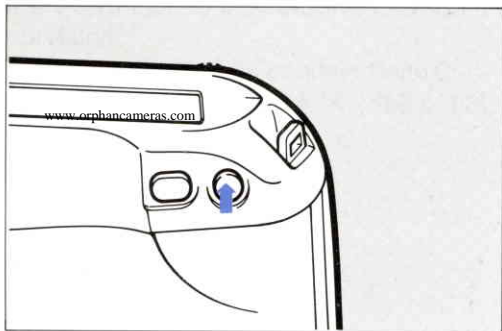## Manual Exposure (M)

This creative mode allows you to completely control exposure by setting both the shutter speed and aperture.

The initial setting is always 1/125 second at f/5.6.

1) Turn the electronic input dial to set the desired shutter speed.
2) Press the partial metering button. The shutter speed aperture value, and −, ± or + light up in the viewfinder. The meaning of each display is as follows:
   - −: Under exposure. Open the aperture or set a slower shutter speed.
   - ±: Correct exposure.
   - +: Overexposure. Close the aperture or set a faster shutter speed.
3) While pressing the AE lock button, turn the electronic input dial until ± displays in the viewfinder.

Determine the exposure referring to the shutter speed/aperture combination. Your technique will benefit greatly from practice.

M. Bulb (Long Exposure)
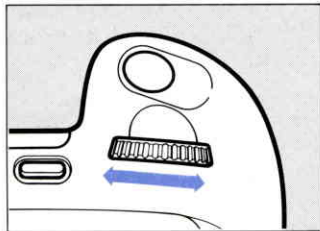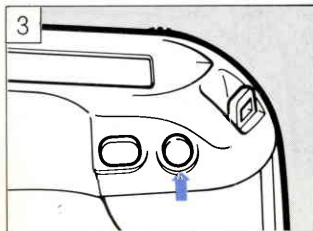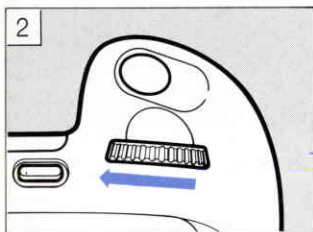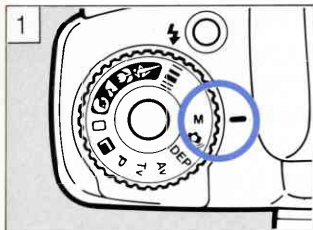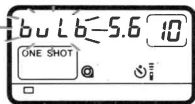
Use bulb for exposures longer than 30 seconds like astro or night photography. The exposure continues as long as the shutter button is held down.

1) Set the manual exposure mode by turning the command dial to **M**.
2) Turn the electronic input dial until *bulb* (after 30'') displays.
3) Set the aperture value by turning the electronic input dial while pressing the AE lock button.

- **Bulb cannot be used with a flash.**
- Bulb cannot be used with auto exposure bracketing.
- This mode requires very little power for minimal battery drain.
- Be sure to use a tripod and Remote Controller RC-1 (optionally available, see p.81). Press the control button once to start exposure and again to finish.
- Combination with the Custom Function Control #13 ''mirror up'' is helpful to preventing camera shake, see p. 68.

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* AE Lock:

The original exposure value remains locked as long as the shutter button is pressed halfway, so even if you recompose the picture, correct exposure on the main subject will not be affected by changes in lighting composition.

O. Exposure Compensation
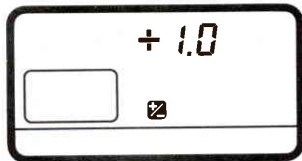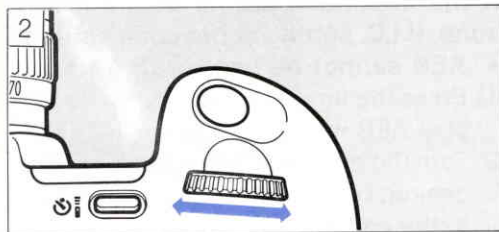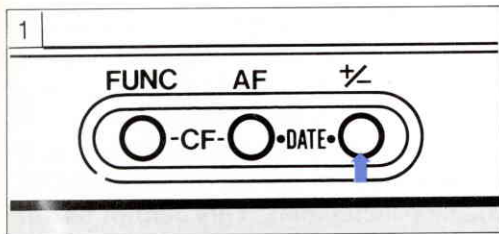
Use exposure compensation for intentionally underexposed or overexposed pictures. The compensation range is up to + / − 5 stops in half-stop increments. **This cannot be set if the command dial is at the green zone, P.I.C., or bar-code setting.**

1) Press the + / − (black) button to display the + / − exposure compensation symbol in the LCD panel. The symbol appears for six seconds.
2) Turn the electronic input dial to set the desired value.

