Camera User Guide

- Make sure you read this guide, including the “Safety Precautions” (14) section, before using the camera.
- Reading this guide will help you learn to use the camera properly.
- Store this guide safely so that you can use it in the future.

- Click the buttons in the lower right to access other pages.
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- To jump to the beginning of a chapter, click the chapter title at right.
Initial Information

Package Contents

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

- Camera
- Battery Pack NB-13L*
- Battery Charger CB-2LH/CB-2LHE
- Wrist Strap

* Do not peel off the adhesive covering from a battery pack.
  - Printed matter is also included.
  - A memory card is not included (≠2).

Compatible Memory Cards

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

- SD memory cards*¹
- SDHC memory cards *¹*²
- SDXC memory cards*¹*²

*¹ Cards conforming to SD standards. However, not all memory cards have been verified to work with the camera.

*² UHS-I memory cards are also supported.
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 result 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 shall be for personal use. Refrain from unauthorized recording that infringes on copyright law, and note that even for personal use, photography may contravene copyright or other legal rights at some performances or exhibitions, or in some commercial settings.

- The camera warranty is valid only in the area of purchase. In case of camera problems while abroad, return to the area of purchase before contacting a Canon Customer Support Help Desk.

- Although the screen (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.

- When the camera is used over an extended period, it may become warm. This does not indicate damage.

Conventions in This Guide

- 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. Numbers in parentheses indicate the numbers of corresponding controls in “Part Names” (4).
  - Control ring (10) on front

- Shooting modes and on-screen icons and text are indicated in brackets.
  - : Important information you should know
  - : Notes and tips for expert camera use
  - : Indicates touch-screen operations
  - : Pages with related information (in this example, “xx” represents a page number)

- Instructions in this guide apply to the camera under default settings.

- For convenience, all supported memory cards are simply referred to as the “memory card”.

- The symbols “Still Images” and “Movies” below titles indicate how the function is used—whether for still images or movies.
Part Names

(1) Lens
(2) Lamp
(3) Strap mount
(4) Zoom lever
Shooting: [ ] (telephoto) / [ ] (wide angle)
Playback: [ ] (magnify) / [ ] (index)
(5) Mode dial
(6) Shutter button
(7) Power button
(8) Speaker
(9) [ ] (Playback) button
(10) Control ring
(11) Flash
(12) [ ] (Mobile Device Connection) button
(13) Serial number (Body number)
(14) [ ] (N-Mark)*
(15) Tripod socket
(16) Memory card/battery cover
(17) DC coupler terminal cover

*1 Used with NFC features (132).

*2 Gestures may not be detected as easily if you apply a screen protector. In this case, increase the sensitivity of the touch-screen panel (164).
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Safety Precautions

- Before using the product, ensure that you read the safety precautions described below. Always ensure that the product is used correctly.
- The safety precautions noted here are intended to prevent you and other persons from being injured or incurring property damage.
- Be sure to also check the guides included with any separately sold accessories you use.

**Warning** Denotes the possibility of serious injury or death.

- Do not trigger the flash in close proximity to people’s eyes. Exposure to the intense light produced by the flash could damage eyesight. In particular, remain at least 1 meter (3.3 feet) away from infants when using the flash.
- Store this equipment out of the reach of children and infants. A strap wound around a child’s neck may result in asphyxiation.
- Use only recommended power sources.
- Do not disassemble, alter, or apply heat to the product.
- Do not peel off the adhesive covering, if the battery pack has it.
- Avoid dropping or subjecting the product to severe impacts.
- Do not touch the interior of the product if it is broken, such as when dropped.
- Stop using the product immediately if it emits smoke or a strange smell, or otherwise behaves abnormally.
- Do not use organic solvents such as alcohol, benzine, or thinner to clean the product.
- Avoid contact with liquid, and do not allow liquid or foreign objects inside. This could result in electrical shock or fire.
- If the product uses a battery charger, note the following precautions.
  - Remove the plug 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 insert or remove the plug 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 plug is damaged or not fully inserted in the outlet.
  - Do not allow dust or metal objects (such as pins or keys) to contact the terminals or plug.
  - Do not cut, damage, alter, or place heavy items on the power cord, if your product uses one.
- 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 product in places where use of electronic devices is restricted, such as inside airplanes and medical facilities.
- If your model has a viewfinder or interchangeable lens, do not look through the viewfinder or lens at bright light sources (such as the sun on a clear day, or a bright artificial light source). This may damage your eyesight.
- If your model has an interchangeable lens, do not leave the lens (or the camera with the lens attached) in the sun without the lens cap on. This could result in a fire.
- Do not touch the product during thunderstorms if it is plugged in. This could result in electrical shock or fire. Immediately stop using the product and distance yourself from it.
- Use only the recommended battery pack/batteries.
- Do not place the battery pack/batteries near or in direct flame. This may cause the battery pack/batteries to explode or leak, resulting in electrical shock, fire, or injuries. If leaking battery electrolyte comes into contact with eyes, mouth, skin, or clothing, immediately flush with water.
- If your model has a viewfinder or interchangeable lens, do not look through the viewfinder or lens at bright light sources (such as the sun on a clear day, or a bright artificial light source). This may damage your eyesight.
- If your model has an interchangeable lens, do not leave the lens (or the camera with the lens attached) in the sun without the lens cap on. This could result in a fire.
- Do not touch the product during thunderstorms if it is plugged in. This could result in electrical shock or fire. Immediately stop using the product and distance yourself from it.
- Use only the recommended battery pack/batteries.
- Do not place the battery pack/batteries near or in direct flame. This may cause the battery pack/batteries to explode or leak, resulting in electrical shock, fire, or injuries. If leaking battery electrolyte comes into contact with eyes, mouth, skin, or clothing, immediately flush with water.
- If the product uses a battery charger, note the following precautions.
  - Remove the plug 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 insert or remove the plug 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 plug is damaged or not fully inserted in the outlet.
  - Do not allow dust or metal objects (such as pins or keys) to contact the terminals or plug.
  - Do not cut, damage, alter, or place heavy items on the power cord, if your product uses one.
  - If your model has a viewfinder or interchangeable lens, do not look through the viewfinder or lens at bright light sources (such as the sun on a clear day, or a bright artificial light source). This may damage your eyesight.
  - If your model has an interchangeable lens, do not leave the lens (or the camera with the lens attached) in the sun without the lens cap on. This could result in a fire.
  - Do not touch the product during thunderstorms if it is plugged in. This could result in electrical shock or fire. Immediately stop using the product and distance yourself from it.
  - Use only the recommended battery pack/batteries.
  - Do not place the battery pack/batteries near or in direct flame. This may cause the battery pack/batteries to explode or leak, resulting in electrical shock, fire, or injuries. If leaking battery electrolyte comes into contact with eyes, mouth, skin, or clothing, immediately flush with water.

**Warning** Denotes the possibility of serious injury or death.
Do not allow the camera to maintain contact with skin for extended periods. Even if the camera does not feel hot, this may cause low-temperature burns, manifested in redness of the skin or blistering. Use a tripod in hot places, or if you have poor circulation or insensitive skin.

Caution Denotes the possibility of injury.

- When carrying the product by the strap, be careful not to bang it, subject it to strong impacts or shocks, or let it get caught on other objects.
- Be careful not to bump or push strongly on the lens. This could lead to injury or damage the camera.
- Be careful not to subject the screen to strong impacts. If the screen cracks, injury may result from the broken fragments.
- When using the flash, be careful not to cover it with your fingers or clothing. This could result in burns or damage to the flash.
- Avoid using, placing, or storing the product in the following places:
  - Places subject to direct sunlight
  - Places subject to temperatures above 40 °C (104 °F)
  - Humid or dusty places
These could cause leakage, overheating, or an explosion of the battery pack/batteries, resulting in electrical shock, fire, burns, or other injuries. Overheating and damage may result in electrical shock, fire, burns, or other injuries.

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

- On products that raise and lower the flash automatically, make sure to avoid pinching your fingers with the lowering flash. This could result in injury.

Caution Denotes the possibility of property damage.

- Do not aim the camera at intense light sources, such as the sun on a clear day or an intense artificial light source. Doing so may damage the image sensor or other internal components.
- When using the camera on a sandy beach or at a windy location, be careful not to allow dust or sand to enter the camera.
- On products that raise and lower the flash automatically, do not push the flash down or pry it open. This may cause the product to malfunction.
- Wipe off any dust, grime, or other foreign matter on the flash with a cotton swab or cloth. The heat emitted from the flash may cause foreign matter to smoke or the product to malfunction.
- Remove and store the battery pack/batteries when you are not using the product. Any battery leakage that occurs may cause product damage.
- Before you discard the battery pack/batteries, cover the terminals with tape or other insulators. Contacting other metal materials may lead to fire or explosions.
- Unplug any battery charger used with the product when not in use. Do not cover with a cloth or other objects when in use. Leaving the unit plugged in for a long period of time may cause it to overheat and distort, resulting in fire.
- Do not leave any dedicated battery packs near pets. Pets biting the battery pack could cause leakage, overheating, or explosion, resulting in product damage or fire.
● If your product uses multiple batteries, do not use batteries that have different levels of charge together, and do not use old and new batteries together. Do not insert the batteries with the + and – terminals reversed. This may cause the product to malfunction.

● When putting the camera in your bag, ensure that hard objects do not come into contact with the screen. Also close the screen (so that it faces the body), if your product’s screen closes.

● Do not attach any hard objects to the product. Doing so may cause malfunctions or damage the screen.
Basic Guide

Basic Operations

Basic information and instructions, from initial preparations to shooting and playback

Touch-Screen Operations

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

- **Touching**
  
  Touch the screen briefly with your finger.
  
  - This gesture is used to shoot, configure camera functions, and so on.

- **Dragging**
  
  Touch the screen and move your finger across it.
  
  - This gesture is used in Playback mode to switch to the next image, or to change the magnified image area, among other operations.
Initial Preparations

Prepare for shooting as follows.

Attaching the Strap

- Thread the end of the strap through the strap mount (1), and then pull the other end of the strap through the loop on the threaded end (2).
- The strap can also be attached to the left side of the camera.

Holding the Camera

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

Charging the Battery Pack

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

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

2. Charge the battery pack.
   - CB-2LH: Flip out the plug (1) and plug the charger into a power outlet (2).
   - CB-2LHE: 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 charging is finished, the lamp turns green.

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

- To protect the battery pack 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.
Inserting the Battery Pack and Your Memory Card

Insert the included battery pack and a memory card (sold separately). Note that before using a memory card that is new or has been formatted in another device, you should format the memory card with this camera (p. 160).

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

2 Insert the battery pack.
   - Holding the battery pack with the terminals in the position shown (1), hold the battery lock toward (2) and insert the battery pack toward (3) until the lock clicks shut.
   - If you insert the battery pack facing the wrong way, it cannot be locked into the correct position. Always confirm that the battery pack is facing the right way and locks when inserted.

3 Check your card’s write-protect switch and insert the memory card.
   - Recording is not possible on memory cards with a write-protect switch when the switch is in the locked position. Move the switch toward (1).
   - Insert the memory card with the label (2) facing as shown until it clicks into place.
   - 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.

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

● For guidelines on how many shots or hours of recording can be saved on one memory card, see “Number of Shots per Memory Card” (p. 205).
Removing the Battery Pack and Memory Card

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

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

Setting the Date and Time

Set the current date and time correctly as follows if the [Date/Time] screen is displayed when you turn the camera on. Information you specify this way is recorded in image properties when you shoot, and it is used when you manage images by shooting date or print images showing the date.

1 Turn the camera on.
- Press the power button.
- The [Date/Time] screen is displayed.

2 Set the date and time.
- Touch the item to configure, and then touch [▲][▼] to specify the date and time.
- When finished, press the [✓] button.

3 Specify your home time zone.
- Touch [◄][►] to choose your home time zone.

4 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 power button.

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

- To set daylight saving time (1 hour ahead), touch [◄][►] and choose [✓] in step 2.
Display Language

Change the display language as needed.

1. Enter Playback mode.
   - Press the [MENU] button.

2. Access the setting screen.
   - Press and hold the [MENU] button, and then immediately press the [MENU] button.

3. Set the display language.
   - Touch a display language to choose it, and then press the [OK] button.
   - Once the display language has been set, the setting screen is no longer displayed.

- The current time is displayed if you wait too long in step 2 after pressing the [MENU] button before you press the [MENU] button. In this case, press the [MENU] button to dismiss the time display and repeat step 2.
- You can also change the display language by pressing the [MENU] button and choosing [Language] on the [OK] tab.
- You can also set the display language by touching a language on the screen in step 3 and then touching it again.

Changing the Date and Time

Adjust the date and time as follows.

1. Access the menu screen.
   - Press the [MENU] button.

2. Choose [Date/Time].
   - Touch [Date/Time], and then touch [2].
   - Touch [Date/Time], and then press the [OK] button.

3. Change the date and time.
   - Follow step 2 in “Setting the Date and Time” (20) to adjust the settings.
   - Press the [MENU] button to close the menu screen.

- Date/time settings can be retained for about 3 weeks by the camera’s built-in date/time battery (backup battery) after the battery pack is removed.
- The date/time battery will be charged in about 4 hours once you insert a charged battery pack or connect the camera to an AC adapter kit (sold separately, 168), 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. Set the correct date and time as described in “Setting the Date and Time” (20).
Try the Camera Out

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

Shooting (Smart Auto)

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

1 Turn the camera on.
- Press the power button.
- The startup screen is displayed.

2 Enter [AUTO] mode.
- Set the mode 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 left of the screen.
- Frames displayed around any detected subjects indicate that they are in focus.

3 Compose the shot.
- To zoom in and enlarge the subject, move the zoom lever toward [telephoto], and to zoom away from the subject, move it toward [wide angle].

4 Shoot.

Shooting Still Images

1) Focus.
- Press the shutter button lightly, halfway down. The camera beeps twice after focusing, and frames are displayed to indicate image areas in focus.
- If [Raise the flash] is displayed, 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.
- Keep the camera still until the shutter sound ends.
- After displaying your shot, the camera will revert to the shooting screen.
Recording Movies

1) Start recording.
   - Press the movie button. The camera beeps once as recording begins, and [Rec] is displayed with the elapsed time (1).
   - Black bars are displayed on the top and bottom edges of the screen, and the subject is slightly enlarged. The black bars indicate image areas not recorded.
   - Frames displayed around any detected faces indicate that they are in focus.
   - Once recording begins, take your finger off the movie button.

2) Finish recording.
   - Press the movie button again to stop recording. The camera beeps twice as recording stops.

Viewing

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

1) Enter Playback mode.
   - Press the [播放] button.
   - Your last shot is displayed.

2) Choose images.
   - To view the next image, drag right to left across the screen, and to view the previous image, drag left to right.
   - Frames displayed around any detected faces indicate that they are in focus.
   - Once recording begins, take your finger off the movie button.

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

Recording Movies

1) Start recording.
   - Press the movie button. The camera beeps once as recording begins, and [Rec] is displayed with the elapsed time (1).
   - Black bars are displayed on the top and bottom edges of the screen, and the subject is slightly enlarged. The black bars indicate image areas not recorded.
   - Frames displayed around any detected faces indicate that they are in focus.
   - Once recording begins, take your finger off the movie button.

2) Finish recording.
   - Press the movie button again to stop recording. The camera beeps twice as recording stops.
3 Play movies.
- Press the [▶] button, choose [▶], and then press the [▶] button.
- Playback now begins, and after the movie is finished, [▶] is displayed.
- To adjust the volume, quickly drag up or down across the screen during playback.

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

You can also start movie playback by touching [▶].

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

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

2 Erase the image.
- Press the [▶] button, choose [▶], and then press the [▶] button.
- After [Erase?] is displayed, touch [Erase].
- The current image is now erased.
- To cancel erasure, touch [Cancel].

Images can also be erased by using Touch Actions (119).
You can choose multiple images to erase at once (116).
Advanced Guide

Camera Basics

Other basic operations and more ways to enjoy your camera, including shooting and playback options

On/Off

Shooting Mode

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

Playback Mode

- Press the [ ] button to turn the camera on and view your shots.
- To turn the camera off, press the [ ] button again.

- To switch to Playback mode from Shooting mode, press the [ ] button.
- To switch to Shooting mode from Playback mode, press the shutter button halfway (26).
- The lens will be retracted after about one minute once the camera is in Playback mode. You can turn the camera off when the lens is retracted by pressing the [ ] button.
Power-Saving Features (Auto Power Down)

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

Power Saving in Shooting Mode

The screen is automatically deactivated after about one minute of inactivity. In about two more minutes, the lens is retracted and the camera turns itself off. To activate the screen and prepare for shooting when the screen is off but the lens is still out, press the shutter button halfway (26).

Power Saving in Playback Mode

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

* You can deactivate Auto Power Down and adjust the timing of Display Off, if you prefer (162).
* Power saving is not active while the camera is connected to other devices via Wi-Fi (131), or when connected to a computer (174).

Shutter Button

To ensure your shots are in focus, always begin by holding the shutter button halfway down, and once the subject is in focus, press the button all the way down to shoot. In this manual, shutter button operations are described as pressing the button halfway or all the way down.

1. Press halfway. (Press lightly to focus.)
   - Press the shutter button halfway. The camera beeps twice, and frames are displayed around image areas in focus.

2. Press all the way down. (From the halfway position, press fully to shoot.)
   - The camera shoots, as a shutter sound is played.
   - Keep the camera still until the shutter sound ends.

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

Press the [INFO] button to show or hide the grid lines and electronic level.
To configure the on-screen display in greater detail, access [1] tab ► [Shooting information display] (98).

- Screen brightness is automatically increased by the night view 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 “Switching Display Modes” (105).
Using the Quick Set Menu

Configure commonly used functions in the Q (Quick Set) menu. Note that menu items and options vary depending on the shooting mode (192).

1 Access the Q menu.
   - Press the [ ] button.

2 Choose a menu item.
   - Touch a menu item (1) to choose it.
   - Available options (2) are shown at the bottom of the screen.

3 Choose an option.
   - Drag an option left or right to choose it.
   - Items labeled with a [MENU] icon can be configured by pressing the [MENU] button.
   - Items labeled with a [INFO] icon can be configured by pressing the [INFO] button.

4 Confirm your choice and exit.
   - Press the [ ] button.
   - The screen before you pressed the [ ] button in step 1 is displayed again, showing the option you configured.

Using Touch-Screen Operations to Configure Settings

- To undo any accidental setting changes, you can restore the camera’s default settings (166).
- You can also exit by touching [ ] in the menu.

- Touch [ ] in the upper right of the screen to access the Quick Set menu.
- Touch a menu item and then an option to complete the setting.
- To return to the previous screen, touch the [ ] menu item, or touch the selected option again.
- You can access the screen for items labeled with a [MENU] icon by touching [MENU].
- You can access the screen for items labeled with a [INFO] icon by touching [INFO].
Using the Menu Screen

Configure a variety of camera functions through the menu screen as follows.

1 Access the menu screen.
   - Press the [MENU] button.

2 Choose a tab.
   - Touch a tab to choose it.
   - Tabs represent functions (1), such as shooting ([]), playback ([][]), or settings ([][]), or pages within each function (2). Tabs are identified in this manual by combining the function and page, as in [1].
   - Page tabs can also be selected by moving the zoom lever or dragging left or right across the screen.

3 Choose a menu item.
   - Touch an item to choose it, and then press the [ ] button.
   - You can also choose menu items by turning the [ ] ring.
   - For menu items with options not shown, first press the [ ] button to switch screens, and then touch an item to choose it.
   - To return to the previous screen, press the [MENU] button.

4 Choose an option.
   - Touch an option to choose it.

5 Confirm your choice and exit.
   - Press the [ ] button to confirm your choice and return to the menu item selection screen.
   - 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 (166).
   - Available menu items vary depending on the selected shooting or playback mode (195 – 202).
Touch-Screen Operations

- To choose tabs, press the [MENU] button to access the menu screen, and then touch the desired function tab and page tab.
- Drag the menu items up or down to scroll them, or touch a menu item to choose it.
- Touch an option to complete the setting and return to the menu item selection screen.
- For menu items displayed with a bar to indicate the level, touch the desired position on the bar.
- To configure menu items for which options are not shown, first touch the menu item to access the setting screen. On the setting screen, either drag or touch to choose the item, and then touch to choose the option. To return to the previous screen, touch [MENU].
- You can also touch input elements (such as check boxes or text fields) to select them, and you can enter text by touching the on-screen keyboard.
- When [SET] is shown, you can touch [SET] instead of pressing the [SET] button, if you prefer.
- When [MENU] is shown, you can touch [MENU] instead of pressing the [MENU] button, if you prefer.
- When [INFO] is shown, you can touch [INFO] instead of pressing the [INFO] button, if you prefer.
- To dismiss the menu, press the [MENU] button again.

On-Screen Keyboard

Use the on-screen keyboard to enter information for Face ID (43), Wi-Fi connections (131), and so on. Note that the length and type of information you can enter varies depending on the function you are using.

Entering Characters
- Touch the characters to enter them.
- The amount of information you can enter (1) varies depending on the function you are using.

Moving the Cursor
- Touch [ ].

Entering Line Breaks
- Touch [ ].

Switching Input Modes
- To switch to numbers or symbols, touch [ ].
- Touch [ ] to enter capital letters.
- Available input modes vary depending on the function you are using.

Deleting Characters
- Touch [ ] to delete the previous character.
- Touching and holding [ ] will delete five characters at a time.
**Indicator Display**

The indicator on the back of the camera (4) lights up or blinks depending on the camera status.

<table>
<thead>
<tr>
<th>Color</th>
<th>Indicator Status</th>
<th>Camera Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green</td>
<td>Blinking</td>
<td>Starting up, recording/reading/transmitting images, shooting long exposures (92, 93), connected to a computer (174), connecting/transmitting via Wi-Fi, or display off (26, 161, 162)</td>
</tr>
<tr>
<td>Orange</td>
<td>On</td>
<td>Charging via USB</td>
</tr>
</tbody>
</table>

⚠️ 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.

**Confirming Input and Returning to the Previous Screen**

- Press the [MENU] button.

⚠️ For some functions, [menu] is not displayed and cannot be used.
Clock

You can check the current time.

- Press and hold the [ disables] button.
- The current time appears.
- If you hold the camera vertically while using the clock function, it will switch to vertical display.
- Turn the [ ] ring to change the display color.
- Press the [ ] button again to cancel the clock display.

When the camera is off, press and hold the [ disables] button, then press the power button to display the clock.
Auto Mode / Hybrid Auto Mode

Convenient mode for easy shots with greater control over shooting

Shooting with Camera-Determined Settings

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

**Shooting (Smart Auto)**

1. **Turn the camera on.**
   - Press the power button.
   - The startup screen is displayed.

2. **Enter [AUTO] mode.**
   - Set the mode dial to [AUTO].
   - Aim the camera at the subject. The camera will make a slight clicking noise as it determines the scene.
   - Icons representing the scene and image stabilization mode are displayed in the upper left of the screen (page 37, 38).
   - Frames displayed around any detected subjects indicate that they are in focus.
3 Compose the shot.
- To zoom in and enlarge the subject, move the zoom lever toward [II] (telephoto), and to zoom away from the subject, move it toward [I] (wide angle). (A zoom bar (1) showing the zoom position is displayed, along with the range of focus (2).)

4 Shoot. Shooting Still Images

1) Focus.
- Press the shutter button halfway. The camera beeps twice after focusing, and frames are displayed to indicate image areas in focus.
- Several frames are displayed when multiple areas are in focus.
- If [Raise the flash] is displayed, move the [I] 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.
- Keep the camera still until the shutter sound ends.
- After displaying your shot, the camera will revert to the shooting screen.

Recording Movies

1) Start recording.
- Press the movie button. The camera beeps once as recording begins, and [Rec] is displayed with the elapsed time (1).
- Black bars are displayed on the top and bottom edges of the screen, and the subject is slightly enlarged. The black bars indicate image areas not recorded.
- Frames displayed around any detected faces indicate that they are in focus.
- Once recording begins, take your finger off the movie button.

2) Resize the subject and recompose the shot as needed.
- To resize the subject, repeat the operations in step 3. However, note that the sound of camera operations will be recorded. Note that movies shot at zoom factors shown in blue will look grainy.
- When you recompose shots, the focus, brightness, and colors will be automatically adjusted.
3) Finish recording.
- Press the movie button again to stop recording. The camera beeps twice as recording stops.
- Recording will stop automatically when the memory card becomes full.

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

Shooting in Hybrid Auto Mode

You can make a short movie of the day just by shooting still images. The camera records 2 – 4-second clips of scenes before each shot, which are later combined in a digest movie.

1) Enter Hybrid Auto mode.
- Follow step 2 in “Shooting (Smart Auto)” (33) and choose Hybrid Auto.

2) Compose the shot.
- Follow steps 3 – 4 in “Shooting (Smart Auto)” (33) to compose the shot and focus.
- For more impressive digest movies, aim the camera at subjects about four seconds before shooting still images.

3) Shoot.
- Follow step 4 in “Shooting (Smart Auto)” (33) to shoot a still image.
- The camera records both a still image and movie clip. The clip, which ends with the still image and a shutter sound, forms a single chapter in the digest movie.

- Battery life is shorter in this mode than in AUTO mode, because digest movies are recorded for each shot.
- A digest movie may not be recorded if you shoot a still image immediately after turning the camera on, choosing Hybrid Auto mode, or operating the camera in other ways.
- Sounds and vibrations from operating the camera will be recorded in digest movies.
- Digest movie image quality is automatically set to HD for NTSC or Full HD for PAL and cannot be changed (116).
- Sounds are not played when you press the shutter button halfway or trigger the self-timer (164).
- Digest movies are saved as separate movie files in the following cases even if they were recorded on the same day in Hybrid Auto mode.
  - The digest movie file size reaches approximately 4 GB, or the total recording time reaches approximately 16 minutes and 40 seconds.
  - The digest movie is protected (113).
  - Daylight saving time (20) or time zone (162) settings are changed.
  - A new folder is created (159).
- Recorded shutter sounds cannot be modified or erased.
- If you prefer to record digest movies without still images, adjust the setting in advance. Choose MENU (29) ► [ ] tab ► [Digest Type] ► [No Stills].
- Individual chapters can be edited (126).
Digest Movie Playback
Display a still image shot in ( ) mode to play the digest movie created on the same day, or specify the date of the digest movie to play ( 106).

Still Images/Movies

- If the camera makes no operating sounds, it may have been turned on while holding down the [INFO] button. To activate sounds, press the [MENU] button, choose [Mute] on the [ 3 ] tab, and then choose [Off].

Movies

- Before movie recording, lower the flash with your finger. During recording, keep your fingers away from the microphone (1). 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 recording movies, because sounds made by the camera will be recorded.

- Once movie recording begins, the image display area changes and subjects are enlarged to allow for correction of significant camera shake. To shoot subjects at the same size shown before shooting, set Dynamic IS to [Low] ( 52).

- Audio is recorded in stereo.

- 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. When the wind is not strong, choose [Wind Filter] under [Wind Filter] ( 70).

- During movie recording, lens operating noises from auto focusing may also be recorded.

Still Images

- A blinking ( ) icon warns that images are more likely to be blurred by camera shake. In this case, mount the camera on a tripod or take other measures to keep it still.

- If your shots are dark despite the flash firing, move closer to the subject. For details on the flash range, see “Camera” ( 204).

- The subject may be too close if the camera only beeps once when you press the shutter button halfway. For details on the range of focus (shooting range), see “Shooting Range” ( 205).

- To reduce red-eye and to assist in focusing, the lamp may be lit when shooting in low-light conditions.

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

- No shutter sound is played when “Sleeping” and “Sleeping Babies” icons ( 37 ) are displayed.

- Although you can shoot again before the shooting screen is displayed, your previous shot may determine the focus, brightness, and colors used.

- You can change how long images are displayed after shots ( 54 ).
### Scene Icons

#### Still Images  Movies

In [Auto] and [Auto] modes, shooting scenes determined by the camera are indicated by the icon displayed, and corresponding settings are automatically selected for optimal focusing, subject brightness, and color. Depending on the scene, continuous images may be shot (Page 38).

<table>
<thead>
<tr>
<th>Subject</th>
<th>Background</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Normal</td>
</tr>
<tr>
<td>People</td>
<td></td>
</tr>
<tr>
<td>Moving People</td>
<td>2</td>
</tr>
<tr>
<td>Shadows on Face</td>
<td>2</td>
</tr>
<tr>
<td>Smiling</td>
<td>3</td>
</tr>
<tr>
<td>Sleeping</td>
<td>2</td>
</tr>
<tr>
<td>Babies</td>
<td>3</td>
</tr>
<tr>
<td>Smiling Babies</td>
<td>3</td>
</tr>
<tr>
<td>Sleeping Babies</td>
<td>3</td>
</tr>
<tr>
<td>Moving Children</td>
<td>3</td>
</tr>
<tr>
<td>Other Subjects</td>
<td>2</td>
</tr>
<tr>
<td>Other Moving Subjects</td>
<td>2</td>
</tr>
<tr>
<td>Other Close-Range Subjects</td>
<td>2</td>
</tr>
</tbody>
</table>

*1 Tripod used.

*2 The background color of icons is light blue when the background is a blue sky, dark blue when the background is dark, and gray for all other backgrounds.

*3 The background color of icons is light blue when the background is a blue sky, and gray for all other backgrounds.

- The background color of [ ], [ ], [ ], and [ ] is dark blue, and the background color of [ ] is orange.
- For movies, only People, Other Subjects, and Other Close-Range Subjects icons are displayed.
- In [ ] mode, icons are only displayed for People, Shadows on Face, Other Subjects, and Other Close-Range Subjects.
- For self-timer shots, icons are not displayed for the following subjects: moving, smiling, or sleeping people; smiling or sleeping babies; moving children; and other moving subjects.
- Icons are not displayed for smiling or sleeping subjects and moving children in drive modes other than [ ] (Page 38, 42) and when [Hg Lamp Corr.] is set to [On] and scenes are automatically corrected (Page 48).
- Backlit icons are not displayed for moving children and smiling people when the flash is set to [ ].
- Icons for babies (including smiling and sleeping babies) and moving children are displayed when [Face ID] is set to [On] and faces of registered babies (less than two years old) or children (2 – 12 years old) are detected (Page 44). Confirm beforehand that the date and time are correct (Page 20).

- Try shooting in [ ] mode (Page 73) if the scene icon does not match actual shooting conditions, or if it is not possible to shoot with your expected effect, color, or brightness.
Continuous Shooting Scenes

If the icon for one of the following scenes (in table’s left column) is displayed when you shoot a still image, the camera shoots continuously. If the icon for one of the following scenes (in table’s left column) is displayed when you press the shutter button halfway, one of the icons (גי, גי) or (גי) is displayed to inform you that the camera shoots continuously.

