# Canon

# PowerShot G1X

# **Camera User Guide**

- Before use, be sure to read this guide, including the safety precautions.
- This guide will familiarize you with how to use the camera correctly.
- · Keep the guide handy for future reference.

**ENGLISH** 

# **Package Contents**

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



Camera



Battery Pack NB-10L (with terminal cover)



Battery Charger CB-2LC/CB-2LCE



Interface Cable IFC-400PCU



Neck Strap NS-DC9



Lens Cap (with cord)



Getting Started



DIGITAL CAMERA Solution Disk



Warranty System Booklet

A memory card is not included (see below).

#### User Manuals

For information about the included software, refer to the *Software Guide*, in the DIGITAL CAMERA Manuals Disk (p. 26).



 Adobe Reader is required to view the PDF manuals. Microsoft Word/ Word Viewer can be installed to view the Word manuals (required only for manuals for the Middle East).

# **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.



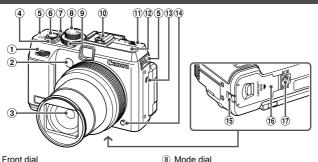
 Always confirm beforehand that memory cards are supported on other devices such as card readers and computers (including the current version of your operating system).

# **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
- 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.

# Part Names and Conventions in This Guide



- Front dial
- 2 Lamp
- 3 Lens
- Shooting: (telephoto) / (wide angle)

Playback: Q (magnify) / [1] (index)

(5) Strap mount

4 Zoom lever

- 6 Shutter button
- ⑦ ON/OFF button/lamp

- - (13) Speaker (14) Ring release button
  - 15 DC coupler cable port
  - 16 Memory card/battery cover

9 Exposure compensation dial

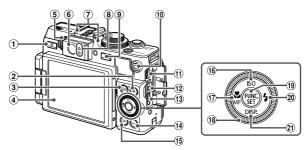
11 > 4 (Pop up flash) switch

17 Tripod socket

10 Hot shoe

(12) Flash

- 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.
  - Front dial ① on front
  - ▲ Up button ® on back
  - ◆ Left button 
    ⊕ on back
  - Control dial ® on back
  - FUNC./SET button <sup>19</sup> on back
  - Right button @ on back
  - ▼ Down button ② on back
- On-screen text is indicated in brackets
- (1): Important information you should know
- : Notes and tips for expert camera use
- (p. 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 🔊 (Shortcut) / 🖒 (Direct print) button
- ② 🗶 (AE lock/FE lock) / 🗂 (Jump) button
- (4) Screen (LCD monitor)
- 5 Diopter adjustment dial
- 6 Viewfinder
- 7 Microphone
- 8 Indicator
- 9 L (Playback) button
- 10 Movie button
- ① AV OUT (Audio/video output) /

- ® Remote terminal
  - (3) HDMI<sup>TM</sup> terminal
  - MENU button
  - 15 (Metering) button
  - 16 ISO speed / Up button
  - ① ♣ (Macro) / MF (Manual focus) /
  - (8) Control dial
  - (9) FUNC./SET button
  - 20 \$ (Flash) / Right button
  - 21 DISP. (Display) / Down button



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

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# **Contents: Basic Operations**



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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 one meter (39 inches) away from infants when using the flash.

· Store this equipment out of the reach of children and infants.

Strap: Putting the strap around a child's neck could result in asphyxiation.

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, benzine, or thinner to clean the product.
- Do not let the product come into contact with water (e.g. sea water) or other liquids.
- Do not allow liquids or foreign objects to enter the camera.

This could result in electrical shock or fire.

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

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

 Do not look through the viewfinder at bright light sources (such as the sun on a clear day).

This could damage your eyesight.

- Use only the recommended battery.
- Do not place the battery near or in direct flame.
- Unplug the power cord periodically, and using a dry cloth, wipe away any dust and dirt that has collected on the plug, the exterior of the power outlet, and the surrounding area.
- Do not handle the power cord with wet hands.
- Do not use the equipment in a manner that exceeds the rated capacity of the electrical outlet or wiring accessories. Do not use if the power cord or plug are damaged, or not fully plugged into the outlet.
- Do not allow dirt or metal objects (such as pins or keys) to contact the terminals or plug.

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

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

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

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

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

# **▲** Caution

### Denotes the possibility of injury.

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

This could lead to injury or damage the camera.

- When using the flash, be careful not to cover it with your fingers or clothing.
   This could result in burns or damage to the flash.
- Avoid using, placing or storing the product in the following places:
  - Places subject to strong sunlight
  - Places subject to temperatures above 40 °C (104 °F)
  - Humid or dusty areas

These could cause leakage, overheating or an explosion of the battery, resulting in electrical shock, fire, burns or other injuries.

High temperatures may cause deformation of the camera or battery charger casing.

 Viewing images on the camera screen for prolonged periods may cause discomfort.

# 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.

#### **Safety Precautions**

In regular use, small amounts of smoke may be emitted from the flash.

This is due to the high intensity of the flash burning dust and foreign materials stuck to the front of the unit. Please use a cotton swab to remove dirt, dust or other foreign matter from the flash to prevent heat build-up and damage to the unit.

- Remove and store the battery when you are not using the camera.
- If the battery is left inside the camera, damage caused by leakage may occur.
- Before you discard the battery, cover the terminals with tape or other insulators.
   Contacting other metal materials may lead to fire or explosions.
- Unplug the battery charger from the power outlet after charging is complete, or when you are not using it.
- Do not place anything, such as cloth, on top of the battery charger while it is charging.

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

Do not place the battery near pets.

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

- When putting the camera in your bag, close the screen to face inward to 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.





# **Initial Preparations**

Prepare for shooting as follows.

# **Attaching Accessories**



- Attach the strap.
  - Attach the included strap to the camera as shown.
  - On the other side of the camera, attach the strap the same way.



# 2 Attach the lens cap to the strap.

- Remove the lens cap from the lens and attach the lens cap cord to the strap.
- Always remove the lens cap before turning the camera on. Try attaching the lens cap to the neck strap when the cap is not in use.
- Keep the lens cap on the lens when the camera is not in use.

# **Holding the Camera**



- Place the strap around your neck.
- 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.

# **Charging the Battery**

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

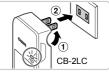


Remove the cover.



2 Insert the battery.

 After aligning the ▲ marks on the battery and charger, insert the battery by pushing it in (①) and down (②).



# 3 Charge the battery.

 For CB-2LC: Flip out the plug (①) and plug the charger into a power outlet (②).
 For CB-2LCE: Plug the power cord into the

**For CB-2LCE:** Plug the power cord into the charger, then plug the other end into a power outlet.



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



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



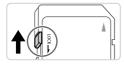
- To protect the battery and keep it in optimal condition, do not charge it continuously for more than 24 hours.
  - For battery chargers that use a power cord, do not attach the charger or cord to other objects. Doing so could result in malfunction or damage to the product.



For details on charging time and the number of shots and recording time possible with a fully charged battery, see "Specifications" (p. 34).

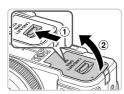
# **Inserting the Battery and Memory Card**

Insert the included battery and a memory card (sold separately). Note that before using a new memory card (or a memory card formatted in another device), you should format the memory card with this camera (p. 175).



# 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.



# Open the cover.

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



**Battery Lock** Terminals

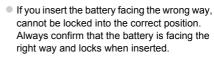
# 3 Insert the battery.

While pressing the battery lock in the direction of the arrow, insert the battery facing as shown and push it in until it clicks into the locked position.

#### **Initial Preparations**



Label



# Insert the memory card.

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



#### 5 Close the cover.

 Lower the cover in the direction of the arrow and press it until it clicks into the closed position.

# **Removing the Battery and Memory Card**



# Rer

# Remove the battery.

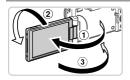
- Open the cover and press the battery lock in the direction of the arrow.
- The battery will pop up.



# Remove the memory card.

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

# **Using the Screen**



## Prepare the screen for use.

- Open the screen (1) and rotate it toward the lens 180° (2).
- Close the screen in this orientation (3).

- 1
- The screen can only open to approximately 175° in direction ①. Be careful not to open the screen any further than this, as it will damage the camera.

# Adjusting the Screen Angle and Orientation



- You can adjust the angle and orientation of the screen as needed, to suit shooting conditions.
- To protect the screen when the camera is not in use, always keep it closed and facing the camera body.

- (!)
  - If the screen is closed and facing the camera body, you will not be able to shoot a movie.



• When including yourself in shots, you can view a mirror image of yourself by rotating the screen around toward the front of the camera. To cancel reverse display, press the MENU button, choose [Reverse Disp.] on the □ tab, and press the ◆ buttons to choose [Off].

# **Setting the Date and Time**

A screen for setting the date and time is displayed the first time you turn the camera on. Be sure to specify the date and time, which is the basis for dates and times added to your images.



#### Turn the camera on.

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



#### 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 (SIT) button.



### Set the local time zone.

Press the buttons or turn the dial to choose your local time zone.



# Finish the setup process.

- Press the 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 local 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 ¾ in step 2 and then choose ¾ by pressing the ▲▼ buttons or turning the ● dial.

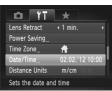
# Changing the Date and Time

Adjust the date and time as follows.



#### Access the camera menu.

Press the MENU button.

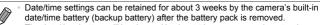


# 2 Choose [Date/Time].

- Move the zoom lever to choose the \*† tab.
- Press the ▲▼ buttons or turn the dial to choose [Date/Time], and then press the ⊕ button.
- 3 Change the date and time.
- Follow step 2 on p. 18 to adjust the settings.
- Press the MENU button to close the menu.







- The date/time battery will be charged in about 4 hours once you insert a charged battery or connect the camera to an AC adapter kit (sold separately, p. 186), even if the camera is left off.
- Once the date/time battery is depleted, the [Date/Time] screen will be displayed when you turn the camera on. Follow the steps on p. 18 to set the date and time.

# **Display Language**

The display language can be changed as needed.



### Enter Playback mode.

Press the button.





## 2 Access the setting screen.

Press and hold the ( button, and then immediately press the MENU button.



# Set the display language.

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





- A clock icon is displayed if you wait too long in step 2 after pressing the button before you press the MENU button. In this case, press the button to dismiss the clock icon and repeat step 2.
- You can also change the display language by pressing the MENU button and choosing [Language ∰] on the ¥† 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.



#### Turn the camera on.

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



### 2 Enter (100 mode.

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



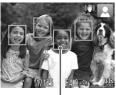
# 3 Compose the shot.

■ To zoom in and enlarge the subject, move the zoom lever toward [♣] (telephoto), and to zoom away from the subject, move it toward [♣♣] (wide angle).



#### **Trying the Camera Out**



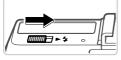


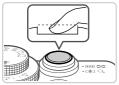
### Shoot.

# **Shooting Still Images**

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

AF Frames





If [Raise the flash] appears on the screen, move the ► switch 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.
- 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.

- If the flash is already up, push it down with your finger, into the camera.
- 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.
- 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.
- Recording will stop automatically when the memory card becomes full.

## Viewing

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



## Enter Playback mode.

- Press the button.
- Your last shot is displayed.

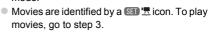


# 2 Browse through your images.

- 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.









## Play movies.

- Press the (SET) button to access the movie control panel, choose (either press the ◆ buttons or turn the dial), and then press the ( button again.
- Playback now begins, and after the movie is finished, **III** s displayed.
- To adjust the volume, press the ▲▼ buttons.



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

# Erasing the Images

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

# Choose an image to erase.

■ Press the ◆ buttons or turn the dial to choose an image.



- Press the m button.
- After [Erase?] is displayed, press the buttons or turn the dial to choose [Erase]. and then press the ( button.
- The current image is now erased.
- To cancel erasure, press the ◆ buttons or turn the dial to choose [Cancel], and then press the ( button.







You can also erase all images at once (p. 156).

# **Included Software, Manuals**

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

### **Features of the Included Software**

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



# ZoomBrowser EX ImageBrowser

- Import images and change camera settings
- Manage images: browse, search, and organize
- Print and edit images

# Digital Photo Professional

Browse, process and edit RAW images

#### **Manuals**

The following manuals are provided on the DIGITAL CAMERA Manuals Disk.



#### Software Guide

Refer to the *software guide* when using the included software. Windows and Macintosh versions are provided.



#### Camera User Guide

Once you are familiar with the information in *Getting Started*, refer to this guide for a more in-depth understanding of camera operation.

# **System Requirements**

The included software can be used on the following computers.

#### Windows

Operating System	Windows 7 (including SP1) Windows Vista SP2 Windows XP SP3
Computer	Computers running one of the above operating systems (preinstalled), with an included USB port
Processor	Pentium 1.3 GHz or higher (still images), Core 2 Duo 2.6 GHz or higher (movies)
RAM	Windows 7 (64 bit): 2 GB or more Windows 7 (32 bit), Windows Vista (64 bit, 32 bit), Windows XP: 1 GB or more (still images), 2 GB or more (movies)
Interfaces	USB
Free Hard Disk Space	620 MB or more*
Display	1024 x 768 resolution or higher

<sup>\*</sup> 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.

#### Macintosh

Operating System	Mac OS X 10.5 – 10.6	
Computer	Computers running one of the above operating systems preinstalled), with an included USB port	
Processor	Intel Processor (still images), Core 2 Duo 2.6 GHz or higher (movies)	
RAM	1 GB or more (still images), 2 GB or more (movies)	
Interfaces	USB	
Free Hard Disk Space	680 MB or more	
Display	1024 x 768 resolution or higher	

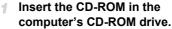


Check the Canon website for the latest system requirements, including supported OS versions.

# **Installing the Software**

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





- Insert the included CD-ROM (DIGITAL CAMERA Solution Disk) (p. 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.



## Install the files.

- In Windows, click [Easy Installation], or on a Macintosh computer, click [Install]. Follow the on-screen instructions to complete the installation process.
- If the [User Account Control] window is displayed in Windows, follow the on-screen instructions

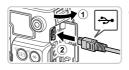


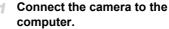
# 3 Complete the installation.

- In Windows, click [Restart] or [Finish] and remove the CD-ROM after the desktop is displayed.
- On a Macintosh computer, click [Finish] on the screen after installation and remove the CD-ROM when the desktop is displayed.

# **Saving Images to a Computer**

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





- Make sure the camera is off.
- Open the cover (1). With the smaller plug of the included interface cable (p. 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.





# 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.



#### Included Software, Manuals





 Choose [Downloads Images From Canon Camera using Canon CameraWindow] and then click [OK].

Double click

#### CameraWindow



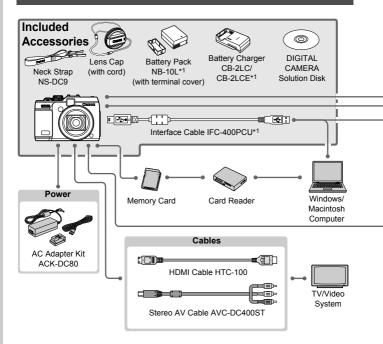
# 3 Save the images to the computer.

- 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.



- In Windows 7, if the screen in step 2 is not displayed, click the 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.
  - RAW images (or JPEG images recorded with RAW images) may not be saved.
  - 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 Speedlite Transmitter ST-E2, Speedlite Bracket SB-E2 and Off-Camera Shoe Cord OC-E3 are also supported.
- \*3 Bracket BKT-DC1, Off-Camera Shoe Cord OC-E3, Macrolite Adapter MLA-DC1 are required to attach these accessories.
- \*4 Macrolite Adapter MLA-DC1 is required to attach this accessory.
- \*5 Requires Waterproof Case Weight WW-DC1.
- \*6 Filter Adapter FA-DC58C is required to attach this accessory.

#### CAUTION

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

#### Flash Units



580EX II, 430EX II, 320EX, 270EX II



Macro Twin Lite MT-24EX\*3



Macro Ring Lite MR-14FX\*4

#### Cases



Waterproof Case WP-DC44 \*5



Soft Case SC-DC75

#### Lens Accessories



Canon-brand Lens Filter (58 mm dia.)\*6



Lens Hood LH-DC70

#### Canon PictBridge-Compatible Printers





#### Other Accessories



Remote Switch RS60-E3

#### 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.

# **Specifications**

Camera Effective Pixels	Approx. 14.3 million pixels	
Lens Focal Length	4x zoom: 15.1 (W) – 60.4 (T) mm (35mm film equivalent: 28 (W) – 112 (T) mm)	
Viewfinder	Real-image zoom viewfinder Dioptric Adjustment Range: -3.0 to +1.0 m <sup>-1</sup> (dpt) Coverage: 77%	
LCD Monitor	7.5 cm (3.0 in.) color TFT LCD Effective Pixels: Approx. 922,000 dots	
File Formats	Conforms to DCF and DPOF 1.1 standards	
Data Types	Still Images: Exif 2.3 (JPEG) and RAW (Canon CR2 format) Movies: MOV (H.264 video data, Linear PCM (stereo) audio data)	
Interfaces	Hi-speed USB HDMI output Analog audio output (stereo) Analog video output (NTSC/PAL)	
Power	Battery Pack NB-10L AC Adapter Kit ACK-DC80	
Dimensions (Based on CIPA Standards)	116.7 x 80.5 x 64.7 mm (4.60 x 3.17 x 2.55 in.)	
Weight (Based on CIPA Guidelines)	Approx. 534 g (approx. 19.0 oz.; including battery and memory card) Approx. 492 g (approx. 17.3 oz.; camera body only)	

### Number of Shots/Recording Time, Playback Time

Nι	imber of Shots	Screen On	Approx. 250
		Screen Off	Approx. 700
Movie	Recording Time*1	Screen On	Approx. 1 hours, 10 minutes
	Continuous Shooting*2	Screen On	Approx. 2 hours, 00 minutes
Playback Time		Approx. 7 hours, 00 minutes	

<sup>\*1</sup> Time under default camera settings, when normal operations are performed, such as shooting, pausing, turning the camera on and off, and zooming.

<sup>\*2</sup> 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 standards of the Camera & Imaging Products Association (CIPA).

Under some shooting conditions, the number of shots and recording time may be less than mentioned above.

Number of shots/recording time with fully charged battery.

#### Number of 4:3 Shots per Memory Card

Posalution (Pivola)	Resolution (Pixels)	No. Shots per Memory Card (Approx.)	
Resolution (Fixels)	Ratio	4 GB	16 GB
L (Large)		1040	4259
14M/4352x3264		2154	8824
M1 (Medium 1)		1978	8101
7M/3072x2304		4022	16473
M2 (Medium 2)	4	6352	26010
2M/1600x1200		12069	49420
S (Small)	4	20116	82367
0.3M/640x480		30174	123550
RAW Images		190	783
4352x3264		130	700

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

#### Recording Time per Memory Card

Image Quality	Recording Time per Memory Card	
illage Quality	4 GB	16 GB
1920	14 min. 34 sec.	59 min. 40 sec.
1280	20 min. 43 sec.*1	1 hr. 24 min. 54 sec.*2
640	43 min. 43 sec.	2 hr. 59 min. 03 sec.

<sup>\*1</sup> Approx. 13 min. 35 sec. for iFrame movies see p. 93.

<sup>•</sup> Table values are based on images with a 4:3 aspect ratio. Changing the aspect ratio see p. 60 will enable more shots, because less data is used per image than for 4:3 images. However, with M2, 16:9 images have a resolution of 1920 x 1080 pixels, which requires more data than for 4:3 images.

<sup>\*2</sup> Approx. 55 min. 38 sec. for iFrame movies see p. 93.

Based on Canon testing standards.

Recording will automatically stop when the file size of an individual clip being recorded reaches 4 GB, or when the recording time reaches approximately 29 minutes and 59 seconds (for more or more) or approximately 1 hour (for more).

On some memory cards, recording may stop before the maximum clip length has been reached. Speed Class 6 or higher memory cards are recommended.

### Specifications

# Flash Range

Maximum wide angle (IIII)	50 cm - 7.0 m (approx. 1.6 - 23 ft.)
Maximum telephoto ([♣])	100 cm - 3.1 m (approx. 3.3 - 10.2 ft.)

