify!/Cannot play back this content in Smart Shuffle/
Cannot rotate/Cannot modify image/Cannot register this image!
Cannot modify/Cannot assign to category/Unselectable image./No
identification information**

- The following functions may be unavailable for images that were renamed or already edited on a computer, or images shot with another camera. Note that starred (*) functions are not available for movies.
Edit ID Info* (📖182), Magnify* (📖183), Smart Shuffle* (📖186), Rotate (📖193), Categorize (📖195), Edit* (📖200 – 204), Assign as Start-up Image* (📖212), Print List* (📖239), and Photobook Set-up* (📖243).
- Grouped images cannot be processed (📖144).

Exceeded selection limit

- More than 998 images were selected for Print List (📖239) or Photobook Set-up (📖243). Choose 998 images or less.
- Print List (📖239) or Photobook Set-up (📖243) settings could not be saved correctly. Reduce the number of selected images and try again.
- You attempted to choose more than 500 images in Protect (📖187), Erase (📖190), Favorites (📖195), My Category (📖197), Print List (📖239), or Photobook Set-up (📖243).

Communication error

- An excessive amount of images (approx. 1,000) on the memory card prevented printing or image transfer to a computer. To transfer the images, use a commercially available USB card reader. To print, insert the memory card directly into the printer card slot.

Naming error!

- The folder could not be created or images could not be recorded, because the highest supported folder number (999) for storing images on the card has been reached and the highest supported image number (9999) for images in folders has been reached. In the [📁] menu, change [File Numbering] to [Auto Reset] (📖215), or format the memory card (📖213).

Lens Error

- This error may occur if the lens is held while it is moving, or when the camera is used in dusty or sandy locations.
- Frequent display of this error message may indicate camera damage. In this case, contact a Canon Customer Support Help Desk.

A camera error was detected (error number)

- If this error message is displayed immediately after a shot, the image may not have been saved. Switch to Playback mode to check for the image.
 - Frequent display of this error message may indicate camera damage. In this case, write down the error number (Exx) and contact a Canon Customer Support Help Desk.
-

File Error

- Correct printing (📖232) may not be possible for photos from other cameras or images that have been altered using computer software, even if the camera is connected to the printer.
-

Print error

- Check the paper size setting (📖236). If this error message is displayed when the setting is correct, restart the printer and complete the setting on the camera again.
-

Ink absorber full

- Contact a Canon Customer Support Help Desk to request assistance with ink absorber replacement.
-

Wireless LAN

Connection failed

- No access points were recognized. Check the access point settings (📖60).
 - A device could not be found. Turn the camera off and on again, and retry the connection.
 - Check the device you want to connect to and make sure it is ready for connection.
-

Cannot determine access point

- The WPS button on numerous access points were pressed simultaneously. Try reconnecting again.
-

No access points found

- Check to make sure that the access point is turned on.
 - When connecting to an access point manually, make sure that you entered the correct SSID.
-

Incorrect wireless LAN encryption key/Incorrect wireless LAN security settings

- Check the access point security settings (📖60).
-

IP address conflict

- Reset the IP address so that it does not conflict with another.
-

Disconnected/Receiving failed/Sending failed

- The environment you are in may not be suitable for wireless LAN use.
- Avoid using the camera's wireless LAN function around microwave ovens, Bluetooth devices, and other devices that operate on the 2.4 GHz band.
- Bring the camera closer to the other device you are trying to connect to (such as the access point), and make sure there are no objects between the devices.
- Check the connected device to make sure it is not experiencing errors.

Sending failed**Memory card error**

- If the same error message is displayed even when you have inserted a formatted memory card facing the correct way, contact a Canon Customer Support Help Desk.

Receiving failed**Insufficient space on card**

- There is not enough free space on the memory card to receive images. Erase images to create space on the memory card, or insert an empty memory card.

Receiving failed**Memory card locked**

- The write-protect tab of the SD/SDHC/SDXC memory card or Eye-Fi card of the camera to receive the images is set to the locked position. Slide the write-protect tab to the unlocked position.

