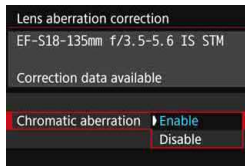
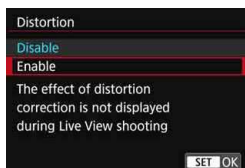


Chromatic Aberration Correction



- 1 **Select the setting.**
 - Check that [**Correction data available**] is displayed for the attached lens.
 - Select [**Chromatic aberration**], then press $\langle \text{SET} \rangle$.
 - Select [**Enable**], then press $\langle \text{SET} \rangle$.
- 2 **Take the picture.**
 - The image will be recorded with the chromatic aberration corrected.

Distortion Correction



- 1 **Select the setting.**
 - Check that [**Correction data available**] is displayed for the attached lens.
 - Select [**Distortion**], then press $\langle \text{SET} \rangle$.
 - Select [**Enable**], then press $\langle \text{SET} \rangle$.
- 2 **Take the picture.**
 - The image will be recorded with the distortion corrected.

MENU Correction of Lens Peripheral Illumination and Aberrations



- When distortion correction is enabled, the camera records an image range narrower than the one seen through the viewfinder. (Image periphery will be slightly cropped and resolution slightly lowered.)
- Distortion correction will be reflected in the captured image, but not in the viewfinder or Live View image during shooting.
- If you set **[Distortion]** to **[Enable]**, the continuous shooting speed will decrease.
- Distortion correction cannot be set in the <M> or <A> mode, when shooting a movie, or when Multi Shot Noise Reduction is set.
- Dust Delete Data (p.287) will not be appended to images recorded with distortion correction enabled.

Lens Correction Data

The camera already contains data for lens peripheral illumination correction, chromatic aberration correction, and distortion correction for approx. 30 lenses. If you select **[Enable]**, the peripheral illumination correction, chromatic aberration correction, and distortion correction will be applied automatically for any lens whose correction data is registered in the camera.

With EOS Utility (EOS software), you can check which lenses have their correction data registered in the camera. You can also register the correction data for unregistered lenses. For details, refer to the EOS Utility Instruction Manual (p.422).

For lenses incorporating the correction data, it is not necessary to register the correction data to the camera.



Cautions for Lens Correction

- Peripheral illumination correction, chromatic aberration correction, and distortion correction cannot be applied to JPEG images already taken.
- When using a non-Canon lens, setting the corrections to **[Disable]** is recommended, even if **[Correction data available]** is displayed.
- If you use the magnified view during Live View shooting, the peripheral illumination correction and chromatic aberration correction will not be reflected in the image displayed on the screen.
- The correction amount will be less if the lens used does not have distance information.



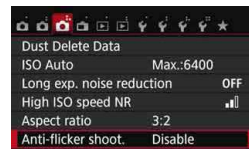
Notes for Lens Correction

- If the effect of the correction is not visible, magnify the image after shooting and check it again.
- Corrections can be applied even when an Extender or Life-size Converter is attached.

MENU Reducing Flicker ☆

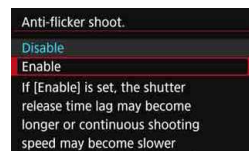
If you shoot an image with a fast shutter speed under a light source such as fluorescent light, the blinking of the light source causes flicker and the image may be vertically unevenly exposed. If continuous shooting is used under these conditions, uneven exposures or colors across the images may result.

With anti-flicker shooting, the camera detects the frequency of the light source's blinking and takes the picture when the flicker causes less effect on exposure or color.



1 Select [Anti-flicker shoot.].

- Under the [**3**] tab, select [Anti-flicker shoot.], then press <SET>.



2 Select [Enable].

- Select [Enable], then press <SET>.

3 Take the picture.

- The image will be taken with reduced unevenness of exposure or color caused by the flicker.

- When [Enable] is set and you shoot under a flickering light source, the shutter-release time lag may become slightly longer. Also, the continuous shooting speed may become slightly slower, and the shooting interval may become irregular.
- This function does not work with Live View shooting and movie shooting.
- In the <P> or <Av> mode, if the shutter speed changes during continuous shooting or if you shoot multiple shots of the same scene at different shutter speeds, the color tone may be inconsistent. To avoid inconsistent color tones, use the <Tv> or <M> mode at a fixed shutter speed.
- The color tone of images shot when [Anti-flicker shoot.] is set to [Enable] may look different from when [Disable] is set.
- Flicker at a frequency other than 100 Hz or 120 Hz cannot be detected.



- Under [**4: Custom Functions (C.Fn)**], if you set [**9: Mirror lockup**] to [**1: Enable**], the [**Anti-flicker shoot.**] setting will automatically switch to [**Disable**].
- If the subject is against a dark background or if there is a bright light in the image, flicker may not be detected.
- Under certain special types of lighting, the camera may not be able to reduce the effects of the flicker even when < **Flicker!** > is displayed.
- Depending on the light source, flicker may not be detected properly.
- If you recompose a shot, < **Flicker!** > may appear and disappear intermittently.
- Depending on the light sources or shooting conditions, expected result may not be obtained even if you use this function.



- Taking test shots is recommended.
- If < **Flicker!** > is not displayed in the viewfinder, under [**2: Viewfinder display**], set [**Flicker detection**] to [**Show**] (p.72). When the camera reduces the effects of the flicker when you shoot, < **Flicker!** > will light. Under a light source which does not flicker, or if no flicker is detected, < **Flicker!** > will not be displayed.
- If [**Flicker detection**] is set to [**Show**] and [**Anti-flicker shoot.**] is set to [**Disable**], metering under a flickering light source will cause < **Flicker!** > to blink in the viewfinder as a warning. Setting [**Enable**] before shooting is recommended.
- In Basic Zone modes, < **Flicker!** > will not be displayed, but the effects of flicker will be reduced when you shoot.
- Anti-flicker shooting also works with flash. However, the expected result may not be obtained during wireless flash shooting.

MENU Setting the Color Reproduction Range ☆

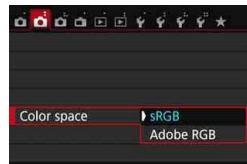
The range of reproducible colors is called the color space. With this camera, you can set the color space for captured images to sRGB or Adobe RGB. For normal shooting, sRGB is recommended. In Basic Zone modes, sRGB is set automatically.

1 Select [Color space].

- Under the [📷2] tab, select [Color space], then press <SET>.

2 Set the desired color space.

- Select [sRGB] or [Adobe RGB], then press <SET>.



Adobe RGB

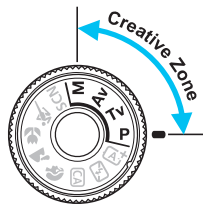
This color space is mainly used for commercial printing and other industrial uses. This setting is not recommended if you are not familiar with image processing, Adobe RGB, and Design rule for Camera File System 2.0 (Exif 2.21 or higher). The image will look very subdued in a sRGB computer environment and with printers not compatible with Design rule for Camera File System 2.0 (Exif 2.21 or higher). Post-processing of the image with computer software will therefore be required.



- If the captured still photo was shot in the Adobe RGB color space, the first character in the file name will be an underscore "_".
- The ICC profile is not appended. Refer to explanations about the ICC profile in the Digital Photo Professional Instruction Manual (p.422).

5

Advanced Operations



In Creative Zone modes, you can change various settings of the camera as you desire to obtain a wide variety of shooting results, by selecting the shutter speed and/or aperture, adjusting the exposure as you prefer, etc.

- The ☆ icon at the upper right of the page title indicates that the function is available only in Creative Zone modes.
- After you press the shutter button halfway and let go, the exposure values will remain displayed in the viewfinder and on the LCD panel for 4 sec. (4) by the operation of metering timer.
- For the functions settable in each shooting mode, see page 372.



Set the <LOCK> switch to the left.

P: Program AE

The camera automatically sets the shutter speed and aperture to suit the subject's brightness. This is called Program AE.

* <P> stands for Program.

* AE stands for Auto Exposure.



1 Set the Mode Dial to <P>.



2 Focus on the subject.

- Look through the viewfinder and aim the AF point over the subject. Then press the shutter button halfway.
- ▶ When focus is achieved, the focus indicator <●> on the viewfinder's bottom right will light up (when in One-Shot AF mode).
- ▶ The shutter speed and aperture will be set automatically and displayed in the viewfinder and on the LCD panel.



3 Check the display.

- A standard exposure will be obtained as long as the shutter speed and aperture display do not blink.

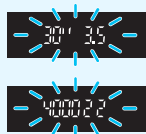


4 Take the picture.

- Compose the shot and press the shutter button completely.

Shooting Tips

- Change the ISO speed. Use the built-in flash.**
 To match the subject and ambient lighting level, you can change the ISO speed (p.132) or use the built-in flash (p.176). In the <P> mode, the built-in flash will not fire automatically. Therefore, press the <⚡> (flash) button to raise the built-in flash when indoors or shooting in low light.
- Change the program using Program shift.**
 After pressing the shutter button halfway, turn the <☀> dial to change the shutter speed and aperture setting combination (program). Program shift is canceled automatically after the picture is taken. Program shift is not possible with flash.



- If the "30'" shutter speed and the lowest f/number blink, it indicates underexposure. Increase the ISO speed or use flash.
- If the "4000" shutter speed and the highest f/number blink, it indicates overexposure. Decrease the ISO speed.



Differences Between <P> and <A+> (Scene Intelligent Auto)

In the <A+> mode, many functions, such as the AF operation and metering mode, are set automatically to prevent spoiled shots. The functions you can set are limited. With <P> mode, only the shutter speed and aperture are set automatically. You can freely set the AF operation, metering mode, and other functions (p.370).

Tv : Conveying the Subject's Movement

You can either freeze the action or create motion blur with the <Tv> (Shutter-priority AE) mode on the Mode Dial.

* <Tv> stands for Time value.



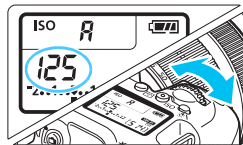
Blurred motion
(Slow shutter speed: 1/30 sec.)



Frozen action
(Fast shutter speed: 1/2000 sec.)



1 Set the Mode Dial to <Tv>.



2 Set the desired shutter speed.

- While looking at the LCD panel or in the viewfinder, turn the <1/25> dial.
- See "Shooting Tips" on the next page for advice on setting the shutter speed.
- Turning the <1/25> dial to the right sets a faster shutter speed, and turning it to the left sets a slower one.



3 Take the picture.

- When you focus and press the shutter button completely, the picture will be taken at the selected shutter speed.



Shutter Speed Display

The LCD monitor displays the shutter speed as a fraction. However, the LCD panel and the viewfinder display only the denominator. "0"5" indicates 0.5 sec. and "15"" is 15 sec.

Shooting Tips

- **To freeze the motion of a fast-moving subject**
Use a fast shutter speed such as 1/4000 sec. to 1/500 sec.
- **To blur a running child or animal and convey an impression of motion**
Use a medium shutter speed such as 1/250 sec. to 1/30 sec. Follow the moving subject through the viewfinder and press the shutter button to take the picture. If you use a telephoto lens, hold it steady to prevent camera shake.
- **To blur a flowing river or fountain**
Use a slow shutter speed of 1/30 sec. or slower. Use a tripod to prevent hand-held camera shake.
- **Set the shutter speed so that the aperture display does not blink.**

If you press the shutter button halfway and change the shutter speed while the aperture is displayed, the aperture display will also change to maintain the same exposure (amount of light reaching the image sensor). If you exceed the adjustable aperture range, the aperture display will blink to indicate that the standard exposure cannot be obtained.

If the exposure will be too dark, the maximum aperture (lowest f/ number) will blink. If this happens, turn the  dial to the left to set a slower shutter speed or increase the ISO speed.

If the exposure will be too bright, the minimum aperture (highest f/ number) will blink. If this happens, turn the  dial to the right to set a faster shutter speed or decrease the ISO speed.



Using the Built-in Flash

To obtain a correct flash exposure, the flash output will be set automatically (autoflash exposure) to match the automatically-set aperture. The shutter speed can be set from 1/200 sec. to 30 sec.

Av: Changing the Depth of Field

To blur the background or to make everything near and far look sharp, set the Mode Dial to <Av> (Aperture-priority AE) to adjust the depth of field (range of acceptable focus).

* <Av> stands for Aperture value, which is the size of the diaphragm hole inside the lens.



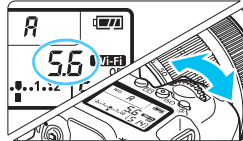
Blurred background
(With a low aperture f/number: f/5.6)



Sharp foreground and background
(With a high aperture f/number: f/32)



1 Set the Mode Dial to <Av>.



2 Set the desired aperture.

- While looking at the LCD panel or viewfinder, turn the <aperture> dial.
- The higher the f/number, the wider the depth of field where sharper focus is obtained in both the foreground and background.
- Turning the <aperture> dial to the right will set a higher f/number (smaller aperture opening), and turning it to the left will set a lower f/number (larger aperture opening).



3 Take the picture.

- Focus and press the shutter button completely. The picture will be taken with the selected aperture.



Aperture Display

The higher the f/number, the smaller the aperture opening will be. The f/number displayed will differ depending on the lens. If no lens is attached to the camera, "00" will be displayed for the aperture.

Shooting Tips

- **When using an aperture with a high f/number or shooting in low light scenes, note that camera shake can occur.**

A higher aperture f/number will make the shutter speed slower. Under low light, the shutter speed can be as long as 30 sec. In such cases, increase the ISO speed and hold the camera steady or use a tripod.

- **The depth of field depends not only on the aperture, but also on the lens and on the subject distance.**

Since wide-angle lenses have a wide depth of field (range of acceptable focus in front of and behind the point of focus), you need not set a high aperture f/number to obtain a sharp picture from the foreground to the background. On the other hand, a telephoto lens has a narrow depth of field.

And the closer the subject, the narrower the depth of field. A farther subject will have a wider depth of field.

- **Set the aperture so that the shutter speed display does not blink.**

If you press the shutter button halfway and change the aperture while the shutter speed is displayed, the shutter speed display will also change to maintain the same exposure (amount of light reaching the image sensor). If you exceed the adjustable shutter speed range, the shutter speed display will blink to indicate that the standard exposure cannot be obtained.



If the picture will be too dark, the "30" (30 sec.) shutter speed display will blink. If this happens, turn the  dial to the left to set a lower f/number or increase the ISO speed.

If the picture will be too bright, the "4000" (1/4000 sec.) shutter speed display will blink. If this happens, turn the  dial to the right to set a higher f/number or decrease the ISO speed.

Av : Changing the Depth of Field

⚡ Using the Built-in Flash

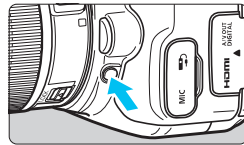
To obtain a correct flash exposure, the flash output will be set automatically to match the set aperture (autoflash exposure). The shutter speed will be set automatically between 1/200 sec. - 30 sec. to suit the scene's brightness.

In low light, the main subject is exposed with the auto flash metering, and the background is exposed with a slow shutter speed set automatically. Both the subject and background look properly exposed with a touch of atmosphere (automatic slow-speed flash sync). If you are handholding the camera, keep it steady to prevent camera shake. Using a tripod is recommended.

To prevent a slow shutter speed, under [**1: Flash control**], set [**Flash sync. speed in Av mode**] to [1/200-1/60sec. auto] or [1/200 sec. (fixed)] (p.184).

Depth-of-Field Preview[☆]

The aperture opening (diaphragm) changes only at the moment when the picture is taken. Otherwise, the aperture remains fully open. Therefore, when you look at the scene through the viewfinder or on the LCD monitor, the depth of field will look narrow.



Press the depth-of-field preview button to stop down the lens to the current aperture setting, and check the depth of field (range of acceptable focus).

 While looking at the Live View image (p.202) and holding down the depth-of-field preview button, you can see how the range of acceptable focus will change as you adjust the aperture.

M: Manual Exposure

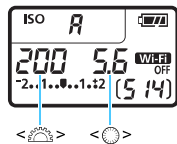
You can set both the shutter speed and aperture manually as desired. While referring to the exposure level indicator in the viewfinder, you can set the exposure as desired. This method is called manual exposure.

* <M> stands for Manual.



1 Set the Mode Dial to <M>.

2 Set the ISO speed (p.132).



3 Set the shutter speed and aperture.

- To set the shutter speed, turn the <S> dial.
- To set the aperture, turn the <A> dial.
- If it cannot be set, set the <LOCK> switch to the left, then turn the <S> or <A> dial.

Standard exposure index



Exposure level mark

4 Focus on the subject.

- Press the shutter button halfway.
- ▶ The exposure setting will be displayed in the viewfinder and on the LCD panel.
- The exposure level mark <L> indicates how far the current exposure level is from the standard exposure level.

5 Set the exposure and take the picture.

- Check the exposure level indicator and set the desired shutter speed and aperture.
- If the exposure level exceeds ± 2 stops from the standard exposure, the end of the exposure level indicator will display <L> or <R> in the viewfinder and on the LCD panel. (On the LCD monitor, if the exposure level exceeds ± 3 stops, <L> or <R> will be displayed.)



If ISO Auto is set, the ISO speed setting will change to suit the shutter speed and aperture in order to obtain a standard exposure. Therefore, you may not obtain the desired exposure effect.

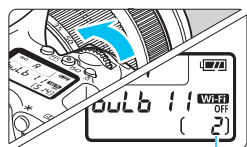
M: Manual Exposure

- Under [📷2: Auto Lighting Optimizer], if the checkmark <✓> for [Disable during man expo] is removed, the Auto Lighting Optimizer can be set even in the <M> mode (p.146).
- When ISO Auto is set, you can press the <✳> button to lock the ISO speed.
- If you press the <✳> button and recompose the shot, you can see the exposure level difference on the exposure level indicator compared to when the <✳> button was pressed.

⚡ Using the Built-in Flash

To obtain a correct flash exposure, the flash output will be set automatically (autoflash exposure) to match the manually-set aperture. The shutter speed can be set from 1/200 sec. to 30 sec or bulb.

BULB: Bulb Exposures



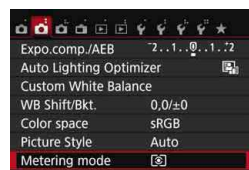
Elapsed exposure time

A bulb exposure keeps the shutter open for as long as you hold down the shutter button. It can be used to shoot fireworks and other subjects requiring long exposures. In step 3 on the preceding page, turn the <☀> dial to the left to set <BULB>. The elapsed exposure time will be displayed on the LCD panel.

- Do not point the camera toward an intense light source, such as the sun or an intense artificial light source. Doing so may damage the image sensor or the camera's internal components.
 - Since bulb exposures produce more noise than usual, the image may look slightly grainy.
 - You can reduce the noise due to long exposures by setting [📷3: Long exp. noise reduction] to [Auto] or [Enable] (p.148).
- For bulb exposures, using a tripod and a remote switch (sold separately, p.367) is recommended.
 - You can also use a remote controller (sold separately, p.366) for bulb shooting. When you press the remote controller's transmit button, the bulb exposure will start immediately or 2 sec. later. Press the button again to stop the bulb exposure.

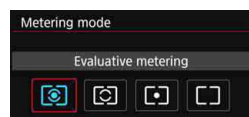
Changing the Metering Mode ☆

Four methods (metering modes) to measure the subject's brightness are provided. Normally, evaluative metering is recommended. In Basic Zone modes, metering mode is set automatically.



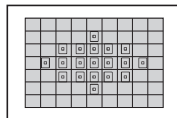
1 Select [Metering mode].

- Under the [CAMERA] tab, select [Metering mode], then press <SET>.



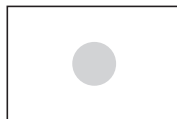
2 Set the metering mode.

- Select the desired metering mode, then press <SET>.



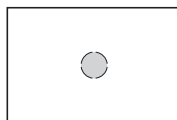
Evaluative metering

General-purpose metering mode suited even for backlit subjects. The camera sets the exposure automatically to suit the scene.



Partial metering

Effective where there are much brighter lights around the subject due to backlight, etc. The gray area in the left figure is where the brightness is metered to obtain the standard exposure.



Spot metering

Effective when metering a specific part of the subject or scene. The gray area in the left figure is where the brightness is metered to obtain the standard exposure. This metering mode is for advanced users.

Changing the Metering Mode *



Center-weighted average metering

The brightness is metered at the image center and then averaged for the entire scene. This metering mode is for advanced users.

 With  (Evaluative metering), the exposure setting will be locked when you press the shutter button halfway and focus is achieved. In the  (Partial metering),  (Spot metering), and  (Center-weighted average metering) modes, the exposure is set at the moment the picture is taken. (Pressing the shutter button halfway does not lock the exposure.)