# Shooting Range

Shooting Mode	Focusing Range	Maximum Wide Angle ( 1994)	Maximum Telephoto (☐☐)
AUTO	_	20 cm (7.9 in.) – infinity	85 cm (2.8 ft.) – infinity
28	_	1 m (3.3 ft.) – infinity	1.3 m (4.3 ft.) – infinity
×	_	1 m (3.3 ft.) – infinity	1.3 m (4.3 ft.) – infinity
	<b>₽</b> A	40 cm (1.3 ft.) – infinity	1.3 m (4.3 ft.) – infinity
Other modes	₩*	20 cm (7.9 in.) – 70 cm (2.3 ft.)	85 cm - 1.6 m (2.8 - 5.2 ft.)
	MF*	20 cm (7.9 in.) – infinity	85 cm (2.8 ft.) – infinity

<sup>\*</sup> Not available in some shooting modes.

# Continuous Shooting Speed

Shooting Mode	Continuous Shooting Mode	Speed
HQ*	_	Approx. 4.5 shots/sec.
Р	밀	Approx. 1.9 shots/sec.
	Æ	Approx. 0.7 shots/sec.
	ĪĀ	Approx. 0.7 shots/sec.

 $<sup>^{\</sup>star}$  Up to 6 continuous shots at one time.

# ■ Shutter Speed

MID mode, automatically set range	1 – 1/4000 sec.
Range in all shooting modes	60 – 1/4000 sec.
<b>Tv</b> mode available values (sec.)	60, 50, 40, 30, 25, 20, 15, 13, 10, 8, 6, 5, 4, 3.2, 2.5, 2, 1.6, 1.3, 1, 0.8, 0.6, 0.5, 0.4, 0.3, 1/4, 1/5, 1/6, 1/8, 1/10, 1/13, 1/15, 1/20, 1/25, 1/30, 1/40, 1/50, 1/60, 1/80, 1/100, 1/125, 1/160, 1/200, 1/250, 1/320, 1/400, 1/500, 1/640, 1/800, 1/1000, 1/1250, 1/1600, 1/2000, 1/2500, 1/3200, 1/4000

#### Aperture

f/number	f/2.8 - f/16 (W), f/5.8 - f/16 (T)
	f/2.8, f/3.2, f/3.5, f/4.0, f/4.5, f/5.0, f/5.6, f/5.8, f/6.3, f/7.1, f/8.0, f/9.0, f/10, f/11, f/13, f/14, f/16

<sup>\*</sup> Not all aperture values are available at all zoom positions.

#### ■ Battery Pack NB-10L

Туре	Rechargeable lithium-ion battery	
Nominal Voltage	7.4 V DC	
Nominal Capacity	920 mAh	
Charging Cycles	Approx. 300	
Operating Temperature	0 – 40 °C (32 – 104 °F)	
Dimensions	32.5 x 45.4 x 15.1 mm (1.28 x 1.79 x 0.59 in.)	
Weight	Approx. 41 g (Approx. 1.45 oz.)	

#### ■ Battery Charger CB-2LC/CB-2LCE

Rated Input	100 – 240 V AC (50/60 Hz) 16 VA (100 V) – 22 VA (240 V), 0.18 A (100 V) – 0.12 A (240 V)		
Rated Output	3.4 V DC, 0.7 A		
Charging Time	Approx. 1 hour 50 min. (when using NB-10L)		
Charge Indicator	Charging: orange / Fully charged: green		
Operating Temperature	– 40 °C (41 – 104 °F)		
Dimensions	92.8 x 63.0 x 27.0 mm (3.65 x 2.48 x 1.06 in.)		
Weight	Approx. 80 g (Approx. 2.82 oz.) (CB-2LC) Approx. 74 g (Approx. 2.61 oz.) (CB-2LCE, excluding power cord)		

#### ■ Filter Adapter FA-DC58C (Sold Separately)

Max. Diameter x Length	φ60.0 x 6.3 mm (φ2.36 x 0.25 in.)
Weight	Approx. 4.0 g (Approx. 0.14 oz.)

#### Bracket BKT-DC1 (Sold Separately)

Dimensions (Max.)	220.0 x 32.0 x 19.0 mm (8.66 x 1.26 x 0.75 in.)
Weight	Approx. 90 g (Approx. 3.2 oz.)

#### Lens Hood LH-DC70 (Sold Separately)

Max. Diameter x Length	60.0 x 27.9 mm (φ2.36 x 1.10 in.)
Weight	Approx. 8.0 g (Approx. 0.28 oz.)

#### Macrolite Adapter MLA-DC1 (Sold Separately)

Max. Diameter x Length	φ65.3 x 49.5 mm (φ2.57 x 1.95 in.)
Weight	Approx. 30 g (Approx. 1.06 oz.)

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

# 1

# **Camera Basics**

Basic camera operations and features

### On/Off





#### **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 (p. 41).
- 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 F) button.

# Power-Saving Features (Auto Power Down)

As a way to conserve battery power, the camera automatically deactivates the screen 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 (p. 41).

#### Power Saving in Playback Mode

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



- You can deactivate these power-saving features if you prefer (p. 178).
- You can also adjust the timing of screen deactivation (p. 178).

## 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.



# 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.



#### 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.

# Optical Viewfinder

To conserve battery power when shooting, you can use the optical viewfinder instead of the screen. Shoot the same way as when using the screen.

#### Deactivate the screen.

Press the ▼ button to turn the screen off (p. 43).



#### 2 Adjust the diopter.

 As you look through the optical viewfinder, turn the dial one way or the other so that images look sharp.



- The area visible in the optical viewfinder may differ slightly from the image area in your shots.
- At aspect ratios other than 4:3, the area visible in the optical viewfinder differs from the image area in your shots. Check the settings before shooting.



- The lens may be partially visible through the optical viewfinder at some zoom positions.
- Although the camera automatically focuses on subjects, face detection and focusing is not possible.

# Shooting Modes

Use the mode dial to access each shooting mode.

#### Auto Mode

Fully automatic shooting, with camera-determined settings (pp. 21, 48)

#### Scene Mode

Shoot with optimal settings for specific scenes (p. 72).

#### Creative Filters Mode

Add a variety of effects to images when shooting (p. 75).

# P, Tv, Av, M, C1, and C2 Modes

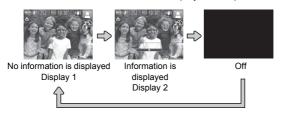
Take a variety of shots using your preferred settings (pp. 95, 127).

#### Movie Mode

For shooting movies (p. 92). You can also shoot movies when the mode dial is not set to Movie mode, simply by pressing the movie button.

# **Shooting Display Options**

Press the ▼ button to view other information on the screen, or to hide the information. For details on the information displayed, see p. 226.





Even if the screen is off, it will turn on when you start shooting a movie



- 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 p. 142.

# FUNC. Menu

Configure commonly used functions through the FUNC. menu as follows. Note that menu items and options vary depending on the shooting mode (pp. 230-237).



#### Access the FUNC. menu.

Press the (st) button.



Menu Items

#### Choose a menu item.

- Press the ▲▼ buttons to choose a menu item.
- Available options are shown at the bottom of the screen
- In some menu items, functions can be specified simply by pressing the ⊕ or ▶ button, or another screen is displayed for configuring the function.



#### 3 Choose an option.

- Press the buttons or turn the dial to choose an option.
- Options labeled with a IRW icon can be configured by pressing the MENU button.



#### Finish the setup process.

- Press the (str) 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 (p. 183).

# MENU Menu

Configure a variety of camera functions through other menus as follows. Menu items are grouped by purpose on tabs, such as shooting ( $\bigcirc$ ), playback ( $\bigcirc$ ), and so on. Note that available settings vary depending on the selected shooting or playback mode (pp. 234 – 239).



#### Access the menu.

Press the MENU button.



#### Choose a tab.

- Move the zoom lever or press the buttons to choose a tab.
- 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 (♠) or ▶ button to switch screens, and then either press the ▲▼ buttons or turn the ♠ dial to select the setting.
  - Press the MENU button to restore the previous screen.



- 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 (p. 183).

# Indicator Display

The power lamp and indicator on the back of the camera (p. 5) will light or blink depending on the camera's status.

Indicator	Color	Indicator Status	Camera Status
Power Lamp	Green	On	Camera on
rowei Lailip	Green	Blinking	Low battery
Indicator	Green	On	Ready to shoot (when the flash is deactivated)
		Blinking	Recording/reading/transmitting images Distance warning (p. 221), or cannot focus (when the flash is deactivated) (p. 221)
		On	Ready to shoot (when the flash is activated)
		Blinking	Distance warning (p. 221), or cannot focus (when the flash is activated) (p. 221)



 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 in Smart Auto Mode**

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



#### Turn the camera on.

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





#### Enter (Will) 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 (pp. 52, 53).
- Frames displayed around any detected subjects indicate that they are in focus.



ISO Start Tracking

Focus Range (approx.)

#### Compose the shot.

 To zoom in and enlarge the subject, move the zoom lever toward (telephoto), and to zoom away from the subject, move it toward (wide angle). (A zoom bar showing the zoom position is displayed.)



Shoot.

#### **Shooting Still Images**

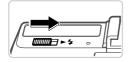
1 Focus.

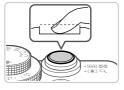
Press the shutter button halfway. The camera beeps twice after focusing, and AF frames are displayed to indicate image areas in focus.



 Several AF frames are displayed when multiple areas are in focus.

AF Frames





• If [Raise the flash] appears on the screen, move the ► \$\frac{4}{5}\$ switch 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.
- 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.

- If the flash is already up, push it down with your finger, into the camera.
- 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.
- Once recording begins, you can take your finger off the movie button.

#### **Shooting in Smart Auto Mode**



# 2 Resize the subject and recompose the shot as needed.

- To resize the subject, do the same thing as in step 3 on p. 48.
  - However, note that the sound of camera operations will be recorded.
- 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 activate the screen when the camera is on but the screen is blank, press the ▼ button (p. 43).

## Still Images



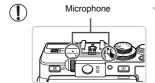
- A flashing 
   icon warns that images are more likely to be blurred by camera shake. In this case, attach the camera to a tripod or take other measures to keep it still.
- If your shots are dark despite the flash firing, move closer to the subject. For details on the flash range, see "Specifications" (p. 34).
- 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" (p. 34).
- To reduce red-eye and to assist in focusing, the lamp may be activated when shooting in low-light conditions.

A blinking \$\frac{1}{2}\$ icon displayed when you attempt to shoot indicates that shooting is not possible until the flash has finished recharging. Shooting can resume as soon as the flash is ready, so either press the shutter button all the way down and wait, or release it and press it again.



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

#### Movies



- Before shooting a movie, lower the flash with your finger. Be careful not to touch the microphone when shooting a movie. Leaving the flash raised, or 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.
- To correct suboptimal image color that may occur in movie shooting (p. 64) after you recompose shots, press the movie button to stop recording, and then press it again to resume recording.



Audio is recorded in stereo.

#### Scene Icons

In AUTO mode, shooting scenes determined by the camera are indicated by the icon displayed, and corresponding settings are automatically selected for optimal focusing, subject brightness, and color.

	Subject	ct People			Other Subjects			Icon
Baci	kground		In Motion*1	Shadows on Face*1		In Motion*1	At Close Range	Background Color
Bri	ght		<b>2</b> =	2	AUTO	OF	<b>Y</b>	Gray
	Backlit		₽Ę/	_	3/1		*	Giuy
Wit Sky	h Blue		<b>○</b> ₩	2	AUTO	OF	*	Light Blue
	Backlit	· En	27	_	7/1	=	WEN	
Sur	nsets		_		<b>?</b> '	?	_	Orange
Spo	otlights		A			3		
Dar	rk	F	7	2	AU	TO		Dark Blue
	Tripod Used	*2	-	_	*2	_	_	

<sup>\*1</sup> Not displayed for movies.

<sup>\*2</sup> Displayed in dark scenes when the camera is held still, as when mounted on a tripod.

<sup>1</sup> 

<sup>•</sup> Try shooting in P mode (p. 95) 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 **QUID** mode.

(4)	Image stabilization for still images	( <b>₩</b> )	Image stabilization for movies, reducing strong camera shake, as when shooting while walking (Dynamic IS)
( <b>-&gt;</b> ))	Image stabilization for still images, when panning*	((∰))	Image stabilization for subtle camera shake, such as when shooting movies at telephoto (Powered IS)
(3)	Image stabilization for macro shots (Hybrid IS)	( <del>!!)</del>	No image stabilization, because the camera is mounted on a tripod or held still by other means

<sup>\*</sup> 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] (p. 124). 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 (p. 95) if no frames are displayed, if frames are not displayed around desired subjects, or if frames are displayed on the background or similar areas.

# Common, Convenient Features

Still Images

Movies



### Zooming In Closer on Subjects (Digital Zoom)

When distant subjects are too far away to enlarge using the optical zoom, use digital zoom for up to about 16x enlargement.



#### Move the zoom lever toward [...].

- Hold the lever until zooming stops.
- Zooming stops at the largest possible zoom factor (before the image becomes grainy), which is displayed when you release the zoom lever.



- Move the zoom lever toward again.
  - ► The camera zooms in even closer on the subject, using digital zoom.



 Zoomed images may look grainy, under some resolution settings (p. 61) 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).
- 28 448 mm (28 112 mm with optical zoom alone)
- To deactivate digital zoom, press the MENU button, choose [Digital Zoom] on the 
   tab, and then choose [Off].

Still Images

Movies

### Using the Self-Timer

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

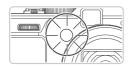




- Press the (♠) button, choose (♠) in the menu, and then choose the (♠) option (p. 44).
- ▶ Once the setting is complete, 📆 is displayed.



- 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. (When the flash fires, the lamp will remain lit.)
- To cancel shooting after you have triggered the self-timer, press the MENU button.
- To restore the original setting, choose 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 p. 56 and choose <sup>(2)</sup>
- ▶ Once the setting is complete, ♦ is displayed.
- Follow step 2 on p. 56 to shoot.

#### Customizing the Self-Timer

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



## ¶ Choose ℃.

 Follow step 1 on p. 56, choose ♥€, and then press the MENU button.

#### 2 Configure the setting.

- Turn the dial to choose [Delay], either press the buttons or turn the dial to choose [Shots], and then press the dial button.
- ▶ Once the setting is complete, % is displayed.
- Follow step 2 on p. 56 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. (When the flash fires, the lamp will remain lit.)

Still Images

#### **Adding the Shooting Date and Time**

The camera can add the shooting date and time to images in the lower-right corner. However, note that these cannot be removed. Confirm beforehand that the date and time are correct (p. 18).





#### Configure the setting.

- Press the MENU button, choose [Date Stamp] on the tab, and then choose the desired option (p. 45).
- Once the setting is complete, [DATE] is displayed.



#### 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.



- Images originally recorded without the date and time can be printed with this information as follows. However, adding the date and time to images that already have this information may cause it to be printed twice.
- Use camera DPOF print settings (p. 212) to print
- Use the included software to print
  - For details, refer to the Software Guide.
- Print using printer functions (p. 206)

Still Images

## $^\mathsf{f}$ Choosing Subjects to Focus On (Tracking AF)

Shoot after choosing a subject to focus on as follows.





#### Specify Tracking AF.

- Press the button.

#### 2 Choose a subject to focus on.

- 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.

# Image Customization Features

Still Images

### 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 (p. 44).
- 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 Same aspect ratio as HDTVs, used for display on widescreen HDTVs or similar display devices.
- 3:2 Same aspect ratio as 35 mm film, used for printing images at 5 x 7-inch or postcard sizes.
- **4:3** Native aspect ratio of the camera screen, used for printing images at 3.5 x 5-inch or A-series sizes.
- **1:1** Square aspect ratio.
- 4:5 Aspect ratio commonly used for portraits.



 At aspect ratios other than 4:3, digital zoom (p. 55) is not available ([Digital Zoom] is set to [Off]).

Still Images

# 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" (p. 34).

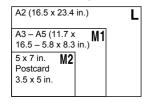




#### Configure the setting.

- Press the ⊕ button, choose in the menu, and choose the desired option (p. 44).
- The option you configured is now displayed.
- To restore the original setting, repeat this process but choose

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



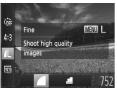
• **S**: For e-mailing images.

Still Images

# Changing the Compression Ratio (Image Quality)

Choose from two compression ratios, as follows: (Fine), (Normal). For guidelines on how many shots at each compression ratio can fit on a memory card, see "Specifications" (p. 34).





#### Configure the setting.

- Press the button, choose I in the menu, press the MENU button, and choose the desired option (p. 44).
- The option you configured is now displayed.
- To restore the original setting, repeat this process but choose

Still Images

### **Red-Eye Correction**

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





# Access the [Built-in Flash Settings] screen.

 Press the MENU button, choose [Flash Control] on the tab, and then press the button (p. 45).



#### 2 Configure the setting.

- Choose [Red-Eye Corr.], and then choose [On] (p. 45).
- 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 (p. 168).
  - You can also access the screen in step 2 when the flash is up by pressing the **b** button and immediately pressing the **MENU** button.

Still Images

# Correcting Greenish Image Areas from Mercury Lamps

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





- Press the MENU button, choose [Hg Lamp Corr.] on the tab, and then choose [On] (p. 45).
- ➤ Once the setting is complete, ♣ is displayed.
- To restore the original setting, repeat this process but choose [Off].

#### **Image Customization Features**



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



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

Movies

## <sup>r</sup> Changing Movie Image Quality

3 image quality settings are available. For guidelines on the maximum movie length at each level of image quality that will fit on a memory card, see "Specifications" (p. 34).





- Press the ⊕ button, choose ⋈ in the menu, and choose the desired option (p. 44).
- ➤ The option you configured is now displayed.

#### **Image Customization Features**

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



 In mand mand mand mandes, black bars displayed on the top and bottom edges of the screen indicate image areas not recorded.

Movies

#### $^{\mathsf{f}}$ 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.





- Press the MENU button, choose [Wind Filter] on the tab, and then choose [On] (p. 45).
- To restore the original setting, repeat this process but choose [Off].

# Helpful Shooting Features

Still Images

### Using the Electronic Level

An electronic level can be displayed on the screen when shooting as a quideline to determine if the camera is level.



### Display the electronic level.

Press the ▼ button several times to display the electronic level.



#### 2 Level the camera as needed.

 Level the camera so that the center of the electronic level is green.





- If the electronic level is not displayed in step 1, press the MENU button, and on the tab, choose [Custom Display]. Add a ✓ to to to choose the electronic level.
- Tilting the camera too far forward or backward will prevent you from using the electronic level, which will turn gray.
- The electronic level is not displayed during movie recording.
- If you hold the camera vertically, the orientation of the electronic level will be updated automatically to match the camera orientation.
- If your shots are not level even if you use the electronic level, try calibrating the electronic level (p. 180).

Still Images

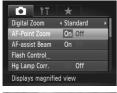
## Magnifying the Area in Focus

You can check the focus by pressing the shutter button halfway to enlarge the image area in the AF frame.



## Configure the setting.

 Press the MENU button, choose [AF-Point Zoom] on the tab, and then choose [On] (p. 45).





#### 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 display will not magnify if a face was not detected, or if the person is too close to the camera and their face is too large for the screen.



 The display will not magnify when using the digital zoom (p. 55) or Tracking AF (p. 59).

Still Images

#### **Checking for Closed Eyes**

 $\begin{tabular}{l} \begin{tabular}{l} \begin{tabu$ 





#### Configure the setting.

 Press the MENU button, choose [Blink Detection] on the tab, and then choose [On] (p. 45).

#### 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  $\fintrightarrow \fi$  mode, this function is only available for the final shot.

# Customizing Camera Operation

Customize shooting functions on the 
ab of the menu as follows. For instructions on menu functions, see "MENU Menu" (p. 45).

### 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 tab, and then choose [Off] (p. 45).
- To restore the original setting, repeat this process but choose [On].

## Deactivating the Red-Eye Reduction Lamp

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



# Access the [Built-in Flash Settings] screen.

- Choose [Red-Eye Lamp], and then choose [Off] (p. 45).
- 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 tab, and then choose the desired option (p. 45).
- To restore the original setting, repeat this process but choose [2 sec.].

