Canon EF

English Edition

You can let it do it for you
or you can do it for yourself

It's just
that kind
of camera

SPECIFICATIONS

Type: 35mm single-lens-reflex AE (Automatic Exposure) camera with focal plane shutter.
Format: 24 x 36mm
Standard Lens: Canon FD 50mm f/1.4, S.S.C., Canon FD 55mm f/1.2, S.S.C., or Canon FD 50mm f/1.8, S.C.
Interchangeable Lenses: FD series for AE photography; FL series for stopped-down metering.
Viewfinder Information: Aperture scale with meter needle, over and underexposure warning marks, stopped-down metering index mark, shutter speed scale and indicator.
Focusing Screen: Center spot microprism.
Field of View: 93% of actual picture area.
Magnification: 0.82x at infinity with the standard 50mm lens.
Eyepiece Accessories: Angle finders, magnifier, 4 strengths of eyesight correction lenses, and an eye-cup can be attached.
Electro-Mechanical Shutter: Vertically moving metal focal plane shutter, 1/2 sec-1/1000 sec. and B in 11 steps (mechanically controlled); 30-1 sec. in 6 steps (electronically controlled).
Shutter Speed Dial: B, 1-1/1000 sec. . . . . white marking
1/125 sec. (X sync). . . . . orange marking
30-2 sec. . . . . yellow marking
Slow Shutter Speed Indicator: Light Emitting Diode (LED) flashes when shutter speeds from 1-30 sec. are used.
Self-Timer: Built-in. A self-timer lock button prevents unintentional operation.
Exposure Adjustment: Variable Aperture AE with FD series lenses. Stopped-down metering is possible with FL lenses.
Exposure Meter Coupling Range: EV −2 to EV 18 at ASA 100 with FD 50mm f/1.4 lens: 8 sec. at f/1.4 to 1/1000 sec. at f/16. At ASA 25, 30 sec. at f/1.4 to 1/1000 sec. at f/8.
Film Speed Range: ASA 12-ASA 3200
Power Source: Two 1.3 volt mercury batteries (Mallory PX625, Eveready EPX625).
AE Memory Lock: The f/stop set by the Variable Aperture AE control may be locked in by pressing a button.
Flash Synchronization: X synchronization at 1/125 sec. and below; M, MF, and FP bulb synchronization at 1/15 sec. and below.
Flash: Built-in hot shoe has direct contacts (for Canon Auto Tuning System). The sync terminal is on the left end of the camera body with a built-in cover.
Canon Auto Tuning (CAT) System: Possible by combination of the Flash Auto-Ring A_2 or B_2 and the Speedlite 133D.
Multiple Exposures: Possible by depressing the multiple exposure button while operating the winding lever.
Lens Mount: Canon Breech-Lock for FD, FL and R lenses.
Depth-of-Field Preview: By pressing the multi-purpose lever, after manually setting the aperture ring and winding the shutter.
Automatic Blank Shot Mechanism: Film may be advanced to frame No.1 simply by using the winding lever. Use of the shutter button is not needed when making blank shots.
Film Loading: Easy film loading by multi-slot take-up spool.
Winding Lever: Single stroke 120° throw. 15° from the camera body.
Film Rewinding: Performed by the rewind button and crank.
Frame Counter: S-1-38, automatically resets when back cover is opened.
Dimensions: Body only - 151 x 96 x 48mm, (5-15/16" x 3-3/4" x 1-7/8"). With f/1.4 Lens - 151 x 96 x 100mm (5-15/16" x 3-3/4" x 3-15/16")
Weight: Body only - 740g (1 lb. 10 ozs.). With f/1.4 Lens - 1,045g (2 lb. 5 ozs.)

Subject to change without notice.

