



Canon

PowerShot SX160 IS

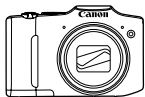
Camera User Guide

- Before use, be sure to read this guide, including the safety precautions.
- 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

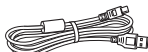
Before use, make sure the following items are included in the package. If anything is missing, contact your camera dealer.



Camera



AA Alkaline Batteries (x2)



Interface Cable
IFC-400PCU



Wrist Strap
WS-800



DIGITAL CAMERA
Solution Disk*



Getting Started



Warranty System
Booklet

* Contains software (book 25).

• A memory card is not included (see below).

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.
- For information on your camera's warranty, please refer to the Warranty information provided with your camera.
For Canon Customer Support, please refer to the warranty information for contact information.
- 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.

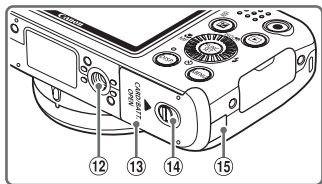
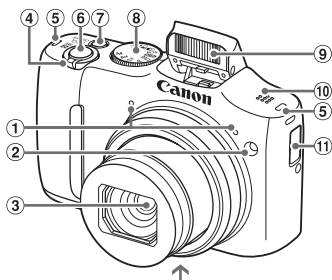
Basic Guide (📖 13)

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

Advanced Guide (📖 33)

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

Part Names and Conventions in This Guide



① Microphone

② Lamp

③ Lens

④ Zoom lever

Shooting: <[📷] (telephoto)> /

<[📷] (wide angle)>

Playback: <[🔍] (magnify)> /

<[📷] (index)>

⑤ Strap mount

⑥ Shutter button

⑦ ON/OFF button

⑧ Mode dial

⑨ Flash

⑩ Speaker

⑪ Date/time battery holder

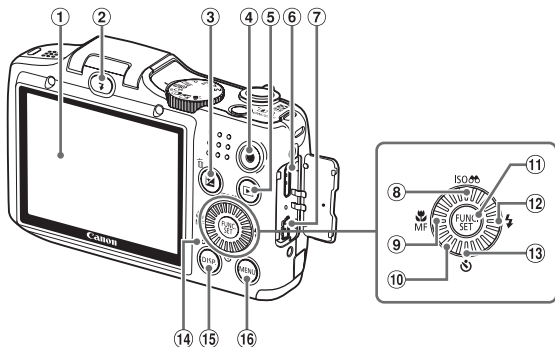
⑫ Tripod socket

⑬ Memory card/battery cover

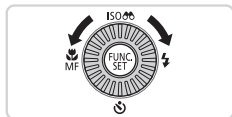
⑭ Lock release switch

⑮ DC coupler cable port

- In this guide, icons are used to represent the corresponding camera buttons and dials on which they appear or which they resemble.
- The following camera buttons and controls are represented by icons.
 - <▲> Up button ⑧ on back
 - <◀> Left button ⑨ on back
 - <▶> Right button ⑫ on back
 - <▼> Down button ⑬ on back
 - <🌀> Control dial ⑩ on back
- 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)
- Instructions in this guide apply to the camera under default settings.



- ① Screen (LCD monitor)
- ② <Flash up> button
- ③ <Exposure compensation> / <Single image erase> button
- ④ Movie button
- ⑤ <Playback> button
- ⑥ HDMI™ terminal
- ⑦ DIGITAL terminal
- ⑧ <ISO (ISO speed)> / <Filter image display> / Up button
- ⑨ <Macro> / <MF (Manual focus)> / Left button
- ⑩ Control dial
- ⑪ FUNC./SET button
- ⑫ <Flash> / Right button
- ⑬ <Self-timer> / Down button
- ⑭ Indicator
- ⑮ <DISP. (Display)> button
- ⑯ <MENU> button



- Turning the control dial is one way to choose setting items, switch images, and perform other operations. Most of these operations are also possible with the <▲><▼><◀><▶> buttons.

- 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. Date/time battery: Dangerous if swallowed. If this occurs, contact a doctor immediately.

- **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 batteries.

- **Use only the recommended batteries.**
- **Do not place the batteries near or in direct flame.**

The batteries may explode or leak, resulting in electrical shock or fire. This could cause injury and damage the surroundings. In the event that batteries leak 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.

- **Be careful not to subject the screen to strong impacts.**

If the screen cracks, injury may result from the broken fragments.

- **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 batteries, resulting in electrical shock, fire, burns or other injuries.

- **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 batteries when you are not using the camera.**

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

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

Contacting other metal materials may lead to fire or explosions.

- **Do not charge batteries of different types at the same time, or use older batteries together with newer batteries.**
- **Do not insert the batteries with the + and – terminals reversed.**

This may cause the product to malfunction.

- **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.



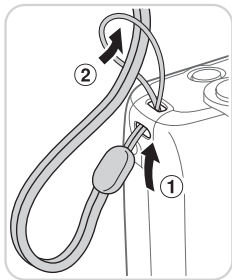
Basic Guide

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

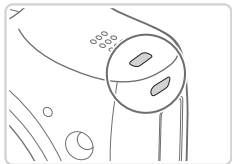
Initial Preparations

Prepare for shooting as follows.

Attaching 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).



- The strap can also be attached to the left side of the camera.

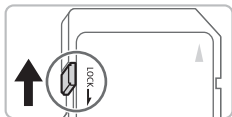
Holding the Camera



- 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. If you have raised the flash, do not rest your fingers on it.

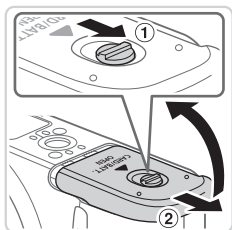
Inserting the Batteries and Memory Card

Insert the included batteries 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 (📖 146).



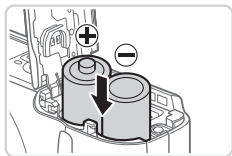
1 Check the card's write-protect tab.

- 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.



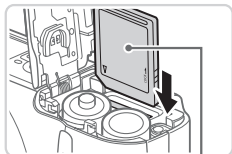
2 Open the cover.

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



3 Insert the batteries.

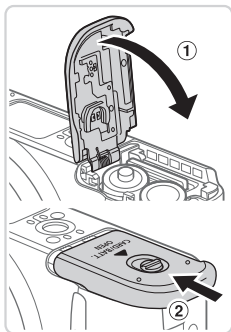
- Insert the batteries as shown.



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.

Label



5 Close the cover.

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

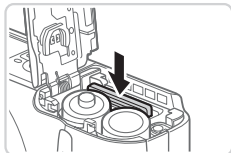
Compatible Batteries

Use AA alkaline batteries or Canon AA NiMH batteries (sold separately, 157).



- Due to the inconsistent performance of other batteries, use of specified batteries only is recommended.
- NiMH batteries last longer in cameras than alkaline batteries do, especially in cold weather.
- For guidelines on how many shots or hours of recording are possible with various batteries, see “Specifications” (203).

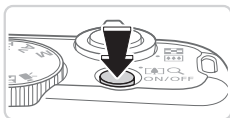
Removing the Memory Card



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

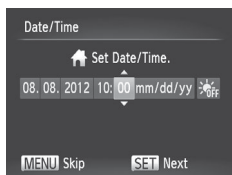
Setting the Date and Time

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 (p. 52).



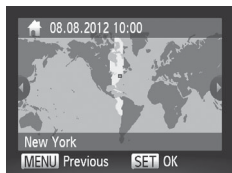
1 Turn the camera on.

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



2 Set the date and time.

- Press the <◀>>> buttons to choose an option.
- Press the <▲>>> buttons or turn the <◉> dial to specify the date and time.
- When finished, press the <FUNC SET> button.



3 Set the home time zone.

- Press the <◀>>> buttons or turn the <◉> dial to choose your home time zone.



4 Finish the setup process.

- Press the <FUNC SET> button when finished. After a confirmation message, the setting screen is no longer displayed.
- To turn off the camera, press the ON/OFF button.



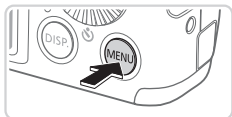
- Unless you set the date, time, and home time zone, the [Date/Time] screen will be displayed each time you turn the camera on. Specify the correct information.



- To set daylight saving time (1 hour ahead), choose [☀️OFF] in step 2 and then choose [☀️] by pressing the <▲><▼> buttons or turning the <⌚> dial.

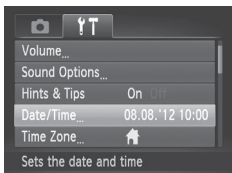
■ Changing the Date and Time

Adjust the date and time as follows.



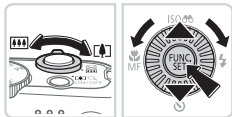
1 Access the camera menu.

- Press the <MENU> button.



2 Choose [Date/Time].

- Move the zoom lever to choose the [🔍] tab.
- Press the <▲><▼> buttons or turn the <⌚> dial to choose [Date/Time], and then press the <FUNC SET> button.



3 Change the date and time.

- Follow step 2 on 17 to adjust the settings.
- Press the <MENU> button to close the menu.



- Once the date/time battery is depleted, the [Date/Time] screen will be displayed when you turn the camera on. Follow the steps on 17 to set the date and time.
- If the [Date/Time] screen is displayed each time you turn the camera on, even after you have set the date and time correctly, replace the date/time battery with a new one (156).

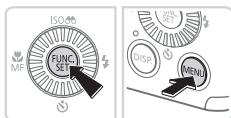
Display Language

The display language can be changed as needed.



1 Enter Playback mode.

- Press the <▶> button.



2 Access the setting screen.

- Press and hold the <FUNC SET> button, and then immediately press the <MENU> button.

English	Suomi	Magyar
Deutsch	Norsk	Türkçe
Français	Svenska	繁體中文
Nederlands	Español	한국어
Dansk	简体中文	മലയാളം
Italiano	Русский	العربية
Українська	Português	Română
B. Malaysia	Ελληνικά	فارسی
Indonesian	Polski	हिन्दी
Tiếng Việt	Čeština	日本語

3 Set the display language.

- Press the <▲><▼><◀><▶> buttons or turn the <◉> dial to choose a language, and then press the <FUNC SET> button.
- ▶ Once the display language has been set, the setting screen is no longer displayed.



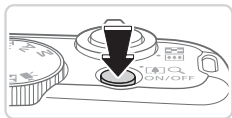
- The current time is displayed if you wait too long in step 2 after pressing the <FUNC SET> button before you press the <MENU> button. In this case, press the <◉> button to dismiss the time display and repeat step 2.
- You can also change the display language by pressing the <MENU> button and choosing [Language] on the [11] 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.



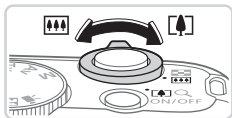
1 Turn the camera on.

- Press the ON/OFF button.
- ▶ The startup screen is displayed.



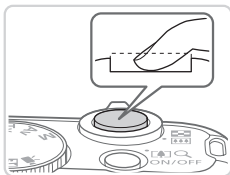
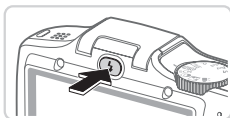
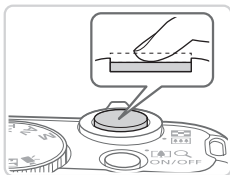
2 Enter <AUTO> mode.

- Set the mode dial to <AUTO>.
- Aim the camera at the subject. The camera will make a slight clicking noise as it determines the scene.
- ▶ Icons representing the scene and image stabilization mode are displayed in the upper right of the screen.
- ▶ Frames displayed around any detected subjects indicate that they are in focus.



3 Compose the shot.

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



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.

- If [Raise the flash] appears on the screen, press the $\langle \text{flash icon} \rangle$ button to raise the flash. It will fire when shooting. If you prefer not to use the flash, push it down with your finger, into the camera.

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.

- Press the movie button. The camera beeps once as recording begins, and [●Rec] is displayed with the elapsed time.
- ▶ Black bars displayed on the top and bottom edges of the screen indicate image areas not recorded.
- ▶ Frames displayed around any detected faces indicate that they are in focus.
- Once recording begins, you can take your finger off the movie button.

② Finish shooting.

- Press the movie button again to stop shooting. 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 previous image, press the <◀> button or turn the <◉> dial counterclockwise. To view the next image, press the <▶> button or turn the <◉> dial clockwise.
- Press and hold the <◀><▶> buttons to browse through images quickly. Images appear grainy at this time.



- To access Scroll Display mode, turn the <◉> dial rapidly. In this mode, turn the <◉> dial to browse through images.
- To return to single-image display, press the <◉ SET > button.



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



Volume

3 Play movies.

- Press the **<FUNC/SET>** button to access the movie control panel, choose **[▶]** (either press the **<◀>▶>** buttons or turn the **<◉>** dial), and then press the **<FUNC/SET>** button again.
- ▶ Playback now begins, and after the movie is finished, **[SET]** is displayed.
- To adjust the volume, press the **<▲><▼>** buttons.



- 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.

- Press the **<◀>▶>** buttons or turn the **<◉>** dial to choose an image.

2 Erase the image.

- Press the **<🗑>** button.
- After **[Erase?]** is displayed, press the **<◀>▶>** buttons or turn the **<◉>** dial to choose **[Erase]**, and then press the **<FUNC/SET>** button.
- ▶ The current image is now erased.
- To cancel erasure, press the **<◀>▶>** buttons or turn the **<◉>** dial to choose **[Cancel]**, and then press the **<FUNC/SET>** button.



- You can also erase all images at once (📖124).

Included Software, Manuals

The software and the manuals on the included CD-ROMs (📖2) are introduced below, with instructions for installation, saving images to a computer, and using the manuals.

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.

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.

	Windows	Macintosh
Operating System	Windows 7 SP1 Windows Vista SP2 Windows XP SP3	Mac OS X 10.6 – 10.7
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 1.66 GHz or higher	Mac OS X 10.7: Core 2 Duo or higher Mac OS X 10.6: Core Duo 1.83 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 1 GB or more	Mac OS X 10.7: 2 GB or more Mac OS X 10.6: 1 GB or more
Interfaces	USB	
Free Hard Disk Space	440 MB or more*	550 MB or more
Display	1024 x 768 resolution or higher	

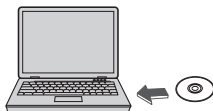
* Silverlight 4 or later (max. 100 MB) must be installed, and in Windows XP, Microsoft .NET Framework 3.0 or later (max. 500 MB) must be installed. Installation may take some time, depending on computer performance.



- 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.



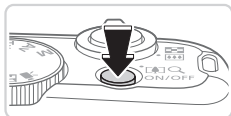
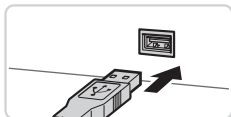
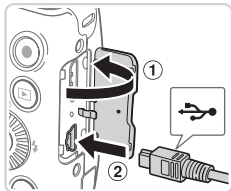
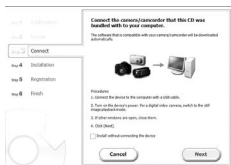
1 Insert the CD-ROM in the computer's CD-ROM drive.

- 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 28 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



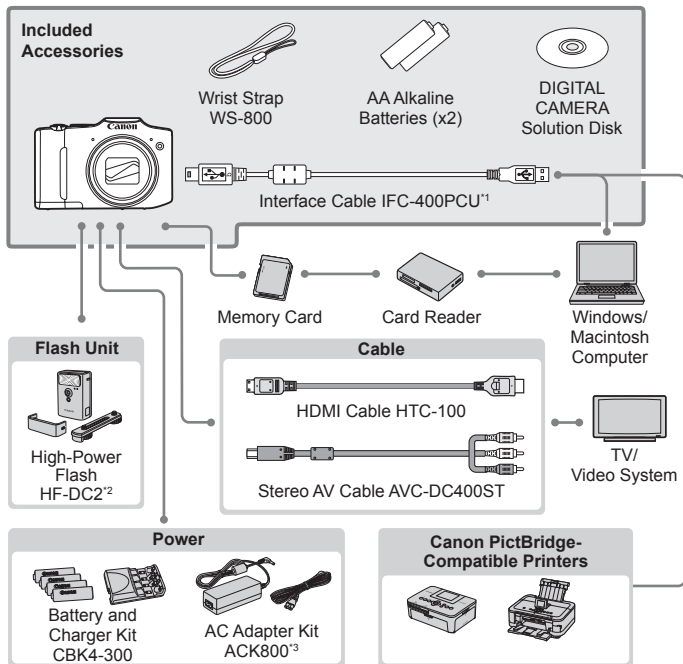
3 Save the images to the computer.

- 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* ( 25).



- 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.

Accessories



^{*1} Also available for purchase separately.

^{*2} High-Power Flash HF-DC1 also supported.

^{*3} DC Coupler DR-DC10 is required.

