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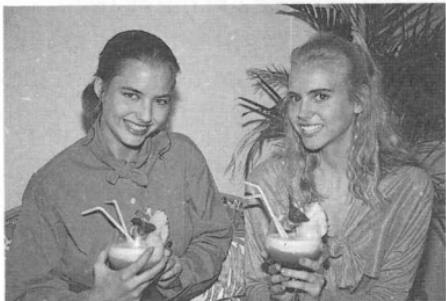
[back to my “Orphancameras” manuals /flash and light meter site](#)

Only one “donation” needed per manual, not per multiple section of a manual !

The large manuals are split only for easy download size.

### 3. Flash Photography with the Built-in Flash (REBEL SII only)

When the "  " mark blinks in the viewfinder, pull the built-in flash up manually for flash photography.

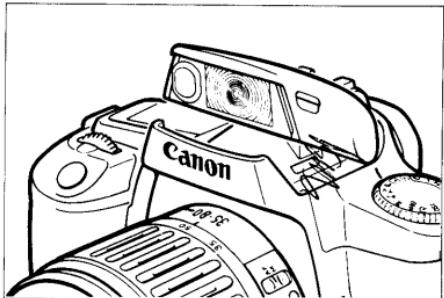


#### Notes

- 1) Always pull the flash up **gently** by grasping the flash tabs.
- 2) When not in use or when using an external flash, push the built-in flash down **gently** to retract. An external flash **cannot** be used together with the built-in flash.
- 3) For flash photography, do not press the shutter button completely until the "  " mark lights steadily in the viewfinder.

#### Flash Shooting Distance Range (when using the EF 35-80mm f/4-5.6)

ISO	WIDE		TELE	
	Color Print Film	Slide Film	Color Print Film	Slide Film
100	0.7 - 5 m 2.3 - 16.4 ft	1 - 3.5 m 3.3 - 11.5 ft	0.7 - 3.5 m 2.3 - 11.5 ft	1 - 2.5 m 3.3 - 8.2 ft
400	0.7 - 10 m 2.3 - 33 ft	1.5 - 7 m 4.9 - 23 ft	1 - 7 m 3.3 - 23 ft	1.5 - 5 m 4.9 - 18.1 ft



- 4) "  " will not blink in the "Creative Zone".
- 5) In low-light conditions, the built-in AF auxiliary light is emitted automatically if necessary when the shutter button is pressed halfway.
- 6) Using the following large-diameter lenses may cause shading at the lower part of flash photos:  
EF 200 mm f/1.8 L  
EF 300 mm f/2.8 L  
EF 20-35 mm f/2.8 L  
EF 28-80 mm f/2.8-4 L  
EF 80-200 mm f/2.8 L  
EF 50-200 mm f/3.5-4.5  
EF 50-200 mm f/3.5-4.5 L
- 7) Using a lens of a focal length shorter than 35 mm may cause shading around the edges of flash photos.
- 8) To prevent shading, do not use a lens hood when using the built-in flash.

## Flash Photography and the Red-eye Reduction Function

The subject's eyes may appear red in flash photos due to light reflected from the retina. This phenomenon is called "red eye." To minimize red eye, this camera automatically activates its built-in red-eye reduction function in ⌚ (Self-timer) mode, ▣ (Full Auto) mode and ◉ (Portrait) mode when using flash in a situation where red-eye is likely to occur. In this mode, a lamp in the flash lights momentarily to reduce the size of the subject's pupils before the flash fires. When the shutter button is pressed halfway, the viewfinder display blinks for 2 seconds and the red-eye reduction lamp lights. When the viewfinder display stops blinking, press the shutter button all the way to take the picture.