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

# Changing the Image Display Style After Shots

Change the way images are displayed after shots as follows.



- Press the MENU button, choose [Review Info] on the tab, and then choose the desired option (p. 45).
- To restore the original setting, repeat this process but choose [Off].

Off	Displays only the image.
Detailed	Displays shooting details (p. 228).
Focus Check	Shows the area in the AF frame magnified, enabling you to check the focus. Follow the steps in "Checking the Focus" (p. 143).

# 3

# **Other Shooting Modes**

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



# **Specific Scenes**

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



#### Enter SCN mode.

Set the mode dial to SCN.



#### Choose a shooting mode.

- Press the ⊕ button, choose ♣ in the menu, and then choose a shooting mode (p. 44).
- 3 Shoot.



#### Still Images

Movies

#### Shoot portraits (Portrait)

Take shots of people with a softening effect.

Still Images

Movies

#### Shoot landscapes (Landscape)

 Shoot majestic landscapes with a real sense of depth.

Still Images



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

- Capture subjects that move around, such as children and pets, without missing photo opportunities.
- For details on the shooting range, see "Specifications" (p. 34).









## Shoot moving subjects (Sports)

- Shoot continuously as the camera keeps the subject in focus.
- For details on the shooting range, see "Specifications" (p. 34).

Still Images

# Shoot evening scenes without using a tripod (Handheld NightScene)

- Beautiful shots of evening scenes, created by combining consecutive shots to reduce camera shake and image noise.
- When using a tripod, shoot in (p. 48).

Still Images

Movies

#### Shoot at the beach (Beach)

 Take shots of brightly lit people on sandy beaches where the reflected sunlight is strong.

Still Images

Movies

## Shoot under water (Underwater)

 Natural-colored shots of sea life and underwater scenery, when you use an optional waterproof case (p. 188).



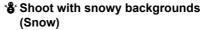
Movies

#### **¼** Take shots of foliage (Foliage)

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



Movies



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

Still Images

Movies

# 

Vivid shots of fireworks



- Because the camera will shoot continuously in mode, hold it steady while shooting.
- In mode, shooting conditions that cause excessive camera shake or similar issues may prevent the camera from combining images, and you may not be able to obtain the expected results.
- In mode, mount the camera on a tripod or take other measures to keep it still and prevent camera shake. In this case, set [IS Mode] to [Off] (p. 124).



In \$\$, \(\mathbb{\eq}\), \(\mathbb{\eq}\), and \(\mathbb{\eff}\) modes, shots may look grainy because the ISO speed (p. 99) is increased to suit the shooting conditions.

# Image Effects (Creative Filters)

Add a variety of effects to images when shooting.



- Enter mode.
- Set the mode dial to ②.



- Choose a shooting mode.
  - Press the button, choose HM in the menu, and then choose a shooting mode (p. 44).
- 3 Shoot.
- In **(2)**, **(3)**, **(4)**, **(3)**, **(4)**, and **(5)** modes, try taking some test shots first, to make sure you obtain the desired results.



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.

Int 10'30

Still Images

# Shooting High-Contrast Scenes (High Dynamic Range)

Three consecutive images are captured at different brightness levels each time you shoot, and the camera combines image areas with optimal brightness to create a single image. This mode can reduce the washed-out highlights and loss of detail in shadows that tends to occur in high-contrast shots.



Follow steps 1 – 2 on p. 75 and choose HDR.

#### Hold the camera still.

 Mount the camera on a tripod or take other measures to keep it still and prevent camera shake.

#### Shoot.

 When you press the shutter button all the way down, the camera will take three shots and combine them.



Set the [IS Mode] to [Off] (p. 124) in this mode.



- Any subject movement will cause images to look blurry.
- There will be a delay before you can shoot again, as the camera processes and combines the images.

## **Adding Color Effects**



#### Choose a color effect.

■ Follow steps 1 – 2 on p. 75 and choose HDR. Press the button, choose a color effect (either press the **\Delta** buttons or turn the **\Delta** 

dial), and then press the (a) button again.

AGFF Effect Off	_
<b>ℰ</b> se Sepia	Sepia tone shots.
₽ B/W	Black and white shots.
& Super Vivid	Shots in rich, vivid colors.
Poster Effect	Shots that resemble an old poster or illustration.

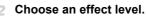
					Still Images	S		Movies
IIν		 	 	 			 _	

# Shooting with Faded Colors (Nostalgic)

This effect makes colors look faded and images look weathered, as in old photographs. Choose from five effect levels.







- Turn the dial to choose an effect level.
- Shoot.





- Colors will look faded on the shooting screen, but the image aging effect is not shown. Review the image in Playback mode to see the effect (p. 140).
- The image aging effect is not applied to movies.

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

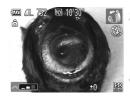
Shoot with the distorting effect of a fish-eye lens.

#### ¶ Choose √

Follow steps 1 − 2 on p. 75 and choose



- Turn the key dial to choose an effect level.
- A preview is shown of how your shot will look with the effect applied.
- Shoot.



Still Images

Movies

# 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.

#### 

- Follow steps 1 2 on p. 75 and choose ≜.
- A white frame is displayed, indicating the image area that will not be blurred.

# Choose the area to keep in focus.

- Press the button.
- Move the zoom lever to resize the frame, and turn the dial to move it.





- For movies, choose the movie playback speed.
- Turn the \*\* dial to choose the speed.
- Return to the shooting screen and shoot.
- Press the 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.



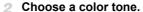
- To switch the orientation of the frame to vertical, press the ◆ buttons in step
   To return the frame to horizontal orientation, press the ◆ buttons.
- To move the frame when it is in horizontal orientation press the ▲▼ buttons, and to move the frame when it is in vertical orientation, press the ◆▶ buttons.
- Holding the camera vertically will change the orientation of the frame.
- Movie image quality is mat an aspect ratio of 4:3 and mat an aspect ratio of 16:3 (p. 60). These quality settings cannot be changed.

# Shooting with a Toy Camera Effect (Toy Camera Effect)

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



lacksquare Follow steps 1 – 2 on p. 75 and choose lacksquare .



- Turn the \*\* dial to choose a color tone.
- A preview is shown of how your shot will look with the effect applied.

## 3 Shoot.

â	
^==	+0 ISO
Standard	Shots resemble to

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

Still Images Movies

# **Shooting in Monochrome**

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

¶ Choose 
☐.

 $lue{}$  Follow steps 1 – 2 on p. 75 and choose  $lue{}$  .



- Choose a color tone.
- Turn the dial to choose a color tone.
   A preview is shown of how your shot will look
- A preview is shown of how your shot will look with the effect applied.

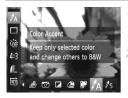
#### 3 Shoot.

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

Movies

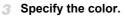
# **Shooting with Color Accent**

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





- Follow steps 1 2 on p. 75 and choose f<sub>A</sub>.
- Access the setting screen.
- Press the button.
- ▶ The original image and the Color Accent image are displayed one after another.
- ▶ By default, green is the color that will be kept.



- Position the center frame over the color to keep, and then press the ◀ button.
- The specified color is recorded.



- Press the ▲▼ buttons or turn the dial to adjust the range.
- To keep only your specified color, choose a large negative value. To keep colors similar to your specified color as well, choose a large positive value.
- Press the less button to return to the shooting screen



Recorded Color



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

Movies

# **Shooting with Color Swap**

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



# │ Choose 🏂.

Follow steps 1 – 2 on p. 75 and choose √s.



#### Access the setting screen.

- Press the button.
- The original image and the Color Swap image are displayed one after another.
- ▶ By default, green will be replaced with gray.



#### Specify the color to replace.

- Position the center frame over the color to replace, and then press the ◀ button.
- ► The specified color is recorded.



#### Specify the new color.

- Position the center frame over the new color, and then press the button.
- The specified color is recorded.
- Specify the range of colors to replace.
- Press the ▲▼ buttons or turn the dial to adjust the range.

#### Image Effects (Creative Filters)

- To replace only your specified color, choose a large negative value. To replace colors similar to your specified color as well, choose a large positive value.
- Press the substant to return to the shooting screen.



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

# Special Modes for Other Purposes

Still Images

Movies



## Auto Clip Recording (Movie Digest)

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



#### ¶ Choose ¬.

Follow steps 1 – 2 on p. 72 and choose

#### Shoot.

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



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



- a mode movie quality is m and cannot be changed.
- Clips are saved as separate movie files in the following cases even if they were recorded on the same day in memory mode.
  - If the movie file size reaches about 4 GB or the total recording time reaches approx. 1 hour
  - If a movie is protected (p. 152)
  - If a movie has been edited (p. 169)
  - When the daylight saving time (p. 19) or time zone settings have been changed (p. 179)
  - If a new folder is created (p. 177)
  - If the copyright information is changed or deleted (p. 181)
- Some camera sounds will be muted. Sounds are not played when you press the shutter button halfway, use camera controls, or trigger the self-timer (p. 173).
- Movies created in mode can be viewed by date (p. 147).

# Auto Shooting After Face Detection (Smart Shutter)

## Auto Shooting After Smile Detection

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



#### Choose 🕒.

- Follow steps 1 2 on p. 72 and choose <sup>1</sup>/<sub>2</sub>, and then press the <sup>3</sup>/<sub>2</sub> button.
- Press the ♠ buttons or turn the ♠ dial to choose Û, and then press the ⑥ button.
- ▶ The camera now enters shooting standby mode, and [Smile Detection on] is displayed.



#### Aim the camera at a person.

- Each time the camera detects a smile, it will shoot after the lamp lights up.
- To pause smile detection, press the ▼ button. Press the ▼ button again to resume detection.



Smile Detection on

(L) 3 shots

DISP Pause Smile Detection

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



- You can also shoot as usual by pressing the shutter button.
- The camera can detect smiles more easily when subjects face the camera and open their mouth wide enough so that teeth are visible.
  - To change the number of shots, press the ▲▼ buttons after choosing ① in step 1. [Blink Detection] (p. 68) is only available for the final shot.

# Using the Wink Self-Timer

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



#### 1 Choose औ.

- Follow steps 1 2 on p. 72 and choose <sup>1</sup>/<sub>2</sub>, and then press the <sup>3</sup>/<sub>2</sub> button.
- Press the buttons or turn the dial to choose dial, and then press the button.

# Compose the shot and press the shutter button halfway.

 Make sure a green frame is displayed around the face of the person who will wink.



# 3 Press the shutter button all the way down.

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



#### Face the camera and wink.

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



- If the wink is not detected, wink again slowly and deliberately.
- Winking may not be detected if eyes are obscured by hair, a hat, or glasses.
- Closing and opening both eyes at once will also be detected as a wink.
- If winking is not detected, the camera will shoot about 15 seconds later.
- To change the number of shots, press the ▲▼ buttons after choosing <sup>(\*)</sup> in step 1. [Blink Detection] (p. 68) is only available for the final shot.
- If no one is in the shooting area when the shutter button is pressed all the way down, the camera will shoot after a person enters the shooting area and winks.

# 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 (p. 112). This is useful when including yourself in group photos or similar shots.



#### Choose 😘.

- Follow steps 1 2 on p. 72 and choose 

   ind then press the 
   ind button.
- Press the ◀▶ buttons or turn the ∰ dial to choose <a href="tight">tight</a>, and then press the ⑤ button.

# 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



# 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.



# 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, press the ▲▼ buttons after choosing <sup>(\*)</sup> in step 1. [Blink Detection] (p. 68) is only available for the final shot.

# High-Speed Continuous Shooting (High-speed Burst HQ)

You can shoot a series of shots in rapid succession by holding the shutter button all the way down. For details on continuous shooting speed, and maximum number of continuous shots, see "Continuous Shooting Speed" (see "Specifications" (p. 34)).

HQ: High Quality



#### l Choose ≌.

- Follow steps 1 2 on p. 72 and choose ២.
- Shoot.
- ► Hold the shutter button all the way down to shoot continuously.
- Shooting stops when you release the shutter button or reach the maximum number of shots, after which [Busy] is displayed and the shots are shown in the order you took them.



- Focus, image brightness, and color are determined by the first shot.
- The screen is blank while you are shooting.
- There may be a delay after continuous shooting before you can shoot again.
   Additionally, depending on the memory card, there may be a delay before you can shoot again. Speed Class 6 or higher memory cards are recommended.
- Shooting may slow down depending on shooting conditions, camera settings, and the zoom position.

# Images Displayed During Playback

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



 If you erase a grouped image (p. 156), all images in the group are also erased. Be careful when erasing images.

#### **Special Modes for Other Purposes**



- Grouped images can be played back individually (p. 148) and ungrouped (p. 148).
- Protecting (p. 152) a grouped image will protect all images in the group.
- Grouped images can be viewed individually when played back using Filtered Playback (p. 145) or Smart Shuffle (p. 151). In this case, images are temporarily ungrouped.
- Grouped images cannot be tagged as favorites (p. 161), edited (pp. 159 168), categorized (p. 162), or printed (p. 206), assigned as a start-up image (p. 174), and you cannot specify the number of copies to print (p. 214). To do these things, either view grouped images individually (p. 148) or cancel grouping (p. 148) first.

# Shooting Stitch Assist Images

Shoot a large subject by taking multiple shots at various positions, and then use the included software to combine them into a panorama.

# ¶ Choose ☐ or ☐.

Follow steps 1 – 2 on p. 72 and choose 
 ☐ or
 ☐.



#### Take the first shot.

The first shot will determine the exposure and white balance



#### Take additional shots.

- Compose the second shot so that it partially overlaps the image area of first shot.
- Minor misalignment of overlapping portions will be corrected automatically when the images are combined.
- Take up to 26 shots, the same way you took the second shot.

## 4 Finish shooting.

Press the (st) button.



# Use the software to combine the images.

 For instructions on merging images, refer to the Software Guide.



- This function is not available when using a TV as a display while shooting (p. 191).
- To use AF lock, assign AFL to the S button (p. 135).

# **Shooting Various Movies**

# 📕 Shooting Movies in 🐂 Mode



- Enter 🖳 mode.
- Set the mode dial to \frac{1}{12}.
- Configure the settings to suit the movie (pp. 230 238).
- 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.





#### Lock the exposure.

- Press the ★ button to lock the exposure. The exposure shift bar is displayed.
- To unlock the exposure, press the ★ button again.
- 2 Adjust the exposure.
- Turn the dial to adjust the exposure, as you watch the screen.
  - 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.



#### Choose 🖑.

- Set the mode dial to \( \frac{1}{27} \).
- Press the ⊕ button, choose ➡ in the menu, and then choose ➡ (p. 44).
- Black bars displayed on the top and bottom edges of the screen indicate image areas not recorded.
- 2 Shoot.



- The resolution is m (p. 64) 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 (pp. 230 – 237).

# Shooting in Program AE Mode (P Mode)

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



- Enter P mode.
- Set the mode dial to P.
  - Customize the settings as desired (pp. 97 124), 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 (p. 120)
  - Choose a higher ISO speed (p. 99)
- 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" (p. 34).

# [Image Brightness (Exposure Compensation]

# Adjusting Image Brightness (Exposure Compensation)

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



- As you watch the screen, turn the exposure compensation dial to adjust brightness.
- ▶ The correction level you specified is now displayed.



# Locking Image Brightness/Exposure (AE Lock)

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



#### Lock the exposure.

- Aim the camera at the subject to shoot with the exposure locked, and then press the button
- ➤ 🗙 is displayed, and the exposure is locked.

#### 2 Compose the shot and shoot.

 After one shot, AE is unlocked and X 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 (a) button, turn the (a) dial to choose the desired option, and then press the (b) button again.
- The option you configured is now displayed.

S Evaluative	For typical shooting conditions, including backlit shots. Automatically adjusts exposure to match the shooting conditions.
Center Weighted Avg.	Determines the average brightness of light across the entire image area, calculated by treating brightness in the central area as more important.
[•] Spot	Metering restricted to within the [ ] (Spot AE Point frame). You can also link the Spot AE Point frame to the AF frame.

# Linking the Spot AE Point Frame to the AF Frame



- Set the metering method to ...
- Follow the step above to choose [•].
- Configure the setting.
  - Press the MENU button, choose [Spot AE Point] on the tab, and then choose [AF Point] (p. 45).
- ► The Spot AE Point frame will now be linked to the movement of the AF frame (p. 114).
- Not available when [AF Frame] is set to [Face AiAF] (p. 112) or [Tracking AF] (p. 115).

## **Changing the ISO Speed**



- Press the ▲ button, choose an option (either press the ◀▶ buttons or turn the ♣ dial), and then press the ∰ button.
- The option you configured is now displayed.

ISO AUTO	Automatically adjusts the ISO speed to suit the shooting mode and conditions.			
[50 [50 [50 [50 100 125 160 200		For shooting outdoors in fair weather.		
150 150 150 150 150 250 320 400 500 640 800		For shooting in cloudy conditions, or at twilight.		
ISO	High	For shooting night scenes, or in dark rooms.		



- $^{\circ}$  To view the automatically set ISO speed when the camera is set to  ${\begin{tabular}{l}} {\ensuremath{\mathbb{R}}} {\ensuremath{\mathbb{R}}},$  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.

## Adjusting the Maximum I ISO Speed

Maximum ISO speed when the camera is set to  $\frac{1}{800}$  can be specified in a range of  $\frac{1}{800}$  –  $\frac{1}{800}$ .

#### Access the setting screen.

Press the MENU button, choose [ISO Auto Settings] on the tab, and then press the button (p. 45).

#### Image Brightness (Exposure Compensation)



## Configure the setting.

 Choose [Max ISO Speed], and then choose the desired option (p. 45).

# Adjusting Sensitivity

Choose from three levels of sensitivity for ......



- Follow step 1 in "Adjusting the Maximum ISO Speed" (p. 99) to access the setting screen.
- Choose [Rate of Change], and then choose the desired option (p. 45).



If you press the MENU button while in the ISO auto settings screen (p. 99), the [ISO Auto Settings] screen will appear.

# Changing the Noise Reduction Level (High ISO NR)

You can choose from 3 levels of noise reduction: [Standard], [High], [Low]. This function is especially effective when shooting at high ISO speeds.



#### Choose a noise reduction level.

 Press the MENU button, choose [High ISO NR] in the tab, and then choose the desired option.

# **Auto Exposure Bracketing (AEB Mode)**

Three consecutive images are captured at different exposure levels (standard exposure, underexposure, and then overexposure) each time you shoot. You can adjust the amount of underexposure and overexposure (relative to standard exposure) from –2 to +2 stops in 1/3-stop increments.





 Press the button, choose in the menu, and then choose (p. 44).



#### Configure the setting.

 Press the MENU button, and then adjust the setting by pressing the ◀▶ buttons or turning the ♣ dial.



- AEB is only available in (3) mode (pp. 22, 49).
- Continuous shooting (p. 108) is not available in this mode.



- If exposure compensation is already in use (p. 97), the value specified for that function is treated as the standard exposure level for this function.
- You can also access the setting screen of step 2 by pressing the MENU button when the exposure compensation screen (p. 97) is displayed.
- Three shots are taken, regardless of any quantity specified in (c) (p. 57).
- [Blink Detection] (p. 68) is only available for the final shot.

# 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.

To avoid washed-out highlights, specify Dynamic Range Correction. To preserve image detail in shadows, specify Shadow Correct.



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



- You can also correct existing images (p. 167).
- You can customize camera operation so that turning the or idla adjusts DR Correction or Shadow Correct settings (p. 133).

# Dynamic Range Correction (DR Correction)

Choose from three correction methods.



- Press the button, choose in the menu, and choose the desired option (p. 44).
- ▶ Once the setting is complete, C<sub>i</sub> is displayed.



- With I and I , the ISO speed will be restored to I if you attempt to set a speed higher than I .
- With \( \mathbb{M} \), the ISO speed will be restored to \( \frac{\text{ISO}}{200} \) if you attempt to set a speed lower than \( \frac{\text{ISO}}{200} \).
- With 꿰, the ISO speed will be restored to find if you attempt to set a speed lower than 原.

#### Shadow Correct



- Press the button, choose in the menu, press the MENU button, and choose im (p. 44).
- lackbox Once the setting is complete,  $\mathbb{C}_{\mathbf{i}}$  is displayed.