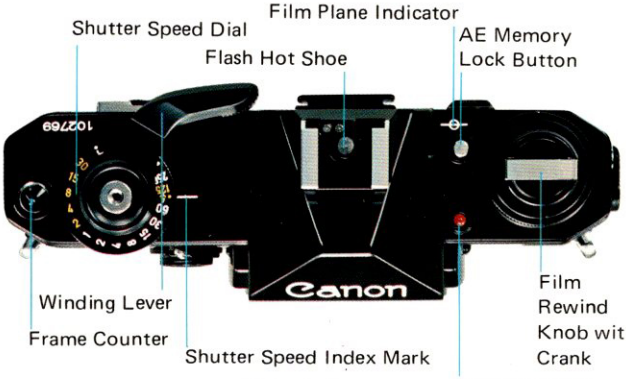
5 FD lenses give high performance automatic exposure. Wide range of focal lengths from 15mm full-frame fish-eye to 300mm telephoto. Other lenses from 7.5mm circular fish-eye to 1200mm super-telephoto.

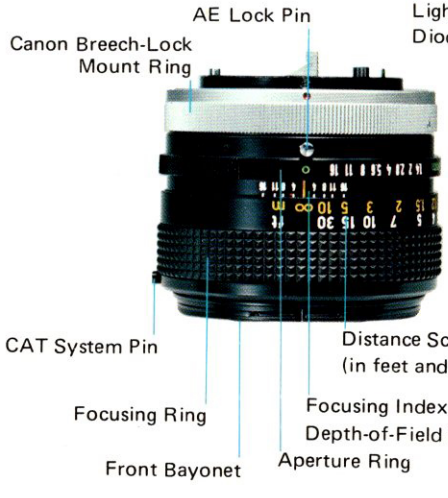
6 Multiple exposures just by pushing a button while operating the winding lever. The frame counter is designed not to move during multiple exposures, and perfect registration of frames is insured.

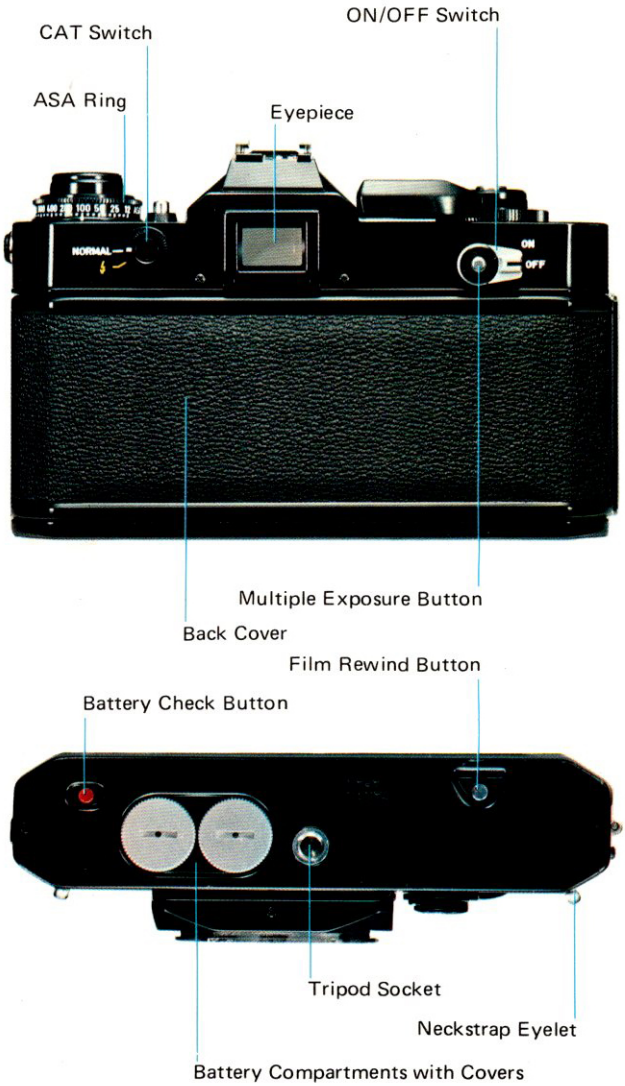
7 CAT System for full aperture automatic exposure flash photography. The f/stop is automatically set with synchronization at 1/125 second.

