back to my "Orphancameras" manuals /flash and light meter site

Only one "donation" needed per manual, not per multiple section of a manual !
The large manuals are split only for easy download size.

Canon EOS A2E

Introduction

Thank you for selecting a Canon EOS camera. This camera is an autofocus SLR camera developed specifically to provide the high performance and flexible functionality required by professional and advanced photographers.

Features
1. World's first Eye Controlled Focus SLR. Select any of five focusing points in the viewfinder by simply looking at the desired AF frame.
2. Advanced AF sensor provides five focusing points plus high-speed autofocusing on a par with the world's fastest AF SLRs.
3. High-performance shutter offers speeds all the way up to an action-freezing 1/8000 sec and flash synchronization up to 1/200 sec.
4. High-speed built-in motor drive with silent drive mechanism provides quiet film winding and rewinding while achieving a maximum continuous shooting speed of 5 frames/sec.
5. Multi-function built-in zoom flash covers wide-angle focal lengths to 28mm.

Please read these instructions carefully for a thorough understanding before taking pictures.
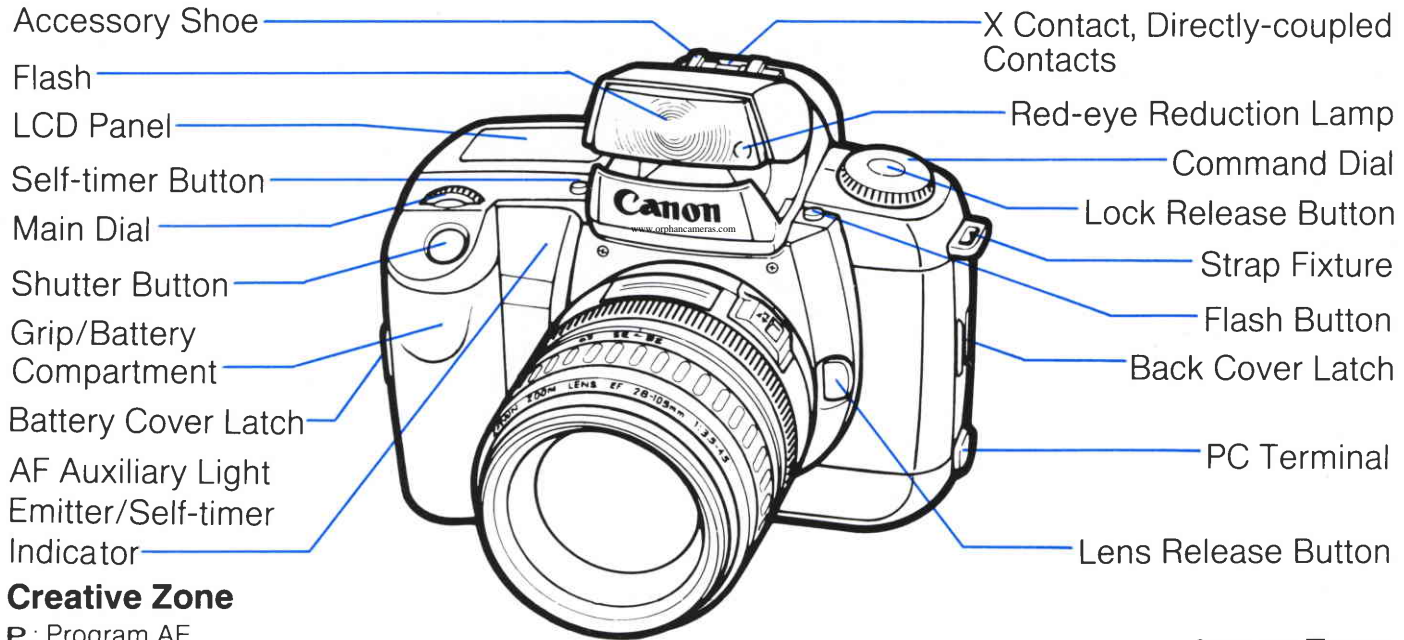
Attention

IMPORTANT INFORMATION
This camera will give optimum performance together with specially designed Canon EF lenses, flash units and other Canon brand accessories. It is possible that the use of incompatible lenses or other accessories may result in unsatisfactory performance or damage to your camera. We therefore suggest the use of Canon EF lenses and accessories. Damage to your Canon camera as a result of malfunction or improper connections caused by the use of incompatible products may void its warranty.

While reading this booklet, unfold the front and back flaps for easy reference to the camera's parts.

Nomenclature

Accessory Shoe

Flash

LCD Panel

Self-timer Button

Main Dial

Shutter Button

Grip/Battery Compartment

Battery Cover Latch

AF Auxiliary Light Emitter/Self-timer Indicator

X Contact, Directly-coupled Contacts

Red-eye Reduction Lamp

Command Dial

Lock Release Button

Strap Fixture

Flash Button

Back Cover Latch

PC Terminal

Lens Release Button

Creative Zone

P : Program AE

Tv : Shutter-priority AE

Av : Aperture-priority AE

M : Manual Exposure

DEP : Depth-of-Field AE

X : Flash Sync Mode

CF : Custom Function Setting

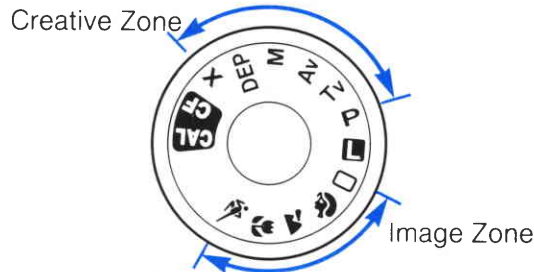**CAL** : Calibration Mode

L : Lock

Command Dial

Creative Zone

Image Zone

Image Zone

□ : Full Auto

❀ : Portrait

▰ : Landscape

✿ : Close-up

❅ : Sports

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Display Panel

This camera uses a large liquid crystal display panel to display shooting information. The diagram below shows all the information displayed simultaneously for explanation only. The LCD panel never actually appears like this.