• *Exposure compensation remains active until canceled.*
• *To cancel* exposure compensation, repeat steps #1 & 2 above and return the value to 0.0.
• The + / − symbol indicating exposure compensation status appears only in the LCD panel. Press the + / − button to display the value set.
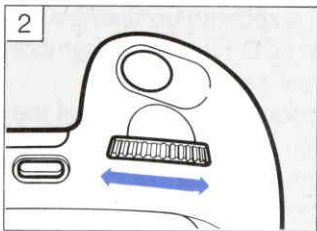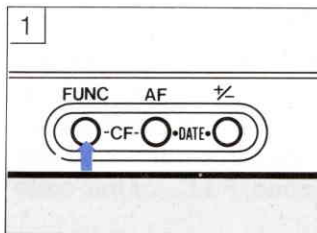
Use auto exposure bracketing to vary the rendition of the subject by changing the amount of exposure. *Three continuous exposures* are taken in the following order: under, normal, and over. The bracketing range is up to +/−5 stops in 1/2-stop increments. **This cannot be set if the command dial is at the green zone, P.I.C. setting or bar-code setting.**

• **AEB cannot be used with a flash.**

1) Press the function (blue) button to display AEB in the LCD panel.

2) Turn the electronic input dial to set the desired bracketing amount. If you set 1, the camera takes three exposures in the sequence of −1 stop, normal, and +1 stop over the normal exposure.

• *The AEB function remains active until canceled.* **To cancel AEB,** repeat steps #1 & 2 and set the value to 0.0.

EF 35-70 mm f/3.5-4.5
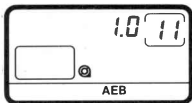
AEB Information

- The exposure value appears only in the LCD panel.
- Bulb cannot be used with AEB.
- *The camera controls the timing of each AEB exposure.*
- Do not set an amount that will exceed the maximum or minimum aperture value of the lens in use or that will exceed either 1/4000 second or 30 seconds shutter speed.

Helpful Hints

If you wish to shift your bracketed exposure value toward overexposure, you can combine exposure compensation with the auto exposure bracketing.

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Example:
If you wish to bracket at 0.5 stop, 1.5 stop and 2.5 stop:
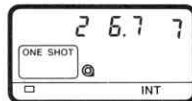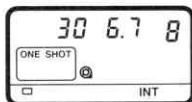1) Set the auto exposure bracketing (AEB) value to 1.0; this will give -1.0 stop, 0, $+1.0$ stop.
2) Set the exposure compensation (EC) value to $+1.5$. This will shift all exposures up 1.5 stop.

The bracketed value will be $+0.5$ stop, $+1.5$ stop, $+2.5$ stop.*
* -1.0 (AEB) $+1.5$ (EC) $= +0.5$
   0 (AEB) $+1.5$ (EC) $= +1.5$
$+1.0$ (AEB) $+1.5$ (EC) $= +2.5$
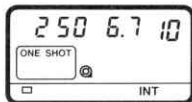
Q. Interval Timer

Use this function to take up to 36 pictures at any interval up to 23 hours, 59 minutes, and 59 seconds. The flexibility of the timer makes it perfect for sequences, flowers blooming, or group pictures that need more time than allowed with the self-timer. **This cannot be set if the command dial is at the green zone, P.I.C., or bar-code setting.**

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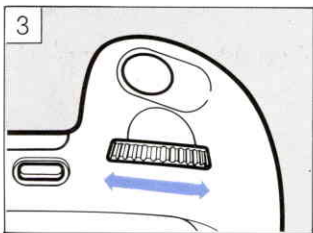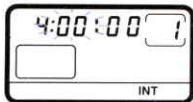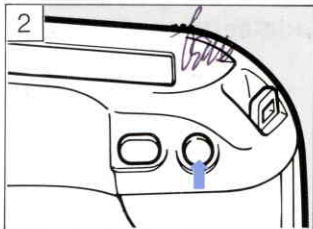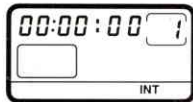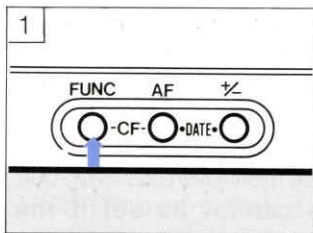
1) Press the function (blue) button to display **INT** in the LCD panel.
2) Press the partial metering (black) button to select the interval and the number of pictures to be set. Only a blinking number can be changed.
3) Turn the electronic input dial to set the desired number.
4) Repeat steps #2 and 3 to continue setting remaining numbers.
5) Press the shutter button to start the timer.

- To stop the timer in progress, turn the command dial to ''L''.
- For flash photography, press the flash button before starting the timer. In this case, set an interval longer than ten seconds for flash charging.

R. Multiple Exposures
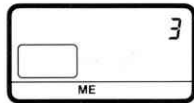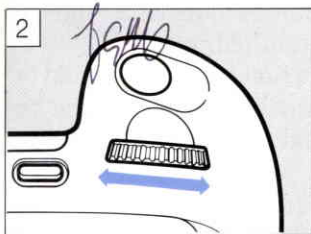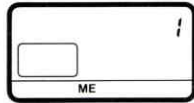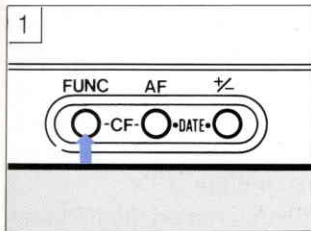
Try this function for creative and dramatic effects. Up to nine exposures can be made on the same frame with minimal operation.

