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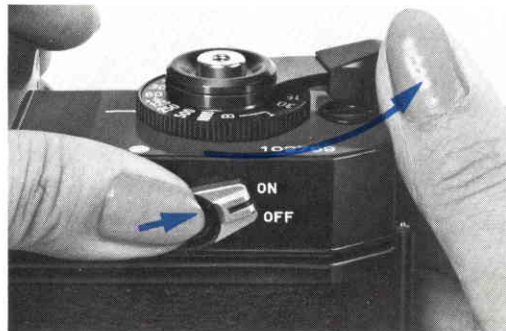
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### **K** Making Multiple Exposures

Exposing the same frame of film with two or more images is an exciting technique used by many photographers to create dream-like scenes, abstract designs, motion studies, or humorous pictures. Your imagination is the only limiting factor in this creative process, because Canon has made multiple exposure photography so easy to perform with the EF camera. A multiple exposure button is located in the center of the ON/OFF switch. After making your first exposure, hold in this button with your left thumb while operating the winding lever in the normal way. The movement of the film transport sprocket is stopped, while the winding lever recocks the shutter. Now you are ready for your next shot which will be in perfect registration directly on top of the first shot. This process may be repeated any number of times, and the frame counter is stopped until the film is actually advanced to the next frame.

- The multiple exposure button need not be depressed during the entire winding operation, but only needs to be held in at the beginning of the stroke.
- In multiple exposure photography, exposures on the same frame of film are additive. In the AE mode of operation, the Canon EF automatically deter-

mines the proper exposure needed for a single frame. When making multiple exposures, less exposure must be given to each shot. One simple way to do this is to reset the ASA ring to a higher setting, which will fool the camera into decreasing the exposure reading. Multiply the normal ASA of the film by 2 for a double exposure, by 3 for a triple exposure, by 4 for a quadruple exposure, and so forth. However, when making multiple exposures of night lights or a subject against a black background, do not reset the ASA ring, because the black areas in the scene will become overexposed.

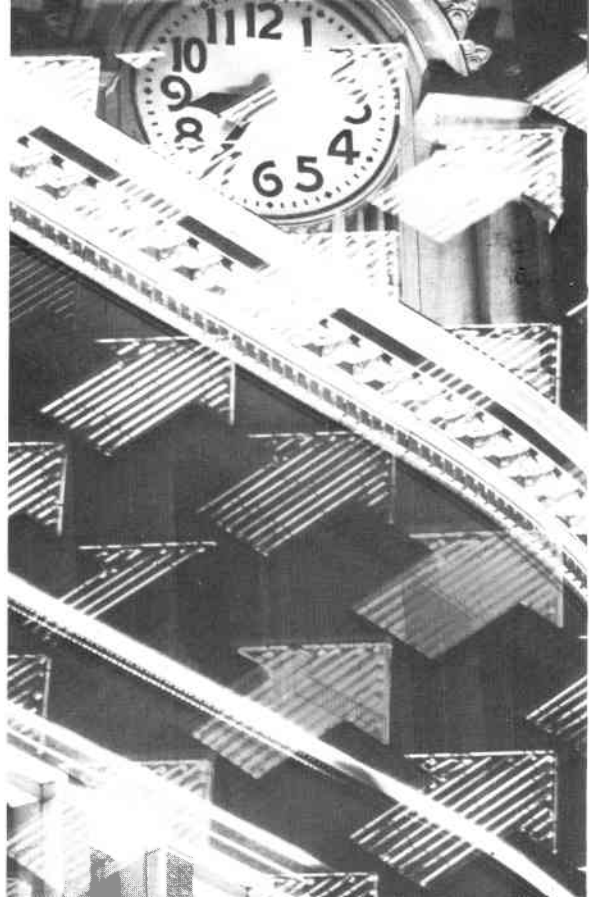
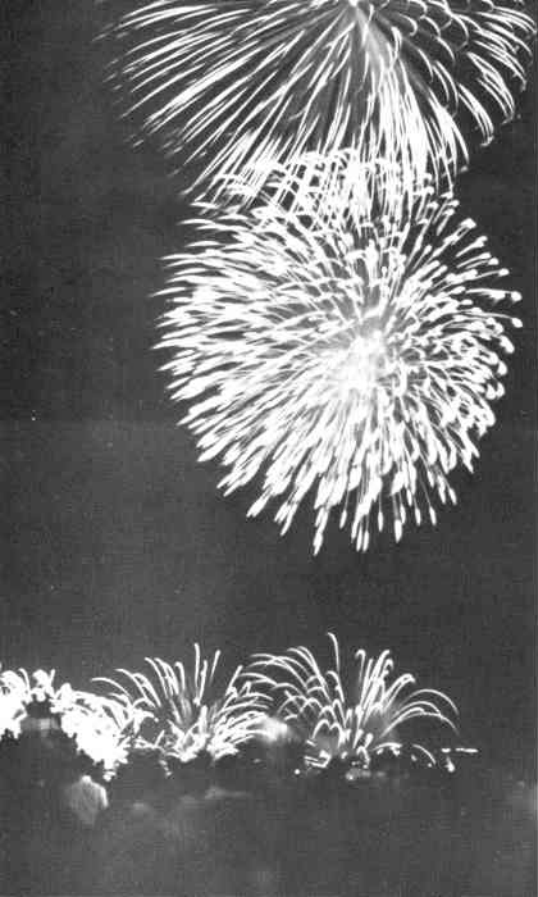