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

- In some scenes, expected images may not be saved, and images may not look as expected.
- Focus, image brightness, and color are determined by the first shot.
- When you want to shoot single images only, touch (גי), choose (גי) in the menu, and then select (גי).

Image Stabilization Icons

Optimal image stabilization for the shooting conditions (Intelligent IS) is automatically applied, and the following icons are displayed.

- **Image stabilization for still images (Normal)**
- **Image stabilization for still images when panning (Panning)**
- **Image stabilization for angular camera shake and shift-shake in macro shots (Hybrid IS).**
  - For movies, (גי) is displayed and (גי) image stabilization is also applied.
- **Image stabilization for movies, reducing strong camera shake, as when recording while walking (Dynamic)**
- **Image stabilization for slow camera shake, such as when recording movies at telephoto (Powered)**
- **No image stabilization, because the camera is mounted on a tripod or held still by other means. However, during movie recording, (גי) is displayed, and image stabilization to counteract wind or other sources of vibration is used (Tripod IS).**

* 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] (גי), [52]. In this case, an IS icon is not displayed.
- In (גי) mode, no (גי) icon is displayed.
## On-Screen Frames

In **AUTO** mode, 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 (73) if no frames are displayed, if frames are not displayed around desired subjects, or if frames are displayed on the background or similar areas.
- To choose subjects to focus on, touch the desired subject on the screen. (386), pressing the shutter button halfway will display a blue frame, and the camera will keep the subject in focus and image brightness adjusted (Servo AF).

- Moving the zoom lever will display the zoom bar (which indicates the zoom position). The zoom bar is color-coded to indicate the zoom range.
  - White range: optical zoom range where the image will not appear grainy.
  - Yellow range: digital zoom range where the image is not noticeably grainy (ZoomPlus).
  - Blue range: digital zoom range where the image will appear grainy.
- Because the blue range will not be available at some recording pixel settings (90), the maximum zoom factor can be achieved by following step 1.

## Common, Convenient Features

### 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 12x enlargement.

1. **Move the zoom lever toward [ ]**.
   - Hold the lever until zooming stops.
   - Zooming stops at the largest zoom factor before the image becomes noticeably grainy, which is then indicated on the screen.

2. **Move the zoom lever toward [ ]** again.
   - The camera zooms in even closer on the subject.
   - (1) is the current zoom factor.
Using the Self-Timer

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

1 Configure the setting.
   - Press the \([\text{\#}]\) button, choose \([\text{\#}]\) in the menu, and then choose \([\text{\#}]\) (\(=\) 28).
   - Once the setting is complete, \([\text{\#}]\) is displayed.

2 Shoot.
   - For Still Images: Press the shutter button halfway to focus on the subject, and then press it all the way down.
   - For Movies: Press the movie button.
   - Once you start the self-timer, the lamp will blink and the camera will play a self-timer sound.
   - Two seconds before the shot, the blinking and sound will speed up. (The lamp will remain lit in case the flash fires.)
   - To cancel shooting after you have triggered the self-timer, press the \([\text{\#}]\) button.
   - To restore the original setting, choose \([\text{\#}]\) in step 1.
Customizing the Self-Timer

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

1. Choose [ ].
   - Following step 1 in “Using the Self-Timer” (40), choose [ ] and press the [ ] button.

2. Configure the setting.
   - Touch the delay time or number of shots to choose one of these items.
   - Touch [ ] to choose a value, and then press the [ ] button twice.
   - Once the setting is complete, [ ] is displayed.
   - Follow step 2 in “Using the Self-Timer” (40) to shoot.

- For movies recorded using the self-timer, recording begins after your specified delay time, but specifying the number of shots has no effect.

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

- When a delay longer than two seconds is specified, two seconds before the shot, the lamp blinking and self-timer sound will speed up. (The lamp will remain lit in case the flash fires.)

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.

- Follow step 1 in “Using the Self-Timer” (40) and choose [ ].
- Once the setting is complete, [ ] is displayed.
- Follow step 2 in “Using the Self-Timer” (40) to shoot.

- You can also cancel shooting after the timer begins by touching the screen.
Shooting by Touching the Screen (Touch Shutter)

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

1 Enable the touch-shutter function.
   - Touch [ ] and change it to [ ].

2 Shoot.
   - Touch the subject on the screen to take the picture.
   - The camera shoots, as a shutter sound is played.
   - To cancel touch shutter, choose [ ] in step 1.

   - Even while the shot is displayed, you can prepare for the next shot by touching [ ].

   - You can also configure touch-shutter settings by choosing MENU (29) ► [ ] tab ► [Touch Shutter]. To hide the Touch Shutter setting icon, set [Touch shutter icon] to [Off].

Continuous Shooting

In [AUTO] mode, hold the shutter button all the way down to shoot continuously.

For details on the continuous shooting speed, see “Camera” (204).

1 Configure the setting.
   - Press the [ ] button, choose [ ] in the menu, and then choose [ ] (28).
   - Once the setting is complete, [ ] is displayed.

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

   - During continuous shooting, the focus, exposure, and colors are locked at the position/level determined when you pressed the shutter button halfway.
   - Cannot be used with the self-timer (40).
   - 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.
   - Multi-area White Balance (33) is not available. Also note that these features are not available.
     - [Hg Lamp Corr.] (48)
     - [Blink Detection] (51)
   - With Touch Shutter (42), the camera shoots continuously while you touch the screen. Focus and exposure during continuous shooting remain constant, after they are determined for the first shot.
Using Face ID

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

This function also enables you to find shots you have taken that include registered people (108).

Personal Information

- Information such as images of a face (face info) registered with Face ID, and personal information (name, birthday) will be saved on the camera. Additionally, when registered people are detected, their names will be recorded in still images. When using the Face ID function, be careful when sharing the camera or images with others, and when posting images online where many others can view them.

- When disposing of a camera or transferring it to another person after using Face ID, be sure to erase all information (registered faces, names, and birthdays) from the camera (47).

Image Display 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 (115), all images in the group are also erased. Be careful when erasing images.

- Grouped images can be played back individually (110) and ungrouped (110).
- Protecting (113) a grouped image will protect all images in the group.
- Grouped images can be viewed individually when played back using Image Search (107). In this case, images are temporarily ungrouped.
- The following actions are not available for grouped images: editing Face ID information (111), magnifying (112), tagging as favorites (118), editing (121), printing (175), setting up individual image printing (179), or adding to a photobook (190). To do these things, either view grouped images individually (110) or cancel grouping (110) first.
Registering Face ID Information

You can register information (face info, names, and birthdays) for up to 12 people to use with Face ID.

1 Access the setting screen.

- Press the [MENU] button, choose [Face ID Settings] on the [2] tab, and then press the [ ] button (29).

- Touch [Add to Registry] to choose it, and then press the [ ] button.

2 Register face information.

- Aim the camera so that the face of the person you want to register is inside the gray frame at the center of the screen.

- A white frame on the person’s face indicates that the face is recognized. Make sure a white frame is displayed on the face, and then shoot.

- If the face is not recognized, you cannot register face information.

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

- The [Edit Profile] screen is displayed.

3 Register the person’s name and birthday.

- Touch the name text box to access the keyboard, and then enter the name (30).

- To register a birthday, on the [Edit Profile] screen, touch the birthday text box.

- Touch an option to choose it.

- Touch [ ] to specify the date.

- When finished, press the [ ] button.

4 Save the settings.

- Touch [Save].

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

5 Continue registering face information.

- To register up to 4 more points of face information (expressions or angles), repeat step 2.

- Registered faces are more easily recognized if you add a variety of face information. In addition to a head-on angle, add a slight side angle, a shot when smiling, and shots inside and outside.
Shooting

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

- When you point the camera toward people, the names of up to 3 registered people will be displayed when they are detected.
- Shoot.
- Displayed names will be recorded in still images. The names of detected people (maximum total of 5) will be recorded, even if the names are not displayed.

Checking and Editing Registered Information

1. Access the [Check/Edit Info] screen.
   - Following step 1 in “Registering Face ID Information” (44), choose [Check/Edit Info].

- Registered people may not be correctly detected if the captured image or scene differs drastically from the registered face information.
- If a registered face is not detected, or not easily detected, overwrite registered information with new face info. Registering face info right before shooting will allow for easier detection of registered faces.
- If a person is mistakenly detected as another person and you continue shooting, you can edit or erase the name recorded in the image during playback (111).
- Because faces of babies and children change quickly as they grow, you should update their face info regularly (44).
- Names will still be recorded in images even if you clear the [Shooting Info] check box in “Customizing the Information Displayed” (99) so that the names are not displayed.
- If you don’t want names to be recorded in images, choose [Face ID Settings] on the [2] tab, choose [Face ID], and then choose [Off].
- You can check names recorded in images in the playback screen (simple information display) (105).
- In [3] mode, names are not displayed on the shooting screen, but they will be recorded in still images.
- Names recorded in continuous shooting (42) continue to be recorded in the same position as the first shot, even if subjects move.

- People other than those registered may be mistakenly detected as the registered person if they share similar facial features.
2 Choose a person to overwrite their face info.
- Touch the name of the person whose face info you want to overwrite.
- If five items of face info have already been registered, a message will be displayed. Touch [OK].
- If less than five items of face info are registered, go to step 4 to add face information.

3 Choose the face info to overwrite.
- Touch the face info you want to overwrite.

4 Register face information.
- Follow step 2 in “Registering Face ID Information” (44) to shoot, and then register the new face information.
- Registered faces are more easily recognized if you add a variety of face information. In addition to a head-on angle, add a slight side angle, a shot when smiling, and shots inside and outside.

Overwriting and Adding Face Information

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

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

1 Access the [Add Face Info] screen.
- Following step 1 in “Registering Face ID Information” (44), choose [Add Face Info].

● You cannot add face information if all 5 information slots are filled.
- Follow the steps above to overwrite face information.
- You can follow the above steps to register new face info when there is at least one slot open; however, you cannot overwrite any face information. Instead of overwriting face info, first erase unwanted existing info (45), and then register new face information (44) as needed.
Erasing Registered Information

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

1 Access the [Erase Info] screen.
   - Follow step 1 in “Registering Face ID Information” (44) and choose [Erase Info].

2 Choose a person to erase their information.
   - Touch the name of the person to erase.
   - After [Erase?] is displayed, touch [OK].

   ● If you erase a registered person’s info, you will not be able to display their name (107), overwrite their info (111), or search for images that include them (108).

   ● You can also erase names in image information (111).

   ● Not available in [ ] mode.
   
   You can also configure this setting by choosing MENU (29) ➤ [ ] tab ➤ [Still Image Aspect Ratio].

Image Customization Features

Changing the Aspect Ratio

Change the image aspect ratio (ratio of width to height) as follows.
   - Press the [ ] button, choose [ ] in the menu, and choose the desired option (28).
   - Once the setting is complete, the screen aspect ratio will be updated.
   - To restore the original setting, repeat this process but choose [ ].

<table>
<thead>
<tr>
<th>Aspect Ratio</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>16:9</td>
<td>Used for display on widescreen HDTVs or similar display devices.</td>
</tr>
<tr>
<td>3:2</td>
<td>Native aspect ratio of the camera screen. Same aspect ratio as 35mm film, used for printing images at 5 x 7-inch or postcard sizes.</td>
</tr>
<tr>
<td>4:3</td>
<td>Used for display on standard-definition televisions or similar display devices. Also used for printing images at 3.5 x 5-inch or A-series sizes.</td>
</tr>
<tr>
<td>1:1</td>
<td>Square aspect ratio.</td>
</tr>
</tbody>
</table>

Still Images Movies
### Correcting Greenish Image Areas from Mercury Lamps

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

1. Press the **[ ]** button, choose **[ ]** in the menu, and choose the desired option (**28**).
2. The option you configured is now displayed.
3. To restore the original setting, repeat this process but choose **[ ]**.

- 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.
- In continuous shooting (**42**), this setting is set to [Off] and cannot be changed.

### Changing Image Quality

Choose from 4 levels of image quality. For guidelines on how many of each kind of image can fit on a memory card, see “Number of Shots per Memory Card” (**205**).

1. Press the **[ ]** button, choose **[ ]** in the menu, and choose the desired option (**28**).
2. The option you configured is now displayed.
3. To restore the original setting, repeat this process but choose **[ ]**.

- Not available in **[ ]** mode.
- You can also change the image quality by accessing MENU (**29**) ► **[ ]** tab ► **[Image quality]** (**90**).
### Changing Movie Image Quality

Adjust movie image quality (image size and frame rate). The frame rate indicates how many frames are recorded per second, which is determined automatically based on the NTSC or PAL setting (160). For guidelines on the total recording time for movies at each level of image quality that will fit on a memory card, see “Recording Time per Memory Card” (206).

- Press the [ ] button, choose the movie quality menu item, and then choose the desired option (28).
- The option you configured is now displayed.

#### For NTSC Video

<table>
<thead>
<tr>
<th>Image Quality</th>
<th>Number of Recording Pixels</th>
<th>Frame Rate</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>[5939]</td>
<td>1920 x 1080</td>
<td>59.94 fps</td>
<td>For shooting in Full HD. [5939] enables movies with smoother motion.</td>
</tr>
<tr>
<td>[5937]</td>
<td>1920 x 1080</td>
<td>29.97 fps</td>
<td>For shooting in HD.</td>
</tr>
<tr>
<td>[5936]</td>
<td>1920 x 1080</td>
<td>23.98 fps</td>
<td>For shooting in standard definition.</td>
</tr>
<tr>
<td>[5937]</td>
<td>1280 x 720</td>
<td>29.97 fps</td>
<td>For shooting in HD.</td>
</tr>
<tr>
<td>[5937]</td>
<td>640 x 480</td>
<td>29.97 fps</td>
<td>For shooting in standard definition.</td>
</tr>
</tbody>
</table>

* Available in [5939] or [5936] mode.

#### For PAL Video

<table>
<thead>
<tr>
<th>Image Quality</th>
<th>Number of Recording Pixels</th>
<th>Frame Rate</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>[5939]</td>
<td>1920 x 1080</td>
<td>50.00 fps</td>
<td>For shooting in Full HD.</td>
</tr>
<tr>
<td>[5939]</td>
<td>1920 x 1080</td>
<td>25.00 fps</td>
<td>For shooting in HD.</td>
</tr>
<tr>
<td>[5937]</td>
<td>1280 x 720</td>
<td>25.00 fps</td>
<td>For shooting in standard definition.</td>
</tr>
<tr>
<td>[5937]</td>
<td>640 x 480</td>
<td>25.00 fps</td>
<td>For shooting in standard definition.</td>
</tr>
</tbody>
</table>

* Available in [5939] or [5937] mode.

- After repeated recording in [5939] or [5937] mode, movie recording at that level of quality may be temporarily unavailable (even if you press the movie button) until the camera has cooled down. To continue recording in [5939] or [5937] mode instead, touch [Yes] after the notification message is displayed. Otherwise, turn the camera off and wait a while for it to cool down before you resume recording.

- Black bars (displayed on the left and right in [5939] and [5937] modes and on the top and bottom in [5939], [5937], [5937], [5937], [5937], and [5937] modes) indicate image areas not recorded.
- You can also configure this setting by choosing MENU (29) ➤ [8] tab ➤ [Movie Quality].
Helpful Shooting Features

Using the Electronic Level

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

1 Display the electronic level.
   - Press the [INFO] button 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 check the setting in [1] tab ► [Shooting information display].
- 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.
- Calibrate the electronic level if it seems ineffective in helping you level the camera (161).
- Not available in [模式] mode.

Magnifying the Area in Focus

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

1 Configure the setting.

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

- The area in focus is not magnified in the following cases when the shutter button is pressed halfway.
  - If a face was not detected, if the person is too close to the camera and their face is too large for the screen, or if the camera detects subject movement
  - When digital zoom is used (39)
- Not available in [模式] mode.
Checking for Closed Eyes

Still Images  Movies

.DateFormat is displayed when the camera detects that people may have closed their eyes.

1 Configure the setting.


2 Shoot.

- [ ] flashes when the camera detects a person whose eyes are closed.
- To restore the original setting, choose [Off] in step 1.

- When you have specified multiple shots in [ ] mode, this function is only available for the final shot.
- A frame is displayed around people whose eyes are closed when you have selected [2 sec.], [4 sec.], [8 sec.], or [Hold] in [Display Time] (ISO 54).
- This feature is not available during continuous shooting in [ ] mode (ISO 38).
- This feature is not available in continuous shooting mode (ISO 42).

Deactivating Auto Level

Still Images  Movies

Normally, auto leveling keeps movies straight. To cancel this feature, choose [Disable].

- Press the [MENU] button, choose [Auto level] on the [Rec] tab, and then press the [ ] button (ISO 29).
- Choose [Disable] (ISO 29).

- Once recording begins, the display area narrows, and subjects are enlarged (ISO 52).
Changing the IS Mode Settings

Deactivating Image Stabilization

When the camera is held still (as when shooting from a tripod), you should set image stabilization to [Off] to deactivate it.

1. Access the setting screen.

2. Configure the setting.
   - Touch [IS Mode], and then choose an option (p. 29).

| Continuous | Optimal image stabilization for the shooting conditions is automatically applied (Intelligent IS) (p. 38). |
| Off        | Deactivates image stabilization. |

Recording Movies with Subjects at the Same Size Shown before Shooting

Normally, once movie recording begins, the image display area changes and subjects are enlarged to allow for image straightening and correction of significant camera shake. To record movies with subjects at the same size shown before shooting, you can reduce image stabilization and cancel Auto Level.

- Set [Auto Level] to [Disable] as described in “Deactivating Auto Level” (p. 51).
- Follow step 1 in “Deactivating Image Stabilization” (p. 52) to access the [IS Settings] screen.
- Choose [Dynamic IS], and then choose [Low] (p. 29).

- You can also set [IS Mode] to [Off], so that subjects are recorded at the same size shown before shooting.
- [Dynamic IS] is not available when [IS Mode] is set to [Off] (p. 52).
- Only [Standard] is available when the movie quality is [ ] (NTSC) or [ ] (PAL).
Customizing Camera Operation

Customize shooting functions on the [3] tab of the menu screen as follows. For instructions on menu functions, see “Using the Menu Screen” (p. 29).

Preventing the AF-Assist Beam from Firing

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

2. To restore the original setting, repeat this process but choose [On].

Preventing the Red-Eye Reduction Lamp from Lighting Up

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

1. Access the [Flash Settings] screen.
2. Configure the setting.
   - Choose [Red-Eye Lamp], and then choose [Off].
   - To restore the original setting, repeat this process but choose [On].
Changing the Image Display Style after Shots

You can change how long images are displayed and what information is displayed immediately after shooting.

Changing the Image Display Period after Shots


2. Configure the setting.
   - Choose [Display Time], and then choose the desired option.
   - To restore the original setting, repeat this process but choose [Quick].

<table>
<thead>
<tr>
<th>Quick</th>
<th>Displays images only until you can shoot again.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 sec., 4 sec., 8 sec.</td>
<td>Displays images for the specified time. Even while the shot is displayed, you can take another shot by pressing the shutter button halfway again.</td>
</tr>
<tr>
<td>Hold</td>
<td>Displays images until you press the shutter button halfway.</td>
</tr>
<tr>
<td>Off</td>
<td>No image display after shots.</td>
</tr>
</tbody>
</table>

Changing the Screen Displayed after Shots

Change the way images are displayed after shots as follows.


2. Configure the setting.
   - Choose [Display Info], and then choose the desired option.
   - To restore the original setting, repeat this process but choose [Off].

- Off: Displays only the image.
- Detailed: Displays shooting details (189).

- When [Display Time] (54) is set to [Off] or [Quick], [Display Info] is set to [Off] and cannot be changed.
- By pressing the [INFO] button while an image is displayed after shooting, you can switch the display information. Note that the settings of [Display Info] are not changed.
Applying Effects Automatically
(Creative Shot)

Enjoying a Variety of Images from Each Shot

The camera determines the subject and shooting conditions, automatically applying special effects and recomposing the shot to emphasize the subject. Six still images are recorded for each shot. You can capture multiple still images with effects using camera-determined settings.

1 Enter \[ \text{Creative Shot} \] mode.
   - Set the mode dial to \[ \text{Creative Shot} \].

2 Shoot.
   - Press the shutter button all the way down. As you shoot, the shutter sound is played three times.
   - After the six images are displayed in succession, they are displayed simultaneously for about two seconds.
   - To keep the images displayed until you press the shutter button halfway or press the \[ \text{MENU} \] button, press the \[ \text{INFO} \] button while the images are displayed. You can choose an image for full-screen display by touching the image and then pressing the \[ \text{INFO} \] button.
   - To return to the original display, press the \[ \text{MENU} \] button.

- Shooting will take some time when the flash fires, but hold the camera steady until the shutter sound is played three times.
- The six images are managed together as a group (110).
- Simultaneous display of the six images as shown in step 2 is only available immediately after you shoot.
Choosing Effects

You can choose effects for images captured in [ ] mode.

- After choosing [ ] mode, turn the [ ] ring to choose the effect.

<table>
<thead>
<tr>
<th>Effect</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto</td>
<td>All effects</td>
</tr>
<tr>
<td>Retro</td>
<td>Images resemble old photos</td>
</tr>
<tr>
<td>Monochrome</td>
<td>Images are generated in one color</td>
</tr>
<tr>
<td>Special</td>
<td>Bold, distinctive-looking images</td>
</tr>
<tr>
<td>Natural</td>
<td>Subdued, natural-looking images</td>
</tr>
</tbody>
</table>

Recording Movies with a Variety of Effects

Let the camera determine subjects and shooting conditions when you record movies, and filters and effects such as playback in slow or fast motion will be added automatically. Once you have recorded a few movies, up to four are automatically combined to create a Creative Shot movie of 15 – 25 seconds. Note that sound is not recorded in this mode.

1. Enter [ ] mode.
   - Set the mode dial to [ ].

2. Record the first movie.
   - Press the movie button. Recording begins, and a bar is displayed to indicate the elapsed time.
   - Recording stops automatically in 3 – 6 seconds.

3. Record the second to fourth movies.
   - Repeat step 2 three times to record four movies.

   - Even if you do not record four movies that day, a Creative Shot movie will be saved as a separate file once the date changes.

   - Effects are generally applied consistently to movies 1 – 4, but you can also change the effect in each movie (56).
   - Individual chapters can be edited (126).

Creative Shot Movie Playback

You can choose and play back Creative Shot movies recorded in [ ] mode (106).
Specific Scenes

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

1 Enter [SCN] mode.
   ● Set the mode dial to [SCN].

2 Choose a shooting mode.
   ● Touch [ ], and then touch [▲][▼] or drag up or down on the screen to choose a shooting mode.
   ● To confirm your choice, touch [OK].

3 Shoot.

Shooting Portraits (Portrait)
   ● Take shots of people with a softening effect.

Shooting Evening Scenes without Using a Tripod (Handheld Night Scene)
   ● Beautiful shots of evening scenes or portraits with evening scenery in the background, without the need to hold the camera very still (as with a tripod).
   ● A single image is created by combining consecutive shots, reducing camera shake and image noise.

Shooting Fireworks (Fireworks)
   ● Vivid shots of fireworks.

Subjects appear larger in [ ] mode compared to other modes.
   ● In [ ] mode, shots may look grainy because the ISO speed (75) is increased to suit the shooting conditions.
   ● Because the camera will shoot continuously in [ ] mode, hold it steady while shooting.
   ● In [ ] mode, excessive motion blur or certain shooting conditions may prevent you from obtaining the desired results.
   ● In [ ] mode, mount the camera on a tripod or take other measures to keep it still and prevent camera shake. In this case, you should set [IS Mode] to [Off] (52).

When you use a tripod for evening scenes, shooting in [AUTO] mode instead of [ ] mode will give better results (53).
   ● You can also choose the shooting mode by accessing MENU (29) ► [1] tab ► [Rec. Mode].
   ● In [ ] mode, although no frames are displayed when you press the shutter button halfway, optimal focus is still determined.
Applying Special Effects

Add a variety of effects to images when shooting.

Shooting in Vivid Colors (Super Vivid)
- Still Images
- Movies

Shots in rich, vivid colors.

Posterized Shots (Poster Effect)
- Still Images
- Movies

Shots that resemble an old poster or illustration.

⚠️ In [2] and [3] modes, try taking some test shots first, to make sure you obtain the desired results.

⚠️ You can also choose the shooting mode by accessing MENU \( \downarrow \) [1] tab \( \uparrow \) [Rec. Mode].

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 tend to occur in high-contrast shots.

1. Choose [HDR].
- Follow steps 1 – 2 in “Specific Scenes” (\( \downarrow \) 57) and choose [HDR].

2. Shoot.
- Hold the camera steady as you shoot. When you press the shutter button all the way down, the camera will take three shots and combine them.

- Excessive motion blur or certain shooting conditions may prevent you from obtaining the desired results.

- If excessive camera shake interferes with shooting, mount the camera on a tripod or take other measures to keep it still. Additionally, you should set [IS Mode] to [Off] when using a tripod or other means to secure the camera (\( \downarrow \) 52).
- 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.
- [\( \bigcirc \)] may be displayed when you press the shutter button halfway in bright conditions, indicating automatic adjustment for optimal image brightness.
Adding Artistic Effects

- Follow steps 1 – 2 in “Specific Scenes” (57) and choose [ ].
- Turn the [ ] ring to choose an effect.
- A preview is shown of how your shot will look with the effect applied.

Natural Images are natural and organic.
Art Standard Images resemble paintings, with subdued contrast.
Art Vivid Images resemble vivid illustrations.
Art Bold Images resemble oil paintings, with bold edges.
Art Embossed Images resemble old photos, with bold edges and dark ambiance.

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

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

1. Choose [ ].
   - Follow steps 1 – 2 in “Specific Scenes” (57) and choose [ ].
2. Choose an effect level.
   - Turn the [ ] ring to choose an effect level.
   - A preview is shown of how your shot will look with the effect applied.
3. Shoot.

- Try taking some test shots first, to make sure you obtain the desired results.
- 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 (103).
- The image aging effect is not shown in movies.

Shooting with Faded Colors (Nostalgic)

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

1. Choose [ ].
2. Choose an effect level.
3. Shoot.

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


**Shots Resembling Miniature Models (Miniature Effect)**

Creates the effect of a miniature model, by blurring image areas above and below your selected area. You can also make movies that look like scenes in miniature models by choosing the playback speed before the movie is recorded. People and objects in the scene will move quickly during playback. Note that sound is not recorded.

1. **Choose [ ]**.
   - Follow steps 1 – 2 in “Specific Scenes” (57) and choose [ ].
   - A white frame is displayed, indicating the image area that will not be blurred.

2. **Choose the area to keep in focus**.
   - Press the [ ] button.
   - Move the zoom lever to resize the frame, and touch the screen or drag the white frame up or down to move it.

3. **For movies, choose the movie playback speed**.
   - On the screen in step 2, turn the [ ] ring to choose the speed.

4. **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)**

<table>
<thead>
<tr>
<th>Speed</th>
<th>Playback Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>5x</td>
<td>Approx. 12 sec.</td>
</tr>
<tr>
<td>10x</td>
<td>Approx. 6 sec.</td>
</tr>
<tr>
<td>20x</td>
<td>Approx. 3 sec.</td>
</tr>
</tbody>
</table>

Movies are played back at 30 fps.

- The zoom is not available when shooting movies. Be sure to set the zoom before shooting.
- Try taking some test shots first, to make sure you obtain the desired results.
- To switch the orientation of the frame to vertical, press the [ ] button in step 2. Touch the screen to move the frame. To return the frame to horizontal orientation, press the [ ] button again.
- Holding the camera vertically will change the orientation of the frame.
- Movie image quality is [ ] at an aspect ratio of [4:3] and [ ] at an aspect ratio of [16:9] (47). These quality settings cannot be changed.
Making Subjects Stand Out (Background Defocus)

You can shoot subjects so that they stand out from the background. Two consecutive images are captured with settings optimized for background defocus. The background is defocused through lens effects and subject- and scene-based image processing.

1 Choose [ ].
   - Follow steps 1 – 2 in “Specific Scenes” (57) and choose [ ].
2 Shoot.
   - Hold the camera steady as you shoot. Two consecutive images are captured when you press the shutter button all the way down.
   - A blinking [ ] icon indicates that the images could not be processed.

3 Shoot.
   - Excessive motion blur or certain shooting conditions may prevent you from obtaining the desired results.
   - For the best results with background defocusing, try shooting close to the subject, and ensure ample distance between the subject and background.
   - There may be a delay after shooting before you can shoot again.
   - To adjust the effect level, turn the [ ] ring.

Shooting with a Toy Camera Effect (Toy Camera Effect)

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

1 Choose [ ].
   - Follow steps 1 – 2 in “Specific Scenes” (57) and choose [ ].
2 Choose a color tone.
   - Turn the [ ] ring to choose a color tone.
   - A preview is shown of how your shot will look with the effect applied.
3 Shoot.
   - Standard: Shots resemble toy camera images.
   - Warm: Images have a warmer tone than with [Standard].
   - Cool: Images have a cooler tone than with [Standard].

   - Try taking some test shots first, to make sure you obtain the desired results.
Shooting with a Soft Focus Effect

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

1 Choose [ ].
- Follow steps 1 – 2 in “Specific Scenes” (57) and choose [ ].

2 Choose an effect level.
- Turn the [ ] ring to choose an effect level.
- A preview is shown of how your shot will look with the effect applied.

3 Shoot.

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

Shooting in Monochrome

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

1 Choose [ ].
- Follow steps 1 – 2 in “Specific Scenes” (57) and choose [ ].

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

3 Shoot.

<table>
<thead>
<tr>
<th>Mode</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>B/W</td>
<td>Black and white shots.</td>
</tr>
<tr>
<td>Sepia</td>
<td>Sepia tone shots.</td>
</tr>
<tr>
<td>Blue</td>
<td>Blue and white shots.</td>
</tr>
</tbody>
</table>
Special Modes for Other Purposes

Shooting Starry Skies (Star)

Capture beautiful shots of people against starry skies. After initially firing the flash to capture the person, the camera shoots twice without flash. The three images are combined into a single image and processed to make the stars more prominent.

For details on the flash range, see “Camera” (204).

1. Choose [ ].
   - Follow steps 1 – 2 in “Specific Scenes” (57) and choose [ ], and then press the [INFO] button.
   - Touch [ ] and then press the [ ] button.
   - Zoom is set to maximum wide angle and cannot be adjusted.

2. Raise the flash.
   - Move the [ ] switch.

3. Secure the camera.
   - Mount the camera on a tripod or take other measures to keep it still.

4. Shoot.
   - Press the shutter button. The flash fires as the camera takes the first shot.
   - The second and third shots are now taken, without firing the flash.

5. Have the person stay still until the lamp blinks.
   - The person you are shooting should stay still until the lamp blinks three times after the third shot, which may take up to about two seconds.
   - All the shots are combined to create a single image.