# Using the ND Filter

To shoot at slower shutter speeds and smaller aperture values, use the ND filter, which reduces light intensity to 1/8 the actual level (equivalent to 3 stops).



 Press the ⊕ button, choose ₩ in the menu, and then choose ND (p. 44).



 Mount the camera on a tripod or take other measures to keep it still and prevent camera shake. In this case, set [IS Mode] to [Off] (p. 124).

# Color and Continuous Shooting

Still Images

Movies

# 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 WB in the menu, and choose the desired option (p. 44).
- ► The option you configured is now displayed.

AWB	Auto	Automatically sets the optimal white balance for the shooting conditions.
*	Day Light	For shooting outdoors in fair weather.
2	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.
<u> </u>	Fluorescent	For shooting under warm-white, cool-white, and similarly colored fluorescent lighting.
**************************************	Fluorescent H	For shooting under daylight fluorescent and similarly colored fluorescent lighting.
<b>4</b>	Flash	For shooting with the flash.
i (fix	Underwater	Sets the optimal white balance for shooting underwater. Tones down blues to produce natural-looking colors overall.
	Custom	For manually setting a custom white balance (p. 105).

#### **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 in "Adjusting White Balance" (p. 104) to choose  $\stackrel{1}{\sim}$  or  $\stackrel{2}{\sim}$ .
- Aim the camera at a plain white subject, so that the entire screen is white. Press the (3) 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.

# **Manually Correcting White Balance**

You can manually correct white balance. This adjustment can match the effect of using a commercially available color temperature conversion filter or color-compensating filter.





## Configure the setting.

- Follow the steps in "Adjusting White Balance" (p. 104) to choose the white balance option.
- Turn the kind dial to adjust the correction level for B and A

### Configure advanced settings.

- To configure more advanced settings, press the MENU button and turn the \* or dial to adjust the correction level.
- To reset the correction level, press the <a> </a> button
- Press the MENU button to complete the setting.

#### **Color and Continuous Shooting**



 The camera will retain white balance correction levels even if you switch to another white balance option in step 1, but correction levels will be reset if you record custom white balance data.



- B: blue; A: amber; M: magenta; G: green
- One level of blue/amber correction is equivalent to about 7 mireds on a color temperature conversion filter. (Mired: Color temperature unit representing color temperature conversion filter density)
- You can customize camera operation so that the B and A adjustment screen can be accessed simply by turning the dial (p. 133).

Still Images

Movies

# **Changing Image Color Tones (My Colors)**

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



- Press the button, choose fir in the menu, and choose the desired option (p. 44).
- The option you configured is now displayed.

OFF My Colors Off	_
₽ <sub>V</sub> Vivid	Emphasizes contrast and color saturation, making images sharper.
<b>∂</b> <sub>N</sub> Neutral	Tones down contrast and color saturation for subdued images.
<i>£</i> §e Sepia	Creates sepia tone images.
€ B/W	Creates black and white images.
Ap 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.
₽D Darker Skin Tone	Darkens skin tones.

₿ <sub>B</sub> Vivid Blue	Emphasizes blues in images. Makes the sky, ocean, and other blue subjects more vivid.
∄ <sub>G</sub> Vivid Green	Emphasizes greens in images. Makes mountains, foliage, and other green subjects more vivid.
∄ <sub>R</sub> Vivid Red	Emphasizes reds in images. Makes red subjects more vivid.
AC Custom Color	Adjust contrast, sharpness, color saturation, and other qualities as desired (see below).



- ) White balance (p. 104) cannot be set in ♣e or ♠w modes.
- With A<sub>L</sub> and A<sub>D</sub> modes, colors other than people's skin tone may be modified. These settings may not produce the expected results with some skin tones.

#### Custom Color

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



#### Access the setting screen.

 Follow the steps in "Changing Image Color Tones (My Colors)" (p. 106) to choose \(\delta\_{\mathbb{C}}\), and then press the MENU 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 MENU button to complete the setting.

## **Continuous Shooting**

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



#### Configure the setting.

- Press the (st) button, choose ☐ in the menu, and choose the desired option (p. 44).
- The option you configured is now displayed.

#### 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 $\frac{3}{2}$ mode, focus is determined by the first shot.				

<sup>\*</sup> In  $\frac{\infty}{2}$  mode (p. 74), AF lock (p. 118), or manual focus mode (p. 110),  $\frac{6}{2}$  is changed to  $\frac{1}{2}$ .

<sup>\*</sup> For details on the continuous shooting speed in each mode, see "Specifications" (p. 34).



- Cannot be used with the self-timer (p. 56) or [Blink Detection] (p. 68).
- 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.

# Shooting Range and Focusing

Still Images

Movies

# Shooting at Preset Focal Lengths (Step Zoom)

You can shoot at preset focal lengths of 28 mm, 35 mm, 50 mm, 85 mm, 100 mm or 112 mm (35mm film equivalents). This is convenient when you want to shoot at the angle of view of those focal lengths.

## Assign Z00M to the \*\* dial (p. 132).



- 2 Choose a focal length.
  - Turn the \*\* dial clockwise until it clicks to change the focal length from 28 mm to 35 mm. Keep turning the \*\* dial to increase the focal length, which changes to 50 mm, 85 mm, 100 mm, and 112 mm at each click.



Step zoom is not available when shooting movies even if you turn the dial.



When using the digital zoom (p. 55), turning the \* dial clockwise will not change the zoom factor. However, turning the \* dial counterclockwise will set the focal length to 112 mm.

Still Images

# **Shooting Close-ups (Macro)**

To restrict the focus to subjects at close range, set the camera to ...
For details on the focusing range, see "Specifications" (p. 34).



- Press the ◀ button, choose ♥ (either press the ◀► buttons or turn the ● dial), and then press the ∰ button.
- Once the setting is complete, \$\mathbb{T}\$ is displayed.

#### **Shooting Range and Focusing**



- If the flash fires, vignetting may occur.
- Be careful to avoid damaging the lens.
  - In the yellow bar display area below the zoom bar, will turn gray and the camera will not focus



 To prevent camera shake, try mounting the camera on a tripod and shooting with the camera set to 

 (p. 57).

Still Images

Movies

#### **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" (p. 34).



#### Choose Ma.

- Press the ◀ button, choose M (either press the ◀ buttons or turn the ❸ dial), and then press the ∰ button.
- MF and the MF indicator are displayed.



MF Indicator

#### 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, turn the dial to specify the general focal position.
- Fine-tune the focus.
- Press the shutter button halfway to have the camera fine-tune the focal position (Safety MF).

Movies



- AF frame mode or size cannot be changed while focusing manually (p. 112). If you want to change the AF frame mode or size, cancel manual focus mode first.
- Focusing is possible when using the digital zoom (p. 55) or digital tele-converter, or when using a TV as a display (p. 191), 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 tab to [Off] (p. 45).
- To deactivate automatic focus fine-tuning when the shutter button is pressed halfway, press the MENU button and set [Safety MF] on the tab to [Off] (p. 45).



# Digital Tele-Converter

The focal length of the lens can be increased by approximately 1.5x or 1.9x. 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 (p. 45).

Still Images

➤ The view is enlarged and the zoom factor is displayed on the screen.



- Images will look grainy at a resolution (p. 61) of L or M1. In this
  case, the zoom factor is shown in blue.
- The digital tele-converter cannot be used with digital zoom (p. 55) and AF-point zoom (p. 67).
- The digital tele-converter is only available when the aspect ratio is
   4:3

#### **Shooting Range and Focusing**



- The respective focal lengths when using [1.5x] and [1.9x] are 42.0 168 mm and 53.2 – 213 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 p. 55.

Still Images Movies

## 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 (p. 45).

Still Images Movies

#### Face AiAF

- Detects people's faces, and then sets the focus, exposure (evaluative metering only), and white balance (\( \mathbb{M} \) 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 (p. 116) 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

#### FlexiZone/Center

One AF frame is displayed. Effective for reliable focusing. With [FlexiZone], you can move and resize the AF frame (p. 114).

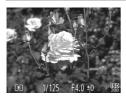


 A yellow AF frame is displayed with 1 if the camera cannot focus when you press the shutter button halfway. Note that AF-point zooming (p. 67) is not possible.

Still Images

## Recomposing Shots While the Focus is Locked

As long as you keep the shutter button pressed halfway, the focus and exposure are locked. You can recompose shots as needed before shooting. This feature is called Focus Lock.



#### focus.

- Aim the camera so that the subject is centered, and then press the shutter button halfway.
- Confirm that the AF frame displayed around the subject is green.



hange size/Move frame

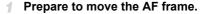
#### ? Recompose the shot.

- Keeping the shutter button pressed halfway, move the camera to recompose the shot.
- Shoot.
- Press the shutter button all the way down.

Still Images

#### Moving and Resizing AF Frames (FlexiZone)

When you want to change the position or size of the AF frame, set the AF frame mode to [FlexiZone] (p. 113).



Press the button. The AF frame turns orange.



- Turn the dial to move the AF frame, or press the ▲▼◀▶ buttons to move it by a smaller amount.
- To return the AF frame to the original position in the center, keep the button held down.
- To reduce the AF frame size, press the MENU button. Press it again to restore it to the original size.
- 3 Complete the settings.
  - Press the button.
- AF frames are displayed at normal size when you use the digital zoom (p. 55) or digital tele-converter (p. 111), and in manual focus mode (p. 110).

You can also link the Spot AE Point frame to the AF frame (p. 98).

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 in "Changing the AF Frame Mode" (p. 112) to choose [Tracking AF].
- is displayed in the center of the screen.







#### 3 Shoot.

- Press the shutter button halfway. [F 7] changes to a blue \_\_\_\_, which follows the subject as the camera continues to adjust the focus and exposure (Servo AF) (p. 116).
- Press the shutter button all the way down to shoot

#### **Shooting Range and Focusing**



- [Servo AF] 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.



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.



#### Configure the setting.

 Press the MENU button, choose [Servo AF] on the tab, and then choose [On]. (p. 45).

#### 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 (p. 56).

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] (p. 45).

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.

Still Images

## **Choosing a Person to Focus On (Face Select)**

You can shoot after choosing a specific person's face to focus on.



- Set the AF frame to [Face AiAF] (p. 112).
- Enter Face Select mode.

  - After [Face Select : On] is displayed, a face frame (in the face detected as the main subject.
- Even if the subject moves, the face frame follows the subject within a certain range.
- If a face is not detected, is not displayed.

#### **Shooting Range and Focusing**





#### Choose the face to focus on.

- To switch the face frame <sup>p- ¬</sup>

  to another detected face, press the 
  button.
- After you have switched the face frame to all detected faces, [Face Select : Off] is displayed, and the specified AF frame mode screen is displayed again.

#### Shoot.

- Press the shutter button all the way down to shoot.

Still Images Movies

# 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.





#### 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 unlock the focus, after you release the shutter button, press the ◀ button again and choose ል (either press the ◀ buttons or turn the ❸ dial).
- Compose the shot and shoot.

Still Images

# Focus Bracketing (Focus-BKT Mode)

Three consecutive images are captured each time you shoot, with the first one at the focal distance you set manually and the others at farther and nearer focal positions determined by presets. The distance from your specified focus can be set in three levels.



#### Choose 4.

Press the ⊕ button, choose ⊕ in the menu, and then choose ⊕ (p. 44).



#### 2 Configure the setting.

 Press the MENU button, and then adjust the setting by pressing the ◀▶ buttons or turning the ♣ dial.



- Focus bracketing is only available in (3) mode (pp. 22, 49).
- Continuous shooting (p. 108) is not available in this mode.



- You can also access the setting screen in step 2 by choosing in step 1 on p. 110 and immediately pressing the MENU button.
- Three shots are taken, regardless of any quantity specified in € (p. 57).
- [Blink Detection] (p. 68) is only available for the final shot.

#### Flash

#### Activating Flash

You can have the flash fire for each shot. For details on the flash range, see "Flash Range" (see "Specifications" (p. 34)).



- Raise the flash.
- Move the ► \$\frac{1}{2}\$ switch.
- Configure the setting.
  - Press the ▶ button, choose ‡ (either press the ◀▶ buttons or turn the ♠ dial), and then press the ∰ button.
  - ▶ Once the setting is complete, **‡** is displayed.



If the flash is lowered, the setting screen will not appear even if you press the ▶ button. Move the ▶ \$\frac{4}{5}\$ switch 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 "Flash Range" (see "Specifications" (p. 34)).



- Raise the flash.
- Move the ► \$\frac{1}{2}\$ switch.
- Configure the setting.
- Press the ▶ button, choose ‡ (either press the ◀▶ buttons or turn the ♠ dial), and then press the ∰ button.
- ▶ Once the setting is complete, ¼ 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. In this case, set [IS Mode] to [Off] (p. 124).
- If the flash is lowered, the setting screen will not appear even if you press the ▶ button. Move the ▶ \$\frac{4}{5}\$ switch to raise the flash, then configure the setting.

## Adjusting the Flash Exposure Compensation

Just as with regular exposure compensation (p. 97), you can adjust the flash exposure from –2 to +2 stops, in 1/3-stop increments.



- Raise the flash, press the button and immediately turn the we dial to choose the compensation level, and then press the button.
- Once the setting is complete, 📆 is displayed.



- You can also configure the flash exposure compensation by choosing **M** in the FUNC. menu (p. 44), or by accessing **MENU** (p. 45) and choosing [Flash Exp. Comp] in [Flash Control] on the **t** tab.
- You can also access the [Built-in Flash Settings] MENU screen as follows (except when an external flash (sold separately) is attached to the camera).
  - Press and hold the button for at least one second.
  - When the flash is up, press the ▶ button and immediately press the MENU button.

#### $^{\mathsf{f}}$ Shooting with the FE Lock

Just as with the AE lock (p. 97), you can lock the exposure for the flash shots.

Raise the flash and set it to \$\( (p. 120). \)



- 2 Lock the flash exposure.
  - Aim the camera at the subject to shoot with the exposure locked, and then press the button.
  - ► The flash fires, and when ★ is displayed, the flash output level is retained.
- 3 Compose the shot and shoot.
  - After one shot, FE is unlocked and \* is no longer displayed.



FE: Flash Exposure

## **Changing the Flash Timing**

Change the timing of the flash and shutter release as follows.



- Access the setting screen.
- Press the MENU button, choose [Flash Control] on the totab, and then press the (\*\*) button (p. 45).
- Configure the setting.
- Choose [Shutter Sync.], and then choose the desired option (p. 45).

1st- curtain	The flash fires immediately after the shutter opens.
	The flash fires immediately before the shutter closes.

# **Shooting RAW Images**

RAW images are "raw" (unprocessed) data, recorded with essentially no loss of image quality from the camera's internal image processing. Use the included software to adjust RAW images as desired with minimal loss of image quality.



• Press the (SET) button, choose PEG in the menu, and choose the desired option (p. 44).



Records JPEG images. JPEG images are processed in the camera for optimal image quality and compressed to reduce file size. However, the compression process is irreversible, and images cannot be restored to their original, unprocessed state. Image processing may also cause some loss of image quality.

Records RAW images. RAW images are "raw" (unprocessed) data, recorded with essentially no loss of image quality from the camera's image processing. The data cannot be used in this state for viewing or printing on a computer. You must first use the included software (Digital Photo Professional) to convert images to ordinary JPEG or TIFF files. Images can be adjusted with minimal loss of image quality.



For details on resolution and the number of shots that will fit on a card, see "Specifications" (p. 34).



Records two images, both a RAW image and a JPEG image, for each shot. The JPEG image can be printed or viewed on a computer without using the included software.



- When transferring RAW images (or RAW and JPEG images recorded together) to a computer, always use the included software (p. 26).
  - Digital zoom (p. 55), date stamps (p. 58), and red-eye reduction (p. 62) are set to [Off] in and met modes. Additionally, i-Contrast (p. 167), My Colors (p. 106) and noise reduction level (p. 100) settings are not available.



- The aspect ratio setting (p. 60) is only applied to JPEG images. RAW images are always shot at an aspect ratio of 4:3.
- To erase ∰ images, display the ∰ image and press ▼ button (p. 156). Choose from [Erase M], [Erase JPEG], or [Erase M+JPEG] to erase the image.
- The file extension for JPEG images is .JPG, and the extension for RAW images is .CR2.

# Other Settings



#### **Changing the IS Mode Settings**



#### Access the setting screen.

 Press the MENU button, choose [IS Settings] on the tab, and then press the (st) button (p. 45).

#### Configure the setting.

Choose [IS Mode], and then choose the desired option (p. 45).

Continuous	Optimal image stabilization for the shooting conditions is automatically applied (Intelligent IS) (p. 53).			
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].

Movies

# Deactivating Powered IS

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



- Follow the steps in "Changing the IS Mode Settings" (p. 124) to access the [IS Settings] screen.
- Choose [Powered IS], and then choose [Off] (p. 45).



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

# 5

# Tv, Av, M, C1, C2 Mode

Take smarter, more sophisticated shots, and customize the camera for your shooting style



 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" (p. 34).



- Enter Tv mode.
- Set the mode dial to Tv.
- Set the shutter speed.
- Turn the \*\* dial to set the shutter speed.



- With slow shutter speeds, there will be a delay before you can shoot again, as the camera processes images to reduce noise.
- When shooting at low shutter speeds on a tripod, you should set [IS Mode] to [Off] (p. 124).
- 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 (p. 129).



- Tv: Time value
- You can customize camera operation so that turning the dial changes the shutter speed (p. 133).

# **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" (p. 34).



- # Enter Av mode.
  - Set the mode dial to Av.
  - Set the aperture value.
  - Turn the \*\* 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 at tab to [On] (p. 45).
  - However, safety shift is disabled when the flash fires.
- You can customize camera operation so that turning the dial changes the aperture value (p. 133).

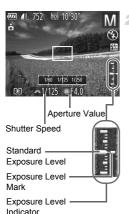
# Specific Shutter Speeds and Aperture Values (M Mode)

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" (p. 34).



- Set the mode dial to M.
- Configure the setting.
- Turn the dial to set the shutter speed, and turn the dial to set the aperture 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 both the shutter speed and aperture value automatically adjusted to obtain standard exposure, hold the shutter button halfway and press the \*\frac{\top}{\top} 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 (p. 98).
- You can customize camera operation so that turning the dial changes shutter speed and turning the dial changes the aperture value (p. 133).

# Adjusting the Flash Output

Choose from the three flash levels in **M** mode.

#### Enter M mode.

- Set the mode dial to M.
- Configure the setting.
  - Raise the flash, press the ▶ button and immediately turn the ➤ dial to choose the flash output level, then press the → button.
  - ► Once the setting is complete, 🔀 is displayed.





- You can set the flash level in Tv or Av mode by accessing MENU (p. 45), choosing [Flash Control] on the tab, and then setting [Flash Mode] to [Manual].
- You can also access the [Built-in Flash Settings] MENU screen as follows (except when an external flash (sold separately) is attached to the camera).
  - Press and hold the button for at least one second.
  - When the flash is up, press the button and immediately press the MENU button.

# **Customization for Shooting Styles**

Still Images Movies

# **Customizing Display Information**

Customize what information is shown in various display modes (switched by pressing the ▼ button), and whether or not the information is shown on the LCD monitor or viewfinder



#### Access the setting screen.

 Press the MENU button, choose [Custom Display] on the tab, and then press the button (p. 45).

#### 2 Configure the setting.

- Press the ▲▼◆▶ buttons or turn the dial to choose an item, and then press the ⊕ button. Items you choose for display are labeled with ✓.
- In [LCD/Viewfinder] (p. 43), you can specify to show or hide this information in LCD monitor or viewfinder display modes (switched by pressing the ▼ button). Press the ▲▼◀▶ buttons or turn the ❸ dial to choose the screen (☑, ☑, or ☒), and then press the ∰ button.

To hide this information in the display mode (accessed by pressing the ▼ button), add ♦ to the icon. Note that the current display mode cannot be modified.

Shooting Info	Displays shooting information (p. 226).
Grid Lines	Displays a reference grid.
Electronic Level	Displays the electronic level (p. 66).
Histogram	Displays a histogram (p. 142), in <b>P</b> , <b>Tv</b> , <b>Av</b> , and <b>M</b> modes.



