Canon

EOS-1DC



- This manual is for the EOS-1D C installed with firmware version 1.3.0 or later.
- Read this manual together with the EOS-1D X Instruction Manual (firmware version 1.2.0 or later) and EOS-1D X Wired LAN Instruction Manual.
- The "Software Start Guide" is included at the end of this manual.

ENGLISH INSTRUCTION MANUAL

Introduction

Based on the top-of-the-line EOS-1D X, the EOS-1D C is a digital SLR camera with enhanced movie shooting functions.

Its advanced movie shooting functions include a full-frame (approx. 36 x 24 mm) CMOS sensor with approx. 18.1 effective megapixels to create beautiful and impressive background blur effects, high ISO speeds for low-light shooting, 4K (4096 x 2160 pixels) movie recording, Full HD 60p/50p, Super 35mm Crop, Canon Log gamma, and uncompressed movie output via HDMI.

Other diverse features include a wide range of shooting functions optimized for professional shooting, a compact and lightweight body for highly mobile movie making, high reliability even in harsh environments, a highly expandable camera system, and adaptability to diverse workflows.

Refer to This Manual while Using the Camera to Further Familiarize Yourself with the Camera

With a digital camera, you can immediately view the image you have captured. While reading this manual, take a few test shots and see how they come out. You can then better understand the camera. To avoid botched pictures and accidents, first read the "Safety Warnings" (p.88-90) and "Handling Precautions" (p.8, 9).

Testing the Camera Before Use and Liability

After shooting, play images back and check whether they have been properly recorded. If the camera or memory card is faulty and the images cannot be recorded or downloaded to a computer, Canon cannot be held liable for any loss or inconvenience caused.

Copyrights

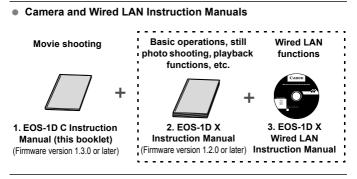
Copyright laws in your country may prohibit the use of your recorded images of people and certain subjects for anything but private enjoyment. Also be aware that certain public performances, exhibitions, etc., may prohibit photography even for private enjoyment.

CF Card

In this manual, "card" refers to a CF card. **The CF card** (for recording images) **is not included.** Please purchase it separately.

Instruction Manuals

The EOS-1D C comes with two manuals: 1. EOS-1D C Instruction Manual (this booklet), and 2. EOS-1D X Instruction Manual. For movie shooting, refer to 1. For basic operations, still photo shooting, playback functions, wired LAN functions, and other information not in 1, see manual 2 or the EOS Camera Instruction Manuals Disk as many features are common with those of the EOS-1D X.



Software Instruction Manual



EOS Camera Instruction Manuals Disk (Software)

The Software Instruction Manuals are included on the CD-ROM as PDF files.

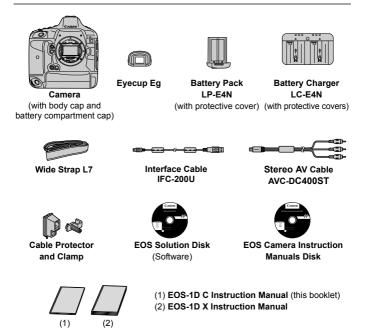
See pages 93 to 97 for an overview of the software programs, installation procedure on a personal computer, and how to view the EOS Camera Instruction Manuals Disk.



The software that comes with the EOS-1D C differs from that of the EOS-1D X. See "Software Start Guide" on pages 93 to 97.

Item Check List

Before starting, check that all the following items have been included with your camera. If anything is missing, contact your dealer.



- * Attach Eyecup Eg to the viewfinder eyepiece.
- * Be careful not to lose any of the above items.

Wired LAN

To set up a wired LAN using the Ethernet RJ-45 terminal, refer to the separate "Wired LAN Instruction Manual" on the EOS Camera Instruction Manuals Disk.

Conventions Used in this Manual

Icons in this Manual

| < _2 | : Indicates the Main Dial. |
|-------------------------|---|
| <)> | : Indicates the Quick Control Dial. |
| < ***> | : Indicates the Multi-controller. |
| < (SET) > | : Indicates the Setting button. |
| ₫4, ₫6, ₫10, ₫16 | : Indicates that the corresponding function remains |
| | active for 4 sec., 6 sec., 10 sec., or 16 sec. |
| | respectively after you let go of the button. |

* In this manual, the icons and markings indicating the camera's buttons, dials, and settings correspond to the icons and markings on the camera and on the LCD monitor.

- MENU : Indicates a function that can be changed by pressing the <MENU> button and changing the setting.
- (p.**) : Reference page number for more information in this manual.
- $(\ensuremath{\hbox{\scriptsize IDX}}\xspace p.**)$: Reference page number in the EOS-1D X Instruction Manual.
- : Warning to prevent shooting problems.
- : Supplemental information.
- : Tips or advice for better shooting.
- ? : Problem-solving advice.

Basic Assumptions

- It is assumed that an EF lens is used with the camera.
- All operations explained in this manual assume that the power switch is already set to <ON>.
- It is assumed that all the menu settings and Custom Functions are set to their defaults.
- The illustrations in this manual show the camera attached with the EF 50mm f/1.4 USM lens as an example.
- For cautions regarding the use of EF Cinema (CN-E) lenses, see pages 17 and 29.

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Handling Precautions

Camera Care

- This camera is a precision instrument. Do not drop it or subject it to physical shock.
- The camera is not waterproof and cannot be used underwater. If you
 accidentally drop the camera into water, promptly consult your nearest
 Canon Service Center. Wipe off any water droplets with a dry cloth. If the
 camera has been exposed to salty air, wipe it with a well-wrung wet cloth.
- Never leave the camera near anything having a strong magnetic field such as a magnet or electric motor. Also avoid using or leaving the camera near anything emitting strong radio waves such as a large antenna. Strong magnetic fields can cause camera misoperation or destroy image data.
- Do not leave the camera in excessive heat such as in a car in direct sunlight. High temperatures can cause the camera to malfunction.
- The camera contains precision electronic circuitry. Never attempt to disassemble the camera yourself.
- Do not block the mirror operation with your finger, etc. Doing so may cause a malfunction.
- Use a blower to blow away dust on the lens, viewfinder, reflex mirror, and focusing screen. Do not use cleaners that contain organic solvents to clean the camera body or lens. For stubborn dirt, take the camera to the nearest Canon Service Center.
- Do not touch the camera's electrical contacts with your fingers. This is to prevent the contacts from corroding. Corroded contacts can cause camera misoperation.
- If the camera is suddenly brought in from the cold into a warm room, condensation may form on the camera and internal parts. To prevent condensation, first put the camera in a sealed plastic bag and let it adjust to the warmer temperature before taking it out of the bag.
- If condensation forms on the camera, do not use the camera. This is to avoid damaging the camera. If there is condensation, remove the lens, card and battery from the camera, and wait until the condensation has evaporated before using the camera.
- If the camera will not be used for an extended period, remove the battery and store the camera in a cool, dry, well-ventilated location. Even while the camera is in storage, press the shutter button a few times once in a while to check that the camera is still working.
- Avoid storing the camera where there are corrosive chemicals such as a darkroom or chemical lab.
- If the camera has not been used for an extended period, test all its functions before using it. If you have not used the camera for some time or if there is an important shoot coming up, have the camera checked by your Canon dealer or check the camera yourself and make sure it is working properly.

LCD Panel and LCD Monitor

- Although the LCD monitor is manufactured with very high precision technology with over 99.99% effective pixels, there may be a few dead pixels among the remaining 0.01% or less pixels. Dead pixels displaying only black or red, etc., are not a malfunction. They do not affect the images recorded.
- If the LCD monitor is left on for a prolonged period, screen burn-in may occur where you see remnants of what was displayed. However, this is only temporary and will disappear when the camera is left unused for a few days.
- The LCD monitor display may seem slow in low temperatures, or look black in high temperatures. It will return to normal at room temperature.

Cards

To protect the card and its recorded data, note the following:

- Do not drop, bend, or wet the card. Do not subject it to excessive force, physical shock, or vibration.
- Do not store or use the card near anything having a strong magnetic field such as a TV set, speakers, or magnet. Also avoid places prone to having static electricity.
- Do not leave the card in direct sunlight or near a heat source.
- Store the card in a case.
- Do not store the card in hot, dusty, or humid locations.

Lens

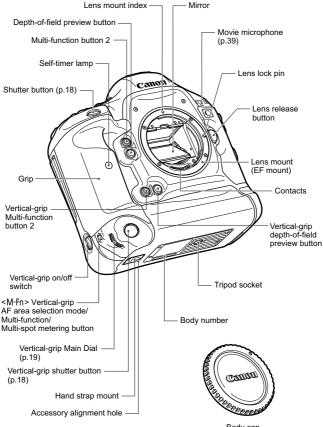
After detaching the lens from the camera, put down the lens with the rear end up and attach the lens caps to avoid scratching the lens surface and electrical contacts.



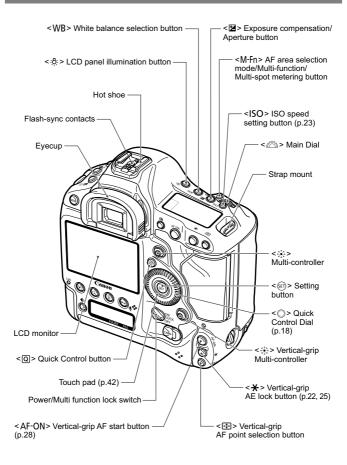
Cautions During Prolonged Use

If you use continuous shooting, Live View shooting, or movie shooting for a prolonged period, the camera may become hot. Although this is not a malfunction, holding the hot camera for a long period can cause slight skin burns.

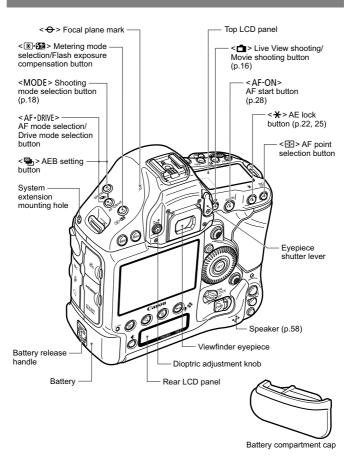
Nomenclature



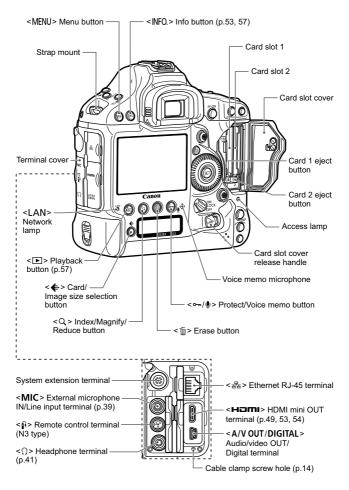
Body cap



* Parts without reference page numbers are explained in the EOS-1D X Instruction Manual.

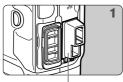


* For the nomenclature of the top LCD panel, rear LCD panel, Battery Pack LP-E4N, and Battery Charger LC-E4N, see 1020 pages 24 to 28.

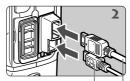


Using the Cable Protector and Clamp

With a Canon HDMI cable (sold separately):



Cable protector



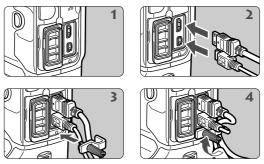
Interface cable HDMI cable (sold separately)



Cable clamp



With a third party HDMI cable (commercially available):



If the plug of a third-party HDMI cable can fit into the Cable protector, using the Cable protector is recommended.

Shooting and Playing **Movies**

The live image displayed on the camera's LCD monitor can be recorded as a movie to the card. The movie recording format will be MOV.



 This chapter assumes that an EF lens is used with the camera. If you use an EF Cinema (CN-E) lens, see the cautions on pages 17 and 29, and start movie shooting.

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Main Preparing to Shoot Movies

Set the camera so it can record the live image displayed on the LCD monitor as a movie. To shoot still photos, see page 31.

| AF 🕨 | ¥ .0. ★ |
|------------------|---------------|
| | SHOOT4: Movie |
| LV 🗖 / 🦳 set. | Movies |
| AF mode | Live mode |
| Grid display | Off |
| Movie rec. size | 1920 25 IPB |
| Sound recording | Auto |
| Silent LV shoot. | Mode 1 |
| Metering timer | 16 sec. |
| - | |

| AF 🕨 | ¥ |
|--------------|-----------------|
| | SHOOT4:LV func. |
| LV 📩/'न set. | Disable |
| | Stills |
| | Movies |

| 1920x1080 25fps 01:00:00 High comp. (inter frame, IPB) | | |
|---|---|--------------------------|
| | 1920 50 ALL 1920 52 ALL 1920 52 IPB 1920 52 PB 1920 54 ALL 1920 54 IPB | 1280 ^C SO IPB |

Check the [Movies] setting.

- Select the [¹] tab and check that [LV ¹/[¬], set.] is set to [Movies].
- If it is set to [Disable] or [Stills], select [Movies], then press < (set)>.
- "LV" stands for Live View.

2 Set [Movie rec. size].

 For details on [Movie rec. size], see page 34.



Display the image.

- Press the < > button.
- The image will appear on the LCD monitor.
- In the <M> shooting mode, turn the
 > or <>> dial to adjust the brightness.
- A semi-transparent or black mask will appear on the top/bottom or left/right. The image area surrounded by the masking will be recorded as the movie.

Notes on Movie Shooting are on page 27.

• For information related to card operation confirmation, refer to Canon website, etc.

EF Cinema (CN-E) Lenses

With EF Cinema single focal length lenses, you can shoot at all movierecording quality settings. If you use an EF Cinema zoom lens, you can shoot movies only with $\boxed{5:35}$ Super 35mm Crop. (Since the image circle is small, the image periphery will be dark if you shoot a movie in $\boxed{14}$ K $\boxed{1120}$ $\boxed{1220}$ $\boxed{1640}$ quality or still photo.)