Setting Exposure Compensation ☆

Set exposure compensation if the exposure (without flash) does not come out as desired. This feature can be used in Creative Zone modes (except <M>). You can set the exposure compensation up to ± 5 stops in 1/3-stop increments.

1 Check the exposure level indicator.

- Press the shutter button halfway (○4) and check the exposure level indicator.

Increased exposure
for a brighter image



Decreased exposure
for a darker image



2 Set the compensation amount.

- While looking in the viewfinder or at the LCD panel, turn the <○> dial.
- If it cannot be set, set the <LOCK> switch to the left, then turn the <○> dial.

3 Take the picture.

- To cancel the exposure compensation, set the exposure compensation amount back to <0>.

If [A2: Auto Lighting Optimizer] (p.146) is set to any setting other than [Disable], the image may still look bright even if a decreased exposure compensation for a darker image is set.

- The exposure compensation amount will remain in effect even after you set the power switch to <OFF>.
- After setting the exposure compensation amount, you can prevent the exposure compensation amount from changing accidentally by setting the <LOCK> switch to the right.
- The exposure compensation amount displayed in the viewfinder and on the LCD panel goes up to only ± 2 stops. If the exposure compensation amount exceeds ± 2 stops, the end of the exposure level indicator will display <◀> or <▶>.
- If you want to set exposure compensation exceeding ± 2 stops, setting it with [A2: Expo.comp./AEB] (p.170) or with the Quick Control screen (p.57) is recommended.

MENU Auto Exposure Bracketing ☆

This feature takes exposure compensation a step further by varying the exposure automatically (up to ± 2 stops in 1/3-stop increments) with three shots as shown below. You can then choose the best exposure. This is called AEB (Auto Exposure Bracketing).



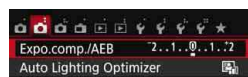
Standard exposure



Darker exposure
(Decreased exposure)

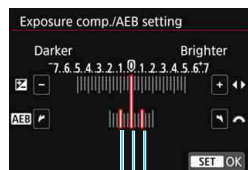


Brighter exposure
(Increased exposure)



1 Select [Expo.comp./AEB].

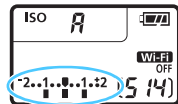
- Under the [CAMERA] tab, select [Expo.comp./AEB], then press <SET>.



2 Set the AEB range.

- Turn the <WHEEL> dial to set the AEB range.
- Press the <◀> <▶> keys to set the exposure compensation amount. If AEB is combined with exposure compensation, AEB will be applied centering on level of exposure compensation.
- Press <SET> to set it.
- When you press the <MENU> button to exit the menu, the AEB range will be displayed on the LCD panel.

AEB range



3 Take the picture.

- Focus and press the shutter button completely. The three bracketed shots will be taken in this sequence: standard exposure, decreased exposure, and increased exposure.

Canceling AEB

- Follow steps 1 and 2 to turn off the AEB range display (set to 0).
- The AEB setting will also be canceled automatically if the power switch is set to <OFF>, flash recycling is completed, etc.

Shooting Tips

- **Using AEB with continuous shooting**
If the drive mode is set to <□□> or <□□S> (p.122) and you press the shutter button completely, the three bracketed shots will be taken continuously in this sequence: standard exposure, decreased exposure, and increased exposure. The shooting will then stop automatically.
- **Using AEB with single shooting (□/□S)**
Press the shutter button three times to take the three bracketed shots. The three bracketed shots will be taken in the following sequence: standard exposure, decreased exposure, and increased exposure.
- **Using AEB with the self-timer or a remote controller (sold separately)**
With the self-timer or a remote control shooting (<□□> or <□□S>), you can take three continuous shots after a 10-sec. or 2-sec. delay. With <□□C> (p.124) set, the number of continuous shots will be three times the number set.

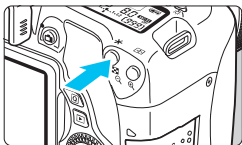
- During AEB, <✳> in the viewfinder and AEB range will blink.
- AEB cannot be used with flash, [Multi Shot Noise Reduction], Creative filters, or bulb exposures.
- If [2: Auto Lighting Optimizer] (p.146) is set to any setting other than [Disable], the effect of AEB may be reduced.

✳ Locking the Exposure ☆

You can lock the exposure when the area of focus is to be different from the exposure metering area or when you want to take multiple shots at the same exposure setting. Press the <✳> button to lock the exposure, then recompose and take the picture. This is called AE lock. It is effective for backlit subjects, etc.

1 Focus on the subject.

- Press the shutter button halfway.
- ▶ The exposure setting will be displayed.



2 Press the <✳> button. (ⓘ4)

- ▶ The <✳> icon lights up in the viewfinder to indicate that the exposure setting is locked (AE lock).
- Each time you press the <✳> button, the current autoexposure setting is locked.



3 Recompose and take the picture.

- If you want to maintain the AE lock while taking more shots, hold down the <✳> button and press the shutter button to take another shot.

AE Lock Effects

Metering Mode (p.167)	AF Point Selection Method (p.116)	
	Automatic Selection	Manual Selection
*	AE lock is applied at the AF point that achieved focus.	AE lock is applied at the selected AF point.
	AE lock is applied to the center AF point.	

* When the lens's focus mode switch is set to <MF>, AE lock is applied to the center AF point.

AE lock is not possible with bulb exposures.

Mirror Lockup to Reduce Camera Shake [☆]

Camera vibrations caused by the mirror's reflex action is called "mirror shock". Mirror lockup can reduce the blur caused by camera vibrations. This is useful especially when you are using a super telephoto lens or shooting closeups (macro photography).

Mirror lockup is enabled by setting [9: Mirror lockup] to [1: Enable] in [4: Custom Functions (C.Fn)] (p.356).

1 Focus on the subject, then press the shutter button completely.

- ▶ The mirror will swing up.

2 Press the shutter button completely again.

- ▶ The picture is taken and the mirror goes back down.
- After taking the picture, set [9: Mirror lockup] to [0: Disable].



Shooting Tips

- **Using the self-timer <10>, <2> with mirror lockup**

When you press the shutter button completely, the mirror locks up. The picture will be then taken 10 sec. or 2 sec. later.

- **Remote control shooting**

Since you do not touch the camera when the picture is taken, remote control shooting together with mirror lockup can further reduce camera shake (p.366). With Remote Controller RC-6 (sold separately) set to a 2-sec. delay, press the transmit button to lock up the mirror, and the picture will be taken 2 sec. after the mirror lockup.

Mirror Lockup to Reduce Camera Shake *



- Do not point the camera toward an intense light source, such as the sun or an intense artificial light source. Doing so may damage the image sensor or the camera's internal components.
- In very bright light, such as at the beach or a ski slope on a sunny day, take the picture promptly after mirror lockup is stabilized.
- If you use the self-timer and bulb exposure in combination with a mirror lockup, keep pressing the shutter button completely (self-timer delay time + bulb exposure time). If you let go of the shutter button during the self-timer countdown, there will be a shutter-release sound, but no picture will be taken.
- During mirror lockup, shooting function settings and menu operations, etc. are disabled.
- If you use flash, the red-eye reduction lamp will not light up (p.177).



- Even if you set the drive mode to , , or , the camera will still shoot in single shooting mode.
- When [**3: High ISO speed NR**] is set to [**Multi Shot Noise Reduction**], four continuous shots will be taken for the single picture regardless of the [**9: Mirror lockup**] setting.
- If 30 sec. elapse after the mirror is locked up, it will go back down automatically. Pressing the shutter button completely again locks up the mirror again.

6

Flash Photography

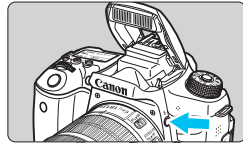
This chapter explains how to shoot with built-in flash and external Speedlites (EX-series, sold separately), how to set flash settings with the camera's menu screen, and how to use the built-in flash for wireless flash shooting.



- Flash cannot be used with movie shooting. It will not fire.
- AEB cannot be used with flash.

⚡ Using the Built-in Flash

In indoor, low light, or backlit conditions in daylight, just raise the built-in flash and press the shutter button to take flash pictures. In the **<P>** mode, the shutter speed (1/60 sec. - 1/200 sec.) will be set automatically to prevent camera shake.



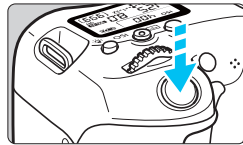
1 Press the **<⚡>** button.

- In Creative Zone modes, you can press the **<⚡>** button anytime to take flash pictures.
- While the flash is recycling, "buSY" is displayed in the viewfinder and on the LCD panel.



2 Press the shutter button halfway.

- In the bottom left of the viewfinder, check that the **<⚡>** icon is lit.



3 Take the picture.

- When focus is achieved and you press the shutter button completely, the flash will fire for the picture.

Effective Range of Built-in Flash

(Approx. in meters/feet)

ISO Speed (p.132)	EF-S18-135mm f/3.5-5.6 IS STM, EF-S18-55mm f/3.5-5.6 IS STM, EF-S55-250mm f/4-5.6 IS STM, EF-S18-200mm f/3.5-5.6 IS		
	Wide Angle		Telephoto
	f/3.5	f/4	f/5.6
ISO 100	1 - 3.4 / 3.3 - 11.2	1 - 3 / 3.3 - 9.8	1 - 2.1 / 3.3 - 6.9
ISO 400	1 - 6.9 / 3.3 - 22.6	1 - 6 / 3.3 - 19.7	1 - 4.3 / 3.3 - 14.1
ISO 1600	1.7 - 13.7 / 5.6 - 44.9	1.5 - 12 / 4.9 - 39.4	1.1 - 8.6 / 3.6 - 28.2
ISO 6400	3.4 - 27.4 / 11.2 - 89.9	3 - 24 / 9.8 - 78.7	2.1 - 17.1 / 6.9 - 56.1

* When a high ISO speed is set and focusing distance is long, appropriate exposure may not be obtained depending on the subject conditions, etc.

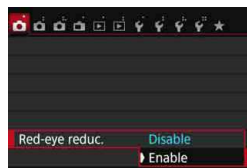
💡 Shooting Tips

- **In bright light, decrease the ISO speed.**
If the exposure setting in the viewfinder blinks, decrease the ISO speed.
- **Detach the lens hood. Do not get too close to the subject.**
If the lens has a hood attached or you are too close to the subject, the bottom of the picture may look dark due to the obstructed flash. For important shots, check the image on the LCD monitor to make sure the flash exposure looks natural (not dark at the bottom).

MENU Red-eye Reduction

Using the red-eye reduction lamp before taking a flash picture can reduce red eye.

Red-eye reduction will function in any shooting mode except <[M]>, <[A]>, <[S]>, <[P]>, or <[B]>.



- Under the [1] tab, select [Red-eye reduc.], then press <[SET]>.
- Select [Enable], then press <[SET]>.
- For flash photography, when you press the shutter button halfway, the red-eye reduction lamp will light up. Then when you press the shutter button completely, the picture will be taken.

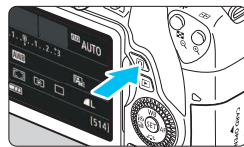


- The red-eye reduction feature is more effective when the subject looks at the red-eye reduction lamp, when the room is well lit, or when you are close to the subject.
- When you press the shutter button halfway, the scale display on the bottom of the viewfinder will shrink and turn off. For best results, take the picture after this scale display turns off.
- The effectiveness of red-eye reduction varies depending on the individual subject.



Flash Exposure Compensation ☆

Set flash exposure compensation if the flash exposure of the subject does not come out as desired. You can set the exposure compensation up to ± 2 stops in 1/3-stop increments.



- 1 Press the **<Q>** button (10).
 - ▶ The Quick Control screen will appear (p.57).



- 2 Select **[Flash Exposure Comp.]**.
 - Press the **<▲>**, **<▼>** or **<◀>**, **<▶>** keys to select **[Flash Exposure Comp.]**.
 - ▶ **[Flash exposure comp.]** will be displayed at the bottom.



- 3 Set the exposure compensation amount.
 - If the exposure is too dark, turn the **<◀>** dial to the right (for increased exposure).
 - If the exposure is too bright, turn the **<▶>** dial to the left (for decreased exposure).

- ▶ When you press the shutter button halfway, the **<Flash Exposure Comp.>** icon will appear in the viewfinder.

- **After taking the picture, cancel the flash exposure compensation by setting it back to 0.**

- If **[Auto Lighting Optimizer]** (p.146) is set to any setting other than **[Disable]**, the image may still look bright even if a decreased flash exposure compensation is set.
- If flash exposure compensation is set with an external Speedlite (sold separately, p.181), you cannot set the flash exposure compensation with the camera (Quick Control or External flash function settings). If it is set with both the camera and Speedlite, the Speedlite's setting overrides the camera's.

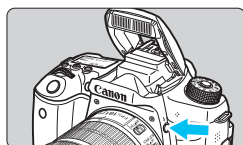


- The exposure compensation amount will remain in effect even after you set the power switch to <OFF>.
- You can also set flash exposure compensation with [Built-in flash settings] in [📷 1: Flash control] (p.186).

✳ Locking the Flash Exposure (FE lock) [☆]

If the subject is on the side of the frame and you use flash, the subject may turn out to be too bright or dark depending on the background, etc. Use FE lock in such a case. After setting the proper flash exposure for the subject, you can recompose (put the subject toward the side) and shoot. This feature can also be used with a Canon EX-series Speedlite.

* FE stands for Flash Exposure.

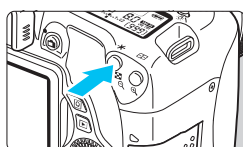


1 Press the <⚡> button.

- ▶ The built-in flash will be raised.
- Press the shutter button halfway and look in the viewfinder to check that the <⚡> icon is lit.



2 Focus on the subject.



3 Press the <✳> button. (📷16)



- Aim the viewfinder center over the subject where you want to lock the flash exposure, then press the <✳> button.
- ▶ The flash will fire a preflash and the required flash output is calculated and retained in memory.
- ▶ In the viewfinder, "FEL" is displayed for a moment and <⚡✳> will light up.

- Each time you press the <✳> button, a preflash is fired and the required flash output is calculated and retained in memory.

⚡ Using the Built-in Flash



4 Take the picture.

- Compose the shot and press the shutter button completely.
- ▶ The flash is fired, and the picture is taken.



- If the subject is too far away and beyond the effective range of the flash, the <⚡> icon will blink. Move closer to the subject and repeat steps 2 to 4.
- FE lock is not possible during Live View shooting.

⚡ Using an External Speedlite

EOS-dedicated, EX-series Speedlites

Basically operates like a built-in flash for easy operation.

When an EX-series Speedlite (sold separately) is attached to the camera, almost all the autoflash control is done by the camera. In other words, it is like a high-output flash attached externally in place of the built-in flash.

For detailed instructions, refer to the EX-series Speedlite's instruction manual. This camera is a Type-A camera that can use all the features of EX-series Speedlites.



- With an EX-series Speedlite not compatible with flash function settings (p.183), only **[Flash exp. comp]** and **[E-TTL II meter.]** can be set for **[External flash func. setting]**. (**[Shutter sync.]** can also be set with certain EX-series Speedlites.)
- If flash exposure compensation is set with the external Speedlite, the flash exposure compensation icon displayed on the camera's LCD monitor will change from to .

Canon Speedlites Other Than the EX-series

- **With an EZ/E/EG/ML/TL-series Speedlite set in TTL or A-TTL autoflash mode, the flash can be fired at full output only.**
Set the camera's shooting mode to <M> (manual exposure) or <Av> (aperture-priority AE) and adjust the aperture setting before shooting.
- When using a Speedlite that has manual flash mode, shoot in the manual flash mode.

Using Non-Canon Flash Units

Sync Speed

The camera can synchronize with compact, non-Canon flash units at 1/200 sec. or slower shutter speeds. Use a sync speed slower than 1/200 sec.

Be sure to test the flash unit beforehand to make sure it synchronizes properly with the camera.

Cautions for Live View Shooting

A non-Canon flash will not fire during Live View shooting.

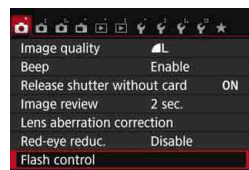


- If the camera is used with a flash unit or flash accessory dedicated to another camera brand, the camera may not operate properly and malfunction may result.
- Do not attach a high-voltage flash unit on the camera's hot shoe. It may not fire.

MENU Setting the Flash ☆

With the built-in flash or an EX-series, external Speedlite compatible with flash function settings, you can use the camera's menu to set flash functions and the external Speedlite's Custom Functions.

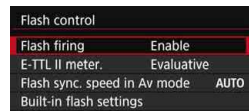
If you use an external Speedlite, attach the Speedlite to the camera and turn on the Speedlite before setting the flash functions. For details on the external Speedlite's flash functions, refer to the Speedlite's instruction manual.



Select [Flash control].

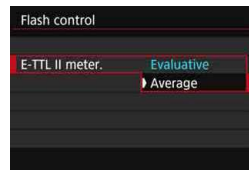
- Under the [CAMERA] tab, select [Flash control], then press <SET>.
- The Flash control screen will appear.

[Flash firing]



- Normally, set this to [Enable].
- If [Disable] is set, neither the built-in flash nor the external Speedlite will fire. This is useful when you want to use only the flash's AF-assist beam.

[E-TTL II meter.]

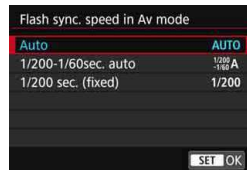


- For normal flash exposures, set this to [Evaluative].
- [Average] is for advanced users. As with an external Speedlite, the metering area is averaged. Flash exposure compensation may be necessary.

Even if [Flash firing] is set to [Disable], if focus is difficult to achieve in low light, the flash may still fire a series of flashes (AF-assist beam, p.113).

MENU Setting the Flash *

[Flash sync. speed in Av mode]

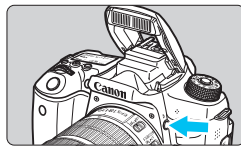


You can set the flash-sync speed for flash photography in the aperture-priority AE (**Av**) mode.

- **AUTO: Auto**
The flash sync speed is set automatically within a range of 1/200 sec. to 30 sec. to suit the scene's brightness. High-speed sync is also possible.
- ^{1/200}_{-1/60} **A: 1/200-1/60 sec. auto**
Prevents a slow shutter speed from being set in low-light conditions. It is effective for preventing subject blur and camera shake. However, while the subject will be properly exposed with the flash, the background may come out dark.
- **1/200: 1/200 sec. (fixed)**
The flash-sync speed is fixed at 1/200 sec. This more effectively prevents subject blur and camera shake than with **[1/200-1/60sec. auto]**. However, in low light, the subject's background will come out darker than with **[1/200-1/60sec. auto]**.

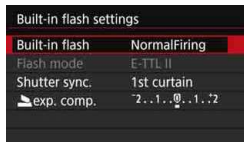
! If **[1/200-1/60sec. auto]** or **[1/200 sec. (fixed)]** is set, high-speed sync is not possible in the **<Av>** mode with the external Speedlite.

Displaying the Flash Function Setting Screen Directly



When you use the built-in flash or an external, EX-series Speedlite compatible with flash function settings, you can press the <⚡> button to directly display the [Built-in flash settings] or [External flash func. setting] screen without first displaying the menu screen.

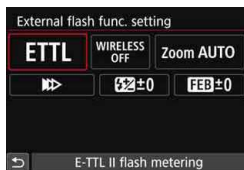
• With built-in flash



Press the <⚡> button twice.

- The built-in flash will be raised.
- Press the button again to display the [Built-in flash settings] screen.

• With external Speedlite



Press the <⚡> button.

- With the external Speedlite turned on, press the <⚡> button to display the [External flash func. setting] screen.

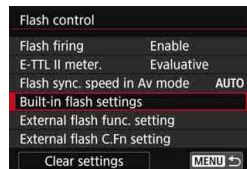


- When you press the <⚡> button to display the flash function setting screen, you cannot set [Flash firing], [E-TTL II meter.], [Flash sync. speed in Av mode], or [External flash C.Fn setting]. Set these functions with [Ⓜ1: Flash control] instead.
- If [Flash firing] is set to [Disable] and you press the <⚡> button, the [Ⓜ1: Flash control] screen will appear.

MENU Setting the Flash *

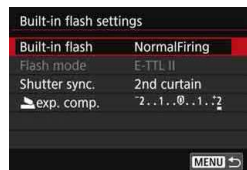
[Built-in flash settings] and [External flash func. setting]

You can set the functions in the table below. The functions displayed under [External flash func. setting] vary depending on the Speedlite model.