- Settings will not be saved if you press the shutter button halfway and return to the shooting screen from the custom display settings screen.
- Grayed-out items can also be specified, but they may not be displayed in some shooting modes.



Grid lines are not recorded in your shots.

Still Images

Movies

# Assigning Functions to the Front Dial and Control Dial

Assign commonly used functions to the front dial and control dial, by shooting mode.



#### Access the setting screen.

- Press the MENU button, choose [Set \*\*\*\*\*\*
   Func.] on the tab, and then press the button (p. 45).
- Configure the setting.
- Press the ◀▶ buttons to choose an item.
- To configure the settings, press the A▼ buttons, choose an item (either press the A▼ ◆ buttons or turn the dial), and then turn the dial to change the function.

## Assignable Functions

Functions you can assign to the front dial and control dial vary depending on shooting mode. On the setting screen, you can assign aspect ratio switching (p. 60), white balance correction (p. 104), step zoom (p. 109), or i-Contrast (p. 167) to modes indicated by  $\bigstar$  in the following table.

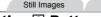
Item	Shooting Mode				
item	M	Av	Tv	Р	
Front Dial 1	**	Tv	Αv	Tv	*
FIORE DIAL I		Av, ★	*	*	*
Front Dial 2	<b>**</b>	Av	Av	Tv	*
FIGHT Dial 2		Tv, ★	*	*	*
Control Dial	**	*	*	*	*
Control Diai		Tv. Av	Αv	Tv	*

Av: aperture value (p. 129); Tv: shutter speed (p. 128)



When multiple functions are assigned to the dial, press the button to switch between them.

Movies



# Assigning Functions to the 🔊 Button



- Access the setting screen.
- Press the MENU button, choose [Set Shortcut button] on the tab, and then press the button (p. 45).
- Configure the setting.
  - Press the ▲▼◀▶ buttons or turn the ♣ dial to choose a function to assign, and then press the ♠ button.
- 3 Use the assigned function as needed.
  - Press the S button to activate the assigned function



- To restore default settings, choose <u>s</u>.
- Icons labeled with O indicate that the function is not available in the current shooting mode or under current function conditions.
- When the or function is used, each press of the Is button records white balance data (p. 105), and the white balance settings change to or ■.
- When the AFL function is used, each press of the S button adjusts and locks the focus, and AFL is displayed on the screen.
- Pressing the S button when the in function is used deactivates screen display. To restore the display, do any of the following.
  - Press any button (other than the ON/OFF button)
  - Hold the camera in another orientation
  - Open and close the screen
  - Raise and lower the flash

Still Images

## **Saving Shooting Settings**

Save commonly used shooting modes and your configured function settings for reuse. To access saved settings later, simply turn the mode dial to **C1** or **C2**. Even settings that are usually cleared when you switch shooting modes or turn the camera off (such as self-timer settings) can be retained this way.

## Settings that can be saved

- Shooting modes (P, Tv, Av, and M)
- Items set in **P**, **Tv**, **Av**, or **M** modes (pp. 97 130)
- Shooting menu settings
- Zoom positions
- Manual focus positions (p. 110)
- My Menu settings (p. 137)





- Enter a shooting mode with settings you want to save, and change the settings as desired.
- Configure the setting.
- Press the MENU button, choose [Save Settings] on the tab, and then press the
   button.
- 3 Save the settings.
  - Press the **\** buttons or turn the **\** dial to choose the destination, and then press the **\** button.



To edit saved settings (except their shooting mode), choose C1 or C2, change the settings, and then repeat steps 2 – 3. These setting details are not applied in other shooting modes.



 To clear information you have saved to C1 or C2 and restore default values, turn the mode dial to C1 or C2 and choose [Reset All] (p. 183).

Saving Commonly Used Shooting Menus (My

# Menu)

Save up to five commonly used shooting menus as menus on the  $\,\star\,$  tab, for instant access to all of these items from a single screen.



#### Access the setting screen.

Press the MENU button, choose [My Menu settings] on the ★ tab, and then press the button (p. 45).



#### Configure the setting.

- Press the ▲▼ buttons or turn the ♣ dial to choose [Select items], and then press the ♠ button.
- Press the ▲▼ buttons or turn the ♣ dial to choose menus to save (up to five), and then press the ♠ button.
- is displayed.
- To cancel saving, press the button. button. is no longer displayed.
- Press the MENU button.

#### **Customization for Shooting Styles**



- Rearrange the menu list order, as needed.
- Press the ▲▼ buttons or turn the ♣ dial to choose [Sort], and then press the ♠ button.
- Press the ▲▼ buttons or turn the ② dial to choose a menu to move, and then press the ③ button.
- Press the ▲▼ buttons or turn the dial to change the order, and then press the button.
- Press the MENU button.



 Grayed-out items in step 2 can also be specified, but they may not be available in some shooting modes.



 To make My Menu immediately accessible by pressing the MENU button in Shooting mode, choose [Set default view] and press the ◀▶ buttons to choose [Yes].

# 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.



#### 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 (st) button.
- To browse images grouped by shooting date, press the ▲▼ buttons in Scroll Display mode.



02/02/12 +

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



#### 3 Play movies.

To start playback, press the ∰ button to access the movie control panel, choose ▶ (either press the ♠ buttons or turn the ♠ dial), and then press the ∰ button again.

#### 4 Adjust the volume.

Press the ▲▼ buttons to adjust the volume.

#### 5 Pause playback.

- To pause playback, press the button. The movie control panel is displayed. To resume playback, press the buttons or turn the buttons or turn the button
- ➤ After the movie is finished, **SED** ★ 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].
- 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.

Still Images Movies

## **Switching Display Modes**

Press the ▼ button to view other information on the screen, or to hide the information. For details on the information displayed, see p. 226.



\*Not shown for movies.



Switching display modes by pressing the ▼ 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 to to 0.70).

# Overexposure Warning (for Image Highlights)

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

#### Histogram



Dark Bright

- 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.
- The histogram can also be accessed while shooting (pp. 132, 228).

#### **RGB Histogram**



RGB Histogram

- To view an RGB histogram, press the ▲ button in detailed information display. The RGB histogram shows the distribution of shades of red, green, and blue in an image. The horizontal axis represents R, G, or B brightness, and the vertical axis, how much of the image is at that level of brightness. Viewing this histogram enables you to check image color characteristics.
- Press the button again to return to detailed information display.

Still Images

#### **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.



# 2/14 MENU 5

#### Access Focus Check.

- Press the ▼ button (p. 142).
- 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.

#### 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 () 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.

# Browsing and Filtering Images

Still Images

Movies

# Navigating Through Images in an Index

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



#### Display images in an index.

- Move the zoom lever toward 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 ▲▼◀▶ buttons to choose an image.
- An orange frame is displayed around the selected image.
- Press the ( button to view the selected image in single-image display.

Still Images

Movies

# Filtering Image Display

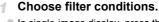
To find images on a memory card full of images, you can filter image display, restricting display to images matching a specific filter. You can also protect (p. 152) or erase (p. 156) sets of filtered images all at once.

Jump to Favorites	Displays images tagged as favorites (p. 161).
Jump Shot Date	Displays the images shot on a specific date.
Jump to My Category	Displays the images of a specific category (p. 162).
Jump to Still/Movie	Displays still images, movies, or movies shot in mode (p. 85).
Jump 10 Images	Jumps by 10 images at a time.
Jump 100 Images	Jumps by 100 images at a time.

# up Filtering Display by 🗭 , 🧐 , 🌃 , or 🕵



Filter Conditions



- In single-image display, press the ☆ button, and then press the ▲▼ buttons to choose a search filter (jump method).
- When filtering by ♠, ♠, or ♠, press the ◆ buttons to choose a filter condition. Turn the ♣ dial to view only those images that match your filter conditions.
- Press the MENU button to restore singleimage display.



#### 2 View the filtered images.

- Press the button to start browsing filtered images. The jump method and a yellow frame are displayed.
- To view images filtered by your chosen condition, press the ◀▶ buttons or turn the ⊕ dial.
- Pressing the button will display [Filtered playback settings cleared]. To cancel filtered playback, press the button.



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



- Options for viewing filtered images (step 2) include "Navigating Through Images in an Index" (p. 145), "Viewing Slideshows" (p. 150), and "Magnifying Images" (p. 149). You can protect, erase, or print all filtered images at once by choosing "All Filtered Images" in "Protecting Images" (p. 152), "Erasing All Images" (p. 156), or "Adding Images to Print Orders (DPOF)" (p. 212).
- If you recategorize images (p. 162) or edit them and save them as new images (p. 164), a message is displayed and filtered playback ends.

# <sup>■</sup> Jumping by ਜ਼ or ਜ਼ Images



- Choose a jump method in single-image display by pressing the ☆ button and then pressing the ▲▼ buttons.
- Press the buttons to use the specified jump method.
- Press the MENU button to restore singleimage display.

#### Using the Front Dial to Jump

Turn the front dial to jump images using the  $\mathcal{F}$ ,  $\mathcal{O}$ ,  $\mathcal{O}$  and  $\mathcal{O}$  functions.



- Turn the dial to use the specified jump method.



Movies

# Viewing Movie Digest Movies



#### Choose a movie.

 Press the MENU button to choose [Movie Digest Playback] in the tab, then choose a date.

#### Play the movie.

Press the 🖫 button to start playback.

Still Images

# Viewing Individual Images in a Group

Grouped images shot in  $\underline{\square}$  mode (p. 89) are generally displayed together, but they can also be viewed individually.



#### Choose an image group.

Press the ◀▶ buttons or turn the ♠ dial to choose an image labeled ➡, and then press the ➡ button.



# View individual images in the group.

- Pressing the ◀▶ buttons or turning the dial will display only images in the group.
- Pressing the f button will display [Display all images]. Press () to cancel group playback.



- During group playback (step 3), you can browse through images quickly ("Navigating Through Images in an Index" (p. 145)) and magnify them ("Magnifying Images" (p. 149)). You can protect, erase, or print all images in a group at once by choosing "All Images in Group" in "Protecting Images" (p. 152), "Erasing All Images" (p. 156), or "Adding Images to Print Orders (DPOF)" (p. 212).
- To ungroup images so that you can view them individually, press the MENU button, choose [Group Images] on the ▶ tab, and then choose [Off] (p. 45).
   However, grouped images cannot be ungrouped during individual playback.

# **Image Viewing Options**

Still Images

# **Magnifying Images**





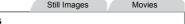
Approximate Position of Displayed Area

#### 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
   You can return to single-image display by continuing to hold it.
- 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 dial.



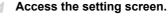
You can return to single-image display from magnified display by pressing the  $\mbox{\bf MENU}$  button.



# **Viewing Slideshows**

Automatically play back images from a memory card as follows.





 Press the MENU button and choose [Slideshow] on the tab (p. 45).



#### 2 Configure the setting.

- Choose a menu item to configure, and then choose the desired option (p. 45).
- 3 Start automatic playback.
  - Press the ▲▼ buttons or turn the dial to choose [Start], and then press the ⊕ 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 (p. 40) are deactivated during slideshows.



- To pause or resume slideshows, press the (IN) button.
- You can switch to other images during playback by pressing the ◀▶ buttons or turning the ❸ dial. For fast-forward or fast-rewind, hold the ◀▶ buttons down.
- [Play Time] cannot be modified when [Bubble] is chosen in [Effect].
- You can also start slideshows from single-image display by pressing and holding the (\*\*) button and immediately pressing the [5] button.

Still Images

# 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.



#### Choose Smart Shuffle.

- Press the MENU button, choose [Smart Shuffle] on the tab, and then press the button (p. 45).
- 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 button. To restore the original display, press the button again.
- Press the MENU button to restore singleimage display.

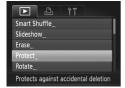


- Only still images shot with this camera are played back using Smart Shuffle.
- [Smart Shuffle] is not available in the following cases:
  - There are less than 50 shots taken with this camera
  - An unsupported image is currently displayed
  - The current image is being played in filtered playback

# Protecting Images

Protect important images to prevent accidental erasure by the camera (pp. 156).

# Choosing a Selection Method



- Access the setting screen.
- Press the MENU button, and then choose [Protect] on the ▶ tab (p. 45).



- Choose a selection method.
  - Choose a menu item and a setting as desired (p. 45).
  - To return to the menu screen, press the MENU button.

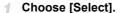


Protected images on a memory card will be erased if you format the card (pp. 175, 176).



 Protected images cannot be erased by the camera. To erase them, cancel protection settings first.

# **Choosing Images Individually**



Following step 2 on p. 152, 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.
- Repeat this process to specify other images.



#### 3 Protect the images.

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

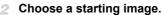


 Images will not be protected if you switch to Shooting mode or turn the camera off before finishing the setup process in step 3.

# **Selecting a Range**

MENU 🗢

- 1 Choose [Select Range].
- Following step 2 on p. 152, choose [Select Range] and press the () button.



Press the (SET) button.



SET First image

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 ( 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

#### Choose [All Images].

Following step 2 on p. 152, choose [All Images] and press the button.



#### 2 Protect the images.

 Press the ▲▼ buttons or turn the ♣ dial to choose [Protect], and then press the ♠ 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.

#### Choose an image to erase.

Press the ◀▶ buttons or turn the ❸ dial to choose an image.



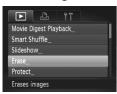
# 2 Erase the images.

- Press the m button.
- After [Erase?] is displayed, press the buttons or turn the dial to choose [Erase], and then press the button.
- The current image is now erased.
- To cancel erasure, press the ◆▶ buttons or turn the ● dial to choose [Cancel], and then press the ⊕ button.

# Erasing All Images

You can erase all images at once. Be careful when erasing images, because they cannot be recovered. However, protected images (p. 152) cannot be erased.

# Choosing a Selection Method



#### Access the setting screen.

 Press the MENU button, and then choose [Erase] on the ► tab (p. 45).



#### Choose a selection method.

- Choose a menu item and a setting as desired (p. 45).
- Press the ▲▼ buttons to choose a selection method, and then press the ( button.
- To return to the menu screen, press the MENU button.

#### Choosing Images Individually

#### Choose [Select].

• Following step 2 on p. 156, choose [Select] and press the ( ) button.



#### Choose an image.

- Once you follow step 2 on p. 153 to choose an image, is displayed.
- To cancel erasure, press the ( button again. ✓ is no longer displayed.
- Repeat this process to specify other images.



#### 3 Erase the images.

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

#### Selecting a Range

#### Choose [Select Range].

• Following step 2 on p. 156, choose [Select Range] and press the ( button.

#### Choose images.

 Follow steps 2 – 3 on p. 154 to specify images.



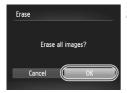
MENU S

#### Frase the images.

 Press the ▼ button to choose [Erase], and then press the ( button.

# Specifying All Images at Once

- Choose [All Images].
- Following step 2 on p. 156, choose [All Images] and press the button.



#### Erase the images.

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

# **Rotating Images**

Change the orientation of images and save them as follows.



## Choose [Rotate].

Press the MENU button, and then choose [Rotate] on the tab (p. 45).



#### 2 Rotate the image.

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



- Movies with an image quality of  $\overline{\mathbb{M}}$  or  $\overline{\mathbb{M}}$  cannot be rotated.

• Rotation is not possible when [Auto Rotate] is set to [Off] (see below).

# 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] (p. 45).

#### **Rotating Images**



- Images cannot be rotated when you set [Auto Rotate] to [Off]. Additionally, images already rotated will be displayed in the original orientation.
  - In Smart Shuffle (p. 151) 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 and assign them to My Category (p. 162). By choosing a category in filtered playback, you can restrict the following operations to all of those images.

 Viewing (p. 140), Viewing Slideshows (p. 150), Protecting Images (p. 152), Erasing Images (p. 156), Adding Images to Print Orders (DPOF) (p. 212)

# **Tagging Images as Favorites**



#### Choose [Favorites].

 Press the MENU button, and then choose [Favorites] on the tab (p. 45).



#### 2 Choose an image.

- Press the ◀▶ buttons or turn the ♠ dial to choose an image, and then press the ♠ button. ★ is displayed.
- To untag the image, press the ( 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 ♠ 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 or RAW images.)

# 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.

- nages with detected faces, or images shot in nor mode.
- : Images shot in &, S, M, B, or mode.

# Choosing a Selection Method



# Access the setting screen.

Press the MENU button, and then choose [My Category] on the ▶ tab (p. 45).



#### Choose a selection method.

- Choose a menu item and a setting as desired (p. 45).
- To return to the menu screen, press the MENU button.

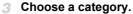
# Choosing Images Individually

- Choose [Select].
  - Following step 2 above, choose [Select] and press the button.

#### 2 Choose an image.

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





- Press the ▲▼ buttons to choose the 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.



#### 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 ● 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

#### Choose [Select Range].

- Following step 2 on p. 162, choose [Select Range] and press the () button.
- 2 Choose images.
  - Follow steps 2 3 on p. 154 to specify images.



#### 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.

#### 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 (pp. 164 – 168) is only available when the memory card has sufficient free space.

# Resizing Images

Save a copy of images at a lower resolution.



#### Choose [Resize].

- Press the MENU button, and then choose [Resize] on the ► tab (p. 45).
- 2 Choose an image.
  - Press the buttons or turn the dial to choose an image, and then press the button.



#### 3 Choose an image size.

- Press the buttons or turn the dial to choose the size, and then press the button.
- ► [Save new image?] is displayed.



#### Save the new image.

- Press the ◀▶ buttons or turn the dial to choose [OK], and then press the 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 ♠ button.
- The saved image is now displayed.



- Editing is not possible for images saved as X\$ in step 3.
- RAW images cannot be edited.



Images cannot be resized to a higher resolution.

# Cropping

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



# Choose [Trimming].

 Press the MENU button, and then choose [Trimming] on the tab (p. 45).

#### Choose an image.

Press the ◀▶ buttons or turn the ♣ dial to choose an image, and then press the ♠ button.

# Cropping Area Resolution After Cropping



Preview of Image After Cropping

#### 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 button.
- Faces detected in the image are shown with gray frames around them (in the upper-left image), which can be used for cropping.
   Switch between frames as needed by turning the dial.
- Press the MENU button.

#### 4 Save as a new image and review.

■ Follow steps 4 – 5 on p. 164.



- Editing is not possible for images shot at a resolution of S (p. 61) or resized to XS (p. 164).
- RAW images cannot be edited.



- 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 p. 106.



Be ABN AP AL AD > STATE

#### Choose [My Colors].

- Press the MENU button, and then choose [My Colors] on the ► tab (p. 45).
- 2 Choose an image.
  - Press the ◀▶ buttons or turn the ❸ dial to choose an image, and then press the ⑥ button.
- 3 Choose an option.
  - Press the ◀▶ buttons or turn the ♣ dial to choose an option, and then press the ♠ button.
- Save as a new image and review.
  - Follow steps 4 − 5 on p. 164.



- 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.
- Colors of RAW images cannot be edited.



The color of images edited using this function may vary slightly from the color of images shot using My Colors (p. 106).

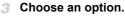
# Correcting Image Brightness (i-Contrast)

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.



#### Choose [i-Contrast].

- Press the MENU button, and then choose [i-Contrast] on the tab (p. 45).
- 2 Choose an image.
  - Press the ◀▶ buttons or turn the ❸ dial to choose an image, and then press the ☺️ button.



- Press the buttons or turn the dial to choose an option, and then press the button.
- Save as a new image and review.
  - Follow steps 4 5 on p. 164.



-Contrast

- For some images, correction may be inaccurate or may cause images to appear grainy.
  - Images may look grainy after repeated editing using this function.
  - · RAW images cannot be edited this way.



 If [Auto] does not produce the expected results, try correcting images using [Low], [Medium], or [High].

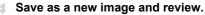
# **Correcting Red-Eye**

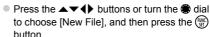
Automatically corrects images affected by red-eye. You can save the corrected image as a separate file.



#### Choose [Red-Eye Correction].

- Press the MENU button, and then choose [Red-Eye Correction] on the ► tab (p. 45).
- 2 Choose an image.
- Press the buttons or turn the dial to choose an image.
- 3 Correct the image.
  - Press the (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 "Magnifying Images" (p. 149).





- The image is now saved as a new file.
- Follow step 5 on p. 164.