- Under some shooting conditions, images may not look as expected.
- For better shots, have the person stand away from illumination such as street lights, and make sure the flash is raised.
- There will be a delay before you can shoot again, as the camera processes the images.
- To avoid blurry shots, make sure the person you shoot in steps 4 – 5 stays still.

Shooting People against Starry Skies (Star Portrait)

Still Images

Capture beautiful shots of people against starry skies. After initially firing the flash to capture the person, the camera shoots twice without flash. The three images are combined into a single image and processed to make the stars more prominent.

For details on the flash range, see “Camera” (204).

1. Choose [ ].
   - Follow steps 1 – 2 in “Specific Scenes” (57) and choose [ ], and then press the [INFO] button.
   - Touch [ ], and then press the [ ] button.
   - Zoom is set to maximum wide angle and cannot be adjusted.

2. Raise the flash.
   - Move the [ ] switch.

3. Secure the camera.
   - Mount the camera on a tripod or take other measures to keep it still.

4. Shoot.
   - Press the shutter button. The flash fires as the camera takes the first shot.
   - The second and third shots are now taken, without firing the flash.

5. Have the person stay still until the lamp blinks.
   - The person you are shooting should stay still until the lamp blinks three times after the third shot, which may take up to about two seconds.
   - All the shots are combined to create a single image.

- Under some shooting conditions, images may not look as expected.
- For better shots, have the person stand away from illumination such as street lights, and make sure the flash is raised.
- There will be a delay before you can shoot again, as the camera processes the images.
- To avoid blurry shots, make sure the person you shoot in steps 4 – 5 stays still.
Shooting Night Scenes under Starry Skies
(Star Nightscape)

Capture impressive shots of starry skies above night scenes. Starlight in the image is automatically enhanced, making starry skies look beautiful.

1. Choose [\(\mathcal{A}\)].
   - Follow steps 1 – 2 in “Specific Scenes” (Page 57) and choose [\(\mathcal{A}\)], and then press the [INFO.] button.
   - Touch [\(\mathcal{A}\)], and then press the [INFO.] button.
   - Zoom is set to maximum wide angle and cannot be adjusted.

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

3. Shoot.

   - There will be a delay before you can shoot again, as the camera processes the images.

- For easier viewing, try choosing MENU ➤ [\(\mathcal{Z}\)] tab ➤ [Night Display] ➤ [On] (Page 161) before shooting.
- To adjust subject brightness, try changing the flash exposure compensation (Page 88).
- To adjust background brightness, try changing the exposure compensation (Page 74). However, images may not look as expected under some shooting conditions, and the person should stay still in steps 4 – 5, which may take up to about 15 seconds.
- To capture more stars and brighter starlight, choose MENU ➤ [\(\mathcal{Z}\)] tab ➤ [Star Portrait Settings] ➤ [Star Visibility] ➤ [Prominent]. However, images may not look as expected under some shooting conditions, and the person should stay still in steps 4 – 5, which may take up to about 8 seconds.
- To make stars brighter, choose MENU ➤ [\(\mathcal{Z}\)] tab ➤ [Star Emphasis] ➤ [Sharp]. To emphasize the bright stars in a starry sky, set [Star Emphasis] to [Soft]. This setting can produce eye-catching shots by enlarging bright stars while de-emphasizing dimmer stars. To disable starlight processing, select [Off].
- You can also choose the shooting mode by choosing [\(\mathcal{A}\)] in steps 1 – 2 of “Specific Scenes” (Page 57), touching [\(\mathcal{Z}\)] to access the setting screen, touching [\(\mathcal{A}\)], and then touching the same option or [SET].
Shooting Star Trails (Star Trails)

Streaks created by the movement of stars through the sky are recorded in a single image. After determining the shutter speed and number of shots, the camera shoots continuously. A shooting session can last up to about two hours. Check the battery level in advance.

1 Choose [ ].
   - Follow steps 1 – 2 in “Specific Scenes” (57) and choose [ ] and then press the [INFO] button.
   - Touch [ ], and then press the [ ] button.
   - Zoom is set to maximum wide angle and cannot be adjusted.

2 Specify the duration of the shooting session.
   - Turn the [ ] ring to choose the shooting duration.

3 Secure the camera.
   - Mount the camera on a tripod or take other measures to keep it still.

4 Shoot.
   - Press the shutter button all the way down. [Busy] is displayed briefly, and then shooting begins.
   - Do not disturb the camera while shooting.
   - To cancel shooting, press the shutter button all the way down again. Note that cancellation may take up to about 30 seconds.

   - If the camera runs out of battery power, shooting stops and a composite image created from the images up to that point is saved.
   - There will be a delay before you can shoot again, as the camera processes the images.

   - For easier viewing, try choosing MENU ► [ ] tab ► [Night Display] ► [On] (161) before shooting.
   - Try switching to manual focus mode (81) to more accurately specify the focal position before shooting.

   - You can also choose the shooting mode by choosing [ ] in steps 1 – 2 of “Specific Scenes” (57), touching [ ] to access the setting screen, touching [ ], and then touching the same option or [ ].
Shooting Movies of Star Movement (Star Time-Lapse Movie)

By recording a time-lapse movie that combines images shot at a specified interval, you can create movies with fast-moving stars. You can adjust the shooting interval and recording duration as needed. Note that each session takes a long time, and requires many shots. Check the battery level and memory card space in advance.

1. Choose [ ].
   - Follow steps 1 – 2 in "Specific Scenes" (57) and choose [ ], and then press the [ INFO ] button.
   - Touch [ ], and then press the [ ] button.
   - Zoom is set to maximum wide angle and cannot be adjusted.

2. Configure movie settings.
   - Touch [ ].
   - Touch an item, and then choose the desired option.

3. Secure the camera.
   - Mount the camera on a tripod or take other measures to keep it still.

4. Check the brightness.
   - Press the shutter button all the way down to shoot a single still image.
   - Switch to Playback mode (103) and check image brightness.
   - To adjust the brightness, turn the [ ] ring on the shooting screen and change the exposure level. Check brightness again by taking another shot.

5. Shoot.
   - Press the movie button. [ Busy ] is displayed briefly, and then shooting begins.
   - Do not disturb the camera while shooting.
   - To cancel shooting, press the movie button again. Note that cancellation may take up to about 30 seconds.
   - The camera operates in Eco mode (161) while shooting.

### Item Options Details

<table>
<thead>
<tr>
<th>Item</th>
<th>Options</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Effect</strong></td>
<td>☐ ☐ ☐ ☐ ☐</td>
<td>Choose movie effects, such as star trails.</td>
</tr>
<tr>
<td><strong>Shot Interval</strong></td>
<td>15 sec., 30 sec., 1 min.</td>
<td>Choose the interval between each shot.</td>
</tr>
<tr>
<td><strong>Frame Rate</strong></td>
<td>☐ ☐ ☐ ☐ (NTSC)</td>
<td>☐ ☐ ☐ ☐ (PAL)</td>
</tr>
<tr>
<td><strong>Shooting Time</strong></td>
<td>60 min., 90 min., 120 min., Unlimited</td>
<td>Choose the length of the recording session. To record until the battery runs out, choose [ Unlimited ].</td>
</tr>
</tbody>
</table>
### Estimated Playback Time Based on Shooting Interval and Frame Rate (for a One-Hour Session)

<table>
<thead>
<tr>
<th>Interval between Shots</th>
<th>Frame Rate</th>
<th>Playback Time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NTSC</td>
<td>PAL</td>
</tr>
<tr>
<td>15 sec.</td>
<td>15 sec.</td>
<td>16 sec.</td>
</tr>
<tr>
<td>15 sec.</td>
<td>16 sec.</td>
<td>8 sec.</td>
</tr>
<tr>
<td>30 sec.</td>
<td>8 sec.</td>
<td>8 sec.</td>
</tr>
<tr>
<td>30 sec.</td>
<td>8 sec.</td>
<td>4 sec.</td>
</tr>
<tr>
<td>1 min.</td>
<td>8 sec.</td>
<td>4 sec.</td>
</tr>
<tr>
<td>1 min.</td>
<td>8 sec.</td>
<td>2 sec.</td>
</tr>
</tbody>
</table>

- Sound is not recorded.
- You can also access the screen in step 2 by choosing MENU (29) ➤ [5] tab ➤ [Star Time-Lapse Movie Setting].
- To save each shot collected before the movie is created, choose MENU (29) ➤ [5] tab ➤ [Save Stills] ➤ [On]. Note that these individual images are managed as a single group, and during playback, only the first image is 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 (115), all images in the group are also erased. Be careful when erasing images.
- Try switching to manual focus mode (81) to more accurately specify the focal position before shooting.
- Even if you specify [Unlimited] in [Shooting Time] in step 2 and use an AC adapter kit (sold separately, 168), shooting will stop after about 8 hours, at most.

### Other Shooting Modes

- You can also choose the shooting mode by choosing [ ] in steps 1 – 2 of “Specific Scenes” (157), touching [INFO] to access the setting screen, touching [ ], and then touching the same option or [INFO].
Adjusting Colors

Still Images  Movies

Colors can be manually adjusted in mode.

1 Choose a shooting mode.
- Choose , , , or .

2 Choose color adjustment.
- Press the button, and then choose in the menu.

3 Adjust the setting.
- Turn the ring to adjust the correction level for B and A, and then press the button.
- Once the setting is complete, is displayed.

- B represents blue and A, amber.
- Skin tones remain the same when you adjust colors in mode.
- Advanced settings can be accessed by pressing the button when the screen in step 2 is displayed.

- You can also choose the correction level by touching or dragging the bar in step 2.

Adjusting the Focus

Still Images  Movies

Automatically adjust the focus to suit starry skies.

1 Choose a shooting mode.
- Choose , or .

2 Secure the camera.
- Mount the camera on a tripod or take other measures to keep it still.

3 Frame the stars to capture.
- Touch , and then touch .
- Tilt the camera so that the stars to capture are inside the frame displayed.

4 Adjust the focus.
- Press the button. [Adjusting star focus] is displayed, and adjustment begins.
- Adjustment may take up to about 30 seconds. Do not move the camera until [Adjustment completed] is displayed.
- Press the button.

5 Shoot , , .

- The focal position may not be adjusted under the following conditions. If so, try again from step 3.
  - There is a bright light source
  - Airplanes or other light sources or clouds crossed the sky

- If adjustment fails, focus returns to the original position.
Recording Various Movies

Recording Movies in [ ] Mode

1. Enter [ ] mode.
   - Set the mode dial to [ ].
   - Touch [ ], and then choose [ ].
   - To confirm your choice, touch [OK].
   - Black bars are displayed on the top and bottom edges of the screen, and the subject is slightly enlarged. The black bars indicate image areas not recorded.

2. Configure the settings to suit the movie (190).

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

   - You can also choose the shooting mode by accessing MENU (29) ► [ ] tab ► [Rec. Mode].

   - Focus can be adjusted during recording by touching [ ] (to switch it to [ ]) and then touching [ ].

Locking or Changing Image Brightness before Recording

You can lock the exposure before or during recording or adjust it in 1/3-stop increments within a range of −3 to +3 stops.

1. Lock the exposure.
   - Touch [ ] to lock the exposure.
   - To unlock the exposure, touch [ ] again.

2. Adjust the exposure.
   - Turn the [ ] ring to adjust the exposure, as you watch the screen.

3. Shoot (69).
Correcting Severe Camera Shake

Counteract severe camera shake, such as when recording while moving. The portion of images displayed changes more than for [Standard], and subjects are further enlarged.

Follow the steps in “Recording Movies with Subjects at the Same Size Shown before Shooting” (52) to choose [High].

- [Dynamic IS] is not available when [IS Mode] is set to [Off].
- Only [Standard] is available when the movie quality is [5.85MP (NTSC)] or [5.0MP (PAL)].

Sound Settings

Deactivating the Wind Filter

Noise caused by strong wind can be reduced. However, the recording may sound unnatural when this option is used when there is no wind. In this case, you can deactivate the wind filter.

- Choose [Off] (29).

Disabling Auto Slow Shutter

Auto Slow Shutter can be disabled if movement in movies is rough. However, under low light, movies may look dark.

- To restore the original setting, repeat this process but choose [A-SLOW ON].

- Auto Slow Shutter only applies to [5.85MP (NTSC)] or [5.0MP (PAL)] movies.
Using the Attenuator

The attenuator can reduce audio distortion in noisy environments. However, in quiet environments, it lowers the sound-recording level.

- Choose an option as desired (29).

Recording Short Clips

Apply playback effects to brief clips of a few seconds, such as fast motion, slow motion, or replay. Clips recorded in this mode may be included in Story Highlights albums (127).

1 Enter [ ] mode.
- Set the mode dial to [ ].
- Touch [ ], and then choose [ ].
- To confirm your choice, touch [OK].
- Black bars displayed on the top and bottom edges of the screen indicate image areas not recorded.

2 Specify the shooting time and playback effect.
- Press the [INFO.] button.
- Turn the [ ] ring to set the shooting time (4 – 6 sec.).
- After pressing the [INFO.] button, set the playback effect (71) by turning the [ ] ring.

3 Shoot (69).
- A bar showing the elapsed time is displayed.

Playback Effects

- 2x Playback in fast motion
- 1x Playback at normal speed
- 1/2x Playback in slow motion
- Normal playback with the last two seconds rewound and played again in slow motion

- Sound is not recorded in these clips.
- The movie quality is [ ] (for NTSC) or [ ] (for PAL) (49) and cannot be changed.
- During recording, a mark indicating the last two seconds is added to the bar showing the elapsed time.
**Recording iFrame Movies**

Record movies that can be edited with iFrame-compatible software or devices.

**1 Choose ( ).**
- Set the mode dial to ( ).
- Touch ( ), and then choose ( ).
- To confirm your choice, touch [OK].
- Black bars displayed on the top and bottom edges of the screen indicate image areas not recorded.

**2 Shoot ( ) 69).**

- iFrame is a video format developed by Apple Inc.
- The movie quality is ( ) (for NTSC) or ( ) (for PAL) ( , ) and cannot be changed.
Shooting in Program AE ([P] Mode)

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

1. Enter [P] mode.
   - Set the mode dial to [P].
2. Customize the settings as desired ([74 – 91]), and then shoot.

- If the optimum exposure cannot be obtained when you press the shutter button halfway, the shutter speed and aperture value are displayed in orange. In this case, try adjusting the ISO speed ([75]) or activating the flash (if subjects are dark, [87]), which may enable optimum exposure.
- Movies can be recorded in [P] mode as well, by pressing the movie button. However, some [Q] menu ([28]) and MENU ([29]) settings may be automatically adjusted for movie recording.

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 ([190]).
Image Brightness (Exposure)

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 [环] ring to adjust brightness.

- You can also configure this setting by touching the exposure compensation icon on the bottom of the shooting screen and then touching or dragging the bar displayed, or by touching [-][+].

Locking Image Brightness / Exposure (AE Lock)

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

1 Lock the exposure.

- Aim the camera at the subject to shoot with the exposure locked, and then touch [环].
- [环] is displayed, and the exposure is locked.
- To unlock AE, touch [环] again. [环] is no longer displayed.

2 Compose the shot and shoot.

Changing the Metering Method

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

- Press the [环] button, choose [环] in the menu, and choose the desired option (环75).
- The option you configured is now displayed.

- AE: Auto Exposure

- After the exposure is locked, you can adjust the combination of shutter speed and aperture value by turning the [环] ring (Program Shift).

- Evaluative

For typical shooting conditions, including backlit shots. Automatically adjusts exposure to match the shooting conditions.

- Center

Determined by the average brightness of light across the entire image area, calculated by treating brightness in the central area as more important.

- Weighted Avg.

- Spot

Metering restricted to within the [环] (Spot AE Point frame). You can also link the Spot AE Point frame to the AF frame (环75).
Changing the ISO Speed

Set the ISO speed to [AUTO] for automatic adjustment to suit the shooting mode and conditions. Otherwise, set a higher ISO speed for higher sensitivity, or a lower value for lower sensitivity.

- Touch [ISO], and then choose the ISO speed (either touch [0] [0] or turn the [0] ring).
- The option you configured is now displayed.

- To view the automatically determined ISO speed when you have set the ISO speed to [AUTO], press the shutter button halfway.
- Although choosing a lower ISO speed may reduce image graininess, there may be a greater risk of subject and camera shake in some shooting conditions.
- The faster shutter speed used at higher ISO speeds reduces subject and camera shake and increases the flash range. However, shots may look grainy.
- You can also set the ISO speed by accessing MENU (29) ► [0] tab ► [ISO speed] ► [ISO Speed].

Linking the Spot AE Point Frame to the AF Frame

1. Set the metering method to [ ].
   - Follow the steps in “Changing the Metering Method” (74) to choose [ ].

2. Configure the setting.
   - The Spot AE Point frame will now be linked to the movement of the AF frame (84).

- Not available when [AF method] is set to [Tracking] (84).
### Adjusting ISO Auto Settings

When the camera is set to [AUTO], maximum ISO speed can be specified in a range of [400] – [12800], and sensitivity can be specified in a range of three levels.

**1** Access the setting screen.
- Press the [MENU] button, choose [ISO speed] on the [ ] tab, and then press the [ ] button. (29)
- Choose [ISO Auto Settings] and press the [ ] button.

**2** Configure the setting.
- Choose a menu item to configure, and then choose the desired option. (29)

### 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.

**1** Access the setting screen.
- Press the [MENU] button, choose [High ISO NR] on the [ ] tab, and then choose the desired option. (29)

**2** Configure the setting.
- Press the [INFO] button, and then specify a value by touching or dragging the bar on the setting screen.

---

### Auto Exposure Bracketing (AEB Shooting)

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.

**1** Choose [Bracketing].
- Press the [MENU] button, choose [Bracketing] on the [ ] tab, and then choose the [ ] button. (29)

**2** Configure the setting.
- Press the [INFO] button, and then specify a value by touching or dragging the bar on the setting screen.

- AEB shooting is only available in [ ] mode (87).
- Continuous shooting (42) is not available in this mode.

- If exposure compensation is already in use (74), 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 [INFO] button when the exposure compensation screen (74) is displayed.
- Three shots are taken, regardless of any quantity specified in [ ] (41).
- In [Blink Detection] mode (51), this function is only available for the final shot.

- Not available when images are captured in RAW format (80).
Dynamic Range Correction (DR Correction)

Tone down bright image areas, which might otherwise look washed out, as follows.

1 Access the setting screen.
   - Press the [MENU] button, choose [DR Correction] on the [ ] tab, and then press the [ ] button (29).

2 Configure the setting.
   - Choose an option as desired (29).
   - Once set, the option you chose is displayed.

<table>
<thead>
<tr>
<th>Options</th>
<th>Details</th>
<th>Available ISO Speed (75)</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ]</td>
<td>Automatic adjustment to prevent washed-out highlights</td>
<td>[AUTO], [125] – [12800]</td>
</tr>
<tr>
<td>[ ]</td>
<td>Tone down highlights by about 200% relative to the brightness level of [ ]</td>
<td>[AUTO], [250] – [6400]</td>
</tr>
</tbody>
</table>

- ISO speed (75) will be adjusted to a speed within the supported range if you have specified a value outside the supported range indicated here.

Shadow Correct

Automatically preserve image detail in shadows as follows.

1 Access the setting screen.
   - Press the [MENU] button, choose [Shadow Correct] on the [ ] tab, and then press the [ ] button (29).

2 Configure the setting.
   - Choose the [ ] option (29).
   - Once the setting is complete, [ ] is displayed.

- When selecting [ ], mount the camera on a tripod or take other measures to keep it still and prevent camera shake. In this case, you should set [IS Mode] to [Off] (52).

Adjusting Auto ND Filter Settings

For optimal brightness in the scenes you shoot, Auto ND filter reduces light intensity to 1/8 the actual level, by an amount equivalent to three stops. Choosing [ ] enables you to reduce the shutter speed and aperture value.

1 Access the setting screen.
   - Press the [MENU] button, choose [ND Filter] in the menu, and choose the desired option (28).

2 Configure the setting.
   - Choose the [ ] option (29).
   - Once the setting is complete, [ ] is displayed.

- ND: Neutral Density
Image Colors

Capturing Natural Colors (White Balance)

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

- Press the [WB] button, choose [WB] in the menu, and choose the desired option (28).
- The option you configured is now displayed.

<table>
<thead>
<tr>
<th>Mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto</td>
<td>Automatically sets the optimal white balance for the shooting conditions.</td>
</tr>
<tr>
<td>Day Light</td>
<td>For shooting outdoors in fair weather.</td>
</tr>
<tr>
<td>Shade</td>
<td>For shooting in the shade.</td>
</tr>
<tr>
<td>Cloudy</td>
<td>For shooting in cloudy weather or at twilight.</td>
</tr>
<tr>
<td>Tungsten</td>
<td>For shooting under ordinary incandescent lighting.</td>
</tr>
<tr>
<td>Fluorescent</td>
<td>For shooting under white fluorescent lighting.</td>
</tr>
<tr>
<td>Fluorescent H</td>
<td>For shooting under daylight fluorescent lighting.</td>
</tr>
<tr>
<td>Flash</td>
<td>For shooting with the flash.</td>
</tr>
<tr>
<td>Custom</td>
<td>For manually setting a custom white balance (78).</td>
</tr>
</tbody>
</table>

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 “Capturing Natural Colors (White Balance)” (78) to choose [WB] or [WB].
- Aim the camera at a plain white subject, so that the entire screen is white. Press the [WB] 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.
- You can also record white balance data on the screen above by touching [WB].

Manually Correcting White Balance

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

1. Configure the setting.
- Follow the steps in “Capturing Natural Colors (White Balance)” (78) to choose [WB].
- Turn the [WB] ring to adjust the correction level for B and A.
- Once the setting is complete, [WB] is displayed.
2 Configure advanced settings.

- To configure more advanced settings, press the [MENU] button and adjust the correction level (either turn the [odial] ring or touch or drag the frame).
- To reset the correction level, press the [INFO.] button.
- Press the [INFO.] button to complete the setting.

- The camera will retain white balance correction levels even if you switch to another white balance option (by following steps in “Capturing Natural Colors (White Balance)” (28)), 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 also configure this setting by choosing MENU (29) ▶ [WB] tab ▶ [WB Correction].

- You can also choose the correction level by touching or dragging the bar in step 1 or the frame in step 2.

- You can also access the screen in step 2 by touching [MENU] in step 1.

- On the screen in step 2, you can touch [INFO.] to restore the original level and touch [MENU] to return to the shooting screen.

### Changing Image Color Tones (My Colors)

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

- Press the [INFO.] button, choose [My Colors] in the menu, and choose the desired option (28).

- The option you configured is now displayed.

| My Colors Off | – |
| Vivid | Emphasizes contrast and color saturation, making images sharper. |
| Neutral | Tones down contrast and color saturation for subdued images. |
| Sepia | Creates sepia tone images. |
| B/W | Creates black and white images. |
| Positive Film | Combines the effects of Vivid Blue, Vivid Green, and Vivid Red to produce intense yet natural-looking colors resembling images on positive film. |
| Lighter Skin Tone | Lightens skin tones. |
| Darker Skin Tone | Darkens skin tones. |
| Vivid Blue | Emphasizes blues in images. Makes the sky, ocean, and other blue subjects more vivid. |
| Vivid Green | Emphasizes greens in images. Makes mountains, foliage, and other green subjects more vivid. |
| Vivid Red | Emphasizes reds in images. Makes red subjects more vivid. |
| Custom Color | Adjust contrast, sharpness, color saturation, and other qualities as desired (28). |
Custom Color

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

1. Access the setting screen.
   - Follow the steps in “Changing Image Color Tones (My Colors)” (page 79) to choose [Custom Color], and then press the [INFO] button.

2. Configure the setting.
   - Touch [1] to choose an item, and then turn the [INFO] ring to specify a value.
   - For stronger/more intense effects (or darker skin tones), adjust the value to the right, and for weaker/lighter effects (or lighter skin tones), adjust the value to the left.
   - Press the [INFO] button to complete the setting.

Shooting Range and Focusing

Shooting Close-Ups (Macro)

To restrict the focus to subjects at close range, set the camera to [ ]. For details on the range of focus, see “Shooting Range” (page 205).

- Press the [ ] button, choose [Close-up] in the menu, and then choose [ ] (page 28).
- Once the setting is complete, [ ] is displayed.

- If the flash fires, vignetting may occur.

- To prevent camera shake, try mounting the camera on a tripod and shooting with the camera set to [C] (page 41).
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 range of focus, see “Shooting Range” (205).

1 Choose [MF].
   - Touch [AF].
   - [MF] and the MF indicator are displayed.

2 Specify the general focal position.
   - Referring to the on-screen MF indicator (1, which shows the distance and focal position) and the magnified display, touch [▲][▼] to specify the general focal position, and then press the [DISP.] button.
   - To adjust the magnification, press the [INFO.] button.
   - During magnified display, you can move the focusing frame by dragging on the screen.

3 Fine-tune the focus.
   - Press the shutter button halfway or touch [▲] to have the camera fine-tune the focal position (Safety MF).
   - To cancel manual focus, touch [MF].

- When you focus manually, the AF method (83) is [1-point AF] and AF frame size (84) is [Normal], and these settings cannot be changed.
- Focusing is possible when using the digital zoom (39) or digital tele-converter (83), or when using a TV as a display (170), but the magnified display will not appear.
- To focus more accurately, try attaching the camera to a tripod to stabilize it.
- You can enlarge or hide the magnified display area by adjusting MENU (29) ► [4] tab ► [MF-Point Zoom] settings.
- To deactivate automatic focus fine-tuning when the shutter button is pressed halfway, choose MENU (29) ► [4] tab ► [Safety MF] ► [Off].
Easily Identifying the Focus Area (MF Peaking)

Edges of subjects in focus are displayed in color to make manual focusing easier. You can adjust the colors and the sensitivity (level) of edge detection as needed.

1. Access the setting screen.

2. Configure the setting.
   - Choose a menu item to configure, and then choose the desired option (29).
     - Colors displayed for MF peaking are not recorded in your shots.

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.

1. Choose [ ].

2. Configure the setting.
   - Press the [INFO.] button, and then specify a value by touching or dragging the bar on the setting screen.
     - Focus bracketing is only available in [ ] mode (127).
     - Continuous shooting (142) is not available in this mode.
     - You can also access the setting screen in step 2 by pressing the [MENU] button in step 2 of “Shooting in Manual Focus Mode” (81).
     - Three shots are taken, regardless of any quantity specified in [ ] (41).
     - In [Blink Detection] mode (51), this function is only available for the final shot.
     - You can also configure this setting by touching or dragging the bar on the screen in step 2 to specify a value and then touching [MENU].
Digital Tele-Converter

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

- Press the [MENU] button, choose [Digital Zoom] on the [2] tab, and then choose the desired option (129).
- The view is enlarged and the zoom factor is displayed on the screen.

- The shutter speed may be equivalent when you move the zoom lever all the way toward (2) for maximum telephoto, and when you zoom in to enlarge the subject to the same size following step 2 in "Zooming In Closer on Subjects (Digital Zoom)" (39).

Choosing the AF Method

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

- Press the [AF] button, choose [AF] in the menu, and choose the desired option (28).

- You can also configure this setting by accessing MENU (29) ► [3] tab ► [AF method].

1-point AF

The camera focuses using a single AF frame. Effective for reliable focusing. You can also move the frame by touching the screen (186).

- A yellow AF frame is displayed with (4) if the camera cannot focus when you press the shutter button halfway.

- To compose shots so that subjects are positioned at the edge or in a corner, first aim the camera to capture the subject in an AF frame, and then hold the shutter button halfway down. As you continue to hold the shutter button halfway, recompose the shot as desired, and then press the shutter button all the way down (Focus Lock).
- The AF frame position is enlarged when you press the shutter button halfway with [AF-Point Zoom] (150) set to [On].
Moving and Resizing AF Frames (1-point AF)

When you want to change the position or size of the AF frame, set the AF method to [1-point AF].

1 Move the AF frame.
   - Touch the screen. An AF frame is displayed in orange where you touched (Touch AF).
   - To return the AF frame to the original position in the center, press the [MENU] button.

2 Resize the AF frame.
   - To reduce the AF frame size, turn the [3] ring. Turn it again to restore it to the original size.

3 Finish the setup process.
   - Press the [INFO] button.

   - AF frames are displayed at normal size when you use the digital zoom ([39]) or digital tele-converter ([83]), and in manual focus mode ([81]).

   - You can also link the Spot AE Point frame to the AF frame ([75]).
   - You can also configure the AF frame size by pressing the [MENU] button and choosing [AF Frame Size] on the [3] tab ([29]).

Adding Tracking

- On the screen in step 2, you can also move the AF frame by touching the screen, restore the AF frame to the original position by touching [MENU], or exit the setting by touching [INFO].

- Detects people's faces, and then sets the focus, exposure (evaluative metering only), and white balance ([] 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.

- When no faces are detected, or when only gray frames are displayed (without a white frame), pressing the shutter button halfway will display green frames in the areas in focus. Note that the maximum number of frames depends on the aspect ratio ([47]) setting.
- If no faces are detected in Servo AF ([85]) mode, 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.
Shooting with Servo AF

Still Images  Movies

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

1 Configure the setting.

- Press the [ ] button, choose [ONE SHOT] in the menu, and then choose [SERVO].

2 Focus.

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

Changing the Focus Setting

Still Images  Movies

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] (29).

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.
Choosing a Person to Focus On (Face Select)

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

1. Set the AF method to [Auto+Tracking] (83).
2. Assign [Face ID] to the movie button (99).
3. Enter Face Select mode.
   - Aim the camera at the person’s face and press the movie button.
   - After [Face Select : On] is displayed, a face frame is displayed around 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.
4. Choose the face to focus on.
   - To switch the face frame to another detected face, press the movie button.
   - Once you cycle through all detected faces, [Face Select : Off] is displayed, followed by the selected AF method screen.
5. Shoot.
   - Press the shutter button halfway. After the camera focuses, changes to green.
   - Press the shutter button all the way down to shoot.

Choosing Subjects to Focus On (Touch AF)

You can shoot after choosing a person’s face or another subject to focus on.

1. Set the AF method to [Auto+Tracking] (83).
2. Choose a person’s face or another subject to focus on.
   - Touch the subject or person on the screen.
   - When the subject is detected, the camera beeps and is displayed. Focus is maintained even if the subject moves.
   - To cancel Touch AF, touch .
3. Shoot.
   - Press the shutter button halfway. After the camera focuses, changes to green.
   - Press the shutter button all the way down to shoot.
Flash

Changing the Flash Mode

You can change the flash mode to match the shooting scene. For details on the flash range, see “Camera” (p. 204).

1. Raise the flash.
   - Move the $\mathbb{F}$ switch.

2. Configure the setting.
   - Press the $\mathbb{F}$ button, choose $\mathbb{F}$ in the menu, and choose the desired option.
   - The option you configured is now displayed.