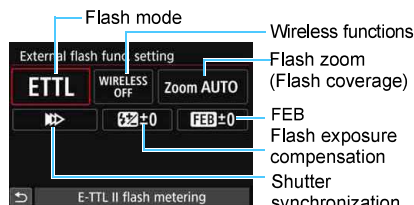


- Select [Built-in flash settings] or [External flash func. setting].
- ▶ The flash function setting screen will be displayed. With [Built-in flash settings], only the highlighted functions can be selected and set.

Sample screen



[Built-in flash settings]



[External flash func. setting]

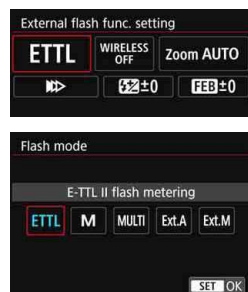
Main Functions for [Built-in flash settings] and [External flash func. settings]

Function	[Built-in flash settings]			[External flash func. setting]	Page
	Normal Firing	Easy Wireless (p.192)	Custom Wireless (p.195)		
Flash mode			○	○	187
Shutter synchronization	○			○	187
FEB*				○	
Wireless functions			○	○	187
Flash exposure compensation	○	○	○	○	178
Flash ratio control			○		
Master flash firing				○	
Flash zoom*				○	

* For [FEB] (Flash exposure bracketing) and [Flash zoom], refer to the instruction manual of a Speedlite compatible with the functions.

Flash mode

When using an external Speedlite, you can select the flash mode to suit your desired flash shooting.



- **[E-TTL II]** is the standard mode of EX-series Speedlites for automatic flash shooting.
- **[Manual flash]** is for advanced users who want to set the **[Flash output]** (1/1 to 1/128) themselves.
- Regarding other flash modes, refer to the instruction manual of a Speedlite compatible with the functions.

Shutter synchronization

Normally, set this to **[1st curtain]** so that the flash fires immediately after the exposure starts.

If **[2nd curtain]** is set, the flash will fire right before the shutter closes. When this is combined with a slow shutter speed, you can create a trail of light such as from car headlights at night with a more natural feel.

With E-TTL II (auto flash exposure), two flashes will be fired: once when you press the shutter button completely, and once immediately before the exposure ends. Also, if the shutter speed is 1/30 sec. or faster, first-curtain synchronization will be applied automatically.

If an external Speedlite is attached, you can also select **[High-speed synchronization]** ($\frac{1}{H}$). For details, refer to the Speedlite's instruction manual.

Wireless functions

When performing optical transmission wireless flash shooting using the master function of the built-in flash, see "Using Wireless Flash" on page 189. When performing wireless flash shooting with radio or optical transmission using the master function of the external Speedlite, refer to the Speedlite's instruction manual.

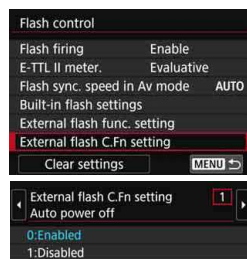
Flash exposure compensation

See "Flash Exposure Compensation" on page 178.

MENU Setting the Flash *

Setting the External Speedlite Custom Functions

The Custom Functions displayed under [External flash C.Fn setting] vary depending on the Speedlite model.



1 Display the Custom Function.

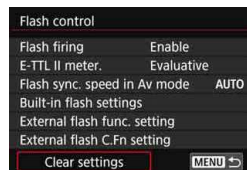
- With the camera ready to shoot with an external Speedlite, select [External flash C.Fn setting], then press <SET>.

2 Set the Custom Function.

- Press the <◀> <▶> keys to select the function number, then set the function. The procedure is the same as setting the camera's Custom Functions (p.350).

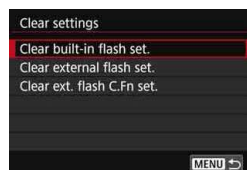
With an EX-series Speedlite, if the [Flash metering mode] Custom Function is set to [TTL flash metering] (autoflash), the Speedlite will always fire at full output.

Clearing the Settings



1 Select [Clear settings].

- Under the [CAMERA: Flash control] tab, select [Clear settings], then press <SET>.



2 Select the settings to be cleared.

- Select [Clear built-in flash set.], [Clear external flash set.], or [Clear ext. flash C.Fn set.], then press <SET>.
- When you select [OK], the respective flash settings will be cleared.

The Speedlite's Personal Function (P.Fn) cannot be set or canceled with the camera's [Flash control] screen. Set it with the Speedlite.

Using Wireless Flash ☆

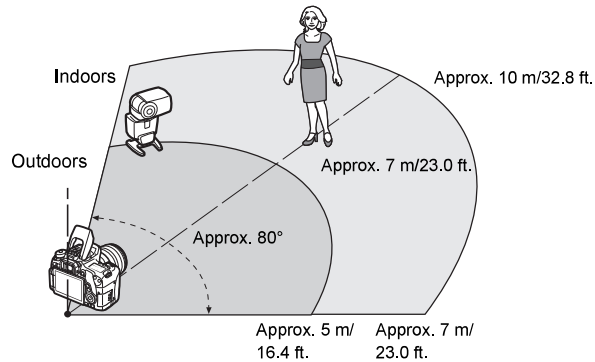
The camera's built-in flash can work as a master unit for Canon EX-series, external Speedlites having a wireless slave feature. It can wirelessly trigger the Speedlite(s) to fire via optical transmission. Be sure to read the instructions and cautions about wireless flash photography (optical transmission) in the Speedlite's instruction manual.

Slave Unit Settings and Position

Regarding your Speedlite (slave unit), refer to its instruction manual and set it as follows. The settings other than the ones below for the slave unit's control are all set with the camera. Different types of Speedlite slave units can be used and controlled together.

- (1) Set the external Speedlite as a slave unit.
- (2) Set the Speedlite's transmission channel to the same channel as set on the camera.^{*1}
- (3) For flash ratio control (p.197), set the slave unit's firing group.
- (4) Position the camera and slave unit(s) within the range shown below.
- (5) Face the slave unit's wireless sensor toward the camera.^{*2}

Example of Wireless Flash Set-up



Using Wireless Flash *

*1: If the Speedlite does not have a transmission channel setting function, it operates regardless of the channel set on the camera.

*2: In small rooms, the slave unit may work even if its wireless sensor does not face the camera. The camera's wireless signals can bounce off the walls and be received by the slave unit. When using an EX-series Speedlite with fixed light-emitting unit (flash head) and wireless sensor, take pictures while making sure it can fire.

- **Canceling the slave unit's auto power off**

To cancel the slave unit's auto power off, press the camera's <✳> button. If you are using manual flash firing, press the slave unit's test firing (PILOT) button to cancel the auto power off.



The camera's master function cannot be used for wireless flash shooting with radio transmission.

Wireless Flash Shooting Configurations

The tables below show the possible configurations for wireless flash shooting. Choose the configuration suiting the subject, shooting conditions, the number of external Speedlites you use, etc.

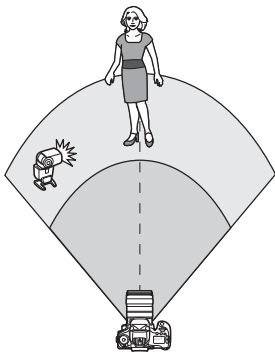
	External Speedlite		Built-in Flash	Page	Setting	
	Quantity	A:B Flash Ratio			Wireless Functions	Firing Group
Fully Automatic (E-TTL II autoflash)	Single	-	-	p.192		 All
	Single	-	Used	p.195	 	-
	Multiple	-	-	p.194		 All
	Multiple	Set	-	p.197		 (A:B)
	Multiple	-	Used	p.198	 	 All and 
	Multiple	Set	Used		 	 (A:B) 
	• Flash exposure compensation • FE lock			p.199		
	External Speedlite		Built-in Flash	Page	Setting	
	Quantity	A:B Flash Ratio			Wireless Functions	Firing Group
Manual Flash	Single/ Multiple	-	-	p.200		 All
	Multiple	Set	-			 (A:B)
	Single/ Multiple	-	Used		 	 All and 
	Multiple	Set	Used		 	 (A:B) 

 Even if you disable the built-in flash from firing, it will still fire in order to control the slave unit via optical transmission. The flash fired to control the slave unit may therefore appear in the picture depending on the shooting conditions.

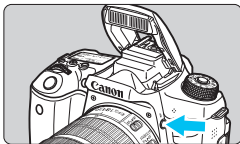
Easy Wireless Flash Shooting ☆

The basics of easy, fully automatic wireless flash shooting are explained below.

Fully Automatic Shooting with One External Speedlite

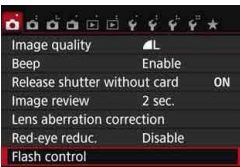


Steps 1 to 4 and 6 apply to all wireless flash shooting. Therefore, these steps are omitted in other wireless flash setups explained on the pages hereafter.



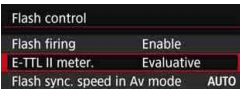
1 Press the <⚡> button to raise the built-in flash.

- For wireless flash shooting, be sure to raise the built-in flash.



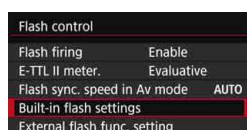
2 Select [Flash control].

- Under the [📷1] tab, select [Flash control], then press <SET>.



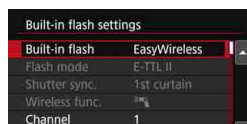
3 Select [Evaluative].

- For [E-TTL II meter.], select [Evaluative], then press <SET>.



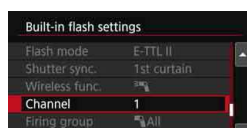
4 Select [Built-in flash settings].

- Select [Built-in flash settings], then press <SET>.



5 Select [EasyWireless].

- For [Built-in flash], select [EasyWireless], then press <SET>.

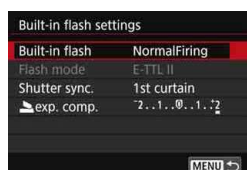


6 Set [Channel].

- Set the transmission channel (1-4) to the same one as the slave unit.

7 Take the picture.

- Set the camera and take the picture in the same way as with normal shooting.



8 Exit the wireless flash shooting.

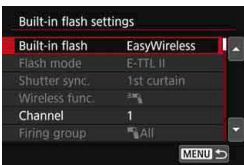
- For [Built-in flash], select [NormalFiring].



- Setting [E-TTL II meter.] to [Evaluative] is recommended.
- Even though the firing of the built-in flash is disabled when [EasyWireless] is set, it will still fire a small flash in order to control the slave unit. Depending on shooting conditions, the flash fired to control the slave unit may appear in the picture.
- Firing a test flash is not possible with the slave unit.

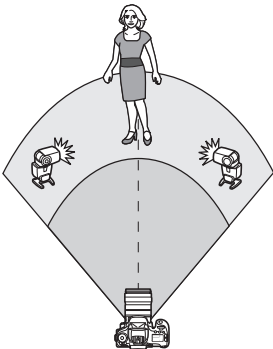
Fully Automatic Shooting with Multiple External Speedlites

You can have multiple slave units fire as if they were a single Speedlite. This is convenient when you need a large flash output.



Basic settings:

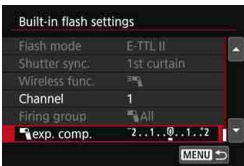
Flash mode : E-TTL II
E-TTL II meter. : Evaluative
Built-in flash : EasyWireless
Channel : (Same as slave units)



All the slave units will fire at the same output and be controlled to obtain a standard exposure.
No matter which firing group (A, B, or C) the slave units belong to, they will all fire as one group.

Flash Exposure Compensation

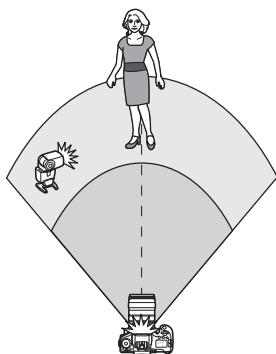
If the flash exposure looks too dark or too bright, you can set flash exposure compensation to adjust the slave units' flash output.



- Select [**exp. comp.**], then press **< (SET) >**.
- If the flash exposure is too dark, press the **< ► >** key to increase the flash exposure and make it brighter. If the flash exposure is too bright, press the **< ◀ <** key to decrease the flash exposure and make it darker.

Custom Wireless Flash Shooting ☆

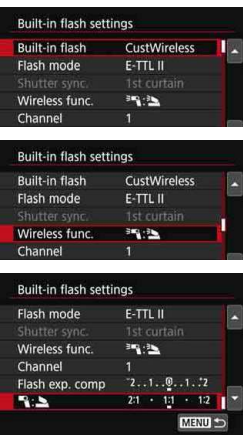
Fully Automatic Shooting with One External Speedlite and Built-in Flash



This is fully automatic wireless flash shooting with one external Speedlite and the built-in flash.

You can change the flash ratio between the external Speedlite and built-in flash to adjust how the shadows cast on the subject.

On the menu screens, the <⌂> and <⌂> icons indicate the external Speedlite, and the <⌂> and <⌂> icons indicate the built-in flash.



1 Select [CustWireless].

- Follow step 5 on page 193 to select [CustWireless], then press <SET>.

2 Select [Wireless func.].

- For [Wireless func.], select [⌂:⌂], then press <SET>.

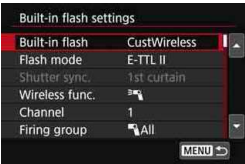
3 Set the desired flash ratio and take the picture.

- Select [⌂:⌂] and set the flash ratio within 8:1 to 1:1. Setting a flash ratio to the right of 1:1 is not possible.
- If the built-in flash output is not enough, set a higher ISO speed (p.132).

The 8:1 to 1:1 flash ratio is equivalent to 3:1 to 1:1 stops (1/2-stop increments).

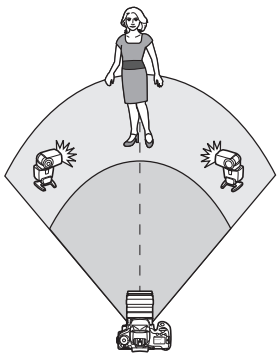
Fully Automatic Shooting with Multiple External Speedlites

Multiple Speedlite slave units can be fired as one flash unit, or separated into slave groups for shooting with flash ratio control. The basic settings are shown below. By changing the [Firing group] setting, you can shoot with various wireless flash setups with multiple Speedlites.

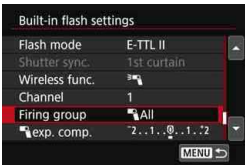


Basic settings:
Flash mode : E-TTL II
E-TTL II meter. : Evaluative
Wireless func. : [Wireless icon]
Channel : (Same as slave units)

[All] Firing multiple slave Speedlites as one flash unit

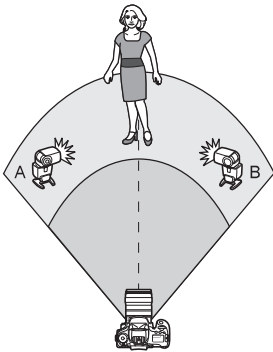


Convenient when you need a large flash output. All the slave units will fire at the same output and be controlled to obtain a standard exposure. No matter which firing group (A, B, or C) the slave units belong to, they will all fire as one group.



Set [Firing group] to [All], then take the picture.

[A:B] Firing multiple slave units in multiple groups

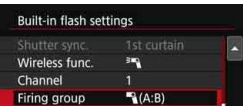


You can divide the slave units into groups A and B, and change the flash ratio to obtain the desired lighting effect. Refer to the Speedlite's instruction manual and set one slave unit to firing group A and the other to firing group B. Position the Speedlites as shown in the illustration.



1 Select [Wireless func.].

- Follow step 2 on page 195 to select [A:B], then press <SET>.



2 Set [Firing group] to [A:B].



3 Set the A:B flash ratio and shoot.

- Select [A:B fire ratio] and set the flash ratio.

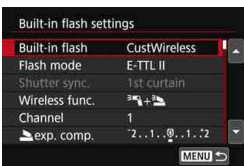
! If [Firing group] is set to [A:B], group C will not fire.

i The 8:1 to 1:1 to 1:8 flash ratio is equivalent to 3:1 to 1:1 to 1:3 stops (1/2-stop increments).

Fully Automatic Shooting with the Built-in Flash and Multiple External Speedlites

The built-in flash can also be added to wireless flash shooting explained on pages 196-197.

The basic settings are shown below. By changing the [Firing group] setting, you can shoot with various wireless flash setups of multiple Speedlites complemented with the built-in flash.



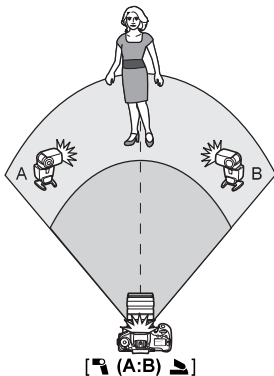
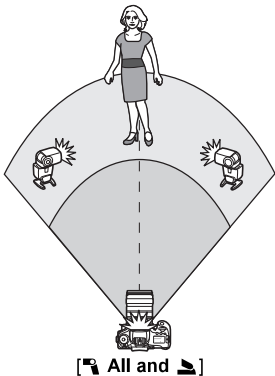
1 Basic settings:

Flash mode : E-TTL II
E-TTL II meter. : Evaluative
Wireless func. : [≡ + ≡]
Channel : (Same as slave units)



2 Select [Firing group].

- Select the firing group, then set the flash ratio, flash exposure compensation, and other necessary settings before shooting.



Flash Exposure Compensation

When **[Flash mode]** is set to **[E-TTL II]**, flash exposure compensation can be set. The flash exposure compensation settings (see below) which can be set vary depending on the **[Wireless func.]** and **[Firing group]** settings.



[Flash exp. comp.]

- The set amount of flash exposure compensation will be applied to the built-in flash and all the external Speedlites.

[exp. comp.]

- Flash exposure compensation is applied only to the built-in flash.

[exp. comp.]

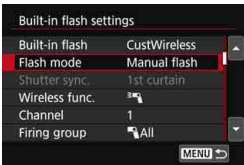
- The set amount of flash exposure compensation will be applied to all the external Speedlites.

FE Lock

If **[Flash mode]** is set to **[E-TTL II]**, you can press the **<✳>** button to perform FE lock.

Setting the Flash Output Manually for Wireless Flash Shooting

When **[Flash mode]** is set to **[Manual flash]**, flash exposure can be set manually. The flash output settings that can be set ([ **flash output**], **[Group A output]**, etc.) vary depending on the **[Wireless func.]** setting (see below).



[Wireless func.

- **[Firing group:  **All**]**:
The manual flash output setting is applied to all the external Speedlites.
- **[Firing group:  **(A:B)**]**:
You can set the flash output separately for slave groups A and B.

[Wireless func. +

- **[Firing group:  **All and **]**:
The flash output can be set separately for the external Speedlite(s) and built-in flash.
- **[Firing group:  **(A:B)** **]:
You can set the flash output separately for slave groups A and B. You can also set the flash output for the built-in flash.

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Shooting with the LCD Monitor (Live View Shooting)

You can shoot while viewing the picture on the camera's LCD monitor. This is called "Live View shooting".

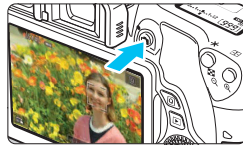
- If you handhold the camera and shoot while viewing the LCD monitor, camera shake can cause blurred images. Using a tripod is recommended.



Remote Live View Shooting

With EOS Utility (EOS software, p.420) installed on your computer, you can connect the camera to the computer and shoot remotely while viewing the computer screen. For details, refer to the EOS Utility Instruction Manual (p.422).

Shooting with the LCD Monitor



1 Display the Live View image.

- Press the <  > button.
- ▶ The Live View image will appear on the LCD monitor. In the <  > mode, the scene icon for the scene detected by the camera is displayed on the upper left (p.206).
- By default, Continuous AF (p.214) will take effect.
- The Live View image will closely reflect the brightness level of the actual image you capture.



2 Focus on the subject.

- When you press the shutter button halfway, the camera will focus with the current AF method (p.218).



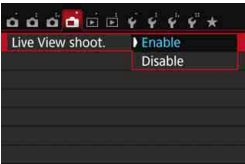
3 Take the picture.

- Press the shutter button completely.
- ▶ The picture will be taken and the captured image is displayed on the LCD monitor.
- ▶ When the playback display ends, the camera will return to Live View shooting automatically.
- Press the <  > button to exit the Live View shooting.



- The image's field of view is approx. 100% (with the image-recording quality set to JPEG  L).
- In Creative Zone modes, you can check the depth of field by pressing the depth-of-field preview button.
- You can also tap the subject on the LCD monitor to focus (p.218-225) and shoot (p.226).
- You can also use a remote controller (sold separately, p.366) for Live View shooting.

Enabling Live View Shooting



Set [: Live View shoot.] to [Enable].