Cards that Can Record Movies

Use a large-capacity card with a fast writing/reading speed (required card performance) as shown in the table. First, <u>shoot a few test movies</u> to see if movies can be recorded accurately with a movie-recording size you set (p.34).

| Image Size | Frame Rate | Movie Recording/ Compression Method | Required Card Performance |
|--------------|--------------------------|--|--------------------------------|
| Г4k | 125/124 | MIPG Motion JPEG | UDMA7 100 MB/sec. or faster |
| S -35 | l30/l25/l24 | | 20 MB/sec. or faster |
| 1920 | 1 30/125/124 | IPB | |
| 1280 | <u>ال</u> ه/ال | MPEG-4 AVC/H.264 | 10 MB/sec. or faster |
| 640 | □ 30/□ <u>5</u> 5 | | |
| S -35 | l30/l25/l24 | | 30 MB/sec. or faster |
| 1920 | <u>ه</u> /ه | ALL-I | 60 MB/sec. or faster |
| 11920 | F30/F25/F24 | MPEG-4 AVC/H.264 | 30 MB/sec. or faster |
| 1280 | ៤) | | So ME/See. Of Idster |

- If you use a slow-writing card when shooting movies, the movie may not be recorded properly. Also, if you play back a movie on a card with a slow reading speed, the movie may not play back properly.
 - If you want to shoot still photos while shooting a movie, you will need an even faster card.
 - To check the card's writing/reading speed, refer to the card manufacturer's website.
 - To optimize the card's performance, format the card before shooting movies. For card-formatting cautions, see IDX page 55.

Movies

Autoexposure Shooting

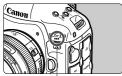
When the shooting mode is set to $\langle P \rangle$ or $\langle BULB \rangle$, autoexposure control will take effect to suit the scene's current brightness. Autoexposure control will be the same for $\langle P \rangle$ and $\langle BULB \rangle$.







Recording movie



Movie microphone

Set the shooting mode to <**P**/ BULB>.

 Press the <MODE> button and turn the <⁽) > or <⁽) > dial to select <P> or <BULB>.

Focus the subject.

- Before shooting a movie, focus with AF or manual focus (IDX p.213 to 220).
- When you press the shutter button halfway, the camera will focus with the current AF mode.

Shoot the movie.

- Press the shutter button completely (or press the <M-Fn> button) to start shooting a movie.
- While the movie is being shot, the "

 "

 " mark will be displayed on the upper right of the screen.
- Press the shutter button completely (or press the <M-Fn> button) again to stop shooting the movie.

If Canon Log gamma is set, AF is not possible. If Tak, 535, or 1020: 100/100 is set, AF is not possible in the #0000 mode.

Shutter-priority AE

When the shooting mode is $< \mathbf{T}_{\mathbf{V}} >$, you can manually set the shutter speed for movie shooting. The ISO speed and aperture will be set automatically to suit the brightness and obtain a standard exposure.





Shutter speed



- Set the shooting mode to < Tv >.
 - Press the <MODE> button and turn the <i>> or <<i>> dial to select <Tv>.



Set the desired shutter speed.

- While looking at the LCD monitor, turn the < 2 > dial. The settable shutter speeds depend on the frame rate < .
 - 🗊 😰 🙀 : 1/4000 sec. 1/30 sec.
 - 🐻 🕠 : 1/4000 sec. 1/60 sec.

Focus and shoot the movie.

 The procedure is the same as steps 2 and 3 for "Autoexposure Shooting" (p.18).

- Changing the shutter speed during movie shooting is not recommended since the changes in the exposure will be recorded.
 - 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.
 - If you change the shutter speed while shooting under fluorescent or LED lighting, image flicker may be recorded.

Aperture-priority AE

When the shooting mode is $\langle Av \rangle$, you can manually set the aperture for movie shooting. The ISO speed and shutter speed will be set automatically to suit the brightness and obtain a standard exposure.



- Set the shooting mode to < Av >.
 - Press the <MODE> button and turn the <⁽¹⁾> or <⁽¹⁾> dial to select
 Av >.



Set the desired aperture.

 While looking at the LCD monitor, turn the < 23 > dial.

Aperture



Focus and shoot the movie.

 The procedure is the same as steps 2 and 3 for "Autoexposure Shooting" (p.18).

Changing the aperture during movie shooting is not recommended since changes in the exposure, due to the drive of the lens aperture, will be recorded.

ISO speed in the $P,\,T\!v,\,A\!v,$ and BULB modes

- The ISO speed will be set automatically within ISO 100 25600.
- Under [□2: ISO speed settings], if [ISO speed range]'s [Maximum] setting (10∑ p.130) is set to [51200/H] in the P, Tv, and BULB modes, the automatic ISO speed setting range's maximum will be expanded to H (equivalent to ISO 51200). Note that even if you set [Maximum] to [51200], the maximum will remain at ISO 25600 and will not be expanded.
- If [□2: Highlight tone priority] is set to [Enable] (□∞ p.154), the ISO speed will be ISO 200 25600.
- Under [□2: ISO speed settings], [Auto ISO range] and [Min. shutter spd.] cannot be set (10x p.131, 132) for movie shooting. Also, [ISO speed range] cannot be set in the Tv mode.



If [ISO speed range]'s [Minimum] is set to [L (50)] and you switch from still photo shooting to movie shooting, the automatic ISO speed setting range's minimum for movie shooting will be ISO 100. It cannot be expanded to ISO 50.

Notes for Autoexposure, Shutter-priority AE, and Aperture-priority AE

- You can lock the exposure (AE lock) by pressing the < ★ > button (1000 p.181). After applying AE lock during movie shooting, you can cancel it by pressing the < => button. (AE lock setting is retained until you press < =>.)
 - If you set the power switch to <ON> and turn the <O> dial, you can set the exposure compensation.
 - Pressing the shutter button halfway displays the ISO speed and shutter speed on the screen's bottom. This is the exposure setting for taking a still photo (p.26). 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.

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

This camera is compatible with the function turning on the LED light automatically in low-light conditions during movie shooting in $P,\ Tv,\ Av$ or BULB mode. For details, refer to the Speedlite's instruction manual.

Manual Exposure Shooting

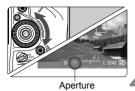
You can manually set the shutter speed, aperture, and ISO speed for movie shooting.







Shutter speed



Set the shooting mode to <M>.

Press the <MODE> button and turn the
 > or < > dial to select < M>.

Set the ISO speed.

- Press the <ISO> button.
- The ISO speed setting screen will appear on the LCD monitor.
- Turn the < > or < > dial to set the ISO speed.
- For details on the ISO speed, see the next page.

Set the shutter speed and aperture.

- Press the shutter button halfway and check the exposure level indicator.
- To set the shutter speed, turn the
 > dial. The settable shutter speeds depend on the frame rate < +>.
 - 3 12 1/4000 sec. 1/30 sec.
 - 🐻 🕠 : 1/4000 sec. 1/60 sec.
- To set the aperture, turn the <>> dial.
- If you cannot set the shutter speed or aperture, set the power switch to <ON>, then turn the <
 > or <
 > dial.

Focus and shoot the movie.

 The procedure is the same as steps 2 and 3 for "Autoexposure Shooting" (p.18).

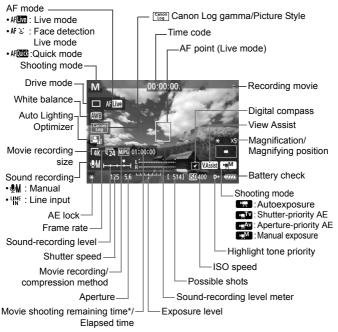
ISO speed during manual-exposure shooting

- ISO 400 is set by default.
- You can set the ISO speed manually within ISO 100 25600 in 1/3stop increments. Under [D2: ISO speed settings], if [ISO speed range]'s [Maximum] is set to [51200/H], the manual ISO speed setting range's maximum will be expanded to H (equivalent to ISO 51200). Note that even if you set [Maximum] to [51200], the maximum will remain at ISO 25600 and not be expanded. Setting [Maximum] to [H1 (102400)] or [H2 (204800)] will enable the setting range to be expanded up to ISO 102400/204800.
- With [Auto] (A), the ISO speed will be set automatically within ISO 100 25600.
- If [¹2: Highlight tone priority] is set to [Enable] (¹DX p.154), you can set the ISO speed within ISO 200 25600 (depending on the [ISO speed range] setting).
- Under [D2: ISO speed settings], [Auto ISO range] and [Min. shutter spd.] cannot be set (IDX p.131, 132) for movie shooting.

- Since shooting a movie at ISO 32000/40000/51200 may result in substantial noise, these speeds are designated as expanded ISO speeds (displayed as [H]).
 - If [ISO speed range]'s [Minimum] is set to [L (50)] and you switch from still photo shooting to movie shooting, the manual ISO speed setting range's minimum for movie shooting will be ISO 100. It cannot be expanded to ISO 50.
 - Changing the shutter speed or aperture, or zooming the lens during movie shooting, is not recommended since the changes in the exposure, or noise at high ISO speeds, may be recorded.
 - 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.
 - If you change the shutter speed while shooting under fluorescent or LED lighting, image flicker may be recorded.
- If ISO Auto is set, you can press the < * > button to lock the ISO speed.
 - When you press the <* > button and then recompose the picture, you can see the exposure level difference on the exposure level indicator (p.26) compared to when you first pressed the <* > button.
 - By pressing the <INFO.> button, you can display the histogram.

Information Display

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



* Applies to a single movie clip.

- You can display the electronic level by pressing the <INFO.> button (IDX p.62).
 - If the AF mode is set to [: Live mode] or if the camera is connected to a TV set with an HDMI cable (IM) p.273), the electronic level is not displayed.
 - If there is no card in the camera, the movie shooting remaining time will be displayed in red.
 - When movie shooting starts, the movie shooting remaining time will change to the elapsed time.

Notes on Movie Shooting

- The camera cannot autofocus continuously like a camcorder.
 - If you use AF during movie shooting, the focus may become greatly blurred momentarily and the exposure may change.
 - If you use a USM lens and perform AF while shooting a movie in low light, horizontal noise stripes may be recorded. With certain lenses having an electronic focusing ring, horizontal noise stripes may be recorded even when you focus manually (MF).
 - Zooming the lens during movie shooting is not recommended. Zooming the lens can cause changes in the exposure regardless of whether the lens' maximum aperture changes or not. Exposure changes may be recorded as a result.
 - Do not point the camera toward an intense light source, such as the sun on a sunny day or an intense artificial light source. Doing so may damage the image sensor or the camera's internal components.
 - Under [♥1: Record func+card/folder sel.], even if [Record func.] is set to [Rec. to multiple] (IDX p.118), the movie cannot be recorded to both Card 1 < 1> and Card 2 < 2>. If [Rec. separately] or [Rec. to multiple] is set, the movie will be recorded to the card which is set for [Playback].
 - If < INTE > 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.
 - When you shoot at high ISO speeds, color tone may be changed depending on the movie-recording size settings.
 - When you press the <Q> button, the "x5" or "x10" figure displayed on the screen's bottom right indicates the magnification based on 35mm full-frame sensor size.
 - Cautions for movie shooting are on pages 55 and 56.
 - If necessary, also see "Live View Shooting Cautions" on pages 221 and 222 in the EOS-1D X Instruction Manual.

Notes on Movie Shooting

- Movie-related settings are under the [14] and [15] tabs (p.51).
 - A movie file is recorded each time you shoot a movie. If the file size exceeds 4 GB for a single movie shoot (single clip), a new file will be created.
 - The movie image's field of view is approx. 100% (with movie recording size set to [hg/b]).
 - You can also focus the image by pressing the <AF-ON> button.
 - To focus during movie shooting, press the <AF-ON> button. You cannot focus by pressing the shutter button.
 - Sizes of AF points and a magnification frame displayed in information display (p.26) depend on the movie-recording size setting (p.34).
 - Monaural sound is recorded by the camera's built-in microphone (p.18).
 - By connecting a stereo microphone (commercially available) equipped with a 3.5 mm mini plug to the camera's external microphone IN terminal, stereo sound recording is possible (p.13, 40). You can also feed sound through Line input (p.39).
 - By connecting stereo headphones (commercially available) equipped with a 3.5 mm mini plug to the camera's headphone terminal (p.13), you can listen to the sound during movie shooting.
 - The focus preset function is possible for movie shooting when using a (super) telephoto lens equipped with the focus preset mode marketed since the second half of 2011.
 - With a fully-charged Battery Pack LP-E4N, the total movie shooting time (with Tak shooting) will be as follows: approx. 1 hr. 25 min. at room temperature (23°C/73°F), and approx. 1 hr. 15 min. at low temperature (0°C/32°F).

Cautions for Using EF Cinema (CN-E) Lenses

- EF Cinema lenses with PL mount are not supported.
- EF Cinema lenses require the aperture to be adjusted manually. Therefore, they are not suitable for autoexposure shooting (p.18) and shutter-priority AE shooting (p.19) for which the aperture is set automatically to suit the brightness.
- If the EF Cinema lens is not fitted with a function for sending information to the camera, the aperture will be indicated as "00." Also, the lens name and other information will not be recorded in the Exif information.
- If the EF Cinema lens can send information to the camera, the aperture will be displayed as the f/number (not as the TNo.).
- The color tone of movies shot with EF lenses and EF Cinema lenses is different. Compared to EF lenses, EF Cinema lenses tend to make movies look slightly more yellow.
- When you shoot a still photo using an EF Cinema lens, lens aberration correction (peripheral illumination correction and chromatic aberration correction) is not applied. Correction is applied only for movie shooting.
- Additional cautions regarding the use of EF Cinema lenses may be announced on the Canon website, etc.

Lens Aberration Correction with EF Cinema (CN-E) Lenses

With the EOS-1D C's firmware Ver. 1.3.0 or higher, lens aberration correction (peripheral illumination correction and chromatic aberration correction) with EF Cinema lenses (those that can communicate with the camera) is possible.



<u>Use EOS Utility</u> (provided software) to register the correction data to the camera. If EOS Utility's correction data registration screen does not show the EF Cinema lens, <u>update EOS Utility to the</u> <u>latest version.</u>

The setting procedure is on TDX pages 155-157.

Final Image Simulation

The final image simulation is a function that allows you to see the effects of the Picture Style, white balance, etc., on the image. During movie shooting, the image displayed will automatically reflect the effects of the settings listed below.