● In shooting fireworks, the recommended way to record multiple bursts on the same frame is not by using the multiple exposure button, but by mounting the camera on a tripod, setting the shutter speed dial at "B" and holding the shutter open with a cable release. Set the aperture ring manually to the appropriate f/stop, using the following table:

ASA	25	50	100	200	400
f/stop	5.6	8	11	16	22

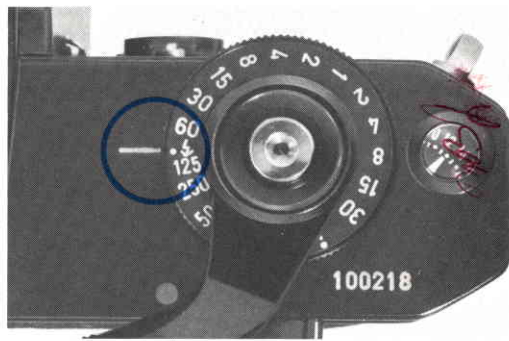
● Interesting motion studies can be made by mounting the camera on a tripod, using color film, and making a triple exposure through a red, a green and blue filter respectively. Select a scene having both stationary and moving parts, such as a seascape with rocks and surf, a crowded street with many moving cars and people, or a tree whose leaves are rustling in the breeze. Set the camera on a sturdy tripod, focus and compose in the normal way. Multiply the film's normal ASA by 3 and set this higher rating on the camera's ASA ring. Put a red

filter (R1) over the lens and make the first exposure in the AE mode of operation. Press the multiple exposure button, and operate the winding lever. Replace the red filter with a green filter (G1), making certain not to move the camera at all. Make the second exposure, and again operate the multiple exposure button and winding lever. Replace the green filter with a blue one (CCB12) and make the third exposure. This sounds like an unduly complex method of taking photographs, but the results are well worth the extra effort. The stationary objects in the scene remain motionless and are rendered in their natural colors, whereas the moving objects become a "rainbow" of separate red, green and blue images. In the above method you might have to experiment with manual exposures through the three filters to get perfectly exposed slides. Use the filter factor for each filter in your exposure calculations. Consult your local camera dealer for additional advice.

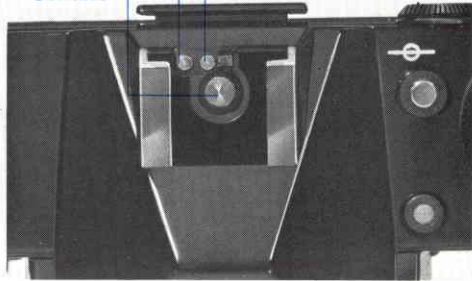


## L Taking Pictures by Flash

Even though the Canon EF can take pictures by candlelight, there are certain situations which require using an external light source. In dim light, when you want to stop fast action or take crystal clear snapshots full of vivid colors and fine details, you need flash. If you want to avoid harsh shadows when shooting in bright sunlight, flash can be used as fill-in light. At night, a nearby subject can be illuminated with flash. Since the Canon EF uses a vertically moving metal focal plane shutter, synchronization with electronic flash is possible at all speeds up to and including 1/125 sec. With a flash hot shoe built into the top of the pentaprism, the EF can easily accept any direct mounting electronic flash unit, including the specially-designed Canon Speedlite 133D. This flash unit (with the Flash-Auto Ring A<sub>2</sub> or B<sub>2</sub> attached to the front bayonet of the lens) employs the Canon Auto Tuning (CAT) System to determine the proper exposure in flash photography. The focused distance of the lens and the charging level of the 133D are sent as electrical signals to the camera's Variable Aperture AE control, which then adjusts the diaphragm automatically to produce



Synchronization Contact      CAT System Contacts



← Left: Canon FD 35mm f/2 S.S.C., B at f/16, ASA 400.

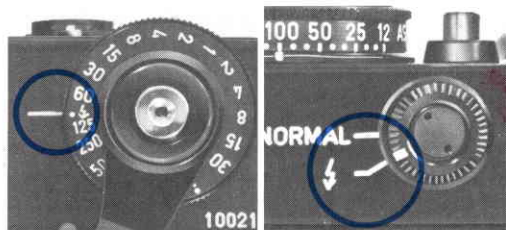
Right: Canon FD 100-200mm f/5.6 S.C.W.D. (Super Compact Wide Diaphragm) at 1/30 sec., AE, ASA 400.

# BASIC OPERATION

well-exposed shots. Therefore, the CAT System of electronic flash photography is as easy as normal AE photography. For electronic flash units requiring the use of an external PC cord, a sync terminal with a spring-loaded plastic cover is provided on the left end of the camera. When using flash bulbs, a reflector-type holder, such as the folding Canon Flash V3, can be mounted into the flash hot shoe. M, MF, and FP flash bulbs synchronize at 1/15 sec. and below.