8 Comfortable to hold and easy to operate. All controls are designed to move efficiently with light pressure.

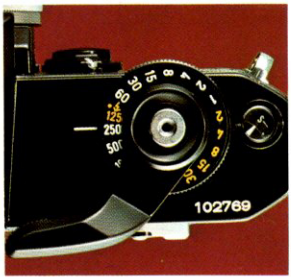
NOMENCLATURE






CAT Switch
ON/OFF Switch
ASA Ring
Eyepiece
Multiple Exposure Button
Back Cover
Film Rewind Button
Battery Check Button
Tripod Socket
Neckstrap Eyelet
Battery Compartments with Covers

UNIQUE PERFORMANCE OF EACH PART



Single Stroke Winding Lever
To advance the film, give the winding lever a single 120° stroke to the right. You will find that the winding lever moves with very light thumb pressure. With a plastic tip, it is designed for comfort in picture taking.

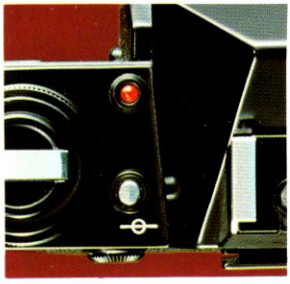
16 Different Shutter Speeds
The EF gives automatic exposure in 16 different shutter speeds, from 1/1000 second up to a full 30 seconds. This is one of the widest ranges of any automatic exposure SLR. The shutter speed is always clearly indicated in the viewfinder.
Flash photography is automatically coupled at a shutter speed of 1/125 second.

Multi-Purpose Lever (Self-Timer/Depth-of-Field Preview/ Stopped-Down Metering Lever)
This lever functions as a 10 second self-timer when unlocked and turned counterclockwise. When the lever is pushed in toward the lens, it allows depth-of-field preview and/or stopped-down metering.

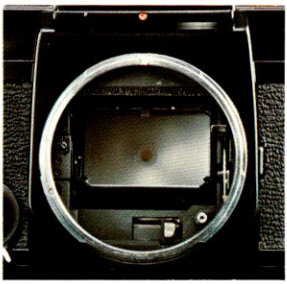
L-M Lever
When the L-M lever is set at L, the multi-purpose lever can be locked in its stopped-down position. When the lever is set at M, the EF's mirror can be fixed in the up position.

ON/OFF Switch
When the EF's ON/OFF switch is turned on, all electronic circuits begin to operate and the winding lever springs out to its stand-off position 15° away from the body ready for use. A special safety mechanism prevents the shutter from accidental release when the camera is turned off.

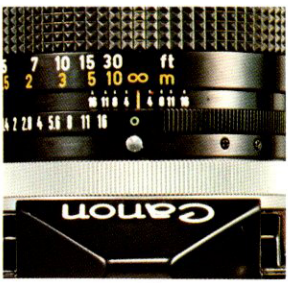
Simplified Multiple Exposures
The EF's multiple exposure button is located in the center of the ON/OFF switch. To make a multiple exposure, expose one frame and advance the film while pressing the multiple exposure button. The EF's film counter will not advance while a multiple exposure is being made, and perfect registration of frames is insured.



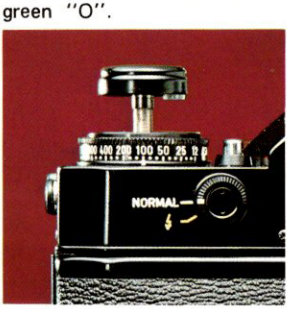
AE Memory Lock Button
When shooting through a window or against strong backlight, the exposure memory button can be used to lock the f/stop at an appropriate setting.



Fast Lens Changes
A precision breech-lock lens mount allows fast lens changes. As soon as a new lens is engaged by the mount, the EF automatically adjusts to the maximum aperture of the new lens.



Green Mark "O"
For automatic exposure photography, lock the aperture ring of the FD lens to the green "O".

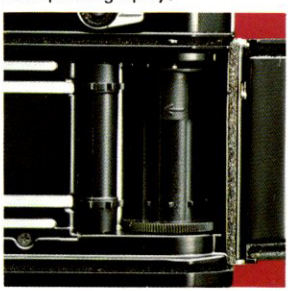


Film Rewind Crank and ASA Ring
To rewind the film, press the film rewind button at the bottom of the camera, rewind the film, and pull up the crank. This will open the back cover.
The EF accepts a wide variety of film with speeds ranging from ASA 12 to ASA 3200.