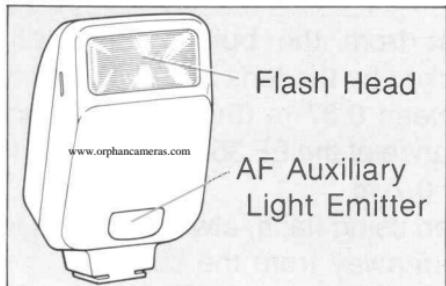
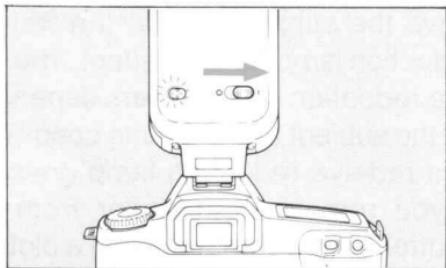
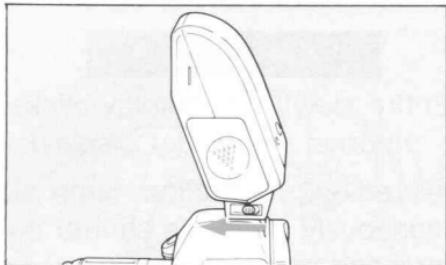
Entire viewfinder display blinks.  
(Internal viewfinder display)

- The red-eye reduction lamp lights continuously while the shutter button is pressed halfway.
- Have the subject look at the red-eye reduction lamp for best effect. The red-eye reduction effect differs depending on the subject and shooting conditions.
- The red-eye reduction lamp goes out if you remove your finger from the shutter button without taking a picture.

Light from the built-in flash will be blocked by the lens barrel at distances between 0.37 m (the closest shooting distance of the EF 35-80mm f/4-5.6 lens) and 0.7 m.

When using flash, always keep at least 0.7 m away from the subject.

## 4. Flash Photography with the Speedlite 200E (may be optionally available in some areas)



When the “” indicator blinks in the viewfinder, attach the Speedlite 200E to the accessory shoe before taking pictures.

- After attaching the Speedlite 200E to the accessory shoe, slide the lock switch in the direction of the arrow to secure the flash to the camera.
- The “” indicator does not blink in creative zone modes.

1) Set the Speedlite 200E’s main switch to “I”. The ready lamp lights up when flash charging is completed.

- The viewfinder’s “” indicator also lights up when flash charging is completed.

2) Compose the picture and press the shutter button to take the picture.

- For flash pictures, do not press the shutter button completely until the flash unit’s ready lamp lights up.

\* For details, refer to the instructions provided with the Speedlite 200E.

## Viewfinder Information When Using Flash

Shooting mode	Warning display	Condition	Note
(P) Program AE	During daylight fill-in flash photography, the lens' minimum aperture value blinks.	The background is overexposed.	The subject is correctly exposed.
(Tv) Shutter-priority AE	The lens' minimum aperture value blinks.	The background is overexposed.	The subject is correctly exposed. Blinking may stop if a faster shutter speed is set.
	The lens' maximum aperture value blinks.	The background is underexposed.	The subject is correctly exposed. Blinking may stop if a slower shutter speed is set.
(Av) Aperture-priority	The fastest possible x-sync shutter speed 90 (1/90 sec.) blinks.	The background is overexposed.	The subject is correctly exposed. Blinking may stop if a smaller aperture is set.
	The slowest shutter speed 30" (30 sec.) blinks.	The background is underexposed.	The subject is correctly exposed. Blinking may stop if a larger aperture is set.

## X-sync Shutter Speed and Aperture Value

Shooting mode	X-sync shutter speed	Aperture value
Program AE	Automatically set to 1/90 sec.	Flash aperture value automatically set according to existing lighting and TTL program.
Shutter-priority AE	Manually set to any desired shutter speed of 1/90 sec. or slower*.	Aperture value automatically set according to the set shutter speed and existing lighting.
Aperture-priority AE	Automatically set between 30" and 1/90 sec. according to the set aperture value and existing lighting.	Manually set to any desired aperture value.
Manual	Manually set to any desired shutter speed of 1/90 sec. or slower*.	Manually set to any desired aperture value.

\* If the shutter speed is set to a value faster than 1/90 sec., the camera will automatically lower it to 1/90 sec.