This cannot be set if the command dial is at the green mark, P.I.C., or bar-code setting.

1) Press the function (blue) button to display ME in the LCD panel.

2) Turn the electronic input dial to set the desired number of exposures.

3) Press the shutter button to start.

- The film winds to the next frame after the exposures have been taken.

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To clear preset exposures, repeat step #1 and turn the electronic input dial to return the number to one.

We recommend setting exposure compensation depending on the number of exposures for best results.

Number of exposures	Exposure compensation amount
Two	− 1.0
Three	− 1.5
Four	− 2.0

Multiple Exposure Information

1. The table at left is a **general guideline.** The actual amount varies according to the subject and desired effect. This kind of photo requires experimentation for best results.
2. Avoid taking exposures on the first and last several frames to minimize the risk of damage from film curl.
3. Generally, the first exposure should be a relatively dark subject so that the image in the next exposure will show up clearly.
4. When using print film, be sure to inform the developer that you have taken multiple exposures, otherwise pictures may be processed incorrectly.

S. Custom Function Control
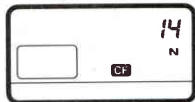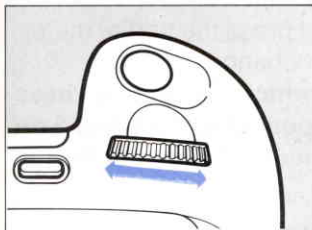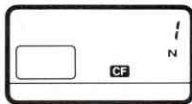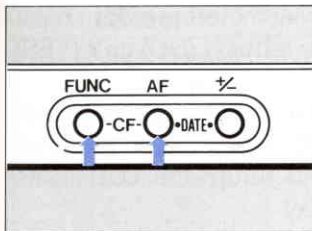
This versatile control lets you program fourteen functions* to your individual preference.
* Fifteen with the EOS-10 QD.

1) Press the function (blue) button and the AF mode (yellow) button to display the function number and CF symbol.
2) Turn the electronic input dial to the desired function number.
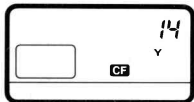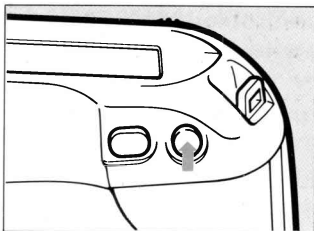
3) Press the partial metering button once to change the letter N (NO) to Y (YES) to set the desired function.

- The display appears for approximately six seconds. Press the shutter button halfway to return the LCD to its regular display.
- **To cancel a function,** repeat steps #1 and 2 and press the partial metering button to change Y to N.
- **To check which functions have been set, repeat steps #1 and 2 on p. 65. Y appears if the function is set.**

NOTE

Before using Custom Function Control, *please review their purpose carefully.* For example, Custom Function #3 cancels automatic film speed setting of your camera, Custom Function #4 cancels normal autofocus operations, etc.

CUSTOM FUNCTION CONTROL CHART

	Control	User-selected Operation (Y)	Normal Operation (N)
1	Film Rewind Cancellation	Cancels automatic film rewind	Film rewind starts automatically at end of roll
2	Film Leader Out	Leaves the film leader outside the cartridge	Film leader completely rewound into cartridge
3	Film Speed Set	Allows manual film speed setting of DX-coded film	Film speed set by camera according to DX-code
4	Autofocus Start	Initiates autofocus by pressing partial metering button	Autofocus starts when shutter button pressed halfway
5	Manual Exposure	Aperture set by electronic input dial and shutter speed set by partial metering button + electronic input dial	Shutter speed set by electronic input dial and aperture set by AE lock button + electronic input dial
6	Camera-shake Warning	Turns off camera-shake warning tone	Tone sounds automatically with command dial set at □, ❍, ☎, ♣, ☀, or ▌▌▌▌ .
7	Manual Focus Operation	Allows manual focus adjustment after autofocus with USM lenses[1] without prior setting	Manual focus adjustment possible by setting focus mode switch with USM lenses
8	AF Auxiliary Light	Does not emit	Automatically emitted when necessary

[1] Only in one-shot AF mode.

	Control	User-selected Operation (Y)	Normal Operation (N)
9	1/125 Shutter Speed Lock	Aperture-priority AE w/flash locks at 1/125 to prevent camera shake	Shutter speed set according to subject's peripheral brightness
10	Red Focus Marks Off	Focus marks do not flash in red [*2]	Focus marks light up in red
11	Depth-of-Field Check	Possible by pressing the partial metering button [*3]	Not possible
12	AE Lock	AE lock with evaluative metering	AE lock with partial metering
13	Mirror up	When using self-timer, the mirror is up when the shutter button is pressed	Not possible
14	Cancellation of speed limit function	Speed limit function is canceled.	In camera-shake alert mode, a speed limit function prevents setting a shutter speed slower than 1/focal length of the lens in use

[*2] Superimposed when the command dial is set at □ , ❂ , ☎ , ♨ , ☖ , and ▮▮▮▮, or when selecting one focus mark.