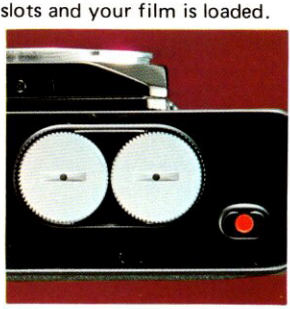
CAT Switch
Turn the CAT switch to ϟ for flash photography with automatic exposure and automatic flash synchronization.

Battery Check with Light Emitting Diode (LED)
The LED is used to check the power level remaining in the EF's two batteries. It also blinks during long exposures to confirm camera operation.

Flash Hot Shoe
The flash hot shoe has a direct synchronization contact for an electronic flash unit. It also has contacts for the Canon CAT System of automatic flash photography.



Multi-Slot Take-Up Spool
The multi-slot take-up spool speeds up film loading. Just insert the film into one of the slots and your film is loaded.



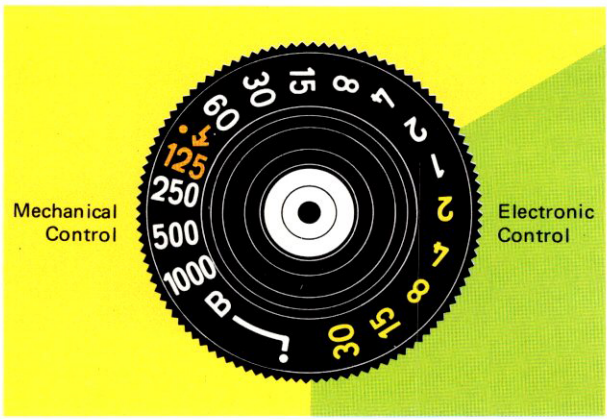
Mercury Batteries
The EF is powered by two 1.3v mercury batteries. They are efficient, inexpensive, and can be purchased anywhere.

Variable Aperture AE Control Method

Although the Canon EF is a sophisticated electronic SLR, Variable Aperture AE control makes it simple to use. You just select the shutter speed appropriate to your lens and your subject, and the EF automatically adjusts its lens aperture to the proper f/stop. Whether you choose a fast shutter speed in bright light or a slow speed in weak light, Variable Aperture AE control assures you the right aperture setting every time.

Even extraordinarily slow shots of up to 30 seconds are perfectly exposed. The electronic shutter and automatic exposure control work together to guarantee correctly matched f/stop and shutter speed. During slow shots the EF eliminates guesswork by signalling with its Light Emitting Diode (LED). The LED blinks on and off for the entire exposure period, so you are always able to monitor the EF's operation.

Remember also that the EF utilizes both mechanical and electronic control in its precise electro-mechanical shutter. Electronic control of the shutter (1 to 30 seconds in six steps) insures reliable timing in the slow range of shutter speeds. Mechanical control in the normal range (1/1000 to 1/2 second in 10 steps) permits manual operation even if the batteries fail. Mechanical control of fast shutter speeds saves your batteries, and saves you the inconvenience of lost shots due to sudden battery failure. It is the combination of these two systems that makes the EF's shutter so versatile and so reliable.



Foolproof Photography with the Full-Information Viewfinder

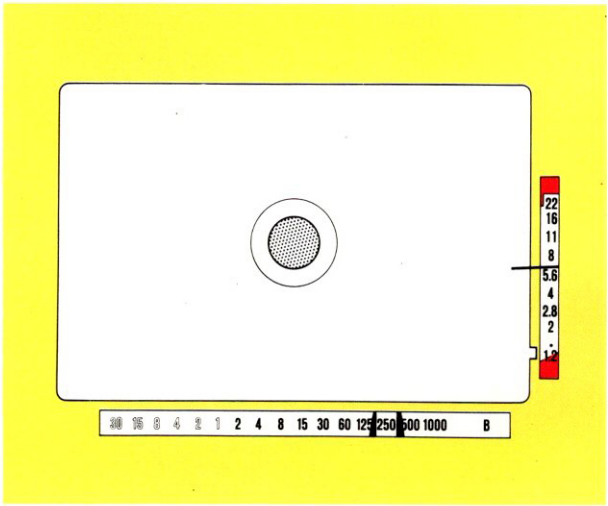
All the information needed for perfect photography is available right in the EF's viewfinder. It is no longer necessary to take your eye from the viewfinder to change f/stops or shutter speeds. This eliminates awkward movement of the camera while taking pictures and makes the EF ideal for quick shooting of fast-moving subjects.