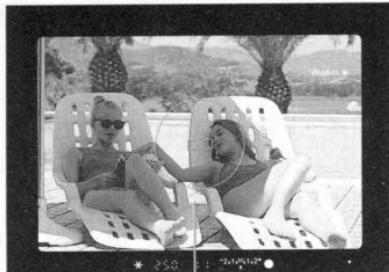
*With these functions you can expand your creativity by tailoring the operation of your camera to match shooting conditions or your photographic objectives.*

**The functions described in the Applications section cannot be set in Green Zone or any of the P.I.C. modes.**

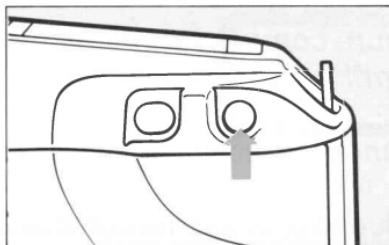


The main light metering system used in this camera is called "evaluative metering." It evaluates the entire picture area by dividing it into three zones to determine the best exposure taking into consideration differences in brightness between the subject and background and the size of the subject. With a backlit subject, for example, the camera automatically compensates to obtain correct exposure for the main subject.

**Partial metering**, on the other hand, reads only **9.5%** of the center of the picture area. This is particularly suited for photography in theaters and other situations when there is a significant difference in brightness between the main subject and background. The exposure setting is automatically locked in partial metering mode, allowing you to freely recompose the picture after metering.



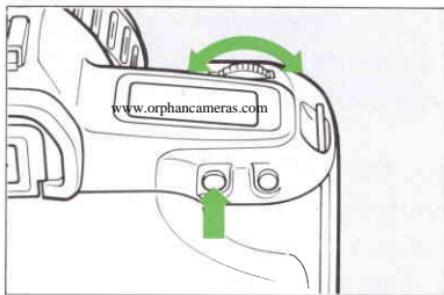
Partial Metering Area Mark



- 1) Compose the picture and focus the subject, then remove your finger from the shutter button.
- 2) Place the partial metering circle in the viewfinder on the subject you want metered and press the partial metering button. The partial metering mark “\*” appears in the viewfinder. After “\*” appears, press the shutter button halfway.
- 3) While pressing the shutter button halfway, recompose the picture if desired and press the shutter button completely.

**Note:**

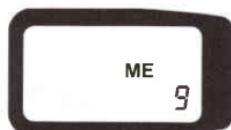
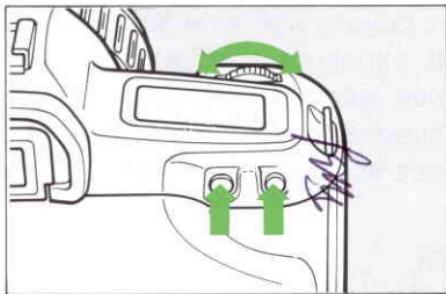
You may remove your thumb from the partial metering button if you press the shutter button halfway after “\*” appears in the viewfinder.



Use exposure compensation for intentionally underexposed or overexposed pictures. The compensation range is up to  $+/ - 2$  stops in half-stop increments. While pressing the exposure compensation button, turn the electronic input dial until the exposure level mark is set to the desired exposure compensation amount.

- *Exposure compensation remains active until canceled.*
- *To cancel* exposure compensation, repeat the above procedure to return the value to 0, or set the command dial to the green zone or to any of the P.I.C. modes.
- If you set an exposure compensation value before going into manual exposure mode, the manual exposure metering system will indicate the compensated value as the correct exposure.

### 3. Multiple Exposures



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

- 1) Press the exposure compensation button and the partial metering button together 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.