Receiving failed**Naming error!**

- When the highest folder number (999), and the highest image number (9999) have been reached on the receiving camera, images cannot be received.

Insufficient space on server

- Delete unnecessary images uploaded to CANON IMAGE GATEWAY to create space.

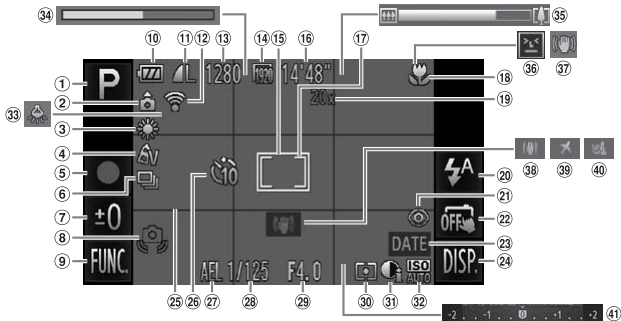
SSL certificate not valid**Connect to a computer, use the supplied software to reset**

- Check to make sure the date/time settings on the camera are correct. After confirming that the settings are correct, follow the on-screen instructions and reset the settings.

Check network settings

- Check to make sure your computer can connect to the Internet with the current network settings.

Shooting (Information Display)



- | | | |
|---|---|---|
| ① Shooting mode (1264), Scene icon (95) | ⑮ AF frame (158) | ⑳ Shutter speed |
| ② Camera orientation* | ⑯ Remaining time | ㉑ Aperture value |
| ③ White balance (152) | ⑰ Spot AE point frame (150) | ㉒ Metering method (150) |
| ④ My Colors (153) | ⑱ Focusing range (156), AF lock (163) | ㉓ i-Contrast (151) |
| ⑤ Movie recording (145) | ⑲ Digital zoom magnification (99), Digital tele-converter (157) | ㉔ ISO speed (150) |
| ⑥ Drive mode (155) | ㉔ Flash mode (103, 164) | ㉕ Mercury lamp correction (116) |
| ⑦ Long shutter (142), Exposure compensation level (149) | ㉕ Red-eye correction (115) | ㉖ Super slow motion movie (shooting time) (145) |
| ⑧ Camera shake warning (93) | ㉖ Touch Shutter (102) | ㉗ Zoom bar (90) |
| ⑨ FUNC. (Function) (85) | ㉗ Date stamp (104) | ㉘ Blink detection (120) |
| ⑩ Battery level (261) | ㉘ DISP. (Display) (84) | ㉙ Image stabilization (97) |
| ⑪ Compression (image quality) (166) / Resolution (114) | ㉙ Grid lines (118) | ㉚ Image stabilization (169) |
| ⑫ Eye-Fi connection status (246) | ㉚ Self-timer (100) | ㉛ Time zone (217) |
| ⑬ Recordable shots | ㉛ AE lock (149), FE lock (165) | ㉜ Wind filter (117) |
| ⑭ Movie quality | | ㉝ Exposure compensation bar (149) |




* : Regular orientation,  : Held vertically

The camera detects the shooting orientation and adjusts settings for optimal shots. Orientation is also detected during playback, and in either orientation, the camera automatically rotates images as needed.

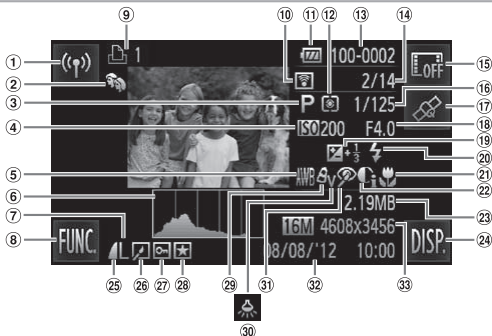
However, the orientation may not be detected correctly when the camera is pointed straight up or down.

Battery Level

An on-screen icon or message indicates the battery charge level.