- Aperture value
- AEB bracketing amount
- dEP point number
- Custom function setting
- Red-eye reduction function setting
- Beeper mode setting
- Calibration number
- Film rewind indicator

- Shutter speed
- ISO film speed value
- dEP (Depth-of-field AE) indicator
- Custom Function No.
- CAL (Calibration) indicator
- Film rewind indicator

- Eye Controlled Focus mode indicator

- Battery check indicator
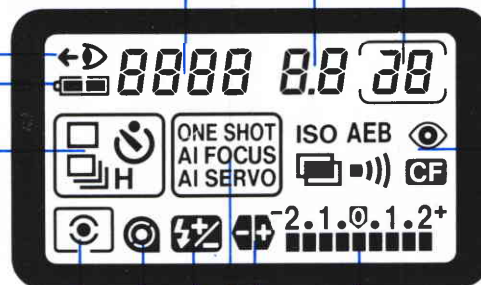
Film winding mode indicator
- Single exposure
- Continuous exposure
- High-speed continuous exposure
- Self-timer operation

Metering mode indicator
- Evaluative metering
- Spot metering
- Center-weighted average metering

- Film condition indicator
- Film-load check
- Film rewind completion

- Flash exposure compensation mode indicator

- Frame counter
- No. of preset multiple exposures
- No. of completed multiple exposures

- ISO indicator
- Auto exposure bracketing mode indicator
- Red-eye reduction mode indicator
- Multiple exposure mode indicator
- Beeper mode indicator
- Custom function mode indicator

Exposure display
- Exposure compensation amount
- AEB bracketing amount
- Flash exposure compensation amount
- Red-eye reduction lamp operation
- Film rewind indicator

- Manual exposure +/- indicator

Focus mode indicator
- One-shot AF
- AI Focus AF
- AI Servo AF
- Manual focus (all AF indicators extinguished)

* A minute amount of battery power is used for the display even when the command dial is set to L.

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Viewfinder Information

The diagram below shows all the information displayed simultaneously for explanation only. The viewfinder never actually appears like this.
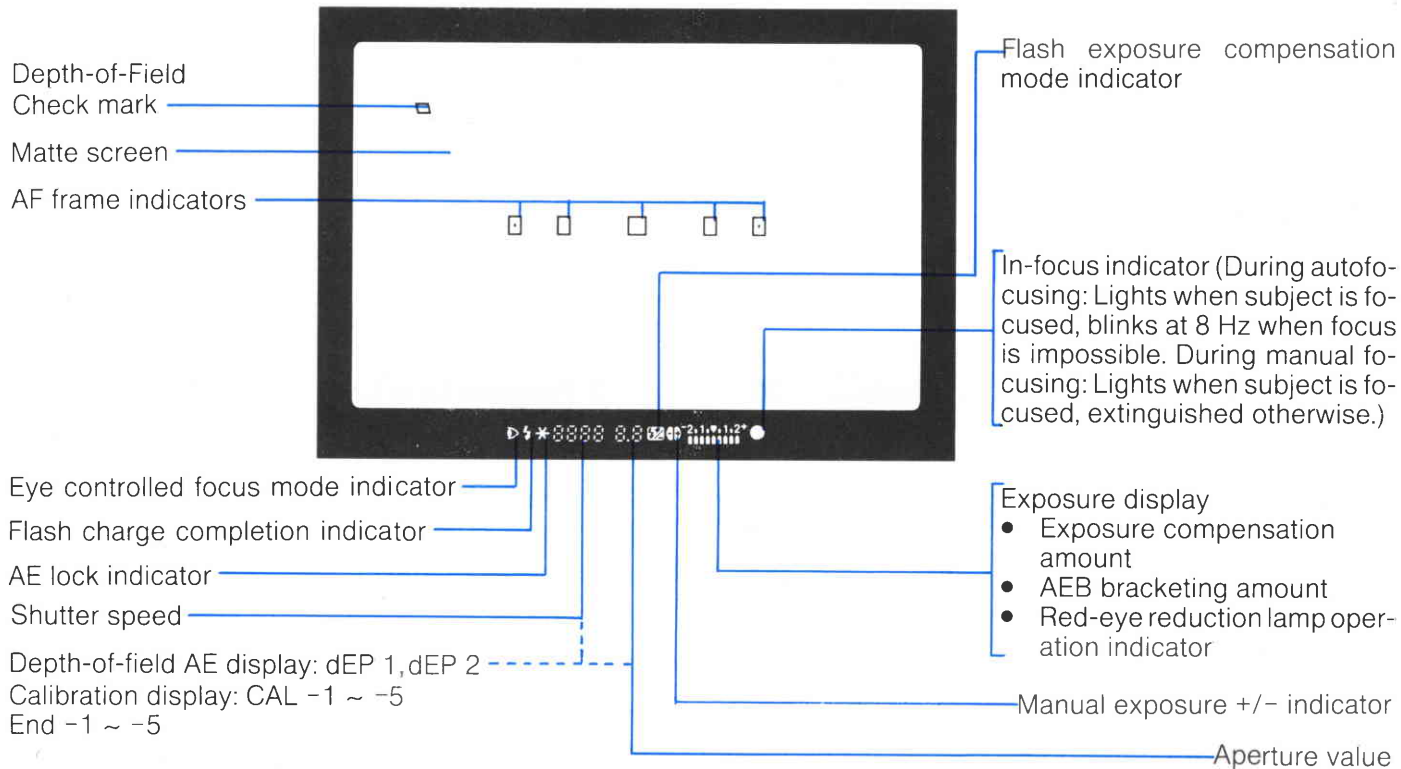
Flash exposure compensation mode indicator

Depth-of-Field Check mark

Matte screen

AF frame indicators

In-focus indicator (During autofocusing: Lights when subject is focused, blinks at 8 Hz when focus is impossible. During manual focusing: Lights when subject is focused, extinguished otherwise.)

Eye controlled focus mode indicator

Flash charge completion indicator

AE lock indicator

Shutter speed

Depth-of-field AE display: dEP 1, dEP 2
Calibration display: CAL −1 ~ −5
End −1 ~ −5

Exposure display
• Exposure compensation amount
• AEB bracketing amount
• Red-eye reduction lamp operation indicator

Manual exposure +/− indicator

Aperture value

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Table of Contents

Precautions

1) **This camera is not resistant to water** and should not be used outdoors in snow or rain. If accidentally dropped in water, contact an authorized Canon service facility. Keep the camera out of salt spray and protect it from excessive humidity. If used at the beach, clean it thoroughly afterward with a dry cloth.