[*3] a) The aperture is stopped down after AF and AE lock.

b) When combined with Control #4, depth-of-field check is not possible in AI servo AF mode.

The LCD panel uses liquid crystal to show exposure information. After about five years, the display may become difficult to read. If this occurs, have it replaced at an authorized Canon service facility. Replacement is at the owner's expense.

Liquid crystal may also respond relatively slow in temperatures below 32°F / 0°C. It may also darken in temperatures around 140°F / 60°C. The LCD panel will return when the temperature returns to normal.

Battery Information

Lithium Battery Check
Always check the battery at the following times:
1. When loading a new battery
2. After lengthy storage
3. Before an important shooting assignment
4. In cold weather
5. If the shutter will not release

Battery Use Information
1. Wipe the battery terminals with a clean, dry cloth to ensure proper connection.
2. Remove the battery if you do not expect to use the camera for more than three weeks.
3. Battery performance deteriorates slightly in temperatures below 32°F/0°C. Keep the camera and especially a spare battery close to your

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body or in an inside pocket to keep it warm until use.

4. The battery may explode or cause burns if disassembled, recharged, shorted, exposed to high temperatures, or disposed of in fire. Be sure to observe all precautions indicated on the battery package. *Always keep it out of the reach of children.*

5. If the battery check symbol blinks or does not appear in the LCD panel during battery check, exposure will be okay as long as the shutter releases. Film advance and rewind will be impaired by insufficient battery power. If wind or rewind stops due to the battery, the film cartridge symbol will blink. Film transport resumes after a new battery is loaded and the film rewind button pressed.

Blinking "bc" Display

There are two conditions when the blinking "bc" will appear in the LCD panel.

1. If the battery is nearly exhausted, the blinking "bc" will appear when the shutter button is pressed halfway or when the battery is checked.

2. If the remaining battery power does not show a replacement condition, but the camera's self-test process detects an internal malfunction, the blinking "bc" will appear when the shutter button is pressed halfway.*

* In this case, remove the battery completely. Wipe the battery terminals and reload it. Check the battery again. If the blinking "bc" still appears, the camera needs to be examined by an authorized Canon service facility.

U. Camera Care

Keep your camera in top condition by following these suggestions for periodic cleaning. See the precautions on p. 5 for other important information.

1. Cleaning the lens surface-
   Blow off dust with a blower brush and gently wipe the lens surface with a piece of lens cleaning paper moistened with lens cleaner. Clean in a **spiral** motion from the center outwards.

2. Cleaning the mirror and focusing screen-
   Use a blower brush reserved for this use only. If more cleaning is necessary NEVER attempt to do it yourself. Take the camera to an authorized Canon service facility.

3. Cleaning the film chamber-
   Use a blower brush to remove accumulated film dust particles that might scratch the film. Be careful not to touch the shutter curtain.

Attaching the strap
Thread the ends of the neckstrap through the fixtures as shown.

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LCD Panel Information

1   2 3 4 5

www.orphancameras.com

```
88:88+8.8  28
ONE SHOT          IIIIII  Y N
AI SERVO
AI FOCUS    ⦿ ⭧ CF ⏱ ▮  ▭
⊒ ISO   ME   AEB   INT  •))
```

18

6
7

15 13

17 16 14 12 11 10 9 8

72
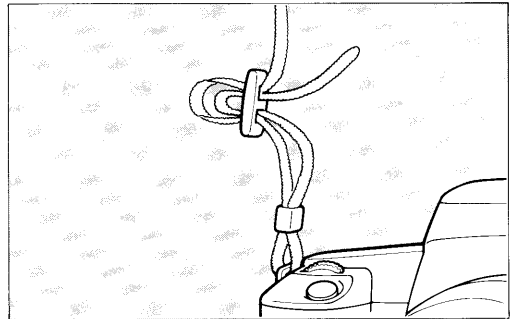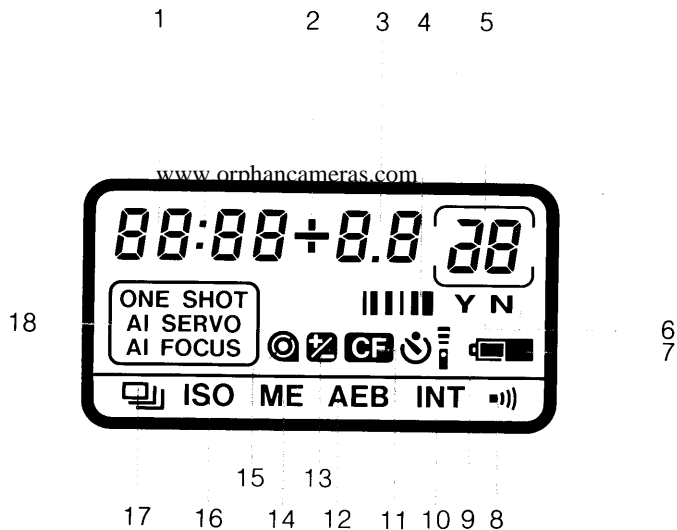
1. a. Shutter Speed
   b. Film Speed
   c. Depth-of-Field
   d. Interval Timer
2. a. Exposure Compensation
   b. Interval Timer
3. a. Aperture Value
   b. Exposure Compensation Value
   c. AEB Value
   d. Depth-of-Field AE
   e. Interval Timer
   f. Battery Check (bc)
   g. Bar-code Program
4. Bar-code Program
5. a. Frame Counter
   b. Number of Multiple Exposures
   c. Custom Function Control No.
   d. Interval Timer Frame No.
6. a. Camera-shake Beeper Tone Active
   b. Camera-shake Beeper Tone Cancellation
   c. Regular Operation
   d. Custom Function Active
7. Battery Check
8. Camera-shake Beeper Tone
9. Remote Controller
10. Interval Timer
11. Custom Function Control Set
12. Auto Exposure Bracketing
13. Exposure Compensation
14. Multiple Exposure
15. Film-Load Check/ Film Rewind Completion
16. Film Speed Setting
17. Film Winding Mode
18. a. One-shot AF Mode
    b. AI Servo AF Mode
    c. AI Focus AF Mode