The viewfinder information is arranged for easy reading. Shutter speeds are displayed in large numbers at the bottom of the viewfinder, and the speed selected is clearly marked with a frame. Any change in shutter speed can be verified by watching the movement of the frame along the shutter speed scale.

The f/stop setting is read on the right side of the viewfinder by using the aperture scale and meter needle. When an FD lens is mounted, its maximum aperture is automatically set on the aperture scale. Warning marks on both ends of the aperture scale caution against underexposure and overexposure.

The EF is easy to focus. Just by focusing the center spot microprism rangefinder, a sharp photographic image is guaranteed. With the use of an instant-return mirror, continuous

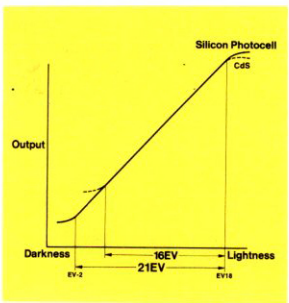
viewing of the subject is possible, allowing efficient picture composition. When FL or other manual lenses are mounted on the EF, use the stopped-down metering index mark found on the lower right side of the viewfinder.



·Light Metering

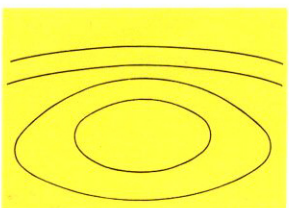
The EF uses a Silicon Photocell which has remarkable sensitivity and stability. By using the Silicon Photocell, instead of the conventional CdS photocell found in most SLR cameras, the EF provides an additional five f/stop exposure range.

The Canon EF has one of the widest metering ranges of any SLR, from EV −2 to EV 18, with an f/1.4 lens at ASA 100. This range is covered in 21 separate steps to allow perfect exposure under all lighting conditions. Even in the near darkness of EV −2, you still get perfect exposure of any subject that can be seen through the viewfinder. This exposure reading is set instantly under normal conditions and within 5 seconds at EV −2.



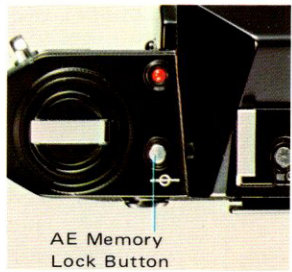
The graph shows the excellent linearity of the EF's Silicon Photocell when compared with the conventional CdS photocell.

The EF automatic exposure system uses Central Emphasis Metering to give reliable measurement of all subjects. The entire viewfinder screen is read by the Silicon Photocell with more emphasis on the center portion, where the main subject is likely to be located. This permits correct exposure of landscapes having a bright sky in the upper part of the picture area. The diagram shows the radiating pattern of sensitivity with the EF's Central Emphasis Metering system.