Display	Details
	Sufficient charge
	Slightly depleted, but sufficient
 (Blinking red)	Nearly depleted—charge the battery soon
[Charge the battery]	Depleted—charge the battery immediately

Playback (Detailed Information Display)



- | | | |
|--|---|---|
| ① Wireless LAN | ⑬ Folder number - File number (1215) | ⑳ File size |
| ② My Category (1197) | ⑭ Current image no. / Total no. of images | ㉑ DISP. (Display) (184) |
| ③ Movies (190, 172), High-speed burst (143), Shooting mode (264) | ⑮ Hide information (175) | ㉒ Compression ratio (image quality) (166) |
| ④ ISO speed (150), Playback speed (129, 146) | ⑯ Shutter speed (still images), Image quality / Frame rate (movies) (117) | ㉓ Group playback (181), Image editing (200 – 204) |
| ⑤ White balance (152) | ⑰ GPS display (176) | ㉔ Protection (187) |
| ⑥ Histogram (175) | ⑱ Aperture value, Image quality (movies) (117) | ㉕ Favorites (195) |
| ⑦ Resolution (114, 117), MOV (movies) | ⑲ Exposure compensation level (149) | ㉖ My Colors (153, 202) |
| ⑧ FUNC. (Function) (85) | ㉑ Flash (164) | ㉗ Mercury lamp correction (116) |
| ⑨ Print list (239) | ㉒ Focusing range (156) | ㉘ Red-eye correction (115, 204) |
| ⑩ Transferred via Eye-Fi (246) | ㉓ i-Contrast (151, 203) | ㉙ Shooting date/time (23) |
| ⑪ Battery level (261) | | ㉚ Still images: Resolution
Movies: Playback time |
| ⑫ Metering method (150) | | |

Summary of Movie Control Panel in “Viewing” (📖172)

	Exit
	Touch to display the volume panel, and then touch [▲][▼] to adjust the volume. At a volume of 0, [🔊] is displayed.
	Play
	Skip Backward* (To continue skipping backward, keep touching this icon.)
	Previous Frame (For slow-rewind, keep touching this icon.)
	Next Frame (For slow-forward, keep touching this icon.)
	Skip Forward* (To continue skipping forward, keep touching this icon.)
	Edit (📖206)












* Displays the frame approx. 4 sec. before or after the current frame.



- To skip forward or back during movie playback, gently tap the sides of the camera (Active Display) (📖174).
- To switch frames, touch the scrollbar or drag left or right.

Functions and Menu Tables


Functions Available in Each Shooting Mode

Shooting Mode									
		AUTO	P						
Function									
Exposure Compensation (📖149)		–	○	○	○	○	○	○	○
Flash (📖103, 164)		○	○	○	○	○	○	○	○
		–	○	○	○	○	○	○	○
		+1	○	○	–	–	–	–	–
		○	○	○	○	○	○	○	○
Touch Shutter (📖102)	On/Off	○	○	○	○	○	–	–	–
AE Lock/FE Lock**4 (📖149, 165)		–	○	○	–	–	–	–	–
AF Lock (📖163)		–	○	○	–	–	–	–	–
Touch AF (📖161)		○	○	–	○	–	*5	*5	*5
Screen Display (📖84)	Information Display /	○	○	○	○	○	○	○	○
	No Information Display								

















*1 Not available, but switches to [] in some cases.

*2 Not available, but switches to [] when the flash fires.

*3 Only available for shooting. Subject designation not available.























































*4 FE lock not available in [] flash mode.

*5 Only available when faces are detected.

															
															
○	○	○	○	○	○	○	○	○	○	–	–	○	–	–	–
–	–	○	○	○	○	○	○	○	○	○	○	○	–	–	–
–	–	–	○	○	○	○	○	○	○	○	○	○	○	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	*2	–	–
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
○	*3	○	*3	–	○	○	○	○	○	○	○	○	○	○	○
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	○	–	–	–
○	–	○	–	–	–	–	○	○	○	○	○	○	○	–	–
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

○ Available or set automatically. – Not available.