Final image simulation for movies

- Picture Style
 - * All settings such as sharpness, contrast, color saturation, and color tone will be reflected.
- Canon Log gamma (without View Assist)
 * Sharpness, saturation, and hue will be reflected.
- White balance
- White balance correction
- Exposure
- Depth of field
- Auto Lighting Optimizer
- Peripheral illumination correction
- Chromatic aberration correction
- Highlight tone priority

Even when Canon Log gamma (p. 43) is set, function settings other than the Picture Style will be reflected in the final image simulation.

Shooting Still Photos



Set [**△** 5: Movie shoot. btn] to [**₩** 1] (p.52) and press the shutter button completely. You can then shoot still photos while shooting the movie. Note that you cannot shoot still photos if [4k, [5:35, [5:0:16], (15:0, or Canon Log gamma is set.

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 movie and still photo will be recorded as separate files on the card.
- The captured still photo will be recorded to the card, and the movie shooting will resume automatically when the image is displayed.
- If [Record func.] (IDX p.118) is set to [Standard] or [Auto switch card], the movies and still photos will be recorded to the same card. If [Rec. separately] or [Rec. to multiple] is set, the movies will be recorded to the card set for [Playback]. The still photos will be recorded at the image-recording quality set for the respective 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 [12: Img type/size] and [12: JPEG quality]. | |
| ISO Speed* | <p av="" bulb="" tv="">: ISO 100 - 25600</p> <m>: See "ISO speed during manual-exposure shooting" on page 24.</m> | |
| Exposure Setting | <p bulb="">: Automatically set shutter speed and aperture.</p> <tv> : Manually set shutter speed and automatically set aperture.</tv> <av>: Manually set aperture and automatically set shutter speed.</av> <m> : Manually set shutter speed and aperture.</m> | |

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

- If [15: Movie shoot. btn] is set to [10/100], still photo shooting is not possible.
 - Since the image circle of EF Cinema zoom lenses does not support the image size of 35mm full-frame size image sensor, still photo shooting is not possible. (The image periphery will look dark.)
 - AEB cannot be used.
 - Even if an external Speedlite is used, it will not fire.
 - Continuous still photo shooting is possible during movie shooting. However, the captured images will not be displayed on the monitor. Depending on the still photo's image-recording quality, number of shots during continuous shooting, card performance, etc., the movie shooting may stop automatically.
- If you plan to shoot still photos continuously during movie shooting, it is recommended that you use a card with a higher performance than those specified by "Required Card Performance" on page 17. Setting a smaller image size for still photos and shooting fewer continuous still photos are also recommended.
 - You can shoot still photos in all drive modes.
 - The self-timer can be used before you start shooting a movie. If used during movie shooting, the self-timer will switch to single shooting.

Shooting Function Settings

MODE / AF / DRIVE / 🖭 / ISO / 🖬 / WB Settings

If you press the <MODE>, <AF • DRIVE>, < \boxdot >, <ISO>, < \checkmark >, or <WB> button while the image is displayed on the LCD monitor, the setting screen will appear on the LCD monitor and you can turn the < \circlearrowright > or < \bigcirc > dial to set the respective function. When Africe is set, you can press the < \boxdot > button to select the AF area selection mode and AF point. The procedure is the same as with viewfinder shooting. During manual-exposure shooting (p.23), you can press the <ISO> button to set the ISO speed. Note that the < \textcircled > metering mode and < \textcircled > flash exposure

Note that the <[3]> metering mode and <122> flash exposure compensation cannot be set.

Q Quick Control

If you press the < @> button while the image is displayed on the LCD monitor, you can set the following: AF mode, drive mode, white balance, Picture Style, Auto Lighting Optimizer, movie-recording size, and sound-recording level (with [**Sound recording: Manual/Line input**] set).

1 Press the <Q> button.

▶ The settable functions will be displayed.

2 Select a function and set it.

- Use < (> to select a function.
- The setting of the selected function is displayed at the bottom.
- Turn the <○> or <[™]> dial to set it.

If [Canon Log] is set to [On], Picture Style and Auto Lighting Optimizer cannot be set.

During movie shooting, you can set the following: shutter speed, aperture, ISO speed, exposure compensation, and sound-recording level. (Settable functions may differ depending on the shooting mode and [Sound recording] setting.)

MENU Setting the Movie-recording Size

| 1920x1080 25fps 01:00:00 High comp. (inter frame, IPB) | | | |
|---|--|---------------------------|--|
| Image: Arrow of the second s | 1920 50 ALL 1920 53 ALL 1920 55 ALL 1920 55 PB 1920 54 ALL 1920 54 BL | 11280 ^C Sò IPB | |

The menu option [**D** 4: **Movie rec. size**] enables you to set the movie's image size, frame rate per second, and movie recording/compression method. The frame rate switches automatically depending on the [**Ý** 3: **Video system**] setting.

| Image size | | |
|---------------------------|--|--|
| 「₄k [4096x2160] | The image at the center of the image sensor is recorded in 4K resolution. The effective angle of view is approx. 1.3 times the lens focal length. | |
| [5₃5 [1920x1080] | The image at the center of the image sensor is recorded with the size equivalent to Super 35mm film in Full HD resolution (Super 35mm Crop). The aspect ratio will be 16:9. The effective angle of view is approx. 1.6 times the lens focal length. | |
| 1920 [1920x1080] | : Full High-Definition (Full HD) recording quality. The aspect ratio will be 16:9. | |
| I1280 [1280x720] | High-Definition (HD) recording quality. The aspect ratio will be 16:9. | |
| l640 [640x480] | Standard-definition (SD) recording quality. The aspect ratio will be 4:3. | |

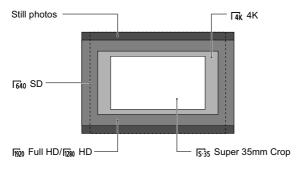
 If you use an EF Cinema (CN-E) zoom lens, set the movie-recording size to 535. If you shoot with a setting other than 535, the image periphery will look dark.

 If Tak is set, chromatic aberration correction (100x p.156) cannot be set (not applied).

 If you shoot a low-contrast subject with [Live mode] or [: Live mode] when Tak or [5:35 is set, focus may not be achieved with AF. Manual focusing is recommended.

Image Area

When $\lceil \overline{4}_{K}$, $\lceil \overline{53}_{5}_{5}$, $\lceil \overline{120}_{0}_{0}$, or $\lceil \overline{120}_{0}_{0}$ is set, the respective image sensor area below is used to record the movie.



When 5:35 or 1920 is set, the movie will be recorded in 1920x1080 resolution. When 1920 is set, the movie will be recorded in 1280x720 resolution. When 1640 is set, the movie will be recorded in 640x480 resolution. • Frame rate (fps: frames per second)

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

- llon/llos : For areas where the TV format is PAL (Europe, Russia, China, Australia, etc.).
- : Mainly for motion pictures.

Movie recording method and compression method

- MJPG : When shooting in T_{4k}, Motion JPEG is used to compress the movie recorded. Each frame is compressed separately and recorded without compression between frames. The compression rate is therefore low. Since the image size is large, the file size will also be large.
- IPB
 : Efficiently compresses multiple frames at a time for recording. Since the file size will be smaller than with ALL-I, you can shoot longer.
- ALL-I (I-only) : Compresses one frame at a time for recording. Although the file size will be bigger than with IPB, the movie will be more suited for editing.

- ♦ Still photo shooting (p.31) is not possible if Tak, [5:35, or 1920:160/150 is set.
 While 15:35, 1920:160/150, 1920:175 movie-recording sizes all record at Full HD resolution, the recorded image may look slightly different between each setting.
- The @/Iso and Iso/Iso frame rate will switch automatically in accordance with the [¥3: Video system] setting. Iso will be displayed when [¥3: Video system] is set to [PAL].
 - The color sampling will be recorded as follows: Tak : YCbCr 4:2:2 (8 bit), [5:35 1920 17280 1640: YCbCr 4:2:0 (8 bit). The color matrix will be recorded as follows: Tak 1640: Rec. ITU-R BT.601, 15:35 1920 17280: Rec. ITU-R BT.709.

| Movie-Recording | | | File Size | Total Recording Time (approx.) | | |
|-----------------|-------------------------------------|-----------|--------------|--------------------------------|---------------|----------------|
| Size | | (approx.) | 4 GB Card | 32 GB Card | 128 GB Card | |
| Γ4k | F25 F24 | MJPG | 3.76 GB/min. | 55 sec. | 8 min. | 32 min. |
| S -35 | 1 30 1 25 1 24 | IPB | 385 MB/min. | 9 min. 30 sec. | 1 hr. 19 min. | 5 hr. 16 min. |
| 12.32 | 1 30 1 25 1 24 | ALL-I | 685 MB/min. | 5 min. | 44 min. | 2 hr. 57 min. |
| | 60 50 | ALL-I | 1.36 GB/min. | 2 min. 30 sec. | 22 min. | 1 hr. 29 min. |
| 1920 | 1 30 1 25 1 24 | IPB | 235 MB/min. | 16 min. | 2 hr. 9 min. | 8 hr. 37 min. |
| | 1 30 1 25 1 24 | ALL-I | 685 MB/min. | 5 min. | 44 min. | 2 hr. 57 min. |
| 1280 | 60 50 | IPB | 205 MB/min. | 18 min. | 2 hr. 28 min. | 9 hr. 52 min. |
| 11280 | 60 50 | ALL-I | 610 MB/min. | 6 min. | 49 min. | 3 hr. 19 min. |
| 640 | R30 R25 | IPB | 78 MB/min. | 48 min. | 6 hr. 28 min. | 25 hr. 55 min. |

Total Movie Recording Time and File Size Per Minute

About movies exceeding 4 GB

Even if you shoot a movie exceeding 4 GB for a single movie shoot (single clip), 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 or time code 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 the movie with the camera, you have to play the movie files individually. Movie files cannot play back consecutively automatically. After the movie playback ends, select the next movie to be played.

Movie shooting time limit

The maximum shooting time of one movie clip is 12 hours. The movie shooting will stop automatically if the card becomes full or if the maximum shooting time elapses. If the card is not full, you can press the shutter button completely (or press the <M-Fn> button) to shoot a movie again. (It will be recorded as a new file.)

- An increase of the camera's internal temperature may cause movie shooting to stop before the maximum recording time shown on the preceding page (p.55).
 - Even if [Record func.] is set to [Auto switch card], the card cannot be switched automatically during movie shooting.
 - If you delete part of the multiple movie files created from one successive shooting whose file size exceeds 4 GB for a single movie shoot (single clip), playing them back consecutively or saving them as a single movie file with EOS MOVIE Utility (p.94) is not possible.

EOS MOVIE Utility can automatically combine individual 4 GB movie files and save them as a single movie file.



About Full HD 1080

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



MENU Setting the Sound Recording

| Sound recording | | |
|-----------------|---------|----------|
| Sound rec. | Manual | |
| Rec. level | ' | <u> </u> |
| Wind filter | Disable | |
| -dB 40 L | 12 | 0 |
| R | | |
| | Ν | ENU ᠫ |

You can shoot movies while recording sound with the built-in monaural microphone, with a commerciallyavailable stereo microphone, or with Line input. You can also freely adjust the sound-recording level. Set the sound recording with [14: Sound recording].

Sound Recording/Sound-Recording Level

- [Auto] : The sound-recording level is adjusted automatically. Auto level control will operate automatically in response to the sound level.
- [Manual] : You can adjust the sound-recording level to one of 64 levels. Select [Rec. level] and look at the level meter while turning the <> dial to adjust the sound-recording level. While looking at the peak hold indicator (approx. 3 sec.), adjust so that the level meter sometimes lights up the "12" (-12 dB) mark on the right for the loudest sounds. If it exceeds "0", the sound will be distorted.
- [Line input]: You can input sound through Line input. The sound is then recorded together with the movie. You can adjust the sound-recording level to one of 64 levels. The adjustment procedure is the same as with [Manual].
- [**Disable**] : Sound will not be recorded.

Wind Filter

When set to [Enable], it reduces wind noise when there is wind outdoors. This feature takes effect only with the built-in microphone. Note that [Enable] will also reduce low bass sounds, so set this function to [Disable] when there is no wind. It will record a more natural sound than with [Enable].

Using the microphone

The built-in microphone records monaural sound. Stereo sound recording is possible by connecting an external stereo microphone (commercially-available) equipped with a miniature stereo plug (3.5 mm) to the camera's external microphone IN terminal (p.13). When an external microphone is connected, sound recording will switch automatically to the external microphone.

Line input

Stereo sound from a sound mixer, etc., can be directly input to the camera. With a mini plug (3.5mm dia.) connected to the Line input terminal (p.13), the sound will be recorded to the movie in stereo. The standard input level is -8 dBV. Adjust the sound-recording level to suit the Line output level.

- The sound volume balance between L (left) and R (right) cannot be adjusted.
 - The camera's built-in microphone will also pick up camera operation noise. Using a commercially-available external microphone can prevent (or reduce) these noises from being recorded.
 - When using Line input, an audio signal of up to +6 dBV can be input, but the distortion ratio may increase if the signal exceeds the standard input level (-8 dBV). It is recommended to shoot a few test movies before the actual shooting.
 - For Line input, be sure to set [Sound rec.] to [Line input]. If you try to
 use Line input without setting [Line input] first, it may cause a
 malfunction.
 - When [Line input] is set, the sound will not be recorded with the built-in microphone. Also, [Wind filter] cannot be set (disabled).
 - Do not switch between [Manual] and [Line input] while listening with headphones. It can hurt your ears.
- Both L and R record audio at a 48 kHz/16-bit sampling rate.
 - If [D5: Silent Control] is set to [Enable] (p.42), you can adjust the sound-recording level with the <>> touch pad to reduce the operation noise during movie shooting.

Using headphones

By connecting stereo headphones (commercially available) equipped with a 3.5 mm mini plug to the camera's headphone terminal (p.13), you can listen to the sound during movie shooting. If you are using an external stereo microphone, you can listen to the sound in stereo.

To adjust the headphone's sound volume, press the $\langle \mathbf{Q} \rangle$ button, then hold down the $\langle \mathbf{m} \rangle$ button and tilt the $\langle \mathbf{e} \rangle$ up or down. The sound volume level is not displayed on the screen. Adjust while listening to the headphones.

You can also use headphones during movie playback.