## CAT SYSTEM



- When using the CAT System with the EF camera, the shutter speed dial **must** be set at "125," the CAT switch set to the "⚡" position, and the aperture ring set at the green "O." With all other types of flash, the switch may be left at its "NORMAL" position, but the aperture ring has to be set manually.

- At present, the CAT System may be used with four Canon lenses: two standard 50mm lenses, the f/1.4 and f/1.8 and two 35mm wide-angle lenses, the f/2 and f/3.5.

- Normal AE photography may be performed at any time when using the CAT System by returning the CAT switch to the "NORMAL" position.

- Two electronic flash units, one direct-mounting type inserted in the flash hot shoe and another using a PC cord plugged into the sync terminal, cannot be used simultaneously on the EF. When a PC cord is plugged into the sync terminal, the flash hot shoe is automatically disconnected.



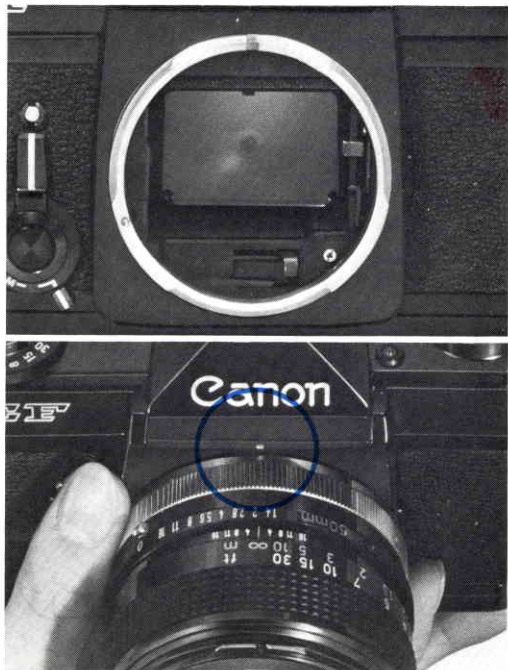


Canon FD 50mm f/1.4 S.S.C.,  
SPEEDLITE 133D with FLASH-AUTO  
RING Bz, 1/125 Sec., AE, ASA 400



## M Changing Lenses

One of the nice features of an SLR is its lens interchangeability. An SLR is not really a **SINGLE LENS** reflex at all, because it can use many lenses of various focal lengths. In the design of an SLR, the type of lens mount and its construction are very important factors. The EF camera uses the Canon Breach-Lock Mount first developed in 1959. This unique mount combines the virtues of sturdiness, rugged dependability and fast operation. The mount holds the lens securely in place with absolutely no wobble or play and insures that the lens is always exactly the same distance from the film plane. Changing lenses is a rapid procedure requiring a little more than one-eighth of a turn of the breach-lock ring on the back of the lens. To remove the lens from the camera, turn the breach-lock ring counterclockwise until it stops and pull the lens away from the camera body. Mounting another lens on the camera body is a simply procedure. Just align the red dot on the breach-lock ring of the lens with the red dot located under the name "Canon" engraved on the front of the camera's pentaprism. Push the back of the lens into the camera body and turn the breach-lock ring clockwise until it is tight.



## BASIC OPERATION

- When the camera body and lens are stored separately, a rear lens cap attached to the back of the lens and a body cap on the camera are recommended.
- Avoid direct sunlight when changing lenses.
- On Canon FD lenses without an AE lock pin and on all FL and R lenses, make sure the breech-lock ring is turned to its full counterclockwise position (the red dot on the ring is opposite the focusing index mark) before mounting the lens.

Canon FD 24mm f/2.8 S.S.C., 1/1000 sec., AE, ASA 400.



## N Using the Self-Timer

The self-timer on the EF provides a delay of approximately 10 sec. from the time the shutter button is pressed until the picture is actually taken. The self-timer can be used in place of a cable release to gently and smoothly release the shutter when slow speeds are used. Also, it allows the photographer to include himself in his own pictures. Depress the self-timer lock button, located on the front right side of the camera, while turning the multi-purpose lever counterclockwise to unlock it. Cock the lever by continuing to turn it counterclockwise until it stops. Activate the self-timer by pressing the shutter button.

- The camera is usually placed on a tripod or other sturdy support when using the self-timer.
- When taking a self-portrait, the exposure is automatically determined at the instant the shutter button is pressed and not when the picture is actually taken. Therefore, do not stand directly in front of the lens, as the Variable Aperture AE control might be fooled into producing an improper exposure. To prevent stray light from entering the viewfinder from the rear and possibly affecting the meter reading, it is a good idea to cover the eyepiece with your hand just before pressing the shutter