Number of Possible Shots with Live View Shooting (Approx. number of shots)

Temperature	Room Temperature (23°C / 73°F)	Low Temperatures (0°C / 32°F)
No Flash	200	170
50% Flash Use	180	150

- The figures above are based on a fully-charged Battery Pack LP-E17 and CIPA (Camera & Imaging Products Association) testing standards.
- With a fully-charged Battery Pack LP-E17, continuous Live View shooting is possible for approx. 1 hr. 30 min. at room temperature (23°C / 73°F).

- In the < > mode, Live View shooting is not possible.
- In the < > and < > modes, the shooting range will be smaller.
- When the flash is recycling, "BUSY" is displayed on the LCD monitor, and you cannot view the subject.
- Do not point the camera toward an intense light source, such as the sun or an intense artificial light source. Doing so may damage the image sensor or the camera's internal components.
- **General Live View Shooting Cautions are on pages 230-231.**

- When flash is used, there will be two shutter sounds, but only one shot will be taken. Also, the time it takes to capture an image after you press the shutter button completely will be slightly longer than with viewfinder shooting.
- If the camera is not operated for a prolonged period, the power will turn off automatically after the time set in [2: Auto power off] (p.273). If [2: Auto power off] is set to [Disable], Live View shooting will end automatically after 30 min. (camera power remains on).
- With the HDMI cable HTC-100 (sold separately) or stereo AV cable AVC-DC400ST (sold separately), you can display the Live View image on a TV set (p.312, 315).

- Each time you press the <INFO> button, the information display will change.

-
- The diagram illustrates the various controls and settings available on the Canon EOS 5D Mark IV camera. The labels are as follows:
- Battery check
 - Maximum burst*
 - Possible shots
 - Shooting mode
 - AF method
 - AF operation
 - Drive mode
 - Metering mode
 - Image-recording quality
 - Switch to auto selection (AF point)
 - Touch shutter
 - AE lock
 - Flash-ready/Flash off
 - Shutter speed
 - Flash exposure compensation
 - Aperture
 - Digital compass
 - Exposure level indicator/AEB range
 - AF point (FlexiZone - Single)
 - Histogram display
 - Auto Lighting Optimizer
 - Quick Control
 - White balance/White balance correction
 - Picture Style
 - Creative filters
 - Eye-Fi card transmission status
 - Exposure simulation
 - Magnified view
 - AEB/FEB/Multi Shot Noise Reduction
 - ISO speed
 - Highlight tone priority
 - GPS connection indicator

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- You can display the electronic level by pressing the <INFO.> button (p.70). Note that if the AF method is set to [**Ⓛ** + **Tracking**] or the camera is connected to a TV set with a HDMI cable, the electronic level cannot be displayed.
- You can display the histogram by pressing the <INFO.> button. However, the histogram is not displayed while pressing the shutter button completely.
- When <Exp.SIM> is displayed in white, it indicates that the Live View image brightness is close to what the captured image will look like.
- If <Exp.SIM> is blinking, it indicates that the Live View image is displayed at a brightness that differs from the actual shooting result because of low- or bright-light conditions. However, the actual image recorded will reflect the exposure setting. Note that noise may be more noticeable than the actual image recorded.
- If the <P> or <A> shooting mode, Multi Shot Noise Reduction, flash, or bulb exposure is used, the <Exp.SIM> icon and histogram will be grayed out (for your reference). The histogram may not be properly displayed in low- or bright-light conditions.



Do not hold the camera in the same position for long periods of time.
Even if the camera does not feel too hot, prolonged contact with the same body part may cause skin redness, blistering or low-temperature contact burns. Using a tripod is recommended for people with circulation problems or very sensitive skin, or when using the camera in very hot places.

Scene Icons

In the <A+> shooting mode, the camera will detect the scene type and set everything automatically to suit the scene. The detected scene type is indicated on the upper left of the screen. For certain scenes or shooting conditions, the icon displayed may not match the actual scene.

Subject Background	Portrait ^{*1}		Non-Portrait			Background Color
		Movement	Nature and Outdoor Scene	Movement	Close ^{*2}	
Bright						Gray
Backlit						
Blue Sky Included						Light blue
Backlit						
Sunset	^{*3}				^{*3}	Orange
Spotlight						Dark blue
Dark						
With Tripod		^{*3}		^{*3}		

^{*1}: Displayed only when the AF method is set to [**L+Tracking**]. If another AF method is set, the “Non-portrait” icon will be displayed even if a person is detected.

^{*2}: Displayed when the attached lens has distance information. With an Extension Tube or Close-up Lens, the icon displayed may not match the actual scene.

^{*3}: The icon suiting the scene detected will be displayed.

^{*4}: Displayed when all the following conditions apply:

The shooting scene is dark, it is a night scene, and the camera is mounted on a tripod.

*5: Displayed with any of the lenses below:

- EF-S18-55mm f/3.5-5.6 IS II • EF-S55-250mm f/4-5.6 IS II
- EF300mm f/2.8L IS II USM • EF400mm f/2.8L IS II USM
- Image Stabilizer lenses marketed in 2012 or later.

*4+*5: If the conditions in both *4 and *5 are met, the shutter speed will slow down.

Final Image Simulation

The final image simulation reflects the settings of the Picture Style, white balance and other functions in the Live View image so you can see what the captured image will look like.

During shooting, the Live View image will automatically reflect the function settings listed below.

Final Image Simulation During Live View Shooting

- Picture Style
 - * All settings such as sharpness, contrast, color saturation, and color tone will be reflected.
- White balance
- White balance correction
- Light/scene-based shots
- Background blur (in <CA> mode)
 - * You can check the effect only during the setting procedure (when [Simulating blur] is displayed).
- Color tone
- Metering mode
- Exposure
- Depth of field (with depth-of-field preview button ON)
- Auto Lighting Optimizer
- Peripheral illumination correction
- Chromatic aberration correction
- Highlight tone priority
- Aspect ratio (shooting range confirmation)

Shooting Function Settings

Function settings particular to Live View shooting are explained here.

Quick Control

If you press the  button when the image is displayed on the LCD monitor in a Creative Zone mode, you can set the following: **AF method**, AF operation, **Drive mode**, Metering mode, **Image-recording quality**, White balance, Picture Style, Auto Lighting Optimizer, and **Creative filters**.

In Basic Zone modes, you can set the functions shown in the table on page 99 (except background blur), as well as the functions in bold above.



1 Press the button (10).

- ▶ The settable functions will be displayed.

2 Select a function and set it.

- Press the   keys to select a function.
- ▶ The settings of the function and Feature guide (p.73) will appear.
- Press the   keys to set the function.
- In the **<SCN>** mode, select the shooting mode box on the upper left of the screen, then press  to select the shooting mode.
- To set the drive mode's  setting, WB correction/WB bracketing, Picture Style parameters, or Creative filter effects, press the .

3 Exit the setting.

- Press <SET> to finalize the setting and return to Live View shooting.
- You can also select [↩] to return to Live View shooting.



- In Creative Zone modes, you can set the ISO speed by pressing the <ISO> button.
- With Live View shooting, you cannot set <□S> or <□S> for the drive mode.
- When you set [⊞] (Partial metering) or [⊞] (Spot metering), a circle indicating the metering area will be displayed on the center of the screen.

Applying Creative Filters

While viewing the Live View image, you can apply a filter effect (Grainy B/W, Soft focus, Fish-eye effect, Art bold effect, Water painting effect, Toy camera effect, or Miniature effect) for shooting. These are called Creative filters.

When you take the picture, the camera saves only the image with the Creative filter applied. If you also want to save the image without a Creative filter applied, take the picture without a Creative filter. Then apply a Creative filter effect and save it as a new image (p.326).

- 1 **Set any shooting mode except**
<M>, <P>, or <A>.
- 2 **Press the <Q> button** (10).
▶ The Quick Control screen will appear.
- 3 **Select [Off].**
 - Press the <▲> <▼> keys to select [Off] (Creative filter) on the right side of the screen.
- 4 **Select a filter.**
 - Press the <◀> <▶> keys to select a filter (p.212).
 - ▶ The image will be displayed with the effects of the filter applied.





5 Adjust the filter effect.

- Press the <INFO.> button (except for Miniature effect).
- Press the <◀> <▶> keys to adjust the filter effect, then press <SET>.
- For the Miniature effect, press <SET>, then press the <▲> <▼> keys to move the white frame to where you want the image to look sharp.

6 Take the picture.

- ▶ The image is shot with the filter applied.

Even if you set the drive mode to <□> or <SC>, the camera will still shoot in single shooting mode.



- You cannot shoot with Creative filters if the recording quality is **RAW** + **L** or **RAW**, or if AEB, white balance bracketing, or Multi Shot Noise Reduction is set.
- The histogram is not displayed when you shoot with Creative filters.
- With Grainy B/W, the grainy effect displayed on the LCD monitor will look different from the grainy effect recorded in the picture.
- With the Soft focus and Miniature effects, the blurred effect displayed on the LCD monitor will look different from the blurred effect recorded in the picture. In Creative Zone modes, you can check the picture's blurred effect by pressing the depth-of-field preview button.
- Dust Delete Data (p.287) will not be appended to images shot with Fish-eye effect applied.

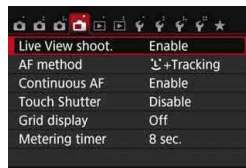
Creative Filter Characteristics

-  **Grainy B/W**
Creates a grainy black-and-white photo. You can change the black-and-white effect by adjusting the contrast.
-  **Soft focus**
Gives the image a soft look. You can change the degree of softness by adjusting the blur.
-  **Fish-eye effect**
Gives the effect of a fish-eye lens. The image will have a barrel-type distortion.
Depending on the level of this filter effect, the area trimmed along the periphery of the image changes. Also, since this filter expands the center part of the image, the resolution at the center may decrease depending on the number of recorded pixels. Check the image on the screen when setting this filter. The AF method will be FlexiZone - Single (fixed at center).
-  **Art bold effect**
Makes the photo look like an oil painting and the subject look more three-dimensional. You can adjust the contrast and saturation. Note that the sky, white walls, and similar subjects may not be rendered with a smooth gradation and may look irregular or have significant noise.
-  **Water painting effect**
Makes the photo look like a watercolor painting with soft colors. You can control the color density by adjusting the filter effect. Note that night scenes or dark scenes may not be rendered with a smooth gradation and may look irregular or have significant noise.

- **📷 Toy camera effect**
Darkens the photo's corners and applies a color tone that makes it look as if it was shot by a toy camera. You can change the color cast by adjusting the color tone.
- **🏠 Miniature effect**
Creates a diorama effect. You can change where the image looks sharp. In step 5 on page 211, if you press the <🔍> button (or tap [🔍] on the lower right of the screen), you can switch between the white frame's vertical and horizontal orientations. The AF method will be FlexiZone - Single to focus at the center of the white frame.



MENU Menu Function Settings



The menu options displayed are as follows.

The settable functions on this menu screen apply only to Live View shooting. They do not work with viewfinder shooting (settings are disabled).

- **Live View shooting**

You can set Live View shooting to [Enable] or [Disable].

- **AF method**

You can select [**L+Tracking**], [**FlexiZone - Multi**], or [**FlexiZone - Single**]. See pages 218-225 for more about the AF method.

- **Continuous AF**

The default setting is [Enable].

The camera focuses the subject continuously to achieve rough focus. This makes it quicker to achieve focus when you press the shutter button halfway. If [Enable] is set, the lens will operate constantly and consume more battery power. This will reduce the number of possible shots due to shorter battery life.

If you want to set the lens focus mode switch to <MF> during Continuous AF, first stop Live View shooting.

- **Touch Shutter**

Just by tapping on the LCD monitor screen, you can focus and take the picture automatically. For details, see page 226.

- **Grid display**

With [**Grid 1**] or [**Grid 2**], you can display grid lines. You can check horizontal or vertical tilt when shooting.

- **Metering timer** [★]

You can change how long the exposure setting is displayed (AE lock time). In Basic Zone modes, metering timer is fixed at 8 sec.



Selecting any of the following operations will stop Live View shooting. To start Live View shooting again, press the < > button.

- [3: Dust Delete Data], [3: Sensor cleaning], [4: Clear settings], or [4: firmware ver.]

Changing the Autofocus Operation ☆

You can select the AF (autofocus) operation characteristics suiting the shooting conditions or subject. In Basic Zone modes, the optimum AF operation is set for the respective shooting mode.



- 1 **Press the $\langle Q \rangle$ button.**
 - ▶ The Quick Control screen will appear.
- 2 **Select [ONE SHOT].**
 - Press the $\langle \blacktriangle \rangle$ $\langle \blacktriangledown \rangle$ keys to select [ONE SHOT] (AF operation) on the screen's left side.
- 3 **Select the AF operation.**
 - Press the $\langle \blacktriangleleft \rangle$ $\langle \blacktriangleright \rangle$ keys to select the desired AF operation, then press $\langle \text{SET} \rangle$.
- 4 **Focus on the subject**
 - Aim the AF point over the subject and press the shutter button halfway. The camera will then autofocus in the selected AF operation.

 If focus cannot be achieved, the AF point will turn orange. If this occurs, the picture cannot be taken even if the shutter button is pressed completely. Recompose the shot and try to focus again. Or see "Shooting Conditions that Make Focusing Difficult" (p.224).

One-Shot AF for Still Subjects

Suited for still subjects. When you press the shutter button halfway, the camera will focus only once.

- When focus is achieved, the AF point will turn green and the beeper will sound.
- While you hold down the shutter button halfway, the focus will be locked. You can then recompose the shot if desired.



- If [CAMERA 1: Beep] is set to [Disable], the beeper will not sound when focus is achieved.
- During continuous shooting, the exposure set for the first shot will also be applied to the subsequent shots.

Servo AF for Moving Subjects

This AF operation is suited for moving subjects. While you hold down the shutter button halfway, the camera will keep focusing on the subject continuously.

- The exposure is set at the moment the picture is taken.
- The continuous shooting speed becomes slower since the camera keeps focusing and shooting continuously.
- Setting the [AF method] to [FlexiZone - Single] is recommended.
- Depending on the shooting conditions, it may take a moment until the shutter is released.
- Depending on the lens used, the distance to the subject and the subject's speed, the camera may not be able to achieve correct focus.
- If you operate the zoom during continuous shooting, the focus may be lost. Shoot after using the zoom to obtain the desired composition.
- When focus is achieved, the AF point will turn blue.

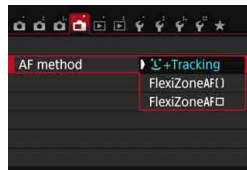


With Servo AF, the beeper will not sound even when focus is achieved.

Using AF to Focus (AF Method)

Selecting the AF Method

You can select an AF method to suit the shooting conditions and your subject. The following AF methods are provided: [**ℰ** (face)+Tracking], [**FlexiZone - Multi**] (p.220), and [**FlexiZone - Single**] (p.222). If you want to achieve precise focus, set the lens focus mode switch to <MF>, magnify the image, and focus manually (p.228).



Select the AF method.

- Under the [**📷**] tab, select [**AF method**].
- Select the desired AF method, then press <ℰF>.
- While the Live View image is displayed, you can also press the <Q> button to select the AF method on the Quick Control screen (p.208).

- If [**AF operation**] is set to [**Servo AF**], the AF point will turn blue when focus is achieved (p.216). The beeper will not sound in this case.
- In the <ℰ> and <ℰ> modes, Servo AF is set automatically and when focus is achieved, the AF point will turn blue and the beeper will sound.

ℰ (face)+Tracking: AF ℰ

The camera detects and focuses on human faces. If a face moves, the AF point <ℰ> also moves to track the face.



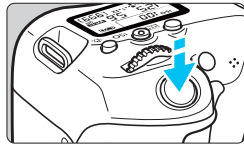
1 Display the Live View image.

- Press the <📷> button.
- ▶ The Live View image will appear on the LCD monitor.

2 Select an AF point.

- When a face is detected, the AF point <ℰ> will appear over the face to be focused on.

- If multiple faces are detected, <[]> will be displayed. Use the <◀> <▶> keys to move the <[]> frame over the face you want to focus on.
- You can also tap on the LCD monitor screen to select the face or subject. If the subject is not a face, <[]> will be displayed.
- If no faces can be detected, or if you tap on the LCD monitor but do not select any face or subject, the camera will switch to [FlexiZone - Multi] with automatic selection (p.220).



3 Focus on the subject.

- Press the shutter button halfway to focus.
- ▶ When focus is achieved, the AF point will turn green and the beeper will sound.
- ▶ If focus is not achieved, the AF point will turn orange.



4 Take the picture.

- Check the focus and exposure, then press the shutter button completely to take the picture (p.202).



- If the subject's face is significantly out of focus, face detection will not be possible. In such a case, set the lens's focus mode switch to <MF> and focus manually.
- An object other than a human face may be detected as a face.
- Face detection will not work if the face is very small or large in the picture, too bright or too dark, or partially hidden.
- The <[]> may cover only a part of the face.

Using AF to Focus (AF Method)

- If you press $\langle \text{SET} \rangle$ or the $\langle \text{AF-ON} \rangle$ button, the AF point $\langle \text{AF-ON} \rangle$ will appear at the center and you can use the $\langle \blacktriangle \rangle$ $\langle \blacktriangledown \rangle$ or $\langle \blacktriangleleft \rangle$ $\langle \blacktriangleright \rangle$ keys to move the AF point.
- Since AF is not possible with a face detected near the edge of the picture, the $\langle \text{AF-ON} \rangle$ will be grayed out. If you press the shutter button halfway, the subject will be focused on, in FlexiZone - Multi method with automatic selection.

FlexiZone - Multi: AF ()

You can use up to 49 AF points for wide-area focusing (automatic selection). This wide area can also be divided into 9 zones for focusing (zone selection).



Area frame

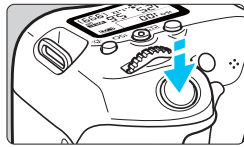


1 Display the Live View image.

- Press the $\langle \text{Live View} \rangle$ button.
- ▶ The Live View image will appear on the LCD monitor.

2 Select the AF point. ☆

- Pressing $\langle \text{SET} \rangle$ or the $\langle \text{AF-ON} \rangle$ button will toggle between automatic selection and zone selection. In Basic Zone modes, automatic selection is set automatically.
- Use the $\langle \blacktriangle \rangle$ $\langle \blacktriangledown \rangle$ or $\langle \blacktriangleleft \rangle$ $\langle \blacktriangleright \rangle$ keys to select a zone. To return to the center zone, press $\langle \text{SET} \rangle$ or the $\langle \text{AF-ON} \rangle$ button again.
- You can also tap on the LCD monitor screen to select a zone. When a zone is selected, tap $\langle \text{OK} \rangle$ on the screen to switch to automatic selection.



3 Focus on the subject.

- Aim the AF point over the subject and press the shutter button halfway.
- ▶ When focus is achieved, the AF point will turn green and the beeper will sound.
- ▶ If focus is not achieved, the area frame will turn orange.



4 Take the picture.

- Check the focus and exposure, then press the shutter button completely to take the picture (p.202).



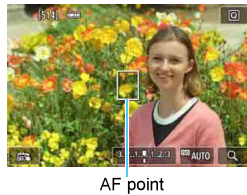
- If the camera does not focus on the desired target subject with automatic AF point selection, select a zone or switch the AF method to **[FlexiZone - Single]** and refocus.
- The number of AF points varies, depending on the [3: Aspect ratio] setting. At [3:2], [4:3], and [16:9], there are 49 AF points. At [1:1], 35 AF points.



If **[AF operation]** is set to **[Servo AF]**, the AF point tracks the subject while pressing the shutter button halfway. The AF point display will be <[]> when a human face is detected, and <[]> when a subject other than a face is detected.

FlexiZone - Single: AF □

The camera focuses with a single AF point. This is effective when you want to focus on a particular subject.



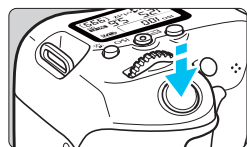
1 Display the Live View image.

- Press the <⏏> button.
- ▶ The Live View image will appear on the LCD monitor.
- ▶ The AF point <□> will appear.
- During movie shooting, if [Movie Servo AF] is set to [Enable], the AF point will be displayed in a larger size.



2 Move the AF point.

- Press the <▲> <▼> or <◀> <▶> keys to move the AF point to where you want to focus. (It cannot go to the edge of the screen.)
- Pressing <SET> or the <⏏> button will return the AF point to the screen's center.
- You can also tap on the LCD monitor screen to move the AF point.



3 Focus on the subject.

- Aim the AF point over the subject and press the shutter button halfway.
- ▶ When focus is achieved, the AF point will turn green and the beeper will sound.
- ▶ If focus is not achieved, the AF point will turn orange.



4 Take the picture.

- Check the focus and exposure, then press the shutter button completely to take the picture (p.202).