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Viewfinder Information

Focus Marks

AF in-focus Symbol
(Lights up when subject
is in focus. Blinks when
AF is impossible)

Camera-shake Alert Symbol

AE Lock Symbol

Shutter Speed

Depth-of-field AE Indicator
(dEP 1, dEP 2)

Exposure Symbol

Aperture Value

Exposure Compensation Symbol

Flash Charge Completion Symbol
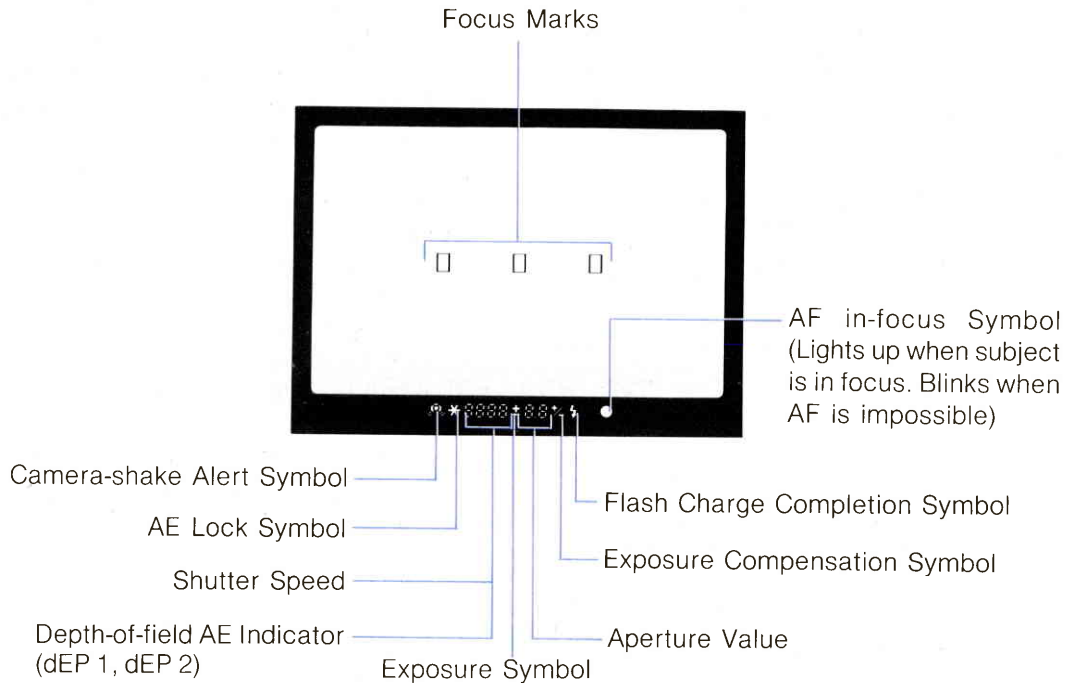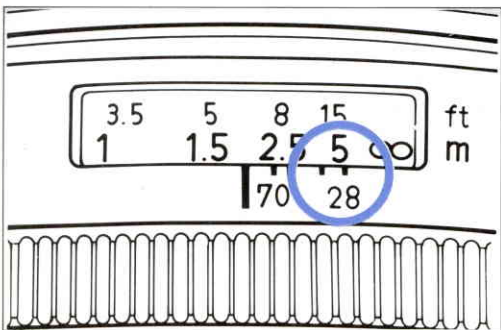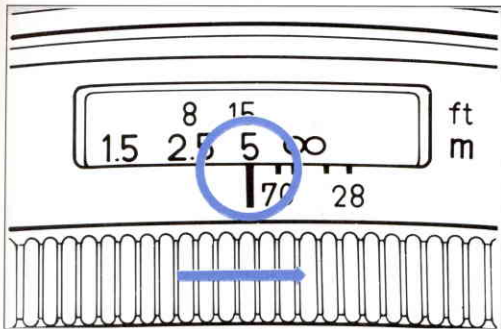
Infrared Film Use

When using black and white infrared film, make a slight adjustment in focus with the red infrared index. For example, focus the subject first, then, if the lens is focused at 5 m on the distance scale, turn the manual focusing ring to align the 5 m mark with the red dot and release the shutter. For zoom lenses, use the small red lines to align with the number as shown.