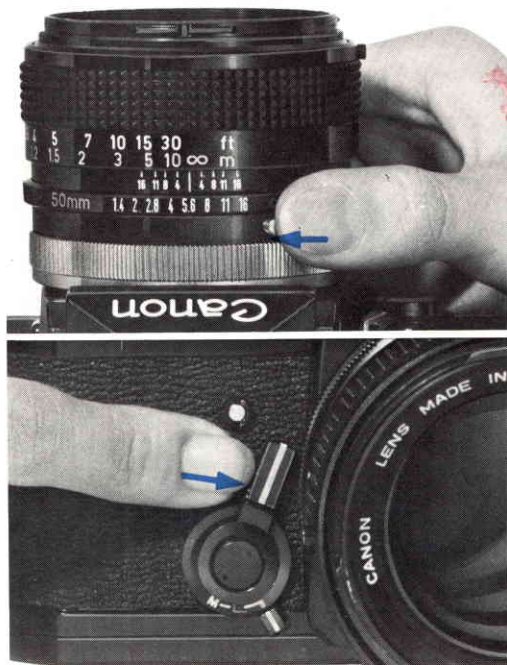
button. Or you can take off the rubber eyecup and close off the viewfinder completely by slipping the plastic eyepiece/hot shoe cover over the eyepiece.

- After using the self-timer, the multi-purpose lever should be reset to its vertical, locked position.



### **O** Previewing Depth-of-Field

If you focus on a particular subject and take a picture, some objects in front of and behind the main subject will be "in focus" in the final photograph. The distance between the nearest and farthest objects, which appear sharp, is called "depth-of-field." Three factors influence depth-of-field: the  $f$ /stop at which the picture is taken, the focal length of the lens, and the focused distance between the camera and subject. Depth-of-field increases as the lens is opened-up. At  $f/1.4$ , the maximum aperture of the standard 50mm lens, depth-of-field is very shallow permitting quick and easy focusing on the main subject. At the same  $f$ /stop and focused distance, lenses with short focal length (wide-angle lenses) have inherently greater depth-of-field than long lenses in the telephoto range. Also, at very close distances between the camera and subject, any lens has shallow depth-of-field. To preview depth-of-field in the viewfinder of the EF, follow this procedure: First operate the winding lever to cock the shutter. After you have focused and composed your picture in the normal way, check the aperture scale in the viewfinder and note the  $f$ /stop selected by the camera. Unlock the aperture ring and manually set it at this  $f$ /stop. Push the multi-purpose lever in toward

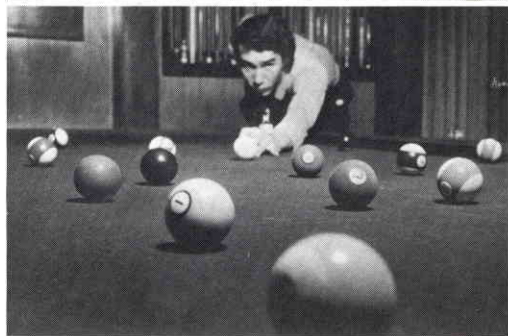
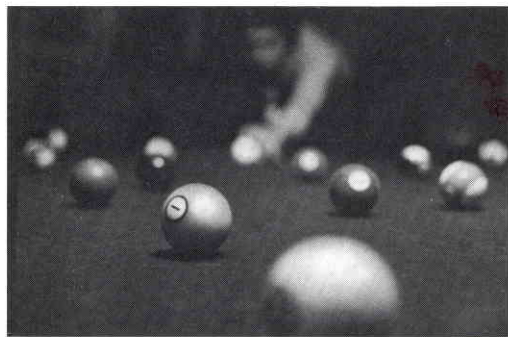
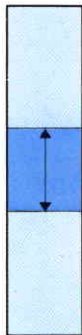




f/4



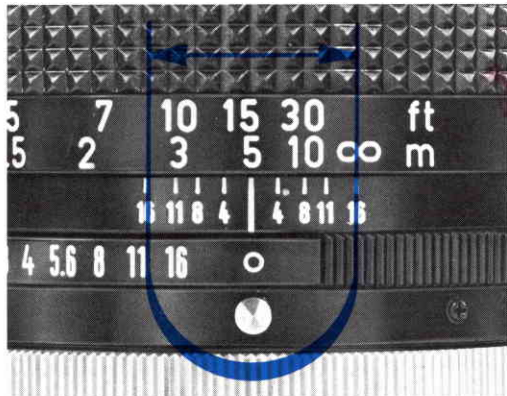
f/16



## BASIC OPERATION

the lens until it stops. The viewfinder screen will darken offering you a visual preview of the depth-of-field. Another way of determining the depth-of-field is to check the depth-of-field scale engraved on the lens barrel. The f-numbers appear at both sides of the focusing index mark indicating the near and far limits of depth for any given focused distance and lens opening. For example, with the standard 50mm lens focused at 15ft. (5m), depth-of-field at f/16 extends from 8ft. (2.5m) to infinity ( $\infty$ ). This method is particularly useful at small f/stops, when a visual preview of the depth-of-field becomes difficult, because the viewfinder screen gets too dark.

- Selective focus is a creative technique used by many photographers to throw a distracting or unimportant background (or foreground) out of focus. Try using a slow film (ASA 100 or below) and a normal or telephoto lens. Focus on a subject close to the camera. Then choose a fast shutter speed which will permit the camera's AE control to select a large f/stop, such as f/1.4 – 4.