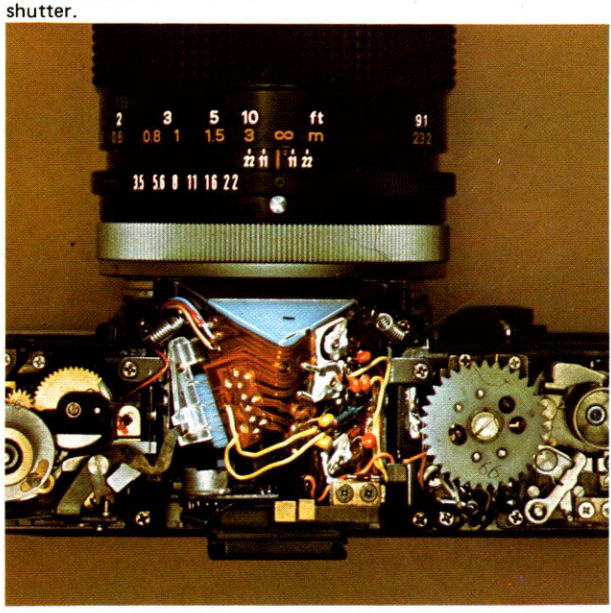


The AE Memory Lock Button

In unusual picture-taking situations, the AE Memory Lock Button allows you to obtain correct automatic exposure. If the subject is strongly backlighted or the entire scene is extremely light or dark, push in this button to lock the EF's light metering system at an appropriate f/stop. You can take a picture with the f/stop locked simply by releasing the shutter.



AE Memory Lock Button

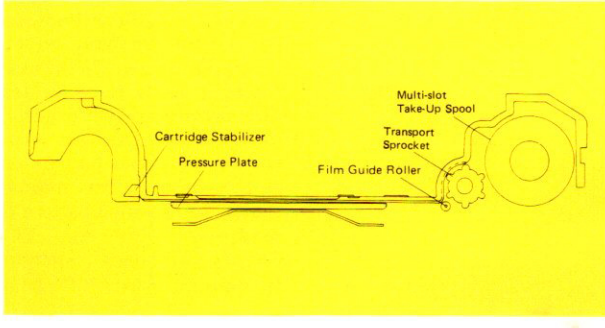


Advancing the Film

The EF is designed so that film advancing may be done quickly, smoothly and precisely.

The unique Automatic Blank Shot Mechanism in the EF eliminates the need to release the shutter button when advancing the film to frame number one. Simply operate the winding lever until the first frame is reached. The EF is the only high quality SLR with this feature.

Once a picture has been taken, advance the film by operating the winding lever with a single 120° throw to the right. This winding lever cannot be operated unless the EF's power is switched on.

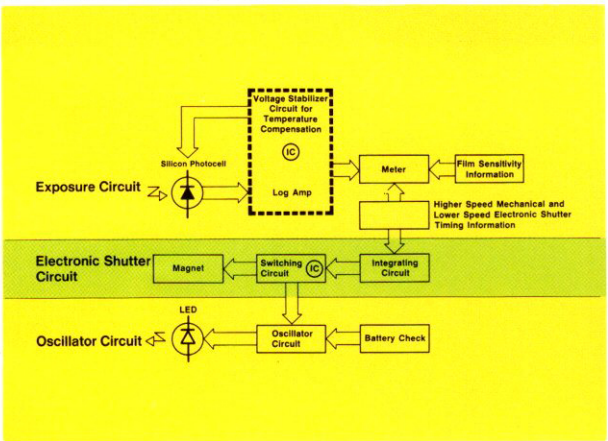


Easy Multiple Exposure

The EF's Multiple Exposure Button makes double or multiple exposures possible. Just push the button in while you operate the winding lever. The camera is ready for the next exposure on the same frame of film.
There is no need to worry about the frame number, because the counter does not advance when the Multiple Exposure Button is pushed. Also, exact registration of overlapping frames is insured.

EF Electronic Circuits

Canon EF electronic circuits guarantee perfect automatic exposure. They consist of an exposure circuit, an electronic shutter circuit, and an oscillator circuit.
The exposure circuit controls the amplification of the tiny signal from the Silicon Photocell. So it is now possible to utilize a Silicon Photocell with only a 2.6 volt power supply. A special feature of the exposure circuit is the combination of a logarithmic amplifier and a voltage stabilizer circuit into one integrated circuit.
The logarithmic amplifier has a MOS-BI structure of high impedance resulting from the unification of the MOS-FET and the BI-POLAR transistor. As a super high sensitive exposure meter, it amplifies a tiny signal to move the meter needle in registering light sources as low as EV−2.
The voltage stabilizer circuit allows the exposure circuit to function normally under all conditions. It prevents



error due to the difference in temperature between the meter and the logarithmic amplifier. At the same time it functions as a bias to the logarithmic amplifier.
The electronic shutter circuit is a monolithic integrated circuit designed to couple with any other operating circuit.
The oscillator circuit provides power for the light emitting diode (LED). The LED is used as a confirmation light during battery checking or when making a long electronic exposure.