Notes for AF

AF Operation

- Even when focus is achieved, pressing the shutter button halfway will focus again.
- The image brightness may change during and after the AF operation.
- Depending on the subject or shooting conditions, etc., focusing may take longer or the continuous shooting speed may become slower.
- If the light source changes while the Live View image is displayed, the screen may flicker and focusing may be difficult. If this happens, exit Live View shooting and execute AF under the actual light source.
- If [**L**+Tracking] is set, magnified view is not possible.
- When [**FlexiZone - Multi**] is set and you press the <Q> button (or tap <Q> on the screen), the center of the selected zone (or image center with automatic selection) will be magnified. If you press the shutter button halfway, the display will return to normal and the camera will focus.
- When [**FlexiZone - Single**] is set and you press the <Q> button (or tap <Q> on the screen), the area covered by the AF point will be magnified. Press the shutter button halfway to focus in the magnified view. This is effective when the camera is attached to a tripod and you need to attain very precise focus. If focusing is difficult in magnified view, return to the normal display and use AF. Note that the AF speed may differ between the normal and magnified views.
- If you magnify the view after focusing with [**FlexiZone - Multi**] or [**FlexiZone - Single**] in the normal view, precise focus may not be achieved.



When in magnified view, Continuous AF (p.214) or Servo AF (p.217) will not be executed.

Shooting Conditions that Make Focusing Difficult

- Low-contrast subjects such as the blue sky, solid-color flat surfaces or when highlight or shadow details are lost.
- Subjects in low light.
- Stripes and other patterns where there is contrast only in the horizontal direction.
- Subjects with repetitive patterns (Example: Skyscraper windows, computer keyboards, etc.).
- Fine lines and subject outlines.
- Under a light source whose brightness, color, or pattern keeps changing.
- Night scenes or points of light.
- The image flickers under fluorescent or LED lighting.
- Extremely small subjects.
- Subjects at the edge of the picture.
- Strongly backlit or reflective subjects (Example: Car with a highly reflective body, etc.).
- The AF point covers both near and distant subjects (Example: Animal in a cage, etc.).
- Subjects that keep moving within the AF point and cannot keep still due to camera shake or subject blur.
- A subject approaching or moving away from the camera.
- Autofocusing while the subject is very far out of focus.
- Soft focus effect is applied with a soft focus lens.
- A special effect filter is used.
- Noise (spots, banding, etc.) appears on the screen during AF.

Using AF to Focus (AF Method)



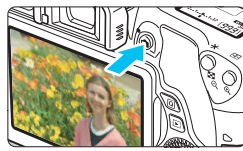
- If focus is not achieved with the shooting conditions on the preceding page, set the lens focus mode switch to **<MF>** and focus manually.
- If you use AF with any of the following lenses, focusing may take longer or correct focus may not be achieved.
EF50mm f/1.4 USM, EF50mm f/1.8 II, EF50mm f/2.5 Compact Macro,
EF75-300mm f/4-5.6 III, EF75-300mm f/4-5.6 III USM
For information on discontinued lenses, refer to the Canon Web site.



- If you shoot a peripheral subject and it is out of focus, aim the center AF point or zone over the subject to focus, focus again and then take the picture.
- The AF-assist beam will not be emitted. However, if an EX-series Speedlite (sold separately) equipped with an LED light is used, the LED light will turn on for AF-assist when necessary.
- In magnified view, focusing may be difficult due to camera shake. Using a tripod is recommended.

Shooting with the Touch Shutter

Just by tapping on the LCD monitor screen, you can focus and take the picture automatically. This works in all shooting modes.



1 Display the Live View image.

- Press the <  > button.
- ▶ The Live View image will appear on the LCD monitor.



2 Enable the touch shutter.

- Tap  on the screen's bottom left. Each time you tap on the icon, it will toggle between  and .
-  (Touch shutter: Enable)
You can tap on the spot to focus and shoot.
-  (Touch shutter: Disable)
You can tap on the spot to select where you want to focus. Press the shutter button completely to take the picture.



3 Tap on the screen to shoot.

- Tap on the face or subject on the screen.
- ▶ On the point you tap, the camera will focus in the AF method that was set (p.218-222). When [**FlexiZone - Multi**] is set, it will switch to [**FlexiZone - Single**].
- ▶ When focus is achieved, the AF point turns green and the picture is taken automatically.
- If focus is not achieved, the AF point turns orange and the picture cannot be taken. Tap on the face or subject on the screen again.



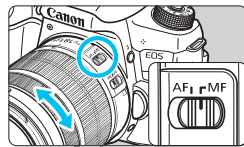
- Even if you set the drive mode to , the camera will still shoot in single shooting mode.
- Even if **[AF operation]** is set to **[Servo AF]**, **[One-Shot AF]** will take effect when touch shutter is used.
- The touch shutter does not work with the magnified view.
- If the Fish-eye effect Creative filter is set, the camera will focus using the AF point on the center of the screen regardless of the point you tap on.
- If the Miniature effect Creative filter is set, the touch shutter does not work.
- When **[10: Shutter/AE lock button]** is set to **[1: AE lock/AF]** or **[3: AE/AF, no AE lock]** under **[4: Custom Functions (C.Fn)]**, autofocusing does not take effect.



- You can also set the touch shutter with **[1: Touch shutter]**.
- To shoot with bulb exposure, tap on the screen twice. The first tap on the screen will start the bulb exposure. Tapping it again will stop the exposure. Be careful not to shake the camera when tapping on the screen.

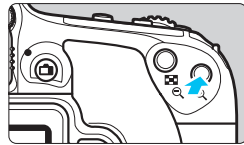
MF: Focusing Manually

You can magnify the image and focus precisely with manual focus.



1 Set the lens focus mode switch to <MF>.

- Turn the lens focusing ring to focus roughly.



2 Display the magnifying frame.

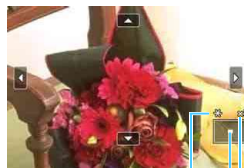
- Press the <Q> button.
- ▶ The magnifying frame will appear.
- You can also tap [Q] on the screen to magnify the image.



3 Move the magnifying frame.

- Press the <▲> <▼> or <◀> <▶> keys to move the magnifying frame to the position where you want to focus.
- To return to the screen's center, press <SET> or the <⏏> button.

Magnifying frame



4 Magnify the image.

- Each time you press the <Q> button, the magnification of the image will change in the following sequence:

→ 1x → 5x → 10x → Normal view

AE lock

Magnified area position

Magnification

5 Focus manually.

- While looking at the magnified image, turn the lens focusing ring to focus.
- After achieving focus, press the <Q> button to return to the normal view.

6 Take the picture.

- Check the focus and exposure, then press the shutter button to take the picture (p.202).



General Live View Shooting Cautions

Image Quality

- When you shoot at high ISO speeds, noise (such as dots of light and banding) may become noticeable.
- Shooting in high temperatures may cause noise and irregular colors in the image.
- If Live View shooting is used continuously for a prolonged period, the camera's internal temperature may rise, and image quality may deteriorate. Always exit Live View shooting when you are not shooting.
- If you shoot a long exposure while the camera's internal temperature is high, image quality may deteriorate. Exit Live View shooting and wait a few minutes before shooting again.

White <🔥> and Red <🔥> Internal Temperature Warning Icons

- If the camera's internal temperature increases due to prolonged Live View shooting or under a high ambient temperature, a white <🔥> or red <🔥> icon will appear.
- The white <🔥> icon indicates that the image quality of still photos will deteriorate. It is recommended that you temporarily exit Live View shooting and allow the camera to cool down before shooting again.
- The red <🔥> icon indicates that the Live View shooting will soon stop automatically. If this happens, you will not be able to shoot again until the camera's internal temperature decreases. Exit the Live View shooting or turn off the power and let the camera rest for a while.
- Using Live View shooting at a high temperature for a prolonged period will cause the <🔥> or <🔥> icon to appear earlier. When you are not shooting, always turn off the camera.
- If the camera's internal temperature is high, the quality of images shot with high ISO speed or long exposure may deteriorate even before the white <🔥> icon is displayed.

Shooting Results

- If you take the picture in magnified view, the exposure may not come out as desired. Return to the normal view before taking the picture. In magnified view, the shutter speed and aperture will be displayed in orange. Even if you take the picture in magnified view, the image will be captured in the normal view range.
- If [🔧2: Auto Lighting Optimizer] (p.146) is set to any setting other than [Disable], the image may look bright even if a decreased exposure compensation or decreased flash exposure compensation is set.
- If you use a TS-E lens (except the TS-E17mm f/4L or TS-E24mm f/3.5L II) and shift or tilt the lens or use an Extension Tube, the standard exposure may not be obtained or an irregular exposure may result.



General Live View Shooting Cautions

Live View Image

- Under low- or bright-light conditions, the Live View image may not reflect the brightness of the captured image.
- Even if a low ISO speed is set, noise may be noticeable in the displayed Live View image under low light. However, when you shoot, the image recorded will have minimal noise. (The image quality of the Live View image is different from that of the recorded image.)
- If the light source (illumination) within the image changes, the screen may flicker. If this happens, exit Live View shooting and resume shooting under the actual light source.
- If you point the camera in a different direction, it may throw off the Live View image's correct brightness momentarily. Wait until the brightness level stabilizes before shooting.
- If there is a very bright light source in the image, the bright area may appear black on the LCD monitor. However, the actual captured image will correctly show the bright area.
- In low light, if you set the [F2: LCD brightness] to a bright setting, noise or irregular colors may appear in the Live View image. However, the noise or irregular colors will not be recorded in the captured image.
- When you magnify the image, the image sharpness may look more pronounced than in the actual image.
- If the shutter speed is 1 sec. or slower, "BUSY" is displayed on the LCD monitor, and the Live View display will not appear until the exposure is completed.

Custom Functions

- During Live View shooting, some Custom Function settings will not take effect (p.351).

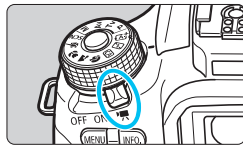
Lens and Flash

- If the attached lens has an Image Stabilizer and you set the Image Stabilizer (IS) switch to <ON>, the Image Stabilizer will operate at all times even if you do not press the shutter button halfway. The Image Stabilizer consumes battery power and may decrease the number of possible shots. If you use a tripod or if the Image Stabilizer is not necessary, it is recommended that you set the IS switch to <OFF>.
- The focus preset function is possible for Live View shooting only when using a (super) telephoto lens equipped with the focus preset mode, available since the second half of 2011.
- FE lock will not work if the built-in flash is used. FE lock and modeling flash will not work if an external Speedlite is used.



8

Shooting Movies



Movie shooting is enabled by setting the power switch to <[movie icon]>. The movie recording format will be MP4.

- For cards that can record movies, see page 5.
- If you handhold the camera and shoot movies, camera shake can cause blurred movies. Using a tripod is recommended.
- To shoot while handholding the camera, see page 80.



Full HD 1080

Full HD 1080 indicates compatibility with High-Definition featuring 1080 vertical pixels (scanning lines).

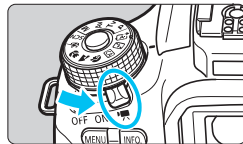


Shooting Movies

Connecting the camera to a TV set is recommended to play back the movies shot (p.312-315).

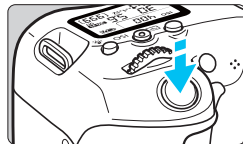
Autoexposure Shooting

When the shooting mode is set to any mode other than <M>, autoexposure control will take effect to suit the scene's current brightness.



1 Set the power switch to <Movie camera icon>.

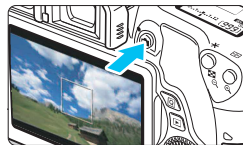
- ▶ The reflex mirror will make a sound, then the image will appear on the LCD monitor.



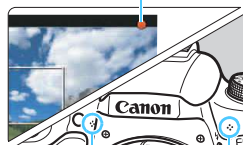
2 Set any shooting mode except <M>.

3 Focus on the subject.

- Before shooting a movie, focus with AF or manual focus (p.218-225, 228).
- By default, [Movie Servo AF: Enable] is set so that the camera will always focus. To stop Movie Servo AF, see page 263.



Recording movie



Built-in microphones

4 Shoot the movie.

- Press the <Movie camera icon> button to start shooting a movie. To stop movie shooting, press <Movie camera icon> again.
- ▶ While the movie is being shot, the "●" mark will be displayed on the upper right of the screen.
- ▶ Sound will be recorded by the built-in microphones.



- **General Movie Shooting Cautions are on pages 268-269.**
- **If necessary, also read the General Live View Shooting Cautions on pages 230-231.**



- In Basic Zone modes, the shooting result will be the same as with **<A+>**. Also, the scene icon for the scene detected by the camera is displayed on the upper left (p.236).
- In the **<Av>** and **<Tv>** shooting modes, movies will be taken with the same settings as in the **<P>** mode.
- Settable menu functions differ between Basic Zone modes and Creative Zone modes (p.374).
- Shutter speed and aperture are set automatically.
- In Creative Zone modes, you can press the **<X>** button (p.172) to lock the exposure (AE lock). The exposure setting will be displayed for the number of seconds set with [**C.Fn 1: Metering timer**]. After applying AE lock during movie shooting, you can cancel it by pressing the **<E>** button. (AE lock setting is retained until you press the **<E>** button.)
- In Creative Zone modes, you can set the **<LOCK>** switch to the left and turn the **<C>** dial to set the exposure compensation.
- Pressing the shutter button halfway displays the shutter speed and ISO speed on the screen's bottom. This is the exposure setting for taking a still photo (p.239). The exposure setting for movie shooting is not displayed. Note that the exposure setting for movie shooting may differ from that for still photo shooting.
- If you shoot a movie with autoexposure, the shutter speed and aperture will not be recorded in the image information (Exif).

ISO Speed in Basic Zone Modes

- The ISO speed will be set automatically within ISO 100 - ISO 6400.

ISO Speed in **<P>**, **<Tv>**, and **<Av>** Modes

- The ISO speed will be set automatically within ISO 100 - ISO 6400.
- Under [**4: Custom Functions (C.Fn)**], if [**2: ISO expansion**] is set to [**1: On**], the maximum speed will be expanded to H (equivalent to ISO 12800).
- Under [**4: Custom Functions (C.Fn)**], if [**3: Highlight tone priority**] is set to [**1: Enable**], the ISO speed will be ISO 200 - ISO 6400.

Scene Icons

During movie shooting in a Basic Zone mode, an icon representing the scene detected by the camera will be displayed and the shooting will be adapted to that scene. For certain scenes or shooting conditions, the icon displayed may not match the actual scene.

Subject Background	Portrait ^{*1}	Non-Portrait		Background Color
		Nature and Outdoor Scene	Close ^{*2}	
Bright				Gray
Backlit				
Blue Sky Included				Light blue
Backlit				
Sunset	^{*3}		^{*3}	Orange
Spotlight				Dark blue
Dark				

^{*1}: Displayed only when the AF method is set to [+Tracking]. If another AF method is set, the "Non-portrait" icon will be displayed even if a person is detected.

^{*2}: Displayed when the attached lens has distance information. With an Extension Tube or Close-up Lens, the icon displayed may not match the actual scene.

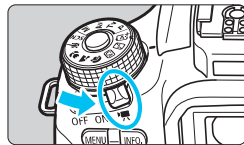
^{*3}: The icon suiting the scene detected will be displayed.

Using an EX-series Speedlite (Sold Separately) Equipped with an LED Light

With autoexposure (modes other than **M**) movie shooting, the camera will automatically turn on the Speedlite's LED light under low-light conditions. **For details, refer to the Speedlite's instruction manual.**

Manual Exposure Shooting

In the <M> mode, you can freely set the shutter speed, aperture, and ISO speed for movie shooting. Using manual exposure to shoot movies is for advanced users.

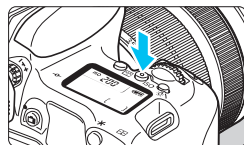


1 Set the power switch to <M>.

- ▶ The reflex mirror will make a sound, then the image will appear on the LCD monitor.



2 Set the Mode Dial to <M>.



3 Set the ISO speed.

- Press the <ISO> button and turn the <ISO> or <ISO> dial to select the ISO speed.
- For details on the ISO speed, see the next page.



4 Set the shutter speed and aperture.

- To set the shutter speed, turn the <SHUTTER> dial. The settable shutter speeds vary depending on the frame rate <FRM>.
- 29.97P 25.00P 23.98P : 1/4000 sec. - 1/30 sec.
- 59.94P 50.00P : 1/4000 sec. - 1/60 sec.
- To set the aperture, turn the <APERTURE> dial.
- If it cannot be set, set the <LOCK> switch to the left, then turn the <APERTURE> or <APERTURE> dial.

5 Focus and shoot the movie.

- The procedure is the same as steps 3 and 4 for “Autoexposure Shooting” (p.234).

ISO Speed During Manual Exposure Shooting

- With [AUTO] (A), the ISO speed will be set automatically within ISO 100 - ISO 6400.
- You can set the ISO speed manually within ISO 100 - ISO 6400 in whole-stop increments. Under [**4: Custom Functions (C.Fn)**], if [**2: ISO expansion**] is set to [1: On], the manual setting range will expand so you can also select H (equivalent to ISO 12800).
- Under [**4: Custom Functions (C.Fn)**], if [**3: Highlight tone priority**] is set to [1: Enable], the ISO speed will be ISO 200 - ISO 6400.



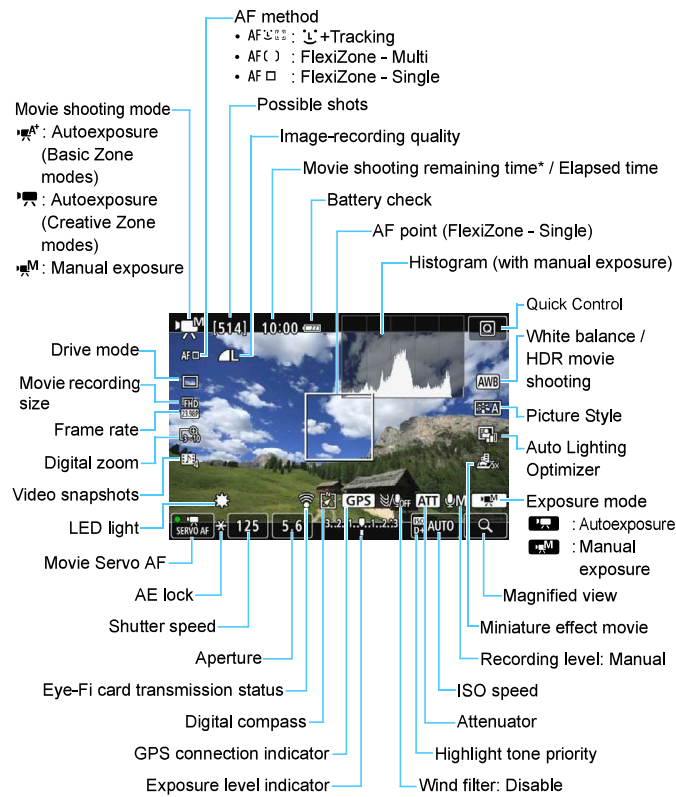
- Since shooting a movie at ISO 12800 may result in much noise, it is designated as an expanded ISO speed (displayed as “H”).
- If ISO speed is set to H (ISO 25600) when [**2: ISO expansion**] is set to [1: On] under [**4: Custom Functions (C.Fn)**] and you switch from still photo shooting to movie shooting, the ISO speed will be H (equivalent to ISO 12800). When you switch back to still photo shooting, the ISO speed will be ISO 12800.
- Exposure compensation cannot be set.
- Changing the shutter speed or aperture during movie shooting is not recommended since the changes in the exposure will be recorded.
- If you change the shutter speed while shooting under fluorescent or LED lighting, image flicker may be recorded.



- When ISO Auto is set, you can press the <★> button to lock the ISO speed.
- If you press the <★> button and recompose the shot, you can see the exposure level difference on the exposure level indicator (p.239) compared to when the <★> button was pressed.
- By pressing the <INFO.> button, you can display the histogram.
- When shooting a movie of a moving subject, a shutter speed of 1/30 sec. to 1/125 sec. is recommended. The faster the shutter speed, the less smooth the subject's movement will look.

Information Display

- Each time you press the <INFO.> button, the information display will change.



* Applies to a single movie clip.

Shooting Movies



- You can display the electronic level by pressing the <INFO.> button (p.70). Note that if the AF method is set to [+Tracking] or the camera is connected to a TV set with a cable, the electronic level cannot be displayed.
- The electronic level, grid lines, or histogram cannot be displayed during movie shooting. (The display will disappear when you start shooting a movie.)
- When movie shooting starts, the movie shooting remaining time will change to the elapsed time.