2) Do not attempt to disassemble the camera yourself. Always take it to an authorized Canon service facility for repair.

3) Remove the battery if you do not expect to use the camera for about three weeks or longer.

4) When storing the camera, wrap it in a clean, soft cloth and place it in a cool, dry, dust-free place. Be sure to keep the camera out of direct sunlight, and away from "hot spots" such as the trunk or rear window shelf of a car. Avoid places where moth balls are used, and in extreme humidity, use a desiccant.

5) Carefully check the camera's operation after lengthy storage.

6) The battery may explode or cause burns if disassembled, recharged, shorted, exposed to high temperatures, or disposed of in fire.

7) Film passing through X-ray examinations at airports may be exposed and ruined even if loaded in the camera. Request a hand-checked inspection to avoid damage.

8) Aerosol spray dust removers are not recommended for the shutter curtain.

9) Condensation is a problem when bringing cold equipment into a warm room. If the autofocus optics cloud over, accuracy may be seriously affected. Before entering a warm room, put equipment in a plastic bag so that condensation forms on the outside of the bag.

10) Color reproduction may be adversely affected if film is left in the camera for a long time. Always develop exposed film promptly.

* Please see page 72 for camera care information.

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Command Dial

Turn to select the shooting mode. Setting the dial to the "L" position locks the dial and turns off the power. To unlock, turn the dial while pressing the lock release button. Unlocking the dial turns on the camera.
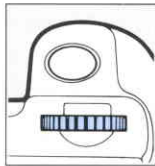
Shutter Button

The shutter button has a two step construction. Press halfway (to the first step) to activate focusing and metering, and press completely (to the second step) to release the shutter and make the exposure.
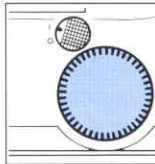
Main Dial

Use in conjunction with other buttons for operations such as selecting the focusing mode, film winding mode, metering mode, or AF frame. Use alone for operations such as setting the shutter speed or shifting the program curve.

Quick Control Dial

Use for operations such as selecting the aperture value in manual exposure mode and setting exposure compensation in AE or flash modes. Quick control dial operation can be prohibited or enabled using the quick control dial switch.
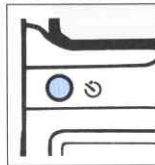
Flash Button
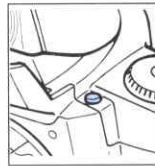
Press once to pop up the flash for flash shooting. In creative zone modes, press again to activate flash exposure compensation mode and operate the main dial or quick control dial to set the compensation amount. When finished using the flash, press it down manually to the retracted position.

Self-timer Button

Press to display the " 🕐 " symbol in the LCD panel and activate the self-timer. To cancel the self-timer, press again.
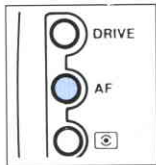
Film Winding Mode Button

Press this button and operate the main dial to select the desired film winding mode (□ : Single exposure, ⛛ : Continuous exposure, ⛛H : High-speed continuous exposure). The selected mode is displayed in the LCD panel.
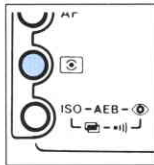
AF Mode Button

Press this button and operate the main dial to select the desired focus mode (One-shot AF, AI Servo AF). The selected mode is displayed in the LCD panel.
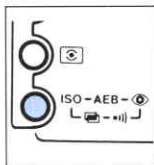
Metering Mode Button

Press this button and operate the main dial to select the desired metering mode (⊡ : Evaluative metering, ⊡ : Spot metering, ☐ : Center-weighted average metering). The selected mode is displayed in the LCD panel.

Function Button

Each press switches between AEB setting mode, red-eye reduction mode, multiple exposure mode and ISO film speed setting mode. After selecting the desired mode, operate the main dial to select the desired setting. The selected mode and setting are displayed in the LCD panel.
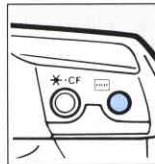
AE Lock/Custom Function Setting Button
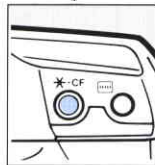
Pressing this button locks in the current exposure reading and allows recomposition without changing the exposure setting. When the command dial is set to the custom function mode, use this button to set or cancel the selected custom function.

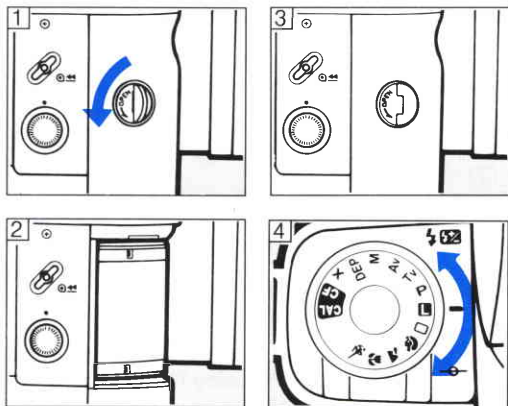## AF Focusing Point Selection Button

Press to enter AF focusing point selection mode. After pressing, operate the main dial to select the desired focusing point.

This camera uses a single 6V lithium battery (2CR5). Load the battery as follows.

1) Fold out the battery cover latch tap and turn it counterclockwise to open the battery compartment.

2) Insert the battery so that its terminals enter the camera first.

3) Replace the battery cover and turn the latch clockwise to firmly lock it in place.

4) Press the lock release button and turn the command dial to a position other than "L". Check the battery indicator displayed in the LCD panel.

If the entire battery indicator (▄▄) is displayed, the battery is in good condition.

All buttons used for changing camera functions are equipped with a six-second timer. After pressing and releasing the button, the operation mode activated by the button remains active for six seconds. During this time period, necessary information for the selected mode is displayed in the viewfinder and LCD panel.

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- If nothing at all is displayed in the LCD panel, the battery may be inserted backwards. Remove the battery and reinsert it correctly.
- When not using the camera, set the command dial to **L** to prevent unnecessary battery depletion or accidental shutter release.

⊏▪ : When the battery indicator is only half full, have a new battery handy.
⊏▫ : When the battery indicator is empty, replace the battery with a new one.
⊰⊏⊱ If the empty battery indicator is blinking, refer to page 72.