- Use a deep red filter as specified by the manufacturer.
- The infrared index mark position has been computed for infrared film usage with peak sensitivity at 800 nm.
- Follow the manufacturer's instructions when using color infrared film.

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Battery Shooting Capacity

Based on a new 2CR5 lithium battery using the EF 35-135 mm f/4-5.6 and 24-exp. film
1) Without flash
2) With 50% flash
3) With 100% flash

Temperature	Capacity
Normal (20°C/68°F)	1) 60 rolls 2) 25 rolls 3) 13 rolls
Low (−20°C/−4°F)	1) 15 rolls 2) 8 rolls 3) 4 rolls

* The data is the same for the EF 50 mm f/1.8.
* Stated values reduced 50 % with USM lenses (excluding EF 35-135 mm f/4-5.6, EF 70-210 mm f/3.5-4.5 and EF 100-300 mm f/4.5-5.6)

The data are based on Canon's Standard Test Method.

Comparisons between AF Mode and Film Winding Mode

AF mode Film Wind-ing Mode	ONE-SHOT	AI SERVO
⬜: Single	AF lock and AE lock in the evalua-tive metering mode take place simultaneously on AF completion. **The shutter releases only after AF completion.**	AF follows a subject and the ex-posure is determined at the mo-ment of shutter release. **The shutter releases only after AF completion.**
🔁: Con-tinuous	AF lock and AE lock in the evalua-tive metering mode take place simultaneously on AF completion, then continuous exposure is acti-vated. (Approx. 5 fps maximum).	AF follows a subject and the ex-posure is determined at the mo-ment of shutter release. AF is adjusted to follow the subject dur-ing exposure. (Approx. 3 fps maximum). **The shutter releases only after AF completion.**

Program Line (Program Characteristics)

This camera is equipped with advanced "Intelligent Program AE" which chooses the best shutter speed/aperture combinations, taking the lens' focal length into account.

The camera-shake warning sounds when the automatically-set shutter speed becomes **0 to 0.5 steps slower than** **"1/focal length of the lens in use".** This shutter speed (1/focal length of the lens in use) is generally said to be **the limit for hand-held shooting.**

Blue: When using the EF 50 mm f/1.8
Black: When using the EF 35-105 mm f/3.5-4.5
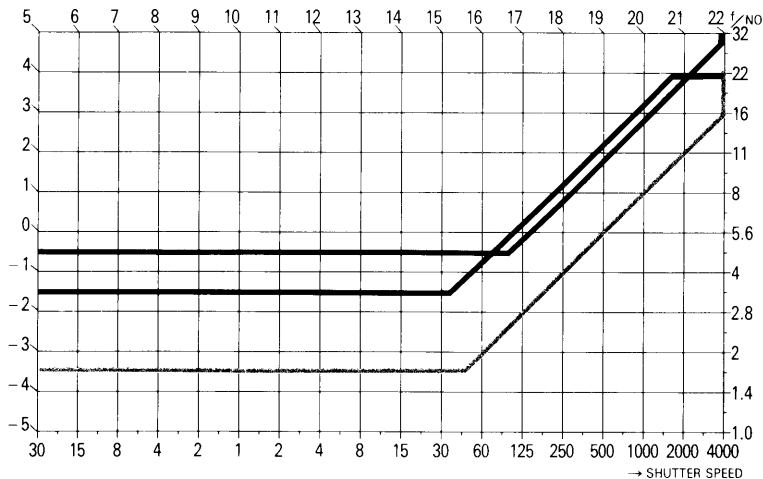
Program Shift Characteristics

(EF 50 mm f/1.8 - example with shift at EV 13)
• indicates the shutter speed/aperture
  combinations with program shift.