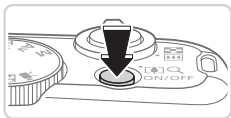
Use of genuine Canon accessories is recommended.

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.

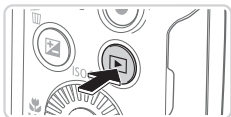
Camera Basics

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



Shooting Mode

- Press the ON/OFF button to turn the camera on and prepare for shooting.
- To turn the camera off, press the ON/OFF 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 (📖 35).
- 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 (📖 35).

Power Saving in Playback Mode

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

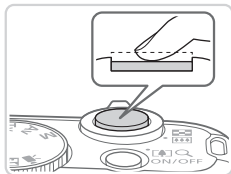


- Adjust the timing of automatic camera and screen deactivation as needed (📖 149).
- Power saving is not active while the camera is connected to a computer (📖 28).

Shutter Button

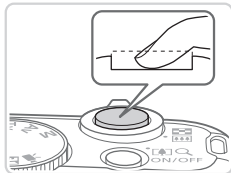
To ensure your shots are in focus, always press the shutter button lightly (halfway) initially. Once the subject is in focus, press the button all the way down to shoot.

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 Modes

Use the mode dial to access each shooting mode.

Live View Control Mode

Customize image brightness or colors when shooting (📖66).

Auto Mode

Fully automatic shooting, with camera-determined settings (📖20, 42).

Special Scene Mode

Shoot with optimal settings for specific scenes (📖67).

Creative Filters Mode

Add a variety of effects to images when shooting (📖71).

P, Tv, Av, and M Modes

Take a variety of shots using your preferred settings (📖79, 103).

Movie Mode

For shooting movies (📖77).

You can also shoot movies when the mode dial is not set to Movie mode, simply by pressing the movie button.

Discreet Mode

Shoot without the flash or camera sounds (📖76).



- You can turn the mode dial to switch to Shooting mode from Playback mode.

Shooting Display Options

Press the <DISP.> button to view other information on the screen, or to hide the information. For details on the information displayed, see 📖188.



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 📖112.

FUNC. Menu

Configure commonly used functions through the FUNC. menu as follows. Note that menu items and options vary depending on the shooting mode (194 – 195).



1 Access the FUNC. menu.

- Press the button.



Options

Menu Items

2 Choose a menu item.

- Press the buttons to choose a menu item.
- ▶ Available options are shown at the bottom of the screen.



3 Choose an option.

- Press the buttons or turn the dial to choose an option.
- Options labeled with a can be configured by pressing the button.
- To return to the menu items, press the button.



4 Finish the setup process.

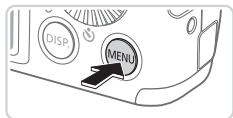
- Press the button.
- ▶ The screen before you pressed the button in step 1 is displayed again, showing the option you configured.



- To undo any accidental setting changes, you can restore the camera's default settings (152).

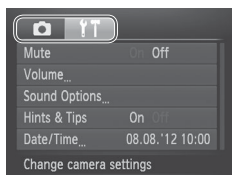
MENU Menu

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 (📖 196 – 200).



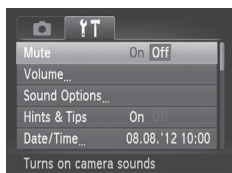
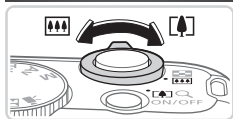
1 Access the menu.

- Press the <MENU> button.



2 Choose a tab.

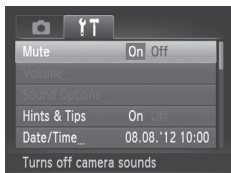
- Move the zoom lever to choose a tab.
- After you have pressed the <▲><▼> buttons to choose a tab initially, you can switch between tabs by pressing the <◀><▶> buttons.



3 Choose a setting.

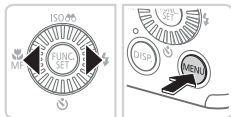
- Press the <▲><▼> buttons or turn the <🔍> dial to choose a setting.
- To choose settings with options not shown, first press the <FUNC. SET> or <▶> button to switch screens, and then either press the <▲><▼> buttons or turn the <🔍> dial to select the setting.
- To return to the previous screen, press the <MENU> button.





4 Choose an option.

- Press the <◀>>> buttons to choose an option.



5 Finish the setup process.

- Press the <MENU> button to return to the screen displayed before you pressed the <MENU> button in step 1.



- To undo any accidental setting changes, you can restore the camera's default settings (📖 152).

Indicator Display

The indicator on the back of the camera (📖5) lights up or blinks depending on the camera status.

Color	Indicator Status	Camera Status
Green	On	Connected to a computer (📖29), or display off (📖34, 149)
	Blinking	Starting up, recording/reading/transmitting images



- 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.

Clock

You can check the current time.



- Press and hold the button.
- The current time appears.
- If you hold the camera vertically while using the clock function, it will switch to vertical display. Press the buttons or turn the dial to change the display color.
- Press the button again to cancel the clock display.



- When the camera is off, press and hold the button, then press the ON/OFF button to display the clock.

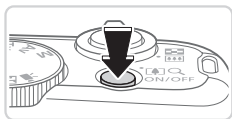
2

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.



1 Turn the camera on.

- Press the ON/OFF button.
- ▶ The startup screen is displayed.



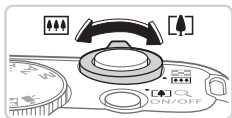
2 Enter <AUTO> mode.

- Set the mode dial to <AUTO>.
- Aim the camera at the subject. The camera will make a slight clicking noise as it determines the scene.
- ▶ Icons representing the scene and image stabilization mode are displayed in the upper right of the screen (see 46, 47).
- ▶ Frames displayed around any detected subjects indicate that they are in focus.

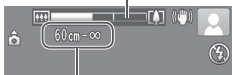


3 Compose the shot.

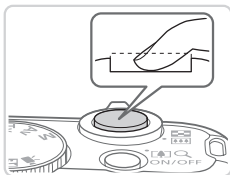
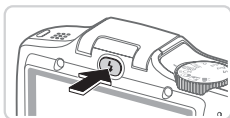
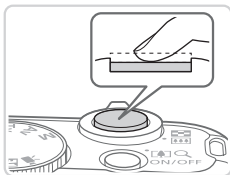
- To zoom in and enlarge the subject, move the zoom lever toward <[Telephoto icon]> (telephoto), and to zoom away from the subject, move it toward <[Wide angle icon]> (wide angle). (A zoom bar showing the zoom position is displayed.)



Zoom Bar



Focus Range (approx.)



4 Shoot.

Shooting Still Images

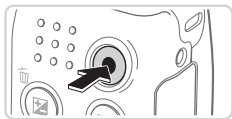
① Focus.

- 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.

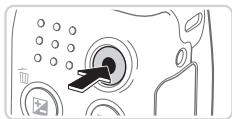
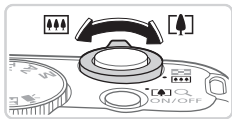
- If [Raise the flash] appears on the screen, press the <⚡> button to raise the flash. It will fire when shooting. If you prefer not to use the flash, push it down with your finger, into the camera.

② Shoot.

- Press the shutter button all the way down.
- ▶ As the camera shoots, a shutter sound is played, and in low-light conditions when you have raised the flash, it 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.

- Press the movie button. The camera beeps once as recording begins, and [●Rec] is displayed with the elapsed time.
- ▶ Black bars displayed on the top and bottom edges of the screen indicate image areas not recorded.
- ▶ Frames displayed around any detected faces indicate that they are in focus.
- Once recording begins, you can take your finger off the movie button.

② Resize the subject and recompose the shot as needed.

- To resize the subject, do the same thing as in step 3 on 42. 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.

- Press the movie button again to stop shooting. The camera beeps twice as recording stops.
- Recording will stop automatically when the memory card becomes full.

Still Images/Movies



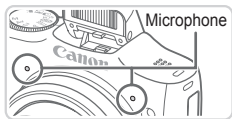
- To restore camera sound if you have accidentally deactivated it (by holding the <DISP.> button down while turning the camera on), press the <MENU> button and choose [Mute] on the [YT] tab, and then press the <◀> buttons to choose [Off].

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” (📖203).
- 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” (📖203).
- To reduce red-eye and to assist in focusing, the lamp may be activated when shooting in low-light conditions.
- A blinking [⚡] icon displayed with the message [Charging the flash] 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.

Movies



- 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 movie button when shooting movies, because sounds made by the camera will be recorded.



- 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.

Subject		People		Other Subjects			Icon Background Color	
			In Motion ^{*1}	Shadows on Face ^{*1}		In Motion ^{*1}		At Close Range
Background								
Bright								Gray
	Backlit			—				
With Blue Sky								Light Blue
	Backlit			—				
Sunsets		—					—	Orange
Spotlights								Dark Blue
Dark								
	Tripod Used		—				—	

*1 Not displayed for movies.







*2 Displayed in dark scenes when the camera is held still, as when mounted on a tripod.



- Try shooting in <P> mode (79) 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.

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] (📖101). 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.

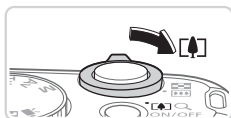
- When you are pressing the shutter button halfway and the camera detects subject movement, a blue frame is displayed, and the focus and image brightness are constantly adjusted (Servo AF).



- Try shooting in <P> mode (79) if no frames are displayed, if frames are not displayed around desired subjects, or if frames are displayed on the background or similar areas.

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 64x enlargement.



Zoom Factor



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 (55) the maximum zoom factor can be achieved by following step 1.
- Zoomed images may look grainy, under some resolution settings (55) and zoom factors. In this case, the zoom factor is shown in blue.



- Focal length when optical and digital zoom are combined is as follows (35mm film equivalent).
28 – 1792 mm (28 – 448 mm with optical zoom alone)
- To deactivate digital zoom, press the **<MENU>** button, choose [Digital Zoom] on the **[CAMERA]** tab, and then choose [Off].

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.

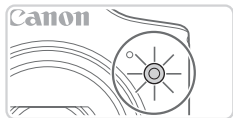


1 Configure the setting.

- Press the <▼> button, choose [10] (either press the <▲><▼> buttons or turn the <DISP> dial), and then press the <FUNC. SET> button.
- ▶ Once the setting is complete, [10] 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: Press the movie button.
- ▶ 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, press the <MENU> button.
- 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 50 and choose [2].
- ▶ Once the setting is complete, [2] is displayed.
- Follow step 2 on 50 to shoot.

Customizing the Self-Timer

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

1 Choose [2].

- Following step 1 on 50, choose [2] and press the <MENU> button immediately.

2 Configure the setting.

- Press the <▲><▼> buttons to choose [Delay] or [Shots].
- Press the <◀><▶> buttons or turn the <DISP> dial to choose a value, and then press the <FUNC SET> button.
- ▶ Once the setting is complete, [2] is displayed.
- Follow step 2 on 50 to shoot.





- For movies shot using the self-timer, [Delay] represents the delay before recording begins, but the [Shots] setting has no effect.

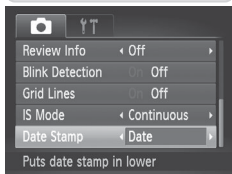
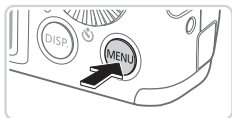


- When you specify multiple shots, image brightness and white balance are determined by the first shot. More time is required between shots when the flash fires or when you have specified to take many shots. Shooting will stop automatically when the memory card becomes full.
- When a delay longer than 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

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 (📖 17).



1 Configure the setting.

- Press the <MENU> button, choose [Date Stamp] on the [📷] tab, and then choose the desired option (📖 38).
- ▶ 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* (125).
 - Print using printer functions (166)
 - Use camera DPOF print settings (173) to print

Still Images

Choosing Subjects to Focus On (Tracking AF)

Shoot after choosing a subject to focus on as follows.



1 Specify Tracking AF.

- Press the <▲> button.
- ▶ [] is displayed in the center of the screen.



2 Choose a subject to focus on.

- Aim the camera so that [] is on the desired subject, and then press the shutter button halfway.
- ▶ A blue frame is displayed, and the camera will keep the subject in focus and image brightness adjusted (Servo AF).

3 Shoot.

- Press the shutter button all the way down to shoot.
- Press the <▲> button to cancel Tracking AF.





- Tracking may not be possible when subjects are too small or move too rapidly, or when subject color or brightness matches that of the background too closely.

Changing the Aspect Ratio

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



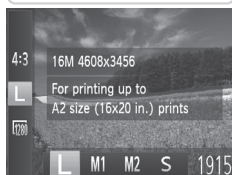
Configure the setting.

- Press the  button, choose **[4:3]** in the menu, and choose the desired option ( 37).
- ▶ 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	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	Native aspect ratio of the camera screen, also used for display on standard-definition televisions or similar display devices, or for printing images at 3.5 x 5-inch or A-series sizes.
1:1	Square aspect ratio.

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” (203).



Configure the setting.

- Press the $\langle \text{FUNC. SET} \rangle$ button, choose [**L**] in the menu, and choose the desired option (37).
- ▶ The option you configured is now displayed.
- To restore the original setting, repeat this process but choose [**L**].

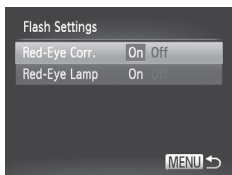
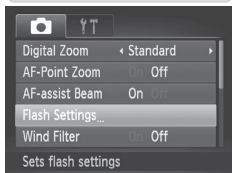
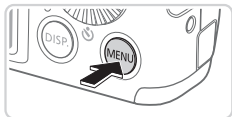
Guidelines for Choosing Resolution Based on Paper Size (for 4:3 Images)

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.

- Press the <MENU> button, choose [Flash Settings] on the [📷] tab, and then press the <FUNC SET> button (📖 38).

2 Configure the setting.

- Choose [Red-Eye Corr.], and then choose [On] (📖 38).
- ▶ 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 (📖 138).
- You can also access the screen in step 2 when the flash is up by pressing the <▶> button and immediately pressing the <MENU> button.

Changing Movie Image Quality

2 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” (203).



Configure the setting.

- Press the <FUNC.> button, choose [1280] in the menu, and choose the desired option (37).
- ▶ The option you configured is now displayed.
- To restore the original setting, repeat this process but choose [1280].



Image Quality	Resolution	Frame Rate	Details
1280	1280 x 720	25 fps*	For shooting in HD
640	640 x 480	30 fps	For shooting in standard definition

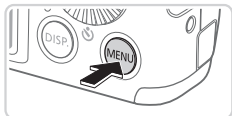
* [1280] movies are played back at 30 fps.



- In [1280] mode, black bars displayed on the top and bottom edges of the screen indicate image areas not recorded.

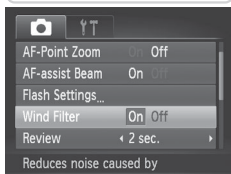
Using the Wind Filter

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.



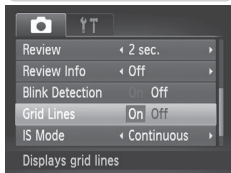
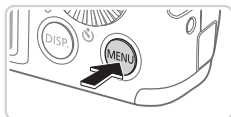
Configure the setting.

- Press the <MENU> button, choose [Wind Filter] on the [CAMERA] tab, and then choose [On] (see 38).
- 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.

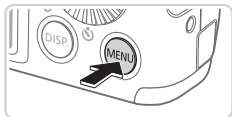
- Press the <MENU> button, choose [Grid Lines] on the [📷] tab, and then choose [On] (📖38).
- ▶ Once the setting is complete, grid lines are displayed on the screen.
- To restore the original setting, repeat this process but choose [Off].



- Grid lines are not recorded in your shots.

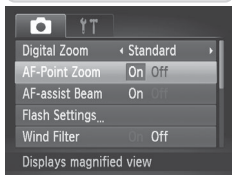
Magnifying the Area in Focus

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.

- Press the <MENU> button, choose [AF-Point Zoom] on the [📷] tab, and then choose [On] (📖38).



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.




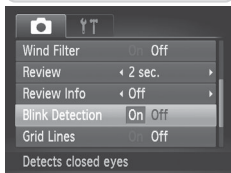
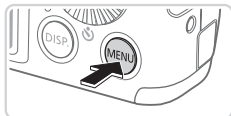
- The area in focus will not be magnified when you press the shutter button halfway if a face was not detected, if the person is too close to the camera and their face is too large for the screen, or if the camera detects subject movement.





- The display will not magnify when using the digital zoom (📖49) or Tracking AF (📖94).

Checking for Closed Eyes


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





1 Configure the setting.

- Press the <MENU> button, choose [Blink Detection] on the [>] tab, and then choose [On] ( 38).

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 1.



- When you have specified multiple shots in [>] mode, this function is only available for the final shot.
- The frame is not displayed when [Review] is set to [Quick] ( 63).