The audio output to the headphones will not have noise reduction applied. It will therefore be different from the sound recorded with the movie.

MENU Silent Control

This function is convenient when you want to change the ISO speed, sound-recording level, etc., silently while shooting a movie.







When [□ 5: Silent Control] is set to [Enable ⊕], you can use the touch pad < ⊕ > on the inner ring of the Quick Control Dial.

You can operate the camera silently just by touching the top, bottom, left, or right of $\triangleleft >$.

During movie shooting, you can press < (ⓐ) > to display the Quick Control screen and change the settings below with < ✿>.

| Settable | Shooting Mode | | | |
|------------------------------|---------------|----|----|---|
| Functions | P/B | Tv | Av | М |
| 1. Shutter speed | - | 0 | - | 0 |
| 2. Aperture | - | - | 0 | 0 |
| 3. ISO speed | - | I | - | 0 |
| 4. Exposure compensation | 0 | 0 | 0 | I |
| 5. Sound- recording level | 0 | 0 | 0 | 0 |

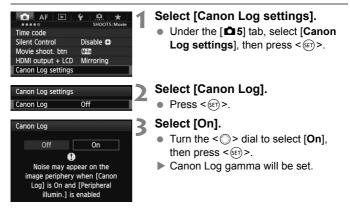
- If [□5: Silent Control] is set to [Enable ⊕], you cannot adjust the sound-recording level with the <○> Quick Control dial during movie shooting.
 - Even if you change the aperture silently with <>>, the movie will still record the lens aperture-driving sound.
 - If there is water or dirt on <>>, the touch operation may not work. In such a case, use a clean cloth to clean <>>. If it still does not work, wait a while and try again.

Before shooting a movie, you can use < () > to adjust the sound-recording level in the Quick Control and [Rec. level] screens.

Setting the Canon Log Gamma

Canon Log gamma is gamma correction for post-production. It is geared to maximize the image sensor's characteristics and attain a wide dynamic range. It minimizes loss of shadow and highlight details, and tonal information from the shadows to highlights can be incorporated in the movie.

A movie shot with Canon Log gamma can be applied with a lookup table (LUT) during post-production. Download the LUT data from the Canon website.





If [Canon Log] is [On] for movie shooting, the following restrictions will apply:

- The shooting mode will be set automatically to <M> (Manual exposure). (Shooting is not possible in the P/BULB, Tv, and Av modes.)
- AF is not possible. Focus manually.
- ISO Auto will not work. Set the ISO speed manually. (ISO speed is set to ISO 400 when ISO Auto is set.)

| Canon Log settir | ngs |
|------------------|-------------------------------------|
| Canon Log | On |
| View Assist. | Off |
| Sharpness | 0 |
| Saturation | = |
| Hue | =+++ 0 +++ - = |
| | |
| | MENU ᠫ |

Adjust the Canon Log gamma.

- Adjust as necessary.
- Turn the <>> dial to select a parameter ([Sharpness], [Saturation], [Hue]), then press
 <
- Turn the < >> dial to set the parameter, then press < <>>.

| Sharpness | | 0: Outline sharpening: Weak | 7: Outline sharpening: Strong | |
|------------|-------|-----------------------------|-------------------------------|--|
| Saturation | | -4: Low | +4: High | |
| | Red | -4: Magenta-biased | +4: Yellow-biased | |
| Hue* | Green | -4: Yellow-biased | +4: Cyan-biased | |
| Blue | | -4: Cyan-biased | +4: Magenta-biased | |

* Red, green, and blue cannot be adjusted individually.

Image Quality when Canon Log gamma is set

- When Canon Log gamma is set, vertical noise stripes may appear in movies depending on subject or shooting conditions. It is recommended to shoot a few test movies and check before the actual shooting.
- Vertical noise stripes tend to appear when the subject is dark and flat or [Peripheral illumin.] is set to [Enable]. This noise may also appear when ISO speed is relatively low, such as at ISO 400. Additionally, the noise may become more noticeable when Imp: Imp/Imp is set compared to when other movie-recording sizes are selected.
- When the noise is noticeable, it is recommended to set [Peripheral illumin.] to [Disable], shoot in brighter exposure, and perform brightness adjustment during color grading. Also, noise may be decreased when you shoot at ISO speed lower than ISO 320 (even though the dynamic range will be narrowed).

Setting View Assist

Canon Log gamma is a movie characteristic to attain wide dynamic range. As a result, the image displayed on the LCD monitor has low contrast and is somewhat dark compared to when a Picture Style is set. With View Assist, the movie image will be displayed on the LCD monitor with a conspicuous characteristic. This makes it easier to check the angle of view, details, etc.

Note that even if View Assist is set, it will not affect the movie recorded to the card. (The movie will be recorded to the card with Canon Log gamma.)



Select [View Assist.].

- Turn the <>> dial to select [View Assist.], then press <<>>.
- Turn the <>> dial to select [On], then press <<>>>.
- The View Assist display will appear when you shoot a movie.

• View Assist display with HDMI output

If **[View Assist.]** is set to **[On]** and you shoot a movie in Γ_{4k} , the View Assist will also apply to the HDMI output (p.53 to 54) image. Note that View Assist will not work with a movie-recording quality other than Γ_{4k} .

- When [Peripheral illumin.] is set to [Enable], Canon Log gamma icon on the information display screen (p.26) blinks, since noise may appear in the movie image periphery.
 - If you set Canon Log gamma, Picture Style, Auto Lighting Optimizer, and highlight tone priority cannot be set (not applied) for movie shooting. Also, still photo shooting during movie shooting is not possible.
 - If you set Canon Log gamma, although AF is not possible, AF point (p.26) is displayed (when the lens focus mode switch is set to <AF>).
 - Even if you switch [Canon Log] to [Off], you cannot revert to the original settings for shooting mode, AF mode, and ISO speed. Set them again if necessary.
 - When Canon Log gamma is set, dynamic range will be approx. 800 % at ISO 320 or higher.
 - If you use HDMI output and the movie-recording quality is other than T₄k, the movie will be output without View Assist, regardless of the [View Assist.] setting. This makes it possible to record the HDMI movie to an external recording device with the Canon Log gamma without information (p.53 to 54).
 - If I_{4k} is set for the HDMI output, it will be output in Full HD (1080 60i/50i) with masking for indicating image area (4K output is not possible). Since the HDMI movie shot in I_{4k} is mainly used for proxy editing or movie checking, the movie will be output with View Assist if [View Assist.] is set to [On].
 - When the LCD monitor displays a movie output with View Assist, (p.26) will be displayed on the shooting information display screen. If View Assist cannot be used, (MGG) will be dimmed even if [View Assist.] is set to [On].
 - If [View Assist.] is set to [On] for T_{4K} movie shooting, the A/V OUT (video OUT) movie will also have View Assist.
 - View Assist is not displayed during movie playback.
 - Canon Log gamma is applied to movies. Picture Style will be applied to the still photos shot with the viewfinder, regardless of the Canon Log gamma setting.

Δ

MENU Setting the Time Code

| Time code | |
|--------------------|----------|
| Count up | Rec run |
| Start time setting | |
| Movie rec count | Rec time |
| Movie play count | Rec time |
| HDMI | |
| Drop frame | Enable |
| | MENU ᠫ |

The time code is a time reference recorded automatically to synchronize the video and audio during movie shooting. It is recorded at all times in the following units: hours, minutes, seconds, and frames. It is mainly used during movie editina.

Set the time code with [5: Time code].

Count Up

| [Rec run] | : The time code counts up only while you are shooting |
|-----------|---|
| | a movie. The time code will be continuous across |
| | sequential movie files. |

[Free run] : The time code counts up whether you are shooting or not

Start Time Setting

You can set the time code's start time

[Manual input setting] : You can freely set the hour, minute, second,

and frame [Reset] : The time set with [Manual input setting] and [Set to camera time] is reset to 00:00:00. or 00:00:00: (p.50).

- [Set to camera time] : Sets hours, minutes, and seconds to match the camera's internal clock. "Frames" will be set to 00

If [Free run] is set and you change the time, zone, or daylight saving time (1DX p.40), the time code will be affected.

 "Regenerate" function is not available, that reads the last time code recorded in the old card and resumes the count in the new card when you replace or switch the card.

Movie Recording Count

You can select what to display on the movie-shooting screen.

[Rec time] : Indicates the elapsed time from the start of the movie shooting.

[Time code] : Indicates the time code during movie shooting.

Shooting still photos during movie shooting will cause a discrepancy between the actual time and time code.

Regardless of the [Movie rec count] setting, the time code will always be recorded to the movie file.

Movie Playback Count

You can select what to display on the movie playback screen.

- [Rec time] : Displays the recording time and playback time during movie playback.
- [Time code] : Displays the time code during movie playback.

With [Time code] set:



During movie shooting



During movie playback

- If you change the setting for either [Movie play count] in [15 (movie): Time code] or for [13: Movie play count], the other setting will also change automatically.
 - "Frames" are not displayed during movie shooting and movie playback.

HDMI

Time code

You can append the time code to a movie that was output from HDMI. This is convenient for proxy editing after the movie output from HDMI is recorded to an external recording device (p.54). **[On]**: Time code is appended to the HDMI output image. **[Off]**: Time code is not appended to the HDMI output image.

Recording command

When you record a movie that is output from HDMI to an external recording device, you can synchronize the camera's movie shooting start/stop with the external recording device's recording operation. **[On]**: Synchronize external recording device's recording start/stop

- with camera's movie shooting start/stop.
- [Off]: Control external device's recording start/stop from external recording device.

If the movie-recording quality's frame rate (p.36) and HDMI output frame rate are set manually to NTSC and PAL frame rates in a combination that does not function properly, the time code will not be appended to the HDMI output image.

Drop Frame

If the frame rate setting is 1 (29.97 fps) or 1 (59.94 fps), the time code's frame count causes a discrepancy between the actual time and time code. This discrepancy can be corrected automatically. This correction function is called drop frame.

- : The discrepancy is corrected automatically by skipping [Enable] time code numbers (DF: Drop frame).
- [Disable] : The discrepancy is not corrected (NDF: Non-drop frame).

The time code will be displayed as follows:

[Enable] (DF) : 00:00:00. (During playback: 00:00:00.00) [Disable] (NDF): 00:00:00: (During playback: 00:00:00:00)

When the frame rate is 🛱 (23.98 fps), 🔂 (25.00 fps), or 🗔 (50.00 fps), there will be no dropped frames. (If 124 is set or [43: Video system] is set to [PAL]. [Drop frame] option will not be displayed.)

MENU Menu Function Settings

[🗖 4] Menu

| AF 🕨 | ¥ .₽. ★ SHOOT4:Movie |
|------------------|-------------------------|
| LV 🗖/'न्न set. | Movies |
| AF mode | Live mode |
| Grid display | Off |
| Movie rec. size | 1920 25 IPB |
| Sound recording | Auto |
| Silent LV shoot. | Mode 1 |
| Metering timer | 16 sec. |

When you select [Movies] under [△4: LV △/', set.], the [△4] [△5] tabs for movie shooting will appear. The menu options are as follows.

AF mode

The AF modes are the same as described on IDX pages 213 to 219. You can select [Live mode], [: Live mode], or [Quick mode]. Note that continuous focusing of a moving subject is not possible. Even if the AF mode is set to [Quick mode], it will switch to [Live mode] during movie shooting.

Grid display

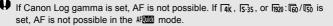
With $[3x3 \ddagger]$ or $[6x4 \ddagger]$, you can display grid lines to help you level the camera vertically or horizontally. Also, with $[3x3+diag \ddagger]$, the grid is displayed together with diagonal lines to help you align the intersections over the subject for better balance in the composition.

Movie recording size

You can set the movie recording size (image size, frame rate, and movie recording/compression method). For details, see pages 34 to 38.

Sound recording

You can set sound recording settings. For details, see pages 39 and 40. Regarding headphones, see page 41.



Silent LV shooting

This function applies to still photo shooting. For details, see DX page 212.

Metering timer

You can change how long the exposure settings are displayed (AE lock time).

[🗖 5] Menu



Time code

You can set the time code. For details, see pages 47 to 50.

Silent Control

When [**Enable** \bigcirc] is set, you can use the touch pad $\langle \bigcirc \rangle$ and Quick Control screen to change settings silently during movie shooting. For details, see page 42.

Movie shooting button

The default setting is [N/MH]. You can thereby start and stop the movie shooting not only with the <M-Fn> button, but also by pressing the shutter button completely or using Remote Switch RS-80N3 or Timer Remote Controller TC-80N3 (both sold separately). (\fbox{N} p.183)

Note that when $[\]$ / $[\]$ is set, still photo shooting (p.31) is not possible. The $[\]$ setting will enable still photo shooting during movie shooting.

HDMI output + LCD

Movies displayed on the LCD monitor as they are being recorded can also be displayed from the HDMI output. The default setting is [**Mirroring**]. Note that the video from the HDMI output will be displayed without the shooting information or masking for indicating image area (output without information overlay: through display). This makes it convenient to record the HDMI output image to a commercially-available external recording device.

If **[No mirroring]** is set, the movie will be displayed on the LCD monitor, but if there is HDMI output, the LCD monitor will turn off. With this setting, the movie from the HDMI output will show the shooting information and masking for indicating image area. However, by pressing the <INFO.> button, you can eliminate the information from the output.

- If the HDMI movie is output without information, the card's remaining capacity, battery level, internal temperature increase (p.55) and other indicators will not appear on the HDMI output screen. Be aware of this if [No mirroring] is set. If [Mirroring] is set, you can check these indicators on the LCD monitor.
 - When you are not shooting movies, the power will turn off automatically in accordance with the auto power off time. If you are recording the HDMI output image to an external recording device, setting [**Ý2:** Auto power off] to [Disable] (IDX p.57) is recommended.
 - Audio is not output during HDMI output.
 - Even if [Mirroring] is set, no image will be displayed through the HDMI output when a movie is played back or menu is displayed.
 - Even if [14: Movie recording size] is set to Tak, the HDMI movie will be output in Full HD (1080 60i/50i) with masking for indicating image area.
 - When you stop movie shooting, the HDMI output image will pause (frame stop) while the movie is being recorded to the card. After the recording is completed, the image will be displayed normally.
 - Simultaneous output from both HDMI and A/V OUT is not possible. The movie will be output to the cable that was connected to the terminal last. During A/V OUT output, nothing will be displayed on the LCD monitor.
 - The brightness of a movie shot by the camera and that of a recorded HDMI output image on the external recording device may differ depending on the viewing environment.