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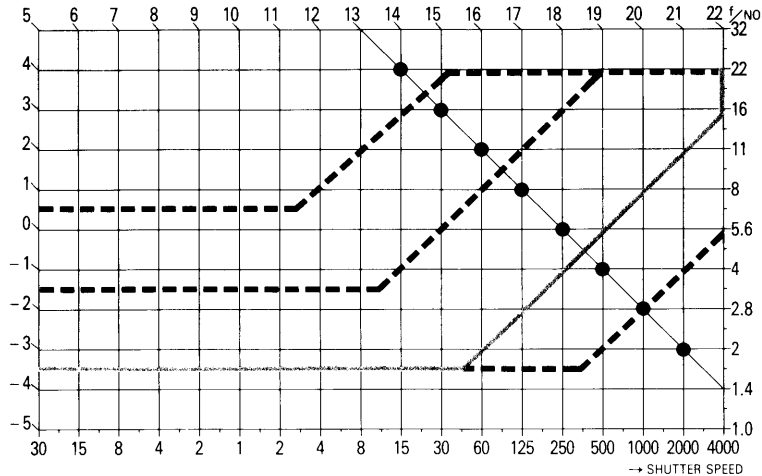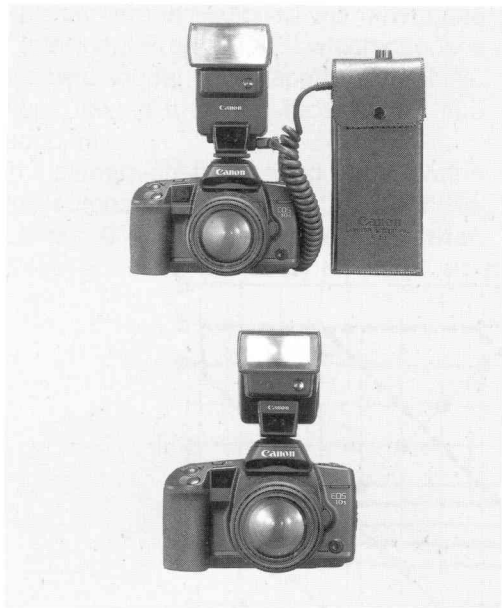
Speedlite 430 EZ/300 EZ

The **430 EZ** provides plenty of coverage for a variety of situations including fill-in flash with a guide no. of 141 ft/43 m (ISO 100) and a 1/125 second sync. speed. A-TTL and TTL output help you achieve the best possible results. Flash level compensation, bounce flash, slow synchronization, second curtain flash and an external battery pack round out the list of features.

The **300 EZ** has an auto internal zoom function to vary the flash output via A-TTL or TTL control. A guide no. of 93 ft/28 m (ISO 100) and a 1/125 second sync. speed for high performance. A fast recycling time of one second keeps you prepared for any situation. Slow synchronization and second-curtain flash features expand the unit's capabilities.

* When attached to EOS10, the speedlite's AF auxiliary light is not emitted.

Grip Extension GR-60

The grip extension increases the size of the grip to provide a more comfortable and secure hold for large hands. An adjustable padded strap is included for easier handling. Fastens into the tripod socket with a lock nut screw.

Remote Controller RC-1

Offering two release times, immediate and 2 seconds, this tiny controller works up to 16.4 ft/5 m away. It attaches to the camera strap for convenient carrying. A must for candids, family photos, and special occasions.

Dioptric Adjustment Lenses

For eyeglass wearers, there are 10 correction lenses available from $+3$ to -4. Conduct a test before purchase for the best match to your prescription and make viewing more comfortable.

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TYPE AND MAJOR COMPONENTS

Type: 35 mm focal plane shutter SLR (single-lens reflex) camera with autofocus, auto exposure, and built-in motor drive.

Lens Mount: Canon EF Mount (electronic signal transfer system)

Usable Lenses: Canon EF lenses

Viewfinder: Fixed eye-level pentaprism. Gives 92% vertical and horizontal coverage of actual picture area and 0.74X magnification with 50 mm lens at infinity. Eyepoint: 19 mm

Dioptric Adjustment: Built-in eyepiece is adjusted to standard -1 diopter.

Focusing Screen: New laser-matte screen with three focus marks.

Mirror: Quick-return half-mirror

Shutter: Vertical-travel, focal plane shutter with soft touch electromagnetic release and all speeds electronically controlled.

Shutter Speed: 1/4000 - 30 sec. and bulb. X-sync is 1/125 sec. Set in 1/2-stop increments.

Viewfinder Information: Displayed at the bottom of the viewing area.
1. Three focus marks
2. 7-segment LCD digit and character display
   (1) Shutter speed: blinks at 2Hz for out-of-coupling range warning.
   (2) Aperture value: blinks at 2 Hz for out-of-coupling range warning.
   (3) Depth-of-Field AE: dEP 1, dEP 2
   (4) Camera-shake Alert indicator: 📷
   (5) Metered manual exposure level: $-$, $\pm$, $+$
   (6) AF in-focus indicator: • (Blinks at 8 Hz when AF is not possible)
   (7) Flash-charge completion indicator: ⚡
   (8) AE lock indicator: ✳
   (9) Exposure compensation indicator: 🔁

AUTOFOCUS

AF Control System: TTL-SIR (Secondary Image Registration) phase detection type using Multi-BASIS (Base-Stored Image Sensor). Three modes available: One-shot, AI servo with Focus Prediction and AI Focus that automatically switches to One-shot or AI servo according to the subject. Manual focusing also possible.

X. SPECIFICATIONS

Focusing Point: Set by camera or user.

AF Working Range: EV 0 - 18 at ISO 100.

AF Auxiliary Light: Automatically projected when necessary.