Battery Life (Number of film rolls)

Temperature	Flash not used	50% flash use	100% flash use
Normal (+20°C/68°F)	40 rolls	20 rolls	12 rolls
Low (−20°C/−4°F)	15 rolls	9 rolls	—

- Data based on Canon's Standard Test Method (Using a new battery and 24 exposure film; Lens: EF 28~105mm f/3.5−4.5 USM; Shutter speed: 1/1000 sec; Lens focus driven from infinity to closest shooting distance and back, then shutter button held at halfway position for six seconds before each frame; Film winding mode: Single exposure; AF mode: One-shot AF; Eye controlled focus: ON).
- Stated values include camera operation when no film is loaded.

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2. Lens Attachment
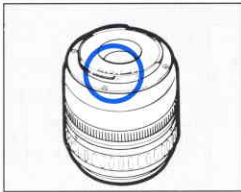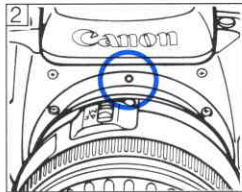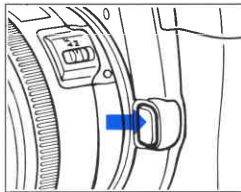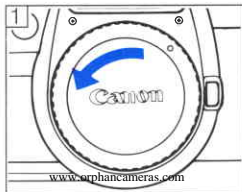

1) Remove the camera body cap.
2) Align the red dots on the lens and camera body, then rotate the lens clockwise until it locks in place with a click.
- To remove the lens, press the lens release button while turning the lens counter-clockwise.

When the lens is removed from the camera, place it face down on a stable surface to prevent damage to the lens surface and electronic contacts.

3. Film Loading and Rewind
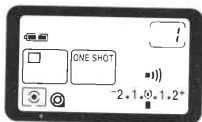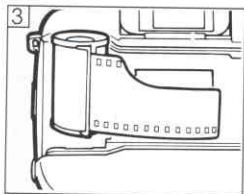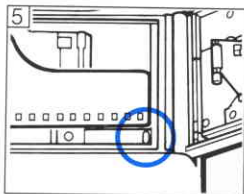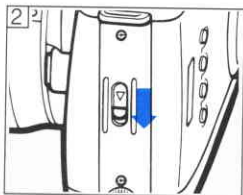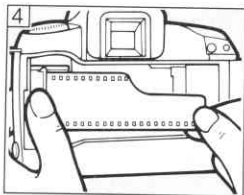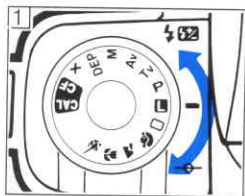
1) Move the command dial to a position other than " 🔲 ".
2) Open the back cover by sliding the back cover latch down.
3) Insert the film cartridge with the flat end facing up and the bottom end entering the camera first.
4) While holding down the film cartridge, carefully pull the film tip across until it reaches the orange mark.
5) After checking that the film lies flat and that the tip is aligned with the orange mark, close the back cover.

● The film automatically advances to the first frame, the frame counter shows "1" and the film cartridge symbol (🔘) is displayed in the LCD panel.
● If the film cartridge symbol blinks, the film is not loaded correctly. Reload the film. If the film is not loaded correctly, the shutter will not release when the shutter button is pressed.

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The shutter curtain operates with extremely high precision and can be easily damaged if touched. When loading or unloading film, be careful not to touch the shutter curtain accidentally with your finger or the tip of the film.
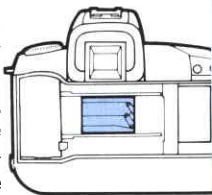
Due to the emission of infrared light by the camera's optical film perforation detector, infrared film cannot be used in this camera.
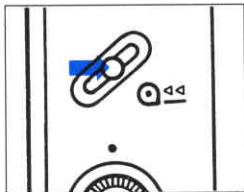
Film rewind

The film automatically rewinds after the last frame is shot. During rewinding, the LCD panel's frame counter counts down, and the focusing point display and exposure compensation amount bars flash to indicate that the film is rewinding. When rewinding is completed, ◎ blinks in the LCD panel. After confirming that ◎ is blinking, open the back cover and remove the film.

Rewinding film in mid-roll

Press the film rewind button to rewind the film. After the film is wound completely into the film cartridge, ◎ blinks in the LCD panel.

4. Film Speed Setting

Automatic film speed setting

When DX film is loaded, the film speed is set automatically according to the DX code on the film cartridge.

- The automatic film speed setting range is ISO 25~5000.
- If non-DX film is loaded, the ISO indicator blinks in the LCD panel.
- The currently set film speed can be checked by pressing the function button so that ISO is displayed in the LCD panel.

Manual film speed setting

The film speed can be set manually when using non-DX film or when you wish to set a film speed other than the DX-coded film speed.

1) Set the command dial to a creative zone position.
2) Press the function button until ISO is displayed in the LCD panel.
3) Turn the main dial to the desired film speed.
   * The setting is completed when the shutter button is pressed halfway or after six seconds elapse.

Film speed display

The manual film speed setting range is ISO 6~6400.

6, 8, 10, 12, 16, 20, 25, 32, 40, 50, 64, 80, 100, 125, 160, 200, 250, 320, 400, 500, 640, 800, 1000, 1250, 1600, 2000, 2500, 3200, 4000, 5000, 6400

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5. Eye Controlled Focus Calibration

What is Eye Controlled Focus?

Eye Controlled Focus is a new feature which enables the camera to automatically detect which part of the viewfinder screen you are looking at and focus the subject at that point. The ability to focus where you look makes the camera virtually an extension of your eye.

Calibration

Before using Eye Controlled Focus (refer to page 20), it is necessary to calibrate the camera for your individual eye characteristics (pupil size, use of contact lenses or eyeglasses, etc.). Calibration numbers 1~5 are provided, allowing up to five different calibration settings to be stored in the camera for different usage conditions, which can be classified by photographer or shooting location, for example.