Red-Eye Correction

- 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.

Overwrite

- RAW images cannot be edited this way.
- Red-eye correction can be applied to JPEG images shot in Rt, but the original image cannot be overwritten.



# **Editing Movies**

You can cut movies to remove unneeded portions at the beginning or end.



Movie Editing Panel



Movie Editing Bar

#### ¶ Choose ≪.

- Following steps 1 − 3 on p. 140, choose %
   and press the ( button.
- The movie editing panel and editing bar are now displayed.

#### Specify portions to cut.

- Press the ▲▼ buttons to choose ¾ or ¾.
- 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.

#### Review the edited movie.

- Press the ▲▼ buttons to choose ▶, and then press the ⊕ 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 ∰ button, choose
   [OK] (either press the ◀▶ buttons or turn the
   dial), and then press the ∰ button again.

#### **Editing Movies**



#### Save the edited movie.

- Press the ▲▼ buttons to choose ( and then ) press the (SUNC) button.
- Press the ▲▼◀▶ buttons or turn the ♠ dial to choose [New File], and then press the ( ) 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.
  - Only [Overwrite] is available when memory cards lack sufficient free space.
  - Movies may not be saved if the battery runs out while saving is in progress.
  - When editing movies, you should use a fully charged battery or an AC adapter kit (sold separately, p. 186).

# 7

# **Setting Menu**

Customize or adjust basic camera functions for greater convenience

# Adjusting Basic Camera Functions

Functions can be configured on the **††** tab. Customize commonly used functions as desired, for greater convenience (p. 45).

# 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 ▼ button as you turn the camera on.
- Sound is not played during movies if you mute camera sounds (p. 140). To restore sound during movies, press the ▲ button. Adjust volume with the ▲▼ buttons, as needed.

# Adjusting the Volume

Adjust the volume of individual camera sounds as follows.



- Choose [Volume], and then press the street button.
- Choose an item, and then press the buttons to adjust the volume.

# **Customizing Sounds**

Customize camera operating sounds as follows.



- Choose an item, and then press the buttons to choose an option.
  - 1, 2 Preset sounds (cannot be modified)
  - Preset sounds
    3 Can be changed by using the included software.



 The default shutter sound is used in 些 mode (p. 89), regardless of any changes to [Shutter Sound].

# Hiding Hints and Tips

Hints and tips are normally shown when you choose FUNC. menu (p. 44) or Menu (p. 45) 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 ▼ 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 👣 tab.) To restore the original birghtness, press and hold the ▼ 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.

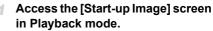


- Choose [Start-up Image], and then press the
   button.
- Press the ◀▶ buttons or turn the ♠ dial to choose an option.

×	No start-up image
1, 2	Preset images (cannot be modified)
3	Preset images Assign desired shots, or use the included software to change the image.

# Customizing the Start-up Screen





- Press the button.
- Following the previous procedure, choose [3] 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 images for your camera from the included software. For details, refer to the Software Guide.

# 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 (p. 216) contains software on the card itself. Before formatting an Eye-Fi card, install the software on a computer.



#### Access the [Format] screen.

Choose [Format], and then press the button.

#### 2 Choose [OK].

Press the ◀▶ buttons or turn the ⊕ dial to choose [OK], and then press the (★) button.

#### **Adjusting Basic Camera Functions**



#### 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 p. 175, press the ▲▼ buttons or turn the dial to choose [Low Level Format], and then select this option (mark with a ) by pressing the buttons.
- Press the ▲▼◀▶ buttons or turn the ❸ dial to choose [OK], press the ∰ button, and then follow step 3 on p. 175 to format (lowlevel format) the memory card.



- Low-level formatting takes longer than "Formatting Memory Cards" (p. 175), 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 0 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 (p. 175)) memory card.
- Refer to the Software Guide 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 (p. 40). 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 (p. 40).



- 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 (p. 18) and your home time zone.



#### Specify your destination.

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



# 2 Switch to the destination time zone.

- Press the ▲▼ buttons or turn the dial to choose [ ▼ World], and then press the MENU button.
- is now shown on the shooting screen (p. 226).



#### Date and Time

Adjust the date and time as follows.



#### Access the [Date/Time] screen.

- Choose [Date/Time], and then press the whiten.
- 2 Configure the setting.

# <sup>■</sup> Metric/Non-Metric Display

Change the unit of measurement shown in the MF indicator (p. 110) and zoom bar (p. 48) from m/cm to ft/in as needed.



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

#### Electronic Level Calibration

Calibrate the electronic level if it seems ineffective in helping you level the camera.

For greater calibration accuracy, display grid lines (p. 132) to help you level the camera in advance.



#### 1 Level the camera.

 Mount the camera on a tripod and make sure it is level.

# 2 Access the [Electronic Level] screen.

- Choose [Electronic Level], and then press the
   button.
- 3 Calibrate the electronic level.
  - Choose [Calibrate] and press the button.
     A confirmation message is displayed.
  - Choose [OK], and then press the button.

#### Resetting the Electronic Level

Restore the electronic level to its original state as follows. Note that this is not possible unless you have calibrated the electronic level.



- Choose [Electronic Level], and then press the ( button.
- Choose [Reset], and then press the button.
- Once the electronic level has been reset, the menu screen is displayed again.

# Setting Copyright Information to Record in Images

To record the author's name and copyright details in images, set this information beforehand as follows



- Access the setting screen.
  - Choose [Copyright Info], and then press the (MI) button.
  - Press the ▲▼ buttons or turn the dial to choose [Enter Author's Name] or [Enter Copyright Details], and then press the button.

#### **Adjusting Basic Camera Functions**





#### Enter a name.

- Press the ▲▼◀▶ buttons or turn the ♣ dial to choose a character, and then press the ( ) button to enter it.
- Up to 63 characters can be used.
- Press the m button to delete single characters
- Turn the \*\* dial or choose ← or → and press the (st) button to move the cursor.



## Save the settings.

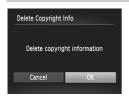
- Press the MENU button. [Accept changes?] is displayed.
- Press the ◆ buttons or turn the dial to choose [Yes], and then press the ( button.
- The information set here will now be recorded in images.



- To check the information entered, choose [Display Copyright Info] on the screen in step 1, and then press the (SET) button.
- You can also use the included software (p. 26) to enter, change, and delete copyright information. Some characters entered with the included software may not display on the camera, but will be correctly recorded in images.
- After saving images to a computer, you can use the software to review copyright information recorded in the images.

## **Deleting All Copyright Information**

You can delete both the author's name and copyright details at the same time as follows.



- Follow step 1 on p. 181 and choose [Delete Copyright Infol.
- Press the ◆ buttons or turn the dial to choose [OK], and then press the ( button.



The copyright info already recorded in images will not be deleted.

## **Display Language**

Change the display language as needed.



#### Access the [Language] screen.

- Choose [Language 3], and then press the (FUIC) button.
- Configure the setting.
  - Press the ▲▼◀▶ buttons or turn the ♠ dial to choose a language, and then press the (SF) button



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

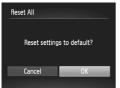
## **Adjusting Other Settings**

The following settings can also be adjusted on the **f** tab.

- [Video System] (p. 191)
- [Ctrl via HDMI] (p. 192)
- [Eye-Fi Settings] (p. 216)

## **Restoring Defaults**

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



#### Access the [Reset All] screen.

 Choose [Reset All], and then press the (SET) button.



#### Restore default settings.

- Press the ◆ buttons or turn the dial to choose [OK], and then press the () button.
- Default settings are now restored.

#### **Adjusting Basic Camera Functions**



The following functions are not restored to default settings.

- 11 tab settings [Time Zone] (p. 179), [Date/Time] (p. 180), [Language []] (p. 183), [Video System] (p. 190), and the image assigned to [Start-up Image] (p. 174)

- Custom white balance data you have recorded (p. 105)

- Colors chosen in Color Accent (p. 82) or Color Swap (p. 83)

- Shooting mode chosen in **SCN** (p. 72) or **(p.** 75) mode

- Exposure compensation (p. 97) setting

The movie mode (p. 92)Calibrated value for the electronic level (p. 180)

- Copyright information (p. 181)

# 8

## **Accessories**

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

## Tips on Using Included Accessories

## **Effective Battery and Charger Use**

Charge the battery on (or immediately before) the day of use

Charged batteries gradually lose their charge, even when they are not used.

You can easily check the charge state of the battery by attaching the cover so that \( \rightarrow \) is visible on a charged battery, and attaching it so that \( \text{\( \Limbda\) is not visible on an uncharged battery.



#### Long-term battery storage

After using up all remaining battery power, remove the battery from the camera. Store the battery with the cover attached. Storing a partially charged battery over extended periods (about a year) may shorten its life or affect performance.

Using the battery charger abroad

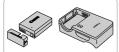
The charger can be used in areas with 100 - 240 V AC power (50/60 Hz). For power outlets in a different format, use a commercially available adapter for the plug. Never use an electrical transformer designed for traveling, which may damage the battery.

## Optional Accessories

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

**Battery Pack NB-10L** 

#### **Power Supplies**





Rechargeable lithium-ion battery **Battery Charger CB-2LC** Charger for Battery Pack NB-10L

For powering the camera using household power. Recommended when using the camera over extended periods, or when connecting the camera to a printer or computer. Cannot be used to charge the camera battery.

## AC Adapter Kit ACK-DC80





- The battery charger and AC adapter kit can be used in areas with 100 - 240 V AC power (50/60 Hz).
  - For power outlets in a different format, use a commercially available adapter for the plug. Never use an electrical transformer designed for traveling, which may damage the battery.

#### Flash Units



#### Speedlite 580EX II/430EX II/320EX/270EX II

Shoe-mounted flash unit that enables many styles of flash photography.



#### Speedlite Bracket SB-E2

 Prevents unnatural shadows next to subjects during vertical shooting. Includes Off-Camera Shoe Cord OC-E3.



#### Speedlite Transmitter ST-E2

 Enables wireless control of slave Speedlite flash units



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

External macro flash units that enable many styles of macro flash photography. The Macro Twin Lite requires Macrolite Adapter MLA-DC1, Off-Camera Shoe Cord OC-E3, and Bracket BKT-DC1 (all sold separately) for attachment to the camera. The Macro Ring Lite requires Macrolite Adapter MLA-DC1 (sold separately) for attachment to the camera

#### **Optional Accessories**



#### Off-Camera Shoe Cord OC-E3

 Used to attach a Macro Twin Lite flash to the camera



#### Bracket BKT-DC1

 Used to attach a Macro Twin Lite flash to the camera.



#### Macrolite Adapter MLA-DC1

 Used to attach a Macro Ring Lite or Macro Twin Lite flash to the camera.

## Other Accessories



#### Soft Case SC-DC75

Protects the camera from dust and scratches.
 Handle with care to prevent leather discoloration



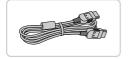
#### Waterproof Case WP-DC44

 For underwater photography at depths of up to 40 meters (130 ft.). Also useful for shooting in the rain, at the beach, or on ski slopes.



#### Waterproof Case Weight WW-DC1

 Prevents the waterproof case from floating during underwater photography.



#### **HDMI Cable HTC-100**

 For connecting the camera to an HDMI input of a high-definition TV.



#### Stereo AV Cable AVC-DC400ST

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



#### Remote Switch RS60-E3

 Enables remote shutter button operation (pressing the button halfway or all the way down).



#### Lens Hood LH-DC70

 Prevents extraneous light outside the angle of view from entering the lens and causing flares or ghosting, which reduce image quality.



#### Filter Adapter FA-DC58C

Adapter required when mounting a 58 mm filter.

#### Canon Lens Filter (58 mm dia.)

 Protects the lens and enables a variety of shooting effects.



 A lens hood and filter adapter cannot be attached to the camera at the same time.

#### **Printers**



SELPHY Series

Inkjet 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

Still Images

Movies

#### r

#### 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.

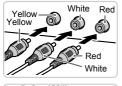


Some information may not be displayed when viewing images on a TV (p. 228).

## 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.

# 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 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.



#### 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.



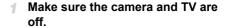
Correct display is not possible unless the camera video output format (NTSC or PAL) matches the TV format. To change the video output format, press the **MENU** button and choose [Video System] on the **YT** tab.

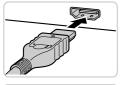


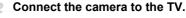
 When the camera and TV are connected, you can also shoot while previewing shots on the larger screen of the TV. To shoot, follow the same steps as when using the camera screen.

## Playback on a High-Definition TV

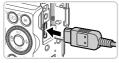
Connecting the camera to an HDTV with the HDMI Cable HTC-100 (sold separately) enables you to view your shots on the larger screen of the TV. Movies shot at a resolution of m or can be viewed in high-definition.







 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 Display images.

 Follow steps 3 – 4 on p. 190 to display images.



 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



#### Configure the settings.

 Press the MENU button, choose [Ctrl via HDMI] on the YT tab, and then choose [Enable] (p. 45).

#### Connect the camera to the TV.

■ Follow steps 1 – 2 on p. 191 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

5	Return	Closes the menu.
	Group Playback	Displays sets of images shot in but mode (p. 89). (Only displayed when a grouped image is selected.)
<b>&gt;</b>	Play Movie	Starts movie playback. (Only displayed when a movie is selected.)
\$	Slideshow	Starts slideshow playback. To switch images during playback, press the <b>\Delta</b> buttons on the remote control.
	Index Playback	Displays multiple images in an index.
DISP.	Change Display	Switches display modes (p. 43).



- Pressing any buttons 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.

## Powering the Camera with Household Power

Powering the camera with AC Adapter Kit ACK-DC80 (sold separately) eliminates the need to monitor the remaining battery level.

Make sure the camera is off.



- Connect the adapter to the coupler.
- Insert the adapter plug fully into the coupler.

#### **Using Optional Accessories**



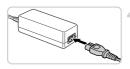
## 3 Insert the coupler.

 Follow step 2 on p. 15 to open the cover, and then insert the coupler as shown until it locks into place.



 Close the cover (1) making sure the coupler cable fits into the coupler cable port (2) and press downward until it clicks into place.





#### Connect the power cord.

- 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.

Movies

## Using a Lens Hood (Sold Separately)

For wide-angle shots of backlit subjects without using the flash, attach optional Lens Hood LH-DC70 to prevent light outside the angle of view from entering the lens.



#### Attach the hood.

- Align the lens hood mark (②) with the camera mark (①), and turn the lens hood in the direction of the arrow until it locks in place.
- To remove the lens hood, turn it the opposite direction.





Vignetting may occur if you use the built-in flash when the lens hood is attached.



 The filter adapter and a lens hood cannot be attached to the camera at the same time.

Movies

## **Using Lens Filters (Sold Separately)**

Attaching a lens filter to the camera protects the lens and allows you to shoot with various effects. To attach a lens filter, you will need Filter Adapter FA-DC58C (sold separately).



#### Attach the filter adapter.

- Align the notches on the camera and the filter adapter and turn the adapter in the direction of the arrow until locked.
- To remove the filter adapter, turn it in the opposite direction.



#### Attach a filter.

- Turn the filter in the direction of the arrow to attach it to the camera.
- Make sure not to attach the filter too tightly.
   Doing so could prevent removal of the filter and damage the camera.



- We recommend the use of genuine Canon filters (58 mm dia.).
- When not using auto focus to shoot, set the manual focus option [Safety MF] to [On].
- If you use the built-in flash with the filter adapter attached, portions of the image may appear darker.
- When using the filter adapter, be sure to use only one filter at a time.
   Attaching multiple filters, or accessories such as a heavy lens, may cause the attachments to fall off or damage the camera or adapter.
- Do not grip the filter adapter tightly.
- Remove the filter adapter when not using a filter.



 The filter adapter and a lens hood cannot be attached to the camera at the same time.

## Using a Remote Switch (Sold Separately)

An optional Remote Switch RS60-E3 can be used to avoid camera shake that may otherwise occur when pressing the shutter button directly. This optional accessory is convenient when shooting at slow shutter speeds.



#### Connect the remote switch.

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



#### Shoot.

 To shoot, press the release button on the remote switch.



Bulb photography (long exposures) is not supported.

Still Images

Movies

## Using an External Flash (Sold Separately)

More sophisticated flash photography is possible with an optional Speedlite EX series flash. For movie shooting using an LED light, the optional Speedlite 320EX flash is available.



- This camera does not support some Speedlite EX series functions.
- Non-EX series Canon flash units may not fire correctly or may not fire at all, in some cases.
- Use of non-Canon flash units (especially high-voltage flash units) or flash accessories may prevent normal camera operation and may damage the camera.



Also refer to the Speedlite EX series manual for additional information.

Still Images Movies

## Speedlite 580EX II/430EX II/320EX/270EX II

These optional flash units can provide bright lighting and meet a variety of flash photography needs.



- Attach the flash unit to the hot shoe.
- 2 Turn the flash on, and then turn the camera on.
  - A red \$ icon is now displayed.
  - ► The flash pilot lamp will light up when the flash is ready.
- 3 Choose shooting mode P, Tv, Av, or M.
  - Flash settings can only be configured in these modes. In other modes, the flash is adjusted and fired automatically, as needed.
- ✓ Set the white balance to 

  ✓ (p. 104).



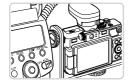
- 5 Configure settings for the external flash.
  - Press the MENU button, choose [Flash Control] on the tab, and then press the button.
  - Options already set on the flash itself are displayed.
  - Press the ▲▼ buttons or turn the dial to choose an item, and then adjust the setting by pressing the ◆ buttons.
- Available settings vary depending on the shooting mode and the flash attached (p. 204).



- Settings for the built-in flash cannot be configured while a Speedlite EX series flash is attached, because that setting screen is no longer accessible.
- You can also access the setting screen by pressing the button for at least one second.
- Flash settings in shooting mode can be configured just as they are in P mode.
- 580EX II only: [Flash Control] is not available if the external flash has been set up for stroboscopic flash.
- ୍ତ 320EX only: Auto LED lighting is only available in low-light movie recording or in Movie mode. In this case, the ଣ୍ଡି icon is shown.

Movies

## Using Speedlite Bracket SB-E2 (Sold Separately)



- Using the optional Speedlite Bracket SB-E2 can help prevent unnatural shadows next to subjects during vertical shooting.
- To keep the LCD screen out of the way of the bracket, use the screen closed and facing outward.

Still Images

## ■ Macro Ring Lite MR-14EX

This optional flash unit enables many styles of macro flash photography. Requires Macrolite Adapter MLA-DC1 (sold separately) for attachment to the camera.



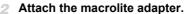


#### Remove the ring.

- Make sure the camera is off.
- Hold down the ring release button (1) and turn the ring in the direction of the arrow (2).
- Align the mark on the ring with the mark on the camera, and then lift the ring off.

#### **Using Optional Accessories**





- Align the mark on the macrolite adapter with the ● mark on the camera, and then turn the adapter in the direction of the arrows until it locks in place.
- To remove the adapter, hold down the ring release button and turn the adapter in the opposite direction.



#### 3 Attach the controller to the camera.

Attach the control component of the macro ring lite to the hot shoe on top of the camera.



# 4 Attach the flash unit to the macrolite adapter.

 Press the release buttons on both sides of the macro ring lite and attach the macro ring lite to the macrolite adapter.

## 5 Choose shooting mode P, Tv, Av, or M.

- Flash settings can only be configured in these modes. In other modes, the flash is adjusted and fired automatically, as needed.
- Set the white balance to ♣ (p. 104).
- 7 Enter **3** mode (p. 109).

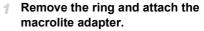
- Set [ND Filter] to [On] (p. 103).
- Configure the external flash.
  - Follow step 5 on p. 198 to adjust the settings.



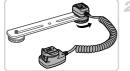
- \* Keep cords (from the macro ring lite) away from flash heads.
  - When using a tripod, adjust the position of the legs to prevent them from coming into contact with the flash heads.
  - Use the screen to compose shots, because the viewfinder cannot be used with these accessories attached

#### Macro Twin Lite MT-24EX

This optional flash unit enables many styles of macro flash photography. Requires Macrolite Adapter MLA-DC1, Off-Camera Shoe Cord OC-E3, and Bracket BKT-DC1 (all sold separately) for attachment to the camera.