FUNC. Menu

















Function	Shooting Mode								
		AUTO	P						
Metering Method ( 150)		○	○	○	○	○	○	○	○
	 	–	○	○	–	–	–	–	–
My Colors ( 153)		○	○	○	○	○	○	○	○
	          	–	○	○	–	–	○	○	○
White Balance ( 152)	AWB	○	○	○	○	○	○	○	○
	     	–	○	○	–	–	○	○	○
ISO Speed ( 150)	ISO AUTO	○	○	○	○	○	○	○	○
	ISO 100 ISO 200 ISO 400 ISO 800 ISO 1600 ISO 3200	–	○	○	–	–	–	–	–
Exposure Compensation ( 149)		–	○	○	○	○	○	○	○
Self-Timer ( 100)		○	○	○	○	○	○	○	○
	  	○	○	○	○	○	–	–	–
Self-Timer Settings ( 101)	Delay*3	○	○	○	○	○	–	–	–
	Shots*4	○	○	–	○	○	–	–	–
Focusing Range ( 156)	 	○	○	○	○	○	○	○	○
	 	–	○	○	○	○	–	–	–
Drive Mode ( 155)		○	○	○	○	○	○	○	○
		–	○	–	○	○	–	–	–
Still Image Aspect Ratio ( 113)	16:9 3:2 4:3 1:1	○	○	–	○	–	○	○	○
Resolution ( 114)	L	○	○	○	○	○	○	○	○
	M1 M2	○	○	○	○	–	○	○	○
	M	–	–	–	–	–	–	–	–
	S	○	○	○	○	–	○	○	○
Compression ( 166)		–	○	–	–	–	–	–	–
		○	○	○	○	○	○	○	○
Movie Quality ( 117)	1920	○	○	○	○	○	○	○	○
	1280	○	○	○	○	○	○	○	○
	640	○	○	○	○	○	○	○	○
	240 120	–	–	–	–	–	–	–	–

*1 White balance is not available.

*2 Set in a range of 1 – 5: contrast, sharpness, color saturation, red, green, blue, and skin tone.


*3 Cannot be set to 0 seconds in modes without selection of the number of shots.

*4 One shot (cannot be modified) in modes without selection of the number of shots.








														
														
O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
-	-	-	-	-	-	-	-	-	-	-	-	O	O	-
O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
O	-	O	-	-	-	-	-	-	-	-	-	O	O	-
O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
O	O	O	O	O	O	O	O	O	-	-	O	-	-	-
O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
-	O	O	O	O	O	O	O	O	O	O	O	O	O	O
-	O	O	O	O	O	O	O	O	O	O	O	O	O	O
-	O	O	O	O	O	O	O	O	O	O	O	O	-	-
O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
-	O	O	O	O	O	O	O	O	O	O	O	O	O	O
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
O	-	O	O	O	O	O	O	O	O	O	O	-	-	-
-	-	-	-	*5	-	-	O	O	O	O	O	O	-	-
-	O	-	O	O	O	O	O	O	O	O	O	O	O	O
-	-	-	-	-	-	-	-	-	-	-	O	O	O	O
O	-	O	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	O	O	O	O
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
O	O	O	O	-	O	O	O	O	O	O	O	O	-	-
O	O	O	O	*6	O	O	O	O	O	O	O	O	O	-
O	O	O	O	*6	O	O	O	O	O	O	O	O	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	O

*5 Only [4:3] and [16:9] are available.

O Available or set automatically. - Not available.

*6 Synchronizes with the aspect ratio setting and is automatically set ( 129).


