- By pressing the <INF0.> button, you can change the information displayed on the screen.
 - You can append a time code to the HDMI output image (p.49).

Canon Log settings

This is a gamma for attaining wide dynamic range in postproduction. For details, see pages 43 to 46.

[¥3] Menu

| ▲ AF ► Υ | | | | |
|------------------------|--|--|--|--|
| Video system PAL | | | | |
| Battery info. | | | | |
| Sensor cleaning | | | | |
| Communication settings | | | | |
| GPS device settings | | | | |
| HDMI frame rate AUT0 | | | | |
| | | | | |

HDMI frame rate

You can set the HDMI output frame rate to [Auto], [24p], or [60i/50i]. When you record movie from the HDMI output to a commercially-available external recording device, set the frame rate to match the external recording device's frame rate.

- If the frame rate set manually is not compatible with the external recording device, the frame rate will be set automatically.
 - If [Movie recording size] is set to frame rate a when [HDMI frame rate: 60i] is set, "2-3 pulldown" will be performed.

Movie Shooting Cautions

White < 10 > and Red < 10 > Internal Temperature Warning Icons

- If the camera's internal temperature increases due to prolonged movie shooting or under a high ambient temperature, a white icon < > will appear. Even if you shoot a movie while this icon is displayed, the movie's image quality will hardly be affected. However, if you shoot still photos, the image quality of the still photos may deteriorate. It is recommended to stop still photo shooting for a while and allow the camera to cool down.
- If the camera's internal temperature further increases while the white icon < >> is displayed, a red icon < >> will start blinking. This blinking icon indicates that movie shooting will soon stop 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 < III > and < III > icons to appear earlier. When you are not shooting, turn off the camera.

Recording and Image Quality

- If the attached lens has an Image Stabilizer, 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>.
- If there is a very bright light source in the picture, the bright area may appear black on the LCD monitor. In movies, the bright areas will be recorded in almost the same way you see it on the LCD monitor.
- In low light, noise or irregular colors may appear in the image. In movies, the bright areas will be recorded in almost the same way you see it on the LCD monitor.

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.



Indicator

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.

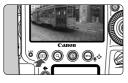
Still Photo Shooting During Movie Shooting

 Regarding the image quality of still photos, see "Image Quality" on IDX page 221.

Playback and TV Connection

- In autoexposure shooting, shutter-priority AE, or aperture-priority AE modes, if the brightness changes during movie shooting, the movie may freeze temporarily. In such cases, shoot movies with manual exposure.
- If you shoot a movie in Tak resolution with ISO speed set to H2 (ISO 204800), the movie may look momentarily still when you play back the movie on the camera.
- If you connect the camera to a TV set and shoot a movie (IDX p.273, 276), the TV will not output any sound during the shooting. However, the sound will be properly recorded.

Movies





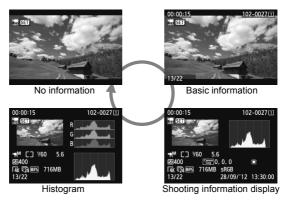


Play back the image.

- Press the < ►> button.
- The last captured image or last image viewed will appear.

Select a movie.

- To play back images starting with the last image, turn the <
 > dial counterclockwise. To play back images starting with the first captured image, turn the dial clockwise.
- With the single-image display, the
 Sell > icon displayed on the upper left indicates a movie.
- Each time you press the <INFO.> button, the display format will change.







- Press the <Q > button and turn the
 > dial counterclockwise to display the index.
- In the index display, perforations at the left edge of a thumbnail indicate a movie. As movies cannot be played on the index display, press <(x)> to switch to the single-image display.

In the single-image display, press <(ET)>.

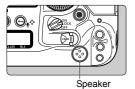
The movie playback panel will appear at the bottom of the screen.

Play back the movie.

- Turn the <⁽)> dial to select [▶] (Play), then press <⁽)>.
- The movie will start playing.
- You can pause the movie playback by pressing <(st)>.
- During movie playback, you can turn the < 2 > dial to adjust the sound volume.
- For more details on the playback procedure, see the next page.
- Press the <MENU> button to exit the image playback and return to shooting-ready state.

When you edit out the first scene or last scene of a movie file which is one of multiple 4 GB movie files created by one successive shooting (IDX) p.268) and overwrite it, information for combining the files may be lost. In such a case, you may not be able to combine the file with other files into a single movie file and save it, using software such as EOS MOVIE Utility (p.94).





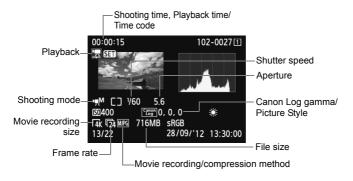
58

| Function | Playback Description |
|---------------------------------------|--|
| S Exit | Returns to the single-image display. |
| ► Play | Pressing < () toggles between play and stop. |
| I► Slow motion | Adjust the slow motion speed by turning the $<$ $>$ dial. The slow-motion speed is indicated at the upper right of the screen. |
| H First frame | Displays the movie's first frame. |
| Il Previous frame | Each time you press < (0) >, the previous frame is displayed. If you hold down < (0) >, it will rewind the movie. |
| III Next frame | Each time you press < $\[mathbb{sc}\]$ >, the movie will play frame-by-frame. If you hold down < $\[mathbb{sc}\]$ >, it will fast forward the movie. |
| H Last frame | Displays the movie's last frame. |
| % Edit | Displays the editing screen (IDX p.268). |
| | Playback position |
| hh:mm:ss | Playback time (minutes:seconds with [Movie play count: Rec time] set) |
| hh:mm:ss.ff (DF) hh:mm:ss:ff (NDF) | Time code (hours:minutes:seconds:frames with [Movie play count: Time code] set) |
| Jolume | Turn the < 🖄 > dial to adjust the volume of the built-in speaker (p.58) or headphones. |

- With a fully-charged Battery Pack LP-E4N, the continuous playback time at 23°C/73°F will be as follows: approx. 3 hr. 45 min.
 - If you connect the camera to a TV set (ftpX)p.273, 276) to play back a movie, adjust the sound volume with the TV set. (Turning the < 2 > dial will not adjust the sound volume.)
 - If you took a still photo while you shot the movie, the movie image displayed will look still for approx. 1 sec. during movie playback.

INFO.: Shooting Information Display

Sample Information for Movies



If you use HDMI output to play a Tak movie, it will be played in Full HD (1080 60i/50i). However, using EOS MOVIE Utility (p.94) enables you to play the movie in Tak quality.

For information not shown on this page, see "Sample Information for Still Photos" on IDX page 252.

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Reference

This chapter covers other differences with the EOS-1D X's Instruction Manual, system accessories, and an FAQ.

Differences with the EOS-1D X Instruction Manual

As explained on page 3, the EOS-1D C Instruction Manual centers on movie shooting. Other differences between this manual and the EOS-1D X Instruction Manual (Firmware version 1.2.0 or later) are outlined below.

Nomenclature: Rear LCD panel (10X p.26)

The EOS-1D C's rear LCD panel does not display the movie-recording size.

Reverting the Camera to the Default Settings (IDX p.58 to 60)

The EOS-1D C's default settings are as follows:

Shooting Settings

| Shooting mode | M (Manual exposure) | |
|---------------|------------------------|--|
| ISO speed | 400 | |
| White balance | Daylight | |

Movie Shooting Settings

| LV D/'T setting | Movie |
|------------------------------|----------------|
| Time code | |
| HDMI | Unchanged |
| Movie shooting button | ≪)/M-Fn button |
| HDMI output + LCD | Mirroring |
| Canon Log settings | Off |
| View Assist. | Off |
| Sharpness/ Saturation/Hue | 0 |
| HDMI frame rate | AUTO |

MENU Saving and Loading Camera Settings (IDX p.351 to 353)

With the EOS-1D C, the following functions are added and saved.

[15 (Movie)]

HDMI output + LCD, and Canon Log settings

[¥3]

HDMI frame rate

C: Registering Custom Shooting Modes (IDX p.354 to 356)

With the EOS-1D C, the following functions are added and registered. [**D**5 (Movie)]

HDMI output + LCD, and Canon Log settings

[¥3]

HDMI frame rate

When [Canon Log] is set to [On] and Custom shooting mode <C1>, <C2>, or <C3> is set, the shooting mode will also be switched to <M>. Be aware that the shooting mode may be updated when [Auto update set.] is set to [Enable].

Function Availability Table According to Shooting Mode (IDX p.358, 359)

Differences with EOS-1D X are outlined below.

| Function | | | Movie Shooting |
|--|------------------------------------|-------------|--|
| Still photo: All image quality settings selectable | | | (Still photo)*4 |
| Picture Style | | | ○*5 |
| Canon Log gamma | | 0 | |
| Auto Lighting Optimizer | | | ○*5 |
| Lens aberration correction *6 | Peripheral illumination correction | | 0 |
| | Chromatic aberration correction | | ○*7 |
| Highlight tone priority | | | ○*5 |
| AF | AF mode | One-Shot AF | AF LIV € / AF∵ / AF (UIC) * ⁸ |
| | | AI Servo AF | |

*4: If Γ_{4k} , Γ_{35} , or F_{20} : Γ_{60}/F_{50} is set, still photo shooting is not possible during movie shooting.

- *5: Not available when Canon Log gamma is set.
- *6: With an EF Cinema lens, the lens aberration correction is applied only during movie shooting. (Not applied during still photo shooting.)
- *7: Disabled when Tak is set.
- *8: Cannot perform AF when Canon Log gamma is set.

Functions whose differences with the EOS-1D X are not specified are generally the same as the EOS-1D X's.

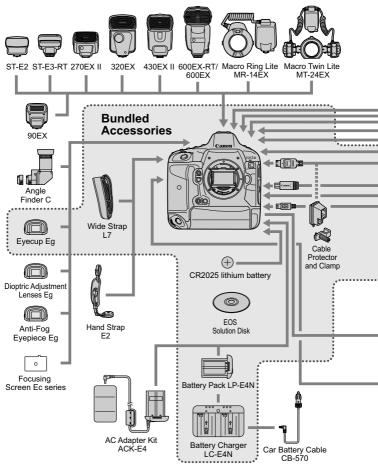
Setting the Image-Recording Quality: Guide to Image Size Settings (Approx.) (IDX p.124)

Only the "Maximum Burst" numerals in bold frame are different from those of EOS-1D X.

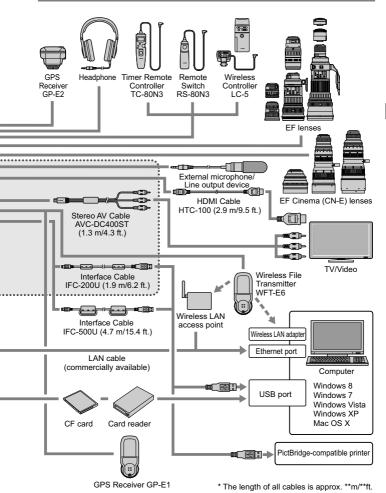
| lmage Size | Pixels Recorded (megapixels) | Printing Size | File Size (MB) | Possible Shots | Maximum Burst |
|---------------|------------------------------|------------------|-------------------|-------------------|------------------|
| L | 18M | Around A2 | 6.0 | 1200 | 100 (160) |
| M1 | 14M | A3 or larger | 4.8 | 1470 | 150 (280) |
| M2 | 8.0M | Around A3 | 3.3 | 2170 | 290 (860) |
| S | 4.5M | Around A4 | 2.1 | 3290 | 1190 (6310) |
| RAW | 18M | Around A2 | 23.2 | 280 | 27 (29) |
| RAW + L | 18M+18M | | 23.2+6.0 | 230 | 17 (17) |
| RAW) + M1 | 18M+14M | | 23.2+4.8 | 240 | 17 (17) |
| RAW) + M2 | 18M+8.0M | | 23.2+3.3 | 250 | 17 (17) |
| RAW + S | 18M+4.5M | | 23.2+2.1 | 260 | 17 (17) |
| M RAW | 10M | Around A3 | 18.3 | 350 | 25 (27) |
| M RAW + L | 10M+18M | | 18.3+6.0 | 270 | 18 (18) |
| M RAW) + M1 | 10M+14M | | 18.3+4.8 | 280 | 18 (18) |
| M RAW) + M2 | 10M+8.0M | _ | 18.3+3.3 | 300 | 18 (18) |
| M RAW + S | 10M+4.5M | | 18.3+2.1 | 320 | 19 (19) |
| S RAW | 4.5M | Around A4 | 13.0 | 490 | 38 (40) |
| SRAW + L | 4.5M+18M | | 13.0+6.0 | 340 | 18 (18) |
| S (24W) + M1 | 4.5M+14M | _ | 13.0+4.8 | 360 | 18 (18) |
| S RAW + M2 | 4.5M+8.0M | | 13.0+3.3 | 400 | 19 (19) |
| S RAW + S | 4.5M+4.5M | 1 | 13.0+2.1 | 420 | 19 (19) |

- The file size, possible shots, and maximum burst during continuous shooting are based on Canon's 8 GB testing card and Canon's testing standards (JPEG quality 8, ISO 100, and Standard Picture Style). These figures will vary depending on the subject, card brand, ISO speed, Picture Style, Custom Functions, and other settings.
- The maximum burst applies to <□H> high-speed continuous shooting.
 Figures in parentheses apply to an Ultra DMA (UDMA) mode 7, 128 GB card based on Canon's testing standards.

System Map



* Battery Pack LP-E4 and Battery Charger LC-E4 are also compatible.