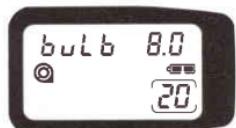
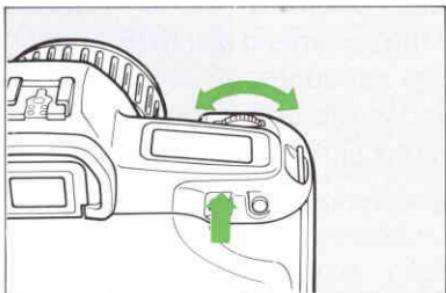
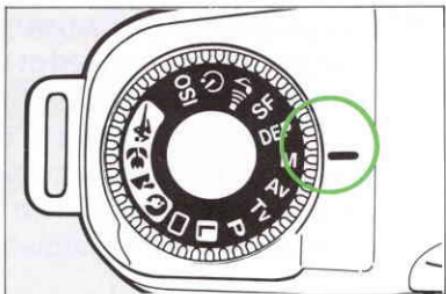
- “**ME**” blinks in the LCD panel during multiple exposure operation.
- The film winds to the next frame after the set number of exposures have been taken.
- To clear preset exposures, repeat steps #1 and 2 to set the number of exposures to 1.

For best results, we recommend setting exposure compensation depending on the number of exposures.

- This table is a general guideline. The actual exposure compensation amount varies according to the subject and desired effect. This kind of photo requires experimentation for best results.

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

## 4. Bulb (Long Exposure)

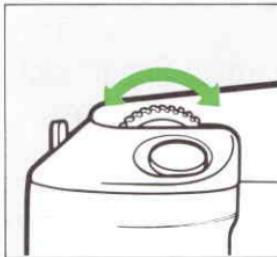
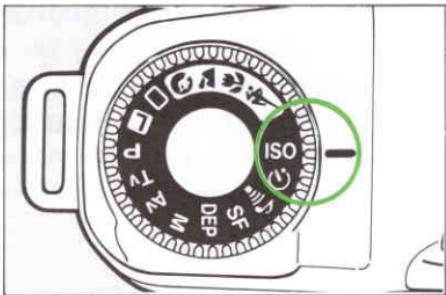


Use bulb for exposures longer than 30 seconds, such as for fireworks or night scenes. **The exposure continues as long as the shutter button is held down.** Make sure the camera does not move during exposure by placing it on a tripod or other steady surface.

- 1) Set the command dial to “M”.
- 2) Turn the electronic input dial until “buLb” (after 30”) is displayed.
- 3) Set the aperture value by turning the electronic input dial while pressing the exposure compensation button.
- 4) Press the shutter button completely to take the picture.

- Bulb can be combined with the multiple exposure function.

## 5. Manual Film Speed Setting



When using non DX-coded film or when you want to set the effective speed of a film determined from your own tests, you can manually set the film speed to any value from ISO 6-6400 in 1/3-step increments. The setting is canceled after the film is removed and replaced with another DX-coded film.

- 1) Set the command dial to ISO. "ISO" and a film speed appear in the LCD panel.
- 2) Turn the electronic input dial to set the desired film speed.

### 1. Comparisons Between AF Mode and Film Wind Mode

Film wind mode	One-shot	AI Servo
Single	AF lock and AE lock in the evaluative metering mode take place simultaneously on AF completion. <b>The shutter releases only after AF completion.</b>	AF follows the subject and the exposure is determined at the moment of shutter release. <b>The shutter releases only after AF completion.</b>
Continuous	AF lock and AE lock in the evaluative metering mode take place simultaneously on AF completion, then continuous exposure is activated. (Approx. 1 fps maximum.)	AF follows the subject and the exposure is determined at the moment of shutter release. AF is adjusted to follow the subject during the series of exposure. (Approx. 1 fps maximum.) <b>The shutter releases only after AF completion.</b>

## 2. Film Shooting Capacity

The battery's shooting capacity varies depending on flash use and on the temperature of the environment. Refer to the table below.

Temperature	Without Flash	With 50% Flash	With 100% Flash
Normal (20°C)	75 rolls	30 rolls	12 rolls
Low (-10°C)	45 rolls	20 rolls	8 rolls

- Based on a new 2CR5 lithium battery using the EF 35-80 mm f/4-5.6 lens and 24-exp. film.
- Data are based on Canon's Standard Test Method.

## V. ACCESSORIES

*The accessories described in this section are sold separately.*



### 1. Dedicated Canon Speedlites

If you need a flash with a little higher output than that of the built-in flash, attach the extra-compact and simple Speedlite 200E (guide number : 66·ft/20·m at ISO 100) to the camera. All you have to do is switch it on and point and shoot.