Shooting Menu

Function		Shooting Mode								
		AUTO	P							
AF Frame (158)	Face AiAF	○	○	○	○	○	○	○	○	
	1-point	–	○	○	○	–	–	–	–	
AF Frame Size (160)* ¹	Normal	–	○	○	○	–	–	–	–	
	Small	–	○	○	○	–	–	–	–	
Digital Zoom (99)	Standard	○	○	–	○	–	○	○	○	
	Off	○	○	○	○	○	○	○	○	
	Digital Tele-converter (1.6x/2.0x)	–	○	–	–	–	–	–	–	
AF-Point Zoom (119)	On	○	○	–	○	–	○	○	○	
	Off	○	○	○	○	○	○	○	○	
Servo AF (160)	On	–	○	–	○	–	–	–	–	
	Off* ²	○	○	○	○	○	○	○	○	
Touch Shutter (102)	On/Off	○	○	○	○	○	–	–	–	
AF-assist Beam (121)	On	○	○	○	○	○	○	○	○	
	Off	○	○	○	○	○	–	○	○	
Flash Settings (103, 115, 121, 164)	Red-Eye On	○	○	○	○	–	○	○	○	
	Red-Eye Off	○	○	○	○	○	○	○	○	
	Red-Eye Lamp On/Off	○	○	○	○	○	○	○	○	
i-Contrast (151)	Auto	○	○	○	–	–	–	–	–	
	Off	–	○	○	○	○	○	○	○	
Hg Lamp Corr. (116)	On/Off	○	–	–	–	–	–	–	–	
Wind Filter (117)	On/Off	○	○	○	○	○	○	○	○	
Review (122)	Off/2 – 10 sec./Hold	○	○	○	○	○	○	○	○	
Review Info (122)	Off/Detailed/Focus Check	○	○	○	○	○	○	○	○	
	On	○	○	○	○	○	○	○	○	
Blink Detection (120)	Off	○	○	○	○	○	○	○	○	
	On	○	○	○	○	○	○	○	○	
Grid Lines (118)	On/Off	○	○	○	○	○	○	○	○	
Icon Layout (166)		○	○	○	○	○	○	○	○	
IS Settings (169)	IS Mode	Off	○	○	○	○	○	○	○	
		Continuous	○	○	○	○	○	○	○	
		Shoot Only	–	○	–	○	○	○	○	
	Powered IS	On	○	○	○	○	○	○	○	
Off		○	○	○	○	○	○	○		
Date Stamp (104)	Off	○	○	○	○	○	○	○		
	Date / Date & Time	○	○	○	○	–	○	○		
Face ID Settings (105)		○	○	○	○	○	○	○		








*1 Available when the AF frame is set to [1-point].

*2 [On] when subject movement is detected in **AUTO** mode.

























*3 Only available for shooting. Subject designation not available.

															
															
O	O	O	-	-	O	O	O	O	O	O	O	O	O	O	O
O	-	O	O	-	O	O	O	O	O	O	O	O	O	O	O
O	-	O	O	-	O	O	O	O	O	O	O	O	O	O	O
O	-	O	-	-	O	O	O	O	O	O	O	O	O	O	O
-	-	-	-	-	-	-	-	-	-	-	-	O	O	O	-
O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
O	-	O	-	-	-	-	O	O	O	O	O	O	O	-	-
O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
-	-	O	-	-	-	-	O	O	O	O	O	O	-	-	-
O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
O	*3	O	*3	-	O	O	O	O	O	O	O	O	O	O	O
O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
-	-	O	-	-	-	-	-	-	-	-	-	O	O	-	-
-	-	O	O	O	O	O	O	O	O	O	O	O	O	-	-
O	-	O	-	-	-	-	-	-	-	-	-	-	-	-	-
-	O	-	O	O	O	O	O	O	O	O	O	O	O	O	O
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
O	O	O	O	-	O	O	O	O	O	O	O	O	O	O	-
O	O	O	O	O	O	O	O	O	O	O	O	O	O	-	-
O	O	O	O	O	O	O	O	O	O	O	O	O	O	-	-
-	-	O	-	-	-	-	-	O	O	O	O	O	-	-	-
O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
O	-	O	O	O	O	O	O	O	O	O	O	O	O	O	O
O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
O	-	O	O	O	O	O	O	O	O	O	O	O	O	O	O
O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
-	-	-	-	-	-	-	-	-	-	-	-	O	O	-	-
O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O





















O Available or set automatically. - Not available.