Menu Settings

For Movie Shooting

1: Shooting 4 (Movie) (Red)

Page

| LV D/'R setting | Disable / Stills / Movies | 16 |
|----------------------|--|----|
| AF mode | Live mode / 🖯 Live mode / Quick mode | 51 |
| Grid display | Off / 3x3 ♯ / 6x4 轢 / 3x3+diag | 51 |
| Movie recording size | 「森(:4096x2160(院/「泳/「泳)(Ш吧) 「泳う:1920x1080(阪/「茨/ 院/「泳)(ШU/ PB) 1920x1080(阪/「茨)(ШU) 1920x1080(阪/「茨/「茨)(ШU/ PB) 1280x720(阪/「茨)(Ш/ PB) 640x480(阪/「茨)(茨)(Ш) | 34 |
| | Sound recording: Auto / Manual / Line input / Disable | |
| Sound recording | Recording level | 39 |
| | Wind filter: Disable / Enable | |
| Silent LV shooting | Mode 1 / Mode 2 / Disable | 52 |
| Metering timer | 4 sec. / 16 sec. / 30 sec. / 1 min. / 10 min. / 30 min. | 52 |

C: Shooting 5 (Movie) (Red)

Page

| Time code | Count up / Start time setting / Movie rec count / Movie play count* / HDMI / Drop frame | 47 |
|-----------------------|--|----|
| Silent Control | Enable O / Disable O | 42 |
| Movie shooting button | MFD / • / MFD | 52 |
| HDMI output + LCD | Mirroring / No mirroring | 53 |
| Canon Log settings | Canon Log / View Assist. / Sharpness / Saturation / Hue | 43 |

* The setting is linked to [Movie play count] under the [**3**] tab (10X p.372).

Y: Set-up 3 (Yellow)

| Video system | NTSC / PAL | 1DX 237 1DX 276 |
|------------------------|--|--------------------------------------|
| Battery info. | Power source / Remaining capacity / Shutter count / Recharge performance | 1DX 364 |
| | Auto cleaning: Enable / Disable | 1DX 298 |
| Sensor cleaning | Clean now | 120 230 |
| | Clean manually | 1DX 301 |
| Communication settings | Settings for wired LAN* and wireless LAN via WFT-E6 (sold separately) | * Wired LAN Instruction Manual |
| GPS device settings | Settings available when the GPS Receiver GP-E1/GP-E2 (sold separately) is attached | _ |
| HDMI frame rate | Auto / 24p / 60i or 50i | 54 |

A white 🛚 icon or red 🖾 icon is displayed.

This indicates that the camera's internal temperature is high. If the white < IB > icon is displayed, still photo image quality may deteriorate. If the red < IB > icon is displayed, movie shooting will soon stop automatically (p. 55).

Movie shooting stops by itself.

- If the card's writing speed is slow, movie shooting may stop automatically. See page 17 for the writing/reading speed required (Required Card Performance) for the respective movie-recording quality. To find out the card's writing/reading speed, refer to the card manufacturer's website.
- Shoot a few test movies to see if movies can be recorded accurately with a movie-recording size you set (p.34) on the card.

The ISO speed cannot be set.

 If the shooting mode is <P/Tv / Av /BULB>, the ISO speed will be set automatically. In the <M> mode, you can freely set the ISO speed (p.24).

ISO 32000/40000/51200 cannot be set.

■ Under [□2: ISO speed settings], if [ISO speed range]'s [Maximum] is set to [51200/H] or higher, the manual setting range's maximum will be expanded to enable ISO 32000/40000/51200 to be set. However, since movie shooting at ISO 32000/40000/51200 may result in substantial noise, the expanded ISO speed ("H" displayed) will be used.

The manually set ISO speed changes when switching to movie shooting.

- If you shoot a movie when [Maximum: 51200] is set with [ISO speed range] and ISO speed is set to ISO 32000/40000/51200, the ISO speed will switch to ISO 25600 (during movie shooting with manual exposure). Even if you switch back to still photo shooting, the ISO speed will not revert to the original setting.
- If you shoot a movie when L (ISO 50) is set, the ISO speed setting will switch to ISO 100 (during movie shooting with manual exposure). Even if you switch back to still photo shooting, the ISO speed will not revert to the original setting.

The movie image periphery looks dark.

 If you use an EF Cinema zoom lens, set 15:35. Any setting other than 15:35 will cause the movie image periphery to be dark.

The exposure changes during movie shooting.

- If you change the shutter speed or aperture during movie shooting, the changes in the exposure may be recorded.
- Zooming the lens during movie shooting can cause changes in the exposure regardless of whether the lens' maximum aperture changes or not. Changes in the exposure may be recorded as a result.

The subject looks distorted.

 If you move the camera to the left or right quickly (high-speed panning) or shoot a moving subject, the image may look distorted.

The screen flickers or horizontal stripes appear.

 Flickering, horizontal stripes (noise), or irregular exposures can be caused by fluorescent light, LED bulbs, or other light sources during movie shooting. Also, changes in the exposure (brightness) or color tone may also be recorded. In the <M> mode, a slow shutter speed may solve the problem.

When I shoot still photos during movie shooting, the movie shooting stops.

- To shoot still photos during movie shooting, using a card with a higher performance than the "Required Card Performance" on page 17 is recommended.
- Setting a smaller image size for the still photos and shooting fewer continuous shots may resolve the problem.

I cannot shoot still photos during movie shooting.

- Set [5: Movie shoot. btn] to [5: Movie shoot. btn]
- You cannot shoot still photos during movie shooting if any of the following is set: Canon Log gamma, 「転, 535, 120:160/150.
- Since the image circle of EF Cinema zoom lenses does not support the image size of 35mm full-frame size image sensor, still photo shooting is not possible. (The image periphery will look dark.)

Lens aberration correction is not applied.

- If you want to apply lens aberration correction when using an EF Cinema lens (p.29), use EOS Utility (provided software) to register the correction data to the camera. If EOS Utility's correction data registration screen does not show the EF Cinema lens, update EOS Utility to the latest version.
- Check that the [Lens aberration correction] menu is set to [Correction data available]. If [Correction data not available] is displayed, use the provided EOS Utility software to register the lens' correction data to the camera (IDX) p.155-157).
- When you shoot a still photo using an EF Cinema lens, lens aberration correction is not applied. The lens aberration correction is applied only during movie shooting. Peripheral illumination correction, distortion correction, or chromatic aberration correction of RAW images shot with an EF Cinema lens will not be possible when the RAW image is processed (TEX p.290).

The time code is off.

 Shooting still photos during movie shooting will cause a discrepancy between actual time and time code. When you want to edit a movie using the time code, it is recommended not to shoot still photos during movie shooting.

Shooting mode is automatically set to <M> or cannot shoot with ISO Auto.

 When Canon Log gamma is set, shooting mode will be automatically switched to manual exposure. If ISO Auto is set, it will be automatically switched to manual ISO speed setting (p.43).

Vertical noise stripes appear.

 When Canon Log gamma is set, vertical noise stripes may appear in movies depending on subject or shooting conditions. For details, see page 44.

Highlight tone priority and other settings cannot be set.

- When Canon Log gamma is set, Picture Style, Auto Lighting Optimizer, and Highlight tone priority cannot be set (not applied) for movie shooting.
- If Tak is set, chromatic aberration correction cannot be set (disabled).

The movie looks dark or the contrast is low.

 Canon Log gamma has been set. If necessary, set View Assist (p.43 and 45).

View Assist is not displayed.

- View Assist will not be displayed with the HDMI output if a movierecording quality other than T_{4K} is set. (The movie will be output with Canon Log gamma.)
- View Assist is not displayed during movie playback.

Canon Log gamma icon blinks.

 When Canon Log gamma is set and [Peripheral illumin.] is set to [Enable], Canon Log gamma icon on the information display screen blinks, since noise may appear in the movie image periphery.

AF is not possible.

- AF is not possible when Canon Log gamma is set.
- If Tak, IS35 or Table: To If Tak, IS35 or Table: The AF mode is set to AF Table and the AF mode is set to AF Table.
 Even if the AF mode is set to AF Table.
 AF table and table an

The time code cannot be appended during HDMI output.

 If the movie-recording quality's frame rate setting is set to a value that does not function properly in combination with the NTSC/PAL frame rate, the time code will not be appended to the HDMI output image.

The HDMI output image has a temporary frame stop.

 When the movie shooting ends, the HDMI output image pauses (frame stop). When writing to the card is completed, the movie is output normally.

Movie shooting stops if I connect or disconnect the HDMI cable.

 If you connect or disconnect the HDMI cable during movie shooting, the movie shooting will stop. If you shoot movies while using HDMI output, you should use the provided Cable protector and clamp to prevent the cable from disconnecting accidentally.

Movie Playback Problems

The movie cannot be played back.

- Movies edited with a personal computer cannot be played back with the camera.
- Movies shot with Canon Log gamma or shot in 「本, 100:100/100 cannot be played back by another EOS camera.

When the movie is played back, camera operation noise can be heard.

 If you operate the camera's dials or lens during movie shooting, the operation noise will also be recorded. Using an external microphone (commercially available) is recommended (p.40).

The movie has still moments.

 During autoexposure movie shooting, if there is a drastic change in the exposure level, the recording will stop momentarily until the brightness stabilizes. If this happens, shoot in the <**M**> mode (p.23).

No image appears on the TV screen.

- Use the stereo AV cable that came with the camera (10X p.276).
- Make sure the stereo AV cable or HDMI cable's plug is inserted all the way in (IDX p.273, 276).
- Set the video OUT system (NTSC/PAL) to the same video system as the TV set (IDX p.276).
- Even if you play back an image when [15: HDMI output + LCD] is set to [Mirroring], the image will not appear on the TV specified as HDMI output.

There are multiple movie files for a single movie shoot.

 If the movie file size reaches 4 GB for a single movie shoot (single clip), another movie file will be created automatically (p.37).

Specifications

| • Type Type: Recording media: Image sensor size: Compatible lenses: | Digital, single-lens reflex, AF/AE camera Type I or II CF card, UDMA mode 7-compatible * Dual CF card slots Approx. 36.0 x 24.0 mm 1. Canon EF lenses (except EF-S and EF-M lenses) 2. Canon Cinema (CN-E) lenses (EF mount) * The effective angle of view is equivalent to the lens focal length. * Canon EF Cinema zoom lenses are compatible only with Super 35mm Crop movies. (Not compatible with still photo shooting, 4K, Full HD, HD, and SD movies.) |
|--|---|
| Lens mount: | Canon EF mount |
| • Image Sensor Type: Effective pixels: Aspect ratio: Dust delete feature: | CMOS sensor Approx. 18.10 megapixels 3:2 Auto, Manual, Dust Delete Data appending |
| • Recording System Recording format: Image type: Recorded pixels: | Design rule for Camera File System (DCF) 2.0 JPEG, RAW (14-bit Canon original), RAW+JPEG simultaneous recording enabled L (Large) : Approx. 17.90 megapixels (5184 x 3456) M1 (Medium 1): Approx. 14.20 megapixels (4608 x 3072) M2 (Medium 2): Approx. 8.00 megapixels (3456 x 2304) S (Small) : Approx. 4.50 megapixels (2592 x 1728) RAW : Approx. 17.90 megapixels (5184 x 3456) M-RAW : Approx. 10.10 megapixels (3888 x 2592) S DAW |
| JPEG quality: Recording function: Create/select a folder: File name: File numbering: | S-RAW : Approx. 4.50 megapixels (2592 x 1728) 10 levels Standard, Auto switch card, Record separately, Record to multiple Possible Preset code, User setting 1, User setting 2 Continuous, Auto reset, Manual reset |

Image Processing During Shooting

| • | |
|-------------------------|---|
| Picture Style: | Auto, Standard, Portrait, Landscape, Neutral, Faithful, |
| | Monochrome, User Def. 1 - 3 |
| White balance: | Auto, Preset (Daylight, Shade, Cloudy, Tungsten light, |
| | White fluorescent light, Flash), Custom, Color |
| | temperature setting (Approx. 2500-10000K), Personal |
| | white balance (5 settings), White balance correction, and |
| | White balance bracketing possible |
| | * Flash color temperature information transmission enabled |
| Noise reduction: | Applicable to long exposures and high ISO speed shots |
| Automatic image | |
| brightness correction | : Auto Lighting Optimizer |
| Highlight tone priority | : Provided |
| Lens aberration correct | ion: Peripheral illumination correction, Chromatic aberration correction |
| | |

| Viewfinder | |
|------------------------------|--|
| Туре: | Eye-level pentaprism |
| Coverage: | Vertical/Horizontal approx. 100% (with Eye point approx. 20 mm) |
| Magnification: | Approx. 0.76x (-1 m ⁻¹ with 50 mm lens at infinity) |
| Eye point: | Approx. 20 mm (from eyepiece lens center at -1 m ⁻¹) |
| Built-in dioptric adjustment | t: Approx3.0 - +1.0 m ⁻¹ (dpt) |
| Eyepiece shutter: | Built-in |
| Focusing screen: | Ec-C V provided, interchangeable |
| AF status indicator: | Provided |
| Grid display: | Provided |
| Electronic level: | Horizontal: 1° increments, ±6° |
| | Vertical: 1° increments, ±4° |
| | * During horizontal shooting |
| Mirror: | Quick-return type |
| Depth-of-field preview: | Provided |
| Autofocus | |
| Туре: | TTL secondary image-registration, phase detection |
| AF points: | 61 points (Up to 41 cross-type points) |
| | * Number of available AF points and cross-type points vary depending on the lens. |
| Focusing brightness range | : EV -2 - 18 (with center f/2.8 AF point, at 23°C/73°F, ISO 100) |
| Focus modes: | One-Shot AF, AI Servo AF, Manual focusing (MF) |