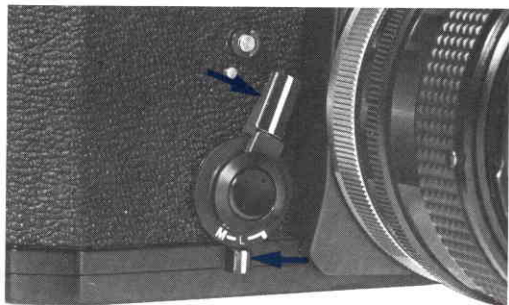
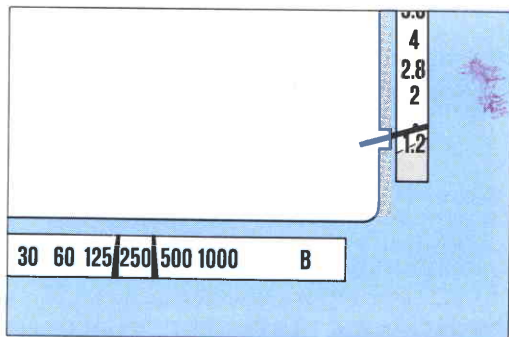


- For those shots which demand almost unlimited depth-of-field, where every object in the photograph appears sharp, use your standard 50mm lens (or better yet, a wide-angle) and focus about half-way in-between the nearest and farthest object. Adjust the shutter speed dial until the meter needle in the viewfinder points to f/16. If necessary, mount the camera on a tripod when slow shutter speeds are required.

## P Taking a Stopped-Down Meter Reading

When Canon FL or manual lenses and most accessories, such as a belows unit, extension tubes, or a microscope adapter, are used on the EF, it is necessary to take a stopped-down meter reading. Stopping-down the lens is done in exactly the same manner as previewing depth-of-field described in the preceding section. While the lens is stopped-down, adjust the aperture ring and/or shutter speed dial until the meter needle inside the viewfinder is aligned with the stopped-down metering index mark. Release the multi-purpose lever and press the shutter button to take a perfectly exposed photograph.

- During stopped-down metering at small apertures, it is very difficult to focus properly, because depth-of-field is very deep, and the viewfinder screen is dark. Therefore, focus first before taking a stopped-down reading.
- The multi-purpose lever may be locked into its stopped-down position. Move the L-M lock lever to the red "L" position. Then push the multi-purpose lever in toward the lens.





## BASIC OPERATION

- On manual lenses and accessories, it is not necessary to push the multi-purpose lever in toward the lens. Simply adjust the f/stop or shutter speed until the meter needle is aligned with the stopped-down metering index mark. When using manual accessories between the camera body and an FD lens, lock the automatic/manual aperture lever in the manual position before installing the lens. On all FD lens except one, this is accomplished simply by pushing the largest lever on the back of the lens counterclockwise until it stops and locks into place. On the FD 50mm f/1.8 S.C. lens, the lever must be held in place by moving the manual lock lever to the "L" position.

- You cannot make a meter reading with the 7.5mm fish-eye lens mounted on the EF, because the aperture scale is not visible. Use a hand-held meter instead.

FD 50mm f/1.4 S.S.C.



Automatic/Manual Aperture Lever

FD 50mm f/1.8 S.C.



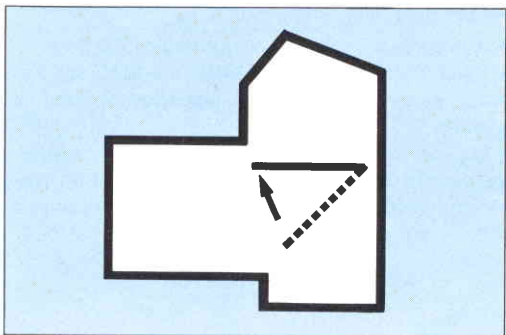
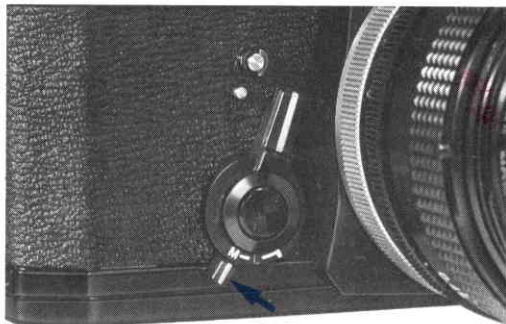
Automatic/Manual Aperture Lever