- When using [Face ID] () to shoot, names will not be displayed in [], [], or [], but they will be recorded in still images.
- Setting available, but when using [Face ID] () to shoot, names will not be displayed in [] or [], and they will not be recorded in movies.





Set up Menu

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 **Playback Menu**

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 **Print Menu**

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Playback Mode FUNC. Menu

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Handling Precautions

- The camera is a high-precision electronic device. Avoid dropping it or subjecting it to strong impact.
- Never bring the camera near magnets, motors, or other devices that generate strong electromagnetic fields, which may cause malfunction or erase image data.
- If water droplets or dirt adheres to the camera or screen, wipe with a dry soft cloth, such as an eyeglass cloth. Do not rub hard or apply force.
- Never use cleaners containing organic solvents to clean the camera or screen.
- Use a blower brush to remove dust from the lens. If cleaning is difficult, contact a Canon Customer Support Help Desk.
- To prevent condensation from forming on the camera after sudden temperature changes (when the camera is transferred from cold to warm environments), put the camera in an airtight, resealable plastic bag and let it gradually adjust to the temperature before removing it from the bag.
- If condensation does form on the camera, stop using it immediately. Continuing to use the camera in this state may damage it. Remove the battery and memory card, and wait until the moisture has evaporated before resuming use.

Specifications

Camera Effective Pixels (Max.)	Approx. 16.1 megapixels
Lens Focal Length	5x zoom: 4.3 (W) – 21.5 (T) mm (35mm film equivalent: 24 (W) – 120 (T) mm)
LCD Monitor	3.2 type color TFT LCD Effective Pixels: Approx. 461,000 dots
File Format	Design rule for Camera File system, DPOF (version 1.1) compliant
Data Type	Still Images: Exif 2.3 (JPEG) Movies: MOV (Image data: H.264; Audio data: Linear PCM (2ch stereo))
Interface	Hi-speed USB HDMI output Analog audio output (stereo) Analog video output (NTSC/PAL)
Wireless LAN Specification	IEEE802.11b/g/n* * 2.4 GHz band only
Wireless LAN Transmission Method	OFDM modulation (IEEE 802.11g/n) DSSS modulation (IEEE 802.11b)
Wireless LAN Connection Mode	Infrastructure mode*, Ad hoc mode * Supports Wi-Fi Protected Setup.
Supported Wireless Channels	1 - 13
Wireless LAN Security	WEP, WPA-PSK (AES/TKIP), WPA2-PSK (AES/TKIP)
Power Source	Battery Pack NB-11L AC Adapter Kit ACK-DC90
Dimensions (Based on CIPA Guidelines)	93.5 x 56.8 x 20.8 mm (3.68 x 2.24 x 0.82 in.)
Weight (Based on CIPA Guidelines)	Approx. 145 g (approx. 5.11 oz.; including the battery and memory card) Approx. 130 g (approx. 4.59 oz.; camera body only)

Number of Shots/Recording Time, Playback Time









Number of Shots		Approx. 170
Movie Recording Time*1		Approx. 30 min.
	Continuous Shooting*2	Approx. 1 hour
Playback Time		Approx. 3 hours


*1 Time under default camera settings, when normal operations are performed, such as shooting, pausing, turning the camera on and off, and zooming.

*2 Time available when shooting the maximum movie length (until recording stops automatically) repeatedly.




- The number of shots that can be taken is based on measurement guidelines of the Camera & Imaging Products Association (CIPA).
- Under some shooting conditions, the number of shots and recording time may be less than mentioned above.
- Number of shots/time with a fully charged battery.