Specifications

| AF area selection modes | : Single-point Spot AF (manual selection), Single-point AF (manual selection), AF point expansion (manual selection: up, down, left, and right), AF point expansion (manual selection: surround), Zone AF (manual selection), 61-point automatic selection AF | |
|--------------------------|--|--|
| AF point automatic | | |
| selection conditions: | Depending on EOS iTR AF setting (AF using color and face detection information possible) * iTR: Intelligent Tracking and Recognition | |
| AF Configuration tool: | Case 1 - 6 | |
| AI Servo characteristics | :: Tracking sensitivity, Acceleration/deceleration tracking, AF point auto switching | |
| AF fine adjustment: | AF Microadjustment (All lenses by same amount or Adjust by lens) | |
| AF-assist beam: | Emitted by the EOS-dedicated external Speedlite | |
| Exposure Control | | |
| Metering modes: | Approx. 100,000-pixel RGB metering sensor and 252-zone TTL metering at max. aperture EOS ISA (Intelligent Subject Analysis) system • Evaluative metering (linked to all AF points) • Partial metering (approx. 6.5% of viewfinder at center) • Spot metering (approx. 2.5% of viewfinder at center) • Center-weighted average metering | |
| Metering brightness | EV 0 - 20 (at 23°C/73°F, ISO 100) | |
| range: | * Spot metering: EV 2 - 20 | |
| Exposure control: | Program AE, Shutter-priority AE, Aperture-priority AE, Manual exposure, Bulb exposure | |
| ISO speed: | Auto ISO, manually settable within ISO 100 - 51200 | |
| (Recommended | (1/3-stop or whole-stop increments), and expandable to L | |
| exposure index) | (Equivalent to ISO 50), H1 (Equivalent to ISO 102400), H2 (Equivalent to ISO 204800) | |
| ISO speed settings: | ISO speed range, Auto ISO range, and Auto ISO minimum shutter speed settable | |
| Exposure compensation: | Manual : ±5 stops in 1/3- or 1/2-stop increments AEB : ±3 stops in 1/3- or 1/2-stop increments (Can be combined with manual exposure compensation) | |
| AE lock: | Auto : Applied in One-Shot AF mode with evaluative metering when focus is achieved | |
| | Manual : By AE lock button | |

Standard exposure level adjustment: AE Microadjustment possible Multiple Exposures Shooting method: Function/control priority, Continuous shooting priority Number of multiple exposures: 2 to 9 exposures Multiple-exposure control: Additive, Average, Bright, Dark Shutter Type: Electronically-controlled, focal-plane shutter 1/8000 sec. to 30 sec., Bulb (Total shutter speed range. Shutter speeds: Available range varies by shooting mode.), X-sync at 1/250 sec. Drive System Drive modes: Single, High-speed continuous, Low-speed continuous, 10-sec. self-timer. 2-sec. self-timer. Silent single shooting. Super high-speed continuous Continuous shooting Super high-speed continuous shooting: Max. approx. 14 shots/sec. speed: High-speed continuous shooting: Max. approx. 12 shots/sec. Low-speed continuous shooting: Max. approx. 3 shots/sec. * At ISO 32000 or higher (or ISO 20000 or higher if the camera's internal temperature is low), the maximum highspeed continuous shooting speed will be approx. 10 fps. Max burst: JPEG Large: Approx. 100 shots (approx. 160 shots) RAW: Approx. 27 shots (approx. 29 shots) RAW+JPEG Large: Approx. 17 shots (approx. 17 shots) * During high-speed continuous shooting * Figures are based on Canon's testing standards (ISO 100 and Standard Picture Style) and an 8 GB card.

* Figures in parentheses apply to an UDMA mode 7, 128 GB card based on Canon's testing standards.

External Speedlite

| Compatible Speedlites: | EX-series Speedlites | |
|--------------------------------------|---|--|
| Flash metering: | E-TTL II autoflash | |
| Flash exposure | | |
| compensation: | ±3 stops in 1/3- or 1/2-stop increments | |
| FE lock: | Provided | |
| Standard flash exposure | | |
| level adjustment: | FE Microadjustment possible | |
| External Speedlite control: Provided | | |
| | * Compatible with radio wireless flash photography. | |

Live View Shooting

| Live View Shooting | | |
|--|---|---|
| Focus modes: | Live mode, Face detection Live n detection), Quick mode (phase-di Manual focusing (approx. 5x / 102 | fference detection), x magnification possible) |
| | EV 1 - 20 (with contrast detection, | |
| Metering modes: | Evaluative metering with the image | ge sensor |
| Metering brightness range: | EV 0 - 20 (at 23°C/73°F, ISO 100 |)) |
| Silent shooting: | Provided (Mode 1 and 2) | |
| Grid display: | Three types | |
| Movie Shooting | | |
| Recording format: | MOV | |
| Movie: | 4K: Motion JPEG | |
| | Super 35mm Crop, Full HD, HD, | SD: MPEG-4 AVC/ |
| | H.264, variable (average) bit rate | e, IPB, ALL-I (I-only) |
| Audio: | Linear PCM | |
| Recording size | | |
| and frame rate: | 4K: 4096 x 2160 25p/24p | |
| | Super 35mm Crop: 1920 x 1080 | 30p/25p/24p |
| | Full HD: 1920 x 1080 60p/50p/30 |)p/25p/24p |
| | HD: 1280 x 720 60p/50p | |
| | SD: 640 x 480 30p/25p | |
| | * 60p: 59.94 fps, 50p: 50.00 fps, 25p: 25.00 fps, 24p: 23.98 fps | 30p: 29.97 fps, |
| | * The lens crop factor for 4K and | Super 35mm Crop is |
| | respectively approx. 1.3x and a focal length. | |
| File size: | 4K (25p/24p) | : Approx. 3.76 GB/min. |
| 1 110 5120. | Super 35mm Crop (30p/25p/24p) / IPI | |
| | Super 35mm Crop (30p/25p/24p) / ALL- | |
| | Full HD (60p or 50p) / ALL-I | : Approx. 1.36 GB/min. |
| | Full HD (30p/25p/24p) / IPB | : Approx. 1.30 GB/min. |
| | Full HD (30p/25p/24p) / ALL-I | : Approx. 235 MB/min. |
| | | |
| | HD (60p/50p) / IPB | : Approx. 205 MB/min. |
| | HD (60p/50p) / ALL-I | : Approx. 610 MB/min. |
| Color compling | SD (30p/25p) / IPB | : Approx. 78 MB/min. |
| Color sampling: | YCbCr 4:2:2 (8 bit): 4K | |

YCbCr 4:2:0 (8 bit): Super 35mm Crop, Full HD, HD, SD

Specifications

| Color matrix: | Rec. ITU-R BT.601: 4K, SD |
|-------------------------|---|
| 5 | Rec. ITU-R BT.709: Super 35mm Crop, Full HD, HD |
| Pixel range: | 8 bit, 0 to 255 (with Canon Log Gamma: 8 bit, 16 to 254) |
| Movie characteristic: | Canon Log gamma, 2. Picture Style selectable If Canon Log gamma is set, View Assist is possible. |
| Required card | 4K: UDMA7 100 MB/sec. or higher |
| performance: | Full HD 60p/50p: 60 MB/sec. or higher |
| (Writing/reading speed) | Super 35mm Crop/IPB: 20 MB/sec. or higher |
| | Other than the above: IPB: 10 MB/sec. or higher, ALL-I: 30 MB/sec. or higher |
| Focus modes: | Same as focusing modes with Live View shooting |
| | * With Canon Log gamma: AF is not possible |
| | * With 4K, Super 35mm Crop, or Full HD 60p/50p: AF with Quick mode is not possible |
| Metering modes: | Center-weighted average and Evaluative metering with |
| Ū | the image sensor |
| | * Automatically set by the focusing mode. |
| Metering brightness | EV 0 - 20 (at 23°C/73°F, ISO 100) |
| range: | |
| Exposure control: | 1. Autoexposure, 2. Shutter-priority AE, 3. Aperture- |
| | priority AE, 4. Manual exposure |
| | * With 1, 2, and 3, exposure compensation and AE lock are possible. |
| | 1/3-stop increments, ±3 stops (±5 stops for still photos) |
| ISO speed: | P, Av, and BULB: |
| (Recommended | ISO 100 - 25600 set automatically, or ISO expansion to |
| exposure index) | H (equivalent to ISO 51200), H1 (equivalent to ISO 102400), H2 (equivalent to ISO 204800) |
| | Tv: ISO 100 - 25600 set automatically |
| | M : Auto ISO (ISO 100 - 25600 set automatically), ISO |
| | 100 - 25600 set manually (in 1/3- or whole-stop |
| | increments), or ISO expansion to H (equivalent to |
| | ISO 32000/40000/51200), H1 (equivalent to ISO |
| The second | 102400), H2 (equivalent to ISO 204800) |
| Time code: | Supported |
| Drop frames: | Compatible with 60p/30p |
| Sound recording: | Built-in monaural microphone, external stereo |
| | microphone, and Line input provided |
| Llaadabaaaa | Sound recording level adjustable, wind filter provided |
| Headphones: | Headphone terminal provided |
| Grid display: | Three types |

| Still photo shooting: | Possible * If Canon Log gamma is set or 4K, Super 35mm Crop, or Full HD 60p/50p is set, still photo shooting is not possible. |
|-----------------------|---|
| Two-screen display: | Simultaneous display of LCD monitor and HDMI output image is possible. |
| HDMI output: | Image without information display can be output. * Selectable from Auto, 24p, 60i, and 50i. |
| Accessory attachment: | Camera bottom provides an alignment hole to prevent rotation. |

LCD Monitor

| Туре: | TFT color, liquid-crystal monitor |
|--|---|
| Monitor size and dots: | Wide, 8.1 cm (3.2-in.) (3:2) with approx. 1.04 million dots |
| Brightness adjustment: | Manual (7 levels) |
| Electronic level: | Provided |
| Interface languages: | 25 |
| Feature guide: | Displayable |
| Camera system status display: Provided | |

Playback

| Image display formats: | Single-image display, Single-image + Info display (Basic info, shooting info, histogram), 4-image index, 9-image index display |
|-------------------------|--|
| Highlight alert: | Overexposed highlights blink |
| AF point display: | Possible |
| Grid display: | Three types |
| Zoom magnification: | Approx. 1.5x - 10x, starting magnification and position settable |
| Image browsing methods: | : Single image, jump by 10 or 100 images, by shooting date, by folder, by movies, by stills, by rating |
| Image rotate: | Possible |
| Ratings: | Provided |
| Movie playback: | Enabled (LCD monitor, video/audio OUT, HDMI OUT) Built-in speaker |
| Slide show: | All images, by date, by folder, movies, stills, or by rating |
| Image protect: | Possible |
| Voice memo: | Recording/playback possible |
| Copying images: | Possible |

Post-Processing of Images

In-camera RAW image processing:

Brightness correction, White balance, Picture Style, Auto Lighting Optimizer, High ISO speed noise reduction, JPEG image-recording quality, Color space, Peripheral illumination correction, Distortion correction, and Chromatic aberration correction Possible

Resize:

Direct Printing

 Compatible printers:
 PictBridge-compatible printers

 Printable images:
 JPEG and RAW images

 Print ordering:
 DPOF Version 1.1 compatible

Wired LAN

| Ethernet: | 10BASE-T, 100BASE-TX, 1000BASE-T |
|-------------------|--|
| FTP transfer: | Automatic transfer upon shooting, Image selection/ |
| | transfer, Transfer with SET button, Transfer with caption |
| EOS Utility: | EOS Utility's remote control works with wired LAN |
| WFT server: | Camera control, simple control, basic shooting, image viewing, and downloading |
| Media server: | DLNA-compatible |
| Multi camera time | Master camera can synchronize time with up to 10 slave |
| sync function: | cameras |
| | Time error of approx. ±0.05 sec. between master and |
| | slave cameras |

Image Transfer

Transferrable images: Still photos (JPEG, RAW, RAW+JPEG images), Movies

Custom Functions

| Custom Functions: | 31 | |
|--|--|--|
| Save camera settings: | Up to ten sets can be registered in a card | |
| Custom shooting modes: Register under C1/C2/C3 | | |
| My Menu registration: | Possible | |
| Copyright information: | Entry and inclusion enabled | |

Specifications

| Interface | |
|---|---|
| Audio/video OUT/ | Analog video (Compatible with NTSC/PAL)/stereo audio output |
| Digital terminal: | Personal computer communication, Direct printing (Hi- |
| · | Speed USB or equivalent), GPS Receiver GP-E2 connection |
| HDMI mini OUT terminal: | Type C (Auto switching of resolution), CEC-compatible |
| External microphone | |
| IN/Line input terminal: | 3.5 mm diameter stereo mini-jack |
| Headphone terminal: | 3.5 mm diameter stereo mini-jack |
| Remote control terminal: | Compatible with N3-type remote controller |
| Ethernet terminal: | RJ-45 terminal, gigabit Ethernet compatible |
| System extension termina | I: For Wireless File Transmitter WFT-E6 and GPS Receiver |
| | GP-E1 |
| Power | |
| Battery: | Battery Pack LP-E4N/LP-E4 (Quantity 1) |
| | * AC power can be supplied via AC Adapter Kit ACK-E4 |
| | AC power can be supplied via AC Adapter Kit ACK-E4 |
| Battery information: | Remaining capacity, Shutter count, and Recharge |
| Battery information: | |
| Battery information: Battery life: | Remaining capacity, Shutter count, and Recharge |
| | Remaining capacity, Shutter count, and Recharge performance displayed |
| Battery life: | Remaining capacity, Shutter count, and Recharge performance displayed With viewfinder shooting: Approx. 1120 shots at 23°C/73°F, approx. 860 shots at 0°C/32°F With Live View shooting: |
| Battery life: (Based on CIPA testing standards) | Remaining capacity, Shutter count, and Recharge performance displayed With viewfinder shooting: Approx. 1120 shots at 23°C/73°F, approx. 860 shots at 0°C/32°F With Live View shooting: Approx. 290 shots at 23°C/73°F, approx. 250 shots at 0°C/32°F |
| Battery life: (Based on CIPA | Remaining capacity, Shutter count, and Recharge performance displayed With viewfinder shooting: Approx. 1120 shots at 23°C/73°F, approx. 860 shots at 0°C/32°F With Live View shooting: Approx. 290 shots at 23°C/73°F, approx. 250 shots at 0°C/32°F Approx. 1 hr. 25 min. at 23°C/73°F |
| Battery life: (Based on CIPA testing standards) | Remaining capacity, Shutter count, and Recharge performance displayed With viewfinder shooting: Approx. 1120 shots at 23°C/73°F, approx. 860 shots at 0°C/32°F With Live View shooting: Approx. 290 shots at 23°C/73°F, approx. 250 shots at 0°C/32°F Approx. 1 hr. 25 min. at 23°C/73°F Approx. 1 hr. 15 min. at 0°C/32°F |
| Battery life: (Based on CIPA testing standards) | Remaining capacity, Shutter count, and Recharge performance displayed With viewfinder shooting: Approx. 1120 shots at 23°C/73°F, approx. 860 shots at 0°C/32°F With Live View shooting: Approx. 290 shots at 23°C/73°F, approx. 250 shots at 0°C/32°F Approx. 1 hr. 25 min. at 23°C/73°F |