Cautions for Movie Shooting

- Do not point the camera toward an intense light source, such as the sun or an intense artificial light source. Doing so may damage the image sensor or the camera's internal components.
- If <AWB> is set and the ISO speed or aperture changes during movie shooting, the white balance may also change.
- If you shoot a movie under fluorescent or LED lighting, the movie may flicker.
- Shooting a few test movies is recommended where you will perform zooming during movie shooting. Zooming during movie shooting may result in recording of changes in exposure or mechanical sound of the lens, or images may be out of focus.
- You cannot magnify the image during movie shooting.
- Be careful not to cover the built-in microphones (p.234) with your finger, etc.
- **General Movie Shooting Cautions are on pages 268-269.**
- **If necessary, also read the General Live View Shooting Cautions on pages 230-231.**



Do not hold the camera in the same position for long periods of time.

Even if the camera does not feel too hot, prolonged contact with the same body part may cause skin redness, blistering or low-temperature contact burns. Using a tripod is recommended for people with circulation problems or very sensitive skin, or when using the camera in very hot places.



- Movie-related settings are under the [1] and [2] tabs (p.263).
- A movie file is recorded each time you shoot a movie. If the file size exceeds 4 GB, a new file will be created for every subsequent 4 GB.
- The movie image's field of view is approx. 100% (with movie recording size set to [20]).
- Stereo sound is recorded by the camera's built-in microphones (p.234).
- Stereo sound recording is also possible by connecting the Directional Stereo Microphone DM-E1 (sold separately) to the camera's external microphone IN terminal (p.26) as the external microphone is given the priority.
- You can use Remote Controller RC-6 (sold separately, p.366) to start and stop the movie shooting if the drive mode is < >. Set the shooting timing switch to <2> (2-sec. delay), then press the transmit button. If the switch is set to <●> (immediate shooting), still photo shooting will take effect.
- With a fully-charged Battery Pack LP-E17, the total movie shooting time will be as follows: approx. 1 hr. 20 min. at room temperature (23°C/73°F), and approx. 1 hr. at low temperatures (0°C/32°F).
- The focus preset function is possible for movie shooting when using a (super) telephoto lens equipped with the focus preset mode, available since the second half of 2011.

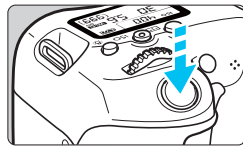
Final Image Simulation

The final image simulation shows the results of the current settings for the Picture Style, white balance, etc., on the image. During movie shooting, the image displayed will automatically show the effects of the settings listed below.

Final Image Simulation for Movie Shooting

- Picture Style
 - * All settings such as sharpness, contrast, color saturation, and color tone will be reflected.
- White balance
- White balance correction
- Exposure
- Depth of field
- Auto Lighting Optimizer
- Peripheral illumination correction
- Chromatic aberration correction
- Highlight tone priority
- HDR movie
- Miniature effect movie

Shooting Still Photos



While shooting a movie, you can also take a still photo by pressing the shutter button completely.

Taking Still Photos during Movie Shooting

- If you take a still photo during movie shooting, the movie will record a still moment lasting approx. 1 sec.
- The captured still photo will be recorded to the card, and the movie shooting will resume automatically when the Live View image is displayed.
- The movie and still photo will be recorded as separate files on the card.
- Functions particular to still photo shooting are shown below. Other functions will be the same as for movie shooting.

Function	Settings
Image-Recording Quality	As set in [1: Image quality]. When the movie recording size is [1920x1080] or [1280x720], the aspect ratio will be 16:9. When the size is [640x480], the aspect ratio will be 4:3.
ISO Speed*	• With autoexposure shooting: Automatically set within ISO 100 - ISO 6400. • With manual exposure shooting: See "ISO Speed During Manual-exposure Shooting" on page 238.
Exposure Setting	• With autoexposure shooting: Automatically-set shutter speed and aperture (displayed when pressing the shutter button halfway). • With manual exposure shooting: Manually-set shutter speed and aperture.
AEB	Canceled
Flash	Flash off

* If highlight tone priority is set, the ISO speed range will start from ISO 200.

- Regardless of the drive mode setting, single shooting will take effect for still photo shooting during movie shooting.
- The self-timer can be set before you start shooting a movie. During movie shooting, the camera will switch to single shooting.



When you press the shutter button halfway to autofocus during movie shooting, the following phenomena may occur.

- Focus may become far off momentarily.
- The brightness of the recorded movie may change.
- The recorded movie may be momentarily still.
- The movie may record the lens operation noise.
- You cannot shoot still photos when focus is not achieved, such as when the subject is moving.

Shooting Function Settings

Function settings particular to movie shooting are explained here.

Quick Control

If you press the  button while the image is displayed on the LCD monitor, you can set any of the following: **AF method**, **Drive mode**, **Movie recording size**, **Digital zoom**, **Video snapshots**, White balance, Picture Style, Auto Lighting Optimizer, and **Miniature effect movie**. In Basic Zone modes, only the functions in bold can be set.



1 Press the button ()

- ▶ The settable functions will be displayed.
- [HDR Movie Shooting] is settable only in Basic Zone modes (p.249).

2 Select a function and set it.

- Press the   keys to select a function.
- ▶ The selected function and Feature guide (p.73) will appear.
- Press the   keys to set the function.
- To set the drive mode's , WB correction/WB bracketing, or Picture Style parameters, press the .

3 Exit the setting.

- Press  to finalize the setting and return to movie shooting.
- You can also select  to return to movie shooting.

MENU Setting the Movie Recording Size



With [**2: Movie rec. size**], you can set the movie recording size (image size, frame rate, and compression method) and other functions.

- **Image Size**

FHD 1920x1080

Full High-Definition (Full HD) recording quality. The aspect ratio is 16:9.

HD 1280x720

High-Definition (HD) recording quality. The aspect ratio is 16:9.

VGA 640x480

Standard-definition recording quality. The aspect ratio is 4:3.

- **Frame Rate** (fps: frames per second)

29.97 29.97 fps / 59.94 59.94 fps

For areas where the TV format is NTSC (North America, Japan, South Korea, Mexico, etc.).

25.00 25.00 fps / 50.00 50.00 fps

For areas where the TV format is PAL (Europe, Russia, China, Australia, etc.).

23.98 23.98 fps

Mainly for motion pictures.



The frame rate displayed on the movie recording size screen switches depending on whether [**3: Video system**] is set to [**NTSC**] or [**PAL**].
23.98 (23.98 fps) can be selected only when [**NTSC**] is set.

- **Compression Method**

Standard

Compresses multiple frames at a time efficiently for recording.

Light (🔍)

The movie is recorded at a low bit rate for playback on various devices, resulting in a smaller file size than with **[Standard]**.

Therefore, you can shoot longer than with **[Standard]**.

🗨 If you change the [**43: Video system**] setting, set the movie recording size again.

Total Movie Recording Time and File Size Per Minute (Approx.)

Movie Recording Size			Total Recording Time on Card			File Size
			4 GB	8 GB	16 GB	
4K HD [1920x1080]	29.97P 25.00P 23.98P	Standard	17 min.	35 min.	1 hr. 10 min.	216 MB/min.
	29.97P 25.00P	Light	43 min.	1 hr. 26 min.	2 hr. 53 min.	87 MB/min.
Full HD [1280x720]	59.94P 50.00P	Standard	20 min.	40 min.	1 hr. 21 min.	187 MB/min.
	29.97P 25.00P	Light	2 hr. 5 min.	4 hr. 10 min.	8 hr. 20 min.	30 MB/min.
VGA [640x480]	29.97P 25.00P	Standard	57 min.	1 hr. 55 min.	3 hr. 50 min.	66 MB/min.
	29.97P 25.00P	Light	2 hr. 43 min.	5 hr. 26 min.	10 hr. 53 min.	23 MB/min.
HDR Movie Shooting [1280x720]			40 min.	1 hr. 20 min.	2 hr. 40 min.	94 MB/min.

● **Movie Files Exceeding 4 GB**

Even if you shoot a movie exceeding 4 GB, you can keep shooting without interruption.

During movie shooting, approx. 30 sec. before the movie reaches the 4 GB file size, the elapsed shooting time displayed in the movie shooting screen will start blinking. If you keep shooting until the movie file size exceeds 4 GB, a new movie file will be created automatically and the elapsed shooting time or time code will stop blinking.

When you play back the movie, you will have to play each movie file individually. Movie files cannot be played back automatically in consecutive order. After the movie playback ends, select the next movie to be played back.

● **Movie Shooting Time Limit**

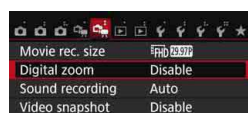
The maximum recording time of one movie clip is 29 min. 59 sec. If the movie shooting time reaches 29 min. 59 sec., the movie shooting will stop automatically. You can start shooting a movie again by pressing the <CAM> button. (A new movie file starts being recorded.)



An increase of the camera's internal temperature may cause movie shooting to stop before the maximum recording time shown in the table above (p.268).

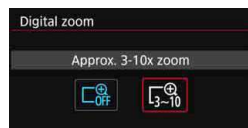
MENU Using Movie Digital Zoom

When the movie size is [1920x1080] (Full HD), you can shoot with an approx. 3x to 10x digital zoom.



1 Select [Digital zoom].

- Under the [CAM 2] tab, select [Digital zoom], then press <SET>.



2 Select [Approx. 3-10x zoom].

- Select [Approx. 3-10x zoom], then press <SET>.
- Press the <MENU> button to exit the menu and return to movie shooting.



3 Use digital zoom.

- Press the <▲> <▼> keys.
- The digital zoom bar will appear.
- Press the <▲> key to zoom in or press the <▼> key to zoom out.
- When you press the shutter button halfway, the camera will focus with [FlexiZone - Single] (fixed at center).
- To cancel digital zoom, set [Disable] in step 2.

- Use a tripod to prevent camera shake.
- When movie digital zoom is set, the maximum ISO speed will be ISO 6400 (it cannot be expanded to H: equivalent to ISO 12800). Also, magnified view is not possible.
- Since movie digital zoom processes the image digitally, the image will look rougher at higher magnifications. Noise, light spots, etc., may also become noticeable.
- When movie digital zoom is set, the scene icon will not be displayed.
- Also see "Shooting Conditions that Make Focusing Difficult" on page 224.
- Still photo shooting is not possible.

Shooting HDR Movies

You can shoot movies by reducing the clipped highlight details of bright areas even in high-contrast scenes. This function is settable in Basic Zone modes.

- 1 Set the Mode Dial to a Basic Zone mode.

- 2 Press the **<Q>** button (10).
 - ▶ The Quick Control screen will appear.



- 3 Select **[HDR Off]**.
 - Press the **<▲>** **<▼>** keys to select **[HDR Off]** (HDR Movie Shooting) on the screen's right side.



- 4 Select **[Enable]**.
 - Press the **<◀>** **<▶>** keys to select **[Enable]**, then press **<SET>**.
 - For recording time and file sizes, see the table on page 247.



Shooting HDR Movies



- The recording size is fixed at **[1280x720 29.97fps (Standard)]** (it is fixed at **[1280x720 25.00fps (Standard)]** if **[ 3: Video system]** is set to **[PAL]**). If **[HDR Movie Shooting: Disable]** is set, the recording size will revert to the original setting.
- Since multiple frames are merged to create an HDR movie, a part of the movie may be distorted. During shooting while handholding the camera, the distortion caused by camera shake may be noticeable. Using a tripod is recommended.
Note that even if a tripod is used for shooting, afterimages may be noticeable or noise may look increased during the HDR movie is played back frame-by-frame or in slow-motion compared to when it is played back normally.
- HDR movie shooting cannot be set if movie digital zoom, video snapshot, or Miniature effect movie is set.
- Still photo shooting is not possible.

Shooting Miniature Effect Movies

You can shoot movies having a Miniature (diorama) effect. Select the playback speed and shoot.



- 1 Press the **<Q>** button.
 - ▶ The Quick Control screen will appear.



- 2 Select **[Miniature effect movie]**.
 - Press the **<▲>** **<▼>** keys to select **[Miniature effect movie]** on the right of the screen.



- 3 Select the playback speed.
 - Press the **<◀>** **<▶>** keys to select **[5x]**, **[10x]**, or **[20x]**, then press **<SET>**.



- 4 Position the white frame over the part you want to look sharp.
 - Press the **<▲>** **<▼>** keys to move the white frame over the part you want to look sharp.
 - To switch the white frame's vertical / horizontal orientation, press the **<Q>** button (or tap **[Q]** on the screen's lower right).

5 Shoot the movie.

- The AF method will be FlexiZone - Single to focus on the center of the white frame.
- The white frame is not displayed while you shoot.

Playback Speed and Length (for 1-minute movie)

Speed	Playback Length
 (5x)	Approx. 12 sec.
 (10x)	Approx. 6 sec.
 (20x)	Approx. 3 sec.

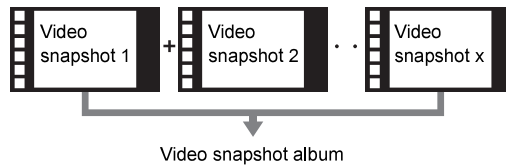
- Sound will not be recorded.
- With Miniature effect movies, Movie Servo AF will not work.
- Miniature effect movie cannot be set if movie digital zoom, video snapshot, HDR movie shooting, **RAW** + , **RAW**, or white balance bracketing is set.
- You cannot take still photos while shooting a Miniature effect movie.
- Miniature effect movies whose playback time is shorter than 1 sec. cannot be edited (p.306).

MENU Shooting Video Snapshots

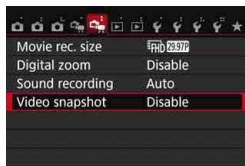
You can shoot a series of short movie clips lasting approx. 2 sec., 4 sec., or 8 sec., called video snapshots. The video snapshots can be joined together into a single movie called a video snapshot album. You can thereby show quick highlights of a trip or event.

A video snapshot album can also be played back together with background music (p.260, 311).

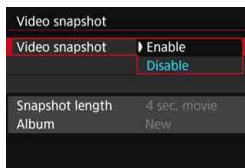
Video Snapshot Album Concept



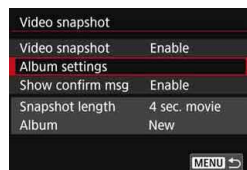
Setting the Video Snapshot Shooting Duration



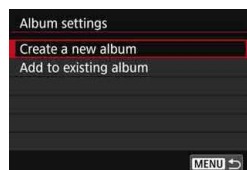
- 1 Select [Video snapshot].
 - Under the [CAMERA 2] tab, select [Video snapshot], then press < (SET) >.



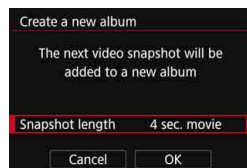
- 2 Select [Enable].
 - Select [Enable], then press < (SET) >.



- 3 Select [Album settings].**
- Select **[Album settings]**, then press **<SET>**.



- 4 Select [Create a new album].**
- Select **[Create a new album]**, then press **<SET>**.



- 5 Select the snapshot length.**
- Press **<SET>** and use the **<▲>** **<▼>** keys to select the snapshot's length, then press **<SET>**.



Shooting duration

- 6 Select [OK].**
- Select **[OK]**, then press **<SET>**.
 - Press the **<MENU>** button to exit the menu.
 - ▶ A blue bar will appear to indicate the snapshot length.
 - Go to "Creating a Video Snapshot Album" (p.255).

Creating a Video Snapshot Album



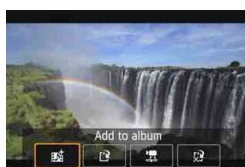
7 Shoot the first video snapshot.

- Press the <CAM> button, then shoot.
- ▶ The blue bar indicating the shooting duration will gradually decrease. After the set shooting duration elapses, the shooting stops automatically.
- ▶ The confirmation screen will appear (p.256-257).



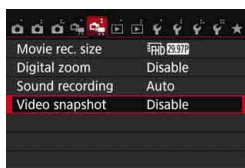
8 Save as a video snapshot album.

- Select [Save as album], then press <SET>.
- ▶ The movie clip will be saved as the video snapshot album's first video snapshot.



9 Continue to shoot more video snapshots.

- Repeat step 7 to shoot the next video snapshot.
- Select [Add to album], then press <SET>.
- To create another video snapshot album, select [Save as a new album].
- Repeat step 9 as necessary.

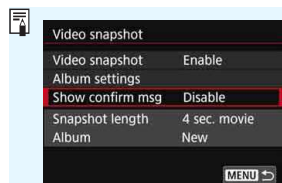


10 Exit the video snapshot shooting.

- Set [Video snapshot] to [Disable].
To return to normal movie shooting, be sure to set [Disable].
- Press the <MENU> button to exit the menu, and return to the normal movie shooting.

Options in Steps 8 and 9

Function	Description
 Save as album (Step 8)	The movie clip will be saved as the video snapshot album's first video snapshot.
 Add to album (Step 9)	The video snapshot just recorded will be added to the album recorded immediately before.
 Save as a new album (Step 9)	A new video snapshot album is created and the movie clip is saved as the first video snapshot. The new album will be a different file from the previously recorded album.
 Playback video snapshot (Steps 8 and 9)	The video snapshot just recorded will be played back. For playback operations, see the table on the next page.
 Do not save to album (Step 8)	The video snapshot just recorded will be erased instead of being saved to the album. Select [OK] on the confirmation dialog.
 Delete without saving to album (Step 9)	



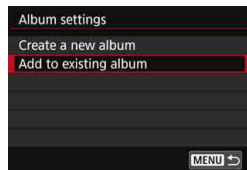
If you want to shoot another video snapshot right after shooting one video snapshot, set **[Show confirm msg]** to **[Disable]**. This setting will allow you to immediately shoot the next video snapshot without the confirmation screen appearing after you shoot each time.

[Playback video snapshot] Operations in Steps 8 and 9

Function	Playback Description
 Play	By pressing <⏮>, you can play back or pause the video snapshot recorded immediately before.
 First frame	Displays the first scene of the album's first video snapshot.
 Skip backward*	Each time you press <⏮>, the video snapshot skips back by a few seconds.
 Previous frame	Each time you press <⏮>, the previous frame is displayed. If you hold down <⏮>, it will rewind the movie.
 Next frame	Each time you press <⏭>, the movie will play frame-by-frame. If you hold down <⏭>, it will fast forward the movie.
 Skip forward*	Each time you press <⏭>, the video snapshot skips forward by a few seconds.
 Last frame	Displays the last scene of the album's last video snapshot.
	Playback position
mm' ss"	Playback time (minutes:seconds)
 Volume	You can adjust the built-in speaker's (p.304) volume by turning the <🔊> dial.
MENU 	Pressing the <MENU> button returns to the previous screen.

* With [Skip backward] and [Skip forward], the skipping length corresponds to the number of seconds set under [Video snapshot] (approx. 2 sec., 4 sec., or 8 sec.).

Adding to an Existing Album



- 1 **Select [Add to existing album].**
 - Follow step 4 on page 254 to select [Add to existing album], then press <SET>.



- 2 **Select an existing album.**
 - Turn the <DISP> dial to select an existing album, then press <SET>.
 - Select [OK], then press <SET>.
 - ▶ Certain video snapshot settings will change to match the existing album's settings.
 - Press the <MENU> button to exit the menu.
 - ▶ The video snapshot shooting screen will appear.

- 3 **Shoot the video snapshot.**
 - See "Creating a Video Snapshot Album" (p.255) to shoot the video snapshot.

 You cannot select an album shot with another camera.



Cautions for Shooting Video Snapshots

- You can add to an album only video snapshots with the same duration (approx. 2 sec., 4 sec., or 8 sec. each).
- Note that if you do any of the following while shooting video snapshots, a new album will be created for subsequent video snapshots.
 - Changing the **[Movie rec. size]**.
 - Changing the **[Sound rec.]** setting from **[Auto]/[Manual]** to **[Disable]** or from **[Disable]** to **[Auto]/[Manual]**.
 - Updating the firmware.
- You cannot take still photos while shooting a video snapshot.
- The shooting duration of a video snapshot is only approximate. Depending on the frame rate, the shooting duration displayed during playback may not be exact.

Playing back an Album

You can play back a video snapshot album in the same way as a normal movie (p.304).



1 Play back the movie.

- Press the <▶> button to display an image.



2 Select the album.

- In the single-image display, the [SET] icon displayed on the upper left of the screen indicates a video snapshot album.
- Turn the <◂> dial to select an album.



3 Play back the album.

- Press <SET>.
- On the movie playback panel displayed, select [▶] (Play), then press <SET>.