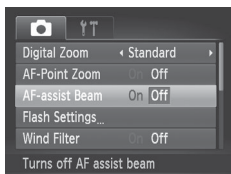
Customizing Camera Operation

Customize shooting functions on the [CAMERA] tab of the menu as follows. For instructions on menu functions, see “MENU Menu” (p. 38).

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.



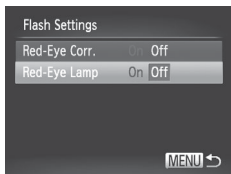
Configure the setting.

- Press the <MENU> button, choose [AF-assist Beam] on the [CAMERA] tab, and then choose [Off] (p. 38).
- 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.

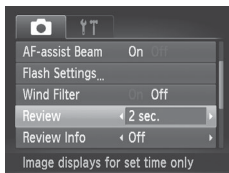
- Press the <MENU> button, choose [Flash Settings] on the [CAMERA] tab, and then press the <FUNC/SET> button (p. 38).

2 Configure the setting.

- Choose [Red-Eye Lamp], and then choose [Off] (p. 38).
- 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.



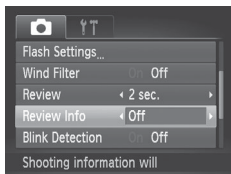
Configure the setting.

- Press the <MENU> button, choose [Review] on the [CAMERA] tab, and then choose the desired option (38).
- To restore the original setting, repeat this process but choose [2 sec.].

Quick	Displays images only until you can shoot again.
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.

- Press the <MENU> button, choose [Review Info] on the [CAMERA] tab, and then choose the desired option (138).
- To restore the original setting, repeat this process but choose [Off].

Off	Displays only the image.
Detailed	Displays shooting details (190).
Focus Check	Shows the area in the AF frame magnified, enabling you to check the focus. Follow the steps in "Checking the Focus" (113).



- This setting is set to [Off] and cannot be changed when [Review] (63) is set to [Quick] or [Off].

3

Other Shooting Modes

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



Brightness/Color Customization (Live View Control)

Image brightness or colors when shooting can be easily customized as follows.



1 Enter <LIVE> mode.

- Set the mode dial to <LIVE>.



2 Configure the setting.

- Press the <FUNC/SET> button to access the setting screen. Press the <▲><▼> buttons to choose a setting item, and then press the <◀><▶> buttons or turn the <◉> dial to adjust the value as you watch the screen.
- Press the <FUNC/SET> button.

3 Shoot.

Brightness	For brighter images, adjust the level to the right, and for darker images, adjust it to the left.
Color	For more vivid images, adjust the level to the right, and for more subdued images, adjust it to the left.
Tone	For a warm, reddish tone, adjust the level to the right, and for a cool, bluish tone, adjust it to the left.

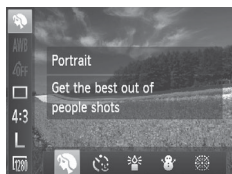
Specific Scenes

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



1 Enter <SCN> mode.

- Set the mode dial to <SCN>.



2 Choose a shooting mode.

- Press the <FUNC/SET> button, choose [P] in the menu, and then choose a shooting mode (p.37).

3 Shoot.

Still Images

Movies

Shoot portraits (Portrait)

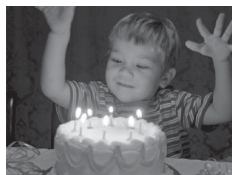
- Take shots of people with a softening effect.



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.





Still Images

Movies


Shoot fireworks (Fireworks)

- Vivid shots of fireworks.



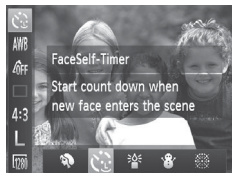
- In  mode, mount the camera on a tripod or take other measures to keep it still and prevent camera shake. Additionally, you should set [IS Mode] to [Off] when using a tripod or other means to hold the camera still ( 101).



-  mode resolution is [M] (2304 x 1728) and cannot be changed.

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 (📖 93). This is useful when including yourself in group photos or similar shots.

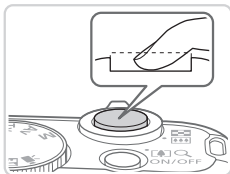


1 Choose [👤].

- Follow steps 1 – 2 on 📖 67 and choose [👤].

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.

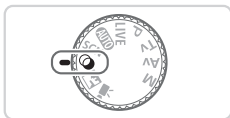
- ▶ After the camera detects a new face, the lamp blinking and self-timer sound will speed up. (When the flash fires, the lamp will remain lit.) About two seconds later, the camera will shoot.
- To cancel shooting after you have triggered the self-timer, press the <MENU> button.



- Even if your face is not detected after you join the others in the shooting area, the camera will shoot about 15 seconds later.
- To change the number of shots, after choosing [C] in steps 1 – 2 on 69, press the <DISP.> button, and then either press the <◀><▶> buttons or turn the <◉> dial to choose a value, and then press the <DISP.> button again.

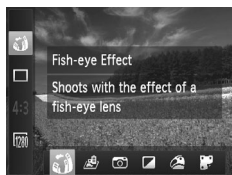
Image Effects (Creative Filters)

Add a variety of effects to images when shooting.



1 Enter <Fn> mode.

- Set the mode dial to <Fn>.



2 Choose a shooting mode.

- Press the <Fn> button, choose [Fn] in the menu, and then choose a shooting mode (p. 37).

3 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 [Parrot] and [Poster] 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 71 and choose [📷].

2 Choose an effect level.

- Press the <DISP.> button, choose an effect level (either press the <◀>▶> buttons or turn the dial), and then press the <DISP.> button again.
- ▶ 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.

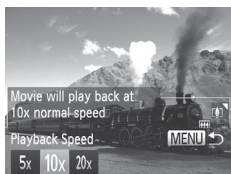
Shots Resembling Miniature Models (Miniature Effect)

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 71 and choose [📷].
- ▶ A white frame is displayed, indicating the image area that will not be blurred.



2 Choose the area to keep in focus.

- Press the <DISP> button.
- Move the zoom lever to resize the frame, and press the <▲><▼> buttons to move it.

3 For movies, choose the movie playback speed.

- Press the <MENU> button, and then choose the speed by pressing the <◀><▶> buttons or turning the <⦿> dial.

4 Return to the shooting screen and shoot.

- Press the <MENU> button to return to the shooting screen, and then 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 (from horizontal to vertical or vice-versa), press the **<FUNC>** button in step 2. You can move the frame in vertical orientation by pressing the **<◀><▶>** buttons.
- Holding the camera vertically will change the orientation of the frame.
- Movie image quality is **[640]** at an aspect ratio of **[4:3]** and **[1280]** at an aspect ratio of **[16:9]** (p. 54). These quality settings cannot be changed.

Still Images

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 p. 71 and choose **[☒]**.

2 Choose a color tone.

- Press the **<DISP>** button, choose a color tone (either press the **<◀><▶>** buttons or turn the **<◉>** dial), and then press the **<DISP>** button again.
- ▶ 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 in Monochrome

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

1 Choose [■].

- Follow steps 1 – 2 on  71 and choose [■].



2 Choose a color tone.

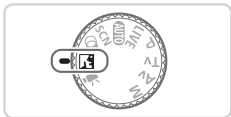
- Press the <DISP.> button, choose a color tone (either press the <◀>> buttons or turn the <⊙> dial), and then press the <DISP.> button again.
- ▶ A preview is shown of how your shot will look with the effect applied.

3 Shoot.


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

Discreet Mode

Shoot without activating camera sounds, the flash, or lamp as follows. Use this mode where camera sounds, the flash, and lights are prohibited.




1 Enter mode.

- Set the mode dial to .

2 Shoot.



- In  mode, even playback sounds are muted. Sounds of camera operations are muted, and movie audio is also muted.

Shooting Various Movies

Shooting Movies in <[Movie Icon]> Mode



1 Enter <[Movie Icon]> mode.

- Set the mode dial to <[Movie Icon]>.
- ▶ Black bars displayed on the top and bottom edges of the screen indicate image areas not recorded.

2 Configure the settings to suit the movie (192 – 199).

3 Shoot.

- Press the movie button.
- To stop movie recording, press the movie button again.

Locking or Changing Image Brightness Before Shooting

Before shooting, you can lock the exposure or change it in 1/3-stop increments within a range of -2 to +2.



1 Lock the exposure.

- After releasing the shutter button, press the <[Up Arrow]> button to lock the exposure. The exposure shift bar is displayed.
- To unlock the exposure, press the <[Up Arrow]> button again.

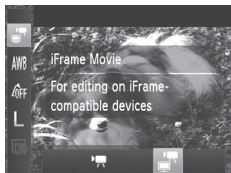
2 Adjust the exposure.

- Turn the <[Exposure Compensation Dial]> dial to adjust the exposure, as you watch the screen.

3 Shoot.

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 (📖25).



1 Choose [📺].

- Set the mode dial to <📺>.
- Press the <FUNC/SET> button, choose [📺] in the menu, and then choose [📺] (📖37).
- ▶ Black bars displayed on the top and bottom edges of the screen indicate image areas not recorded.

2 Shoot (📖77).

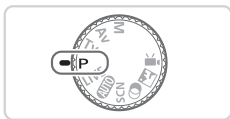


- The resolution is [1280] (📖57) and cannot be changed.
- iFrame is a video format developed by Apple.

4

P Mode

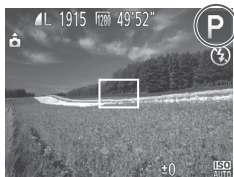
More discerning shots, in your preferred shooting style



- Instructions in this chapter apply to the camera with the mode dial set to **<P>** mode.
- **<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 (📖 192 – 199).

Shooting in Program AE Mode (<P> Mode)

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



1 Enter <P> mode.

- Set the mode dial to <P>.

2 Customize the settings as desired (81 – 101), 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 (98)
 - Change the ISO speed (82)
- Movies can be recorded in <P> mode as well, by pressing the movie button. However, some <FUNC.> and <MENU> settings may be automatically adjusted for movie recording.
- For details on the shooting range in <P> mode, see “Specifications” (203).

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.

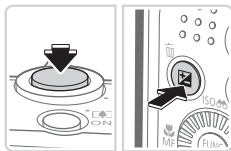


- Press the  button. As you watch the screen, press the  <  > buttons or turn the  dial to adjust brightness, and then press the  button again when finished.
- ▶ The correction level you specified is now displayed.





Still Images

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, press the  button.
- ▶ [] is displayed, and the exposure is locked.
- To unlock AE, release the shutter button and press the  button again. In this case, [] is no longer displayed.

2 Compose the shot and shoot.

- After one shot, AE is unlocked and [] is no longer displayed.



- AE: Auto Exposure
- After the exposure is locked, you can adjust the combination of shutter speed and aperture value by turning the  dial (Program Shift).

Changing the Metering Method

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



- Press the $\langle \text{FUNC SET} \rangle$ button, choose $\llbracket \text{E} \rrbracket$ in the menu, and choose the desired option (see 37).
- ▶ The option you configured is now displayed.

E Evaluative	For typical shooting conditions, including backlit shots. Automatically adjusts exposure to match the shooting conditions.
C 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.
S Spot	Metering restricted to within the $\llbracket \text{S} \rrbracket$ (Spot AE Point frame), displayed in the center of the screen.

Changing the ISO Speed



- Press the $\langle \blacktriangle \rangle$ button, choose an option (either press the $\langle \blacktriangle \rangle \langle \blacktriangledown \rangle$ buttons or turn the $\langle \text{ISO} \rangle$ dial), and then press the $\langle \text{FUNC SET} \rangle$ button.
- ▶ 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		For shooting in cloudy conditions, or at twilight.
ISO 1600	High	For shooting night scenes, or in dark rooms.



- To view the automatically set ISO speed when the camera is set to **[ISO]**, 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.

Still Images

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.



- Press the **<MENU>** button, choose **[i-Contrast]** on the **[CAMERA]** tab, and then choose **[Auto]** (138).
- ▶ 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 (137).

Adjusting White Balance

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

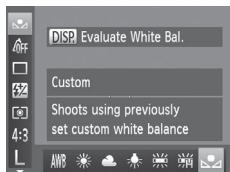



- Press the  button, choose [AWB] in the menu, and choose the desired option (37).
- ▶ The option you configured is now displayed.

 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 ( 85).

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.



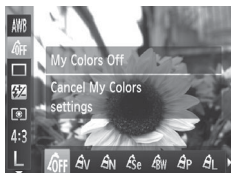
- Follow the steps on [84](#) to choose .
- Aim the camera at a plain white subject, so that the entire screen is white. Press the **<DISP.>** button.
- ▶ The tint of the screen changes once the white balance data has been recorded.
















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

Changing Image Color Tones (My Colors)

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



- Press the  button, choose [Off] in the menu, and choose the desired option (📖37).
- ▶ 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 (📖87).



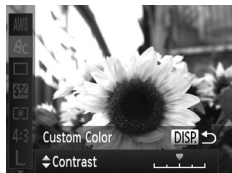
- White balance (84) cannot be set in [S_e] or [S_W] modes.
- With [S_L] and [S_D] modes, colors other than people's skin tone may be modified. These settings may not produce the expected results with some skin tones.

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 86 to choose [S_C], and then press the <DISP.> button.

2 Configure the setting.



- Press the <▲><▼> buttons to choose an option, and then specify the value by pressing the <◀><▶> buttons or turning the <⦿> dial.
- 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.
- Press the <DISP.> button 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” (203).







1 Configure the setting.

- Press the  button, choose  in the menu, and choose the desired option (37).
- ▶ The option you configured is now displayed.

2 Shoot.

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

Mode	Description
 Continuous	Continuous shooting, with the focus and exposure determined when you press the shutter button halfway.
 Continuous Shooting AF	Continuous shooting and focusing. [AF Frame] is set to [Center] and cannot be changed.
 Continuous Shooting LV*	Continuous shooting, with the focus fixed at the position determined in manual focusing. In  mode, focus is determined by the first shot.

* In  mode (68), AF lock (97), or manual focus mode (90),  is changed to .

* For details on the continuous shooting speed in each mode, see “Specifications” (203).



- Cannot be used with the self-timer (📖 50) or [Blink Detection] (📖 61).
- 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.



- Continuous shooting is faster in [📷] mode (📖 67).

Shooting Close-ups (Macro)

To restrict the focus to subjects at close range, set the camera to [M]. For details on the focusing range, see “Specifications” (p203).



- Press the <L> button, choose [M] (either press the <L><R> buttons or turn the <DIAL> dial), and then press the <FUNC SET> button.
- ▶ Once the setting is complete, [M] is displayed.



- In the yellow bar display area below the zoom bar, [M] 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 [M] (p51).

Shooting in Manual Focus Mode

When focusing is not possible in AF mode, use manual focus. You can specify the general focal position and then press the shutter button halfway to have the camera determine the optimal focal position near the position you specified. For details on the focusing range, see “Specifications” (p203).



1 Choose [MF].

- Press the <L> button, choose [MF] (either press the <L><R> buttons or turn the <DIAL> dial), and then press the <FUNC SET> button.
- ▶ [MF] and the MF indicator are displayed.



2 Specify the general focal position.

- Referring to the on-screen MF indicator bar (which shows the distance and focal position) and the magnified display area, press the \blacktriangle < \blacktriangledown buttons or turn the \odot dial to specify the general focal position, and then press the \odot button.

3 Fine-tune the focus.

- Press the shutter button halfway to have the camera fine-tune the focal position (Safety MF).



- AF frame mode or size cannot be changed while focusing manually (92). If you want to change the AF frame mode or size, cancel manual focus mode first.
- Focusing is possible when using the digital zoom (49) or digital tele-converter (92), or when using a TV as a display (163), but the magnified display will not appear.



- To focus more accurately, try attaching the camera to a tripod to stabilize it.
- To hide the magnified display area, press the <MENU> button and set [MF-Point Zoom] on the [CAM] tab to [Off] (38).
- To deactivate automatic focus fine-tuning when the shutter button is pressed halfway, press the <MENU> button and set [Safety MF] on the [CAM] tab to [Off] (38).

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.



- Press the <MENU> button, choose [Digital Zoom] on the [📷] tab, and then choose the desired option (📖38).
- ▶ The view is enlarged and the zoom factor is displayed on the screen.



- The digital tele-converter cannot be used with digital zoom (📖49) and AF-point zoom (📖60).



- The respective focal lengths when using [1.6x] and [2.0x] are 44.8 – 716.8 mm and 56.0 – 896.0 mm (35mm film equivalent).
- The shutter speed may be equivalent when you move the zoom lever all the way toward <📷> for maximum telephoto, and when you zoom in to enlarge the subject to the same size following step 2 on 📖49.

Changing the AF Frame Mode

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



- Press the <MENU> button, choose [AF Frame] on the [📷] tab, and then choose the desired option (📖38).