Light through an LED (peak sensitivity: 695 nm) coupled to the focusing point. Effective focal length: from 35 mm to 135 mm. Effective distance range: 1 - 7 m/ 3.3 - 23 ft for the central area, 1 - 4 m/3.3 - 13.1 ft for the peripheral areas.

EXPOSURE CONTROL

Light Metering: TTL full-aperture metering using SPC (Silicon Photocell). Two metering patterns available: 8-Zone New Evaluative Metering, partial metering approx. 8.5% of the central picture area.

Metering Range: EV −1 to 20 at normal temperature (conversion with 50 mm f/1.4 at ISO 100)

Shooting Modes:

1. **Green Zone (□)** (Intelligent Program AE)
2. **Programmed Image Control**
   1) Portraits
   2) Landscapes
   3) Close-ups
   4) Sports
3. **Bar-code Program** (according to the program input)
4. **Intelligent Program AE with variable program shift function**
5. **Shutter-Priority AE**
6. **Aperture-Priority AE**
7. **Depth-of-Field AE**
8. **Camera-shake Alert**
9. **Manual**
10. **Flash AE** (A-TTL or TTL program flash AE with built-in flash)

Camera Shake Warning: Operates For program AE (P), aperture priority AE (Av), Depth-of-field AE (Dep) and Camera-shake Alert ( ). The camera shake warning beeper tone sounds when the automatically-set shutter speed becomes **0 to 0.5 steps slower than "1/focal length of the lens in use".**

Beeper can be canceled with Custom Function #6.

Multiple Exposures: Up to nine exposures can be preset. Automatically clears upon completion.

Exposure Compensation: +/− 5 stops in 1/2 stop increments.

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Automatic Exposure Bracketing: $+/-$ 5 stops in 1/2 stop increments. Three continuous exposures are taken in sequence: one under, one at the standard metered value, and one over.

Depth-of-Field Check: With Custom Function #11 by pressing the partial metering button.

FILM TRANSPORT

Film Speed Setting: ISO 6—6400; automatically set in 1/3 - stop increments according to DX code or set by user.

Film Loading: Automatic

Film Wind: Automatic. Two modes available: ☐ (Single Frame) and ⊑⊔ⅉ (Continuous at up to 5 fps.)

Film Rewind: Automatic (approx. 8 sec. with 24-exp film at normal temperature). Mid-roll rewind also possible.

FLASH

Type: Built-in, retractable type TTL automatic flash.

The flash cannot be combined with an external flash.

Guide Number: 12 m/39.3 ft at ISO 100

Recycling Time: Approx. 2 sec

Flash Coverage Angle: Equivalent to the coverage angle of a 35 mm lens

Flash Coupling Range: 1 - 4.3 m/3.3 - 14.1 ft at ISO 100

Flash Duration: 1.0 ms or less

Color Temperature: Equivalent to daylight

Power Source: Same as the body

POWER SOURCE

Battery: One, six-volt lithium battery (2CR5).

Battery Check: Automatic by turning the camera on. Indicated by a 4-step display on the LCD panel.

Notice

This equipment has been tested and found to comply with the limits for a Class B computing device in accordance with the specifications set forth in Subpart J of Part 15 of the FCC Rules. If this equipment does cause interference to radio or television reception which can be determined by turning the equipment on and off, use the equipment in another location. If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful:

"INTERFERENCE HANDBOOK"
This booklet is available from the U.S. Government Printing Office, Washington, D.C., 20402, Stock No. 044-000-00450-7.

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Please copy this page and keep in your camera bag for handy reference.

CUSTOM FUNCTION CONTROL LIST

1. Film Rewind Cancellation
2. Film Leader Out
3. Film Speed Set
4. Autofocus Start
5. Manual Exposure
6. Camera-shake Beeper Off
7. Manual Focus Operation
8. AF Auxiliary Light
9. 1/125 Shutter Speed Lock
10. Red Focus Marks Off
11. Depth-of-Field Check
12. AE Lock
13. Mirror Up
14. Cancel Safety Limitation

Shooting Capacity (with 24-exp. film):

Tem-perature	Without flash	With 50 % flash use	With 100 % flash use
Normal (68°F/20°C)	60 rolls	25 rolls	13 rolls
Low (−4°F/−20°C)	15 rolls	8 rolls	4 rolls

OTHER

Remote Control: Possible by using optional remote control unit.

Self-timer: Electronically controlled with a 10-sec. delay

Data Display: In the viewfinder and LCD panel.

DIMENSIONS

Size: 6-1/4'' (W) × 4-3/16'' (H) × 2-3/4'' (D) (158 × 106 × 70 mm)

Weight: 20.3 oz. (580 g) without battery. 21.7 oz. (620 g) with battery.

All data are based on Canon's Standard Test Method.

Subject to change without notice.

Nomenclature

Viewfinder Eyepiece

Film Check Window

Focus Mark Button

Partial Metering Button

Film Rewind Button

Tripod Socket
Grip Extension Socket

Function Button

Battery Cover

AF Mode Button

Battery Cover Lock

Exposure Compensation Button

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