- Hold the camera in the normal (horizontal) picture-taking position during the calibration procedure.
- If performing the calibration procedure outdoors, keep the sun behind you.
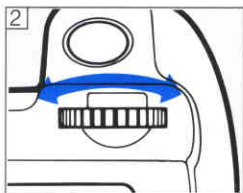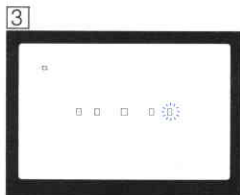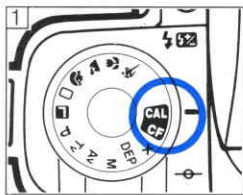
1) Turn the command dial to the " CAL " position.
   - "OFF" is displayed in the LCD panel.
2) Turn the main dial to the desired calibration number.
   - Numbers which do not yet contain calibration settings blink in the display.
3) While holding the camera to your eye, look at the blinking far right AF frame in the viewfinder and press the shutter button.
   - A double beep tone is heard.*
4) Next, look at the blinking far left AF frame in the viewfinder and press the shutter button again.
   - A double beep tone is heard, and "End" and the calibration number are displayed in the viewfinder and LCD panel to indicate that the calibration procedure is completed.
   - If the calibration procedure is interrupted for a short period and the red AF frame in the viewfinder goes out, press the shutter button halfway and start again from step 3.

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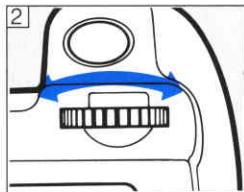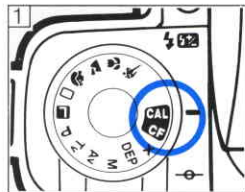
* If an intermittent beep tone is heard and the calibration number blinks, temporarily move the command dial to a position other than **CAL** , repeat the calibration procedure from step 1.

Deleting a Calibration Setting

If calibration is repeated at the same calibration number but with a different eye, or if successive calibrations are performed by different people, Eye Controlled Focus operation may become unstable or misoperation may occur. If this happens, delete the setting at the problematic calibration number as described below and repeat the calibration procedure.

1) Turn the command dial to the " **CAL** " position.
2) Turn the main dial to the number of the calibration setting you want to delete.
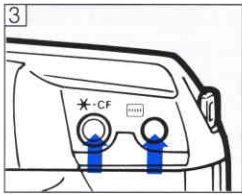
3) Simultaneously press the AE lock button and AF focusing point selection button.
   ● The calibration number blinks in the LCD panel to indicate that the calibration setting is deleted.

If you have problems with the calibration operation, or if you find it difficult to select the desired AF frame in Eye Controlled Focus mode, refer to the supplement supplied with this instruction book.

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The preparations described in this section are available only when the command dial is used in the creative zone.
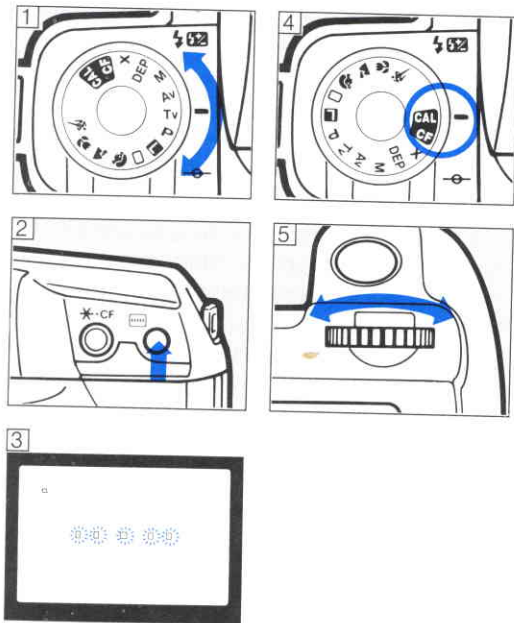
Creative Zone
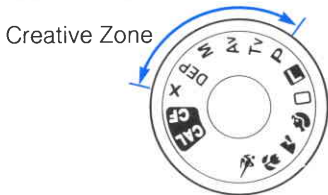
**Autofocusing with Eye Controlled Focus**
This feature allows you to select any desired focusing point by simply looking at the corresponding AF frame in the viewfinder. Eye Controlled Focus can be used in all shooting modes except □ (Full Auto) and DEP (Depth-of-Field AE).
Before using Eye Controlled Focus, it is necessary to calibrate the camera for your individual eye characteristics and set the camera to the corresponding calibration setting (refer to page 16).
- Eye Controlled Focus operation must be carried out under the same conditions used when the performing the calibration (wearing contact lenses, eyeglasses, etc.).
- Manual focusing point selection is possible even while Eye Controlled Focus is on (refer to page 25).

1) Turn the command dial to a creative zone position.
2) Press the AF focusing point selection button.
   - The currently selected AF frame lights red in the viewfinder and the AF focusing point indicator blinks in the LCD panel.
3) Turn the main dial to select all five AF focusing points.
   - All AF frames light red in the viewfinder and all AF focusing point indicators blink in the LCD panel.
4) Set the command dial to the " CAL " position.
   - "CAL" or "OFF" appears in the LCD panel.
5) Turn the main dial to the appropriate calibration number.
   - Numbers which have been calibrated light steadily in the display. Numbers which do not yet contain calibration settings blink in the display.

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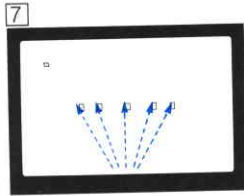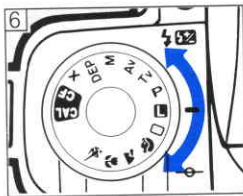
6) Turn the command dial to the desired shooting mode.
   - " 🔅 " appears in the viewfinder and " ⬅🔅 " appears in the LCD panel.

7) Look through the viewfinder and press the shutter button halfway while looking at the desired AF frame.
   - The selected AF frame lights red in the viewfinder and focusing is carried out for that focusing point.

8) To cancel Eye Controlled Focus mode, set the calibration display to "OFF" in step 5.
   - The camera enters automatic focusing point selection mode.

When the camera is held vertically in Eye Controlled Focus mode, the focus mode temporarily switches to automatic focusing point selection mode and " 🔅 " disappears from the viewfinder.