Center

One AF frame is displayed in the center. 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 (60) is not possible.



- To reduce the AF frame size, press the <MENU> button and set [AF Frame Size] on the [CAMERA] tab to [Small] (38).
- The AF frame size is set to [Normal] when you use the digital zoom (49) or digital tele-converter (92), and in manual focus mode (90).
- 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).

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 (95) 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.

Still Images

■ Choosing Subjects to Focus On (Tracking AF)

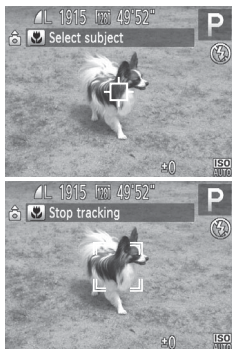
Shoot after choosing a subject to focus on as follows.

1 Choose [Tracking AF].




- Follow the steps on 92 to choose [Tracking AF].
- ▶ [□] is displayed in the center of the screen.

2 Choose a subject to focus on.



- Aim the camera so that [□] is on the desired subject, and then press the <◀> button.
- ▶ When the subject is detected, the camera beeps and [□] is displayed. Even if the subject moves, the camera will continue to track the subject within a certain range.
- ▶ If no subject is detected, [□] is displayed.
- To cancel tracking, press the <◀> button again.







3 Shoot.

- Press the shutter button halfway.  changes to a blue , which follows the subject as the camera continues to adjust the focus and exposure (Servo AF) (see below).
- Press the shutter button all the way down to shoot.
- ▶ Even after your shot,  is still displayed and the camera continues to track the subject.



- [Servo AF] (see below) is set to [On] and cannot be changed.
- Tracking may not be possible when subjects are too small or move too rapidly, or when subject color or brightness matches that of the background too closely.
- [AF-Point Zoom] on the  tab is not available.
-  is not available.



- The camera can detect subjects even if you press the shutter button halfway without pressing the  button. After your shot,  is displayed in the center of the screen.
- When shooting in [MF] mode (90), press and hold the  button for at least one second.

Still Images

■ 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.

- Press the , choose [Servo AF] on the  tab, and then choose [On] (38).

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 (📖50).

Still Images

Changing the Focus Setting

You can change default camera operation of constantly focusing on subjects it is aimed at, even when the shutter button is not pressed. Instead, you can limit camera focusing to the moment you press the shutter button halfway.

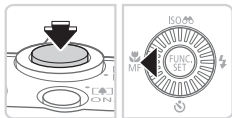


- Press the <MENU> button, choose [Continuous AF] on the [📷] tab, and then choose [Off] (📖38).

On	Helps avoid missing sudden photo opportunities, because the camera constantly focuses on subjects until you press the shutter button halfway.
Off	Conserves battery power, because the camera does not focus constantly.

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, press the <◀> button.
- ▶ The focus is now locked, and [MF] and the MF indicator are displayed.
- To cancel AF lock, release the shutter button, hold the shutter button halfway down again, and press the <◀> button.

2 Compose the shot and shoot.

Activating Flash

You can have the flash fire for each shot. For details on the flash range, see “Specifications” (📖203).



1 Raise the flash.

- Press the <⚡> button.

2 Configure the setting.

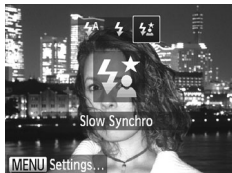
- Press the <▶> button, choose [⚡] (either press the <◀><▶> buttons or turn the <🌀> dial), and then press the <FUNC SET> button.
- ▶ Once the setting is complete, [⚡] is displayed.



- The setting screen cannot be accessed by pressing the <▶> button when the flash is lowered. Press the <⚡> button to raise the flash, then configure the setting.

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” (📖203).



1 Raise the flash.

- Press the <⚡> button.

2 Configure the setting.

- Press the <▶> button, choose [⚡★] (either press the <◀><▶> buttons or turn the <🌀> dial), and then press the <FUNC SET> button.
- ▶ Once the setting is complete, [⚡★] is displayed.

3 Shoot.

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

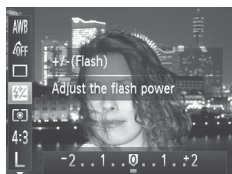


- Mount the camera on a tripod or take other measures to keep it still and prevent camera shake. Additionally, you should set [IS Mode] to [Off] when using a tripod or other means to hold the camera still (📖 101).
- The setting screen cannot be accessed by pressing the <▶> button when the flash is lowered. Press the <⚡> button to raise the flash, then configure the setting.

Still Images

Adjusting the Flash Exposure Compensation

Just as with regular exposure compensation (📖 81), you can adjust the flash exposure from -2 to +2 stops, in 1/3-stop increments.



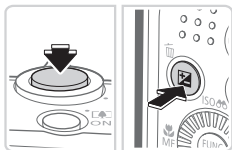
- Press the <FUNC SET> button, choose [1/2] in the menu, and adjust the setting by either pressing the <◀>> buttons or turning the <⦿> dial (📖 37).
- ▶ Once the setting is complete, [1/2] is displayed.



- When there is a risk of overexposure, the camera automatically adjusts the shutter speed or aperture value during the flash shots to reduce washed-out highlights and shoot at optimal exposure. However, you can deactivate automatic adjustment of the shutter speed and aperture value by accessing <MENU> (📖 38) and setting [Safety FE] in [Flash Settings] on the [📷] tab to [Off].
- You can also configure the flash exposure compensation by accessing <MENU> (📖 38) and choosing [Flash Exp. Comp] in [Flash Settings] on the [📷] tab.
- You can also access the [Flash Settings] <MENU> screen when the flash is up by pressing the <▶> button and immediately pressing the <MENU> button.

Shooting with the FE Lock

Just as with the AE lock (81), you can lock the exposure for the flash shots.



1 Raise the flash and set it to [⚡] (98).

2 Lock the flash exposure.

- Aim the camera at the subject to shoot with the exposure locked. With the shutter button pressed halfway, press the <FE> button.
- ▶ The flash fires, and when [✱] is displayed, the flash output level is retained.
- To unlock FE, release the shutter button and press the <FE> button again. In this case, [✱] is no longer displayed.

3 Compose the shot and shoot.

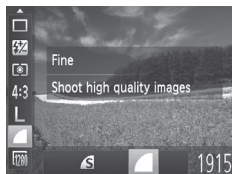
- After one shot, FE is unlocked and [✱] is no longer displayed.



• FE: Flash Exposure

Changing the Compression Ratio (Image Quality)

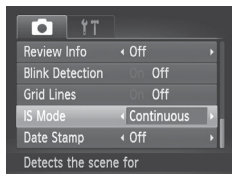
Choose from two compression ratios, as follows: [S] (Super Fine), [L] (Fine). For guidelines on how many shots at each compression ratio can fit on a memory card, see “Specifications” (p. 203).



Configure the setting.

- Press the **<FUNC SET>** button, choose [L] in the menu, and choose the desired option (p. 37).

Changing the IS Mode Settings



- Press the **<MENU>** button, choose [IS Mode] on the [CAMERA] tab, and then press the **<LEFT>** and **<RIGHT>** buttons to choose the desired option (p. 38).

Continuous	Optimal image stabilization for the shooting conditions is automatically applied (Intelligent IS) (p. 47).
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.

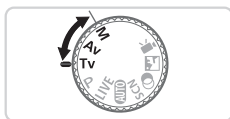


- If image stabilization cannot prevent camera shake, mount the camera on a tripod or take other measures to hold it still. In this case, set [IS Mode] to [Off].

5

Tv, Av, and M Mode

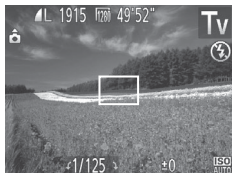
Take smarter, more sophisticated shots



- Instructions in this chapter apply to the camera as set to the respective mode.

Specific Shutter Speeds (<Tv> Mode)


Set your preferred shutter speed before shooting as follows. The camera automatically adjusts the aperture value to suit your shutter speed. For details on available shutter speeds, see “Specifications” (103).



1 Enter <Tv> mode.

- Set the mode dial to <Tv>.

2 Set the shutter speed.

- Turn the  dial to set the shutter speed.



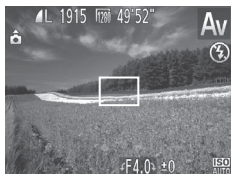
- With shutter speeds of 1.3 seconds or slower, there will be a delay before you can shoot again, as images are processed to remove noise.
- When shooting at low shutter speeds on a tripod, you should set [IS Mode] to [Off] (101).
- Maximum shutter speed with the flash is 1/2000 second. If you specify a faster speed, the camera will automatically reset the speed to 1/2000 second before shooting.
- Orange display of aperture values when you press the shutter button halfway indicates that the settings deviate from standard exposure. Adjust the shutter speed until the aperture value is displayed in white, or use safety shift (105).



- <Tv>: Time value

Specific Aperture Values (<Av> Mode)

Set your preferred aperture value before shooting as follows. The camera automatically adjusts the shutter speed to suit your aperture value. For details on available aperture values, see “Specifications” (203).



1 Enter <Av> mode.

- Set the mode dial to <Av>.

2 Set the aperture value.

- Turn the <C/>> dial to set the aperture value.



- Orange display of shutter speeds when you press the shutter button halfway indicates that the settings deviate from standard exposure. Adjust the aperture value until the shutter speed is displayed in white, or use safety shift (see below).



- <Av>: Aperture value (size of the opening made by the iris in the lens)
- To avoid exposure problems in <Tv> and <Av> modes, you can have the camera automatically adjust the shutter speed or aperture value, even when standard exposure cannot otherwise be obtained. Press the <MENU> button and set [Safety Shift] on the [CAM] tab to [On] (38). However, safety shift is disabled when the flash fires.

Specific Shutter Speeds and Aperture Values (<M> Mode)

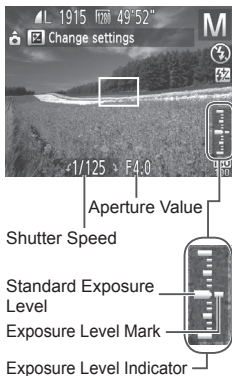
Follow these steps before shooting to set your preferred shutter speed and aperture value to obtain the desired exposure. For details on available shutter speeds and aperture values, see “Specifications” (📖 203).

1 Enter <M> mode.

- Set the mode dial to <M>.

2 Configure the setting.

- Press the <⏏> button, choose adjustment of shutter speed or aperture value, and turn the <⦿> dial to specify a value.
 - ▶ An exposure level mark based on your specified value is shown on the exposure level indicator for comparison to the standard exposure level.
 - ▶ The exposure level mark is shown in orange when the difference from standard exposure exceeds 2 stops. “-2” or “+2” is displayed in orange in the lower right when you press the shutter button halfway.



- After you set the shutter speed or aperture value, the exposure level may change if you adjust the zoom or recompose the shot.
- Screen brightness may change depending on your specified shutter speed or aperture value. However, screen brightness remains the same when the flash is up and the mode is set to [🔋].
- To have the setting you did not configure in step 2 (whether shutter speed or aperture value) automatically adjusted to obtain standard exposure, hold the shutter button halfway and press the <⏏> button. Note that standard exposure may not be possible with some settings.



- <M>: Manual
- Calculation of standard exposure is based on the specified metering method (82).

Still Images

Adjusting the Flash Output

Choose from the three flash levels in <M> mode.

1 Enter <M> mode.

- Set the mode dial to <M>.

2 Configure the setting.

- Press the <FUNC SET> button, choose [FV] in the menu, and adjust the setting by either pressing the <◀>> buttons or turning the <DISP> dial (37).
- ▶ Once the setting is complete, [FV] is displayed.



- You can also set the flash level by accessing <MENU> (38) and choosing [Flash Output] in [Flash Settings] on the [CAMERA] tab.
- You can set the flash level in <Tv> or <Av> mode by accessing <MENU> (38), choosing [Flash Settings] on the [CAMERA] tab, and then setting [Flash Mode] to [Manual].
- You can also access the [Flash Settings] <MENU> screen as follows.
 - When the flash is up, press the <▶> button and immediately press the <MENU> button.

6

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 previous image, press the button or turn the dial counterclockwise. To view the next image, press the button or turn the dial clockwise.
- Press and hold the buttons to browse through images quickly. Images appear grainy at this time.



- To access Scroll Display mode, turn the dial rapidly. In this mode, turn the dial to browse through images.
- To return to single-image display, press the button.
- To browse images grouped by shooting date, press the buttons in Scroll Display mode.



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



Volume

3 Play movies.

- To start playback, press the button to access the movie control panel, press the buttons to choose [▶], and then press the button again.

4 Adjust the volume.

- Press the buttons to adjust the volume.

5 Pause playback.

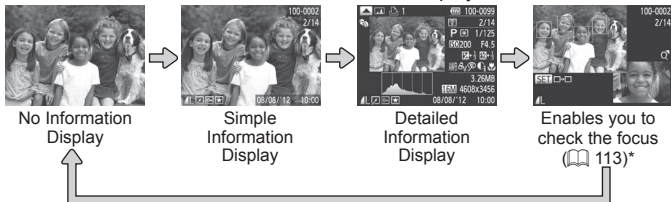
- To pause or resume playback, press the button.
- ▶ After the movie is finished, [SET] is displayed.



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

Switching Display Modes

Press the <DISP.> button to view other information on the screen, or to hide the information. For details on the information displayed, see 190.



*Not shown for movies.

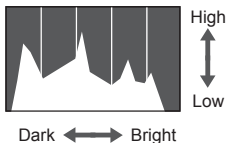


- Switching display modes by pressing the <DISP.> button is also possible immediately after you shoot, while your shot is displayed. However, simple information display is not available. To change the initial display mode, press the <MENU> button and choose [Review Info] on the [CAM] tab (164).

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.

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.

- Press the **<DISP.>** button (112).
- ▶ 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.

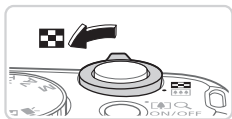
- Move the zoom lever toward **<Q>** once.
- ▶ The screen at left is displayed.
- To switch to a different frame when there are multiple frames, press the **<FUNC SET>** button.

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

- As you examine the focus, use the zoom lever to zoom in or out. Press the **<▲><▼><◀><▶>** buttons to adjust the display position.
- Press the **<MENU>** button 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 <[checkered flag]> 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.



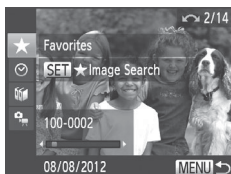
2 Choose an image.

- Turn the <[dial]> to scroll through the images.
- Press the <[up]><[down]><[left]><[right]> buttons to choose an image.
- ▶ An orange frame is displayed around the selected image.
- Press the <[FUNC/SET]> button to view the selected 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 (📖 120) or delete (📖 124) these images all at once.

★ Favorites	Displays images tagged as favorites (📖 129).
🕒 Shot Date	Displays the images shot on a specific date.
📁 My Category	Displays the images of a specific category (📖 130).
📷 Still image/Movie	Displays only still images or movies.



1 Choose the first condition for image display or navigation.

- In single-image display, press the <▲> button, and then press the <▲><▼> buttons to choose a display filter.
- When [★] is selected, you can view only images matching this condition by pressing the <◀><▶> buttons. To perform an action for all of these images together, press the <FUNC SET> button and go to step 3.

2 Choose the second condition and check the images found.

- Press the <◀><▶> buttons to choose another condition. Once you turn the <🕒> dial, you can view the images narrowed down by your conditions.
- To cancel this mode, press the <MENU> button.
- To switch to filtered image display, press the <FUNC SET> button and go to step 3.



3 View the filtered images.

- Images matching your conditions are displayed in yellow frames. To view only these images, press the <◀><▶> buttons, or turn the <◉> dial.
- To exit filtered image display, press the <▲> button, and after [Image search canceled] is displayed, press the <◉ SET> button.

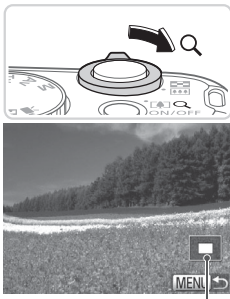


- When the camera has found no corresponding images for some conditions, those conditions will not be available.



- To show or hide information, press the <DISP.> button in step 2.
- Options for viewing the images found (in step 3) include “Navigating Through Images in an Index” (114), “Viewing Slideshows” (118), and “Magnifying Images” (117). You can protect, erase, or print all images found or add them to a photobook by choosing [Select All Images in Search] in “Protecting Images” (120), “Erasing All Images” (124), “Adding Images to the Print List (DPOF)” (173), or “Adding Images to a Photobook” (177).
- However, if you recategorize images (130) or edit them and save them as new images (133 – 138), a message is displayed and filtered image display ends.