Manual Lock Lever



## **Q** Locking the Mirror Upward

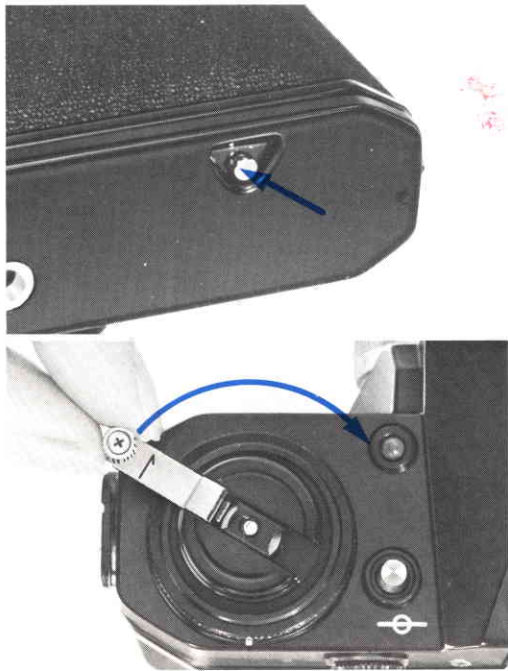
Whenever it is imperative to completely eliminate all camera movement, you can lock the mirror in the "up" position before taking a picture. This is particularly necessary when the EF is mounted on a microscope or a bellows unit, where the slightest vibration of the camera is magnified many times in the final photograph. After you have focused, lock the multi-purpose lever in its stopped-down position and take a meter reading. Then, turn the L-M lock lever to the orange "M" position, which will flip the mirror up and lock it there. Take the shot by using a cable release to trip the shutter.



### R Rewinding the Film

The winding lever will stop suddenly before the end of the stroke when you have reached the end of the roll of film. Don't try to complete the stroke, as the film sprocket holes may be torn. To rewind the film, push in the rewind button located on the bottom of the camera. Next, fold out the crank from the rewind knob and turn it in the direction of the small arrow until you feel the tension in the film lessen. This indicates that the film has left the multi-slot take-up spool. Turn the rewind crank one or two more revolutions to completely rewind the tip of the film leader back into the cartridge. Then, pull up the rewind knob to open the camera back and lift out the cartridge.

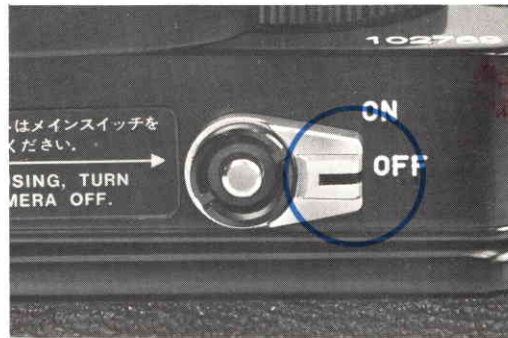
- Avoid direct sunlight when unloading the film.
- Keep your exposed cartridges in a cool, dry and shady place and have them processed as soon as possible.
- Do not leave the same roll of film in your camera for months on end, since black and white film may become fogged, and color film may experience a definite color-shift.



## S Turning the Camera Off

After you finish using the Canon EF, you should turn off the battery current flowing to the camera's electrical circuits. Move the ON/OFF switch to the "OFF" position, and push the winding lever from its stand-off position back in toward the body to its locked position.

**Reminder:** To prevent unnecessary current drain from the batteries, be sure to turn the camera off after you are finished taking pictures.



# VII INTERCHANGEABLE LENSES



Canon offers the widest selection of interchangeable lenses for any Variable Aperture AE camera being manufactured today. The FD series of lenses permit full AE operation and range from an incredible 15mm full frame fish-eye which "sees" a full 180° to a 300mm telephoto having only an 8° angle of view. Included in this series is a 50mm macro lens focusing down to 8.4" with a life-size adapter, a 17mm super-wide-angle taking in 104° of view without rectilinear distortion, a 55mm f/1.2 AL lens employing an aspherical element to completely eliminate flare, and three zoom lenses, one equipped with macro focusing (the 35-70mm lens). The FL and manual series, although not designed for AE photography, can be used on the Canon EF in the stopped-down metering mode. Lenses from a 7.5mm circular fish-eye lens all the way up to a 1200mm super-telephoto are available from Canon. Three special FL-F telephoto lenses each use one or more artificial fluorite elements to help combat chromatic aberration, a universal problem present in telephoto lens designs. (Even a fantastic 5200mm f/14 mirror lens is available from the factory by special order.) All Canon lenses are world-famous for their incredible resolving power, high image contrast,

superior color balance, and lack of aberrations. Most lenses are now multi-layer coated with Canon's exclusive process, called "Super Spectra Coating." S.S.C. indicates multi-layer coating, whereas S.C. (Spectra Coating) indicates single-layer coating. Each Canon FD lens has an easy to hold diamond-studded rubber focusing grip and is supplied with a leather carrying case. In addition, most lenses have either a built-in or special bayonet-mounting lens hood. The latter can be easily stored on the lens in the reversed position. To produce pictures of the highest quality, always use Canon interchangeable lenses with your Canon EF.