If the camera cannot determine which AF frame you are looking at:
1) " $\mathbf{D}$ " blinks in the viewfinder and the camera automatically switches to automatic focusing point selection mode (refer to page 26) to select the focusing point. After focusing is completed, " $\mathbf{D}$ " will continue to blink in the viewfinder but it is still possible to use the eye-controlled depth-of-field check function. To return to Eye Controlled Focus mode, remove your finger from the shutter button and then press it again halfway.
2) Different shooting locations can conceivably change the state of your eye and affect Eye Controlled Focus operation. When shooting in a location with a different light source, perform the calibration procedure again at the calibration number you are currently using (refer to page 16). Each time a calibration is performed the camera "learns" the different states of your eye, improving the Eye Controlled Focus operation.

- If calibration is repeated at the same calibration number but with a different eye, or if successive calibrations are performed by different people, Eye Controlled Focus operation may become unstable or misoperation may occur. If this happens, delete the setting at the problematic calibration number (refer to page 18) and repeat the calibration procedure.

Eye controlled depth-of-field check

When using the Eye Controlled Focus feature in a creative zone shooting mode, you can check the depth of field (close down the aperture) by looking at the depth-of-field check mark in the upper left corner of the viewfinder within 5 seconds after the subject is focused in One-shot AF mode. The aperture opens back up when you remove your finger from the shutter button.

As long as Eye Controlled Focus mode is on, eye controlled depth-of-field check is possible even when the focusing point is selected manually (refer to page 25).

- Eye controlled depth-of-field check must be carried out within 5 seconds after focusing is completed. If more than 5 seconds elapse, refocus the subject and then look at the depth-of-field check mark within 5 seconds.

2. Other Methods of Selecting the AF Focusing Point
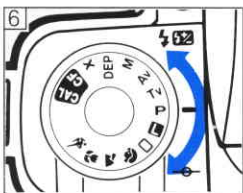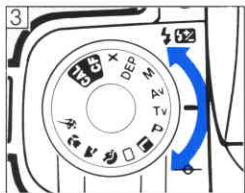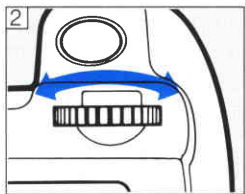
Manual focusing point selection

At any time in creative zone, you can manually select the desired AF frame in the viewfinder using the main dial.
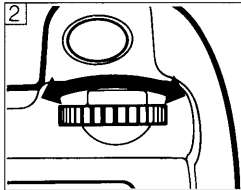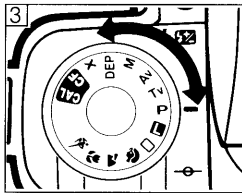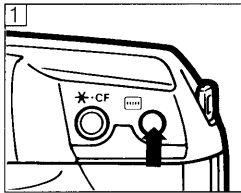
1) Press the AF focusing point selection button.
   - The currently selected AF frame lights red in the viewfinder and the AF focusing point indicator blinks in the LCD panel.
2) Turn the main dial to select the desired focusing point.
   - The selected AF frame lights red in the viewfinder and the AF focusing point indicator blinks in the LCD panel.
   - The setting is completed when the shutter button is pressed halfway or after six seconds elapse.
3) Turn the command dial to a creative zone setting.
   - The camera focuses using the manually selected AF focusing point.

Automatic focusing point selection

The camera automatically selects the AF frame according to the shooting conditions.
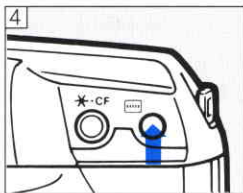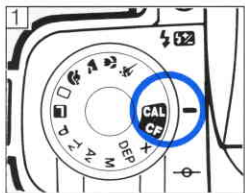
1) Turn the command dial to the " ⬛ " position.
2) Turn the main dial until the LCD panel displays "OFF."
3) Turn the command dial to a creative zone setting.
4) Press the AF focusing point selection button.
   - The currently selected AF frame lights red in the viewfinder and the AF focusing point indicator blinks in the LCD panel.
5) Turn the main dial to select all five focusing points.
   - All five AF frames light red in the viewfinder and the AF focusing point indicators blink in the LCD panel.
   - The setting is completed when the shutter button is pressed halfway or after six seconds elapse.
6) Turn the command dial to the desired shooting mode and take a picture.
   - The camera automatically selects a focusing point and focuses the subject.

3. Selecting the Film Winding Mode

Three film winding modes are available: single exposure mode, continuous exposure mode and high-speed continuous exposure mode.

● Refer to page 65 for details concerning relationships between AF and film winding modes.

□ (Single exposure)
The film advances one frame after each picture is taken. After taking a picture, let up on the shutter button slightly to prepare for the next exposure. This mode is usually combined with One-shot AF mode.

⛴ (Continuous exposure)
Pictures are taken continuously as long as the shutter button is held pressed.
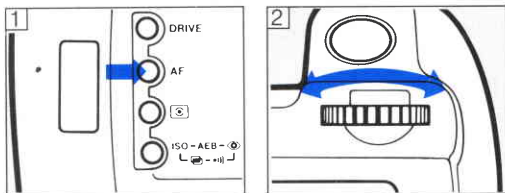
⛴H (High-speed continuous exposure)
Pictures are taken continuously at high speed as long as the shutter button is held pressed.
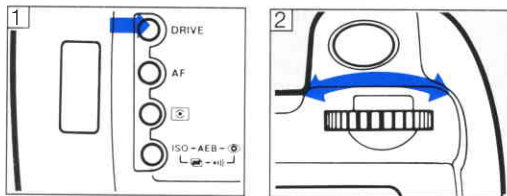
1) Press the film winding mode button.
2) Turn the main dial so the desired film winding mode indicator appears in the LCD panel.
  * The setting is completed when the shutter button is pressed halfway or after six seconds elapse.

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Three types of autofocusing are available: One-shot AF, AI Servo AF and AI Focus AF. AI Focus AF is active only in Full Auto (□) mode. Manual focusing is also available.

1) Press the AF mode button. If you release the button, the timer will allow AF mode selection for six seconds.
2) Operate the main dial so the desired AF mode indicator appears in the LCD panel.
   * Make sure the lens' focus mode switch is set to AF for autofocus shooting.

When the subject is focused in One-shot AF mode, the corresponding AF frame lights red in the viewfinder, and the in-focus indicator lights up. At the same time, the shutter speed and aperture value are displayed in the viewfinder and LCD panel.

If you remove your finger after pressing the shutter button to the halfway position, the in-focus indicator will disappear, but the camera timer will keep the viewfinder and LCD panel displays lit for six seconds.