■ Follow steps 1 – 2 on p. 199 to remove the ring, and then attach the macrolite adapter.

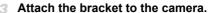


## Attach the off-camera shoe cord to the bracket.

 Slide the bracket screw to the outer end of the bracket. Align the bracket screw with the tripod socket of the off-camera shoe cord, and then tighten the screw to secure it.

#### **Using Optional Accessories**





Slide the other bracket screw to the outer end of the bracket. Align the bracket screw with the tripod socket on the bottom of the camera, and then tighten the screw to secure it.



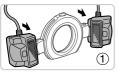
#### 4 Attach the off-camera shoe cord to the camera.

 Attach the camera connection component of the off-camera shoe cord to the hot shoe on top of the camera.



#### 5 Attach the controller to the offcamera shoe cord.

 Attach the controller for the Macro Twin Lite to the flash connection component of the off-camera shoe cord



# Attach the flash unit to the macrolite adapter.

Attach each flash head to the respective mount

 (1). Press the release button on the top of the ring in and attach the ring to the macrolite adapter (2).



# 7 Configure the external flash and settings on the camera.

 Follow steps 5 – 9 on p. 200 to configure the settings.



- Keep cords (from the macro twin lite and off-camera shoe cord) away from flash heads.
- When using a tripod, adjust the position of the legs to prevent them from coming into contact with the flash heads or the bracket.
- Depending on the position where you have attached the flash controller, it may come into contact with the LCD monitor. To prevent this, adjust the position of attachment or the orientation of the controller, adjust the angle of the screen, or use the screen closed and facing outward.
- Use the screen to compose shots, because the viewfinder cannot be used with these accessories attached.

# Camera Settings Available with an External Flash (Sold Separately)

The following settings are available in P, Tv, Av, or M mode. In other shooting modes, only [Red-Eye Corr.] and [Red-Eye Lamp] can be configured. (The flash is adjusted and fired automatically, as needed.)

Item	Options		Shooting Mode			
item			Tv	Av	M	
Flash Mode	Auto*1	0	0	0	_	
riasii wode	Manual*2	0	0	0	0	
Flash Exp. Comp*3	-3 to +3	0	0	0	_	
Flash Output*4	1/128* <sup>5</sup> to 1/1 (in 1/3-stop increments)	0	0	0	0	
Shutter Sync.	1st-curtain/2nd-curtain/Hi-speed	0	0	0	0	
Slow Synchro	On	0	0	0	0	
Slow Sylicilio	Off	0	_	0	_	
Wireless Func.*6	On/Off	0	0	0	0	
Red-Eye Corr.	On/Off	0	0	0	0	
Red-Eye Lamp	On/Off	0	0	0	0	
Safety FE*7	On	0	0	0	_	
Salety FE .	Off	0	0	0	0	
Clear Flash Settings*8		0	0	0	0	

<sup>\*1</sup> E-TTL mode is used for the flash.

<sup>\*2</sup> M mode is used for the flash.

In **M** shooting mode, E-TTL mode is also available for the flash. In this case, when the flash fires, flash exposure compensation set on the flash is applied to the flash output level set on the camera.

<sup>\*3</sup> Can be configured only when [Flash Mode] is [Auto] and flash exposure compensation set on the flash is [+0]. When you adjust flash exposure compensation on the flash, the camera display will be updated (580EX II and 430EX II only).

<sup>\*4</sup> Can be configured when [Flash Mode] is [Manual]. Linked to settings on the flash unit.

<sup>\*5 1/64</sup> for Speedlite 430EX II/320EX/270EX II, Macro Ring Lite MR-14EX, and Macro Twin Lite MT-24EX.

#### **Using Optional Accessories**

- \*6 For options other than On/Off, configure the setting on the flash unit itself. Not available with Speedlite 430EX II/320EX/270EX II, Macro Ring Lite MR-14EX, or Macro Twin Lite MT-24EX. When this setting is set to [On], [Shutter Sync.] cannot be set to [2nd-curtain]. (If [Shutter Sync.] is set to [2nd-curtain], it will be changed to [1st-curtain].)
- \*7 Can only be configured when [Flash Mode] is [Auto].
- \*8 Restores all default settings. You can also restore defaults for [Slow Synchro], [Safety FE], [Red-Eye Corr.], and [Red-Eye Lamp] by using [Reset All] in the **ff** menu on the camera (p. 183).



Flash settings in ♣ shooting mode can be configured just as they are in **P** mode.

## **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 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

Movies

## 「Easy Print

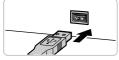
Easily print your shots by connecting the camera to a PictBridge-compatible printer (sold separately) with the included interface cable (p. 2).

Make sure the camera and printer are off.



## 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.



- Turn the camera on.
- Press the button to turn the camera on.



► **MSET** is displayed.

- 5 Choose an image.
  - Press the buttons or turn the dial to choose an image.
- 6 Print the image.
  - Press the h 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 p. 189. RAW images cannot be printed.

Still Images

## **Configuring Print Settings**



- Access the printing screen.
  - After following steps 1 5 on p. 206 to choose an image, press the button to access the screen at left.
- Configure the setting.
- 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.	
Øj	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.	
Trimming	_	Specify a desired image area to print (see below).	
Paper Settings	_	Specify the paper size, layout, and other details (p. 209).	

## Cropping Images Before Printing (Trimming)

By cropping images before printing, you can print a desired image area instead of the entire image.





## Choose [Trimming].

- After following step 1 on p. 207 to access the printing screen, choose [Trimming] and press the button.
- A cropping frame is now displayed, indicating the image area to print.

# Adjust the cropping frame as needed.

- To resize the frame, move the zoom lever.
- To move the frame, press the ▲▼◀▶ buttons.
- To rotate the frame, turn the dial.
- When finished, press the button.

#### 3 Print the image.

On the screen in step 1, press the ▲▼ buttons or turn the ● dial to choose [Print], and then press the ∰ button.



- 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



Choose [Paper Settings].

 After following step 1 on p. 207 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 ♠



3 Choose a type of paper.

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

#### **Printing Images**



- 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 (FUNC) 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.

## Printing ID Photos



- Following steps 1 4 on p. 209, choose [ID Photo] and press the ( button.
- 2 Choose the long and short side length.
  - Press the ▲▼ buttons or turn the ❸ 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 p. 208 to choose the printing area.
- 4 Print the image.

Movies

#### Printing Movie Scenes



- Access the printing screen.
  - Follow steps 1 5 on p. 206 to choose a movie, and then press the ( button.
  - Press the ◆ buttons 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] are not available with Canon PictBridge-compatible printer models earlier than CP720 and CP730.

## **Adding Images to Print Orders (DPOF)**

Batch printing (p. 215) 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.



RAW images cannot be included in print orders.

## 🗖 Adding Images to Print Orders via the 占 Button

You can add images to print orders (DPOF) after your shot or later during playback simply by pressing the  $\triangle$  button.

## Choose an image.

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

## 2 Add the image to the print list.

- Press the h button.
- Press the ▲▼ buttons to specify the number of prints. Choose [Add] by pressing the ◀▶ buttons or turning the ❸ dial, and then press the ∰ button.
- To remove the image from the print order, repeat steps 1 2 but choose [Remove] by pressing the ◀▶ buttons or turning the ∰ dial, and then press the ∰ button.





Print orders cannot be set up while the camera is connected to a printer.

## 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 order.



Press the MENU button, and then choose [Print Settings] on the ∆ tab. Choose and configure settings as desired (p. 45).

	Standard	One image is printed per sheet.
Print Type	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.
Date	Off	_
File No.	On	Images are printed with the file number.
File No.	Off	_
Clear DPOF	On	All image print order settings are cleared after printing.
uata	Off	_



- Not all of your DPOF settings may be applied in printing by the printer or photo development service, in some cases.
- Imay 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 
   ††
   tab, accessible by pressing the MENU button (p. 18).
- Index printing is not available on some Canon PictBridge-compatible printers (sold separately).

## Setting Up Printing for Individual Images



#### Choose [Select Images & Qty.].

Press the MENU button, choose [Select Images & Qty.] on the ☐ tab, and then press the ∰ button.

## Choose an image.

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

## Setting Up Printing for a Range of Images



#### Choose [Select Range].

Following step 1 above, choose [Select Range] and press the ( button.

#### 2 Choose images.

 Follow steps 2 – 3 on p. 154 to specify images.

- 3 Configure the print settings.
  - Press the ▲▼ buttons to choose [Order], and then press the (sr) button.

#### Setting Up Printing for All Images



- Choose [Select All Images].
  - Following step 1 on p. 214, choose [Select All Images] and press the ( button.
  - Configure the print settings.
  - Press the ♠ buttons or turn the ♠ dial to choose [OK], and then press the ♠ button.

## Clearing All Print Orders



- Choose [Clear All Selections].
  - Following step 1 on p. 214, choose [Clear All Selections] and press the button.
- Confirm clearing the order.
  - Press the buttons or turn the dial to choose [OK], and then press the button.

#### Printing Images Added to Print Orders (DPOF)



- When images have been added to the print list (pp. 212 – 215), 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.

## Using an Eye-Fi Card

Before using an Eye-Fi card, always confirm that local use is permitted (p. 3).

Inserting a prepared Eye-Fi card enables automatic wireless transfer of images to a computer or uploading to a photo-sharing website. Images are transferred by the Eye-Fi card. Refer to the card's user manual or contact the manufacturer for instructions on preparing and using cards or resolving transfer problems.



- When using an Eye-Fi card, keep the following points in mind.
  - Cards may continue to transmit radio waves even when [Eye-Fi trans.] is set to [Disable] (p. 217). 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 wireless 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
(Blinking white)	Connecting
(White)	Connected
ি (Animated)	Transfer in progress
<b>76</b>	Interrupted
<b>**</b>	Error acquiring Eye-Fi card information (Restart the camera. Repeated display of this icon may indicate a problem with the card.)

Images labeled with a 🗑 icon have been transferred.



- Power saving (p. 40) on the camera is temporarily disabled during image transfer.
- Choosing mode will interrupt the Eye-Fi connection. Although the Eye-Fi connection will be restored after you choose another shooting mode or enter Playback mode, the camera may transfer any movies made in mode again.

# 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 
   †† tab, and then press the button.
- Choose [Connection info], and then press the 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 †† tab, and then press the
   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.

Using an Eye-Fi Card

# 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 you are using the correct type of battery, and that there is sufficient charge (p. 227).
- Confirm that the battery is inserted facing the correct way (p. 15).
- Confirm that the memory card/battery cover is fully closed (p. 16).
- Dirty battery terminals reduce battery performance. Try cleaning the terminals with a cotton swab and reinserting the battery a few times.

#### The battery is depleted quickly.

- Battery performance decreases at low temperatures. Try warming the battery a little by putting it in your pocket, for example, with the terminal cover on.
- If these measures do not help and the battery is still depleted soon after charging, it has reached the end of its life. Purchase a new battery.

#### The lens is not retracted.

 Do not open the memory card/battery cover while the camera is on. Close the cover, turn the camera on, and then turn it off again (p. 16).

#### The battery is swollen.

 Battery swelling is normal and does not pose any safety concerns. However, if battery swelling prevents the battery from fitting in the camera, contact a Canon Customer Support Help Desk.

#### Display on a TV

Camera images look distorted or not displayed on a TV (p. 191).

## **Shooting**

#### Cannot shoot.

In Playback mode (p. 20), press the shutter button halfway (p. 41).

#### Nothing is displayed (p. 50).

Strange display on the screen under low light (p. 43).

#### Strange display on the screen when shooting.

Note that the following display problems are not recorded in still images but are recorded in movies.

 The screen may flicker and horizontal banding may appear under fluorescent or LED lighting.

#### ‡ flashes on the screen when the shutter button is pressed, and shooting is not possible (p. 51).

#### is displayed when the shutter button is pressed halfway (p. 50).

- Set [IS mode] to [Continuous] (p. 124).
- Raise the flash and set the flash mode to \$ (p. 120).
- Increase the ISO speed (p. 99).
- Mount the camera on a tripod or take other measures to keep it still. In this case, set [IS Mode] to [Off] (p. 124).

#### Shots are out of focus.

- Press the shutter button halfway to focus on subjects before pressing it all the way down to shoot (b. 41).
- Make sure subjects are within focusing range (see "Specifications" (p. 34)).
- Set [AF-assist Beam] to [On] (p. 69).
- Confirm that unneeded functions such as macro are deactivated.
- Try shooting with focus lock or AF lock (pp. 113, 118).

# 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 \$ (p. 120).
- Adjust brightness by using exposure compensation (p. 97).
- Adjust contrast by using i-Contrast (pp. 102, 167).
- · Use spot metering or AE lock (pp. 97, 98).

#### Subjects look too bright, highlights are washed-out.

- Lower the flash and set the flash mode to (9) (p. 49).
- · Adjust brightness by using exposure compensation (p. 97).
- Use spot metering or AE lock (pp. 97, 98).
- · Reduce the lighting on subjects.

#### Shots look too dark despite the flash firing (p. 50).

- Shoot within flash range (p. 120).
- Adjust brightness by using flash exposure compensation or changing the flash output level (pp. 121, 131).
- Increase the ISO speed (p. 99).

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

- Shoot within flash range (p. 120).
- Lower the flash and set the flash mode to (9) (p. 49).
- Adjust brightness by using flash exposure compensation or changing the flash output level (pp. 121, 131).

#### White dots or similar image artifacts appear in flash shots.

This is caused by light from the flash reflecting off dust or airborne particles.

#### Troubleshooting

#### Shots look grainy.

- Lower the ISO speed (p. 99).
- · High ISO speeds in some shooting modes may cause grainy images (p. 74).

#### Subjects are affected by red-eye (p. 62).

- Set [Red-Eye Lamp] to [On] (p. 69) to activate the red-eye reduction lamp (p. 4) in flash shots. 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 (p. 168).

# 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 (p. 176).

#### 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" (pp. 230 – 237).

#### **Shooting Movies**

Cannot shoot movies (p. 17).

#### 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 (p. 175).

#### 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 (p. 176).
- · Lower the image quality (p. 64).
- Switch to a memory card that supports high-speed recording (see "Specifications" (p. 34)).

#### Zooming is not possible.

- Zooming is not possible when shooting movies in modes that do not support digital zoom.
- Zooming is not possible when shooting movies in 

  mode.

#### Subjects look distorted.

 Subjects that pass in front of the camera quickly may look distorted. This is not a malfunction.

#### **Playback**

#### Playback is not possible.

 Image or movie playback may not be possible if a computer is used to rename files or alter the folder structure. Refer to the Software Guide 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 (p. 176).
- 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.

#### 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 ⊕ buttons at the same time. On the next screen, press the ◀▶ buttons to choose [B], and then press the ⊕ button.

#### **Eye-Fi Cards**

Cannot transfer images (p. 216).

# ☑ 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 (p. 16).

#### Memory card locked

 The write-protect tab of the SD/SDHC/SDXC memory card or Eye-Fi card is set to the locked position. Switch the write-protect tab to the unlocked position (p. 15).

#### Cannot record!

 Shooting was attempted without a memory card in the camera. To shoot, insert a memory card facing the correct way (p. 16).

#### Memory card error (p. 176)

 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 (p. 16).

#### Insufficient space on card

There is not enough free space on the memory card to shoot (pp. 47, 71, 95, 127) or edit images (pp. 164 – 168). Either erase unneeded images (pp. 156) or insert a memory card with enough free space (see "Specifications" (p. 34)).

#### Change the battery pack. (p. 15)

#### No Image.

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

#### Protected! (p. 152)

# 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\* (p. 149), Smart Shuffle\* (p. 151), Categorize (p. 161), Rotate (p. 159), Edit\* (pp. 164 168), Assign as Start-up Image\* (p. 175), and Print Order\* (p. 212).
- Grouped images cannot be processed (p. 89).

#### Invalid selection range

 When specifying a range for image selection (pp. 154, 157, 163, 214), 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 Order (p. 212). Choose 998 images or less.
- Print Order (p. 212) 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 (p. 152), Erase (p. 156), Favorites (p. 161), My Category (p. 162), or Print Order (p. 212).

#### 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!

When the highest folder number (999), and the highest image number (9999) has been reached, new folders cannot be created, and images cannot be recorded. In the **ff** menu, change [File Numbering] to [Auto Reset] (p. 177), or format the memory card (p. 175).

#### 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

 It may not be possible to print computer-edited images or images shot with another camera.

#### Print error

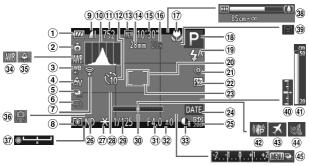
 Check the paper size setting. If this error message is displayed when the setting is correct, restart the printer and complete the setting on the camera again.

#### 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 (p. 227)
- ② Camera orientation\*
- 3 White balance correction (p. 105)
- 4 My Colors (p. 106)
- ⑤ AEB shooting (p. 101) / Focus bracketing (p. 119)
- ⑥ Drive mode (p. 108)
- Tye-Fi connection status (p. 216)
- ® Metering method (p. 98) 9 Still image compression (p. 62), Resolution (p. 61)
- 10 Histogram (p. 142)
- (1) Recordable shots
- 12 Self-timer (p. 56)
- Movie quality (p. 64)
- (4) Focal length (p. 109)
- 15 Remaining time

- 16 Digital zoom magnification (p. 55), Digital tele-converter (p. 111)
- Tocusing range (pp. 109, 109) 110), AF lock (p. 118), IS mode icon (p. 53)
- (B) Shooting mode (p. 230), Scene icon (p. 52)
- (9) Flash mode (p. 120), LED light (p. 199)
- 20 AF frame (p. 112)
- ② Red-eye correction (p. 62)
- ② Flash exposure compensation / Flash output level (pp. 121, 131)
- 23 Spot AE point frame (p. 98)
- 24 Date stamp (p. 58)
- 25 ISO speed (p. 99)
- 26 ND filter (p. 103)
- 27 AE lock (p. 97), FE lock (p. 122)

- 28 Grid lines (p. 132)
- 29 Shutter speed (pp. 128, 130)
- 30 Electronic level (p. 180)
- 31 Aperture value (pp. 129. 130) 32 Exposure compensation
- level (p. 97) 33 i-Contrast (p. 102)
- 34 White balance (p. 104)
- 35 Mercury lamp correction (p. 63)
- 36 Camera shake warning (p. 50)
- 37 Exposure shift bar
- 38 Zoom bar (p. 48)
- 39 Blink detection (p. 68)
- 40 Exposure level (p. 130) 41 MF indicator (p. 110)
- 42 Image stabilization
- (p. 124)
- 43 Time zone (p. 179)
- 44 Wind filter (p. 65)
- 45 Exposure compensation bar (p. 97)

\* 🛕 : Regular orientation, 🐧 🧯 : Held vertically

The camera detects the shooting orientation and adjusts settings for optimal shots. Orientation is also detected during playback, and in either orientation, the camera automatically rotates images as needed.

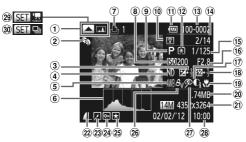
However, the orientation may not be detected correctly when the camera is pointed straight up or down.

## Battery Level

An on-screen icon or message indicates the battery charge level.

Display	Details
17/1	Sufficient charge
• 📶	Slightly depleted, but sufficient
(Blinking red)	Nearly depleted—charge the battery soon
[Change the battery pack.]	Depleted—charge the battery immediately

#### Playback (Detailed Information Display)



- Switch display (RGB histogram) (p. 143)
- ② My Category (p. 162)
- ③ Exposure compensation level (p. 97), Exposure shift level (p. 92)
- 4 ND filter (p. 103)
- (5) White balance (p. 104), White balance correction (p. 105), Mercury lamp correction (p. 63)
- 6 Histogram (p. 142)
- 7 Print order (p. 212)
- (8) ISO speed (p. 99), Playback speed (p. 79)
- Shooting mode (p. 230)
- 10 Transferred via Eye-Fi (p. 216)

- 11 Battery level (p. 227)
- 12 Metering method (p. 98)
- (13) Folder number File number (p. 177)
- (4) Current image no. / Total no. of images
- (5) Shutter speed (still images) (p. 128), Image quality / Frame rate (movies) (p. 64)
- (9 Aperture value (pp. 129, 130)
- 17 i-Contrast (pp. 102, 167)
- (8) Flash (p. 120), Flash exposure compensation (p. 121)
- Focusing range (pp. 109, 110)

- 20 File size
- ② Still images: Resolution Movies: Movie length
- ② Compression (image quality) (p. 62) / Resolution (p. 61), RAW (p. 123), MOV (movies)
- ② Group playback (p. 148), Image editing (pp. 164 – 168)
- 24 Protection (p. 152)
- 25 Favorite (p. 161)
- 26 My Colors (pp. 106, 166)
- Red-eye correction (pp. 62, 168)
- Shooting date/time
   (p. 18)
- 29 Movie (pp. 48, 140)
- 30 High-speed burst HQ (p. 89)



Some information may not be displayed when viewing images on a TV (p. 190).