The Canon Auto Tuning System

The CAT System of automatic flash photography uses the Flash-Auto Ring and the Speedlite 133D. The CAT System automatically sets the proper exposure according to the charging level of the flash unit and the focused distance from the subject. Using this system, automatic exposure photography is now possible even at night, with shutter speeds as fast as 1/125 second.

FD LENSES

The EF uses the same high quality FD lenses that Canon designed for its finest SLR camera, the F-1. The FD lens series allows the EF to give extremely accurate automatic exposure light metering with the lens at maximum aperture.

Sharp resolving power in FD lenses assures good focus throughout the entire shooting range, whether close-up or at infinity. No longer will you find distortion in the picture image when shooting close even with a super-wide-angle lens. With the Canon Floating System, the 17mm, 20mm, 24mm, 35mm f/2 and the 55mm AL lenses give distortion-free images.

Faithful color transmission and fine definition are found in all FD lenses with the application of Canon Spectra Coating. The thickness of the coating is changed to suit the distinct property of each element of the lens.

Canon has also developed Super Spectra Coating (S.S.C.). This multilayer coating is applied to the lens to prevent ghost images and flare. Spectra Coating assures that all Canon lenses have the same fine degree of color transmission.

Any lens, even the 7.5mm circular fish-eye or a wide-angle, can be used without having to lock the mirror in the up position. You can see the entire visual field through the viewfinder.

Since the EF uses a breech-lock mount, lenses can be attached and detached easily. The locking mechanism is built-in to keep the lens ready for a quick change and to minimize wear on the camera body.

TABLE FOR LENSES

Lens	Type	Angle of View	Aperture System
Fish-eye 7.5mm f/ 5.6 S.S.C	Special	180°	Manual
Fish-eye FD 15mm f/ 2.8 S.S.C.	Special	180°	Automatic
FD 17mm f/ 4 S.S.C.	Super-wide-angle	104°	Automatic
FD 20mm f/ 2.8 S.S.C.	Super-wide-angle	94°	Automatic
FD 24mm f/ 2.8 S.S.C.	Super-wide-angle	83°	Automatic
FD 28mm f/ 3.5 S.C.	Wide-angle	75°	Automatic
* FD 35mm f/ 3.5 S.C.	Wide-angle	64°	Automatic
TS 35mm f/ 2.8 S.S.C.	Special (Tilt & Shift)	64°/79°	Manual
* FD 35mm f/ 2 S.S.C.	Wide angle	64°	Automatic
FD 50mm f/ 3.5 S.S.C.	Macro	46°	Automatic
* FD 50mm f/ 1.8 S.C.	Standard	46°	Automatic
* FD 50mm f/ 1.4 S.S.C.	Standard	46°	Automatic
FD 55mm f/ 1.2 S.S.C.	Standard	43°	Automatic
FD 55mm f/ 1.2AL S.S.C.	Standard	43°	Automatic
*** FD 85mm f/ 1.8 S.S.C.	Telephoto	29°	Automatic
FLM 100mm f/ 4	Macro	24°	Manual
FD 100mm f/ 2.8 S.S.C.	Telephoto	24°	Automatic
FD 135mm f/ 3.5 S.C.	Telephoto	18°	Automatic
FD 135mm f/ 2.5 S.C.	Telephoto	18°	Automatic
FD 200mm f/ 4 S.S.C.	Telephoto	12°	Automatic
FD 300mm f/ 5.6 S.C.	Super-telephoto	8°	Automatic
FD 35–70f/ 2.8–3.5 S.S.C.	Zoom	64°–31°	Automatic
FD 100–200mm f/ 5.6 S.C.	Zoom	24°–12°	Automatic
*** FD 85–300mm f/ 4.5 S.S.C.	Zoom	29°–8°	Automatic
FL-F 300mm f/ 5.6	Super-telephoto	8°	Automatic
FL-F 500mm f/ 5.6	Super-telephoto	5°	Automatic
** FL 400mm f/ 5.6	Super-telephoto	6.2°	Automatic
** FL 600mm f/ 5.6	Super-telephoto	4.1°	Automatic
** FL 800mm f/ 8	Super-telephoto	3.1°	Automatic
** FL 1200mm f/ 11 S.S.C.	Super-telephoto	2.1°	Manual

* Equipped with a coupling pin for the Canon Auto Tuning System.
** Front component interchangeable type. Focusing Unit (1-component, 2-element, FL automatic diaphragm, with A-M ring).
*** Will be marketed in the near future.