- $\mathbb{F}$ is not displayed in the menu when the flash is lowered, even if you press the $\mathbb{F}$ button. Move the $\mathbb{F}$ switch to raise the flash, then configure the setting.
- If the flash fires, vignetting may occur.

Auto

Fires automatically in low-light conditions.

On

Fires for each shot.

Shooting with the AF Lock

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

1. Lock the focus.
   - With the shutter button pressed halfway, press the [MENU] button.
   - The focus is now locked, and [MF] and the MF indicator are displayed.
   - To unlock the focus, release the shutter button and touch [MF].

2. Compose the shot and shoot.

- Cannot be used with Touch Shutter (p. 42).

Changing the Flash Mode

Still Images Movies

1. Raise the flash.
   - Move the $\mathbb{F}$ switch.

2. Configure the setting.
   - Press the $\mathbb{F}$ button, choose $\mathbb{F}$ in the menu, and choose the desired option.
   - The option you configured is now displayed.

- $\mathbb{F}$ is not displayed in the menu when the flash is lowered, even if you press the $\mathbb{F}$ button. Move the $\mathbb{F}$ switch to raise the flash, then configure the setting.
- If the flash fires, vignetting may occur.

Auto

Fires automatically in low-light conditions.

On

Fires for each shot.
Adjusting the Flash Exposure Compensation

Just as with regular exposure compensation (74), you can adjust the flash exposure from –2 to +2 stops, in 1/3-stop increments.

- Raise the flash, press the [Rec] button, and choose [F] in the menu. Turn the [F] ring to choose the compensation level, and then press the [Rec] button.

- When there is a risk of overexposure, the camera automatically adjusts the shutter speed or aperture value for flash shots to reduce washed-out highlights and shoot at optimal exposure. However, you can deactivate automatic adjustment of the shutter speed and aperture value by accessing MENU (29) and choosing [5] tab ► [Flash Settings] ► [Safety FE] ► [Off].

- You can also configure the flash exposure compensation by accessing MENU (29) and choosing [5] tab ► [Flash Settings] ► [Flash Exp. Comp].

- You can also access the [Built-in Flash Settings] screen (29) as follows.
  - Press the [Rec] button when the flash is up, choose [F] in the menu, and then press the [Rec] button.

Slow Synchro

Fires to illuminate the main subject (such as people) while shooting at a slower shutter speed to illuminate backgrounds out of flash range.

- In [Sf] mode, mount the camera on a tripod or take other measures to keep it still and prevent camera shake. Additionally, you should set [IS Mode] to [Off] when using a tripod or other means to secure the camera (52).

- In [Sf] mode, even after the flash fires, ensure that the main subject does not move until the shutter sound is finished playing.

Off

For shooting without the flash.

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

- You can also configure this setting by touching [F], touching an option, and then touching it again.
Shooting with the FE Lock

Just as with the AE lock (74), you can lock the exposure for flash shots.

1 Raise the flash and set it to $ (87).

2 Lock the flash exposure.
   - Aim the camera at the subject to shoot with the exposure locked, and then touch $.
   - The flash fires, and when $ is displayed, the flash output level is retained.
   - To unlock FE, touch $ again. $ is no longer displayed.

3 Compose the shot and shoot.
   - After one shot, FE is unlocked and $ is no longer displayed.

   FE: Flash Exposure

Changing the Flash Timing

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

1 Access the setting screen.

2 Configure the setting.
   - Choose [Shutter Sync.], and then choose the desired option (29).

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

● FE: Flash Exposure
Capturing in RAW Format

The camera can capture images in JPEG and RAW format.

| JPEG Images | 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. |
| RAW Images | “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 on a computer or printing. You must first use the software (Digital Photo Professional, 173) to convert images to ordinary JPEG or TIFF files. Images can be adjusted with minimal loss of image quality. |

- Press the [ ] button, and then choose [ ] in the menu (28).
- To capture in RAW format only, choose the [ ] option.
- To capture images in both JPEG and RAW format simultaneously, choose the JPEG image quality, and then press the [ ] button. A [ ] mark is displayed next to [RAW]. To undo this setting, follow the same steps and remove the [ ] mark next to [RAW].

Other Settings

Changing Image Quality

Choose from 8 combinations of size (number of pixels) and compression (image quality). Also specify whether to capture images in RAW format (90). For guidelines on how many of each kind of image can fit on a memory card, see “Number of Shots per Memory Card” (205).

Follow the steps in “Changing Image Quality” (48) to adjust the settings.

- and indicate different levels of image quality depending on the extent of compression. At the same size (number of pixels), offers higher image quality. Although images have slightly lower image quality, more fit on a memory card.

When transferring RAW images (or RAW and JPEG images recorded together) to a computer, always use the dedicated software (173).

Digital zoom (39) is not available when capturing images in RAW format. Additionally, noise reduction level (76), dynamic range correction (77), shadow correction (77), and My Colors (79) cannot be configured.
● For details on the relationship between the number of recording pixels and the number of shots that will fit on a card, see “Number of Shots per Memory Card” (page 205).
● The file extension for JPEG images is .JPG, and the extension for RAW images is .CR2.

Using the Menu


To capture in RAW format at the same time, choose [RAW] under [RAW]. Note that only JPEG images are captured when [-] is selected.

In [JPEG], choose the number of pixels and compression ratio. Note that only RAW images are captured when [-] is selected.

When finished, press the [OK] button to return to the menu screen.

[RAW] and [JPEG] cannot both be set to [-].

Changing the IS Mode Settings

You can keep image stabilization off until the moment you shoot.

Follow the steps in “Deactivating Image Stabilization” (page 52) to choose [Shoot Only].
Tv, Av, M, and C 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 “Camera” (p. 204).

1. **Enter [Tv] mode.**
   - Set the mode dial to [Tv].

2. **Set the shutter speed.**
   - Turn the [ ] ring to set the shutter speed.

<table>
<thead>
<tr>
<th>Shutter Speed (Sec.)</th>
<th>Available ISO Speed (p. 75)</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 – 1.3</td>
<td>[AUTO], [125] – [3200]</td>
</tr>
<tr>
<td>1 – 1/2000</td>
<td>[AUTO], [125] – [12800]</td>
</tr>
</tbody>
</table>

- In conditions requiring slower shutter speeds, there may 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. 52).
- Orange display of the aperture value when you press the shutter button halfway indicates that the optimum exposure has not been obtained. Adjust the shutter speed until the aperture value is displayed in white, or use safety shift (p. 93).

- [Tv]: Time value
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 “Camera” (p. 204).

1. Enter [M] mode.
   - Set the mode dial to [M].

2. Configure the setting.
   - Touch [ ] (1), choose the shutter speed (2), aperture value (3), or [ ] (4), and then turn the [ ] ring to specify a value.
   - When the ISO speed is fixed, an exposure level mark (6) based on your specified values is shown on the exposure level indicator for comparison to the standard exposure level (5). The exposure level mark is shown as [ ] or [ ] when the difference from standard exposure exceeds 3 stops.
   - The ISO speed is determined and screen brightness changes when you press the shutter button halfway after setting the ISO speed to [AUTO]. If standard exposure cannot be obtained with your specified shutter speed and aperture value, the ISO speed is displayed in orange.

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 “Camera” (p. 204).

1. Enter [Av] mode.
   - Set the mode dial to [Av].

2. Set the aperture value.
   - Turn the [ ] ring to set the aperture value.

- Orange display of the shutter speed when you press the shutter button halfway indicates that the optimum exposure has not been obtained. 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 diaphragm in the lens)
- In [Tv] and [Av] modes, press the [ ] button and set [Safety Shift] on the [ ] tab to [On] (p. 29) to have the camera automatically adjust the shutter speed and aperture value when there are exposure problems, so that you can shoot at the optimum exposure. However, safety shift is disabled when the flash fires.

- [Tv]: Specific Shutter Speeds and Aperture Values
Shooting Long Exposures (Bulb)

With bulb exposures, shots are exposed for as long as you hold down the shutter button.

1 Specify bulb exposure.
- Set the shutter speed to [BULB], following steps 1 – 3 in “Specific Shutter Speeds and Aperture Values ([M] Mode)” (page 93).

2 Shoot.
- Shots are exposed for as long as you hold the shutter button all the way down. The elapsed exposure time is displayed during exposure.

<table>
<thead>
<tr>
<th>Shutter Speed (Sec.)</th>
<th>Available ISO Speed (page 75)</th>
</tr>
</thead>
<tbody>
<tr>
<td>[BULB], 30 – 1.3</td>
<td>[AUTO], [125] – [3200]</td>
</tr>
<tr>
<td>1 – 1/2000</td>
<td>[AUTO], [125] – [12800]</td>
</tr>
</tbody>
</table>

- [M]: Manual
- Calculation of optimum exposure is based on the specified metering method (page 74).
- The following operations are available when ISO speed is set to [AUTO].
  - Adjust exposure by touching [ ] a few times to choose the exposure compensation bar and then turning the [ ] ring.
  - Touch [ ] to lock the ISO speed. Screen brightness changes accordingly.

- Maximum continuous shooting time with this feature is 4 min. 16 sec.
- Mount the camera on a tripod or take other measures to keep it still and prevent camera shake. In this case, also disable image stabilization (page 52).

- When [Touch Shutter] is set to [On], shooting is started by touching the screen once and stopped by touching it again. Be careful not to move the camera when touching the screen.
Recording Movies at Specific Shutter Speeds and Aperture Values

Set your preferred shutter speed, aperture value, exposure, and ISO speed.
For details on available shutter speeds and aperture values, see “Camera” (p.204), and for available ISO speeds, see “Changing the ISO Speed” (p.75).

1 Enter [ ] mode.
   - Set the mode dial to [ ].
   - Touch [ ], and then choose [ ].
   - To confirm your choice, touch [OK].

2 Configure the settings.
   - Touch [ ] (1), choose an item to configure (2), and then turn the [ ] ring to specify a value.

3 Shoot.
   - Press the movie button.
   - During recording, you can switch the setting to configure by touching [ ] repeatedly and adjust the value by turning the [ ] ring.

● Some shutter speeds may cause flickering on the screen when recording under fluorescent or LED lighting, which may be recorded.
You can touch the screen to switch the function (ISO speed, exposure compensation, shutter speed, and aperture value) configured with the control ring, and quickly adjust the setting by turning the ring.

Touch  to switch to another item, and then turn the  ring to set a value.

Available setting items vary by shooting mode.

<table>
<thead>
<tr>
<th>M</th>
<th>Av</th>
<th>Tv</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tv</td>
<td>Av</td>
<td>+/- ISO</td>
<td></td>
</tr>
<tr>
<td>Av</td>
<td>+/- ISO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>+/- ISO</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

+/-: exposure compensation (74); ISO: ISO speed (75); Tv: shutter speed (92); Av: aperture value (93).
Changing Control Ring Settings

Reassign control ring functions as follows. Using the control ring is an enjoyable way to control the camera as you would a fully manual camera.

1. Choose a function to assign to the [ ] ring.
   - Press the [MENU] button and choose [Control Ring Settings] on the [ ] tab. Set [Switch with ] to [Disable].
   - Choose [Set Function].

2. Configure the assigned function.
   - Touch an option, and then press the [ ] button.

Functions Assignable to the Control Ring

Functions you can assign to the control ring vary depending on shooting mode.

<table>
<thead>
<tr>
<th>Item</th>
<th>Shooting Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
</tr>
<tr>
<td>Av</td>
<td>Av</td>
</tr>
<tr>
<td>Tv</td>
<td>Tv</td>
</tr>
<tr>
<td>STD</td>
<td>–</td>
</tr>
<tr>
<td>ISO</td>
<td>–</td>
</tr>
<tr>
<td>#</td>
<td>–</td>
</tr>
<tr>
<td>We</td>
<td>–</td>
</tr>
<tr>
<td>ZOOM</td>
<td>–</td>
</tr>
<tr>
<td>2</td>
<td>–</td>
</tr>
<tr>
<td>3</td>
<td>–</td>
</tr>
<tr>
<td>[ ]</td>
<td>–</td>
</tr>
<tr>
<td>C</td>
<td>–</td>
</tr>
</tbody>
</table>

- +/-: exposure compensation (74); Tv: shutter speed (92); Av: aperture value (93).

- The [ ] ring can be used for step zooming (40) in AUTO or [ ] mode.
Assigning Functions to the Control Ring

Assign functions to the control ring based on each shooting mode.

1. Choose [C].
   - Following step 1 in “Changing Control Ring Settings” (97), choose [C] and press the [INFO] button.

2. Configure the setting.
   - Touch a shooting mode to choose it.
   - Turn the [ ] ring to choose a function to assign to the control ring (1).
   - Press the [MENU] button to return to the shooting screen.

Customizing Display Information

Customize what screen is displayed when you press the [INFO] button on the shooting screen. You can also customize what information is displayed.

1. Access the setting screen.
   - On the [ ] tab, choose [Screen info/toggle settings] in [Shooting information display], and then press the [INFO] button (29).

2. Configure the setting.
   - Touch any screen that you prefer not to display, to remove the [ ] mark. Touching it again will add the [ ] mark, which indicates that it is included in display.
   - To return to the menu screen, press the [MENU] button.

- An example of display with the options selected in step 2 is shown at left for reference.
- At least one option must be selected.
Customizing the Information Displayed

- Follow steps 1 – 2 in “Customizing Display Information” (pg. 98) to choose [Custom display 1] or [Custom display 2], and then press the [INFO.] button.
- Touch information to display, to add a [✓] mark.
- To see an example of display, press the [MENU] button to return to the [Screen info/ toggle settings] screen.

- For a smaller grid pattern, access [1] tab ► [Shooting information display] ► [Grid display].

Assigning Functions to the Movie Button

1. Access the setting screen.
   - Press the [MENU] button, choose [Set button] on the [2] tab, and then press the [INFO.] button (pg. 29).

2. Configure the setting.
   - Touch an option to assign, and then press the [INFO.] button.

- To restore the default setting to the movie button, choose [ ].
- Icons labeled with [ ] indicate that the function is not available in the current shooting mode or under current function conditions.
- With [ ], you can move and resize the AF frame by pressing the movie button in [1-point AF] mode (pg. 83, 84).
- With [ ] or [ ], each press of the movie button records white balance data (pg. 78), and the white balance setting changes to [ ] or [ ].
- When the [AF] function is used, each press of the movie button adjusts and locks the focus, and [AF] is displayed on the screen.
- Pressing the movie button when the [ ] function is used deactivates screen display. To restore the display, do any of the following:
  - Press any button other than the power button
  - Hold the camera in another orientation
  - Raise or lower the flash
- You can still record movies in [ ], [ ], [ ], or [ ] mode even if you assign a function to the movie button.

- You can also configure settings by touching a desired option and then touching it again or touching [SET].
Customizing the Quick Set Menu

The display of Quick Set menu items can be customized.

Choosing Items to Include in the Menu

1. Access the setting screen.
   - Press the [MENU] button, choose [Quick setting menu layout] on the [ ] tab, and then press the [ ] button (29).

2. Choose icons to include in the menu.
   - Touch icons to include in the Quick Set menu. Selected icons are marked with a [ ].
   - Selected items (labeled with a [ ]) will be included in display.
   - Items without a [ ] can be configured on the [ ] tab of the menu screen.

3. Complete the setting.
   - Press the [MENU] button, and then touch [OK].

   - Up to 11 items can be displayed in the menu.
   - The screen in step 2 can also be accessed by holding down the [ ] button when the Quick Set menu is displayed.

Rearranging Menu Items

1. Access the setting screen.
   - On the screen in step 2 of “Choosing Items to Include in the Menu” (100), press the [ ] button.
   - Drag an icon to move it to a new position.

2. Complete the setting.
   - Press the [MENU] button, and then touch [OK].
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 [C]. 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], and [M] modes (74 – 93)
- Shooting menu settings
- Zoom positions
- Manual focus positions (81)
- My Menu settings (101)

1 Enter a shooting mode with settings you want to save, and change the settings as desired.

2 Configure the setting.

3 Save the settings.
   - Touch [OK].

Saving Commonly Used Shooting Menu Items (My Menu)

You can save up to six commonly used shooting menu items on the [★1] tab. By customizing the [★1] tab, you can access these items quickly from a single screen.

1 Access the setting screen.

2 Configure the setting.
   - Choose [Select items] and press the [OK] button.
   - Touch up to six menu items to save.
   - [✓] is displayed.
   - To cancel saving, touch an item. [✓] is no longer displayed.
   - Press the [MENU] button.
3 Rearrange menu items, as needed.
- Choose [Sort] and press the [MENU] button.
- Drag items to change the display order.
- 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, set [Set default view] to [Yes].
Playback Mode

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

- To prepare the camera for these operations, press the [播放] button to enter Playback mode.

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

Viewing

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

1. **Enter Playback mode.**
   - Press the [播放] button.
   - Your last shot is displayed.

2. **Choose images.**
   - To view the next image, drag right to left across the screen, and to view the previous image, drag left to right.
   - You can also view the next image by touching the right edge of the screen (1). In this case, [►] is displayed. Similarly, you can view the previous image by touching the left edge of the screen (2), and in this case, [◄] is displayed.
   - To access this screen (Scroll Display mode), quickly drag left or right repeatedly.
   - In this mode, drag left or right to browse through images.
   - Touching the central image will restore single-image display.
   - To browse images grouped by shooting date in Scroll Display mode, quickly drag up or down.
   - You can also view the next image by touching the right edge of the screen (1). In this case, [►] is displayed. Similarly, you can view the previous image by touching the left edge of the screen (2), and in this case, [◄] is displayed.

- To prepare the camera for these operations, press the [播放] 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.

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- To prepare the camera for these operations, press the [播放] 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.
Movies are identified by a [_movie] icon. To play movies, go to step 3.

3 Play movies.
- To start playback, press the [movie] button, choose [▶], and then press the [movie] button again.

4 Adjust the volume.
- Quickly drag up or down to adjust the volume.
- To adjust the volume when the volume indicator (1) is no longer displayed, quickly drag up or down across the screen.

5 Pause playback.
- To pause or resume playback, press the [movie] button.
- To pause playback, touch the screen. The movie control panel is displayed. To resume playback, touch [▶].
- After the movie is finished, [end] is displayed.
Switching Display Modes

Press the [INFO] button to view other information on the screen, or to hide the information. For details on the information displayed, see “Playback (Detailed Information Display)” (1105).

Overexposure Warning (for Image Highlights)

Washed-out highlights in the image flash on the screen in detailed information display (1105).

Histogram

- The graph in detailed information display (1105) 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 (99, 188).

RGB Histogram, GPS 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.

- Using a smartphone connected to the camera via Wi-Fi, you can geotag images on the camera, adding information such as latitude, longitude, and elevation (155). You can review this information in the GPS information display.

- Latitude, longitude, elevation, and UTC (shooting date and time) are listed from top to bottom.

Switching display modes is not possible while the camera is connected via Wi-Fi to devices other than printers.
Viewing Short Movies Created When Shooting Still Images (Digest Movies)

View digest movies recorded automatically in [ ] mode (35) on a day of still image shooting as follows.

1. Choose an image.
   - Still images shot in [ ] mode are labeled with [ ] icon.
   - Choose a still image labeled with [ ].

2. Play the digest movie.
   - Touch [ ], and then touch [OK].
   - The movie recorded automatically on the day of still image shooting is played back, from the beginning.

- After a moment, [ ] will no longer be displayed when you are using the camera with information display deactivated (105).

Viewing Short Movies Recorded in Creative Shot Mode (Creative Shot Movies)

Play back Creative Shot movies recorded in [ ] mode (55).

1. Choose a movie.

2. Play the movie.
   - Touch a movie to play it.

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

- UTC: Coordinated Universal Time, essentially the same as Greenwich Mean Time
- GPS information display is not available for images that lack this information.

- You can also switch between the RGB histogram and GPS information display by dragging the lower half of the screen upward or downward in detailed information display.

- You can also switch between the RGB histogram and GPS information display by dragging the lower half of the screen upward or downward in detailed information display.

Viewing by Date

Digest movies can be viewed by date.

- Press the [MENU] button, choose [List/Play Digest Movies] on the [2] tab, and then touch a date (29).
Checking People Detected in Face ID

If you switch the camera to simple information display mode (105), the names of up to five detected people registered in Face ID (43) will be displayed.

- Press the [INFO] button several times to enter simple information display, and then choose an image by dragging left or right on the screen.
- Names will be displayed on detected people.

- If you prefer not to have names displayed on images shot using Face ID, choose MENU (29) ► [3] tab ► [Face ID Info] ► [Name Display] ► [Off].

Browsing and Filtering Images

Navigating through Images in an Index

- Display images in an index.
  - Move the zoom lever toward [Q] 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.

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

Find desired images quickly on a memory card full of images by filtering image display according to your specified conditions. You can also protect (113) or delete (115) these images all at once.

| Favorite (★) | Displays images tagged as favorites (118). |
| Shot Date (ű) | Displays the images shot on a specific date. |
| People (ł) | Displays images with detected faces. |
| Still Image/Movie (Ŀ) | Displays still images, movies, or movies shot in [ ] mode (35). |
| Name (ė) | Displays images of a registered person (44). |

1 Choose the first condition.
- In single-image display, press the [ ] button, choose [ ] in the menu, press the [ ] button again, and choose a condition.
- When [ ] or [ ] is selected, you can view only images matching this condition by touching [ ] or turning the [ ] ring. To perform an action for all of these images together, press the [ ] button and go to step 3.

2 Choose the second condition and view the filtered images.
- When you have selected [ ] or [ ] as the first condition, choose the second by touching [ ] or [ ], and then turn the [ ] ring to view only matching images.
- To switch to filtered image display, press the [ ] button and go to step 3.
- When you have selected [ ] as the first condition, press the [ ] button and choose a person on the next screen.

3 View the filtered images.
- Images matching your conditions are displayed in yellow frames. To view only these images, drag left or right across the screen.
- To cancel filtered display, press the [ ] button, choose [ ] in the menu, and then press the [ ] button.

- When the camera has found no corresponding images for some conditions, those conditions will not be available.
Using the Control Ring to Jump between Images

Use the control ring to find and jump between desired images quickly by filtering image display according to your specified conditions.

1. Choose a condition.
   ● Choose a condition (or jump method) by pressing the [MENU] button and choosing [Image jump with 3] on the [5] tab.

2. View images matching your specified condition, or jump by the specified amount.
   ● In single-image display, turn the [ ] ring to view only images matching the condition or jump by the specified number of images forward or back.

- To hide or view other information, press the [INFO] button in step 3.
- Options for viewing the images found (in step 3) include “Navigating through Images in an Index” (107), “Magnifying Images” (112), and “Viewing Slideshows” (113). You can also apply image operations to all images found, by choosing [Protect All Images in Search] in “Protecting Images” (113) or [Select All Images in Search] in “Erasing Multiple Images at Once” (116), “Adding Images to the Print List (DPOF)” (1179), or “Adding Images to a Photobook” (1181).
- If you edit images and save them as new images (121 – 128), a message is displayed, and the images that were found are no longer shown.

- After choosing conditions, you can view images matching your conditions by touching a condition again.

| Jump to Favorites | Displays images tagged as favorites (118). |
| Jump Shot Date | Jumps to the first image in each group of images that were shot on the same date. |
| Single image | Jumps by 1 image at a time. |
| Jump 10 Images | Jumps by 10 images at a time. |
| Jump 100 Images | Jumps by 100 images at a time. |
Viewing Individual Images in a Group

1. Choose a grouped image.
   - Browse images by dragging left or right until you find a desired image labeled [ ].

2. Choose [ ].
   - Press the [ ] button, and then choose [ ] in the menu ( ).

3. View images in the group individually.
   - Dragging images left or right will display only images in the group.
   - To cancel group playback, press the [ ] button, choose [ ] in the menu, and press the [ ] button again ( ).

- During group playback (step 3), you can browse through images quickly “Navigating through Images in an Index” ( ) and magnify them “Magnifying Images” ( ). You can apply your actions to all images in the group at once by specifying [Protect All Images in Group] in “Protecting Images” ( ), or by specifying [Select All Images] in “Erasing Multiple Images at Once” ( ), “Adding Images to the Print List (DPOF)” ( ), or “Adding Images to a Photobook” ( ).
- To ungroup images so that they are displayed only as single still images, choose [Group Images] [Off] ( ). However, grouped images cannot be ungrouped during individual playback.
- In [ ] mode, the simultaneous display after step 2 in “Enjoying a Variety of Images from Each Shot” ( ) is only shown immediately after you shoot.

- You can also view group images individually by touching [ ] on the screen in steps 1 and 2.

Touch-Screen Operations

- You can also jump to the previous or next image according to your jump method chosen in step 1 of “Using the Control Ring to Jump between Images” ( ) by dragging left or right with two fingers.

Images shot continuously ( ), images shot in [ ] mode ( ), and individual still images saved as source data in [ ] mode ( ) are grouped, and only the first image is displayed. However, you can also view the images individually.

Still Images

Movies

Images shot continuously ( ), images shot in [ ] mode ( ), and individual still images saved as source data in [ ] mode ( ) are grouped, and only the first image is displayed. However, you can also view the images individually.

· During group playback (step 3), you can browse through images quickly “Navigating through Images in an Index” ( ) and magnify them “Magnifying Images” ( ). You can apply your actions to all images in the group at once by specifying [Protect All Images in Group] in “Protecting Images” ( ), or by specifying [Select All Images] in “Erasing Multiple Images at Once” ( ), “Adding Images to the Print List (DPOF)” ( ), or “Adding Images to a Photobook” ( ).
· To ungroup images so that they are displayed only as single still images, choose [Group Images] [Off] ( ). However, grouped images cannot be ungrouped during individual playback.
· In [ ] mode, the simultaneous display after step 2 in “Enjoying a Variety of Images from Each Shot” ( ) is only shown immediately after you shoot.
· You can also view group images individually by touching [ ] on the screen in steps 1 and 2.
**Editing Face ID Information**

If you notice that a name is incorrect during playback, you can change it or erase it. However, you cannot add names for people who are not detected by Face ID (names are not displayed), and for people whose names have been erased.

### Changing Names

1. **Access the setting screen.**
   - Choose [Edit ID Info] and press the [SET] button.

2. **Choose an image.**
   - Choose an image after dragging left or right to browse. Press the [SET] button.
   - To choose the name you want to overwrite, touch that person’s face.

3. **Choose the editing option.**
   - Touch [Overwrite].

4. **Choose the name of the person to overwrite with.**
   - Touch the name of the person to use for overwriting.

**Erasing Names**

- On the screen displayed in step 3 in “Changing Names” (111), touch [Erase].
- After [Erase?] is displayed, touch [OK].
### Image Viewing Options

#### Magnifying Images

1. **Magnify an image.**
   - Moving the zoom lever toward [Q] will zoom in and magnify the image. You can magnify images up to about 10x by continuing to hold the zoom lever.
   - The approximate position of the displayed area (1) is shown for reference.
   - To zoom out, move the zoom lever toward [Q]. You can return to single-image display by continuing to hold it.

2. **Move the display position and switch images as needed.**
   - To move the display position, drag across the screen.
   - Press the [MENU] button to restore single-image display.
   - To switch to other images while zoomed, turn the [Q] ring.

   - You can check the focus when [SET] is displayed by pressing the [Q] button to show the position in focus (Focus Check). When multiple positions are in focus, press the [Q] button repeatedly to switch to other positions.

#### Touch-Screen Operations

- Spread your fingers apart (pinch out) to zoom in.
- You can magnify images up to about 10x by repeating this action.
- To move the display position, drag across the screen.
- Pinch in to zoom out.
- Touch [MENU] to restore single-image display.
### Protecting Images

Protect important images to prevent accidental erasure (115).

- Press the [MENU] button, choose [ ] in the menu, and then choose [ ].
- To cancel protection, choose [OFF].

- Protected images on a memory card will be erased if you format the card (160).
- Protected images cannot be erased using the camera’s erasure function. To erase them this way, first cancel protection.

### Viewing Slideshows

Automatically play back images from a memory card as follows.

- Press the [ ] button, and then choose [Slideshow] on the [1] tab (29).
- Touch [Start].
- The slideshow will start after [Loading image] is displayed for a few seconds.
- Press the [MENU] button to stop the slideshow.

- The camera’s power-saving functions (26) are deactivated during slideshows.
- To pause or resume slideshows, press the [ ] button.
- You can configure slideshow repetition, the display time per image, and the transition between images on the screen accessed by touching [Set up] (29).

- You can also stop slideshows by touching the screen.
- Slideshows can also be started by using Touch Actions (119).

- The camera’s power-saving functions (26) are deactivated during slideshows.
- To pause or resume slideshows, press the [ ] button.
- You can configure slideshow repetition, the display time per image, and the transition between images on the screen accessed by touching [Set up] (29).

- You can also stop slideshows by touching the screen.
- Slideshows can also be started by using Touch Actions (119).
Choosing Images Individually

1. Choose [Select].
   - Following the procedure in “Using the Menu” (p.113), choose [Select] and press the [5] button.

2. Choose an image.
   - Choose an image after dragging left or right to browse. Once you press the [5] button, [5] is displayed.
   - Repeat this process to specify other images.

3. Protect the image.
   - Press the [MENU] button. A confirmation message is displayed.
   - Touch [OK].

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

   ● You can also select or clear images by touching the screen in step 2, and you can access the confirmation screen by touching [MENU].

Selecting a Range

1. Choose [Select Range].
   - Following the procedure in “Using the Menu” (p.113), choose [Select Range] and press the [5] button.

2. Choose a starting image.
   - Press the [5] button.
   - Choose an image after dragging left or right to browse. Press the [5] button.

3. Choose an ending image.
   - Touch the bounded area to activate [Last image], and then press the [5] button.
   - Choose an image after dragging left or right to browse. Press the [5] button.
   - Images before the first image cannot be selected as the last image.
You can choose and erase unneeded images one by one. Be careful when erasing images, because they cannot be recovered. However, protected images (113) cannot be erased.

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

2 Erase the image.
   - Press the [ ] button, and then choose [ ] in the menu (28).
   - After [Erase?] is displayed, touch [Erase].
   - The current image is now erased.
   - To cancel erasure, touch [Cancel].

- For images captured in both RAW and JPEG format, touching [Erase] while the image is displayed gives you the option of choosing [Erase ], [Erase ], or [Erase ].
- Images can also be erased by using Touch Actions (119).

Protecting All Images at Once

1 Choose [Protect All Images].
   - Following the procedure in “Using the Menu” (113), choose [Protect All Images] and press the [ ] button.

2 Protect the images.
   - Touch [OK].

Clearing All Protection at Once

You can clear protection from all images at once.
To clear protection, choose [Unprotect All Images] in step 1 of “Protecting All Images at Once”, and then complete step 2.
Choosing Images Individually

1 Choose [Select].
   - Following the procedure in “Choosing a Selection Method” (116), choose [Select] and press the [MENU] button.