Number of 4:3 Shots per Memory Card

Recording Pixels	Compression Ratio	Number of Shots per Memory Card (Approx. shots)	
		8 GB	32 GB
L (Large) 16M/4608x3456		1058	4272
		1705	6883
M1 (Medium 1) 8M/3264x2448		1996	8059
		3069	12391
M2 (Medium 2) 2M/1600x1200		7442	30040
		12927	52176
S (Small) 0.3M/640x480		27291	110150
		40937	165225




- The values in the table are measured according to Canon standards and may change depending on the subject, memory card and camera settings.
- The values in the table are based on 4:3 aspect ratio. If the aspect ratio is changed ( 113), more images can be shot because the data size per image will be smaller than with 4:3 images. However, since **[M2]** 16:9 images have a setting of 1920 x 1080 pixels, their data size will be larger than 4:3 images.

Recording Time per Memory Card



Image Quality	Recording Time per Memory Card	
	8 GB	32 GB
	29 min. 39 sec.	1 hr. 59 min. 43 sec.
	42 min. 11 sec.* ¹	2 hr. 50 min. 19 sec.* ²
	1 hr. 28 min. 59 sec.	5 hr. 59 min. 10 sec.

*¹ Approx. 27 min. 39 sec. for iFrame movies ( 145).







*² Approx. 1 hr. 51 min. 37 sec. for iFrame movies ( 145).

- The values in the table are measured according to Canon standards and may change depending on the subject, memory card and camera settings.
- Recording will automatically stop when the clip file size reaches 4 GB, or when the recording time reaches approximately 10 minutes when shooting in  or , and approximately 1 hour when shooting in .
- Recording may stop even if the maximum clip length has not been reached on some memory cards. SD Speed Class 6 or higher memory cards are recommended.

Flash Range



Maximum wide angle (	50 cm – 3.5 m (1.6 – 11 ft.)
Maximum telephoto (	90 cm – 2.0 m (3.0 – 6.6 ft.)

Shooting Range

Shooting Mode	Focusing Range	Maximum Wide Angle (	Maximum Telephoto (
	–	3 cm (1.2 in.) – infinity	90 cm (3.0 ft.) – infinity
Other modes		5 cm (2.0 in.) – infinity	90 cm (3.0 ft.) – infinity
	 *	3 – 50 cm (1.2 in. – 1.6 ft.)	–
	 *	3 m (9.8 ft.) – infinity	3 m (9.8 ft.) – infinity

* Not available in some shooting modes.

Continuous Shooting Speed

Shooting Mode	Speed
	Approx. 1.9 shots/sec.
	Approx. 5.2 shots/sec.

Shutter Speed

<AUTO> mode, automatically set range	1 – 1/2000 sec.
Range in all shooting modes	15 – 1/2000 sec.

Aperture

f/number	f/2.7, f/8.0 (W), f/5.9, f/17 (T)
----------	-----------------------------------

Battery Pack NB-11L

Type:	Rechargeable lithium-ion battery
Rated Voltage:	3.6 V DC
Rated Capacity:	680 mAh
Charging Cycles:	Approx. 300 times
Operating Temperature:	0 – 40 °C (32 – 104 °F)
Dimensions:	34.6 x 40.2 x 5.2 mm (1.36 x 1.58 x 0.20 in.)
Weight:	Approx. 13 g (approx. 0.46 oz.)

Battery Charger CB-2LD/CB-2LDE

Rated Input:	100 – 240 V AC (50/60 Hz)
Rated Output:	4.2 V DC, 0.41 A
Charging Time:	Approx. 2 hours (when using NB-11L)
Charge Indicator:	Charging: orange / Fully charged: green (two-indicator system)
Operating Temperature:	5 – 40 °C (41 – 104 °F)
Dimensions:	85.0 x 57.6 x 24.3 mm (3.35 x 2.27 x 0.96 in.)
Weight:	CB-2LD: Approx. 59 g (approx. 2.08 oz.) CB-2LDE: Approx. 56 g (approx. 1.98 oz.) (excluding power cord)

- All data is based on tests by Canon.
- Camera specifications or appearance are subject to change without notice.

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MEMO

CAUTION

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

Battery Charger CB-2LDE

In normal use, keep the LED side face-up.

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