Magnifying Images



Approximate Position of
Displayed Area

1 Magnify an image.

- Moving the zoom lever toward **<Q>** will zoom in and magnify the image. You can magnify images up to about 10x by continuing to hold the zoom lever.
- To zoom out, move the zoom lever toward **<Q>**. You can return to single-image display by continuing to hold it.

2 Move the display position and switch images as needed.

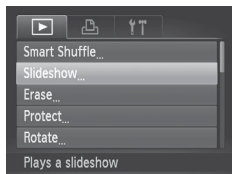
- To move the display position, press the **<▲><▼><◀><▶>** buttons.
- To switch to other images while zoomed, turn the **<Q>** dial.



- You can return to single-image display from magnified display by pressing the **<MENU>** button.

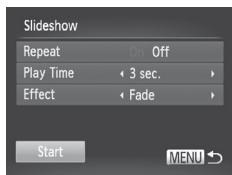
Viewing Slideshows

Automatically play back images from a memory card as follows.



1 Access the setting screen.

- Press the <MENU> button, and then choose [Slideshow] on the [] tab (38).



2 Configure the setting.

- Choose a menu item to configure, and then choose the desired option (38).

3 Start automatic playback.

- Press the <▲><▼> buttons or turn the <◉> dial to choose [Start], and then press the <FUNC SET> button.
- ▶ The slideshow will start a few seconds after [Loading image...] is displayed.
- Press the <MENU> button to stop the slideshow.



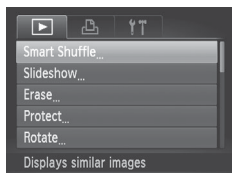
- The camera's power-saving functions (34) are deactivated during slideshows.



- To pause or resume slideshows, press the <FUNC SET> button.
- You can switch to other images during playback by pressing the <◀><▶> buttons or turning the <◉> dial. For fast-forward or fast-rewind, hold the <◀><▶> buttons down.
- [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.

- Press the <MENU> button, choose [Smart Shuffle] on the [▶] tab, and then press the <FUNC SET> button (115).
- ▶ Four candidate images are displayed.



2 Choose an image.

- Press the <▲><▼><◀><▶> buttons to choose 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, press the <FUNC SET> button. To restore the original display, press the <FUNC SET> button again.
- Press the <MENU> button to restore single-image display.

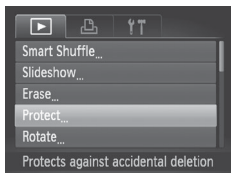


- Only still images shot with this camera are played back using Smart Shuffle.
- Smart Shuffle is not available in the following cases:
 - There are less than 50 shots taken with this camera
 - An unsupported image is currently displayed
 - Images are shown in filtered display (115)

Protecting Images

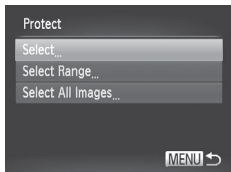
Protect important images to prevent accidental erasure by the camera (124).

Choosing a Selection Method



1 Access the setting screen.

- Press the <MENU> button and choose [Protect] on the [] tab (38).



2 Choose a selection method.

- Choose a menu item and a setting as desired (38).
- To return to the menu screen, press the <MENU> button.



- Protected images on a memory card will be erased if you format the card (146, 147).



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

Choosing Images Individually

1 Choose [Select].

- Following step 2 on 120, choose [Select] and press the button.

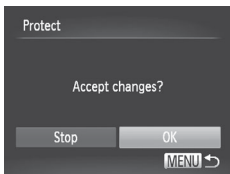


2 Choose an image.

- Press the buttons or turn the dial to choose an image, and then press the button. is displayed.
- To cancel selection, press the button again. is no longer displayed.
- Repeat this process to specify other images.

3 Protect the image.

- Press the button. A confirmation message is displayed.
- Press the buttons or turn the dial to choose [OK], and then press the button.



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

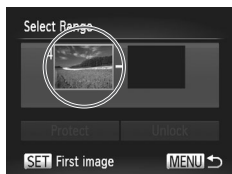
Selecting a Range

1 Choose [Select Range].

- Following step 2 on 120, choose [Select Range] and press the button.

2 Choose a starting image.

- Press the button.



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

3 Choose an ending image.

- Press the button to choose [Last image], and then press the button.



- Press the buttons or turn the dial to choose an image, and then press the button.
- Images before the first image cannot be selected as the last image.



4 Protect the images.

- Press the <▼> button to choose [Protect], and then press the <FUNC SET> button.



- You can also choose the first or last image by turning the <◉> dial when the top screen in steps 2 and 3 is displayed.

Specifying All Images at Once

1 Choose [Select All Images].

- Following step 2 on 120, choose [Select All Images] and press the <FUNC SET> button.



2 Protect the images.

- Press the <▲><▼> buttons or turn the <◉> dial to choose [Protect], and then press the <FUNC SET> button.



- To cancel protection for groups of images, choose [Unlock] in step 4 of "Selecting a Range" or in step 2 of "Specifying All Images at Once".

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 (📖 120) cannot be erased.

1 Choose an image to erase.

- Press the <◀>▶> buttons or turn the <🕒> dial to choose an image.

2 Erase the image.

- Press the <🗑️> button.
- After [Erase?] is displayed, press the <◀>▶> buttons to choose [Erase], and then press the <FUNC SET> button.
- ▶ The current image is now erased.
- To cancel erasure, press the <◀>▶> buttons or turn the <🕒> dial to choose [Cancel], and then press the <FUNC SET> button.



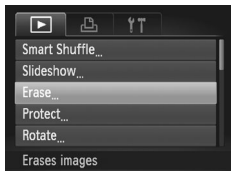
Erasing All Images

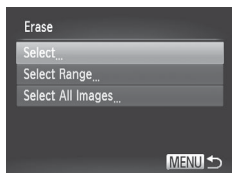
You can erase all images at once. Be careful when erasing images, because they cannot be recovered. However, protected images (📖 120) cannot be erased.

Choosing a Selection Method

1 Access the setting screen.

- Press the <MENU> button, and then choose [Erase] on the [📺] tab (📖 38).





2 Choose a selection method.

- Choose a menu item and a setting as desired (see 38).
- To return to the menu screen, press the <MENU> button.

Choosing Images Individually

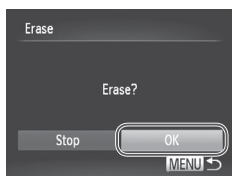
1 Choose [Select].

- Following step 2 above, choose [Select] and press the <FUNC SET> button.



2 Choose an image.

- Once you follow step 2 on 121 to choose an image, [✓] is displayed.
- To cancel selection, press the <FUNC SET> button again. [✓] is no longer displayed.
- Repeat this process to specify other images.



3 Erase the image.

- Press the <MENU> button. A confirmation message is displayed.
- Press the <◀>>> buttons or turn the <◀>>> dial to choose [OK], and then press the <FUNC SET> button.

Selecting a Range

1 Choose [Select Range].

- Following step 2 in “Choosing a Selection Method” (see above), choose [Select Range] and press the <FUNC SET> button.



2 Choose images.

- Follow steps 2 – 3 on 122 to specify images.

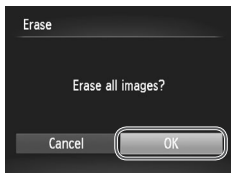
3 Erase the images.

- Press the <▼> button to choose [Erase], and then press the <FUNC. SET> button.

■ Specifying All Images at Once

1 Choose [Select All Images].

- Following step 2 in “Choosing a Selection Method” (125), choose [Select All Images] and press the <FUNC. SET> button.

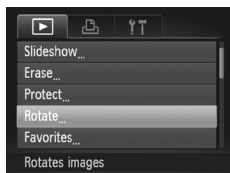


2 Erase the images.

- Press the <◀><▶> buttons or turn the <◉> dial to choose [OK], and then press the <FUNC. SET> button.

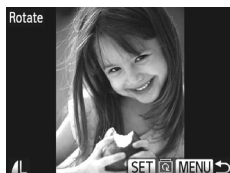
Rotating Images

Change the orientation of images and save them as follows.



1 Choose [Rotate].

- Press the <MENU> button and choose [Rotate] on the [▶] tab (128).



2 Rotate the image.

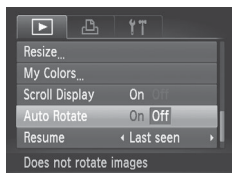
- Press the <◀>>> buttons or turn the <DIAL> dial to choose an image.
- The image is rotated 90° each time you press the <FUNC-SET> button.
- To return to the menu screen, press the <MENU> button.



- Movies with an image quality of [F1280] cannot be rotated.
- Rotation is not possible when [Auto Rotate] is set to [Off] (128).

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.



- Press the <MENU> button, choose [Auto Rotate] on the [▶] tab, and then choose [Off] (📖 38).



- Images cannot be rotated (📖 127) when you set [Auto Rotate] to [Off]. Additionally, images already rotated will be displayed in the original orientation.
- In Smart Shuffle (📖 119) 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

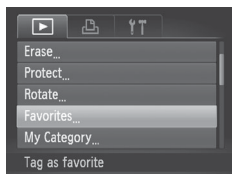
You can tag images as favorites or assign them to My Category (📖 130) groups. By choosing a category in filtered playback, you can restrict the following operations to all of those images.

- Viewing (📖 110), Viewing Slideshows (📖 118), Protecting Images (📖 120), Erasing Images (📖 124), Adding Images to the Print List (DPOF) (📖 173), Adding Images to a Photobook (📖 177)

Still Images

Movies

Tagging Images as Favorites



1 Choose [Favorites].

- Press the <MENU> button and choose [Favorites] on the [📺] tab (📖 38).



2 Choose an image.

- Press the <◀>>> buttons or turn the <🔍> dial to choose an image, and then press the <FUNC SET> button. [★] is displayed.
- To untag the image, press the <FUNC SET> button again. [★] is no longer displayed.
- Repeat this process to choose additional images.

3 Finish the setup process.

- Press the <MENU> button. A confirmation message is displayed.
- Press the <◀>>> buttons or turn the <🔍> dial to choose [OK], and then press the <FUNC SET> button.



- 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.)

Still Images

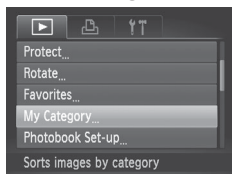
Movies

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.

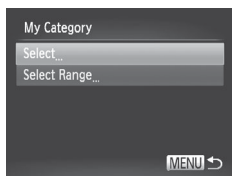
- 👤: Images with detected faces, or images shot in [👤] mode.
- 📷: Images detected as [📷], [📷], or [📷] in <AUTO> mode.
- 🔍: Images shot in [🔍] or [🔍] mode.

Choosing a Selection Method



1 Access the setting screen.

- Press the <MENU> button, and then choose [My Category] on the [📷] tab (📖38).



2 Choose a selection method.

- Choose a menu item and a setting as desired (📖38).
- To return to the menu screen, press the <MENU> button.

Choosing Images Individually

1 Choose [Select].

- Following step 2 on 130, choose [Select] and press the button.

2 Choose an image.

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



3 Choose a category.

- Press the buttons to choose a category and then press the button. is displayed.
- To cancel selection, press the button again. is no longer displayed.
- Repeat this process to choose additional images.

4 Finish the setup process.

- Press the button. A confirmation message is displayed. Press the buttons or turn the dial to choose [OK], and then press the button.



- 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 4.

Selecting a Range

1 Choose [Select Range].

- Following step 2 on 130, choose [Select Range] and press the button.

2 Choose images.

- Follow steps 2 – 3 on 122 to specify images.

3 Choose a category.

- Press the button to choose the type of image, and then press the buttons or turn the dial to choose a category.



4 Finish the setup process.

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



- You can clear the selection of all images in the [Select Range] category by choosing [Deselect] in step 4.

Editing Still Images

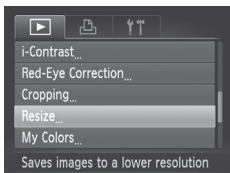


- Image editing (📖 133 – 138) is only available when the memory card has sufficient free space.

Still Images

Resizing Images

Save a copy of images at a lower resolution.



1 Choose [Resize].

- Press the <MENU> button and choose [Resize] on the [📺] tab (📖 38).

2 Choose an image.

- Press the <◀>>>> buttons or turn the <🕒> dial to choose an image, and then press the <FUNC SET> button.

3 Choose an image size.

- Press the <◀>>>> buttons or turn the <🕒> dial to choose the size, and then press the <FUNC SET> button.

▶ [Save new image?] is displayed.



4 Save the new image.

- Press the <◀>>>> buttons or turn the <🕒> dial to choose [OK], and then press the <FUNC SET> button.

▶ The image is now saved as a new file.





5 Review the new image.

- Press the <MENU> button. [Display new image?] is displayed.
- Press the <◀>>> buttons or turn the <⦿> dial to choose [Yes], and then press the <FUNC SET> button.
- ▶ The saved image is now displayed.



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

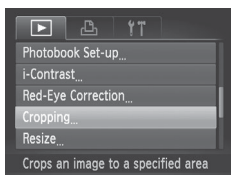


- Images cannot be resized to a higher resolution.

Still Images

Cropping

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



1 Choose [Cropping].

- Press the <MENU> button, and then choose [Cropping] on the [▶] tab (p. 38).

2 Choose an image.

- Press the <◀>>> buttons or turn the <⦿> dial to choose an image, and then press the <FUNC SET> button.

Cropping Area

Preview of Image After Cropping
Resolution After Cropping

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, move the zoom lever.
- To move the frame, press the <▲><▼><◀><▶> buttons.
- To change the frame orientation, press the <DISP.> button.
- Faces detected in the image are enclosed in gray frames in the upper-left image. To crop the image based on this frame, turn the <⦿> dial to switch to the other frame.
- Press the <FUNC SET> button.

4 Save as a new image and review.

- Follow steps 4 – 5 on 133 – 134.



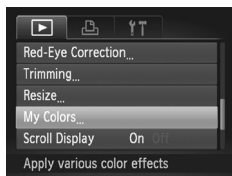
- Editing is not possible for images shot at a resolution of [S] (55) or resized to [XS] (133).



- 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 86.



1 Choose [My Colors].

- Press the <MENU> button, and then choose [My Colors] on the tab (38).

2 Choose an image.

- Press the <◀><▶> buttons or turn the dial to choose an image, and then press the <FUNC SET> button.

3 Choose an option.

- Press the <◀><▶> buttons or turn the dial to choose an option, and then press the <FUNC SET> button.



4 Save as a new image and review.

- Follow steps 4 – 5 on 133 – 134.



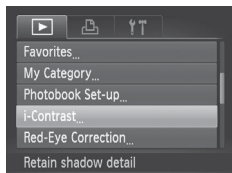
- Image quality of pictures you repeatedly edit this way will be a little lower each time, and you may not be able to obtain the desired color.



- The color of images edited using this function may vary slightly from the color of images shot using My Colors (86).

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].

- Press the <MENU> button, and then choose [i-Contrast] on the [] tab (38).

2 Choose an image.

- Press the <◀>>> buttons or turn the <◉> dial to choose an image, and then press the <FUNC. SET> button.

3 Choose an option.

- Press the <◀>>> buttons or turn the <◉> dial to choose an option, and then press the <FUNC. SET> button.

4 Save as a new image and review.

- Follow steps 4 – 5 on 133 – 134.



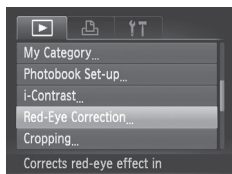
- For some images, correction may be inaccurate or may cause images to appear grainy.
- Images may look grainy after repeated editing using this function.



- 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].

- Press the <MENU> button, and then choose [Red-Eye Correction] on the [▶] tab (138).

2 Choose an image.

- Press the <◀><▶> buttons or turn the <⦿> dial to choose an image.

3 Correct the image.

- Press the <FUNC SET> button.
 - ▶ 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 117.



4 Save as a new image and review.

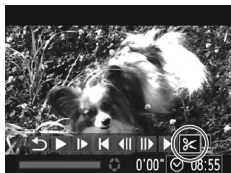
- Press the <▲><▼><◀><▶> buttons or turn the <⦿> dial to choose [New File], and then press the <FUNC SET> button.
 - ▶ The image is now saved as a new file.
- Follow step 5 on 134.



- 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 Choose [FUNC SET].

- Following steps 1 – 5 on 110 – 111, choose [FUNC SET] and press the <FUNC SET> button.
- ▶ The movie editing panel and editing bar are now displayed.