One-shot AF

Use this mode with stationary subjects. The shutter will not release until the subject is focused. Exposure is determined when the subject is focused. By keeping the shutter button pressed to the halfway position, the focus and exposure settings remain locked, allowing you to recompose the picture as desired.

- The shutter will not release if the in-focus indicator is still blinking. Try refocusing the subject at a different position or use manual focusing (refer to page 31).

AI Servo AF

Use this mode when taking pictures of moving subjects. The lens focuses the subject continuously with the selected focusing point while the shutter button is pressed halfway. AI Servo's predictive focus function* can track subjects moving toward or away from the camera. When the camera is set for automatic focusing point selection, AI Servo AF operation is as follows —

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* Predictive focus function
Predictive focus detects the distance and speed of the subject and then predicts the subject position so that the subject will be sharply focused the instant the exposure occurs. Shutter release has priority over AF operation in creative zone modes, and AF has priority in image zone modes.

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When Eye Controlled Focus is ON: The camera continuously focuses and tracks the subject using only the selected focusing point.

* The selected focusing point lights red in the viewfinder when the camera detects your line of sight.

When Eye Controlled Focus is OFF: First cover the subject with the center focusing point and press the shutter button halfway to focus the subject. After that, if the subject moves away from the center focusing point while the shutter button is still pressed halfway, the camera automatically shifts to one of the other focusing points and continues tracking the subject.

- Exposure is determined immediately before the shutter is released.
- In Al Servo AF mode, the in-focus indicator does not function.
- Focus lock cannot be used in this mode.

Al Focus AF

This mode is active only when the command dial is set to Full Auto ($\square$) mode. The camera automatically selects One-shot AF or Al Servo AF depending on the subject.
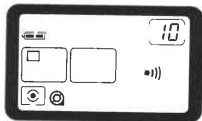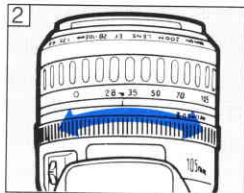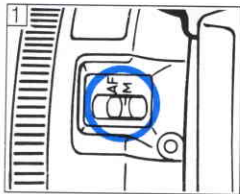
Manual Focusing

1) Set the lens' focus mode switch to M.
   * All AF mode indicators in the LCD panel go out.
2) Turn the lens' manual focusing ring until the subject appears sharp.
   * The in-focus indicator lights to indicate that the subject is in focus.

* If manual focusing is set when the camera is in Eye Controlled Focus mode, ☯ disappears from the viewfinder.
* After autofocusing is completed in One-shot AF mode when using a USM lens equipped with a distance scale window, the lens can be manually focused directly without switching the lens focus mode switch.

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5. Selecting the Metering Mode

Three metering modes are available: evaluative metering, spot metering and center-weighted average metering.

⊙ (Evaluative metering)
Use this mode for general subjects. The exposure setting is based on the focusing point in use, taking into account such factors as subject size, position, overall lighting level, front lighting and back lighting.

⊡ (Spot metering)
This mode limits the metering area to the central part of the viewfinder (approx. 3.5% of the image area). Use this mode when there is a big difference in brightness between the main subject and the background, or for subjects that require precise measurement, such as close-up photography.

⬜ (Center-weighted average metering)
Metering is averaged over the entire scene with emphasis placed on the center area.
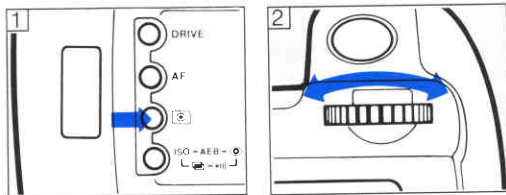
1) Press the metering mode button.
2) Operate the main dial so the desired metering mode indicator appears in the LCD panel.

6. Exposure Compensation

When taking pictures in an AE shooting mode, you can use the quick control dial to vary the exposure according to the subject conditions. Exposure can be compensated up to ±2 stops in 1/2-stop increments.
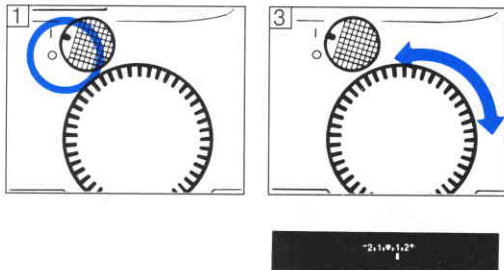

1) Set the quick control dial switch to **I**
2) Focus the subject and confirm the exposure.
3) Turn the quick control dial to set the desired exposure compensation amount.
   * The compensation amount is displayed in the LCD panel and viewfinder. "+" compensation overexposes the subject and "–" compensation underexposes it.
   * After setting the desired compensation amount, it is a good idea to set the quick control dial switch to **O** to prevent accidental alteration of the setting.
4) Take the picture.
   • To cancel exposure compensation, repeat step 3 to return the compensation amount to 0, then set the quick control dial switch to **O**.

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7. Turning Off the Beeper
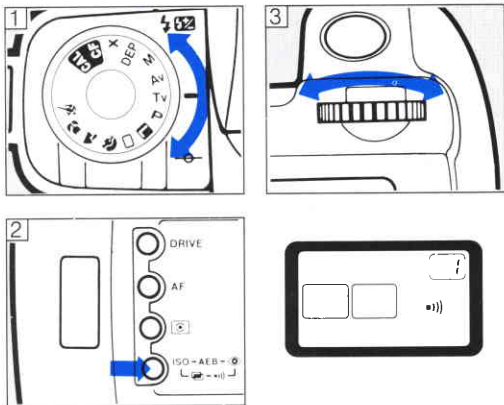
The beeper tone used to indicate self-timer operation in creative zone modes can be turned off and on as follows.

1) Set the command dial to a creative zone mode.
2) Press the function button so that ■))) appears in the LCD panel.
3) Turn the main dial to select "1" or "0" in the LCD panel.

1: Beeper tone on. ■))) is displayed in the LCD panel.
0: Beeper tone off. ■))) is not displayed in the LCD panel.

8. Using the Built-in Flash

The built-in flash zooms automatically to adjust the flash illumination angle according to the lens focal length (28mm, 50mm or 80mm).

The flash can be used in any mode. It is particularly useful for low-light, backlit, or fill-in flash situations.