2 Choose an image.
   - Choose an image after dragging left or right to browse. Once you touch the screen, [✓] is displayed.
   - To cancel selection, touch the screen 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.
   - Touch [OK].

   - Choosing an image captured in both RAW and JPEG format will erase both versions.

Erasing Multiple Images at Once

You can choose multiple images to erase at once. Be careful when erasing images, because they cannot be recovered. However, protected images (113) cannot be erased.

Choosing a Selection Method

1 Access the setting screen.
   - Press the [MENU] button, and then choose [Erase] on the [F] tab (129).

2 Choose a selection method.
   - Choose the selection method, and then press the [MENU] button.
   - To return to the menu screen, press the [MENU] button.

   - Touch [MENU] to return to the menu screen.
Selecting a Range

1 Choose [Select Range].
   - Following the procedure in “Choosing a Selection Method” (1116), choose [Select Range] and press the [Q] button.

2 Choose images.
   - Follow steps 2 – 3 in “Selecting a Range” (1114) to specify images.

3 Erase the images.
   - Touch [Erase].

Specifying All Images at Once

1 Choose [Select All Images].
   - Following the procedure in “Choosing a Selection Method” (1116), choose [Select All Images] and press the [Q] button.

2 Erase the images.
   - Touch [OK].

Rotating Images

Change the orientation of images and save them as follows.

1 Choose [Q].
   - Press the [Q] button, and then choose [Q] in the menu (28).

2 Rotate the image.
   - Each time you drag an option, the image is rotated 90° in that direction. Press the [Q] button to complete the setting.

   • Rotation is not possible when [Auto Rotate] is set to [Off] (1118).

Using the Menu

1 Choose [Rotate].
Tagging Images as Favorites

You can organize images by tagging them as favorites. By choosing a category in filtered playback, you can restrict the following operations to all of those images.


1. Press the [button, choose [★] in the menu, and then choose [★]. [★] is displayed.
2. To untag the image, repeat this process and choose [OFF], and then press the [button.

Deactivating Auto Rotation

Follow these steps to deactivate automatic image rotation, which rotates images based on the current camera orientation.


Using the Menu

1. Choose [Favorites].
2. Choose an image.
   - Choose an image after dragging left or right to browse. Once you 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.
- Touch [OK].

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

Tagging images as favorites makes it easier to add them when creating albums (127).
Images can also be tagged as favorites by using Touch Actions (119).
To specify multiple images at once, move the zoom lever toward [ ] for index display, and then touch images to choose them.

Convenient Control: Touch Actions

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

Using Touch Actions Functions

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

Similarly, you can also activate functions assigned to [ ], [ ], and [ ] by dragging across the screen.
Customize functions assigned to Touch Actions as desired.
### Changing Touch Actions Functions

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

1. **Access the setting screen.**
   - Press the [MENU] button, and then choose [Set Touch Actions] on the [(6)] tab (p.29).

2. **Assign a function to a Touch Action.**
   - Choose a dragging pattern, and then press the [(6)] button.
   - Choose a function to assign.

#### Assignable Functions

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slideshow</td>
<td>Start a slideshow.</td>
</tr>
<tr>
<td>Erase</td>
<td>Erase an image.</td>
</tr>
<tr>
<td>Protect</td>
<td>Protect an image or cancel protection.</td>
</tr>
<tr>
<td>Rotate</td>
<td>Rotate an image.</td>
</tr>
<tr>
<td>Favorites</td>
<td>Tag images as favorites, or untag the image.</td>
</tr>
<tr>
<td>Next Favorite</td>
<td>Switch to displaying the next image tagged as a favorite.</td>
</tr>
<tr>
<td>Previous Favorite</td>
<td>Switch to displaying the previous image tagged as a favorite.</td>
</tr>
<tr>
<td>Next Date</td>
<td>Switch to displaying the first image with the next shooting date.</td>
</tr>
<tr>
<td>Previous Date</td>
<td>Switch to displaying the first image with the previous shooting date.</td>
</tr>
<tr>
<td>To Camera</td>
<td>Access the Wi-Fi connection screen. For Wi-Fi details, see “Wi-Fi Functions” (p.131).</td>
</tr>
<tr>
<td>To Smartphone</td>
<td></td>
</tr>
<tr>
<td>To Computer</td>
<td></td>
</tr>
<tr>
<td>To Printer</td>
<td></td>
</tr>
<tr>
<td>To Web Service</td>
<td></td>
</tr>
</tbody>
</table>
Editing Still Images

- Image editing (121 – 124) is only available when the memory card has sufficient free space.

- When [MENU] is shown on an editing screen, you can touch [MENU] instead of pressing the [MENU] button, if you prefer.

- When [SET] is shown on an editing screen, you can touch [SET] instead of pressing the [SET] button, if you prefer.

Resizing Images

- Editing is not possible for images shot at a recording pixel setting of [S].
- RAW images cannot be edited.
- To cancel resizing in step 1, choose [C].
- Images cannot be resized to a higher number of recording pixels.

Using the Menu

1. Choose an image size.
   - Touch [M] or [S], and then press the [4] button.

2. Save the new image.
   - Touch [OK].
   - The image is now saved as a new file.

3. Review the new image.
   - Touch [Yes].
   - The saved image is now displayed.

   - Editing is not possible for images shot at a recording pixel setting of [S].
   - RAW images cannot be edited.

- Follow steps 4 – 5 in “Changing Image Color Tones (My Colors)” (123).
Cropping

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

1 Access the setting screen.
   ● Press the [MENU] button, choose [Cropping] in the menu, and then press the [OK] button (28).

2 Resize, move, and adjust the aspect ratio of the cropping frame.
   ● To resize the frame, move the zoom lever.
   ● To move the frame, drag on the screen.
   ● To change the frame orientation, touch [ ].
   ● To change the frame aspect ratio, touch [ ].
     To switch between aspect ratios (3:2, 16:9, 4:3, and 1:1), press the [OK] button repeatedly.

3 Preview the cropped image.
   ● Touch [ ].
   ● To switch display between the cropped image and the cropping frame, press the [OK] button repeatedly.

4 Save as a new image and review.
   ● Touch [ ].
   ● Follow steps 2 – 3 in “Resizing Images” (121).

---

● Editing is not possible for images shot at a recording pixel setting of [S] or resized to [S] (121).
● RAW images cannot be edited.
● Cropped images cannot be cropped again.
● Cropped images cannot be resized.
### Correcting Image Brightness (i-Contrast)

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

1. **Choose [i-Contrast].**
   - Press the [MENU] button, and then choose [i-Contrast] on the [3] tab (29).

2. **Choose an image.**
   - Choose an image after dragging left or right to browse. Press the [3] button.

3. **Choose an option.**
   - Touch an option, and then press the [3] button.

4. **Save the new image.**
   - Touch [OK].
   - The image is now saved as a new file.

5. **Review the new image.**
   - Press the [MENU] button.
   - Touch [Yes].
   - The saved image is now displayed.

### 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 “Changing Image Color Tones (My Colors)” (79).

1. **Choose [My Colors].**

2. **Choose an image.**
   - Choose an image after dragging left or right to browse. Press the [3] button.

3. **Choose an option.**
   - Touch an option, and then press the [3] button.

4. **Save the new image.**
   - Touch [OK].
   - The image is now saved as a new file.

5. **Review the new image.**
   - Press the [MENU] button.
   - Touch [Yes].
   - The saved image is now displayed.
3 Choose an option.
- Touch [►] to choose an option, and then press the [MENU] button.

4 Save as a new image and review.
- Follow steps 4 – 5 in “Changing Image Color Tones (My Colors)” (123).

- 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.

1 Choose [Red-Eye Correction].

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

3 Correct the image.
- Press the [OK] 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” (112).

4 Save as a new image and review.
- Touch [New File].
- The image is now saved as a new file.
- Follow step 5 in “Changing Image Color Tones (My Colors)” (123).

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

Editing Movies

You can remove unneeded portions from the beginning and end of movies.

1 Choose [\[].
   - Choose [\[] as described in steps 1 – 5 in “Viewing” (103).
   - The movie editing panel and editing bar are now displayed.

2 Specify portions to cut.
   - (1) is the movie editing panel, and (2) is the editing bar.
   - Choose [\[] or [\[].
   - To view the portions you can cut (identified by [\[] on the screen), drag [\[]. Cut the beginning of the movie (from [\[]) by choosing [\[], and cut the end of the movie by choosing [\[].
   - If you move [\[] to a position other than a [\[] mark, in [\[] the portion before the nearest [\[] mark on the left will be cut, while in [\[] the portion after the nearest [\[] mark on the right will be cut.

3 Review the edited movie.
   - Touch [\[] to play the edited movie.
   - To edit the movie again, repeat step 2.
   - To cancel editing, press the [MENU] button, and then touch [OK].

4 Save the edited movie.
   - Touch [\[].
   - Touch [New File].
   - Touch [Save w/o Comp.].
   - The movie is now saved as a new file.

- The following movies cannot be edited this way: digest movies (35), Creative Shot movies (56), or albums without background music (128).
- To overwrite the original movie with the cut one, choose [Overwrite] in step 4. In this case, the original movie will be erased.
- If the memory card lacks sufficient space, only [Overwrite] will be available.
- Movies may not be saved if the battery pack runs out while saving is in progress.
- When editing movies, you should use a fully charged battery pack or an AC adapter kit (sold separately, 168).


Reducing File Sizes

Movie file sizes can be reduced by compressing movies as follows.

1. On the screen in step 2 of “Editing Movies”, choose [New File], and then choose [New File].
2. Touch [Compress & Sav.].

Image Quality of Compressed Movies

<table>
<thead>
<tr>
<th>Before Compression</th>
<th>After Compression</th>
</tr>
</thead>
<tbody>
<tr>
<td>4HD 1920x1080</td>
<td>4HD 720x320</td>
</tr>
<tr>
<td>4HD 1920x1080</td>
<td>4HD 720x320</td>
</tr>
<tr>
<td>4HD 1280x720</td>
<td>4HD 720x320</td>
</tr>
<tr>
<td>4HD 1280x720</td>
<td>4HD 720x320</td>
</tr>
<tr>
<td>4HD 1280x720</td>
<td>4HD 720x320</td>
</tr>
<tr>
<td>4HD 1280x720</td>
<td>4HD 720x320</td>
</tr>
<tr>
<td>4HD 1280x720</td>
<td>4HD 720x320</td>
</tr>
</tbody>
</table>

- [4HD 1920x1080] and [4HD 1280x720] movies cannot be compressed.
- Edited movies cannot be saved in compressed format when you choose [Overwrite].

Erasing Movie Chapters

Individual chapters (clips) recorded in [4Hi] or [Hi] mode (35, 56) can be erased. Be careful when erasing clips, because they cannot be recovered.

1. Select the clip to erase.
   - Play a short movie as described in steps 1 – 2 of “Viewing Short Movies Recorded in Creative Shot Mode (Creative Shot Movies)” (106) or “Viewing Short Movies Created When Shooting Still Images (Digest Movies)” (106), and then press the [Play] button to access the movie control panel.
   - Touch [ ] or [ ] to choose a chapter.

2. Choose [ ].
   - Touch [ ].
   - The selected clip is played back repeatedly.

3. Confirm erasure.
   - Touch [OK].
   - The clip is erased, and the short movie is overwritten.

- [ ] is not displayed if you select a clip when the camera is connected to a printer.
**Viewing Albums (Story Highlights)**

You can choose themes such as a date or person's name to create an album of automatically selected images that match the theme. These images are combined into a slideshow that can be saved as a short movie of about 2 – 3 minutes.

Before using this feature, make sure the battery pack is fully charged. Creating albums also requires free space on the memory card. As a guideline, use a memory card with a capacity of 16 GB or higher, and ensure at least 1 GB of free space.

### Choosing Themes for Albums

Press the [ ] button and choose the Story Highlights icon. The home screen is displayed, and you can choose the theme for the camera to use when selecting album elements. Note that the camera is more likely to add images tagged as favorites (118) to albums.

<table>
<thead>
<tr>
<th>Date</th>
<th>Creates an album of images shot on the same day. Images are selected from those shot on the same day as the image displayed before you access the home screen.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Person's name</td>
<td>Can be used to create monthly albums of people, such as albums of children as they grow up. Subjects whose Face ID information you registered before shooting may be selected for albums. Images selected are those that have the same subject shot during the same month as the image displayed before you access the home screen.</td>
</tr>
<tr>
<td>Event</td>
<td>A good choice for albums of vacations, parties, or other events. Images are selected from those shot during the event before and after the image displayed before you access the home screen.</td>
</tr>
<tr>
<td>Custom</td>
<td>Includes images based on your specified images, dates, or people registered in Face ID.</td>
</tr>
</tbody>
</table>

1. **Choose an image.**
   - Choose an image in single-image display.
   - Themes available in step 3 will vary depending on image shooting date and Face ID information.

2. **Access the home screen.**
   - Press the [ ] button, choose [ ], and then press the [ ] button (28).
   - After [Busy] is displayed, the home screen is displayed.

3. **Preview an album.**
   - Choose a person or [Date] or [Event] as the album theme, and then press the [ ] button.
   - After [Loading] is displayed for a few seconds, the album is played.

4. **Save the album.**
   - Choose [Save Album as Movie], and then press the [ ] button.
   - Once the album is saved, [Saved] is displayed.

5. **Play the album (103).**
### Adding Background Music to Albums

Choose from seven kinds of background music to play during album playback.

- **Still Images**
- **Movies**

#### 1 Register background music to a memory card.
- Following steps 1 – 4 in “Viewing Albums (Story Highlights)” (127), choose [Music Settings] and press the [OK] button.

#### 2 Create the album.
- Follow steps 1 – 3 in “Viewing Albums (Story Highlights)” (127) to create an album.

#### 3 Configure background music settings.
- Choose an item, press the [OK] button, and choose an option (29).

#### 4 Save the album.
- Follow step 4 in “Viewing Albums (Story Highlights)” (127) to save albums.

- The screen at left is displayed when you use a new or recently formatted memory card. Touch [OK] and wait until the seven types of music are registered to the card, which takes about four minutes.
- When using a memory card with music already registered to it, go to step 2.

- Albums cannot be saved unless there is enough space on the memory card.
- To jump to the next chapter during the preview, drag left, and to jump to the previous chapter, drag right.
- You can specify the color effect in step 4 by choosing [Change Color Effect] and pressing the [OK] button. To preview how the album looks with your selected effect applied, choose [Preview Album Again] on the screen in step 4 after dragging left or right to choose a color effect and pressing the [OK] button.
- To play saved albums, choose [List of Albums] on the Story Highlights home screen, press the [OK] button, and touch a listed album.

- Once albums are saved, background music cannot be added later. Background music in albums cannot be removed or changed.
- Chapters of albums with background music cannot be edited (126).

- Albums cannot include following images captured by the camera.
  - Still images
  - Digest movies (35), except compressed movies
  - Short movie clips (71) of two seconds or longer, or
  - Creative Shot movies (56), except compressed movies

- Chapters of albums with background music cannot be edited (126).

- If you prefer not to add background music, set [Add BGM] to [No] on the screen in step 3.
- To use only background music instead of movie audio, set [Audio Mixer] to [BGM only] on the screen in step 3.
- To listen to a sample of the background music selected in [Track], choose [Sample BGM] on the screen in step 3 and press the [OK] button.
Creating Your Own Albums

Create your own albums by choosing desired images.

1 Choose to create a Custom album.
   - Following steps 1 – 3 in “Viewing Albums (Story Highlights)” (127), choose [Custom] and press the [MENU] button.

2 Choose a selection method.
   - Choose [Image Selection], [Date Selection], or [Person Selection], and then press the [MENU] button.

3 Choose album elements.
   - Touch elements for your album to label them with [✓].
   - Press the [MENU] button after you are finished selecting still images, short clips, or Creative Shot movies in [Image Selection], dates in [Date Selection], or people in [Person Selection].
   - Choose [Preview] and press the [MENU] button.

4 Choose background music.
   - When the screen at left is displayed, choose [Music Settings]. Add background music as described in “Adding Background Music to Albums” (128), and then press the [MENU] button.

5 Choose a color effect.
   - On the screen in step 4, choose [Change Color Effect].
   - Drag left or right to choose a color effect, and then press the [MENU] button.

6 Save the album.
   - Follow step 4 in “Viewing Albums (Story Highlights)” (127) to save albums.

   - You can specify up to 40 files (or 10 movie files) after choosing [Image Selection]. The second time you create a custom album, [Select images based on previous settings?] is displayed. To use previously selected images as the basis, choose [Yes]. The previous stills, clips, or Creative Shot movies are labeled with [✓], and multiple images are displayed.
   - Up to 15 dates can be selected if you choose [Date Selection].
   - The color effect may not be applied to some images.
Combining Short Clips

Combine short clips to create a longer movie. Note that movies created this way are not included in Story Highlights albums (127).

1 Access the editing screen.

2 Specify clips to combine.
   - Drag clips on the top of the screen left or right, choose a clip to combine, and press the [3] button.
   - Your selected clip is displayed on the bottom of the screen.
   - Repeat these steps to specify other clips to combine.
   - After you are finished selecting clips, press the [MENU] button.

3 Preview the movie.
   - After [Loading] is displayed for a few seconds, a preview of the combined clips is played.

4 Save the movie.
   - Choose [Save] and press the [3] button.
   - Once the movie is saved, [Saved] is displayed.

5 Play the movie.
   - Choose [Play Back Movie] on the screen in step 1 to view a list of movies you have created.
   - Choose the movie to play and press the [3] button.

   ● To play the selected clip, move the zoom lever toward [3] on the screen in step 2.
   ● To apply a color effect, choose [Change Color Effect] on the screen in step 3.
   ● To add background music, choose [Music Settings] on the screen in step 3 (128).
   ● The image quality of movies saved is [3] (for NTSC) or [3] (for PAL).
   ● Use a fully charged battery pack, if possible.
Available Wi-Fi Features

You can send and receive images and control the camera remotely by connecting it to these devices and services via Wi-Fi.

- **Smartphones and Tablets**
  Send images to smartphones and tablet computers that have Wi-Fi functions. You can also shoot remotely and geotag your shots from a smartphone or tablet. For convenience in this manual, smartphones, tablets, and other compatible devices are collectively referred to as “smartphones”.

- **Computer**
  Use software to save camera images to a computer connected via Wi-Fi.

- **Web Services**
  Add your account information to the camera for CANON iMAGE GATEWAY online photography service or other Web services to send camera images to the services. Unsent images on the camera can also be sent to a computer or Web service via CANON iMAGE GATEWAY.

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

- **Another Camera**
  Send images wirelessly between Wi-Fi-compatible Canon cameras.

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**Wi-Fi Functions**

Send images wirelessly from the camera to a variety of compatible devices, and use the camera with Web services

- Before using Wi-Fi, be sure to read “Wi-Fi (Wireless LAN) Precautions” (209).
Sending Images to an NFC-Compatible Smartphone

Use an Android (OS version 4.0 or later) smartphone’s NFC to simplify the process of installing Camera Connect and connecting to the camera. Operation when devices are initially connected via NFC varies depending on the camera mode when the devices are touched together.

- If the camera is off or in Shooting mode when the devices are touched together, you can choose and send images on the image selection screen. Once the devices are connected, you can also shoot remotely and geotag your shots (155). It’s easy to reconnect to recent devices, which are listed in the Wi-Fi menu.
- If the camera is in Playback mode when the devices are touched together, you can choose and send images from the index display shown for image selection. The connection is ended automatically after image transfer.

Follow the instructions in the following section for NFC-initiated connection to a camera that is off or in Shooting mode.

Connecting via NFC When Camera Is Off or in Shooting Mode

1. Install Camera Connect.

- Activate NFC on the smartphone and touch the devices’ N-Marks (R) together to start Google Play on the smartphone automatically. Once the Camera Connect download page is displayed, download and install the app.
2 Establish the connection.
- Make sure the camera is off or in Shooting mode.
- Touch the N-Mark on the smartphone with Camera Connect installed against the camera’s N-Mark.
- The camera starts up automatically.
- If the [Device Nickname] screen is displayed, touch [OK].

3 Adjust the privacy setting.
- When this screen is displayed, touch [Yes].
- You can now use the smartphone to browse, import, or geotag images on the camera or shoot remotely.

4 Send an image.
- Drag images left or right to choose an image to send, and then touch [Send this image].
- Image transfer will begin. The screen darkens during image transfer.
- [Transfer completed] is displayed after the image is sent, and the image transfer screen is displayed again.
- To end the connection, touch [MENU] in the upper right of the screen, and then touch [OK] on the confirmation screen. You can also use the smartphone to end the connection.

● When using NFC, keep the following points in mind.
  - Avoid strong impact between the camera and smartphone. This may damage the devices.
  - Depending on the smartphone, the devices may not recognize each other immediately. In this case, try holding the devices together in slightly different positions. If connection is not established, keep the devices together until the camera screen is updated.
  - If you attempt connection when the camera is off, a message may be displayed on the smartphone reminding you to turn on the camera. If so, turn the camera on and touch the devices together again.
  - Do not place other objects between the camera and smartphone. Also, note that camera or smartphone covers or similar accessories may block communication.
  - All images in the camera can be viewed from the connected smartphone when you choose [Yes] in step 3. To keep camera images private, so that they cannot be viewed from the smartphone, choose [No] in step 3.
  - Once you have registered a smartphone, you can change privacy settings for it on the camera (156).
● Connections require that a memory card be in the camera.
● You can also change the camera nickname on the screen in step 2 (157).
● Not all NFC-compatible smartphones have an N-Mark (ã€‘). For details, refer to the smartphone user manual.
● You can also send multiple images at once and change the image size before sending (150).
● To disable NFC connections, choose MENU (29) ► [Wi-Fi Settings] ► [NFC] ► [Off].

Connecting via NFC When Camera Is in Playback Mode

Press the [â€œ] button to turn the camera on.
Touch the smartphone with Camera Connect installed (132) against the camera’s N-Mark (ã€‘).
Touching an image to send will label it with a [✓] icon.
To cancel selection, touch it again. [✓] is no longer displayed.
Repeat this process to choose additional images.
After you finish choosing images, press the [MENU] button, and then touch [OK].
Touch [Send].
The images are now sent. The connection is ended automatically after the image is sent.

Sending to a Smartphone Assigned to the Button

Once you have connected to a smartphone initially by pressing the [â€œ] button, you can simply press the [â€œ] button after that to connect again for viewing and saving camera images on your connected device. These steps show how to use the camera as an access point, but you can also use an existing access point (137).

1 Install Camera Connect.
For an iPhone or iPad, find Camera Connect in the App Store and download and install the app.
For Android smartphones, find Camera Connect in Google Play and download and install the app.

2 Press the [â€œ] button.
Press the [â€œ] button.
Choose [ ].

Touch [ ].

The camera’s SSID is displayed.

Connect the smartphone to the network.

In the smartphone’s Wi-Fi setting menu, choose the SSID (network name) displayed on the camera to establish a connection.

Start Camera Connect.

Start Camera Connect on the smartphone.

After the camera recognizes the smartphone, a device selection screen is displayed.

Choose the smartphone to connect to.

Touch the name of the smartphone.

After a connection is established with the smartphone, the smartphone name is displayed on the camera. (This screen will close in about one minute.)

Import images.

Use the smartphone to import images from the camera to the smartphone.

Use the smartphone to end the connection; the camera will automatically turn off.

● Connections require that a memory card be in the camera.

● You can also change the camera nickname on the screen in step 2 (157).

● For better security, you can display a password on the screen in step 3 by accessing MENU (29) ► [Wi-Fi Settings] ► [Password] ► [On]. In this case, in the password field on the smartphone in step 4, enter the password displayed on the camera.

● One smartphone can be registered to the button. To assign a different one, first clear the current one in MENU (29) ► [4] tab ► [Mobile Device Connect Button].

● Once a connection destination is assigned in Touch Actions (119), you can automatically reconnect to a previous destination simply by dragging across the screen with the assigned gesture.

● Connections require that a memory card be in the camera.

● You can also change the camera nickname on the screen in step 2 (157).

● For better security, you can display a password on the screen in step 3 by accessing MENU (29) ► [Wi-Fi Settings] ► [Password] ► [On]. In this case, in the password field on the smartphone in step 4, enter the password displayed on the camera.

● One smartphone can be registered to the button. To assign a different one, first clear the current one in MENU (29) ► [4] tab ► [Mobile Device Connect Button].

● Once a connection destination is assigned in Touch Actions (119), you can automatically reconnect to a previous destination simply by dragging across the screen with the assigned gesture.

If the [Device Nickname] screen is displayed, touch [OK].
Adding a Smartphone Using the Wi-Fi Menu

These steps show how to use the camera as an access point, but you can also use an existing access point (137).

1 Install Camera Connect.
   - For an iPhone or iPad, find Camera Connect in the App Store and download and install the app.
   - For Android smartphones, find Camera Connect in Google Play and download and install the app.

2 Access the Wi-Fi menu.
   - Press the [Wi-Fi] button.
   - Press the [Wi-Fi] button.
   - Touch [Wi-Fi], and then press the [Wi-Fi] button.
   - If the [Device Nickname] screen is displayed, choose [OK] (134).

3 Choose [Connect to smartphone].
   - Touch [Connect to smartphone].

4 Choose [Add a Device].
   - Touch [Add a Device].

   - The camera’s SSID is displayed.
   - Choose the smartphone to connect to, as described in steps 4 – 6 of “Sending to a Smartphone Assigned to the Button” (134).

5 Adjust the privacy setting.
   - Touch [Yes].
   - You can now use the smartphone to browse, import, or geotag images on the camera or shoot remotely.

6 Send an image.
   - Drag images left or right to choose an image to send, and then touch [Send this image].
   - Image transfer will begin. The screen darkens during image transfer.
   - [Transfer completed] is displayed after the image is sent, and the image transfer screen is displayed again.
   - To end the connection, touch [MENU] in the upper right of the screen, and then touch [OK] on the confirmation screen. You can also use the smartphone to end the connection.
   - To add multiple smartphones, repeat the above procedure starting from step 1.

Adding a Smartphone Using the Wi-Fi Menu

These steps show how to use the camera as an access point, but you can also use an existing access point (137).

1 Install Camera Connect.
   - For an iPhone or iPad, find Camera Connect in the App Store and download and install the app.
   - For Android smartphones, find Camera Connect in Google Play and download and install the app.

2 Access the Wi-Fi menu.
   - Press the [Wi-Fi] button.
   - Press the [Wi-Fi] button.
   - Touch [Wi-Fi], and then press the [Wi-Fi] button.
   - If the [Device Nickname] screen is displayed, choose [OK] (134).

3 Choose [Connect to smartphone].
   - Touch [Connect to smartphone].

4 Choose [Add a Device].
   - Touch [Add a Device].

   - The camera’s SSID is displayed.
   - Choose the smartphone to connect to, as described in steps 4 – 6 of “Sending to a Smartphone Assigned to the Button” (134).

5 Adjust the privacy setting.
   - Touch [Yes].
   - You can now use the smartphone to browse, import, or geotag images on the camera or shoot remotely.

6 Send an image.
   - Drag images left or right to choose an image to send, and then touch [Send this image].
   - Image transfer will begin. The screen darkens during image transfer.
   - [Transfer completed] is displayed after the image is sent, and the image transfer screen is displayed again.
   - To end the connection, touch [MENU] in the upper right of the screen, and then touch [OK] on the confirmation screen. You can also use the smartphone to end the connection.
   - To add multiple smartphones, repeat the above procedure starting from step 1.
2 Connect the smartphone to the access point.

3 Choose [Switch Network].
   ● Touch [Switch Network].
   ● A list of detected access points will be displayed.

4 Connect to the access point and choose the smartphone.
   ● For WPS-compatible access points, connect to the access point and choose the smartphone as described in steps 5 – 8 in “Using WPS-Compatible Access Points” (140).
   ● For non-WPS access points, follow steps 2 – 4 in “Connecting to Listed Access Points” (142) to connect to the access point and choose the smartphone.

5 Configure the privacy settings and send images.
   ● Follow steps 5 – 6 in “Adding a Smartphone Using the Wi-Fi Menu” (136) to configure the privacy settings and send images.

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Using Another Access Point

When connecting the camera to a smartphone with the [ ] button or through the Wi-Fi menu, you can also use an existing access point.

1 Prepare for the connection.
   ● Access the [Waiting to connect] screen by either following steps 1 – 3 in “Sending to a Smartphone Assigned to the Button” (134) or steps 1 – 4 in “Adding a Smartphone Using the Wi-Fi Menu” (136).
Saving Images to a Computer

Preparing to Register a Computer

Checking Your Computer Environment

The camera can connect via Wi-Fi to computers running the following operating systems. For detailed system requirements and compatibility information, including support in new operating systems, visit the Canon website.

- Windows 8/8.1
- Windows 7 SP1
- Mac OS X 10.9
- Mac OS X 10.8.2 or later

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

For details, check the following website.
http://go.microsoft.com/fwlink/?LinkId=159730

Installing the Software

Windows 7 and Mac OS X 10.8 are used here for the sake of illustration.

1. Download the software.
   - Visit the following site from a computer connected to the Internet.

   http://www.canon.com/icpd/
2 Begin the installation.

Double-click the downloaded file, and when the screen at left is displayed, click [Easy Installation]. Follow the on-screen instructions to complete the installation process.

Installation may take some time, depending on computer performance and the Internet connection.

Click [Finish] or [Restart] on the screen after installation.

- **Internet access is required, and any ISP account charges and access fees must be paid separately.**
- **To uninstall the software, follow these steps.**
  - Windows: Select [Start] menu ► [All Programs] ► [Canon Utilities], and then choose the software for uninstallation.
  - Mac OS: In the [Canon Utilities] folder within the [Applications] folder, drag the folder of the software for uninstallation to the Trash, and then empty the Trash.

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**Configuring the Computer for a Wi-Fi Connection (Windows Only)**

On a computer running Windows, configure the following settings before connecting the camera to the computer wirelessly.

1 **Confirm that the computer is connected to an access point.**

   - For instructions on checking your network connection, refer to the computer user manual.

2 **Configure the setting.**

   - Click in the following order: [Start] menu ► [All Programs] ► [Canon Utilities] ► [CameraWindow] ► [Wi-Fi connection setup].

   - In the application that opens, follow the on-screen instructions and configure the setting.

   - **The following Windows settings are configured when you run the utility in step 2.**
     - Turn on media streaming. This will enable the camera to see (find) the computer to access via Wi-Fi.
     - Turn on network discovery. This will enable the computer to see (find) the camera.
     - Turn on ICMP (Internet Control Message Protocol). This allows you to check the network connection status.
     - Enable Universal Plug & Play (UPnP). This will enable network devices to detect each other automatically.
     - Some security software may prevent you from completing the settings as described here. Check the settings of your security software.
Saving Images to a Connected Computer

Connect to your access point via Wi-Fi as follows. Also refer to the access point user manual.