In addition to the **200E**, the powerful **430EZ** zoom flash with the maximum guide number of 141·ft/43·m (at ISO 100), and the **300EZ** with the maximum guide number of 98·ft/30·m (at ISO 100) are available. With the 430EZ in particular, advanced functions such as flash output level compensation, stroboscopic flash, second-curtain sync, bounce flash, and slow synchronization are possible in addition to large output. An external battery pack is also available for the 430EZ.



## 2. Grip Extension GR-70

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.

## 3. Series E Dioptric Adjustment Lenses

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

- \* The numerical value printed on a dioptric adjustment lens indicates the diopter value obtained when the dioptric adjustment lens is attached to the camera. This number does not indicate the diopter value of the dioptric adjustment lens itself.

## **4. Lens Hoods**

Use lens hoods to keep unwanted light from entering the lens. Select the right hood size to match your lens.

## **5. Filters**

Use filters to cut unwanted light and provide special effects.

- Do not use more than one filter at the same time.
- When using a polarizing filter, be sure to use a Canon PL-C circular polarizing filter.

## VI. 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 mirror and focusing screen—**

Use a blower brush reserved for this purpose 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.

### **4. Cleaning the film pressure plate and film guide rails—**

Lightly wipe the surface with a piece of lens cleaning paper moistened with lens cleaning. Be careful NOT TO TOUCH the shutter curtain.

- Use of aerosol spray dust removers is not recommended.

## **Liquid Crystal Display/Battery Notes**

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

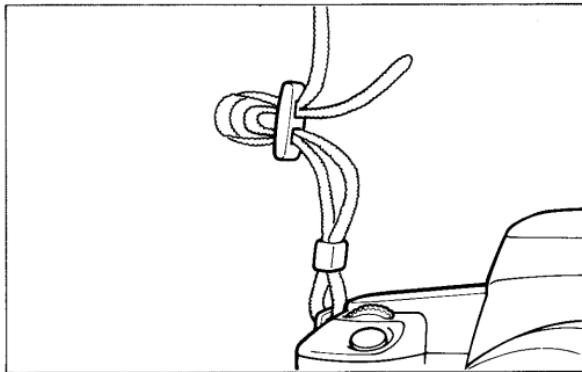
4. The battery may explode or cause burns if disassembled, recharged, shorted, exposed to high temperatures, or disposed of in fire. Be sure to observe all precautions indicated on the battery package. Always keep it out of the reach of children.
5. If the battery check symbol blinks or does not appear 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 exhausted battery, the film cartridge symbol will blink. Film transport resumes after a new battery is loaded.

## Blinking “” Display

There are two conditions when the blinking “” will appear in the LCD panel.

1. If the battery is nearly exhausted, the blinking “” 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 “” will appear when the shutter button is pressed halfway.\*

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



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

## VII. SPECIFICATIONS

### TYPE AND MAJOR COMPONENTS

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

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

**Usable Lenses:** Canon EF lenses

**Viewfinder:** Fixed eye-level pentaprism. Gives 90% vertical and horizontal coverage of actual picture area and 0.75X magnification with 50 mm lens at infinity.

**Standard Diopter:** Adjusted to -1.

**Focusing Screen:** Fixed, new laser-matte screen with focus mark and partial metering mark.

**Shutter:** Vertical-travel, focal plane shutter with all speeds electronically controlled.

**Shutter Speed:** 1/2000 - 30 sec. and bulb.

Set in 1/2-stop increments. X-sync is 1/90 sec.

### AUTOFOCUS

**AF Control System:** TTL-SIR (Secondary Image Registration) phase detection type using BASIS (Base-Stored Image Sensor). Two modes available: One-shot and AI Focus that automatically switches to One-shot or AI Servo according to subject.

Manual focusing also possible.

**AF Working Range:** EV 1 - 18 at ISO 100.

**AF Auxiliary Light:** Automatically projected when necessary by the specified Speedlite.

## **EXPOSURE CONTROL**

**Light Metering:** TTL full-aperture metering using an SPC (Silicon Photocell).

### **Three metering patterns available:**

3-zone evaluative metering, partial metering which covers approx. 9.5% of the central picture area and center-weighted average metering (only when selecting the manual exposure mode).