1) Press the flash button to pop up the flash.
2) Press the shutter button halfway to confirm that " 🗲 " lights in the viewfinder.
3) Take the picture.
   *   To retract the flash, push it down gently by hand.


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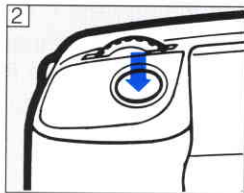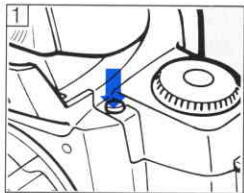
When the red-eye reduction function is set and the shutter button is pressed halfway, the bar indicators in the LCD panel and viewfinder light up for about 1.5 seconds. When these indicators go out, press the shutter button completely to take the picture.

Light from the built-in flash may be blocked when using the following lenses. When using such a lens we recommend using a dedicated external flash unit.
- Large aperture lenses such as the EF 20~35mm f/2.8L and EF 28~80mm f/2.8-4L.
- Super-telephoto lenses such as the EF 300mm f/2.8L and EF 600mm f/4L.

Red-eye Reduction Function

The subject's eyes may appear red in flash photos due to a phenomenon called "red eye," caused by light reflecting from the retina.

When the red-eye reduction function is set and the shutter button is pressed halfway, the red-eye reduction lamp lights to illuminate the subject before the flash fires to reduce the size of the subject's pupils and minimize the chance of red eye. Red-eye reduction can be set in creative zone modes and in Full Auto (□), Portrait (🐾) and Close-up (🌷) image zone modes.
- Although setting is possible, red-eye reduction will not function in Sports (🏃) and Landscape (🏔) modes.
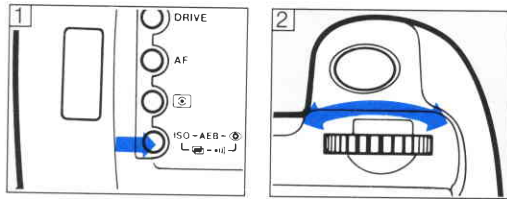
1) Press the function button so that " ◉ " appears in the LCD panel.
2) Turn the main dial to select "1" or "0" in the LCD panel.

1: Red-eye reduction on. ◉ is displayed in the LCD panel.
0: Red-eye reduction off. ◉ is not displayed in the LCD panel.

- A lens hood attached to the lens will block light from the built-in flash. Always remove the lens hood when using the built-in flash.
- The built-in flash and an external flash cannot be used together.
- The built-in flash will not operate when an external flash unit or cover is attached to the accessory shoe.
- If the built-in flash is held down while the flash button is pressed, ⊂⊐ will blink in the LCD panel and the camera will stop operating. This is not a malfunction. Press the shutter button halfway to resume normal operation.

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Flash Shooting Distance Range
## (using the EF 28~105mm f/3.5-4.5 USM)

(m/ft)

	28mm		80mm	
ISO	Negative film	Slide film	Negative film	Slide film
100	1~5.3/3.3~17.4	1~3.7/3.3~12.1	1~5.3/3.3~17.4	1~3.8/3.3~12.5
400	1.2~10.5/3.9~34.4	1.6~7.4/5.2~24.3	1~10.7/3.3~35.1	1.2~7.6/3.9~24.9

X-sync Shutter Speed and Aperture Settings

Shooting mode	X-sync shutter speed	Aperture value
P (Program AE)	Automatically set to 1/60~1/200 sec according to ambient light level.	Flash aperture automatically set according to TTL program (for built-in flash).
Tv (Shutter-priority AE) M (Manual exposure)	Manually set to any shutter speed of 1/200 sec or slower.*	Automatically set according to ambient light level and shutter speed.
Av (Aperture-priority AE)	Automatically set between 30 sec and 1/200 sec according to ambient light level and set aperture value.	Manually set to desired aperture.
X (Flash sync mode)	Manually set to 1/200, 1/125, 1/90 or 1/60 sec.	Manually set to desired aperture.

* If a shutter speed faster than 1/200 sec is set, the camera automatically sets the shutter speed to 1/200 sec.

9. Flash Exposure Compensation
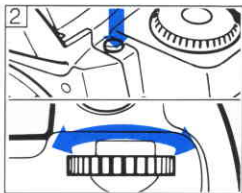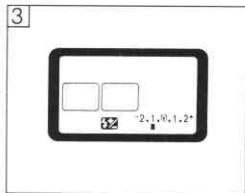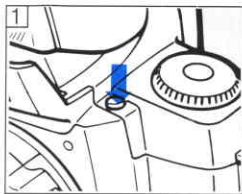
This function lets you vary the automatic flash exposure level of the built-in flash and EOS external flash units. The flash exposure can be compensated up to ±2 stops in 1/2-stop increments.

1) Press the flash button to pop up the built-in flash.

2) Press the flash button again and turn the main dial or quick control dial to set the desired compensation amount.

    * To use the quick control dial, set the quick control dial switch to I .

    * ⚡ lights in the LCD panel.

    * The flash exposure compensation amount is displayed in the LCD panel and the viewfinder. "+" indicates over-exposure compensation and "−" indicates underexposure compensation.

3) Press the flash button again to complete the flash exposure compensation setting. The flash exposure compensation amount disappears from the LCD panel and viewfinder and the AE exposure compensation display appears.

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- After setting the desired compensation amount, it is a good idea to set the quick control dial switch to **O** to prevent accidental alteration of the setting.
- To check the flash exposure compensation amount, pop up the flash and press the flash button.
- Flash exposure compensation remains set until manually canceled. To cancel, repeat steps 2 and 3 to reset the flash exposure compensation amount to 0, then set the quick control dial switch to **O**.
- Flash exposure compensation and AE exposure compensation can be set independently and used together.

Flash Exposure Compensation Priority Chart

When flash exposure compensation (FEC) is set on the camera and/or an EOS external flash unit, the setting priority ranking is as follows.

	FEC set on the camera only	FEC set on the flash only	FEC set on both the camera & flash
Macro Ring Lite ML-3	Camera setting	Not possible	—
160E	Camera setting	Not possible	—
200E	Camera setting	Not possible	—
300EZ	Camera setting	Not possible	—
420EZ	Camera setting	Not possible	—
430EZ	Camera setting	Flash setting	Flash setting