Confirming Access Point Compatibility

Confirm that the Wi-Fi router or base station conforms to the Wi-Fi standards in “Camera” (204). Connection methods vary depending on whether the access point supports Wi-Fi Protected Setup (WPS, 140) or not (142). For non-WPS access points, check the following information.

- Network name (SSID/ESSID)
  The SSID or ESSID for the access point you use. Also called the “access point name” or “network name”.

- Network authentication / data encryption (encryption method / encryption mode)
  The method for encrypting data during wireless transmission. Check which security setting is used: WPA2-PSK (AES), WPA2-PSK (TKIP), WPA-PSK (AES), WPA-PSK (TKIP), WEP (open system authentication), or no security.

- Password (encryption key / network key)
  The key used when encrypting data during wireless transmission. Also called the “encryption key” or “network key”.

- Key index (transmit key)
  The key set when WEP is used for network authentication / data encryption. Use “1” as the setting.

- For information on WPS compatibility and for instructions on checking settings, refer to the access point user manual.
- A router is a device that creates a network (LAN) structure for connecting multiple computers. A router that contains an internal Wi-Fi function is called a “Wi-Fi router”.
- This guide refers to all Wi-Fi routers and base stations as “access points”.
- If you use MAC address filtering on your Wi-Fi network, be sure to add the camera’s MAC address to your access point.
  You can check your camera’s MAC address by choosing MENU (29) ► [4] tab ► [Wi-Fi Settings] ► [Check MAC Address].

Using WPS-Compatible Access Points

WPS makes it easy to complete settings when connecting devices over Wi-Fi. You can use either Push Button Configuration Method or PIN Method for settings on a WPS supported device.

1. Confirm that the computer is connected to an access point.
   - For instructions on checking the connection, refer to the device and access point user manuals.

2. Access the Wi-Fi menu.
   - Press the [Wi-Fi] button.
   - Press the [Wi-Fi] button.
   - Touch [Query], and then press the [Wi-Fi] button.
   - If the [Device Nickname] screen is displayed, touch [OK].

Connecting to Your Computer

Connect to your computer via Wi-Fi as follows. Also refer to the computer user manual.

Steps:

1. Confirm the computer is connected to an access point.
2. Access the Wi-Fi menu.
3. If needed, select “Connected” or “Other”.
4. Touch [Add] and select the computer name. If the computer does not appear, select [Manual].
5. If you need additional information, refer to the computer user manual.

Confirming Access Point Compatibility

Confirm that the Wi-Fi router or base station conforms to the Wi-Fi standards in “Camera” (204). Connection methods vary depending on whether the access point supports Wi-Fi Protected Setup (WPS, 140) or not (142). For non-WPS access points, check the following information.

- Network name (SSID/ESSID)
  The SSID or ESSID for the access point you use. Also called the “access point name” or “network name”.

- Network authentication / data encryption (encryption method / encryption mode)
  The method for encrypting data during wireless transmission. Check which security setting is used: WPA2-PSK (AES), WPA2-PSK (TKIP), WPA-PSK (AES), WPA-PSK (TKIP), WEP (open system authentication), or no security.

- Password (encryption key / network key)
  The key used when encrypting data during wireless transmission. Also called the “encryption key” or “network key”.

- Key index (transmit key)
  The key set when WEP is used for network authentication / data encryption. Use “1” as the setting.

- If system administrator status is needed to adjust network settings, contact the system administrator for details.
- These settings are very important for network security. Exercise adequate caution when changing these settings.
3 Choose ( ).
- Touch ( ).

4 Choose [Add a Device].
- Touch [Add a Device].

5 Choose [WPS Connection].
- Touch [WPS Connection].

6 Choose [PBC Method].
- Touch [PBC Method].

7 Establish the connection.
- On the access point, hold down the WPS connection button for a few seconds.
- Touch [Next].
- The camera connects to the access point and lists devices connected to it on the [Select a Device] screen.

8 Choose the target device.
- Touch the name of the target device, and then press the [ ] button.

9 Install a driver (first Windows connection only).
- When this screen is displayed on the camera, click the Start menu on the computer, click [Control Panel], and then click [Add a device].
- Double-click the connected camera icon.
- Driver installation will begin.
- After driver installation is complete, and the camera and computer connection is enabled, the AutoPlay screen will be displayed. Nothing will be displayed on the camera screen.
10 Display CameraWindow.
- Windows: Access CameraWindow by clicking [Downloads Images From Canon Camera].
- Mac OS: CameraWindow is automatically displayed when a Wi-Fi connection is established between the camera and computer.

11 Import images.
- 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.
- Click [OK] in the screen that is displayed after image import is complete.
- Use Digital Photo Professional to view images you save to a computer. To view movies, use preinstalled or commonly available software compatible with movies recorded by the camera.

Once you have connected to devices via the Wi-Fi menu, recent destinations will be listed first when you access the Wi-Fi menu. Simply touch a listed device to connect again. To add a new device, display the device selection screen by touching the Wi-Fi icon, and then configure the setting.

If you prefer not to display recent target devices, choose MENU (SETTING) ➤ [Wi-Fi Settings] ➤ [Target History] ➤ [Off].

You can also change the camera nickname on the screen in step 2 (P. 157).

When the camera is connected to a computer, the camera screen is blank.

Mac OS: If CameraWindow is not displayed, click the CameraWindow icon in the Dock.

To disconnect from the camera, turn off the camera.

If you chose [PIN Method] in step 6, a PIN code will be displayed on the screen. Be sure to set this code in the access point. Choose a device in the [Select a Device] screen. For further details, refer to the user manual included with your access point.

Once a connection destination is assigned in Touch Actions (P. 119), you can automatically reconnect to a previous destination simply by dragging across the screen with the assigned gesture.

Connecting to Listed Access Points

1 View the listed access points.
- View the listed networks (access points) as described in steps 1 – 4 of “Using WPS-Compatible Access Points” (P. 140).
2 Choose an access point.
- Touch a network (access point) to choose it.

3 Enter the access point password.
- Touch the text box (in the area outlined, in this example) to access the keyboard, and then enter the password (130).
- Touch [Next].

4 Choose [Auto].
- Touch [Auto].
- To save images to a connected computer, follow the procedure from step 8 in “Using WPS-Compatible Access Points” (140).

To determine the access point password, check on the access point itself or refer to the user manual.

If no access points are detected even after you choose [Refresh] in step 2 to update the list, choose [Manual Settings] in step 2 to complete access point settings manually. Follow on-screen instructions and enter the SSID, security settings, and a password (140).

When you use an access point that you have already connected to for connecting to another device, [*] is displayed for the password in step 3. To use the same password, touch [Next].

Previous Access Points
You can reconnect to any previous access points automatically by following step 4 in “Using WPS-Compatible Access Points” (140).
- To connect to a device via an access point, confirm that the target device is already connected to the access point, and then follow the procedure from step 8 in “Using WPS-Compatible Access Points” (140).
- To switch access points, choose [Switch Network] on the screen displayed when you establish a connection, and then either follow the procedure in “Using WPS-Compatible Access Points” (140) from step 5 or the procedure in “Connecting to Listed Access Points” (142) from step 2.

● To determine the access point password, check on the access point itself or refer to the user manual.
● If no access points are detected even after you choose [Refresh] in step 2 to update the list, choose [Manual Settings] in step 2 to complete access point settings manually. Follow on-screen instructions and enter the SSID, security settings, and a password (140).
● When you use an access point that you have already connected to for connecting to another device, [*] is displayed for the password in step 3. To use the same password, touch [Next].
Sending Images to a Registered Web Service

Registering Web Services

Use a smartphone or computer to add to the camera Web services that you want to use.

- A smartphone or computer with a browser and Internet connection is required to complete camera settings for CANON IMAGE GATEWAY and other Web services.
- Check the CANON IMAGE GATEWAY website for details on browser (Microsoft Internet Explorer, etc.) requirements, including settings and version information.
- For information on countries and regions where CANON IMAGE GATEWAY is available, visit the Canon website (http://www.canon.com/cig/).
- You must have an account with Web services other than CANON IMAGE GATEWAY if you desire to use them. For further details, check the websites for each Web service you want to register.
- Separate ISP connection and access point fees may be applicable.
  - CANON IMAGE GATEWAY also provides user guides for downloading.

Registering CANON iMAGE GATEWAY

Link the camera and CANON IMAGE GATEWAY by adding CANON IMAGE GATEWAY as a destination Web service on the camera. Note that you will need to enter an email address used on your computer or smartphone to receive a notification message for completing linkage settings.

1. Access the Wi-Fi menu.
   - Press the [Wi-Fi] button to turn the camera on.
   - Press the [OK] button.
   - Touch [OK], and then press the [OK] button.
   - If the [Device Nickname] screen is displayed, touch [OK].

2. Choose [Cloud].
   - Touch [Cloud].

Sending Images to a Registered Web Service

Registering CANON iMAGE GATEWAY

Link the camera and CANON IMAGE GATEWAY by adding CANON IMAGE GATEWAY as a destination Web service on the camera. Note that you will need to enter an email address used on your computer or smartphone to receive a notification message for completing linkage settings.

1. Access the Wi-Fi menu.
   - Press the [Wi-Fi] button to turn the camera on.
   - Press the [OK] button.
   - Touch [OK], and then press the [OK] button.
   - If the [Device Nickname] screen is displayed, touch [OK].

2. Choose [Cloud].
   - Touch [Cloud].
3 Accept the agreement to enter an email address.
   ● Read the agreement displayed and touch [I Agree].

4 Establish a connection with an access point.
   ● Connect to the access point as described in steps 5 – 7 in “Using WPS-Compatible Access Points” (p140) or in steps 2 – 4 in “Connecting to Listed Access Points” (p142).

5 Enter your email address.
   ● Once the camera is connected to CANON iMAGE GATEWAY via the access point, a screen is displayed for entering an email address.
   ● Enter your email address and touch [Next].

6 Enter a four-digit number.
   ● Enter a four-digit number of your choice and touch [Next].
   ● You will need this four-digit number later when setting up linkage with CANON iMAGE GATEWAY in step 8.

7 Check for the notification message.
   ● Once information has been sent to CANON iMAGE GATEWAY, you will receive a notification message at the email address entered in step 5.
   ● Touch [OK] on the next screen, which indicates that notification has been sent.
   ● [0x0] now changes to [0x0].

8 Access the page in the notification message and complete camera link settings.
   ● From a computer or smartphone, access the page linked in the notification message.
   ● Follow the instructions to complete the settings on the camera link settings page.

9 Complete CANON iMAGE GATEWAY settings on the camera.
   ● Touch [0x0].
   ● [0x0] (p152) and CANON iMAGE GATEWAY are now added as destinations.
   ● You can add other Web services, as needed. In this case, follow the instructions from step 2 in “Registering Other Web Services” (p146).
Registering Other Web Services

You can also add Web services besides CANON iMAGE GATEWAY to the camera.

1 Log in to CANON iMAGE GATEWAY and access the camera link settings page.
   ● From a computer or smartphone, access http://www.canon.com/cig/ to visit CANON iMAGE GATEWAY.

2 Configure the Web service you want to use.
   ● Follow the instructions displayed on the smartphone or computer to set up the Web service.

Uploading Images to Web Services

1 Access the Wi-Fi menu.
   ● Press the [Wi-Fi] button to turn the camera on.
   ● Press the [Wi-Fi] button.
   ● Touch [Wi-Fi], and then press the [Wi-Fi] button.

2 Choose the destination.
   ● Touch the icon of the Web service to connect to.
   ● If multiple recipients or sharing options are used with a Web service, touch the desired item on the [Select Recipient] screen displayed, and then press the [Wi-Fi] button.

3 Choose [Wi-Fi].
   ● In Playback mode, press the [Wi-Fi] button.
   ● Touch [Wi-Fi], and then press the [Wi-Fi] button.
   ● Drag left or right on the screen, and then touch [Wi-Fi].
   ● The Web service settings are now updated.

   ● If any configured settings change, follow these steps again to update the camera settings.

Before Use

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Appendix

Index
Printing Images Wirelessly from a Connected Printer

Connect the camera to a printer via Wi-Fi to print as follows. These steps show how to use the camera as an access point, but you can also use an existing access point (137).

1. **Access the Wi-Fi menu.**
   - Access the Wi-Fi menu as described in step 2 in “Adding a Smartphone Using the Wi-Fi Menu” (136).

2. **Choose [ ] .**
   - Touch [ ].

3. **Choose [Add a Device].**
   - Touch [Add a Device].

   - The camera’s SSID is displayed.

---

**3 Send an image.**

- Drag images left or right to choose an image to send, and then touch [Send this image].
- When uploading to YouTube, read the terms of service, and touch [I Agree].
- Image transfer will begin. The screen darkens during image transfer.
- After the image is sent, touch [OK] on the screen displayed to return to the playback screen.

- Connections require that a memory card with saved images be in the camera.
- You can also send multiple images at once, resize images, and add comments before sending (150).
- To view images uploaded to CANON IMAGE GATEWAY on a smartphone, try the dedicated Canon Online Photo Album app. Download and install the Canon Online Photo Album app for iPhones or iPads from the App Store or for Android devices from Google Play.

- Send an image.
  - Drag images left or right to choose an image to send, and then touch [Send this image].
  - When uploading to YouTube, read the terms of service, and touch [I Agree].
  - Image transfer will begin. The screen darkens during image transfer.
  - After the image is sent, touch [OK] on the screen displayed to return to the playback screen.
4 Connect the printer to the network.
- In the printer’s Wi-Fi setting menu, choose the SSID (network name) displayed on the camera to establish a connection.

5 Choose the printer.
- Touch the name of the printer.

6 Choose an image to print.
- Drag left or right across the screen to choose an image.
- Press the [ ] button, choose [ ], and then press the [ ] button.
- Touch [Print].
- For detailed printing instructions, see “Printing Images” (175).
- To end the connection, touch [Cancel] and then touch [OK] on the confirmation screen.
Sending Images to Another Camera

Connect two cameras via Wi-Fi and send images between them as follows.

- Only Canon-brand cameras equipped with a Wi-Fi function can be connected to wirelessly. You cannot connect to a Canon-brand camera that does not have a Wi-Fi function, even if it supports Eye-Fi cards.

1. **Access the Wi-Fi menu.**
   - Access the Wi-Fi menu as described in step 2 in “Adding a Smartphone Using the Wi-Fi Menu” (136).

2. **Choose [ ].**
   - Touch [ ].

3. **Choose [Add a Device].**
   - Touch [Add a Device].
   - Touch [Add a Device].
   - Follow steps 1 – 3 on the target camera too.
   - Camera connection information will be added when [Start connection on target camera] is displayed on both camera screens.

4. **Send an image.**
   - Drag images left or right to choose an image to send, and then touch [Send this image].
   - Image transfer will begin. The screen darkens during image transfer.
   - [Transfer completed] is displayed after the image is sent, and the image transfer screen is displayed again.
   - To end the connection, touch [ ] in the upper right of the screen, and then touch [OK] on the confirmation screen.

- Connections require that a memory card be in the camera.
- Once you have connected to devices via the Wi-Fi menu, recent destinations will be listed first when you access the Wi-Fi menu. You can easily connect again by choosing the device. To add a new device, drag left or right to access the device selection screen, and then configure the setting.
- If you prefer not to display recent target devices, choose MENU (39) ► [4] tab ► [Wi-Fi Settings] ► [Target History] ► [Off].
- You can also send multiple images at once and change the image size before sending (152).
- Once a connection destination is assigned in Touch Actions (119), you can automatically reconnect to a previous destination simply by dragging across the screen with the assigned gesture.
### Image Sending Options

You can choose multiple images to send at once and change the image recording pixel setting (size) before sending. Some Web services also enable you to annotate the images you send.

#### Sending Multiple Images

1. **Choose [Select and send].**
   - On the image transfer screen, touch [Select and send].

2. **Choose a selection method.**
   - Touch a selection method, and then press the □ button.

#### Choosing Images Individually

1. **Choose [Select].**
   - Following step 2 in “Sending Multiple Images” (page 150), choose [Select] and press the □ button.

#### Selecting a Range

1. **Choose [Select Range].**
   - Following step 2 in “Sending Multiple Images” (page 150), choose [Select Range] and press the □ button.

2. **Choose images.**
   - Follow steps 2 – 3 in “Selecting a Range” (page 114) to specify images.
   - To include movies, touch □ to add a [✓] next to [Incl. Movies].
   - Touch [OK].

3. **Send the images.**
   - Touch [Send].
Notes on Sending Images

- Depending on the condition of the network you are using, it may take a long time to send movies. Be sure to keep an eye on the camera battery level.
- Web services may limit the number of images or length of movies you can send.
- For movies that you do not compress (126), a separate, compressed file is sent instead of the original file. Note that this may delay transmission, and the file cannot be sent unless there is enough space for it on the memory card.
- When sending movies to smartphones, note that the supported image quality varies depending on the smartphone. For details, refer to the smartphone user manual.
- On the screen, wireless signal strength is indicated by the following icons. [ ][ ][ ][ ] high, [ ][ ] medium, [ ] low, [ ] weak
- Sending images to Web services will take less time when resending images you have already sent that are still on the CANON iMAGE GATEWAY server.

Sending Favorite Images

Send only images tagged as favorites (118).

1 Choose [Favorite Images].
   - Following step 2 in “Sending Multiple Images” (150), choose [Favorite Images] and press the [ ] button.
   - An image selection screen for favorites is displayed. If you prefer not to include an image, touch the image to remove [ ].
   - After you finish choosing images, press the [MENU] button.
   - Touch [OK].

2 Send the images.
   - Touch [Send].

   - In step 1, [Favorite Images] is not available unless you have tagged images as favorites.
Choosing the Number of Recording Pixels (Image Size)

On the image transfer screen, you can choose the recording pixel setting (size) of images to send by touching \( \square \).
- To send images at original size, select [No] as the resizing option.
- Choosing [2] will resize images that are larger than the selected size before sending.
- Movies cannot be resized.

Adding Comments

Using the camera, you can add comments to images that you send to e-mail addresses, social networking services, etc. The number of characters and symbols that can be entered may differ depending on the Web service.

1. Access the screen for adding comments.
   - On the image transfer screen, touch \( \square \).
2. Add a comment \( \square \).
3. Send the image.

Sending Images Automatically (Image Sync)

Images on the memory card that have not been transferred already can be sent to a computer or Web services via CANON IMAGE GATEWAY. Note that images cannot be sent only to Web services.

Initial Preparations

Preparing the Camera

Register \( \square \) as the destination. You can also assign \( \square \) to the \( \square \) button, so that you can simply press the \( \square \) button to send any unsent images on the memory card to a computer via CANON IMAGE GATEWAY.

1. Add \( \square \) as a destination.
   - Add \( \square \) as a destination, as described in “Registering CANON IMAGE GATEWAY” (144).
   - To include a Web service as the destination, log in to CANON IMAGE GATEWAY (144), select your camera model, access the Web service settings screen, and choose the destination Web service in Image Sync settings. For details, refer to CANON IMAGE GATEWAY Help.

2. On the destination computer, you will install and configure Image Transfer Utility, free software compatible with Image Sync.
2 Choose the type of images to send (only when sending movies with images).
- Choose [Image Sync], press the [5] button, and then choose [Stills/Movies].

- Clear the [7] button setting if a smartphone is already assigned to the button (134).
- Press the [7] button to access the mobile connection screen, choose [6], and then press the [6] button.

Preparing the Computer

1 Install Image Transfer Utility.
- Install Image Transfer Utility on a computer connected to the Internet (138).
- Image Transfer Utility can also be downloaded from the Image Sync settings page of CANON iMAGE GATEWAY (152).

2 Register the camera.
- Windows: In the taskbar, right-click [8], and then click [Add new camera].
- Mac OS: In the menu bar, click [8], and then click [Add new camera].
- A list of cameras linked to CANON iMAGE GATEWAY is displayed. Choose the camera from which images are to be sent.
- Once the camera is registered and the computer is ready to receive images, the icon changes to [8].
Sending Images

Images sent from the camera are automatically saved to the computer. If the computer that you intend to send images to is turned off, the images will be stored temporarily on the CANON iMAGE GATEWAY server. Stored images are regularly erased, so make sure to turn on the computer and save the images.

1 Send images.
   ● If you have already assigned [ ] to the [ ] button, press the [ ] button.
   ● If you have not assigned the button this way, choose [ ] as described in steps 1 – 2 in “Uploading Images to Web Services” (146).
   ● Sent images are labeled with a [ ] icon.

2 Save the images to the computer.
   ● Images are automatically saved to the computer when you turn it on.
   ● Images are automatically sent to Web services from the CANON iMAGE GATEWAY server, even if the computer is off.
   ● When sending images, you should use a fully charged battery pack or an AC adapter kit (sold separately, 168).
   ● Even if images were imported to the computer through a different method, any images not sent to the computer via CANON iMAGE GATEWAY will be sent to the computer.
   ● Sending is faster when the destination is a computer on the same network as the camera, because images are sent via the access point instead of CANON iMAGE GATEWAY. Note that images stored on the computer are sent to CANON iMAGE GATEWAY, so the computer must be connected to the Internet.

Viewing Images Sent via Image Sync on a Smartphone

By installing the Canon Online Photo Album (Canon OPA) app, you can use your smartphone to view and download images sent via Image Sync while they are stored temporarily on the CANON iMAGE GATEWAY server. In preparation, enable smartphone access as follows.

● Make sure you have completed the settings described in “Preparing the Computer” (153).
● Download and install the Canon Online Photo Album app for iPhones or iPads from the App Store or for Android devices from Google Play.
● Log in to CANON iMAGE GATEWAY (144), select your camera model, access the Web service settings screen, and enable viewing and downloading from a smartphone in the Image Sync settings. For details, refer to CANON iMAGE GATEWAY Help.

● Once images stored temporarily on the CANON iMAGE GATEWAY server have been deleted, they can no longer be viewed.
● Images you sent before enabling smartphone viewing and downloading in Image Sync settings cannot be accessed this way.

● For Canon Online Photo Album instructions, refer to Canon Online Photo Album Help.
Using a Smartphone to View Camera Images and Control the Camera

You can do the following with the dedicated smartphone app Camera Connect.

- Browse images on the camera and save them to the smartphone
- Geotag images on the camera (155)
- Shoot remotely (155)
- Privacy settings must be configured in advance to allow image viewing on the smartphone (134, 136, 156).

Geotagging Images on the Camera

GPS data recorded on a smartphone using the dedicated Camera Connect application can be added to images on the camera. Images are tagged with information including the latitude, longitude, and elevation.

- Before shooting, make sure the date and time and your home time zone are set correctly, as described in “Setting the Date and Time” (20). Also follow the steps in “World Clock” (162) to specify any shooting destinations in other time zones.
- Others may be able to locate or identify you by using location data in your geotagged still images or movies. Be careful when sharing these images with others, as when posting images online where many others can view them.

Shooting Remotely

As you check a shooting screen on your smartphone, you can use it to shoot remotely.

1. Choose a shooting mode.
   - Turn the mode dial to choose [P], [Tv], [Av], [M], or [C] as the mode.

2. Secure the camera.
   - Once remote shooting begins, the camera lens will come out. Lens motion from zooming may also move the camera out of position. Keep the camera still by mounting it on a tripod or taking other measures.

3. Connect the camera and smartphone (134, 136).
   - In the privacy settings, choose [Yes].

4. Choose remote shooting.
   - In Camera Connect on the smartphone, choose remote shooting.
   - The camera lens will come out. Keep your fingers away from the lens, and make sure no objects will obstruct it.
   - Once the camera is ready for remote shooting, a live image from the camera will be displayed on the smartphone.
   - At this time, a message is displayed on the camera, and all operations except pressing the power button are disabled.

5. Shoot.
   - Use the smartphone to shoot.


1. **Access the Wi-Fi menu and choose a device to edit.**
   - Press the [Wi-Fi] button.
   - Press the [Wi-Fi] button.
   - Touch [Wi-Fi], and then press the [Wi-Fi] button.
   - Drag left or right to access the device selection screen, and then touch the icon of a device to edit.

2. **Choose [Edit a Device].**
   - Touch [Edit a Device], and then press the [Wi-Fi] button.

3. **Choose the device to edit.**
   - Touch the device to edit, and then press the [Wi-Fi] button.

4. **Choose the item to edit.**
   - Touch the item you want to edit.
   - The items you can change depend on the device or service.

---

**Editing or Erasing Wi-Fi Settings**

Edit or erase Wi-Fi settings as follows.

**Editing Connection Information**

1. **Access the Wi-Fi menu and choose a device to edit.**
2. **Choose [Edit a Device].**
3. **Choose the device to edit.**
4. **Choose the item to edit.**
Changing the Camera Nickname

Change the camera nickname (displayed on connected devices) as desired.

1. Choose [Wi-Fi Settings].

2. Choose [Change Device Nickname].
   - Drag up or down to touch [Change Device Nickname], and then press the [3] button.

3. Change the nickname.
   - Press the [3] button to access the keyboard (30), and then enter a nickname.

Erasing Connection Information

Erase connection information (information about devices that you have connected to) as follows.

1. Follow step 4 in “Editing Connection Information” (156), choose [Erase Connection Info] and press the [3] button.
2. After [Erase?] is displayed, touch [OK].
3. The connection information will be erased.

- A message is displayed if the nickname you enter begins with a symbol or space. Press the [3] button and enter a different nickname.
- You can also change the nickname from the [Device Name] screen displayed when you first use Wi-Fi. In this case, select the text box, press the [3] button to access the keyboard, and then enter a new nickname.
Returning the Wi-Fi Settings to Default

Return the Wi-Fi settings to default if you transfer ownership of the camera to another person, or dispose of it. Resetting the Wi-Fi settings will also clear all Web service settings. Be sure that you want to reset all Wi-Fi settings before using this option.

1. **Choose [Wi-Fi Settings].**

2. **Choose [Reset Settings].**
   - Drag up or down and touch [Reset Settings].

3. **Restore the default settings.**
   - Touch [OK].
   - The Wi-Fi settings are now reset.

   To reset other settings (aside from Wi-Fi) to defaults, choose [Reset All] on the [4] tab (166).
Adjusting Basic Camera Functions

MENU (29) settings on the [1], [2], [3], [4], and [5] tabs can be configured. Customize commonly used functions as desired, for greater convenience.

### 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] on the [1] tab, and then choose [Daily].
- Images will now be saved in folders created on the shooting date.

### 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] on the [1] tab, and then choose an option.

<table>
<thead>
<tr>
<th>Continuous</th>
<th>Images are numbered consecutively (until the 9999th shot is taken/saved) even if you switch memory cards.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto Reset</td>
<td>Image numbering is reset to 0001 if you switch memory cards, or when a new folder is created.</td>
</tr>
</tbody>
</table>
Perform low-level formatting in the following 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.

1 Access the [Format] screen.

2 Choose [OK].
   - Touch [OK].
   - The memory card is now formatted.

Low-level formatting takes longer than “Formatting Memory Cards” (160), 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.

Changing the Video System

Set the video system of any television used for display. This setting determines the image quality (frame rate) available for movies.

- Choose [Video system] on the [1] tab, and then choose an option.
**Electronic Level Calibration**

Calibrate the electronic level if it seems ineffective in helping you level the camera. For greater calibration accuracy, display grid lines (98) to help you level the camera in advance.

1. **Make sure the camera is level.**
   - Place the camera on a flat surface, such as a table.

2. **Calibrate the electronic level.**
   - Choose [Calibrate] and press the [INFO] button. A confirmation message is displayed.
   - Touch [OK].

**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 [Reset], and then press the [INFO] button.
- Touch [OK].

---

**Switching the Color of Screen Information**

Information displayed on the screen and menus can be changed to a color suitable for shooting under low-light conditions. Enabling this setting is useful in modes such as [63).

- To restore the original display, choose [Off].

> You can also return the setting to [Off] by holding down the [INFO] button for at least one second on the shooting screen or in Playback mode during single-image display.

---

**Using Eco Mode**

This function allows you to conserve battery power in Shooting mode. When the camera is not in use, the screen quickly darkens to reduce battery consumption.

1. **Configure the setting.**
   - [ECO] is now shown on the shooting screen (188).
   - The screen darkens when the camera is not used for approximately two seconds; approximately ten seconds after darkening, the screen turns off. The camera turns off after approximately three minutes of inactivity.
2 Shoot.

- To activate the screen and prepare for shooting when the screen is off but the lens is still out, press the shutter button halfway.

### Power-Saving Adjustment

Adjust the timing of automatic camera and screen deactivation (Auto Power Down and Display Off, respectively) as needed (162).

- Choose an item, and then choose an option.

- 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].
- These power-saving functions are not available when you have set Eco mode (161) to [On].

### Screen Brightness

Adjust screen brightness as follows.

- Touch [☆][☆] to adjust the brightness.

- For maximum brightness, press and hold the INFO button for at least one second when the shooting screen is displayed or when in single-image display. (This will override the [Disp. Brightness] setting on the [2] tab.) To restore the original brightness, press and hold the INFO button again for at least one second or restart the camera.

### 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.

1 Specify your home time zone.

- When configuring this setting for the first time, make sure [Home] is selected, and then press the [INFO] button.
- Touch [☆][☆] to choose the home time zone.
- To set daylight saving time (1 hour ahead), touch [☆].
- Press the [INFO] button.

2 Specify your destination.

- Touch [☆ World], and then press the [INFO] button.
- Touch [☆][☆][☆] to choose the destination time zone.
- If necessary, specify daylight saving time as in step 1.
- Press the [INFO] button.
3 Switch to the destination time zone.
- Make sure [World] is selected, and then press the [MENU] button.
- [World] is now shown on [Time Zone] and shooting screens (188).

- Adjusting the date or time while in [World] mode (21) will automatically update your [Home] time and date.

Date and Time
Adjust the date and time as follows.

- Touch the option to configure, and then touch [1][2] to specify the date and time.

Lens Retraction Timing
The lens is normally retracted for safety about one minute after you press the [2] button in Shooting mode (25). To have the lens retracted immediately after you press the [2] button, set the retraction timing to [0 sec.].

- Choose [Lens Retraction] on the [2] tab, and then choose [0 sec.].

Display Language
Change the display language as needed.
- Choose a language, and then press the [3] button.

- You can also access the [Language] screen in Playback mode by pressing and holding the [3] button and immediately pressing the [MENU] button.

Silencing Camera Operations
Silence camera sounds and movies as follows.

- Operation can also be silenced by holding down the [INFO] button as you turn the camera on.
- Sound is not played during movies (103) if you mute camera sounds. To restore sound during movies, drag up across the screen. Adjust volume by dragging up or down, as needed.
## Adjusting the Volume

Adjust the volume of individual camera sounds as follows.

- Drag up or down to choose an item, and then adjust the volume by touching the desired position on the bar.

## Customizing Sounds

Customize camera operating sounds as follows.

- Choose [Sound Options] on the [3] tab, and then press the [b] button.
- Choose an item, and then press the [b] button.
- Choose an option.