■The Canon FL 5200mm f/14 and FL-F 300mm f/2.8 are available by special order.

SPECIFICATIONS

Type: 35mm single-lens-reflex AE (Automatic Exposure) camera with focal plane shutter.

Format: 24 x 36mm

Standard Lens: Canon FD 50mm f/1.4, S.S.C., Canon FD 55mm f/1.2, S.S.C., or Canon FD 50mm f/1.8, S.C.

Interchangeable Lenses: FD series for AE photography; FL series for stopped-down metering.

Viewfinder Information: Aperture scale with meter needle, over and underexposure warning marks, stopped-down metering index mark, shutter speed scale and indicator.

Focusing Screen: Center spot microprism.

Field of View: 93% of actual picture area.

Magnification: 0.82x at infinity with the standard 50mm lens.

Eyepiece Accessories: Angle finders, magnifier, 4 strengths of eyesight correction lenses, and an eye-cup can be attached.

Electro-Mechanical Shutter: Vertically moving metal focal plane shutter, 1/2 sec-1/1000 sec. and B in 11 steps (mechanically controlled); 30-1 sec. in 6 steps (electronically controlled).

Shutter Speed Dial: B, 1-1/1000 sec. . . . . white marking
1/125 sec. (X sync). . . . . orange marking
30-2 sec. . . . . yellow marking

Slow Shutter Speed Indicator: Light Emitting Diode (LED) flashes when shutter speeds from 1-30 sec. are used.

Self-Timer: Built-in. A self-timer lock button prevents unintentional operation.

Exposure Adjustment: Variable Aperture AE with FD series lenses. Stopped-down metering is possible with FL lenses.

Exposure Meter Coupling Range: EV −2 to EV 18 at ASA 100 with FD 50mm f/1.4 lens: 8 sec. at f/1.4 to 1/1000 sec. at f/16. At ASA 25, 30 sec. at f/1.4 to 1/1000 sec. at f/8.

Film Speed Range: ASA 12-ASA 3200

Power Source: Two 1.3 volt mercury batteries (Mallory PX625, Eveready EPX625).

AE Memory Lock: The f/stop set by the Variable Aperture AE control may be locked in by pressing a button.

Flash Synchronization: X synchronization at 1/125 sec. and below; M, MF, and FP bulb synchronization at 1/15 sec. and below.

Flash: Built-in hot shoe has direct contacts (for Canon Auto Tuning System). The sync terminal is on the left end of the camera body with a built-in cover.

Canon Auto Tuning (CAT) System: Possible by combination of the Flash Auto-Ring A_2 or B_2 and the Speedlite 133D.

Multiple Exposures: Possible by depressing the multiple exposure button while operating the winding lever.

Lens Mount: Canon Breech-Lock for FD, FL and R lenses.

Depth-of-Field Preview: By pressing the multi-purpose lever, after manually setting the aperture ring and winding the shutter.

Automatic Blank Shot Mechanism: Film may be advanced to frame No.1 simply by using the winding lever. Use of the shutter button is not needed when making blank shots.

Film Loading: Easy film loading by multi-slot take-up spool.

Winding Lever: Single stroke 120° throw. 15° from the camera body.

Film Rewinding: Performed by the rewind button and crank.

Frame Counter: S-1-38, automatically resets when back cover is opened.

Dimensions: Body only - 151 x 96 x 48mm, (5-15/16" x 3-3/4" x 1-7/8"). With f/1.4 Lens - 151 x 96 x 100mm (5-15/16" x 3-3/4" x 3-15/16")

Weight: Body only - 740g (1 lb. 10 ozs.). With f/1.4 Lens - 1,045g (2 lb. 5 ozs.)

Subject to change without notice.

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