# Summary of Movie Control Panel in "Viewing" (p. 140)

- **≤** Exit
- Play
- Slow Motion (To adjust the playback speed, press the buttons or turn the buttons or turn the
- Skip Backward\* (To continue skipping backward, keep holding down the button.)
- Previous Frame (For fast-rewind, keep holding down the (m) button.)
- Next Frame (For fast-forward, keep holding down the button.)
- Skip Forward\* (To continue skipping forward, keep holding down the button.)
- **Edit** (p. 169)
- Shown when the camera is connected to a PictBridge-compatible printer (p. 206).

<sup>\*</sup> 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

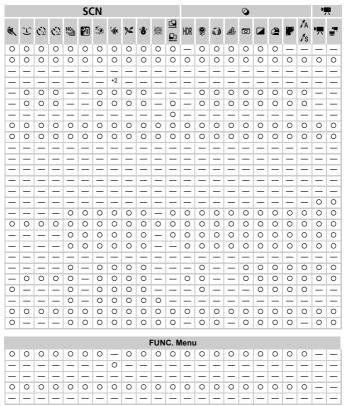
# **Functions Available in Each Shooting Mode**

	Shooting Mode									SC	CN	
		C2	C1	M	Αv	Τv	P	AUTO	o Till	a		-
Function									IOI**	40	•	X.
Exposure Compensation (p. 97	)	*1	*1	-	0	0	0		0	0	0	0
ISO Speed (p. 99)	ESTO AUTO	*1	*1	-	0	0	0	0	0	0	0	0
150 Speed (p. 99)	100 - 1200 100 - 1200	*1	*1	0	0	0	0	-	0	_	-	-
White Balance Correction (p. 1	05)	*1	*1	0	0	0	0	_	_	-	-	_
	<b>\$</b> <sup>A</sup>	*1	*1	-	_	_	0	0	0	0	0	0
Flash (p. 120)*3	<b>\$</b>	*1	*1	0	0	0	0	_	0	0	0	0
Flasii (p. 120)	4≛	*1	*1	-	0	_	0	*4	0	_	*5	-
	3	*1	*1	0	0	0	0	0	0	0	0	0
Metering Method (p. 98)	(8)	*1	*1	0	0	0	0	0	0	0	0	0
Metering Metriod (p. 96)	()()	*1	*1	0	0	0	0	-	0	_	-	-
Shutter Speed (p. 128)		*1	*1	0	_	0	_	_	_	_	-	_
Aperture Value (p. 129)		*1	*1	0	0	_	_	_	_	_	_	-
Program Shift (p. 97)		0	0	-	0	0	0	_	0	-	-	_
AE Lock (p. 97)/FE Lock (p. 12	2)	0	0	_	0	0	0	_	0	_	_	_
AE Lock (Movie)/Exposure Shift	ft (p. 92)	_	_	_	_	_	_	_	_	_	-	_
AF Lock (when registered to the	e 🔊 button) (p. 135)	0	0	0	0	0	0	_	0	0	0	_
	A	*1	*1	0	0	0	0	0	0	0	0	0
Focusing Range (pp. 109, 110)	₩	*1	*1	0	0	0	0	-	0	0	0	-
	M /AF Lock	*1	*1	0	0	0	0	-	0	0	0	-
Change AF Frame Position (p.	114)	*1	*1	0	0	0	0	_	_	-	-	_
Change AF Frame Size (p. 114	.)	*1	*1	0	0	0	0	_	0	0	0	0
Face Select (p. 117)		0	0	0	0	0	0	0	0	0	0	0
Tracking AF (pp. 59, 115)		0	0	0	0	0	0	0	_	0	0	0
	Off	*1	*1	0	0	0	0	0	_	0	0	0
Screen Display (p. 43)	Display 1	*1	*1	0	0	0	0	0	0	0	0	0
	Display 2	*1	*1	0	0	0	0	0	0	0	0	0

	FUNC.	Men	u									
	IOFF	*1	*1	0	0	0	0	_	0	0	0	0
DR Correction (p. 102)	ĮAUTO	*1	*1	_	0	0	0	0	_	_	-	-
	1200% 1400%	*1	*1	0	0	0	0	_	_	_	-	-
Shadow Correct (p. 103)	10FF	*1	*1	0	0	0	0	_	0	0	0	0
Shadow Correct (p. 103)	1AUTO	*1	*1	0	0	0	0	0	0	_	_	-

<sup>\*1</sup> The available settings depend on the registered shooting modes. \*2 Detailed settings not available.

<sup>\*3</sup> Fixed to (3) when the flash is lowered, but selectable when the flash is raised.

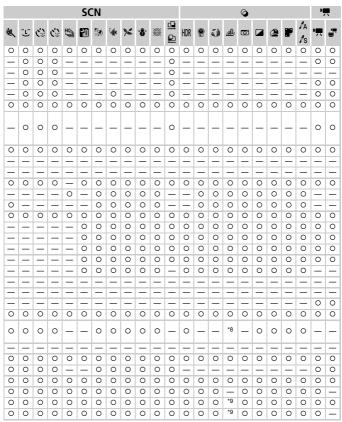


<sup>\*4</sup> Not available, but switches to 🗱 in some cases. \*5 Not available, but switches to 🧱 when the flash fires.

O Selectable, or set automatically. — Not selectable.

#### **Functions and Menu Tables**

	Shooting Mode									SC	CN	
		C2	C1	М	Αv	Τv	P	AUTO	o Till	Ą	<b>1</b>	2
Function									_	70		40
	AWB	*1	*1	0	0	0	0	0	0	0	0	0
	☀▲☀₩	*1	*1	0	0	0	0	-	0	_	-	-
White Balance (p. 104)	\$	*1	*1	0	0	0	0	-	0	_	-	-
	idk	*1	*1	0	0	0	0	-	0	_	-	-
	■1 ■2 *2 △	*1	*1	0	0	0	0	<b> </b> -	0	_	-	-
	-OFF	*1	*1	0	0	0	0	0	0	0	0	0
My Colors (p. 106)	Av An Ase*3 Aw*3 Ap Al Ap AB AG AR AC*4	*1	*1	0	0	0	0	_	0	_	_	_
	₹QEF	*1	*1	0	0	0	0	0	0	0	0	0
Bracketing (pp. 119, 101)	<b>2</b>	*1	*1	_	0	0	0	_	_	_	_	
	<b>E</b>	*1	*1	0	0	0	0	_	_	=	_	-
		*1	*1	0	0	0	0	0	0	0	0	0
Drive Mode (p. 108)	밀	*1	*1	0	0	0	0	_	_	0	0	0
	<b>₽</b> *5	*1	*1	0	0	0	0	_	_	0	0	0
	COFF	*1	*1	0	0	0	0	0	0	0	0	0
Self-Timer (p. 56)	টেট	*1	*1	0	0	0	0	0	0	0	0	0
Sell-Tillier (p. 50)	<b>©</b>	*1	*1	0	0	0	0	0	0	0	0	0
	69	*1	*1	0	0	0	0	0	0	0	0	0
Self-Timer Settings (p. 57)	Delay*6	*1	*1	0	0	0	0	0	0	0	0	0
Gen-Timer Gettings (p. 57)	Shots*7	*1	*1	0	0	0	0	0	_	0	0	0
Flash Exposure Compensation	(p. 121)	*1	*1	_	0	0	0	_	0	_	_	_
Flash Output Level (p. 131)		*1	*1	0	0	0	_	<b>—</b>	_	_	-	_
ND Filter (p. 103)	ND	*1	*1	0	0	0	0	-	0	_	-	-
142 Title (p. 100)	MA	*1	*1	0	0	0	0	0	0	0	0	0
Still Image Aspect Ratio (p. 60)	16:9 3:2 4:3 1:1 4:5	*1	*1	0	0	0	0	0	_	0	0	0
Image Type (p. 123)	JPEG WW FFEG	*1	*1	0	0	0	0	1-	_	_	-	=
Resolution (p. 61)	L	*1	*1	0	0	0	0	0	0	0	0	0
nesolution (p. o i )	M1 M2 S	*1	*1	0	0	0	0	0	0	0	0	0
Compression (p. 62)	44	*1	*1	0	0	0	0	0	0	0	0	0
	F1920	*1	*1	0	0	0	0	0	0	0	0	0
Movie Quality (p. 64)	F280	*1	*1	0	0	0	0	0	0	0	0	0
	640	*1	*1	0	0	0	0	0	0	0	0	0



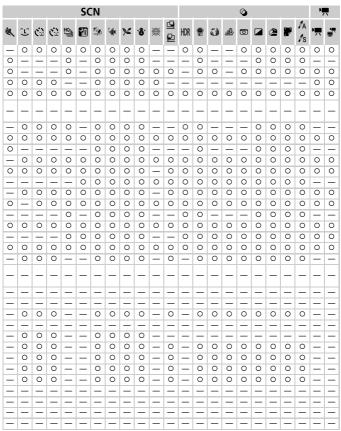
<sup>\*6</sup> Cannot be set to 0 seconds in modes without selection of the number of shots. \*7 One shot (cannot be modified) in modes without selection of the number of shots.

<sup>\*8</sup> Only 43 and 169 are available. \*9 Synchronizes with the aspect ratio setting and is automatically set (p. 60).

O Selectable, or set automatically. — Not selectable.

# Shooting Menu

	Shoo	ting Mode									SC	CN	
Function			C2	C1	М	Αv	Tv	P	AUTO	å	Ą	<b>*</b>	28
	Face AiAl	=	*1	*1	0	0	0	0	0	0	0	0	0
AF Frame (p. 112)	Tracking a	AF	*1	*1	0	0	0	0	*2	_	0	0	0
	FlexiZone	/Center*2	*1	*1	0	0	0	0	<b>—</b>	0	0	0	0
	Standard		*1	*1	0	0	0	0	0	0	0	0	0
Digital Zoom (pp. 55, 111)	Off		*1	*1	0	0	0	0	0	0	0	0	0
Digital 20011 (pp. 55, 111)	Digital Te 1.5x/1.9x	le-converter	*1	*1	0	0	0	0	-	_	_	-	-
AF-Point Zoom (p. 67)	On		*1	*1	0	0	0	0	0	_	0	0	_
AF-FOIR 20011 (p. 07)	Off		*1	*1	0	0	0	0	0	0	0	0	0
Servo AF (p. 116)	On		*1	*1	0	0	0	0	_	_	0	0	0
Servo AF (p. 110)	Off*4		*1	*1	0	0	0	0	0	0	0	0	_
Continuous AF (p. 117)	On		*1	*1	0	0	0	0	0	0	0	0	_
Continuous AF (p. 117)	Off		*1	*1	0	0	0	0	<b>—</b>	_	0	0	0
AF-assist Beam (p. 69)	On		*1	*1	0	0	0	0	0	0	0	0	0
Ar-assist bealti (p. 09)	Off		*1	*1	0	0	0	0	0	0	0	0	0
MF-Point Zoom (p. 110)	On		*1	*1	0	0	0	0	<b>—</b>	_	0	0	-
WII -1 OIII 20011 (p. 110)	Off		*1	*1	0	0	0	0	0	0	0	0	0
Safety MF (p. 110)	On		*1	*1	0	0	0	0	<b>—</b>	0	0	0	_
Salety Wil (p. 110)	Off		*1	*1	0	0	0	0	0	0	0	0	0
	Flash	Auto	*1	*1	_	0	0	0	0	0	0	0	0
	Mode	Manual	*1	*1	0	0	0	-	-	-	_	-	-
	Flash Exp	. Comp	*1	*1	-	0	0	0	_	0	_	-	_
	Flash Out	put	*1	*1	0	0	0	_	_	_	_	-	_
E O	Shutter	1st-curtain	*1	*1	0	0	0	0	0	0	0	0	0
Flash Control (pp. 62, 69, 121, 122, 131)	Sync.	2nd-curtain	*1	*1	0	0	0	0	_	0	_	_	_
121, 122, 101)	Red-Eye	On	*1	*1	0	0	0	0	0	0	0	0	0
	Corr.	Off	*1	*1	0	0	0	0	0	0	0	0	0
	Red-Eye	On	*1	*1	0	0	0	0	0	0	0	0	0
	Lamp	Off	*1	*1	0	0	0	0	0	0	0	0	0
	Safety	On	*1	*1	_	0	0	0	0	0	0	0	0
	FE	Off	*1	*1	0	0	0	0	_	0	=	-	_
ISO Auto Settings (p. 99)	Max ISO	Speed	*1	*1	-	0	0	0	<b>—</b>	0	_	-	-
130 Auto Settings (p. 99)	Rate of C	hange	*1	*1	-	0	_	0	_	0	-	-	-
High ISO NR (p. 100)	Low / Sta	ndard / High	*1	*1	0	0	0	0	-	_	-	-	

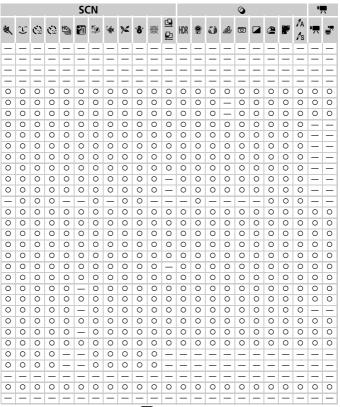


O Selectable, or set automatically. - Not selectable.

	Shoo	ting Mode									SC	CN	
			C2	C1	М	Αv	Τv	P	AUTO	å.	ঞ	<b>*</b>	3
Function													_0
Hg Lamp Corr. (p. 63)	On/Off*		<b>—</b>	_	_	<b> </b> —	_	_	0	_	_	-	_
Spot AE Point (p. 98)	Center		*1	*1	0	0	0	0	<b>—</b>	0	-	<del>-</del>	-
Opot AL 1 oilit (p. 30)	AF Point		*1	*1	0	0	0	0	<b>—</b>	_	_	-	-
Safety Shift (p. 129)	On		*1	*1	-	0	0	_	—	_	-	-	-
Odlety Offit (p. 128)	Off		*1	*1	0	0	0	0	0	0	0	0	0
Wind Filter (p. 65)	On		*1	*1	0	0	0	0	0	0	0	0	0
willd Filter (p. 65)	Off		*1	*1	0	0	0	0	0	0	0	0	0
	Off		*1	*1	0	0	0	0	0	0	0	0	0
Review (p. 70)	2 sec.		*1	*1	0	0	0	0	0	0	0	0	0
Review (p. 70)	3 – 10 se	C.	*1	*1	0	0	0	0	0	0	0	0	0
	Hold		*1	*1	0	0	0	0	0	0	0	0	0
	Off		*1	*1	0	0	0	0	0	0	0	0	0
Review Info (p. 70)	Detailed		*1	*1	0	0	0	0	0	0	0	0	0
	Focus Ch	eck	*1	*1	0	0	0	0	0	0	0	0	0
Blink Detection (p. 68)	On		*1	*1	0	0	0	0	0	0	0	0	0
billik Detection (p. 66)	Off		*1	*1	0	0	0	0	0	0	0	0	0
	Shooting	Info	*1	*1	0	0	0	0	0	0	0	0	0
Custom Display (p. 132)	Grid Lines	3	*1	*1	0	0	0	0	0	0	0	0	0
Custom Display (p. 132)	Electronic	Level	*1	*1	0	0	0	0	0	0	0	0	0
	Histogran	1	*1	*1	0	0	0	0	0	0	0	0	0
Reverse Disp. (p. 17)	On		*1	*1	0	0	0	0	0	0	0	0	0
Reverse Disp. (p. 17)	Off		*1	*1	0	0	0	0	0	0	0	0	0
		Off	*1	*1	0	0	0	0	0	0	0	0	0
	IS Mode	Continuous	*1	*1	0	0	0	0	0	0	0	0	0
IS Settings (p. 124)		Shoot Only	*1	*1	0	0	0	0	_	0	0	0	0
	Powered	On	*1	*1	0	0	0	0	0	0	0	0	0
	IS	Off	*1	*1	0	0	0	0	0	0	0	0	0
	Off		*1	*1	0	0	0	0	0	0	0	0	0
Date Stamp (p. 58)	Date		*1	*1	0	0	0	0	0	0	0	0	0
	Date & Ti	me	*1	*1	0	0	0	0	0	0	0	0	0
Set 🛰 🕮 Func. (p. 133)			*1	*1	0	0	0	0	-	_	-	-	-
Set Shortcut button (p. 135)			*1	*1	0	0	0	0	0	0	0	0	0
Save Settings (p. 136)			0	0	0	0	0	0	-	_	-	-	-

<sup>\*1</sup> The available settings depend on the registered shooting modes. \*2 Only available by pressing the ▲ button (p. 112).

<sup>\*3 [</sup>FlexiZone] in **P**, **Tv**, **Av** and **M** modes, and [Center] in all other modes.



<sup>\*4 [</sup>On] when subject movement is detected in (AUI) mode.

O Selectable, or set automatically. - Not selectable.

# የ† Set up Menu

Item	Ref. Page	Item	Ref. Page
Mute	p. 172	Time Zone	p. 179
Volume	p. 172	Date/Time	p. 19
Sound Options	p. 173	Distance Units	p. 180
Hints & Tips	p. 173	Electronic Level	p. 180
LCD Brightness	p. 174	Video System	p. 191
Start-up Image	p. 174	Ctrl via HDMI	p. 192
Format	pp. 175, 176	Eye-Fi Settings	p. 216
File Numbering	p. 177	Copyright Info	p. 181
Create Folder	p. 177	Language 🖫	p. 20
Lens Retract	p. 178	Reset All	p. 183
Power Saving	pp. 40, 178		

# ★ My Menu Menu

Item	Ref. Page
My Menu settings	p. 137

# Playback Menu

Item	Ref. Page	Item	Ref. Page
Rem	itei. i age	Item	itel. i age
Movie Digest Playback	p. 147	Red-Eye Correction	p. 168
Smart Shuffle	p. 151	Trimming	p. 165
Slideshow	p. 150	Resize	p. 164
Erase	p. 156	My Colors	p. 166
Protect	p. 152	Scroll Display	p. 141
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Favorites	p. 161	Auto Rotate	p. 159
My Category	p. 162	Resume	p. 141
i-Contrast	p. 167	Transition	p. 141

# 💾 🕒 Print Menu

Item	Ref. Page	Item	Ref. Page
Print	_	Select All Images	p. 215
Select Images & Qty.	p. 214	Clear All Selections	p. 215
Select Range	p. 214	Print Settings	p. 213

# Handling Precautions

- The camera is a high-precision electronic device. Avoid dropping it or subjecting it to strong impact.
- Never bring the camera near magnets, motors, or other devices that generate strong electromagnetic fields, which may cause malfunction or erase image data.
- If water droplets or dirt adheres to the camera or screen, wipe with a dry soft cloth, such as an eyeglass cloth. Do not rub hard or apply force.
- Never use cleaners containing organic solvents to clean the camera or screen.
- Use a blower brush to remove dust from the lens. If cleaning is difficult, contact a Canon Customer Support Help Desk.
- To prevent condensation from forming on the camera after sudden temperature changes (when the camera is transferred from cold to warm environments), put the camera in an airtight, resealable plastic bag and let it gradually adjust to the temperature before removing it from the bag.
- If condensation does form on the camera, stop using it immediately.
   Continuing to use the camera in this state may damage it. Remove the battery and memory card, and wait until the moisture has evaporated before resuming use.

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