Movie Editing Panel



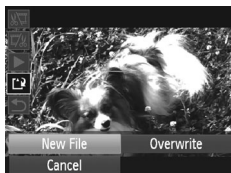
Movie Editing Bar

2 Specify portions to cut.

- Press the <▲><▼> buttons to choose [⌘] or [⌘].
- To view the portions you can cut (identified by [⌘] on the screen), press the <◀><▶> buttons or turn the <◯> dial to move [⏏]. Cut the beginning of the movie (from [⌘]) by choosing [⌘], and cut the end of the movie by choosing [⌘].
- Even if you move [⏏] to a position other than a [⌘] mark, choosing [⌘] will only cut the portion from the nearest [⌘] to the left, and choosing [⌘] will cut the portion from the nearest [⌘] to the right.

3 Review the edited movie.

- Press the <▲><▼> buttons to choose [▶], and then press the <FUNC SET> button. The edited movie is now played.
- To edit the movie again, repeat step 2.
- To cancel editing, press the <▲><▼> buttons to choose [⏏]. Press the <FUNC SET> button, choose [OK] (either press the <◀><▶> buttons or turn the <◯> dial), and then press the <FUNC SET> button again.



4 Save the edited movie.

- Press the <▲><▼> buttons to choose [F], and then press the <FUNC/SET> button.
- Press the <▲><▼><◀><▶> buttons or turn the <DISP/OK> dial to choose [New File], and then press the <FUNC/SET> button.
- ▶ The movie is now saved as a new file.



- 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 batteries run out while saving is in progress.
- When editing movies, you should use batteries with sufficient charge or fully charged NiMH AA batteries (157), or an AC adapter kit and DC coupler (157, both sold separately).

7

Setting Menu

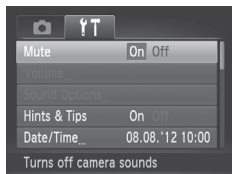
Customize or adjust basic camera functions for greater convenience

Adjusting Basic Camera Functions

Functions can be configured on the [F/T] tab. Customize commonly used functions as desired, for greater convenience (📖 38).

Silencing Camera Operations

Silence camera sounds and movies as follows.



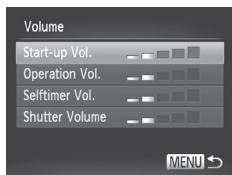
- Choose [Mute], and then choose [On].



- Operation can also be silenced by holding down the <DISP.> button as you turn the camera on.
- Sound is not played during movies if you mute camera sounds (📖 110). To restore sound during movies, press the <▲> button. Adjust volume with the <▲><▼> buttons, as needed.
- Sound settings cannot be changed in [L4] mode (📖 76).

Adjusting the Volume

Adjust the volume of individual camera sounds as follows.



- Choose [Volume], and then press the <FUNC SET> button.
- Choose an item, and then press the <◀><▶> buttons to adjust the volume.

Customizing Sounds

Customize camera operating sounds as follows.



- Choose [Sound Options], and then press the **<FUNC/SET>** button.
- Choose an item, and then press the **<◀>▶>** buttons to choose an option.

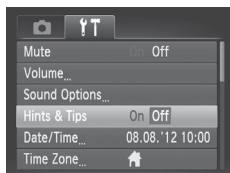
1	Preset sounds (cannot be modified)
2	Preset sounds Can be changed by using the included software.



- Sound settings cannot be changed in **[P]** mode (76).

Hiding Hints and Tips

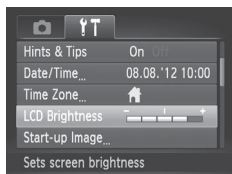
Hints and tips are normally shown when you choose **FUNC.** menu (37) or **Menu** (38) items. If you prefer, you can deactivate this information.



- Choose [Hints & Tips], and then choose [Off].

Screen Brightness

Adjust screen brightness as follows.



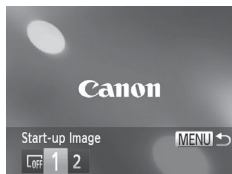
- Choose [LCD Brightness], and then press the <◀> buttons to adjust the brightness.



- For maximum brightness, press and hold the <DISP.> button for at least one second when the shooting screen is displayed or when in single-image display. (This will override the [LCD Brightness] setting on the [Ft] tab.) To restore the original brightness, press and hold the <DISP.> button again for at least one second or restart the camera.

Start-up Screen

Customize the start-up screen shown after you turn the camera on as follows.



- Choose [Start-up Image], and then press the <FUNC SET> button.
- Press the <◀> buttons or turn the <DISP.> dial to choose 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.
- Following the previous procedure, choose [2] and press the button.



2 Choose one of your shots.

- Choose an image and press the button. After [Register?] is displayed, choose [OK] (either press the buttons or turn the dial), and then press the button.



- The previous start-up setting is overwritten when you assign a new start-up image.



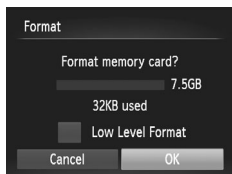
- You can assign the operating sounds and start-up image for your camera from the included software. Refer to the *Software Guide* (p. 25) for details.

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 (179) contains software on the card itself. Before formatting an Eye-Fi card, install the software on a computer.








1 Access the [Format] screen.

- Choose [Format], and then press the  button.

2 Choose [OK].

- Press the   buttons to choose [Cancel], choose [OK] (either press the   buttons or turn the  dial), and then press the  button.

3 Format the memory card.

- To begin the formatting process, press the   buttons or turn the  dial to choose [OK], and then press the  button.
- When formatting is finished, [Memory card formatting complete] is displayed. Press the  button.



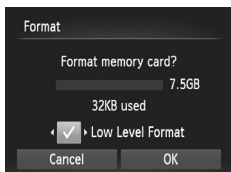
- Formatting or erasing data on a memory card only changes file management information on the card and does not erase the data completely. When transferring or disposing of memory cards, take steps to protect personal information if necessary, as by physically destroying cards.



- 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.

- On the screen in step 2 on 146, press the <▲><▼> buttons or turn the <⊙> dial to choose [Low Level Format], and then select this option (mark with a [✓]) by pressing the <◀><▶> buttons.
- Follow steps 2 – 3 on 146 to continue with the formatting process.



- Low-level formatting takes longer than “Formatting Memory Cards” (146), because data is erased from all storage regions of the memory card.
- You can cancel low-level formatting in progress by choosing [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 (📖 146)) memory card.
- Refer to the *Software Guide* (📖 25) 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

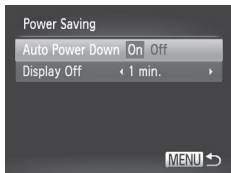
The lens is normally retracted for safety about one minute after you press the button in Shooting mode (34). To have the lens retracted immediately after you press the button, set the retraction timing to [0 sec.].



- 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 (34).



1 Access the [Power Saving] screen.

- Choose [Power Saving], and then press the button.

2 Configure the settings.

- After choosing an item, press the buttons 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].

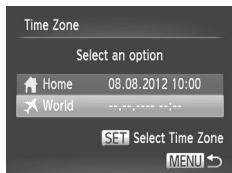


- The [Display Off] setting is applied even if you set [Auto Power Down] to [Off].

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” (17) and your home time zone.

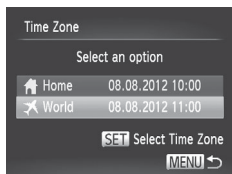


1 Specify your destination.

- Choose [Time Zone], and then press the button.
- Press the or turn the dial to choose [World], and then press the button.
- Press the or turn the dial to choose the destination.
- To set daylight saving time (1 hour ahead), press the to choose [].
- Press the button.

2 Switch to the destination time zone.

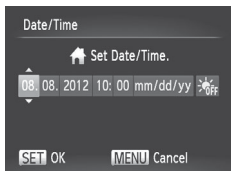
- Press the or turn the dial to choose [World], and then press the button.
- ▶ [] is now shown on the shooting screen (“On-Screen Information” (188)).




- Adjusting the date or time while in [] mode (17) will automatically update your [Home] time and date.

Changing the Date and Time






Adjust the date and time as follows.





1 Access the [Date/Time] screen.

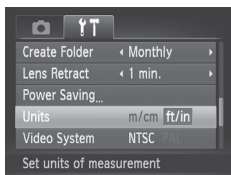
- Choose [Date/Time], and then press the  button.

2 Configure the setting.

- Press the   buttons to choose an item, and then adjust the setting, either by pressing the   buttons or turning the  dial.

Metric/Non-Metric Display

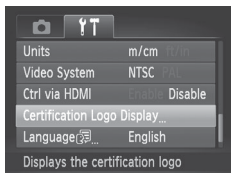
Change the unit of measurement shown in the MF indicator ( 91) and zoom bar ( 42) from m/cm to ft/in as needed.



- Choose [Units], and then choose [ft/in].

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.





- Choose [Certification Logo Display], and then press the  button.

Display Language




Change the display language as needed.

English	Suomi	Magyar
Deutsch	Norsk	Türkçe
Français	Svenska	繁體中文
Nederlands	Español	한국어
Dansk	简体中文	മലയാളം
Italiano	Русский	العربية
Українська	Português	Română
B. Malaysia	Ελληνικά	فارسی
Indonesian	Polski	हिन्दी
Tiếng Việt	Čeština	日本語



1 Access the [Language] screen.

- Choose [Language] , and then press the  button.

2 Configure the setting.




- Press the <><><> buttons or turn the  dial to choose a language, and then press the  button.



- You can also access the [Language] screen in Playback mode by pressing and holding the  button and immediately pressing the  button.

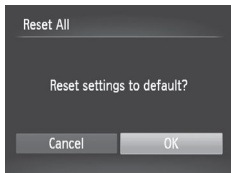
Adjusting Other Settings

The following settings can also be adjusted on the  tab.


- [Video System] ( 163)
- [Ctrl via HDMI] ( 161)
- [Eye-Fi Settings] ( 179)

Restoring Defaults





If you accidentally change a setting, you can restore default camera settings.



1 Access the [Reset All] screen.

- Choose [Reset All], and then press the  button.

2 Restore default settings.

- Press the ><> buttons or turn the  dial to choose [OK], and then press the  button.
- ▶ Default settings are now restored.



- The following functions are not restored to default settings.
 - [P1] tab settings [Date/Time] (17), [Language] (19), [Time Zone] (150), [Video System] (163), and the image assigned to [Start-up Image] (144)
 - Custom white balance data you have recorded (85)
 - Shooting mode chosen in <SCN> (67) or <P> (71) mode
 - The movie mode (77)

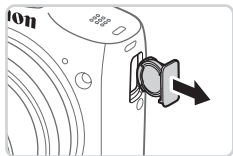
8

Accessories

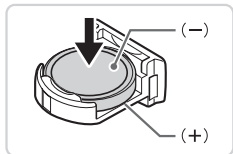
Use included accessories effectively and enjoy the camera in more ways with optional Canon accessories and other compatible accessories sold separately

Replacing the Date/Time Battery

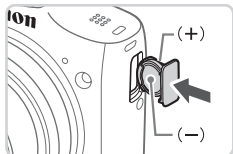
The date/time battery (back-up battery) will last about three years. If the Date/Time screen is displayed every time you turn the camera on, replace the date/time battery with a new one (CR1220).



- 1 Make sure the camera is off.**
- 2 Remove the date/time battery holder.**



- 3 Replace the battery.**
 - Insert the battery with the (+) and (-) sides facing the correct way.



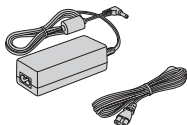
- 4 Insert the battery holder.**
- 5 Insert the battery and close the cover.**

- 6 Turn the camera on and set the date and time (📖 17).**

Optional Accessories

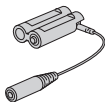
The following camera accessories are sold separately. Note that availability varies by area, and some accessories may no longer be available.

Power Supplies



AC Adapter Kit ACK800

- 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 batteries. DC Coupler DR-DC10 is required to connect the adapter to the camera.



DC Coupler DR-DC10

- Used with the AC adapter kit



Battery and Charger Kit CBK4-300

- Includes four rechargeable AA NiMH batteries (NB-3AH) and a battery charger (CB-5AH). Recommended when using the camera over extended periods.



- A set of four rechargeable AA NiMH batteries (NiMH Battery NB4-300) is also available without the charger.
- Battery and Charger Kit CBK4-200 can also be used.



- The battery and charger kit 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.

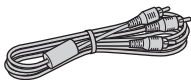
Flash Unit



High-Power Flash HF-DC2

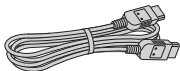
- External flash for illuminating subjects that are out of range of the built-in flash. High-Power Flash HF-DC1 can also be used.

Other Accessories



Stereo AV Cable AVC-DC400ST

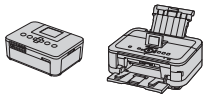
- Connect the camera to a TV to enjoy playback on the larger TV screen.



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.



- Some information may not be displayed on the TV (190).

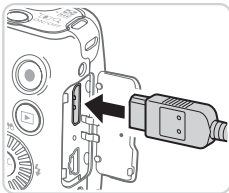
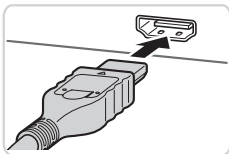
Playback on a High-Definition TV

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] can be viewed in high-definition.

1 Make sure the camera and TV are off.

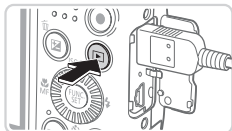
2 Connect the camera to the TV.

- 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.

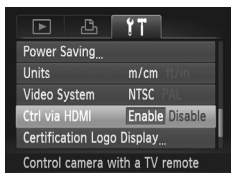


- Camera operating sounds are not played while the camera is connected to an HDTV.

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.

- Press the <MENU> button, choose [Ctrl via HDMI] on the [Y/T] tab, and then choose [Enable] (📖 38).

2 Connect the camera to the TV.

- Follow steps 1 – 2 on 📖 159 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.
 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.
DISP. Change Display	Switches display modes ( 36).



- Pressing the <MENU> button on the camera will switch control to the camera itself, which will prevent remote control until you return to single-image display.
- 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.

Still Images

Movies

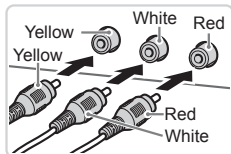
Playback on a Standard-Definition TV

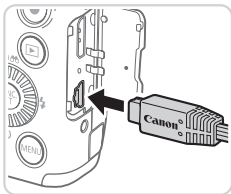
Connecting the camera to a TV with the Stereo AV Cable AVC-DC400ST (sold separately) enables you to view your shots on the larger screen of the TV as you control the camera.

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 160 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, press the <MENU> button and choose [Video System] on the tab.




- When the camera and TV are connected, you can also shoot while previewing shots on the larger screen of the TV. To shoot, follow the same steps as when using the camera screen. However, AF-Point Zoom (60) and MF-Point Zoom (90) are not available.

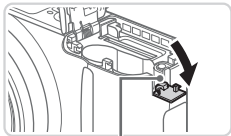
Powering the Camera with Household Power

Powering the camera with AC Adapter Kit ACK800 and DC Coupler DR-DC10 (both sold separately) eliminates the need to monitor the remaining battery level.

1 Make sure the camera is off.

2 Open the cover.

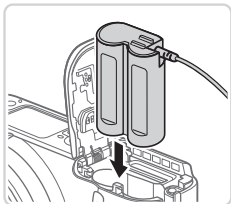
- Follow step 2 on  15 to open the memory card/battery cover.
- Open the coupler cable port as shown.



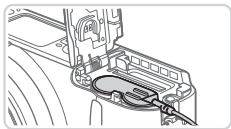
Coupler Cable Port

3 Insert the coupler.

- Insert the coupler as shown.

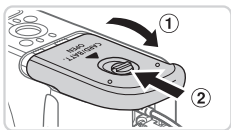


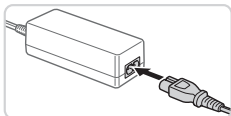
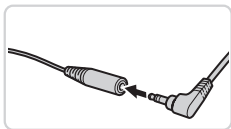
- Make sure the coupler cable passes through the port.



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

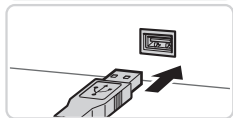
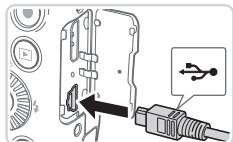
Easy Print

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.






► [ SET] is displayed.



5 Choose an image.

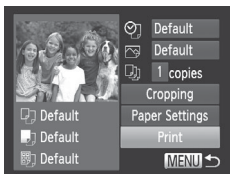
- Press the <◀><▶> buttons or turn the  dial to choose an image.

6 Access the printing screen.

- Press the <  > button.

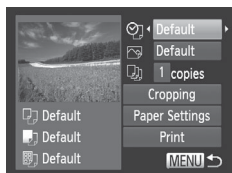
7 Print the image.

- Press the <▲><▼> buttons or turn the  dial to choose [Print], and then press the <  > button.
- 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  158.

Configuring Print Settings



1 Access the printing screen.

- Follow steps 1 – 6 on 166 – 167 to access the screen at left.