Background Music

- You can play background music when you play back albums, normal movies, and slide shows on the camera (p.305, 308). To play background music, you must first copy the background music to the card using EOS Utility (EOS software). For information on how to copy the background music, refer to the EOS Utility Instruction Manual (p.422).
- Music recorded on the memory card must be used only for private enjoyment. Do not violate the rights of the copyright holder.

Editing an Album

After shooting, you can rearrange, delete, or play back the video snapshots in the album.



- 1 Select [X].
- On the movie playback panel displayed, select [X] (Edit), then press <SET>.
 - The editing screen will be displayed.



- 2 Select an editing operation.
- Select an editing option, then press <SET>.

Function	Description
 Move snapshot	Press the <◀> <▶> keys to select the video snapshot you want to move, then press <SET>. Press the <◀> <▶> keys to move the snapshot, then press <SET>.
 Delete snapshot	Press the <◀> <▶> keys to select the video snapshot you want to delete, then press <SET>. The [🗑️] icon will be displayed on the selected video snapshot. Pressing <SET> again will cancel the selection and [🗑️] will disappear.
 Play snapshot	Press the <◀> <▶> keys to select the video snapshot you want to play, then press <SET>.



3 Save the edited album.

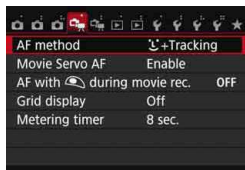
- Press the <MENU> button to return to the Editing panel at the screen's bottom.
- Select [L2] (Save), then press <SET>.
- ▶ The save screen will appear.
- To save it as a new album, select [New file]. To save it and overwrite the original album, select [Overwrite], then press <SET>.



- If the card does not have enough free space, [New file] will not be available.
- When the battery level is low, editing albums is not possible. Use a fully-charged battery.

MENU Menu Function Settings

1



When you set the power switch to <[icon]>, the [1] and [2] tabs will show functions dedicated to movie shooting.

- **AF method**

The AF methods are the same as described on pages 218-225. You can select [**Tracking**], [**FlexiZone - Multi**], or [**FlexiZone - Single**].

- **Movie Servo AF**

During movie shooting, the camera focuses on the subject continuously. The default setting is [**Enable**].

When [Enable] is set:

- The camera focuses on the subject continuously even when you are not pressing the shutter button halfway.
- Since this drives the lens continuously, it will consume battery power and shorten the total possible movie shooting time (p.247).
- With certain lenses, the lens mechanical sound during focusing may be recorded. If this happens, use the Directional Stereo Microphone DM-E1 (sold separately) to reduce the lens mechanical sound in the movie. Also, using certain STM lenses (for example, the EF-S18-135mm f/3.5-5.6 IS STM) will reduce lens operation noise.
- If you want to set the lens's focus mode switch to <MF> during Movie Servo AF, first set the power switch to <ON>.

MENU Menu Function Settings

- If you want to keep the focus at a specific point, or if you do not want the lens operation noise to be recorded, you can temporarily stop Movie Servo AF as follows. When you stop Movie Servo AF, the AF point will turn gray. When you perform the same steps below, Movie Servo AF will resume.
 - Press the <⚡> button.
 - Tap the [SERVO AF] icon on the lower left of the screen.
 - If [10: Shutter/AE lock button] is set to [2: AF/AF lock, no AE lock] in the [4: Custom Functions (C.Fn)], you can pause the Movie Servo AF while holding down the <✳> button. When you let go of the <✳> button, Movie Servo AF will resume.
- When Movie Servo AF is paused, if you return to movie shooting after pressing the <MENU> or <▶> button, Movie Servo AF will resume.

When [Disable] is set:

- Press the shutter button halfway to focus.

Cautions When [Movie Servo AF] is Set to [Enable]

- **Shooting Conditions that Make Focusing Difficult**
 - A fast-moving subject approaching or moving away from the camera.
 - A subject moving at a close distance in front of the camera.
 - Also see “Shooting Conditions that Make Focusing Difficult” on page 224.
- Movie Servo AF will pause during zooming or in magnified view.
- During movie shooting, if a subject approaches or moves away or if the camera is moved vertically or horizontally (panning), the recorded movie image may momentarily expand or contract (change in image magnification).

● **AF with shutter button during movie recording**

While shooting a movie, you can also take a still photo by pressing the shutter button completely. By default, AF operation is set to [One-Shot AF].

When [One-Shot AF] is set:

- You can refocus and shoot a still photo by pressing the shutter button halfway while shooting a movie.
- When shooting a still subject, you can perform shooting in precise focus.

When [Disable] is set:

- You can immediately start shooting a still photo by pressing the shutter button, even though focus is not achieved. This is effective when you want to give priority to the shooting opportunity rather than to focusing.

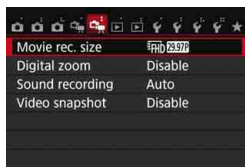
● **Grid display**

With [Grid 1 $\equiv$] or [Grid 2 $\equiv$], you can display grid lines. You can check horizontal or vertical tilt when shooting.

● **Metering timer[★]**

You can change how long the exposure setting is displayed (AE lock time).

2



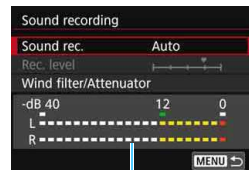
● **Movie recording size**

You can set the movie recording size (image size, frame rate, and compression method). For details, see pages 245-247.

● **Digital zoom**

You can use digital zoom for telephoto shooting. For details, see page 248.

● Sound recording ☆



Level meter

Normally, the built-in microphones will record stereo sound. Stereo sound recording is also possible by connecting the Directional Stereo Microphone DM-E1 (sold separately) to the camera's external microphone IN terminal (p.26) as the external microphone is given the priority.

[Sound rec./Rec. level] options

[Auto] : The sound-recording level is adjusted automatically. Auto level control will operate automatically in response to the sound level.

[Manual] : For advanced users. You can adjust the sound-recording level to one of 64 levels. Select **[Rec. level]** and look at the level meter while pressing the <◀> <▶> keys to adjust the sound-recording level. Look at the peak hold indicator (approx. 3 sec.), and adjust so that the level meter sometimes lights up on the right of the "12" (-12 dB) mark for the loudest sounds. If it exceeds "0", the sound will be distorted.

[Disable] : Sound will not be recorded.

[Wind filter]

When set to **[Auto]**, it reduces wind noise when there is wind outdoors. This feature takes effect only with the built-in microphones. When the wind filter function takes effect, low bass sounds will also be reduced.

[Attenuator]

Even if you set **[Sound recording]** to **[Auto]** or **[Manual]** before shooting, sound distortion may still result if there is a very loud sound. In such a case, setting it to **[Enable]** is recommended.



- In Basic Zone modes, the settings available for **[Sound recording]** will be **[On]** or **[Off]**. If **[On]** is set, the sound-recording level will be adjusted automatically (same as with **[Auto]**), and the wind filter function will take effect.
- The sound volume balance between L (left) and R (right) cannot be adjusted.
- Both L and R record audio at a 48 kHz/16-bit sampling rate.

- **Video snapshots**

You can shoot video snapshots. For details, see page 253.

General Movie Shooting Cautions

White <🔥> and Red <🔥> Internal Temperature Warning Icons

- If the camera's internal temperature increases due to prolonged movie shooting or under a high ambient temperature, a white <🔥> or red <🔥> icon will appear.
- The white <🔥> icon indicates that the image quality of still photos will deteriorate. It is recommended that you stop still photo shooting for a while and allow the camera to cool down. Since movie image quality will hardly be affected, you can still shoot movies.
- The red <🔥> icon indicates that movie shooting will soon be terminated automatically. If this happens, you will not be able to shoot again until the camera's internal temperature decreases. Turn off the power and let the camera rest for a while.
- Shooting a movie at a high temperature for a prolonged period will cause the <🔥> or <🔥> icon to appear earlier. When you are not shooting, always turn off the camera.

Recording and Image Quality

- If the attached lens has an Image Stabilizer and you set the Image Stabilizer (IS) switch to <ON>, the Image Stabilizer will operate at all times even if you do not press the shutter button halfway. The Image Stabilizer consumes battery power and may shorten the total movie shooting time or decrease the number of possible shots. If you use a tripod or if the Image Stabilizer is not necessary, it is recommended to set the IS switch to <OFF>.
- The camera's built-in microphones will also pick up the operation sound and mechanical sound of the camera during shooting. Use the Directional Stereo Microphone DM-E1 (sold separately) to reduce these sounds in the movie.
- Do not connect anything other than an external microphone to the camera's external microphone IN terminal.
- If the brightness changes during autoexposure movie shooting, the movie may freeze temporarily. In such cases, shoot movies with manual exposure.
- If there is a very bright light source in the image, the bright area may appear black on the LCD monitor. The movie will be recorded almost exactly as it appears on the LCD monitor.
- In low light, noise or irregular colors may appear in the image. The movie will be recorded almost exactly as it appears on the LCD monitor.
- If you play back a movie with other devices, image or sound quality may deteriorate or playback may not be possible (even if the devices support MP4 format).

General Movie Shooting Cautions

Recording and Image Quality

- If you use a card with a slow writing speed, a five-level indicator may appear on the right of the screen during movie shooting. It indicates how much data has not yet been written to the card (remaining capacity of the internal buffer memory). The slower the card, the faster the indicator will climb upward. If the indicator becomes full, movie shooting will stop automatically.

If the card has a fast writing speed, the indicator will either not appear or the level (if displayed) will hardly go upward. First, shoot a few test movies to see if the card can write fast enough.



Indicator

Still Photo Shooting During Movie Shooting

- Regarding the image quality of still photos, see "Image Quality" on page 230.

Playback and TV Connection

- If you connect the camera to a TV set (p.312-315) and shoot a movie, the TV set will not output any sound during the shooting. However, the sound will be properly recorded.

Restrictions on MP4-format Movies

Note that generally the following restrictions apply to MP4-format movies.

- Sound will not be recorded on approx. the last two frames.
- When you play back movies on Windows, images and sound may become slightly out of synchronization.



9

Handy Features

- Disabling the Beeper (p.272)
- Card Reminder (p.272)
- Setting the Image Review Time (p.273)
- Setting the Auto Power-off Time (p.273)
- Adjusting the LCD Monitor Brightness (p.274)
- Creating and Selecting a Folder (p.275)
- File Numbering Methods (p.277)
- Setting Copyright Information (p.279)
- Auto Rotation of Vertical Images (p.281)
- Reverting the Camera to the Default Settings (p.282)
- Preventing the LCD Monitor from Turning Off Automatically (p.285)
- Changing the Shooting Settings Screen Color (p.285)
- Automatic Sensor Cleaning (p.286)
- Appending Dust Delete Data (p.287)
- Manual Sensor Cleaning (p.289)

Handy Features

MENU Disabling the Beeper

You can prevent the beeper from sounding when focus is achieved during self-timer shooting and touch screen operations.

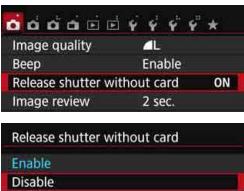


Under the [**1**] tab, select [**Beep**], then press <[**SET**]>. Select [**Disable**], then press <[**SET**]>.

To silence the beeper only during touch screen operations, select [**Touch to [speaker icon]**].

MENU Card Reminder

This setting prevents shooting if there is no card in the camera.



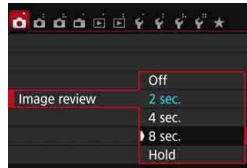
Under the [**1**] tab, select [**Release shutter without card**], then press <[**SET**]>. Select [**Disable**], then press <[**SET**]>.

If there is no card inserted in the camera and you press the shutter button, “**Card**” will be displayed in the viewfinder and on the LCD panel, and you cannot release the shutter.

MENU Setting the Image Review Time

You can set how long the image is displayed on the LCD monitor just after shooting. If [Off] is set, the image will not be displayed just after shooting. If [Hold] is set, the image review will be displayed up until the [Auto power off] time has elapsed.

During image review, if you operate any camera controls such as pressing the shutter button halfway, the image review will end.



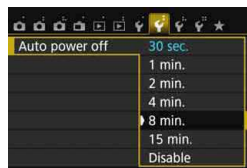
Under the [**1**] tab, select [**Image review**], then press <SET>. Select the desired setting, then press <SET>.

MENU Setting the Auto Power-off Time

To save battery power, the camera turns off automatically after the set time of idle operation elapses. You can set this auto power-off time. When the camera is turned off due to auto power off, you can turn it on again by pressing the shutter button, etc.

If [Disable] is set, either turn off the camera or press the <INFO.> button to turn off the LCD monitor to save battery power.

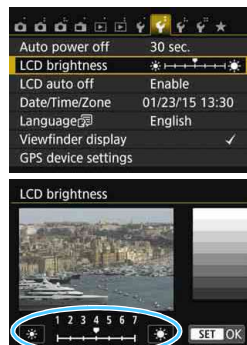
Even when [Disable] is set, if the camera is not used for 30 min., the LCD monitor will turn off automatically. To turn on the LCD monitor again, press the <INFO.> button.



Under the [**2**] tab, select [**Auto power off**], then press <SET>. Select the desired setting, then press <SET>.

MENU Adjusting the LCD Monitor Brightness

You can adjust the brightness of the LCD monitor to make it easier to read.



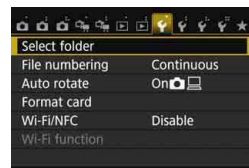
Under the [**2**] tab, select [**LCD brightness**], then press **<SET>**. Press the **<◀>** keys to adjust the brightness on the adjustment screen, then press **<SET>**.

When checking the exposure of an image, set the LCD monitor brightness to 4 and prevent the ambient light from affecting the image.

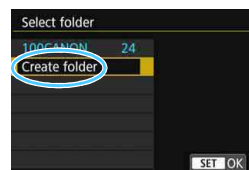
MENU Creating and Selecting a Folder

You can freely create and select the folder where the captured images are to be saved.

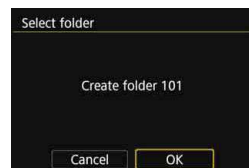
This operation is optional since a folder will be created automatically for saving captured images.

Creating a Folder**1 Select [Select folder].**

- Under the [1] tab, select [Select folder], then press <SET>.

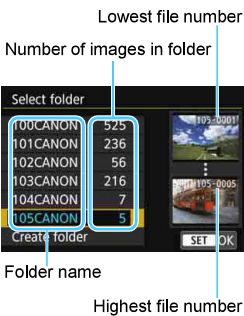
**2 Select [Create folder].**

- Select [Create folder], then press <SET>.

**3 Create a new folder.**

- Select [OK], then press <SET>.
- ▶ A new folder with the folder number increased by one is created.

Selecting a Folder



- With the folder selection screen displayed, select a folder and press $\langle \text{SET} \rangle$.
- ▶ The folder where the captured images will be saved is selected.
- Subsequent captured images will be recorded into the selected folder.

Folders

As with "100CANON" for example, the folder name starts with three digits (the folder number) followed by five alphanumeric characters. A folder can contain up to 9999 images (file number 0001 - 9999). When a folder becomes full, a new folder with the folder number increased by one is created automatically. Also, if manual reset (p.278) is executed, a new folder will be created automatically. Folders numbered from 100 to 999 can be created.

Creating Folders with a Computer

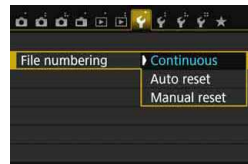
With the card open on the screen, create a new folder named "DCIM". Open the DCIM folder and create as many folders as necessary to save and organize your images. The folder name must follow the format "100ABC_D". The first three digits are the folder number, from 100 to 999. The last five characters can be any combination of upper- and lower-case letters from A to Z, numerals, and the underscore "_". The space cannot be used. Also note that two folder names cannot share the same three-digit folder number (for example, "100ABC_D" and "100W_XYZ"), even if the last five characters in each name are different.

MENU File Numbering Methods

The image files will be numbered from 0001 to 9999 in the order the images are taken, then saved in a folder. You can change how the file number is assigned.

The file number will appear on your computer in this format:

IMG_0001.JPG.

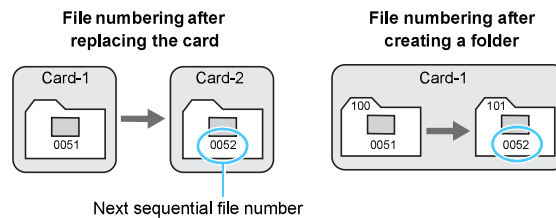


Under the [**1**] tab, select [**File numbering**], then press <SET>. The available settings are described below. Select the option, then press <SET>.

- **[Continuous]: The file numbering continues in sequence even after you replace the card or create a folder.**

Even after you replace the card or create a new folder, the file numbering continues in sequence up to 9999. This is convenient when you want to save images numbered anywhere between 0001 to 9999 on multiple cards or in multiple folders into one folder on your computer.

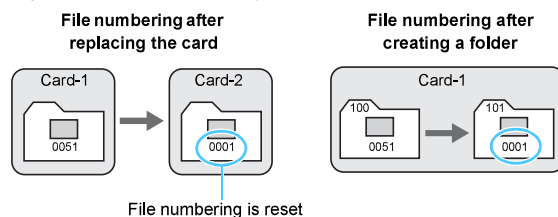
If the replacement card or existing folder already contains images recorded previously, the file numbering of the new images may continue from the file numbering of the existing images on the card or in the folder. If you want to use continuous file numbering, it is recommended that you use a newly-formatted card each time.



- **[Auto reset]: The file numbering restarts from 0001 each time the card is replaced or a new folder is created.**

When you replace the card or create a folder, the file numbering restarts from 0001 for the new images saved. This is convenient if you want to organize images by cards or folders.

If the replacement card or existing folder already contains images recorded previously, the file numbering of the new images may continue from the file numbering of the existing images on the card or in the folder. If you want to save images with the file numbering starting from 0001, use a newly formatted card each time.



- **[Manual reset]: To reset the file numbering to 0001 manually or to start from file number 0001 in a new folder.**

When you reset the file numbering manually, a new folder is created automatically and the file numbering of images saved to that folder starts from 0001.

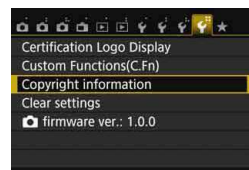
This is convenient if you want to use different folders for the images taken yesterday and the ones taken today, for example. After the manual reset, the file numbering returns to continuous or auto reset. (There will be no manual reset confirmation dialog.)

- If the file number in folder 999 reaches 9999, shooting will not be possible even if the card still has storage capacity. The LCD monitor will display a message telling you to replace the card. Replace it with a new card.

- For both JPEG and RAW images, the file name will start with "IMG_". Movie file names will start with "MVL_". The extension will be ".JPG" for JPEG images, ".CR2" for RAW images, and ".MP4" for movies.

MENU Setting Copyright Information*

When you set the copyright information, it will be appended to the image as Exif information.

**1 Select [Copyright information].**

- Under the [F4] tab, select [Copyright information], then press <SET>.

**2 Select the option to be set.**

- Select [Enter author's name] or [Enter copyright details], then press <SET>.
- The text entry screen will appear.
- Select [Display copyright info.] to check the copyright information currently set.
- Select [Delete copyright information] to delete the copyright information currently set.

**3 Enter text.**

- See "Text Entry Procedure" on the next page and enter the copyright information.
- Enter up to 63 alphanumeric characters and symbols.

4 Exit the setting.

- After entering the text, press the <MENU> button to exit.
- On the confirmation dialog, select [OK], then press <SET>.

Text Entry Procedure



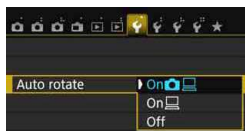
- **Changing the Entry Area:**
Press the <Q> button to toggle between the top and bottom entry areas.
- **Moving the Cursor:**
Press the <◀> <▶> keys in the top area to move the cursor.

- **Entering Text:**
In the bottom area, press the <▲> <▼> or <◀> <▶> keys to select a character, then press <SET> to enter it.
- **Changing the Entry Mode:***
Select [Aa=1@] at the bottom right of the bottom entry area. Each time you press <SET>, the entry mode will change as follows: Lower case → Numerals / Symbols 1 → Numerals / Symbols 2 → Upper case.
* When [Touch control: Disable] is set, you can enter all characters on one screen.
- **Deleting a Character:**
Press the <⏮> button to delete one character.
- **Finishing the Text Entry:**
Press the <MENU> button, check the text, select [OK], then press <SET>. The screen in step 2 will reappear.
- **Canceling the Text Entry:**
Press the <INFO> button, check the text, select [OK], then press <SET>. The screen in step 2 will reappear.

 You can also set or check the copyright information with EOS Utility (EOS software, p.420).

MENU Auto Rotation of Vertical Images

Vertical images are rotated automatically so they are displayed vertically on the camera's LCD monitor and on the computer instead of horizontally. You can change the setting for this feature.