# INTERCHANGEABLE LENSES

## FD SERIES (FOR AE OPERATION)

Type	Lens	Angle of View	Minimum Aperture	Closest focusing Distance		Filter Size (mm)	Hood	Length		Weight		
				(m)	(ft.)			(mm)	(ins.)	(g)	(lbs.)	(ozs.)
Full-Frame Fish-Eye	Fish-Eye FD 15mm f/2.8 S.S.C.	180°	f/16	.3	1	Four Built-in	Built-in	60.5	2-3/8	485	1	1
Super Wide-Angle	FD 17mm f/4 S.S.C.	104°	f/22	.25	.9	72	None	56	2-3/16	450	1	0
	FD 20mm f/2.8 S.S.C.	94°	f/22	.25	.9	72	None	58	2-1/4	345		12
	FD 24mm f/2.8 S.S.C.	83°	f/16	.3	1	55	+BW-55B	52.5	2-1/16	330		11-1/2
Wide-Angle	FD 28mm f/3.5 S.C.	75°	f/16	.4	1.5	55	+BW-55B	43	1-11/16	250		9
	*FD 35mm f/2 S.S.C.	64°	f/16	.3	1	55	+BW-55A	60	2-3/8	370		13
	*FD 35mm f/3.5 S.C.	64°	f/16	.4	1.5	55	+BW-55A	49	1-15/16	280		10
Standard	*FD 50mm f/1.4 S.S.C.	46°	f/16	.45	1.5	55	+BS-55	49	1-15/16	305		11
	*FD 50mm f/1.8 S.C.	46°	f/16	.6	2	55	+BS-55	44.5	1-3/4	255		9
	FD 55mm f/1.2 S.C.C.	43°	f/16	.6	2	58	+BS-58	52.5	2-1/16	510	1	2
	FD 55mm f/1.2 AL S.S.C.	43°	f/16	.6	2	58	+BS-58	55	2-3/16	575	1	4
Macro	FD 50mm f/3.5 S.S.C. Macro with Life Size Adapter	46°	f/22	20.5 (cm)	8.4 (ins.)	55	None Necessary	59.5	2-5/16	310		11
Short Telephoto	***FD 85mm f/1.8 S.S.C.	29°	f/22	1	3.5	55	+BT-55	57	2-1/4	430		15
	FD 100mm f/2.8 S.S.C.	24°	f/22	1	3.5	55	+BT-55	57	2-1/4	360		12-1/2
Telephoto	FD 135mm f/2.5 S.C.	18°	f/22	1.5	5	58	Built-in	91	3-9/16	630	1	6
	FD 135mm f/3.5 S.C.	18°	f/22	1.5	5	55	+BT-55	83	3-1/4	465	1	0
	FD 200mm f/4 S.S.C.	12°	f/22	2.5	8	55	Built-in	133	5-1/4	675	1	7
	FD 300mm f/5.6 S.C.	8°	f/22	4	13	58	Built-in	173	6-13/16	1125	2	7-1/2
Zoom	***FD 35-70mm f/2.8-3.5 S.S.C.	64°-31°	f/22	+++ 1	3.5	58	Exclusive	120	4-3/4	575	1	4
	***FD 85-300mm f/4.5 S.S.C.	29°-8°	f/22	2.5	8	Series IX	Built-in	243.5	9-9/16	1800	3	15-1/2
	FD 100-200mm f/5.6 S.C.	24°-12°	f/22	2.5	8	55	Built-in	173	6-13/16	765	1	11

## FL AND MANUAL SERIES (FOR STOPPED-DOWN METERING)

Type	Lens	Angle of View	Minimum Aperture	Closest focusing Distance		Filter Size (mm)	Hood	Length		Weight		
				(m)	(ft.)			(mm)	(ins.)	(g)	(lbs.)	(ozs.)
Circular Fish-Eye	Fish-Eye 7.5mm f/5.6 S.S.C.	180°	f/22	Fixed Focus		Six Built-in	None	62	2-7/16	380		13-1/2
Tilt and Shift	TS 35mm f/2.8 S.S.C.	64°/79°	f/22	.3	1	58	Exclusive	74.5	2-15/16	545	1	3
Bellows Macro	FLM 100mm f/4	24°	f/22	Focusing by Bellows		48	None	43	1-11/16	220		7-1/2
Super Telephoto	**FL 400mm f/5.6	6.2°	f/32	4.5	15	++48	Exclusive	338	1-15/16	3,890	8	9
	**FL 600mm f/5.6	4.1°	f/32	10	35	++48	Built-in	448	5-5/8	5,000	11	0
	**FL 800mm f/8	3.1°	f/32	18	60	++48	Built-in	508	1-8	5,360	11	13
	**1200mm f/11 S.S.C.	2.1°	f/64	40	130	++48	Built-in	853	3-3/16	6,200	13	11
Artificial Fluorite Telephoto	■ FL-F300mm f/2.8 S.S.C. with Extender 2X	8°	f/32	3.5	12	Exclusive Insertion Type	Built-in	231	9-1/16	2,340	5	2
	FL-F 300mm f/5.6	8°	f/22	4	13	58	Built-in	168	6-11/16	850	1	14
	FL-F 500mm f/5.6	5°	f/22	10	33	95	Built-in	300	11-13/16	2,700	5	15

\* Equipped with a coupling pin for Canon Automatic Tuning System.

\*\* Front component interchangeable type. Focusing adapter (2 elements, 1 group, FL automatic diaphragm, with A-M ring).

\*\*\* Will be marketed in the near future.

■ Available by special order.