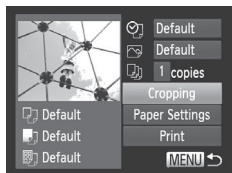
2 Configure the settings.

- Press the <▲><▼> buttons or turn the <⦿> dial to choose an item, and then choose an option by pressing the <◀><▶> buttons.

	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.
	No. of Copies	Choose the number of copies to print.
Cropping	–	Specify a desired image area to print (169).
Paper Settings	–	Specify the paper size, layout, and other details (170).

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 168 to access the printing screen, choose [Cropping] and press the button.
- 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 or turn the dial.
- To move the frame, press the buttons.
- To rotate the frame, press the button.
- When finished, press the button.

3 Print the image.

- Follow step 7 on 167 to print.



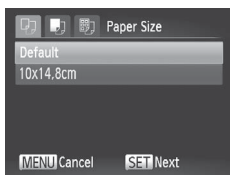
- Cropping may not be possible at small image sizes, or at some aspect ratios.
- Dates may not be printed correctly if you crop images shot with [Date Stamp] selected.

Choosing Paper Size and Layout Before Printing



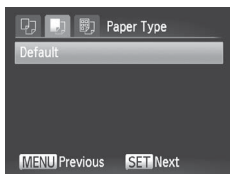
1 Choose [Paper Settings].

- After following step 1 on 168 to access the printing screen, choose [Paper Settings] and press the button.



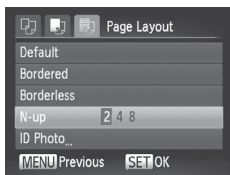
2 Choose a paper size.

- Press the <▲> <▼> buttons or turn the dial to choose an option, and then press the button.



3 Choose a type of paper.

- Press the <▲> <▼> buttons or turn the dial to choose an option, and then press the button.



4 Choose a layout.

- Press the <▲> <▼> buttons or turn the dial to choose an option.
- When choosing [N-up], press the <◀> <▶> buttons to specify the number of images per sheet.
- Press the button.

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

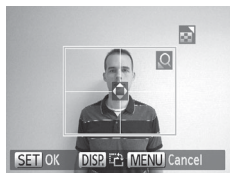
1 Choose [ID Photo].

- Following steps 1 – 4 on 170, choose [ID Photo] and press the button.



2 Choose the long and short side length.

- Press the buttons or turn the dial to choose an item. Choose the length by pressing the buttons, and then press the button.

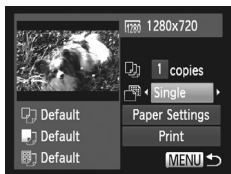


3 Choose the printing area.

- Follow step 2 on 169 to choose the printing area.

4 Print the image.

Printing Movie Scenes



1 Access the printing screen.

- Follow steps 1 – 5 on 166 – 167 to choose a movie, and then press the button.
- Press the buttons or turn the dial to choose , and then press the button. The screen at left is displayed.

2 Choose a printing method.

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



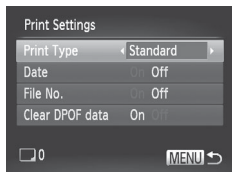
- To cancel printing in progress, press the button.
- [ID Photo] and [Sequence] cannot be chosen on Canon PictBridge-compatible printers from CP720/CP730 and earlier models.

Adding Images to the Print List (DPOF)

Batch printing (📖 176) 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.

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.



- Press the <MENU> button, and then choose [Print Settings] on the [📷] tab. Choose and configure settings as desired (📖 38).

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	—



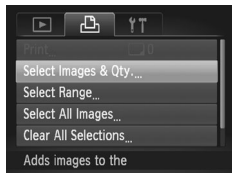
- Not all of your DPOF settings may be applied in printing by the printer or photo development service, in some cases.
- [!] may be displayed on the camera to warn you that the memory card has print settings that were configured on another camera. Changing the print settings using this camera may overwrite 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.
- The date is printed in a format matching setting details in [Date/Time] on the [Y/T] tab, accessible by pressing the <MENU> button (17).
- Index printing is not available on some Canon PictBridge-compatible printers (sold separately).

Still Images

Setting Up Printing for Individual Images



1 Choose [Select Images & Qty.].


- Press the <MENU> button, choose [Select Images & Qty.] on the [P] tab, and then press the <FUNC SET> button.

2 Choose an image.

- Press the <◀>> buttons or turn the <DISP> dial to choose an image, and then press the <FUNC SET> button.
- ▶ You can now specify the number of copies.
- If you specify index printing for the image, it is labeled with a [✓] icon. To cancel index printing for the image, press the <FUNC SET> button again. [✓] is no longer displayed.



3 Specify the number of prints.



- Press the <▲><▼> buttons or turn the  dial 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, press the <MENU> button to return to the menu screen.

Still Images


Setting Up Printing for a Range of Images



1 Choose [Select Range].

- Following step 1 on  174, choose [Select Range] and press the .

2 Choose images.

- Follow steps 2 – 3 on  122 to specify images.

3 Configure the print settings.

- Press the <▲><▼> buttons to choose [Order], and then press the .

Setting Up Printing for All Images



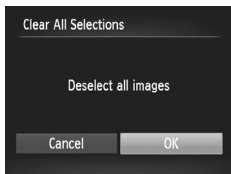
1 Choose [Select All Images].

- Following step 1 on 174, choose [Select All Images] and press the button.

2 Configure the print settings.

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

Clearing All Images from the Print List



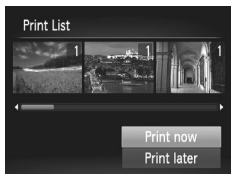
1 Choose [Clear All Selections].

- Following step 1 on 174, choose [Clear All Selections] and press the button.

2 Confirm clearing the print list.

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

Printing Images Added to the Print List (DPOF)



- When images have been added to the print list (173 – 176), the screen at left is displayed after you connect the camera to a PictBridge-compatible printer. Press the buttons to choose [Print now], and then simply press the button to print the 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



- Press the **<MENU>** button, choose [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* (25) and the printer manual for further information.

Adding Images Individually



1 Choose [Select].

- Following the previous procedure, choose [Select] and press the **<FUNC/SET>** button.



2 Choose an image.

- Press the <◀><▶> buttons or turn the <⊙> dial to choose an image, and then press the <FUNC SET> button.
- ▶ [✓] is displayed.
- To remove the image from the photobook, press the <⊙> button again. [✓] is no longer displayed.
- Repeat this process to specify other images.
- When finished, press the <MENU> button to return to the menu screen.

Still Images

Adding All Images to a Photobook



1 Choose [Select All Images].

- Following the procedure on [page 177](#), choose [Select All Images] and press the <FUNC SET> button.

2 Configure the print settings.

- Press the <◀><▶> buttons or turn the <⊙> dial to choose [OK], and then press the <FUNC SET> button.

Still Images

Removing All Images from a Photobook



1 Choose [Clear All Selections].

- Following the procedure on [page 177](#), choose [Clear All Selections] and press the <FUNC SET> button.

2 Confirm clearing the photobook.

- Press the <◀><▶> buttons or turn the <⊙> dial to choose [OK], and then press the <FUNC SET> button.

Using an Eye-Fi Card

Before using an Eye-Fi card, always confirm that local use is permitted (📖 2).

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] (📖 180). 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].

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		Interrupted
	(Blinking white)	Connecting		Not communicating
	(White)	Connected		Error acquiring Eye-Fi card information ^{*2}
	(Animated)	Transfer in progress ^{*1}		

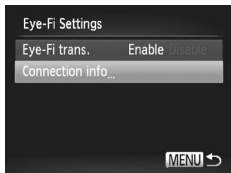
^{*1} Power saving (📖 34) on the camera is temporarily disabled during image transfer.

^{*2} Restart the camera. Repeated display of this icon may indicate a problem with the card.

Images labeled with a  icon have been transferred.

Checking Connection Information

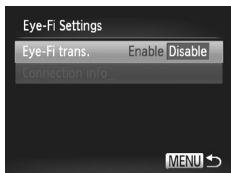
Check the access point SSID used by the Eye-Fi card or the connection status, as needed.



- Press the <MENU> button, choose [Eye-Fi Settings] on the [Y] tab, and then press the <FUNC SET> button.
- Choose [Connection info], and then press the <FUNC SET> button.
- ▶ 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.].

- Press the <MENU> button, choose [Eye-Fi Settings] on the [Y] tab, and then press the <FUNC SET> button.
- 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.

9

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 ON/OFF button is pressed.

- Confirm that new batteries of the correct type are inserted (📖 15, 16).
- Confirm that the batteries are inserted facing the correct way (📖 15).
- Confirm that the memory card/battery cover is fully closed (📖 16).
- Dirty battery terminals reduce battery performance. Try cleaning the terminals with a cotton swab and reinserting the batteries a few times.

Batteries are depleted quickly.

- Battery performance decreases at low temperatures. Try warming the batteries a little by putting them in your pocket, for example, ensuring that the terminals do not touch any metal objects.

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 (📖 16).

Display on a TV

Camera images look distorted or not displayed on a TV (📖 163).

Shooting

Cannot shoot.

- In Playback mode (📖 19), press the shutter button halfway (📖 35).

Strange display on the screen under low light (📖 36).

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 darken under bright light.
- The screen may flicker under fluorescent or LED lighting.
- Purplish banding may appear on the screen if you compose a shot that includes a bright light source.

No date stamp is added to images.

- Configure the [Date Stamp] setting (📖 52). Note that date stamps are not added to images automatically, merely because you have configured the [Date/Time] setting (📖 17).
- Date stamps are not added in shooting modes (📖 198 – 199) in which this setting cannot be configured (📖 52).

[Charging the flash] is displayed when the shutter button is pressed, and shooting is not possible (📖45).

[🔋] is displayed when the shutter button is pressed halfway (📖45).

- Set [IS Mode] to [Continuous] (📖101).
- Raise the flash and set the flash mode to [🔋] (📖98).
- Increase the ISO speed (📖82).
- Mount the camera on a tripod or take other measures to keep it still. In this case, you should set [IS Mode] to [Off] (📖101).

Shots are out of focus.

- Press the shutter button halfway to focus on subjects before pressing it all the way down to shoot (📖35).
- Make sure subjects are within focusing range (📖205).
- Set [AF-assist Beam] to [On] (📖62).
- Confirm that unneeded functions such as macro are deactivated.
- Try shooting with focus lock or AF lock (📖93, 97).

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.

- Raise the flash and set the flash mode to [🔋] (📖98).
- Adjust brightness by using exposure compensation (📖81).
- Adjust contrast by using i-Contrast (📖83, 137).
- Use AE lock or spot metering (📖81, 82).

Subjects look too bright, highlights are washed-out.

- Lower the flash and set the flash mode to [🔋] (📖43).
- Adjust brightness by using exposure compensation (📖81).
- Use AE lock or spot metering (📖81, 82).
- Reduce the lighting on subjects.

Shots look too dark despite the flash firing (📖45).

- Shoot within flash range (📖205).
- Adjust brightness by using flash exposure compensation or changing the flash output level (📖99, 107).
- Increase the ISO speed (📖82).

Subjects in flash shots look too bright, highlights are washed-out.

- Shoot within flash range (📖205).
- Lower the flash and set the flash mode to [🔼] (📖43).
- Adjust brightness by using flash exposure compensation or changing the flash output level (📖99, 107).

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 (📖82).

Subjects are affected by red-eye (📖56).

- Set [Red-Eye Lamp] to [On] (📖62) to activate the red-eye reduction lamp (📖4) 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 (📖138).

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 (📖147).

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” (📖192 – 196).

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 (📖146, 204).

[!] 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 (📖147).
- Lower the image quality (📖57).
- Switch to a memory card that supports high-speed recording (📖204).

Zooming is not possible.

- Zooming is not possible when shooting movies in [📹] mode.

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* (📖 25) 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 (📖 147).
- 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 (📖 24, 111) if you have activated [Mute] (📖 142) or the sound in the movie is faint.
- No sound is played for movies shot in [📹] mode (📖 72) because audio is not recorded in this mode.

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.

- Press the <▶> button to enter Playback mode. Hold the <MENU> button down as you press the <▲> and <FUNC SET> buttons at the same time. On the next screen, press the <◀><▶> buttons to choose [B], and then press the <FUNC SET> button.

Eye-Fi Cards

Cannot transfer images (📖 179).

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 (📖15).

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 (📖15, 180).

Cannot record!

- Shooting was attempted without a memory card in the camera. To shoot, insert a memory card facing the correct way (📖15).

Memory card error (📖147)

- 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 (📖15).

Insufficient space on card

- There is not enough free space on the memory card to shoot (📖41, 65, 79, 103) or edit images (📖133 – 138). Either erase unneeded images (📖124) or insert a memory card with enough free space (📖15).

Change the batteries (📖15)

No Image.

- The memory card does not contain any images that can be displayed.

Protected! (📖120)

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.

- 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. Magnify* (📖117), Smart Shuffle* (📖119), Categorize (📖130), Rotate (📖127), Edit* (📖133 – 138), Assign as Start-up Image* (📖144), Print List* (📖173), and Photobook Set-up* (📖177).

Invalid selection range

- When specifying a range for image selection (📖122, 125, 132, 175), you attempted to choose an initial image that was after the final image, or vice-versa.

Exceeded selection limit

- More than 998 images were selected for Print List (📖 173) or Photobook Set-up (📖 177). Choose 998 images or less.
- Print List (📖 173) or Photobook Set-up (📖 177) 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 (📖 120), Erase (📖 124), Favorites (📖 129), My Category (📖 130), Print List (📖 173), or Photobook Set-up (📖 177).

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] (📖 148), or format the memory card (📖 146).

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 (📖 166) 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

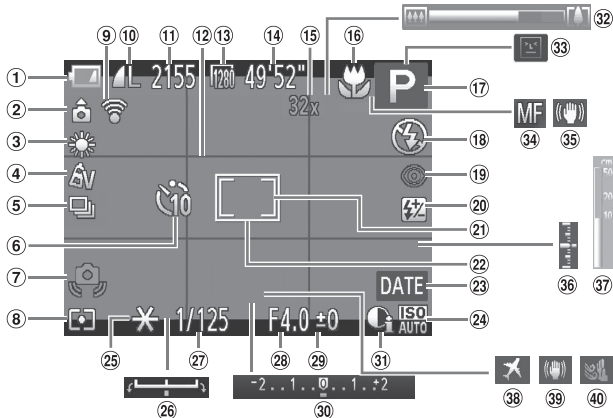
- Check the paper size setting (📖 170). If this error message is displayed when the setting is correct, restart the printer and complete the setting on the camera again.

Ink absorber full

- Contact a Canon Customer Support Help Desk to request assistance with ink absorber replacement.

On-Screen Information

Shooting (Information Display)



- | | | |
|--|--|--|
| ① Battery level (189) | ⑪ Still images: Recordable shots (204) | ⑲ Red-eye correction (56) |
| ② Camera orientation* | ⑫ Grid lines (59) | ⑳ Flash exposure compensation / Flash output level (99, 107) |
| ③ White balance (84) | ⑬ Movie resolution (57) | ㉑ Spot AE point frame (82) |
| ④ My Colors (86) | ⑭ Movies: Remaining time (204) | ㉒ AF frame (92) |
| ⑤ Drive mode (88) | ⑮ Digital zoom magnification (49), Digital tele-converter (92) | ㉓ Date stamp (52) |
| ⑥ Self-timer (50) | ⑯ Focusing range (90) | ㉔ ISO speed (82) |
| ⑦ Camera shake warning (45) | ⑰ Shooting mode (192), Scene icon (46) | ㉕ AE lock (81), FE lock (100) |
| ⑧ Metering method (82) | ⑱ Flash mode (98) | ㉖ Exposure shift bar |
| ⑨ Eye-Fi connection status (179) | | ㉗ Shutter speed (104, 106) |
| ⑩ Still image compression (101), Resolution (55) | | ㉘ Aperture value (105, 106) |

- ②⑨ Exposure compensation level (📖 81)
- ③① Exposure compensation bar (📖 81)
- ③① i-Contrast (📖 83)
- ③② Zoom bar (📖 42)
- ③③ Blink detection (📖 61)
- ③④ AF lock (📖 97), Manual focus (📖 90)
- ③⑤ IS mode icon (📖 47)
- ③⑥ Exposure level (📖 106)
- ③⑦ MF indicator (📖 91)
- ③⑧ Time zone (📖 150)
- ③⑨ Image stabilization (📖 101)
- ④① Wind filter (📖 58)


* 📷 : 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.