- The shutter sound in digest movies recorded in [3] mode (335) cannot be changed.

## Start-Up Screen

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

- Choose [Start-up Image] on the [1] tab, and then press the [b] button.
- Choose an option.

## Hiding Hints and Tips

Hints and tips are normally shown when you choose Quick Set menu (28) items. If you prefer, you can deactivate this information.


## Listing Shooting Modes by Icon

List shooting modes on the selection screen by icon only, without mode names, for faster selection.

- Choose [Mode icon size/info] on the [3] tab, and then choose [Small, no info].

## Increasing Touch-Screen Panel Sensitivity

Sensitivity of the touch-screen panel can be increased, so that the camera responds to a lighter touch.

- Choose [Touch Operation] on the [4] tab, and then choose [Sensitive].
Automatically Locking the Touch-Screen Panel

To prevent unintended operations, you can set up automatic locking of the touch-screen panel.

- Choose [Screen auto lock], and then choose [Enable].
- Choose [Auto-locks after], and then choose an option.
- To unlock the touch-screen panel, press the shutter button halfway.

The touch-screen panel can also be unlocked by pressing or turning controls, such as the [MENU] button or [ ] ring.

Metric / Non-Metric Display

Change the unit of measurement shown in the zoom bar (33), the MF indicator (81), and elsewhere from m/cm to ft/in as needed.

- Choose [Units] on the [4] tab, and then choose [ft/in].

Checking Certification Logos

Some logos for certification requirements met by the camera can be viewed on the screen. Other certification logos are printed in this guide, on the camera packaging, or on the camera body.


Setting Copyright Information to Record in Images

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

- Choose [Enter Author’s Name] or [Enter Copyright Details], press the [ ] button to access the keyboard, and then enter the name (= 30).
- Press the [4] button. When [Accept changes?] is displayed, touch [Yes].
- The information set here will now be recorded in images.

- To check the information entered, choose [Display Copyright Info] on the screen above, and then press the [4] button.

Automatically Locking the Touch-Screen Panel

To prevent unintended operations, you can set up automatic locking of the touch-screen panel.

- Choose [Screen auto lock], and then choose [Enable].
- Choose [Auto-locks after], and then choose an option.
- To unlock the touch-screen panel, press the shutter button halfway.

The touch-screen panel can also be unlocked by pressing or turning controls, such as the [MENU] button or [ ] ring.

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Change the unit of measurement shown in the zoom bar (33), the MF indicator (81), and elsewhere from m/cm to ft/in as needed.

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- Press the [4] button. When [Accept changes?] is displayed, touch [Yes].
- The information set here will now be recorded in images.

- To check the information entered, choose [Display Copyright Info] on the screen above, and then press the [4] button.

Automatically Locking the Touch-Screen Panel

To prevent unintended operations, you can set up automatic locking of the touch-screen panel.

- Choose [Screen auto lock], and then choose [Enable].
- Choose [Auto-locks after], and then choose an option.
- To unlock the touch-screen panel, press the shutter button halfway.

The touch-screen panel can also be unlocked by pressing or turning controls, such as the [MENU] button or [ ] ring.

Metric / Non-Metric Display

Change the unit of measurement shown in the zoom bar (33), the MF indicator (81), and elsewhere from m/cm to ft/in as needed.

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- Press the [4] button. When [Accept changes?] is displayed, touch [Yes].
- The information set here will now be recorded in images.

- To check the information entered, choose [Display Copyright Info] on the screen above, and then press the [4] button.

Automatically Locking the Touch-Screen Panel

To prevent unintended operations, you can set up automatic locking of the touch-screen panel.

- Choose [Screen auto lock], and then choose [Enable].
- Choose [Auto-locks after], and then choose an option.
- To unlock the touch-screen panel, press the shutter button halfway.

The touch-screen panel can also be unlocked by pressing or turning controls, such as the [MENU] button or [ ] ring.
Restoring Default Camera Settings

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

1. Access the [Reset All] screen.
   • Follow the steps in “Setting Copyright Information to Record in Images” (165) and choose [Delete Copyright Info].
   • Touch [OK].

2. Restore default settings.
   • Touch [OK].
   • Default settings are now restored.

   ● The following functions are not restored to default settings.
     - Information registered using Face ID (43)
     - [1] tab setting [Video system] (160)
     - Custom white balance data you have recorded (78)
     - Shooting Mode
     - Wi-Fi settings (131)
     - Calibrated value for the electronic level (161)
     - Copyright information (165)

Deleting All Copyright Information

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

1. Access the [Reset All] screen.
   • Choose [Reset All] on the [ ] tab, and then press the [ ] button.

2. Restore default settings.
   • Touch [OK].
   • Default settings are now restored.

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

Adjusting Other Settings

The following settings can also be adjusted.

• [4] tab setting [Wi-Fi Settings] (131)
Accessories

Enjoy the camera in more ways with optional Canon accessories and other compatible accessories sold separately.

*1 Also available for purchase separately.
*2 A genuine Canon accessory is also available (Interface Cable IFC-600PCU).
*3 Use a commercially available cable no longer than 2.5 m (8.2 ft.).
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 any repairs your Canon product may require as a result of such malfunction are not covered under warranty and will incur a fee.

Optional Accessories

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

Power Supplies

Battery Pack NB-13L
- Rechargeable lithium-ion battery

Battery Charger CB-2LH/CB-2LHE
- Charger for Battery Pack NB-13L

- The message [Battery communication error] is displayed if you use a non-genuine Canon battery pack, and user response is required. Note that Canon shall not be liable for any damages resulting from accidents, such as malfunction or fire, that occur due to use of non-genuine Canon battery packs.

- The battery pack includes a convenient cover which you can attach to know the charge status at a glance. Attach the cover so that ▲ is visible on a charged battery pack, and attach it so that ▲ is not visible on an uncharged battery pack.

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 any repairs your Canon product may require as a result of such malfunction are not covered under warranty and will incur a fee.
AC Adapter Kit ACK-DC110

- 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 battery pack in the camera.

Compact Power Adapter CA-DC30/CA-DC30E

- Insert the included battery pack into the camera for charging. Interface Cable IFC-600PCU (sold separately) is required to connect the adapter to the camera.

- The battery charger, AC adapter kit, and compact power adapter 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 pack.

Flash Unit

High-Power Flash HF-DC2

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

- High-Power Flash units cannot be used in [M], [Av], or [Tv] shooting mode when [Flash Mode] is set to [Manual].

Other Accessories

Interface Cable IFC-600PCU

- For connecting the camera to a computer or printer.

Printers

Canon-Brand PictBridge-Compatible Printers

- Even without using a computer, you can print images by connecting the camera directly to a printer. For details, visit your nearest Canon retailer.

Photo and Movie Storage

Connect Station CS100

- A media hub for storing camera images, viewing on a connected TV, printing wirelessly on a Wi-Fi-compatible printer, sharing over the Internet, and more.
Using Optional Accessories

Playback on a TV

You can view your shots on a TV by connecting the camera to an HDTV with a commercially available HDMI cable (not exceeding 2.5 m / 8.2 ft., with a Type D terminal on the camera end). Movies shot at an image quality of [640×480], [640×360], [640×200], [640×144], [640×117], or [640×100] can be viewed in high definition.

For details on connection or how to switch inputs, refer to the TV manual.

- The following camera functions are available when using a TV for display.
  - Browsing images
    Drag left or right across the screen (103).
  - Playing movies (104)
  - Zoom in (112)
    To zoom in, move the zoom lever toward [4] or spread your fingers apart (pinch out).
  - Group playback (110)
  - Touch Actions (119)
    Erasing is not available.

Note that when the camera is connected to a TV, nothing is displayed on the camera screen. Watch the TV screen as you control the camera.

1. Make sure the camera and TV are off.
2. Connect the camera to the TV.
   - On the TV, insert the cable plug fully into the HDMI input as shown.
3. Turn the TV on and switch to external input.
   - Switch the TV input to the external input you connected the cable to in step 2.
4. 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.

Some information may not be displayed when viewing images on a TV (189).
Camera operating sounds are not played while the camera is connected to an HDTV.
Powering the Camera with Household Power

Still Images  Movies

Powering the camera with AC Adapter Kit ACK-DC110 (sold separately) eliminates the need to monitor the remaining battery level.

1 Make sure the camera is off.

2 Open the cover.
   • Follow step 1 in “Inserting the Battery Pack and Your Memory Card” (19) to open the memory card/battery cover, and then open the coupler cable port cover as shown.

3 Insert the coupler.
   • Holding the coupler with the terminals (1) facing as shown, insert the coupler just as you would a battery pack (following step 2 in “Inserting the Battery Pack and Your Memory Card” (19)).
   • Make sure the coupler cable passes through the port (1).

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

5 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.
Inserting and Charging the Battery Pack

Charge the battery pack by using the supplied battery pack with an optional Compact Power Adapter CA-DC30/CA-DC30E or Interface Cable IFC-600PCU.

1 Insert the battery pack.
- Follow step 1 in “Inserting the Battery Pack and Your Memory Card” (19) to open the cover.
- Insert the battery pack as described in step 2 of “Inserting the Battery Pack and Your Memory Card” (19).
- Follow step 4 in “Inserting the Battery Pack and Your Memory Card” (19) to close the cover.

2 Connect the compact power adapter to the camera.
- With the camera turned off, open the cover (1). Hold the smaller plug of the interface cable (sold separately) facing as shown and insert the plug fully into the camera terminal (2).
- Insert the larger plug of the interface cable into the compact power adapter.

3 Charge the battery pack.
- CA-DC30: Flip out the plug (1) and plug the compact power adapter into a power outlet (2).
- CA-DC30E: Plug the power cord into the compact power adapter, then plug the other end into a power outlet.
- Charging begins and the USB charge lamp lights up.
- The lamp turns off when charging finishes.
- Remove the compact power adapter from the power outlet and the interface cable from the camera.

To protect the battery pack and keep it in optimal condition, do not charge it continuously for more than 24 hours.
- When charging a different battery pack, be sure first to disconnect the interface cable from the camera and then insert another battery pack for charging.
Using the Software

To utilize the features of the following software, download the software from the Canon website and install it on your computer.

- CameraWindow
  - Import images to your computer
- Image Transfer Utility
  - Set up Image Sync (152) and receive images
- Map Utility
  - Use a map to view GPS information that has been added to images
- Digital Photo Professional
  - Browse, process and edit RAW images

● To view and edit movies on a computer, use preinstalled or commonly available software compatible with movies recorded by the camera.

Using a Computer to Charge the Battery

You can also charge the battery pack by inserting the larger plug of the interface cable into a computer’s USB terminal in step 2 of “Inserting and Charging the Battery Pack” (172). For details about USB connections on the computer, refer to the computer user manual.

- Charging is not possible when the camera is off.
- With some computers, battery charging may require the memory card to be in the camera. Insert the memory card in the camera (19) before connecting the cable to the computer’s USB port.

● For details on charging time and the number of shots and recording time possible with a fully charged battery pack, see “Number of Shots/Recording Time, Playback Time” (205).
● You can view images even while the battery is charging, by turning the camera on and entering Playback mode (223). However, you cannot shoot while the battery is charging.
● Charged battery packs gradually lose their charge, even when they are not used. Charge the battery pack on (or immediately before) the day of use.
● 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 pack.

● You can view images even while the battery is charging, by turning the camera on and entering Playback mode (23). However, you cannot shoot while the battery is charging.

To view and edit movies on a computer, use preinstalled or commonly available software compatible with movies recorded by the camera.

- To view and edit movies on a computer, use preinstalled or commonly available software compatible with movies recorded by the camera.
Computer Connections via a Cable

Checking Your Computer Environment

The software can be used on the following computers. For detailed system requirements and compatibility information, including support in new operating systems, visit the Canon website.

- Windows 8/8.1
- Windows 7 SP1
- Mac OS X 10.10
- Mac OS X 10.9

When sending images to a computer via Wi-Fi, check the system requirements in “Checking Your Computer Environment” (138).

Installing the Software

For software installation instructions, see “Installing the Software” (138).

Saving Images to a Computer

Using a USB cable (sold separately; camera end: Micro-B), you can connect the camera to the computer and save images to the computer.

1. Connect the camera to the computer.
   - With the camera turned off, open the cover. With the smaller plug of the cable in the orientation shown, insert the plug fully into the camera terminal.
   - Connect the larger cable plug to the computer. For details on computer connections, refer to the computer user manual.

2. Turn the camera on to access CameraWindow.
   - Press the [ ] button.
   - Mac OS: CameraWindow is displayed when a connection is established between the camera and computer.
   - Windows: Follow the steps introduced below.
   - In the screen that is displayed, click the change program link of [ ].
   - Choose [Downloads Images From Canon Camera] and then click [OK].

   - Double-click [ ].

   - When sending images to a computer via Wi-Fi, check the system requirements in “Checking Your Computer Environment” (138).

Installing the Software

For software installation instructions, see “Installing the Software” (138).

Saving Images to a Computer

Using a USB cable (sold separately; camera end: Micro-B), you can connect the camera to the computer and save images to the computer.
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.
- To view images you save to a computer, use preinstalled or commonly available software compatible with images captured by the camera.

- Windows 7: If the screen in step 2 is not displayed, click the [ ] icon in the taskbar.
- Mac OS: If CameraWindow is not displayed after step 2, click the [CameraWindow] icon in the Dock.
- Although you can save images to a computer simply by connecting your camera to the computer without using the 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.

Printing Images

Print your shots and configure a variety of settings used for your printer or photo printing services by connecting the camera to a PictBridge-compatible printer with a cable.
A Canon SELPHY CP printer is used in this example of PictBridge printing. Also refer to your printer user manual.

Easy Print

Print your shots by connecting the camera to a PictBridge-compatible printer with a USB cable (sold separately; camera end: Micro-B).

1 Make sure the camera and printer are off.
2 Connect the camera to the printer.
   - Open the terminal cover. Holding the smaller cable plug in the orientation shown, insert the plug fully into the camera terminal.
   - Connect the larger cable plug to the printer. For other connection details, refer to the printer manual.
3 Turn the printer on.
4 Choose an image.
   - Drag left or right across the screen to choose an image.
5 Access the printing screen.
- Press the [Print] button, choose [Print], and press the [Print] button again.

6 Print the image.
- Choose [Print] and press the [Print] button.
- Printing now begins.
- To print other images, repeat the above procedures starting from step 4 after printing is finished.
- When you are finished printing, turn the camera and printer off and disconnect the cable.

- For Canon-brand PictBridge-compatible printers (sold separately), see "Printers" (169).
- RAW images cannot be printed.

### Configuring Print Settings

#### Still Images

1 Access the printing screen.
- Follow steps 1 – 5 in "Easy Print" (175) to access this screen.

2 Configure the settings.
- Touch an item, and on the next screen, choose an option. Press the [Print] button to return to the printing screen.

<table>
<thead>
<tr>
<th>Item</th>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>Default</td>
<td>Matches current printer settings.</td>
</tr>
<tr>
<td></td>
<td>Date</td>
<td>Prints images with the date added.</td>
</tr>
<tr>
<td></td>
<td>File No</td>
<td>Prints images with the file number added.</td>
</tr>
<tr>
<td></td>
<td>Both</td>
<td>Prints images with both the date and file number added.</td>
</tr>
<tr>
<td>Off</td>
<td>Off</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>On</td>
<td>Uses information from the time of shooting to print under optimal settings.</td>
</tr>
<tr>
<td>Red-Eye 1</td>
<td>Off</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Red-Eye 1</td>
<td>Corrects red-eye.</td>
</tr>
<tr>
<td>No. of Copies</td>
<td>Default</td>
<td>Matches current printer settings.</td>
</tr>
<tr>
<td></td>
<td>No. of Copies</td>
<td>Choose the number of copies to print.</td>
</tr>
<tr>
<td>Cropping</td>
<td>Default</td>
<td>Matches current printer settings.</td>
</tr>
<tr>
<td></td>
<td>Cropping</td>
<td>Specify a desired image area to print (177).</td>
</tr>
<tr>
<td>Paper Settings</td>
<td>Default</td>
<td>Matches current printer settings.</td>
</tr>
<tr>
<td></td>
<td>Paper Settings</td>
<td>Specify the paper size, layout, and other details (177).</td>
</tr>
</tbody>
</table>

#### Movies

- For Canon-brand PictBridge-compatible printers (sold separately), see "Printers" (169).
- RAW images cannot be printed.
Choosing Paper Size and Layout before Printing

1 Choose [Paper Settings].
   - After following step 1 in “Configuring Print Settings” (176) to access the printing screen, touch [Paper Settings].

2 Choose a paper size.
   - Choose an option, and then press the [ ] button.

3 Choose a type of paper.
   - Choose an option, and then press the [ ] button.

4 Choose a layout.
   - Drag up or down to choose an option.
   - When choosing [N-up], specify the number of images per sheet.
   - Press the [ ] button.

5 Print the image.
   - Follow step 6 in “Easy Print” (175) to print.

Cropping Images before Printing

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

1 Choose [Cropping].
   - After following step 1 in “Configuring Print Settings” (176) to access the printing screen, touch [Cropping].
   - A cropping frame is now displayed, indicating the image area to print.

2 Adjust the cropping frame as needed.
   - To resize the frame, move the zoom lever.
   - To move the frame, drag it.
   - To rotate the frame, press the [INFO] button.
   - When finished, press the [ ] button.

3 Print the image.
   - Follow step 6 in “Easy Print” (175) to print.

   * Cropping may not be possible at small image sizes, or at some aspect ratios.
Before Use

Index

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P Mode

Tv, Av, M, and C Mode

Playback Mode

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Appendix

Printing Movie Scenes

1 Access the printing screen.
   - Follow steps 1 – 5 in “Easy Print” (175) to choose a movie. The screen at left is displayed.

2 Choose a printing method.
   - Choose [ ] and press the [ ] button. On the next screen, choose an option, and then press the [ ] button to return to the printing screen.

3 Print the image.
   - Follow step 6 in “Easy Print” (175) to print.

Movie Printing Options

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>Prints the current scene as a still image.</td>
</tr>
<tr>
<td>Sequence</td>
<td>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].</td>
</tr>
</tbody>
</table>

Still Images

Movie Printing Options

1 Choose [ID Photo].
   - Following steps 1 – 4 in “Choosing Paper Size and Layout before Printing” (177), choose [ID Photo] and press the [ ] button.

2 Choose the long and short side length.
   - Choose an item and press the [ ] button. On the next screen, choose the length, and then press the [ ] button.

3 Choose the printing area.
   - Follow step 2 in “Cropping Images before Printing” (177) to choose the printing area.

4 Print the image.
   - Follow step 6 in “Easy Print” (175) to print.

Available Layout Options

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default</td>
<td>Matches current printer settings.</td>
</tr>
<tr>
<td>Bordered</td>
<td>Prints with blank space around the image.</td>
</tr>
<tr>
<td>Borderless</td>
<td>Borderless, edge-to-edge printing.</td>
</tr>
<tr>
<td>N-up</td>
<td>Choose how many images to print per sheet.</td>
</tr>
<tr>
<td>ID Photo</td>
<td>Prints images for identification purposes. Only available for images with a recording pixel setting of L and an aspect ratio of 3:2.</td>
</tr>
<tr>
<td>Fixed Size</td>
<td>Choose the print size. Choose from 3.5 x 5 in., postcard, or wide-format prints.</td>
</tr>
</tbody>
</table>
Adding Images to the Print List (DPOF)

Batch printing (180) 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 to DPOF (Digital Print Order Format) standards.

- RAW images cannot be included in print list.

Specifying [Index] will prevent you from choosing [On] for both [Date] and [File No.] at the same time.

Index printing is not available on some Canon-brand PictBridge-compatible printers (sold separately).

The date is printed in a format matching setting details in [Date/Time] on the [tab (20)].

Setting Up Printing for Individual Images

1. Choose [Select Images & Qty.].
   - Press the [button, choose [Print settings] on the [tab, and then press the [button.
   - Choose [Print Settings], and then press the [button. On the next screen, choose and configure items as needed.

2. Choose an image.
   - Drag left or right across the screen to choose an image.
   - Images you specify for index printing are labeled with a [0] icon.

Not all of your DPOF settings may be applied in printing by the printer or photo development service, in some cases.

[ ] may be displayed on the camera to warn you that the memory card has print settings that were configured on another camera. Changing the print settings using this camera may overwrite all previous settings.

Configuring Print Settings

Specify the printing format, whether to add the date or file number, and other settings as follows. These settings apply to all images in the print list.

- Press the [button, choose [Print settings] on the [tab, and then press the [button.
- Choose [Print Settings], and then press the [button. On the next screen, choose and configure items as needed.

### Print Type

- **Standard**: One image is printed per sheet.
- **Index**: Smaller versions of multiple images are printed per sheet.
- **Both**: Both standard and index formats are printed.

### Date

- **On**: Images are printed with the shooting date.
- **Off**: –

### File No.

- **On**: Images are printed with the file number.
- **Off**: –

### Clear DPOF data

- **On**: All image print list settings are cleared after printing.
- **Off**: –

### Print Type

- **Standard**: One image is printed per sheet.
- **Index**: Smaller versions of multiple images are printed per sheet.
- **Both**: Both standard and index formats are printed.

### Date

- **On**: Images are printed with the shooting date.
- **Off**: –

### File No.

- **On**: Images are printed with the file number.
- **Off**: –

### Clear DPOF data

- **On**: All image print list settings are cleared after printing.
- **Off**: –
3 Specify the number of prints.
- Touch [▲][▼] to specify the number of prints (up to 99).
- To set up printing for other images and specify the number of prints, repeat steps 2 – 3.
- When finished, press the [MENU] button to return to the menu screen.

Setting Up Printing for a Range of Images

Still Images  Movies

Select Range

Still Images  Movies

Select All Images

Still Images  Movies

Clearing All Images from the Print List

Following step 1 in “Setting Up Printing for Individual Images” (179), choose [Clear All Selections] and press the [③] button.
- Touch [OK].

Printing Images Added to the Print List (DPOF)

Still Images  Movies

When images have been added to the print list (179 – 180), this screen is displayed after you connect the camera to a PictBridge-compatible printer. Choose [Print now], and then simply press the [③] button to print the images in the print list.
- Any DPOF print job that you temporarily stop will be resumed from the next image.

Setting Up Printing for All Images

Still Images  Movies

Following step 1 in “Setting Up Printing for Individual Images” (179), choose [Select All Images] and press the [③] button.
- Touch [OK].
Adding Images to a Photobook

Photobooks can be set up on the camera by choosing up to 998 images on a memory card and using CameraWindow to import them to your computer (173), where they are copied to their own folder. This is convenient when ordering printed photobooks online or printing photobooks with your own printer.

Choosing a Selection Method

Press the [MENU] button, choose [Photobook Set-up] on the [4] tab, and then choose how you will select images.

Adding Images Individually

Choose [Select].

Following the procedure in “Choosing a Selection Method” (181), choose [Select] and press the [OK] button.

Adding All Images to a Photobook

Following the procedure in “Choosing a Selection Method” (181), choose [Select All Images] and press the [OK] button.

Removing All Images from a Photobook

Following the procedure in “Choosing a Selection Method” (181), choose [Clear All Selections] and press the [OK] button.

● [ ] may be displayed on the camera to warn you that the memory card has print settings that were configured on another camera. Changing the print settings using this camera may overwrite all previous settings.
Troubleshooting

If you think there is a problem with the camera, first check the following. If the items below do not solve your problem, contact a Canon Customer Support Help Desk.

**Power**

Nothing happens when the power button is pressed.
- Confirm that the battery pack is charged (page 18).
- Confirm that the battery pack is inserted facing the correct way (page 19).
- Confirm that the memory card/battery cover is fully closed (page 19).
- Dirty battery terminals reduce battery performance. Try cleaning the terminals with a cotton swab and reinserting the battery pack a few times.

The battery pack runs out of power quickly.
- Battery performance decreases at low temperatures. Try warming the battery pack a little by putting it in your pocket, for example, ensuring that the terminals do not touch any metal objects.
- Dirty battery terminals reduce battery performance. Try cleaning the terminals with a cotton swab and reinserting the battery pack a few times.
- If these measures do not help and the battery pack still runs out of power soon after charging, it has reached the end of its life. Purchase a new battery pack.

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 (page 19).

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

**Display on a TV**

Camera images look distorted or are not displayed on a TV (page 170).
Shooting

Cannot shoot.
- In Playback mode (page 103), press the shutter button halfway (page 26).

Strange display on the screen under low light (page 27).

Strange display on the screen when shooting.
- Note that the following display problems are not recorded in still images but are recorded in movies.
  - The screen may flicker and horizontal banding may appear under fluorescent or LED lighting.

Full-screen display is not available while shooting (page 90).

[?] flashes on the screen when the shutter button is pressed, and shooting is not possible (page 36).

[?] is displayed when the shutter button is pressed halfway (page 36).
- Set [IS Mode] to [Continuous] (page 52).
- Raise the flash and set the flash mode to [?] (page 87).
- Increase the ISO speed (page 75).
- Mount the camera on a tripod or take other measures to keep it still. Additionally, you should set [IS Mode] to [Off] when using a tripod or other means to secure the camera (page 52).

Shots are out of focus.
- Press the shutter button halfway to focus on subjects before pressing it all the way down to shoot (page 26).
- Make sure subjects are within focusing range (page 205).
- Confirm that unneeded functions such as macro are deactivated.
- Try shooting with focus lock or AF lock (page 83, page 87).

Shots are blurry.
- Blurring may occur more often when Touch Shutter is used to shoot, depending on shooting conditions. Hold the camera still when shooting.

Continuous shooting suddenly stops.
- Continuous shooting stops automatically after about 2,000 shots are taken at one time. Release the shutter button a moment before you resume shooting.

No AF frames are displayed and the camera does not focus when the shutter button is pressed halfway.
- To have AF frames displayed and the camera focus correctly, try composing the shot with higher-contrast subject areas centered before you press the shutter button halfway. Otherwise, try pressing the shutter button halfway repeatedly.

Subjects in shots look too dark.
- Raise the flash and set the flash mode to [?] (page 87).
- Adjust brightness by using exposure compensation (page 74).
- Use AE lock or spot metering (page 74, page 174).

Subjects look too bright, highlights are washed-out.
- Lower the flash and set the flash mode to [?] (page 33).
- Adjust brightness by using exposure compensation (page 74).
- Use AE lock or spot metering (page 74, page 174).
- Reduce the lighting on subjects.

Shots look too dark despite the flash firing (page 36).
- Shoot within flash range (page 204).
- Adjust brightness by using flash exposure compensation or changing the flash output level (page 88, page 195).
- Increase the ISO speed (page 75).

Subjects in flash shots look too bright, highlights are washed-out.
- Shoot within flash range (page 204).
- Lower the flash and set the flash mode to [?] (page 33).
- Adjust brightness by using flash exposure compensation or changing the flash output level (page 88, page 195).

White spots appear in flash shots.
- This is caused by light from the flash reflecting off dust or airborne particles.

Shots look grainy.
- Lower the ISO speed (page 75).
- High ISO speeds in some shooting modes may cause grainy images (page 57).

Subjects are affected by red-eye.
- Set [Red-Eye Lamp] to [On] (page 53). The red-eye reduction lamp (page 4) will light up for 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 (page 124).

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 (page 160).
Shooting settings or Quick Set menu settings are not available.
- Available setting items vary by shooting mode. Refer to “Functions Available in Each Shooting Mode”, “Quick Set Menu”, and “Shooting Tab” (190 – 195).

The Babies or Children icon is not displayed.
- The Babies and Children icons will not be displayed if the birthday is not set in face information (143). If the icons still are not displayed even when you set the birthday, re-register face information (144), or make sure that the date/time is set correctly (163).

Touch AF or Touch Shutter does not work.
- Touch AF or Touch Shutter will not work if you touch the edges of the screen. Touch closer to the center of the screen.
- If [Screen auto-lock settings] is set to [Enable], unlock the touch-screen panel (165).

Shooting Movies

The elapsed time shown is incorrect, or recording is interrupted.
- Use the camera to format the memory card, or switch to a card that supports high-speed recording. Note that even if the elapsed time display is incorrect, the length of movies on the memory card corresponds to the actual recording time (160, 206).

 difícil
- 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 (160).
  - Lower the image quality (149).
  - Switch to a memory card that supports high-speed recording (206).

Zooming is not possible.
- Zooming is not possible in [ ] mode (163).
- Zooming is not possible when shooting movies in [ ], [], and [ ] modes.

Subjects look distorted.
- Subjects that pass in front of the camera quickly may look distorted. This is not a malfunction.

Linear noise is recorded.
- Linear noise may be recorded if lights or other sources of bright light are visible on the shooting screen in an otherwise dark scene. Recompose the shot so that the bright light is not visible on the shooting screen or nearby.

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.

Playback stops, or audio skips.
- Switch to a memory card that you have performed low-level formatting on with the camera (160).
- There may be brief interruptions when playing movies copied to memory cards that have slow read speeds.
- When movies are played on a computer, frames may be dropped and audio may skip if computer performance is inadequate.

Sound is not played during movies.
- Adjust the volume (23) if you have activated [Mute] (163) or the sound in the movie is faint.
- No sound is played for [ ] mode movies (60), [ ] mode movies (66), or Creative Shot movies, because audio is not recorded in these modes.

Cannot access the Story Highlights home screen by touching [ ].
- Home screen display is not possible when connected to a printer. Disconnect the camera from the printer.
- Home screen display is not possible during Wi-Fi connections. End the Wi-Fi connection.

A desired subject icon for an album is not displayed on the Story Highlights home screen.
- In simple information display mode (105), choose an image that shows the name of the person for the album before accessing the Story Highlights home screen (127).

Memory Card

The memory card is not recognized.
- Restart the camera, with the memory card in it (25).
Cannot transfer images to a computer.
- When attempting to transfer images to the computer via a cable, try reducing the transfer speed as follows.
  - While holding the shutter button and zoom lever toward [■], press the [■] button. In Playback mode, move the zoom lever toward [■], and on the next screen, choose [B] and press the [■] button.

Wi-Fi

Cannot access the Wi-Fi menu.
- The Wi-Fi menu is not available in Shooting mode. Switch to Playback mode and try again.
- In Playback mode, the Wi-Fi menu cannot be accessed during magnified display or index display. Switch to single-image display and try again. Similarly, the Wi-Fi menu cannot be accessed during group playback or filtered image display according to specified conditions. Cancel group or filtered image playback.
- The Wi-Fi menu cannot be accessed while the camera is connected to a printer, computer, or TV via a cable. Disconnect the cable.

Cannot add a device/destination.
- A total of 20 items of connection information can be added to the camera. Erase unneeded connection information from the camera first, and then add new devices/destinations (156).
- Use a computer or smartphone to register Web services (144).
- To add a smartphone, first install the dedicated application Camera Connect on your smartphone (134).
- To add a computer, first install the software CameraWindow on your computer. Also check your computer and Wi-Fi environment and settings (138, 140).
- Do not use the camera near sources of Wi-Fi signal interference, such as microwave ovens, Bluetooth devices, or other equipment operating on the 2.4 GHz band.
- Bring the camera closer to the other device you are trying to connect to (such as the access point), and make sure there are no objects between the devices.