**Metering Range:** EV 2-20 with 50 mm f/1.4 lens at ISO 100.

### **Shooting Modes:**

1. Green Zone (Intelligent Program AE)
2. Programmed Image Control (Portrait, Landscape, Close-up, Sports)
3. Intelligent Program AE
4. Shutter-priority AE
5. Aperture-priority AE
6. Metered Manual
7. Soft Focus
8. Depth-of-Field AE
9. Flash AE (A-TTL or TTL program flash AE with the flash)

**Camera Shake Warning:** Operates in Green Zone and Programmed Image Control modes. Shutter speed blinks when automatically-set shutter speed is 0 to 0.5 steps slower than “1/focal length of the lens in use.”

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

**Exposure Compensation:** + / – 2 stops in 1/2-stop increments.

## **FILM TRANSPORT**

**Film Speed Setting:** Automatically set according to DX code (ISO 25-5000) or set by user (ISO 6-6400).

**Film Loading:** Automatic prewind system. After film positioning and back cover closure, the film automatically winds to the end of the roll and stops.

**Film Wind:** Automatic. One of two modes is automatically set: Single Frame and Continuous (1 fps maximum).

**Film Rewind:** Automatic rewind at end of roll.

## POWER SOURCE

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

## OTHER

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

**Sound Mode:** Self-timer sound selectable from four settings—electronic beeper, Vivaldi's "Four Seasons—Spring", Beethoven's "Turkish March" and Bach's "Minuet".

## DIMENSIONS

**Size:** 5-7/8" (W) x 3-13/16" (H) x 2-11/16" (D)

148 (W) x 99.8 (H) x 68 (D) mm

**Weight:** 14.1 oz. (410 g) without battery

15.5 oz (450 g) with battery

## LENSES

		EF 35-80 mm f/4.5-6	EF 35-105 mm f/4.5-5.6
Angle of View	Diagonal	63° - 30°	63° - 23°30'
	Vertical	38° - 17°	38° - 13°
	Horizontal	54° - 25°	54° - 19°20'
Optical Construction	8 elements in 8 groups	13 elements in 12 groups	
Minimum Aperture	22-32	22-27	
Shooting Distance	1.2 ft/0.37 m-infinity	2.8 ft/0.85 m- infinity	
Maximum Magnification	35 mm 0.12 (200 x 300mm) 7-7/8" x 11-13/16" 80 mm 0.25 (96 x 144mm) 3-3/4" x 5-11/16"	35 mm 0.054 (443 x 667mm) 17-7/16" x 26-1/4" 105 mm 0.16 (150 x 224mm) 5-7/8" x 8-13/16"	
Filter Size	52 mm	58 mm	
Hood	EW-62	EW-68 B	
Case (hard/snap)	LH-C13/ES-C9	LH-B12/ES-C9	
Length x Max. Diameter	2-3/8" x 2-11/16" 61 x 68.6 mm	2-3/4" x 2-1/2" 70.6 x 63.3 mm	
Weight	6.3 oz. (180 g)	9.9 oz. (280 g)	

## BUILT-IN FLASH

**Type:** Built-in TTL automatic flash. Manually retractable. Series control system.

**Guide Number (ISO 100):** 39•ft/14•m

**Flash Coverage Angle:** Covers the angle of view of a 35 mm lens

**Recycling Time:** Approx. 2 sec.

**Flash Duration:** 1 ms or less

**Flash Control System:** TTL automatic control by metering light reflected from the film plane.

**Shooting Distance Range:** 2.3-16.4 ft/0.7-5 m (Based on ISO 100 film. The shooting distance range changes according to film speed.)

**AF Auxiliary Light:** Automatically emitted when the shutter button is pressed half-way if necessary. Effective distance range: 3.3-13.1 ft/1-4 m

**Power Source:** Same as that of the body

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

Subject to change without notice.