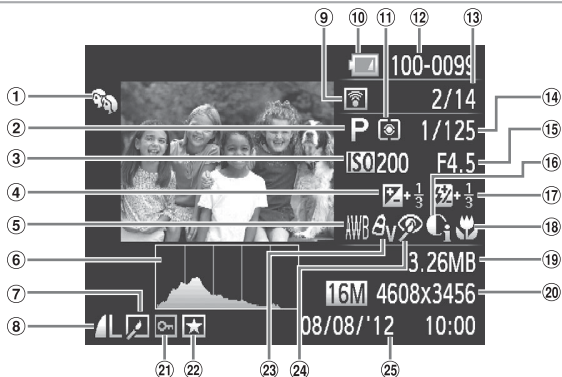
However, the orientation may not be detected correctly when the camera is pointed straight up or down.

■ Battery Level

An on-screen icon or message warns you when there is little battery power left. No icon or message is shown unless the batteries are running out of power.

Display	Details
	Nearly depleted—prepare replacement batteries
Change the batteries	Depleted—replace the batteries

Playback (Detailed Information Display)



- | | | |
|---|--|--|
| ① My Category (130) | ⑨ Transferred via Eye-Fi (179) | ⑰ Flash (98), Flash exposure compensation (99) |
| ② Shooting mode (192) | ⑩ Battery level (189) | ⑱ Focusing range (90) |
| ③ ISO speed (82), Playback speed (73) | ⑪ Metering method (82) | ⑲ File size |
| ④ Exposure compensation level (81), Exposure shift level (77) | ⑫ Folder number - File number (148) | ⑳ Still images: Resolution (204) Movies: Playback time (204) |
| ⑤ White balance (84) | ⑬ Current image no. / Total no. of images | ㉑ Protection (120) |
| ⑥ Histogram (112) | ⑭ Shutter speed (still images) (104), Image quality / Frame rate (movies) (57) | ㉒ Favorites (129) |
| ⑦ Image editing (133 – 138) | ⑮ Aperture value (105, 106), Image quality (movies) (57) | ㉓ My Colors (86, 136) |
| ⑧ Compression (image quality) (101) / Resolution (55, 57), MOV (movies) | ⑯ i-Contrast (83, 137) | ㉔ Red-eye correction (56, 138) |
| | | ㉕ Shooting date/time (17) |



- Some information may not be displayed when viewing images on a TV (159).

Summary of Movie Control Panel in “Viewing” (110)

	Exit
	Play
	Slow Motion (To adjust the playback speed, press the <◀>▶> buttons or turn the <◉> dial. No sound is played.)
	Skip Backward* (To continue skipping backward, keep holding down the <◉> button.)
	Previous Frame (For fast-rewind, keep holding down the <◉> button.)
	Next Frame (For fast-forward, keep holding down the <◉> button.)
	Skip Forward* (To continue skipping forward, keep holding down the <◉> button.)
	Edit (139)
	Shown when the camera is connected to a PictBridge-compatible printer (166).

* Displays the frame approx. 4 sec. before or after the current frame.



- To skip forward or back during movie playback, press the <◀>▶> buttons.

Functions and Menu Tables

Functions Available in Each Shooting Mode

Shooting Mode	M	Av	Tv	P	LIVE	AUTO
Function						
Exposure Compensation (81)	—	○	○	○	*1	—
ISO Speed (82)						
ISO AUTO	—	○	○	○	○	○
ISO 100 200 400 800 1600	○	○	○	○	—	—
Self-Timer (50)						
Off	○	○	○	○	○	○
10 2 3	○	○	○	○	○	○
Self-Timer Settings (51)						
Delay ²	○	○	○	○	○	○
Shots ³	○	○	○	○	○	○
Flash (98)						
⚡A	—	—	—	○	○	○
⚡	○	○	○	○	○	—
⚡*	—	○	—	○	○	*4
⚡	—	—	—	—	—	—
Av/Tv Settings (104, 105)						
Aperture Value	○	○	—	—	—	—
Shutter Speed	○	—	○	—	—	—
Program Shift (81)	—	○	○	○	—	—
AE Lock/FE Lock (81, 100) ⁵	—	○	○	○	—	—
AE Lock (Movie)/Exposure Shift (77)	—	—	—	—	—	—
Focusing Range (90)						
▲A	○	○	○	○	○	○
MF (90)	○	○	○	○	○	—
Tracking AF (53)	○	○	○	○	○	○
Screen Display (36)						
Information Display / No Information Display	○	○	○	○	○	○

*1 Set in [Dark] and [Light].

*2 Cannot be set to 0 seconds in modes without selection of the number of shots.

*3 One shot (cannot be modified) in modes without selection of the number of shots.

4 Not available, but switches to [⚡] in some cases.

*5 FE lock not available in [⚡] flash mode.

SCN														
O	O	O	O	O	O	O	O	O	O	O	—	O	—	—
O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
O	—	O	O	O	O	O	O	O	O	O	O	—	O	O
O	—	O	O	O	O	O	O	O	O	O	O	—	—	—
O	O	O	O	—	O	O	O	O	O	O	O	—	—	—
O	O	—	O	—	O	O	O	O	O	O	O	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	O	—	—	—	—	—	—	—	O	O	O
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
O	—	O	O	—	O	O	O	O	O	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.

FUNC. Menu

Shooting Mode	M	Av	Tv	P	LIVE	AUTO
Function						
White Balance (84)						
AWB	O	O	O	O	O	O
	O	O	O	O	—	—
My Colors (86)						
Off	O	O	O	O	O	O
AV	O	O	O	O	—	—
AR						
Drive Mode (88)						
	O	O	O	O	O	O
	O	O	O	O	—	—
Flash Exposure Compensation (99)	—	O	O	O	—	—
Flash Output Level (107)	O	O	O	—	—	—
Metering Method (82)						
	O	O	O	O	O	O
	O	O	O	O	—	—
Still Image Aspect Ratio (54)						
16:9 3:2 4:3 1:1	O	O	O	O	—	O
Resolution (55)						
L	O	O	O	O	O	O
M1 M2	O	O	O	O	—	O
M	—	—	—	—	—	—
S	O	O	O	O	—	O
Compression (101)						
	O	O	O	O	—	—
	O	O	O	O	O	O
Movie Quality (57)						
1280	O	O	O	O	O	O
640	O	O	O	O	—	O

*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 [] is set with [MF], AF lock, or [].

*4 Only [4:3] and [16:9] are available. *5 Synchronizes with the aspect ratio setting and is automatically set (74).

SCN													
O	O	O	O	O	O	O	O	O	O	O	O	O	O
-	O	O	-	-	-	-	-	-	-	-	O	O	O
O	O	O	O	O	O	O	O	O	O	O	O	O	O
-	O	-	-	-	-	-	-	-	-	-	O	O	O
O	O	O	O	O	O	O	O	O	O	O	O	O	O
O	-	O	O	O	O	O	O	O	O	O	O	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
O	O	O	O	O	O	O	O	O	O	O	O	O	O
-	-	-	-	-	-	-	-	-	-	-	-	-	-
O	O	-	O	O	-	*4	-	O	O	O	O	-	-
O	O	-	O	O	O	O	O	O	O	O	O	O	O
O	O	-	O	O	-	-	-	-	-	-	-	O	O
-	-	O	-	-	-	-	-	-	-	-	-	-	-
O	O	-	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	*5	O	O	O	O	O	O	-

O Available or set automatically. - Not available.

Shooting Menu

Function	Shooting Mode					
	M	Av	Tv	P	LIVE	AUTO
AF Frame (📖92)						
Center	O	O	O	O	O	—
Face AiAF ^{*1}	O	O	O	O	O	O
Tracking AF	O	O	O	O	O	^{*2}
AF Frame Size ^{*3}						
Normal	O	O	O	O	O	—
Small	O	O	O	O	O	—
Digital Zoom (📖49)						
Standard	O	O	O	O	O	O
Off	O	O	O	O	O	O
Digital Tele-converter (1.6x/2.0x)	O	O	O	O	O	—
AF-Point Zoom (📖60)						
On	O	O	O	O	O	O
Off	O	O	O	O	O	O
Servo AF (📖95)						
On	O	O	O	O	O	—
Off ^{*4}	O	O	O	O	O	O
Continuous AF (📖96)						
On	O	O	O	O	O	O
Off	O	O	O	O	O	—
AF-assist Beam (📖62)						
On	O	O	O	O	O	O
Off	O	O	O	O	O	O
MF-Point Zoom (📖90)						
On	O	O	O	O	O	—
Off	O	O	O	O	O	O
Safety MF (📖90)						
On	O	O	O	O	O	—
Off	O	O	O	O	O	O

















^{*1} Operation when no faces are detected varies by shooting mode. ^{*2} Only available by pressing the <▲> button (📖53). ^{*3} Available when the AF frame is set to [Center].

^{*4} [On] when subject movement is detected in <AUTO> mode.

SCN													
O	–	O	O	O	O	–	O	O	O	O	O	O	O
O	O	O	O	–	–	–	O	O	O	O	O	O	O
O	–	O	O	–	–	–	–	O	O	O	O	–	–
O	–	O	O	O	O	–	O	O	O	O	O	O	O
O	–	O	O	–	–	–	O	O	O	O	O	O	O
O	O	–	O	O	–	–	–	–	–	–	O	O	O
O	O	O	O	O	O	O	O	O	O	O	O	O	O
–	–	–	–	–	–	–	–	–	–	–	–	–	–
O	O	O	O	–	–	–	–	O	O	O	O	–	–
O	O	O	O	O	O	O	O	O	O	O	O	O	O
O	–	O	O	–	–	–	–	O	O	O	O	–	–
O	O	O	O	O	O	O	O	O	O	O	O	O	O
O	O	–	O	–	O	O	O	O	O	O	O	O	O
O	–	O	O	O	O	O	O	O	O	O	O	–	–
O	O	O	O	–	O	O	O	O	O	O	O	–	O
O	O	O	O	O	O	O	O	O	O	O	O	O	O
O	–	O	O	–	–	–	–	O	O	O	O	–	–
O	O	O	O	O	O	O	O	O	O	O	O	O	O
O	–	O	O	–	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.

Shooting Mode		M	Av	Tv	P	LIVE	AUTO
Function							
Flash Settings (📖56, 62, 99, 107)							
Flash Mode	Auto	–	○	○	○	○	○
	Manual	○	○	○	–	–	–
Flash Exp. Comp		–	○	○	○	–	–
Flash Output		○	○	○	–	–	–
Red-Eye Corr.	On	○	○	○	○	–	○
	Off	○	○	○	○	○	○
Red-Eye Lamp		○	○	○	○	○	○
Safety FE	On	–	○	○	○	○	○
	Off	○	○	○	○	○	–
i-Contrast (📖83)							
Auto		○	○	○	○	–	○
Off		○	○	○	○	○	–
Safety Shift (📖105)							
On		–	○	○	–	–	–
Off		○	○	○	○	○	○
Wind Filter (📖58)							
On/Off		○	○	○	○	○	○
Review (📖63)							
Off/Quick/2 – 10 sec./Hold		○	○	○	○	○	○
Review Info (📖64)							
Off/Detailed/Focus Check		○	○	○	○	○	○
Blink Detection (📖61)							
On		○	○	○	○	○	○
Off		○	○	○	○	○	○
Grid Lines (📖59)							
On/Off		○	○	○	○	○	○
IS Mode (📖101)							
Off/Continuous		○	○	○	○	○	○
Shoot Only		○	○	○	○	○	–
Date Stamp (📖52)							
Off		○	○	○	○	○	○
Date / Date & Time		○	○	○	○	○	○

SCN													
													
O	O	O	O	–	O	O	O	O	O	O	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–
O	O	O	O	–	–	–	–	–	–	–	–	–	–
O	O	O	O	–	O	O	O	O	O	O	–	–	–
O	O	O	O	–	O	O	O	O	O	O	–	–	–
O	O	O	O	–	O	O	O	O	O	O	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	O	–	–	–	–	–	–	–	–	–	–	–
O	O	–	O	O	O	O	O	O	O	O	O	O	O
–	–	–	–	–	–	–	–	–	–	–	–	–	–
O	O	O	O	O	O	O	O	O	O	O	O	O	O
O	O	O	O	O	O	–	O	O	O	O	O	O	O
O	O	O	O	O	O	O	O	O	O	O	O	–	–
O	O	O	O	O	O	O	O	O	O	O	O	–	–
O	O	O	O	–	–	–	–	–	O	O	O	–	–
O	O	O	O	O	O	O	O	O	O	O	O	O	O
O	O	O	O	O	O	O	O	O	O	O	O	O	O
O	O	O	O	O	O	O	O	O	O	O	O	O	O
O	O	O	O	O	O	O	O	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.

🔧 Set up Menu

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▶ Playback Menu

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Print Menu

Item	Ref. Page	Item	Ref. Page
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Select Images & Qty.	174	Clear All Selections	176
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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 batteries and memory card, and wait until the moisture has evaporated before resuming use.

Specifications

Camera Effective Pixels (Max.)	Approx. 16 million pixels
Lens Focal Length	16x zoom: 5.0 (W) – 80.0 (T) mm (35mm film equivalent: 28 (W) – 448 (T) mm)
LCD Monitor	7.5 cm (3.0 in.) color TFT LCD Effective Pixels: Approx. 230,000 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 (stereo))
Interface	Hi-speed USB HDMI output Analog audio output (stereo) Analog video output (NTSC/PAL)
Power Source	AA alkaline batteries (AA NiMH batteries (Canon NB-3AH)) x2 AC Adapter Kit ACK800 • However, connection requires DC Coupler DR-DC10, sold separately
Dimensions (Based on CIPA Guidelines)	111.0 x 72.5 x 44.1 mm (4.37 x 2.85 x 1.74 in.)
Weight (Based on CIPA Guidelines)	Approx. 291 g (approx. 10.3 oz.; including batteries and memory card) Approx. 243 g (approx. 8.57 oz.; camera body only)

Number of Shots/Recording Time, Playback Time









Power Source	Alkaline Batteries (Supplied)	NiMH Batteries (Sold Separately)
Number of Shots	Approx. 140	Approx. 380
Movie Recording Time^{*1}	Approx. 30 minutes	Approx. 90 minutes
Continuous Shooting^{*2}	Approx. 1 hour, 10 minutes	Approx. 2 hours, 40 minutes
Playback Time	Approx. 7 hours	Approx. 10 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.
- The number of shots and recording time that can be taken may vary widely depending on the brand of alkaline batteries used.
- Number of shots/time with fully charged NiMH batteries.

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		1131	4567
		1903	7684
M1 (Medium 1) 8M/3264x2448		2252	9094
		3721	15020
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 (📖 54), 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
	49 min. 18 sec.* ¹	3 hr. 19 min. 03 sec.* ²
	1 hr. 28 min. 59 sec.	5 hr. 59 min. 10 sec.

*1 27 min. 28 sec. for iFrame movies (📖 78).





*2 1 hr. 50 min. 52 sec. for iFrame movies (📖 78).

- 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 29 minutes and 59 seconds when shooting in **[i1280]**, and approximately 1 hour when shooting in **[i640]**.
- 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 – 3.0 m (1.6 – 9.8 ft.)
Maximum telephoto ()	60 cm – 2.0 m (2.0 – 6.6 ft.)

Shooting Range

Shooting Mode	Focusing Range	Maximum Wide Angle ()	Maximum Telephoto ()
AUTO	–	1 cm (0.4 in.) – infinity	60 cm (2.0 ft.) – infinity
Other modes		5 cm (2.0 in.) – infinity	60 cm (2.0 ft.) – infinity
		1 cm (0.4 in.) – 50 cm (1.6 ft.)	–
	MF	1 cm (0.4 in.) – infinity	60 cm (2.0 ft.) – infinity

* Not available in some shooting modes.

Continuous Shooting Speed

Shooting Mode	Continuous Shooting Mode	Speed
P		Approx. 0.8 shots/sec.
		Approx. 0.5 shots/sec.
		Approx. 0.6 shots/sec.
	–	Approx. 2.8 shots/sec.

Shutter Speed

< AUTO > mode, automatically set range	1 – 1/3200 sec.
Range in all shooting modes	15 – 1/3200 sec.
< Tv > mode available values (sec.)	15, 13, 10, 8, 6, 5, 4, 3.2, 2.5, 2, 1.6, 1.3, 1, 0.8, 0.6, 0.5, 0.4, 0.3, 1/4, 1/5, 1/6, 1/8, 1/10, 1/13, 1/15, 1/20, 1/25, 1/30, 1/40, 1/50, 1/60, 1/80, 1/100, 1/125, 1/160, 1/200, 1/250, 1/320, 1/400, 1/500, 1/640, 1/800, 1/1000, 1/1250, 1/1600, 1/2000, 1/2500, 1/3200

 **Aperture**

f/number	f/3.5 – f/8.0 (W), f/5.9 – f/8.0 (T)
<Av> mode available values*	f/3.5, f/4.0, f/4.5, f/5.0, f/5.6, f/5.9, f/6.3, f/7.1, f/8.0

* Depending on the zoom position, some aperture values may not be available.

- All data is based on tests by Canon.
- Camera specifications or appearance are subject to change without notice.

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