Cannot connect to the access point.
- Confirm that the access point channel is set to a channel supported by the camera (204). Note that instead of auto channel assignment, it is advisable to specify a supported channel manually.

Cannot send images.
- The destination device has insufficient storage space. Increase the storage space on the destination device and resend the images.
- The write-protect switch of the memory card in the destination camera is set to the locked position. Slide the write-protect switch to the unlocked position.
- RAW images cannot be sent. For images captured in both JPEG and RAW format, only the JPEG version is sent. However, RAW images can be sent using Image Sync.
- Images cannot be sent to CANON IMAGE GATEWAY or other Web services if you move or rename image files or folders on the computer that received images sent using Image Sync via an access point (152). Before moving or renaming these image files or folders on the computer, make sure the images have already been sent to CANON IMAGE GATEWAY or other Web services.

Cannot resize images for sending.
- Images cannot be resized to be bigger than the recording pixel setting of their original size.
- Movies cannot be resized.

Images take a long time to send./The wireless connection is disrupted.
- Multiple images may take a long time to send. Try resizing the image to reduce sending time (152).
- Movies may take a long time to send.
- Do not use the camera near sources of Wi-Fi signal interference, such as microwave ovens, Bluetooth devices, or other equipment operating on the 2.4 GHz band. Note that images may take a long time to send even when [■] is displayed.
- Bring the camera closer to the other device you are trying to connect to (such as the access point), and make sure there are no objects between the devices.

No notification message is received on a computer or smartphone after adding CANON IMAGE GATEWAY to the camera.
- Make sure the email address you entered is correct, and try adding the destination again.
- Check the email settings on the computer or smartphone. If they are configured to block email from certain domains, you may not be able to receive the notification message.

Want to erase Wi-Fi connection information before disposing of the camera or giving it to someone else.
- Reset the Wi-Fi settings (158).
On-Screen Messages

If an error message is displayed, respond as follows.

Shooting or Playback

No memory card
- The memory card may be inserted facing the wrong way. Reinsert the memory card facing the correct way (19).

Memory card locked
- The write-protect switch of the memory card is set to the locked position. Switch the write-protect switch to the unlocked position (19).

Cannot record!
- Shooting was attempted without a memory card in the camera. To shoot, insert a memory card facing the correct way (19).

Memory card error (160)
- If the same error message is displayed even after you have formatted a supported memory card (12) and have inserted it facing the correct way (19), contact a Canon Customer Support Help Desk.

Insufficient space on card
- There is not enough free space on the memory card to shoot (33, 65, 73, 92) or edit images (121). Either erase unneeded images (115) or insert a memory card with enough free space (19).

Touch AF unavailable
- Touch AF is not available in the current shooting mode (190).

Touch AF canceled
- The subject selected for Touch AF can no longer be detected (86).

Charge the battery (18)

No Image.
- The memory card does not contain any images that can be displayed.

Protected! (113)

Unidentified Image/Incompatible JPEG/Image too large./Cannot play back MOV/Cannot play back MP4
- 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 rotate/Cannot modify image/Cannot modify/ Cannot assign to category/Unselectable image./No identification information
- The following functions may be unavailable for images that were renamed or already edited on a computer, or images shot with another camera. Note that starred (*) functions are not available for movies.
  - Edit ID Info* (111), Magnify* (112), Rotate* (117), Favorites (118),
  - Edit* (121), Print List* (179), and Photobook Set-up* (181).

Invalid selection range
- When specifying a range for image selection (114, 117, 180), you attempted to choose an initial image that was after the final image, or vice-versa.

Exceeded selection limit
- More than 998 images were selected for Print List (179) or Photobook Set-up (181). Choose 998 images or less.
- Print List (179) or Photobook Set-up (181) 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 (113), Erase (115), Favorites (118), Print List (179), or Photobook Set-up (181).

Naming error!
- The folder could not be created or images could not be recorded, because the highest supported folder number (999) for storing images on the card has been reached and the highest supported image number (9999) for images in folders has been reached. On the [1] tab, change [File Numbering] to [Auto Reset] (159), or format the memory card (160).

Lens Error
- This error may occur if the lens is held while it is moving, or when the camera is used in dusty or sandy locations.
- Frequent display of this error message may indicate camera damage. In this case, contact a Canon Customer Support Help Desk.
A camera error was detected (error number)
- If this error message is displayed immediately after a shot, the image may not have been saved. Switch to Playback mode to check for the image.
- Frequent display of this error message may indicate camera damage. In this case, write down the error number (Exx) and contact a Canon Customer Support Help Desk.

File Error
- Correct printing may not be possible for photos from other cameras or images that have been altered using computer software, even if the camera is connected to the printer.
- 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.

Wi-Fi

Connection failed
- No access points were recognized. Check the access point settings.
- A device could not be found. Turn the camera off and on again, and retry the connection.
- Check the device you want to connect to and make sure it is ready for connection.

Cannot determine access point
- The WPS buttons on numerous access points were pressed simultaneously. Try reconnecting again.

No access points found
- Check to make sure that the access point is turned on.
- When connecting to an access point manually, make sure that you entered the correct SSID.

Incorrect password/Incorrect Wi-Fi security settings
- Check the access point security settings.

IP address conflict
- Reset the IP address so that it does not conflict with another.

Disconnected/Receiving failed/Sending failed
- You may be in an environment where Wi-Fi signals are obstructed.
- Avoid using the camera’s Wi-Fi function around microwave ovens, Bluetooth devices, and other devices that operate on the 2.4 GHz band.
- Bring the camera closer to the other device you are trying to connect to (such as the access point), and make sure there are no objects between the devices.
- Check the connected device to make sure it is not experiencing errors.

Sending failed
Memory card error
- If the same error message is displayed even when you have inserted a formatted memory card facing the correct way, contact a Canon Customer Support Help Desk.

Receiving failed
Insufficient space on card
- There is not enough free space on the memory card in the target camera to receive images. Erase images to create space on the memory card, or insert a memory card with sufficient space.

Receiving failed
Memory card locked
- The write-protect switch of the memory card in the camera to receive the images is set to the locked position. Slide the write-protect switch to the unlocked position.

Receiving failed
Naming error!
- When the highest folder number (999), and the highest image number (9999) have been reached on the receiving camera, images cannot be received.

Insufficient space on server
- Delete unnecessary images uploaded to CANON IMAGE GATEWAY to create space.
- Save the images sent via Image Sync to your computer.

Check network settings
- Check to make sure your computer can connect to the Internet with the current network settings.
On-Screen Information

Shooting (Information Display)

- **(1)** Shooting mode (190), Scene icon (37)
- **(2)** Flash mode (87)
- **(3)** Shadow correction (77)
- **(4)** Metering method (74)
- **(5)** ND filter (77)
- **(6)** Drive mode (42), AEB shooting (76), Focus bracketing (82)
- **(7)** White balance (78), Mercury lamp correction (48)
- **(8)** My Colors (79)
- **(9)** Touch Shutter (42)
- **(10)** IS mode icon (38)
- **(11)** Battery level (188)
- **(12)** Still image compression (90), Recording pixel setting (90)
- **(13)** Recordable shots (205)*
- **(14)** Zoom magnification (39), Digital tele-converter (83)
- **(15)** Movie quality (49)
- **(16)** Remaining time (206)
- **(17)** Histogram (105)
- **(18)** Quick Set menu (28)
- **(19)** Focus range (80, 81), AF lock (87)
- **(20)** AE lock (74), FE lock (89)
- **(21)** AF frame (83), Spot AE point frame (74)
- **(22)** Control ring function switching (96)
- **(23)** Manual focus switching (96)
- **(24)** Grid lines (98)
- **(25)** Shutter speed (92, 93)
- **(26)** Aperture value (93, 93)
- **(27)** Electronic level (50)
- **(28)** Exposure level (93)
- **(29)** ISO speed (75)
- **(30)** DR correction (77)
- **(31)** Hybrid Auto mode (35)
- **(32)** Star Emphasis (64)
- **(33)** High ISO NR (76)
- **(34)** Eco mode (161)
- **(35)** Self-timer (40)
- **(36)** Camera shake warning (36)
- **(37)** Zoom bar (33)
- **(38)** Blink detection (51)
- **(39)** Manual focus (81)
- **(40)** Flash exposure compensation / Flash output level (88, 95)
- **(41)** Exposure compensation (74)
- **(42)** Wind filter (36, 70)
- **(43)** Time zone (162)
- **(44)** Image stabilization (52)
- **(45)** Auto Level (51)
- **(46)** Auto Slow Shutter (70)
- **(47)** Attenuator (71)

* In (9) mode, indicates the number of shots available.

Battery Level

An on-screen icon or message indicates the battery charge level.

<table>
<thead>
<tr>
<th>Display</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ][ ][ ]</td>
<td>Sufficient charge</td>
</tr>
<tr>
<td>[ ]</td>
<td>Slightly depleted, but sufficient</td>
</tr>
<tr>
<td>(Blinking red)</td>
<td>Nearly depleted—charge the battery pack soon</td>
</tr>
</tbody>
</table>

[Charge the battery] Depleted—charge the battery pack immediately
Playbo url (Detailed Information Display)

(1) Movies (33, 103)
(2) Digest movies (106)
(3) Group playback (110)
(4) Current image no. / Total no. of images
(5) Histogram (105)
(6) Battery level (188)
(7) Wi-Fi signal strength (151)
(8) Image Sync (152)
(9) Image editing (121), Movie compression (126)
(10) Favorites (118)
(11) Protection (113)
(12) Folder number - File number (159)
(13) Shooting date/time (20)
(14) Shooting mode (190)
(15) Shutter speed (92, 93)
(16) Aperture value (93, 93)

(17) Exposure compensation level (74)
(18) ISO speed (75)
(19) Metering method (74)
(20) Flash (87), Flash exposure compensation (88)
(21) White balance (78)
(22) White balance correction (78), Mercury lamp correction (48), Creative Shot effect (56)
(23) My Colors (79, 123)
(24) Focus range (80, 81)
(25) ND filter (77)
(26) Red-eye correction (124), Short clip playback effect (71)
(27) High ISO NR (76)
(28) DR correction (77)
(29) Shadow correction (77)

(30) Image quality / Frame rate (movies) (49)
(31) Group playback (110)
(32) Compression (image quality) (90), Recording pixel setting (49), Digest movies (35), RAW (90), MP4 (movies), Albums (127)
(33) Still images: Recording pixel setting (1205)
Movies: Playback time (206)
(34) File size

Summary of Movie Control Panel

The following operations are available on the movie control panel, accessed as described in “Viewing” (103).

Touch to display the volume panel, and then touch [△][▼] to adjust the volume. At a volume of 0, [△] is displayed.

Play

Slow Motion (Touch [◄][►] to adjust the playback speed. No sound is played.)

Skip Backward* or Previous Clip (126) (To continue skipping backward, keep holding down the [◄] button.)

Previous Frame (For fast-rewind, keep holding down the [◄] button.)

Next Frame (For fast-forward, keep holding down the [►] button.)

Skip Forward* or Next Clip (126) (To continue skipping forward, keep holding down the [►] button.)

Erase Clip (Displayed when any of the following is selected: digest movies (106), Creative Shot movies (106), or albums without background music (128).)

Edit (125)

Shown when the camera is connected to a PictBridge-compatible printer (175).

* Displays the frame approx. 4 sec. before or after the current frame.
### Functions and Menu Tables

#### Functions Available in Each Shooting Mode

Icons in black, such as ☑️, indicate that the function is available or automatically set in that shooting mode. Gray icons, such as ☐️, indicate that the function is unavailable in that shooting mode.

##### Exposure Compensation (74)

| Mode | Available | Function
|------|----------|----------|
| C/M | ☑️ | Exposure Compensation
| M/Av/Tv/P | ☑️/☐️ | Exposure Compensation
| AUTO | ☑️ | Exposure Compensation
| HDR | ☑️ | Exposure Compensation

##### ISO Speed (75)

| Mode | Available | Function
|------|----------|----------|
| Auto | ☑️ | ISO Speed
| C/M | ☑️/☐️ | ISO Speed
| M/Av/Tv/P | ☑️/☐️ | ISO Speed
| AUTO | ☑️/☐️ | ISO Speed
| HDR | ☑️/☐️ | ISO Speed

##### AF Operation (85)

| Mode | Available | Function
|------|----------|----------|
| C/M | ☑️ | AF Operation
| M/Av/Tv/P | ☑️ | AF Operation
| AUTO | ☑️ | AF Operation
| HDR | ☑️ | AF Operation
| SERVO | ☑️ | AF Operation

### Bracketing (76, 82)

- C/M/Av/Tv/P/AUTO
- HDR

### Drive Mode (42)

- C/M/Av/Tv/P/AUTO
- HDR

### Flash (87)

- C/M/Av/Tv/P/AUTO
- HDR
AE Lock/FE Lock in Standby (p.74, 89)

Flash Exposure Compensation (p.88)

Flash Output Level (p.95)

Av/Tv Settings (p.92, 93)

Aperture Value

Shutter Speed

Bulb Setting

Program Shift (p.74)

AE Lock (during recording)/Exposure Compensation (p.69)

AF Lock (when assigned to the movie button (p.87))

Focus Range (p.80, 81)

Manual Focus Switching When Recording Movies (p.69)

Move AF Frame (p.84)

Touch AF (p.86)

Center

Periphery

Appendix

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Index
Quick Set Menu

AF method (83)

- Tracking

1-point AF

Image quality
For details, see “Shooting Tab” (195).

Movie Quality (49, 49)

When Set to NTSC

Options vary depending on the assigned shooting mode.

*1 [SERVO] when subject movement is detected.
*2 Not available, but switches to [ ] in some cases.
*3 FE lock not available in [ ] flash mode.
*4 Only when [ ] is selected.
*5 Only available when faces are detected.
*6 Only available for shooting. Subject designation not available.

Face Select (86)

Touch Shutter (42)

Change Display (27)
<table>
<thead>
<tr>
<th>Shadow Correct (77)</th>
<th>Light Metering (74)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Options vary depending on the assigned shooting mode.

*1 Synchronizes with the aspect ratio setting and is automatically set (60).
*2 Cannot be set to 0 seconds in modes without selection of the number of shots.
*3 One shot (cannot be modified) in modes without selection of the number of shots.
*4 Automatically set, matching the aspect ratio specified in [Movie rec. size].
*5 White balance is not available.
*6 Set in a range of 1 – 5: contrast, sharpness, color saturation, red, green, blue, and skin tone.
## Shooting Tab

### [1] Tab

<table>
<thead>
<tr>
<th>Rec. Mode</th>
<th>Image quality</th>
<th>Still Image Aspect Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>C/M/Av/Tv/P/</td>
<td>JPEG</td>
<td>Grid 1/Grid 2</td>
</tr>
<tr>
<td>AUTO</td>
<td>RAW</td>
<td>Histogram</td>
</tr>
</tbody>
</table>

### Shooting information display

- Screen info/toggle settings
- Grid display
- Histogram

For details, see "Quick Set Menu" (p.192).
### Display Time
- **Off/Quick**
- 2 sec./4 sec./8 sec.

### Display Info
- **Off**
- **Detailed**

---

### Touch Shutter
**Touch Shutter**
- **Enable**
- **Disable**

---

### Face ID Settings
- **On/Off**

---

### Control Ring Settings
**Switch with 0**

---

### Quick setting menu layout
- **On/Off**

---

### Save Settings
- **On/Off**
AF Frame Size (384)*2
- Normal
- Small

Continuous AF (385)
- On
- Off

Focus Range (80, 81)
For details, see “Functions Available in Each Shooting Mode” (190).

AF-assist Beam (53)
- On
- Off

AF method (83)
For details, see “Quick Set Menu” (192).
### MF Point Zoom (81)

<table>
<thead>
<tr>
<th>Setting</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>MF Point Zoom</td>
<td>Off</td>
</tr>
<tr>
<td>2x/4x</td>
<td></td>
</tr>
</tbody>
</table>

### Safety MF (81)

<table>
<thead>
<tr>
<th>Setting</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety MF</td>
<td>On</td>
</tr>
</tbody>
</table>

### MF Peaking Settings (82)

<table>
<thead>
<tr>
<th>Setting</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peaking</td>
<td>On/Off</td>
</tr>
<tr>
<td>Level</td>
<td>Low/High</td>
</tr>
<tr>
<td>Color</td>
<td>Red/Yellow/Blue</td>
</tr>
</tbody>
</table>

### IS Settings (52)

<table>
<thead>
<tr>
<th>Setting</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>IS Mode</td>
<td>Off</td>
</tr>
<tr>
<td>Dynamic IS</td>
<td>Low</td>
</tr>
<tr>
<td>Auto level</td>
<td>Enable</td>
</tr>
</tbody>
</table>

### IS Mode Options

- Off
- Continuous
- Shoot Only

### Dynamic IS Options

- Low
- Standard
- High
**Bracketing (§76, §82)**
For details, see “Functions Available in Each Shooting Mode” (§190).

**Flash Exp. Comp**
For details, see “Functions Available in Each Shooting Mode” (§190).

**Flash Output**
For details, see “Functions Available in Each Shooting Mode” (§190).

**Shutter Sync.**
1st-curtain
2nd-curtain

**Red-Eye Lamp**
On/Off

**Safety FE**
On
Off

**Save Stills (§166)**
On/Off

---

### 5 Tab

**ISO speed (§76)**
Max ISO Speed

**Rate of Change**

**DR Correction (§77)**
For details, see “Quick Set Menu” (§192).

**Shadow Correct (§77)**
For details, see “Quick Set Menu” (§192).

**Light Metering (§74)**
For details, see “Quick Set Menu” (§192).

**ND Filter (§77)**
For details, see “Quick Set Menu” (§192).

**Flash Settings (§53, §88, §89, §95)**
Flash Mode
Auto
Manual

**Bracketing (§76, §82)**
For details, see “Functions Available in Each Shooting Mode” (§190).

**Flash Exp. Comp**
For details, see “Functions Available in Each Shooting Mode” (§190).

**Flash Output**
For details, see “Functions Available in Each Shooting Mode” (§190).

**Shutter Sync.**
1st-curtain
2nd-curtain

**Red-Eye Lamp**
On/Off

**Safety FE**
On
Off

**Save Stills (§166)**
On/Off
### Star Emphasis (64)
- Sharp/Off/Soft

### Star Time-Lapse Movie Setting (66)
#### Effect
- Effects
- C/M/Av/Tv/P

#### Shot Interval
- 15 sec./30 sec./1 min.

#### Frame Rate
- 59.94/59.94 (NTSC), 29.97/29.97 (PAL)

#### Shooting Time
- 60 min./90 min./120 min./Unlimited

### [6] Tab

**White Balance (78)**
- For details, see “Quick Set Menu” (192).

**WB Correction (78)**
- For details, see “Quick Set Menu” (192).

**My Colors (123)**
- For details, see “Quick Set Menu” (192).

**High ISO NR (76)**
- Low/Standard/High
- C/M/Av/Tv/P

**Hg Lamp Corr. (48)**
- On/Off

**Spot AE Point (74)**
- Center/AF Point
- C/M/Av/Tv/P

**Safety Shift (93)**
- On
- C/M/Av/Tv/P
- Off
- C/M/Av/Tv/P
**[Camera Basics]**

**Auto Mode / Hybrid Auto Mode**

- **Auto slow shutter**
  - Enable
  - Disable

*1 Options vary depending on the assigned shooting mode.
*2 Available when the AF frame is set to [1-point].
*3 [Enable] for functions other than Creative Zone and movies.

---

**[8] Tab**

**Movie Quality**

- For details, see “Quick Set Menu” on page 192.

**Wind Filter**

- Auto
- Off

**Attenuator**

- On/Off
## Set Up Tab

<table>
<thead>
<tr>
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<th>Item</th>
<th>Reference Page</th>
</tr>
</thead>
<tbody>
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## My Menu Tab

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## Playback Tab

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<th>Item</th>
<th>Reference Page</th>
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<td></td>
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</table>
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 pack and memory card, and wait until the moisture has evaporated before resuming use.
- Store unused battery packs in a plastic bag or other container. To maintain battery performance if you will not use the battery pack for some time, about once a year charge it and then use the camera until it runs out of power before storing the battery pack.

<table>
<thead>
<tr>
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<th>Item</th>
<th>Reference Page</th>
</tr>
</thead>
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<td>122</td>
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<td>Index Effect</td>
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<td>6</td>
<td>Set Touch Actions</td>
<td>119</td>
</tr>
</tbody>
</table>
Specifications

Camera

Image Sensor
Camera Effective Pixels
(Image processing may cause
a decrease in the number of pixels.) ...... Approx. 20.2 million pixels
Total Pixels........................... Approx. 20.9 million pixels
Image Size............................. 1.0 type

Lens
Focal Length
(35mm film equivalent) ............. 10.2 – 30.6 mm (28 – 84 mm)
Zoom Factor.......................... 3x

Digital Zoom
Maximum with Optical Zoom ...... Approx. 12x
Focal Length
(Telephoto end, 35mm film equivalent) .... Equivalent to approx. 336 mm
ZoomPlus (L size) .................. Approx. 6.0x

Screen (Monitor)
Type................................. Color TFT LCD
Screen Size.......................... 3.0-type
Effective Pixels .................. Approx. 1,040,000 dots

Continuous Shooting
Speed
(Varies depending on the subject,
zoom position, and other shooting
factors, as well as memory card
brands.).................................. One-Shot AF:
 Approx. 6.0 shots/sec.
 Servo AF: Approx. 4.3 shots/sec.

Built-in Flash
Metering Range (Wide angle end) ....... 50 cm – 6.0 m (1.6 – 20 ft.)
Metering Range (Telephoto end) ....... 50 cm – 2.4 m (1.6 – 7.9 ft.)

Shutter Speed
Other Modes Combined ............... 30 – 1/2000 sec., bulb supported

Aperture
f/number.............................. 2.0 – 11 (W)
................................. 4.9 – 11 (T)

AF Type ................................ 1-point, Face+Tracking
(AF points: up to 31)

File Format.............................. Design rule for Camera File system, DPOF (version 1.1) compliant

Data Type (Still Images)
Image File Format...................... Exif 2.3 (DCF 2.0)
Image Formats........................ JPEG, RAW (CR2, a Canon 14-bit RAW format)

Data Type (Movies)
Recording Format...................... MP4
Video.................................. MPEG-4 AVC/H.264
Audio................................. MPEG-4 AAC LC (stereo)

Power Source
Battery Pack ......................... NB-13L
Charging via USB ..................... Using Compact Power Adapter
CA-DC30/CA-DC30E

AC Adapter Kit ....................... ACK-DC110

Interface
Wired .................................. USB (Micro-B), HDMI (Type D)
Wireless.............................. Specifications: IEEE 802.11b/g/n
Frequency: 2.4 GHz
Channels: 1 – 11
Security: WEP, WPA-PSK (AES/TKIP), WPA2-PSK (AES/TKIP)
Operating Environment

Temperatures: 0 – 40 °C (32 – 104 °F)

Dimensions (WxHxD): 98.0 x 57.9 x 30.8 mm (3.86 x 2.28 x 1.21 in.)

Weight

Including Battery Pack, Memory Card: Approx. 209 g (7.37 oz.)
Camera Only: Approx. 185 g (6.53 oz.)

Number of Shots/Recording Time, Playback Time

<table>
<thead>
<tr>
<th>Number of Shots</th>
<th>Approx. 220</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Shots (Eco Mode On)</td>
<td>Approx. 335</td>
</tr>
<tr>
<td>Movie Recording Time (Actual Use)*1</td>
<td>Approx. 55 minutes</td>
</tr>
<tr>
<td>Movie Recording Time (Continuous Shooting)*2</td>
<td>Approx. 1 hour 30 minutes</td>
</tr>
<tr>
<td>Playback Time*3</td>
<td>Approx. 5 hours</td>
</tr>
</tbody>
</table>

*1 Total time when shooting repeatedly under the following conditions:
- In [AUTO] mode, with all other settings set to defaults
- With recording, stopping, zooming, and turning the camera on and off

*2 Total time when shooting repeatedly under the following conditions:
- In [AUTO] mode, with all other settings set to defaults
- Automatically stop/resume after the time or capacity per recording is reached

*3 Time when playing back a slideshow of still images.

Shooting Range

<table>
<thead>
<tr>
<th>Shooting Mode</th>
<th>Focus Range</th>
<th>Maximum Wide Angle</th>
<th>Maximum Telephoto</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO</td>
<td>–</td>
<td>5 cm (2.0 in.) – infinity</td>
<td>35 cm (1.1 ft.) – infinity</td>
</tr>
<tr>
<td>Other modes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 – 50 cm</td>
<td>35 cm (1.1 ft.) – infinity</td>
</tr>
<tr>
<td>MF*</td>
<td></td>
<td>5 cm (2.0 in.) – infinity</td>
<td>35 cm (1.1 ft.) – infinity</td>
</tr>
</tbody>
</table>

* Not available in some shooting modes.

Number of Shots per Memory Card

The number of shots at an aspect ratio (4:7) of 3:2 per memory card is as follows. Note that the number of shots available varies by aspect ratio.

Number of shots per 16 GB memory card (approx. shots)

<table>
<thead>
<tr>
<th></th>
<th>RAW</th>
<th>L</th>
<th>M1</th>
<th>M2</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>610</td>
<td>48592</td>
<td>14724</td>
<td>69418</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4810</td>
<td>8377</td>
<td>1786</td>
<td>2999</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2857</td>
<td></td>
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</tr>
</tbody>
</table>

* The values in the table are based on Canon measurement conditions and may change depending on the subject, memory card and camera settings.
### Battery Pack NB-13L

- **Type:** Rechargeable lithium-ion battery
- **Nominal Voltage:** 3.6 V DC
- **Nominal Capacity:** 1250 mAh
- **Charging Cycles:** Approx. 300 times
- **Operating Temperatures:** 0 – 40 °C (32 – 104 °F)

### Battery Charger CB-2LH/CB-2LHE

- **Rated Input:** 100 – 240 V AC (50/60 Hz)
  - 0.09 A (100 V) – 0.06 A (240 V)
- **Rated Output:** 4.2 V DC, 0.7 A
- **Charging Time:** Approx. 2 hr. 10 min. (when using NB-13L)
- **Operating Temperatures:** 5 – 40 °C (41 – 104 °F)

### Compact Power Adapter CA-DC30/CA-DC30E

- **Rated Input:** 100 – 240 V AC (50/60 Hz)
  - 0.07 A (100 V) – 0.045 A (240 V)
- **Rated Output:** 5.0 V DC, 0.55 A
- **Charging Time:** Approx. 5 hr.*
  - (when charged with NB-13L in the camera)
  - *Charging time varies greatly depending on the remaining battery level.
- **Operating Temperatures:** 5 – 40 °C (41 – 104 °F)

- **Size, weight, and number of shots available are based on measurement guidelines of the Camera & Imaging Products Association (CIPA).**
- **Under some shooting conditions, the number of shots and recording time may be less than mentioned above.**
- **Number of shots/time with a fully charged battery pack.**

---

### Recording Time per Memory Card

<table>
<thead>
<tr>
<th>Size</th>
<th>Frame Rate/Video System</th>
<th>Recording Time per 16 GB Memory Card (Approx.)</th>
<th>Recording Time for Individual Movies (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1080 (1920 x 1080)</td>
<td>30 fps (NTSC) 25 fps (PAL)</td>
<td>59 min. 30 sec.</td>
<td>10 min.</td>
</tr>
<tr>
<td>720 (1280 x 720)</td>
<td>30 fps (NTSC) 25 fps (PAL)</td>
<td>1 hr. 26 min. 05 sec.</td>
<td>29 min. 59 sec.</td>
</tr>
<tr>
<td>480 (640 x 480)</td>
<td>30 fps (NTSC) 25 fps (PAL)</td>
<td>4 hr. 05 min. 15 sec.</td>
<td>29 min. 59 sec.</td>
</tr>
</tbody>
</table>

- The values in the table are based on Canon measurement conditions and may change depending on the subject, memory card and camera settings.
- Recording times for individual movies are based on memory cards rated at an SD speed class of 10. Recording may stop when cards rated at lower speed classes are used. Recording will also stop automatically when the file size reaches 4 GB, or when the card becomes full.

---

Real 1080p (NTSC) Real 1080p (PAL)

Real 720p (NTSC) Real 720p (PAL)

Real 480p (NTSC) Real 480p (PAL)
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**Wi-Fi (Wireless LAN) Precautions**

- Countries and Regions Permitting WLAN Use
  - Use of WLAN is restricted in some countries and regions, and illegal use may be punishable under national or local regulations. To avoid violating WLAN regulations, visit the Canon website to check where use is allowed.
  Note that Canon cannot be held liable for any problems arising from use in other countries and regions.

- Doing any of the following may incur legal penalties:
  - Altering or modifying the product
  - Removing the certification labels from the product

- According to foreign exchange and foreign trade law regulations, export permission (or service transaction permission) from the Japanese government is necessary to export strategic resources or services (including this product) outside Japan.

- Because this product includes American encryption software, it falls under U.S. Export Administration Regulations, and cannot be exported to or brought into a country under U.S. trade embargo.

- Be sure to make notes of the wireless LAN settings you use. The wireless LAN settings saved to this product may change or be erased due to incorrect operation of the product, the effects of radio waves or static electricity, or accident or malfunction. Be sure to make notes of wireless LAN settings as a precaution. Please note that Canon accepts no responsibility for damages resulting from a degradation or disappearance of content.

- When transferring this product to another person, disposing of it, or sending it for repair, be sure to note the wireless LAN settings and reset the product to its default settings (erase settings) if necessary.

- Canon will not make compensation for damages resulting from loss or theft of the product.

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

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

### Radio Wave Interference Precautions

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

### Security Precautions

Because Wi-Fi uses radio waves to transmit signals, security precautions more stringent than when using a LAN cable are required. Keep the following points in mind when using Wi-Fi.

- Only use networks you are authorized to use.
  This product searches for Wi-Fi networks in the vicinity and displays the results on the screen. Networks you are not authorized to use (unknown networks) may also be displayed. However, attempting to connect to or using such networks could be regarded as unauthorized access. Be sure to use only networks you are authorized to use, and do not attempt to connect to other unknown networks.
If security settings have not been properly set, the following problems may occur.

- Transmission monitoring
  Third parties with malicious intent may monitor Wi-Fi transmissions and attempt to acquire the data you are sending.

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

To prevent these types of problems from occurring, be sure to thoroughly secure your Wi-Fi network. Only use this camera’s Wi-Fi function with a proper understanding of Wi-Fi security, and balance risk and convenience when adjusting security settings.

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

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