• Dimensions and Weight

Dimensions (W x H x D): Approx. 158.0 x 163.6 x 82.7 mm / 6.2 x 6.4 x 3.3 in. Weight: Approx. 1545 g / 54.5 oz. (CIPA Guidelines), Approx. 1355 g / 47.8 oz. (Body only)

Operation Environment

Working temperature range: 0°C - 45°C / 32°F - 113°F Working humidity: 85% or less

Battery Pack LP-E4N

| Туре: | Rechargeable lithium-ion battery |
|-------------------------|--|
| Rated voltage: | 11.1 V DC |
| Battery capacity: | 2450 mAh |
| Dimensions (W x H x D): | Approx. 68.4 x 34.2 x 92.8 mm / 2.7 x 1.3 x 3.7 in. |
| Weight: | Approx. 185 g / 6.5 oz. (excluding protective cover) |

Battery Charger LC-E4N

| Compatible battery packs: | Battery Pack LP-E4N, LP-E4 |
|----------------------------|---|
| Recharging time: | LP-E4N: Approx. 130 min. (for 1 pack), LP-E4: Approx. |
| | 120 min. (for 1 pack) |
| Rated input: | 100 - 240 V AC (50/60 Hz) |
| | 12 V / 24 V DC |
| Rated output: | 12.6 V DC, 1.55 A |
| Power cord length: | Approx. 2 m / 6.6 ft. |
| Working temperature range: | 0°C - 40°C / 32°F - 104°F |
| Working humidity: | 85% or less |
| Dimensions (W x H x D): | Approx. 155 x 52.8 x 95 mm / 6.2 x 2.1 x 3.7 in. |
| Weight: | Approx. 350 g / 12.3 oz. (excluding power cord and protective covers) |

- All the data above is based on Canon's testing standards and CIPA (Camera & Imaging Products Association) testing standards and guidelines.
- Dimensions, maximum diameter, length and weight listed above are based on CIPA Guidelines (except weight for camera body only).
- Product specifications and the exterior are subject to change without notice.
- If a problem occurs with a non-Canon lens attached to the camera, consult the respective lens maker.

Trademarks

- Adobe is a trademark of Adobe Systems Incorporated.
- Windows is a trademark or registered trademark of Microsoft Corporation in the United States and other countries.
- Macintosh and Mac OS are trademarks or registered trademarks of Apple Inc. in the United States and other countries.
- CompactFlash is a trademark of SanDisk Corporation.
- HDMI, HDMI logo, and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.
- All other corporate and product names and trademarks mentioned in this manual are the property of their respective owners.

About MPEG-4 Licensing

"This product is licensed under AT&T patents for the MPEG-4 standard and may be used for encoding MPEG-4 compliant video and/or decoding MPEG-4 compliant video that was encoded only (1) for a personal and non-commercial purpose or (2) by a video provider licensed under the AT&T patents to provide MPEG-4 compliant video. No license is granted or implied for any other use for MPEG-4 standard."

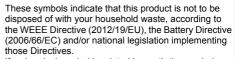
* Notice displayed in English as required.

Use of genuine Canon accessories is recommended

This product is designed to achieve excellent performance when used with genuine Canon accessories. Canon shall not be liable for any damage to this product and/or accidents such as fire, etc., caused by the malfunction of non-genuine Canon accessories (e.g., a leakage and/or explosion of a battery pack). Please note that this warranty does not apply to repairs arising out of the malfunction of non-genuine Canon accessories, although you may request such repairs on a chargeable basis.

Battery Pack LP-E4N is designed for Canon products only. Using it with an incompatible battery charger or product may result in malfunction or accidents for which Canon cannot be held liable.

Only for European Union and EEA (Norway, Iceland and Liechtenstein)



If a chemical symbol is printed beneath the symbol shown above, in accordance with the Battery Directive, this indicates that a heavy metal (Hg = Mercury, Cd = Cadmium, Pb = Lead) is present in this battery or accumulator at a concentration above an applicable threshold specified in the Battery Directive.

This product should be handed over to a designated collection point, e.g., on an authorized one-for-one basis when you buy a new similar product or to an authorized collection site for recycling waste electrical and electronic equipment (EEE) and batteries and accumulators. Improper handling of this type of waste could have a possible impact on the environment and human health due to potentially hazardous substances that are generally associated with EEE. Your cooperation in the correct disposal of this product will contribute to the effective usage of natural resources.

For more information about the recycling of this product, please contact your local city office, waste authority, approved scheme or your household waste disposal service or visit <u>www.canon-europe.com/weee</u>, or <u>www.canon-europe.com/battery</u>.

Safety Warnings

Follow these safeguards and use the equipment properly to prevent injury, death, and material damage.

Preventing Serious Injury or Death

- To prevent fire, excessive heat, chemical leakage, and explosions, follow the safeguards below:
 - Do not use any batteries, power sources, and accessories not specified in this booklet. Do not use any home-made or modified batteries.
 - Do not short-circuit, disassemble, or modify the battery pack or back-up battery. Do not apply heat or apply solder to the battery pack or back-up battery. Do not expose the battery pack or back-up battery to fire or water. And do not subject the battery pack or back-up battery to strong physical shock.
 - Do not install the battery pack or back-up battery in reversed polarity (+ –). Do not mix new and old or different types of batteries.
 - Do not recharge the battery pack outside the allowable ambient temperature range of 0°C 40°C (32°F 104°F). Also, do not exceed the recharging time.
 - Do not insert any foreign metallic objects into the electrical contacts of the camera, accessories, connecting cables, etc.
- Keep the back-up battery away from children. If a child swallows the battery, consult a
 physician immediately. (Battery chemicals may harm the stomach and intestines.)
- When disposing of a battery pack or back-up battery, insulate the electrical contacts with tape to prevent contact with other metallic objects or batteries. This is to prevent fire or an explosion.
- If excessive heat, smoke, or fumes are emitted during battery pack recharging, immediately unplug the battery charger from the power outlet to stop the recharging and prevent a fire.
- If the battery pack or back-up battery leaks, changes color, deforms, or emits smoke or fumes, remove it immediately. Be careful not to get burned in the process.
- Prevent any battery leakage from contacting your eyes, skin, and clothing. It can cause blindness or skin problems. If the battery leakage contacts your eyes, skin, or clothing, flush the affected area with lots of clean water without rubbing it. See a physician immediately.
- During the recharging, keep the equipment away from the reach of children. The cord can accidentally choke the child or give an electrical shock.
- Do not leave any cords near a heat source. It can deform the cord or melt the insulation and cause a fire or electrical shock.
- 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. The use of a tripod is recommended for people with circulation problems or very sensitive skin, or when using the camera in very hot places.
- · Do not fire the flash at someone driving a car. It may cause an accident.
- Do not fire the flash near a person's eyes. It may impair the person's vision. When using flash to photograph an infant, keep at least 1 meter/3.3 feet away.

- Before storing the camera or accessory when not in use, remove the battery pack and disconnect the power plug. This is to prevent electrical shock, heat generation, and fire.
- Do not use the equipment where there is flammable gas. This is to prevent an
 explosion or fire.
- If you drop the equipment and the casing breaks open to expose the internal parts, do
 not touch the internal parts due to the possibility of electrical shock.
- Do not disassemble or modify the equipment. High-voltage internal parts can cause electrical shock.
- Do not look at the sun or an extremely bright light source through the camera or lens. Doing so may damage your vision.
- Keep the camera from the reach of small children. The neck strap can accidentally choke the child.
- Do not store the equipment in dusty or humid places. This is to prevent fire and electrical shock.
- Before using the camera inside an airplane or hospital, check if it is allowed. Electromagnetic waves emitted by the camera may interfere with the plane's instruments or the hospital's medical equipment.
- · To prevent fire and electrical shock, follow the safeguards below:
 - Always insert the power plug all the way in.
 - Do not handle a power plug with wet hands.
 - When unplugging a power plug, grasp and pull the plug instead of the cord.
 - Do not scratch, cut, or excessively bend the cord or put a heavy object on the cord. Also do not twist or tie the cords.
 - Do not connect too many power plugs to the same power outlet.
 - Do not use a cord whose insulation has been damaged.
- Occasionally unplug the power plug and use a dry cloth to clean off the dust around the power outlet. If the surrounding is dusty, humid, or oily, the dust on the power outlet may become moist and short-circuit the outlet to cause a fire.

Preventing Injury or Equipment Damage

- Do not leave equipment inside a car under the hot sun or near a heat source. The equipment may become hot and cause skin burns.
- Do not carry the camera around while it is attached to a tripod. Doing so may cause injury. Also make sure the tripod is sturdy enough to support the camera and lens.
- Do not leave a lens or lens-attached camera under the sun without the lens cap attached. Otherwise, the lens may concentrate the sun's rays and cause a fire.
- Do not cover or wrap the battery-recharging apparatus with a cloth. Doing so may trap heat within and cause the casing to deform or catch fire.
- If you drop the camera in water or if water or metal fragments enter inside the camera, promptly remove the battery pack and back-up battery. This is to prevent fire and electrical shock.
- Do not use or leave the battery pack or back-up battery in a hot environment. Doing so
 may cause battery leakage or a shorter battery life. The battery pack or back-up
 battery can also become hot and cause skin burns.
- Do not use paint thinner, benzene, or other organic solvents to clean the equipment. Doing so may cause fire or a health hazard.

If the product does not work properly or requires repair, contact your dealer or your nearest Canon Service Center.





Software Start Guide

This chapter gives an overview of the software on the EOS Solution Disk (CD-ROM) provided with the camera and explains how to install the software on a personal computer. It also explains how to view the PDF files on the EOS Camera Instruction Manuals Disk (CD-ROM).



EOS Solution Disk (Software)



EOS Camera Instruction Manuals Disk

EOS Solution Disk

This disk contains various software for EOS cameras.

• EOS Utility

Communication Software for the Camera and Computer

- You can download images (still photos/movies) you have shot with the camera to your computer.
- You can set the various settings of the camera from your computer.
- You can shoot photos remotely by connecting the camera to your computer.
- * When the EOS-1D C is connected to the personal computer, you can create optimum Picture Style files with Picture Style Editor while confirming their effects on the Remote Live View screen.

If you want to apply lens aberration correction when using an EF Cinema lens, update EOS Utility to the latest version and register the correction data to the camera.

2 Digital Photo Professional

Image Viewing and Editing Software

- You can view, edit and print shot images on your computer at high-speed.
- You can edit images with originals remaining unchanged.
- Can be used by a wide range of users from amateurs to professionals. • It is especially recommended for users who mainly shoot RAW images.

O Picture Style Editor

Picture Style File Creating Software

- This software is aimed at advanced users who are experienced in processing images.
- You can edit Picture Style to your unique image characteristics and create/save an original Picture Style file.

Downloading from Canon website

The following software can be downloaded from Canon website.

EOS MOVIE Utility for EOS-1D C

[On Windows]

You can play back movies you shot, consecutively play back separate movie files, and save them as a single movie file with this software. Exporting still photos from movies is also possible.

[On Macintosh]

You can save separate movie files as a single movie file with this software.

Installing the Software on Windows

Compatible OS Windows 7 Windows Vista Windows XP

- 1 Check that the camera is not connected to your computer.
 - Never connect the camera to your computer before you install the software. The software will not be installed correctly.
- **2** Insert the EOS Solution Disk (CD).
- 3 Select your geographic area, country and language.
- **4** Click **[Easy Installation]** to start installation.



- Follow the on-screen instructions to complete the installation procedure.
- If prompted, install Microsoft Silverlight.
- **5** Click **[Finish]** when the installation has completed.

| mg1 (infermine mg2 (interes | Installation of the software has been completed. |
|--|--|
| sw3 Intelligits Visit the non-neuron Visit the Visit | Finish |
| Field | |
| OM | |

6 Remove the CD.

Installing the Software on Macintosh

Compatible OS MAC OS X 10.6 - 10.7

1 Check that the camera is not connected to your computer.

2 Insert the EOS Solution Disk (CD).

- On your computer's desktop, double-click and open the CD-ROM icon, and then double-click [Canon EOS Digital Installer].
- **3** Select your geographic area, country and language.

4 Click **[Easy Installation]** to start installation.



- Follow the on-screen instructions to complete the installation procedure.
- 5 Click [Restart] when the installation has completed.

| | installation of the software has been completed. |
|----------|--|
| | |
| | Please conjust investigative deconversion |
| | |
| | Restart |
| | |
| 5 Finish | |
| | |

6 Once the computer has restarted, remove the CD.

[WINDOWS]



EOS Camera Instruction Manuals Disk

Copy the PDF Instruction Manuals contained on the disk to your computer.

Insert the EOS Camera Instruction Manuals Disk (CD) into the CD-ROM drive of your computer.

2 Open the disk.

11

 Double-click [My Computer] on the desktop and then double-click the CD-ROM drive into which you have inserted the disk.
 Select your language and operating system. The index of the Instruction Manuals is displayed.

Adobe Reader (latest version recommended) must be installed to view the Instruction Manual files (PDF format). Install Adobe Reader if it is not already installed on your computer.

To save the PDF manual to your computer, use the 'Save' function of your Adobe Reader.

[MACINTOSH]



EOS Camera Instruction Manuals Disk

Copy the PDF Instruction Manuals contained on the disk to your Macintosh.

- Insert the EOS Camera Instruction Manuals Disk (CD) into the CD-ROM drive of your Macintosh.
- **2** Open the disk.

• Double-click on the disk icon.

3 Double-click the START.html file.

Select your language and operating system. The index of the Instruction Manuals is displayed.

Adobe Reader (latest version recommended) must be installed to view the Instruction Manual files (PDF format). Install Adobe Reader if it is not already installed on your Macintosh.
To save the PDF manual to your computer, use the 'Save' function of your Adobe.

To save the PDF manual to your computer, use the 'Save' function of your Adobe Reader.

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For your local Canon office, please refer to your warranty card or to www.canon-europe.com/Support

The product and associated warranty are provided in European countries by Canon Europa N.V.

The lenses and accessories mentioned in this Instruction Manual are current as of August 2013. For information on the camera's compatibility with any lenses and accessories introduced after this date, contact any Canon Service Center.

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