Under the [**1**] tab, select [**Auto rotate**], then press <[**SET**]>. The available settings are described below. Select the option, then press <[**SET**]>.

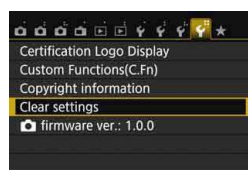
- [**On**] : The vertical image is automatically rotated during playback on both the camera's LCD monitor and on the computer.
- [**On**] : The vertical image is automatically rotated only on the computer.
- [**Off**] : The vertical image is not automatically rotated.

? FAQ

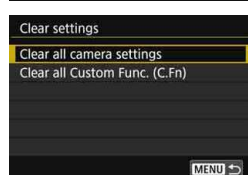
- **The vertical image is not rotated during the image review just after shooting.**
Press the <[**▶**]> button and the image playback will display the rotated image.
- **[On] is set, but the image does not rotate during playback.**
Auto rotate will not work with vertical images captured while [**Auto rotate**] was set to [**Off**]. If the vertical image is taken while the camera is pointed up or down, the image may not be rotated automatically for playback. In such a case, see "Rotating the Image" on page 297.
- **On the camera's LCD monitor, I want to rotate an image captured when [On] had been set.**
Set [**On**], then play back the image. It will be rotated.
- **The vertical image does not rotate on the computer screen.**
The software used is not compatible with image rotation. Use EOS software instead.

MENU Reverting the Camera to the Default Settings[☆]

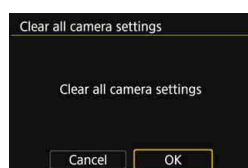
The camera's shooting function settings and menu settings can be reverted to their defaults. This option is available in Creative Zone modes.



- 1 **Select [Clear settings].**
 - Under the [**4**] tab, select [**Clear settings**], then press <[SET]>.



- 2 **Select [Clear all camera settings].**
 - Select [**Clear all camera settings**], then press <[SET]>.



- 3 **Select [OK].**
 - Select [**OK**], then press <[SET]>.
 - ▶ Setting [**Clear all camera settings**] will reset the camera to the default settings as shown on pages 283-284.

? FAQ

- **Clearing all camera settings**
After the procedure above, select [**Clear all Custom Func. (C.Fn)**] in [**4: Clear settings**] to clear all the Custom Function settings (p.350).

Shooting Function Settings		Image Recording Settings	
<SCN> mode	 (Kids)	Image quality	 L
AF operation	One-Shot AF	Picture Style	Auto
AF area selection mode	Auto selection: 19 pt AF	Auto Lighting Optimizer	Standard
Drive mode	 (Single shooting)	Peripheral illumination correction	Enable / Correction data retained
Metering mode	 (Evaluative metering)	Chromatic aberration correction	Enable / Correction data retained
ISO speed	AUTO (Auto)	Distortion correction	Disable / Correction data retained
ISO Auto	Maximum 6400	Color space	sRGB
Exposure compensation / AEB	Canceled	White balance	 (Auto)
Flash exposure compensation	0 (Zero)	Custom White Balance	Canceled
Red-eye reduction	Disable	White balance correction	Canceled
Anti-flicker shooting	Disable	White balance bracketing	Canceled
Aspect ratio	3 : 2	Long exposure noise reduction	Disable
Viewfinder display	Display only flicker detection	High ISO speed noise reduction	Standard
Custom Functions	Unchanged	File numbering	Continuous
Flash control		Auto cleaning	Enable
Flash firing	Enable	Dust Delete Data	Erase
E-TTL II flash metering	Evaluative flash metering		
Flash sync. speed in Av mode	Auto		

Handy Features

Camera Settings

Auto power off	30 sec.
Beep	Enable
Release shutter without card	Enable
Image review	2 sec.
AF point display	Disable
Histogram display	Brightness
Image jump with 	 (10 images)
Auto rotate	On 
LCD brightness	
LCD auto off	Enable
Date/Time/Zone	Unchanged
Language	Unchanged
Video system	Unchanged
INFO. button display options	All items selected
Screen color	1
Feature guide	Enable
Touch control	Standard
Copyright information	Unchanged
Control over HDMI	Disable
Eye-Fi transmission	Disable
My Menu settings	Unchanged
Display from My Menu	Disable
Wi-Fi/NFC	Disable
Wi-Fi function	Unchanged

Live View Shooting Settings

Live View shooting	Enable
AF method	 +Tracking
Continuous AF	Enable
Touch Shutter	Disable
Grid display	Off
Metering timer	8 sec.

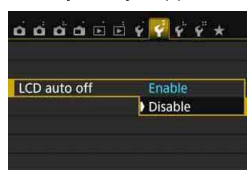
Movie Shooting Settings

AF method	 +Tracking
Movie Servo AF	Enable
AF with shutter button during movie recording	One-Shot AF
Grid display	Off
Metering timer	8 sec.
Movie recording size	NTSC:  29.97 (Standard) PAL:  25.00 (Standard)
Digital zoom	Disable
Sound recording	Auto
Video snapshot	Disable

 For Wi-Fi/NFC settings, refer to the Wi-Fi/NFC Function Instruction Manual.

MENU Preventing the LCD Monitor from Turning Off Automatically

You can prevent the display-off sensor from turning off the LCD monitor when your eye approaches the viewfinder.



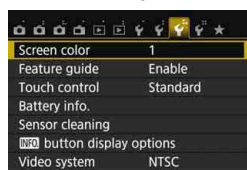
Under the [**2**] tab, select [**LCD auto off**], then press <SET>. Select [**Disable**], then press <SET>.



When Angle Finder C (sold separately) is attached to the viewfinder, set it to [**Disable**]. If [**Enable**] is set, the LCD monitor may remain off.

MENU Changing the Shooting Settings Screen Color

You can change the background color of the shooting settings screen.



Under the [**3**] tab, select [**Screen color**], then press <SET>. Select the desired color, then press <SET>.

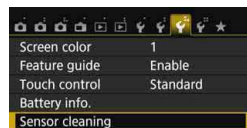
When you exit the menu, the shooting settings screen based in the selected color will be displayed.



Automatic Sensor Cleaning

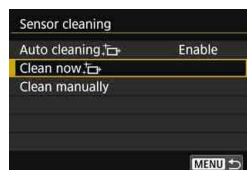
Whenever you set the power switch to <ON> or <OFF>, the Self Cleaning Sensor Unit operates to automatically shake off the dust on the front of the sensor. Normally, you need not pay attention to this operation. However, you can choose to perform sensor cleaning manually, or disable it.

Cleaning the Sensor Now



1 Select [Sensor cleaning].

- Under the [**3**] tab, select [**Sensor cleaning**], then press <SET>.



2 Select [Clean now].

- Select [**Clean now **], then press <SET>.
- Select [**OK**], then press <SET>.
- ▶ The screen will indicate that the sensor is being cleaned. (A small sound may be heard.) Although there will be a shutter sound, no picture is taken.



- For best results, perform the sensor cleaning with the camera placed upright and stable on a table or other flat surface.
- Even if you repeat the sensor cleaning, the result will not improve much. Immediately after the sensor cleaning is finished, the [**Clean now **] option remains disabled temporarily.

Disabling Automatic Sensor Cleaning

- In step 2, select [**Auto cleaning **] and set it to [**Disable**].
- ▶ The sensor cleaning will no longer be executed when you set the power switch to <ON> or <OFF>.

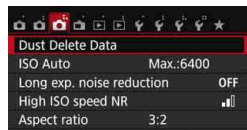
MENU Appending Dust Delete Data ☆

Normally, the Self Cleaning Sensor Unit will eliminate most of the dust that may be visible on captured images. However, in case visible dust still remains, you can append the Dust Delete Data to the image for erasing the dust spots later. The Dust Delete Data is used by Digital Photo Professional (EOS software, p.420) to erase the dust spots automatically.

Preparation

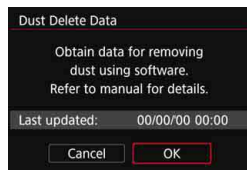
- Prepare a solid white object such as a sheet of paper.
- Set the lens focal length to 50 mm or longer.
- Set the lens focus mode switch to <MF> and set the focus to infinity (∞). If the lens has no distance scale, rotate the camera to face towards you and turn the focusing ring clockwise all the way.

Obtaining the Dust Delete Data



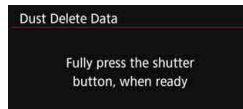
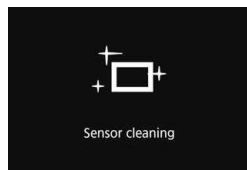
1 Select [Dust Delete Data].

- Under the [CAMERA 3] tab, select [Dust Delete Data], then press <SET>.



2 Select [OK].

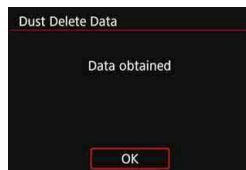
- Select [OK] and press <SET>. After the automatic self-cleaning of the sensor is performed, a message will appear. Although there will be a shutter sound during the cleaning, no picture is taken.





3 Shoot a solid-white object.

- At a distance of 20 cm - 30 cm (0.7 ft. - 1.0 ft.), fill the viewfinder with a patternless, solid-white object and take a picture.
- ▶ The picture will be taken in aperture-priority AE mode at an aperture of f/22.
- Since the image will not be saved, the data can still be obtained even if there is no card in the camera.
- ▶ When the picture is taken, the camera will start collecting the Dust Delete Data. When the Dust Delete Data is obtained, a message will appear. Select **[OK]** and the menu will reappear.
- If the data is not obtained successfully, an error message will appear. Follow the "Preparation" procedure on the preceding page, then select **[OK]**. Take the picture again.



Dust Delete Data

After the Dust Delete Data is obtained, it is appended to all the JPEG and RAW images captured thereafter. Before an important shoot, it is recommended to update the Dust Delete Data by obtaining it again. For details about using Digital Photo Professional (EOS software) to erase dust spots, refer to the Digital Photo Professional Instruction Manual (p.422).

The Dust Delete Data appended to the image is so small that it hardly affects the image file size.

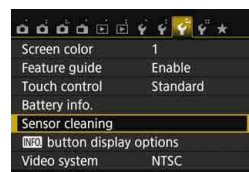


Be sure to use a solid-white object such as a new sheet of white paper. If the object has any pattern or design, it may be recognized as dust data and affect the accuracy of the dust deletion with EOS software.

MENU Manual Sensor Cleaning ☆

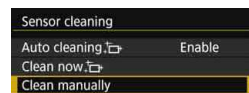
Dust that could not be removed by the automatic sensor cleaning can be removed manually with a commercially-available blower, etc. Before cleaning the sensor, detach the lens from the camera.

The image sensor is extremely delicate. If the sensor needs to be cleaned directly, having it done by a Canon Service Center is recommended.



1 Select [Sensor cleaning].

- Under the [P3] tab, select [Sensor cleaning], then press <SET>.



2 Select [Clean manually].

- Select [Clean manually], then press <SET>.



3 Select [OK].

- Select [OK], then press <SET>.
- In a moment, the reflex mirror will lockup and the shutter will open.
- "CLn" will blink on the LCD panel.

4 Clean the sensor.

5 End the cleaning.

- Set the power switch to <OFF>.

If you use a battery, make sure it is fully charged.

For the power source, using the DC Coupler DR-E18 (sold separately) and AC Adapter AC-E6N (sold separately) is recommended.



- **While cleaning the sensor, never do any of the following. If the power is cut off, the shutter will close and the shutter curtains and image sensor may get damaged.**
 - **Setting the power switch to <OFF>.**
 - **Removing or inserting the battery.**
- The surface of the image sensor is extremely delicate. Clean the sensor with care.
- Use a plain blower without any brush attached. A brush can scratch the sensor.
- Do not insert the blower tip inside the camera beyond the lens mount. If the power is turned off, the shutter will close and the shutter curtains or reflex mirror may get damaged.
- Never use pressurized air or gas to clean the sensor. The blowing force can damage the sensor, or the spray gas can freeze on the sensor and scratch it.
- If the battery level becomes low while cleaning the sensor, the beeper will sound as a warning. Stop cleaning the sensor.
- If a smudge that cannot be removed with a blower remains, having the sensor cleaned by a Canon Service Center is recommended.

10

Image Playback

This chapter explains functions related to viewing photos and movies, with more advanced uses than in Chapter 2 “Basic Shooting and Image Playback”. Here you will find explanations of how to play back and erase photos and movies with the camera and view them on a TV set.

Images shot and saved with another device

The camera may not be able to properly display images captured with a different camera, edited with a computer, or that have had their file names changed.

▶ Searching for Images Quickly

▣ Displaying Multiple Images on One Screen (Index Display)

Search for images quickly with the index display showing 4, 9, 36, or 100 images on one screen.



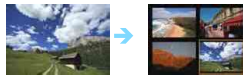
1 Play back the image.

- When you press the button, the last image captured will be displayed.



2 Switch to the index display.

- Press the button.
- ▶ The 4-image index display will appear. The selected image is highlighted with an orange frame.
- Pressing the button will switch the display as follows: 9 images → 36 images → 100 images.
- Pressing the button will switch the display as follows: 100 images → 36 images → 9 images → 4 images → 1 image.



3 Select an image.

- Turn the dial to move the orange frame and select the image. You can also press the or keys to select the image.
- Turning the dial will display image(s) on the next or previous screen.
- Press in the index display to display the selected image in the single-image display.

🖼️ Jumping through Images (Jump Display)

In the single-image display, you can turn the <🕒> dial to jump through the images forward or backward according to the jump method set.



1 Select [Image jump w/🕒].

- Under the [📺2] tab, select [Image jump w/🕒], then press <SET>.

2 Select the jump method.

- Turn the <🕒> dial to select the jump method, then press <SET>.

- 🕒: Display images one by one
 - 🕒10: Jump 10 images
 - 🕒100: Jump 100 images
 - 📅: Display by date
 - 📁: Display by folder
 - 🎬: Display movies only
 - 📷: Display stills only
 - ★: Display by image rating (p.298)
- Turn the <🕒> dial to select.



Jump method

Playback position

3 Browse by jumping.

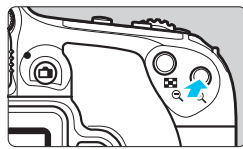
- Press the <▶> button to play back images.
- In the single-image display, turn the <🕒> dial.
- ▶ You can browse images with the method that was set.



- To search images by shooting date, select [Date].
- To search images by folder, select [Folder].
- If the card contains both movies and still photos, select [Movies] or [Stills] to display only one or the other.
- If no images match the selected [Rating], you cannot browse through the images with the <🕒> dial.

Magnified View

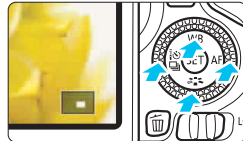
You can magnify a captured image by approx. 1.5x to 10x on the LCD monitor.



Magnified area position

1 **Magnify the image.**

- Press the  button during image playback.
- ▶ The image will be magnified.
- If you hold down the  button, the image will be magnified until it reaches the maximum magnification.
- Press the  button to reduce the magnification. If you hold down the button, the magnification will be reduced to the single-image display.



2 **Scroll around the image.**

- Press the   or   keys to scroll the magnified image in the direction pressed.
- To exit magnified view, press the  button and the single-image display will reappear.

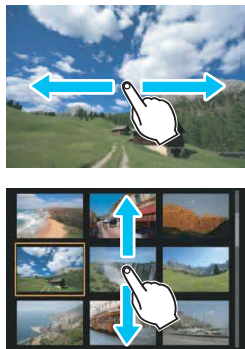


- In magnified view, you can turn the  dial to view another image at the same magnification.
- The image cannot be magnified during the image review just after shooting.
- A movie cannot be magnified.

Playing Back with the Touch Screen

The LCD monitor is a touch-sensitive panel that you can touch with your fingers for various playback operations. **First, press the <▶> button to play back images.**

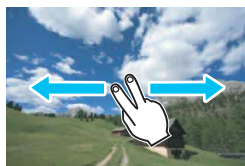
Browsing Images



Swipe with one finger.

- With single-image display, touch the LCD monitor with **one finger**. You can browse to the next or previous image by swiping your finger to the left or right.
Swipe to the left to see the next (newer) image, or swipe to the right to see the previous (older) image.
- With index display, also touch the LCD monitor with **one finger**. You can browse to the next or previous screen by swiping your finger up or down.
Swipe up to see the next (newer) images or swipe down to see the previous (older) images.
When you select an image, the orange frame will appear. Tap on the image again to display it as a single image.

Jumping through Images (Jump Display)



Swipe with two fingers.

Touch the LCD monitor with **two fingers**. When you swipe two fingers to the left or right, you can jump through images with the method set in [Image jump w/ ] under the [▶2] tab.

Reducing Image (Index Display)



Pinch two fingers.

Touch the screen with two fingers spread apart, and pinch your fingers together on the screen.

- Each time you pinch your fingers, the single-image display will change to the index display.
- When you select an image, the orange frame will appear. Tap on the image again to display it as a single image.

Magnifying Image



Spread two fingers apart.

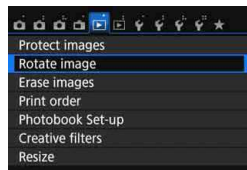
Touch the screen with two fingers together, then spread your fingers apart on the screen.

- As you spread your fingers, the image will be magnified.
- The image can be magnified up to approx. 10x.
- You can scroll around the image by dragging your fingers.
- To reduce the image, pinch your fingers together on the screen.
- Tapping on the [↩] icon will return to the single-image display.

 Touch screen operations on the camera's LCD monitor are also possible while playing back images on a TV set connected to your camera (p.312-315).

Rotating the Image

You can rotate the displayed image to the desired orientation.



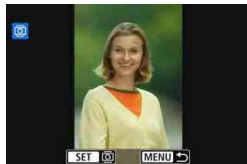
1 Select [Rotate image].

- Under the []1 tab, select [Rotate image], then press <SET>.



2 Select an image.

- Turn the <DISP> dial to select the image to be rotated.
- You can also select an image in the index display (p.292).



3 Rotate the image.

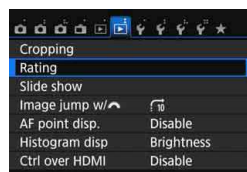
- Each time you press <SET>, the image will rotate clockwise as follows: 90° → 270° → 0°.
- To rotate another image, repeat steps 2 and 3.
- To exit and return to the menu, press the <MENU> button.



- If you set [F1: Auto rotate] to [On]  (p.281) before taking vertical shots, you need not rotate the image as described above.
- If the rotated image is not displayed in the rotated orientation during image playback, set [F1: Auto rotate] to [On] .
- A movie cannot be rotated.

MENU Setting Ratings

You can rate images (still photos and movies) with one of five rating marks: [★]/[★]/[★]/[★]/[★]. This function is called rating.



1 Select [Rating].

- Under the []2 tab, select [Rating], then press <SET>.



2 Select an image.

- Turn the <DISP> dial to select an image or movie to be rated, then press <SET>.
- By pressing the <Q> button, you can select images from a three-image display. To return to the single-image display, press the <Q> button.



3 Rate the image.

- Press the <▲> <▼> keys to select a rating.
- When you select a rating for the image, the number beside the set rating will increase by one.
- To rate another image, repeat steps 2 and 3.
- To return to the menu, press the <MENU> button.



A total of up to 999 images of a given rating can be displayed. If there are more than 999 images with a given rating, [###] will be displayed.

Taking Advantage of Ratings

- With [2: **Image jump w/**], you can display only images having the specified rating.
- With [2: **Slide show**], you can play back only images having the specified rating.
- With Digital Photo Professional (EOS software, p.420), you can select only images with a specific rating (still photos only).
- With Windows 8.1, Windows 8, Windows 7, etc., you can see each file's rating as part of the file information display or in the provided image viewer (JPEG images only).



Quick Control for Playback

During playback, you can press the  button to set the following:
: **Protect images**, : Rotate image, ★: **Rating**, : Creative filters, : Resize (JPEG images only), : Cropping, : **AF point display**, : **Image jump w/** , : **Wi-Fi function***.

For movies, only the functions in bold above can be set.

* Not selectable if [ 1: **Wi-Fi/NFC**] is set to [Disable].



1 Press the button.

- During image playback, press the  button.
- ▶ The Quick Control options will appear.



2 Select a function and set it.

- Press the   keys to select a function.
- ▶ The name and current setting of the selected function are displayed at the bottom of the screen.
- Set it by pressing the   keys.
- When setting the Creative filters (p.326), Resize (p.329), Cropping (p.331), or Wi-Fi function, also press  to finalize the setting.
- Image jump w/ : Set the Rating (p.298) by pressing the .
- To cancel, press the .

3 Exit the setting.

- Press the  button to exit the Quick Control screen.