+ FD lens hoods are of bayonet mount.

++ Filter is of insertion type with holder.

+++ Macro focusing capability.

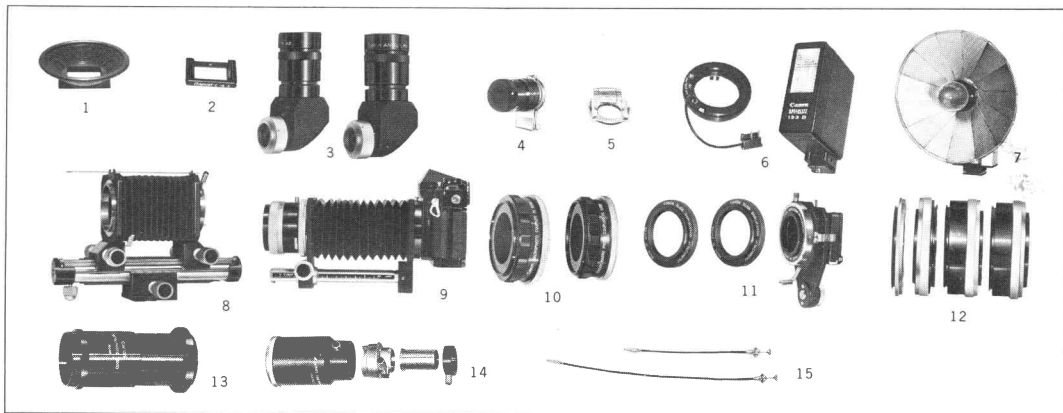
Subject to change without notice.

## VIII ACCESSORIES

Practically anything you can conceive, your Canon EF can photograph. With a comprehensive line of accessories to choose from, you can take pictures of crystal structures by attaching the camera directly to a microscope via the Photomicro Unit F. Use the Magnifier S (plus Adapter S) over the eyepiece to enlarge the center microprism for critical focusing. You can duplicate your favorite color slides by using the Bellows FL, the FD 50mm f/3.5 S.S.C. Macro lens, and the Slide Duplicator. Or you can easily copy pages from books or magazines with the camera securely mounted on either of Canon's two copy stands — the larger Copy Stand 4, or the less expensive Handy Stand F. The Angle Finder A2 or B

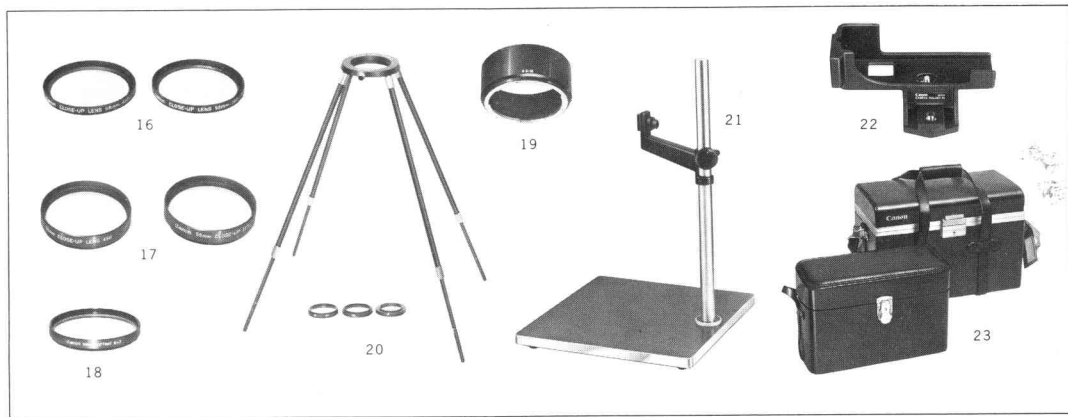
can be attached to the camera's eyepiece for convenient viewing when the camera is not at eye level. Close-up focusing may be accomplished in a number of ways, either by using a macro lens, by using Canon Close-up Lenses, by using the Extension Tubes FL 15 or FL 25, by using the Bellows FL or Bellows M, or by using the standard 50mm lens in the reverse position with the aid of the Macrophoto Coupler FL55. If you wear eyeglasses, there are four strengths of Dioptic Adjustment Lenses for eyesight correction. Canon also makes its own electronic flash units, cable releases, scores of filters and two gadget bags.





- |   |  |
|---|--|
| 1. Eyecup   | 9. Bellows M                           |
| 2. Dioptic Adjustment Lens                              | 10. Macrophoto Coupler FL 55 and FL 58 |
| 3. Angle Finders A2 and B                               | 11. Slide Duplicator                   |
| 4. Magnifier S  | 12. Extension Tube M Set               |
| 5. Magnifier Adapter S                                  | 13. Microphoto Hood                    |
| 6. Canon Speedlite 133D and Flash-Auto Ring<br>A2 or B2 | 14. Photomicro Unit F                  |
| 7. Flash V-3  | 15. Canon Release 30 and 50            |
| 8. Bellows FL   |  |

# ACCESSORIES



- 16. 58mm Close-up Lenses
- 17. 55mm Close-up Lenses
- 18. 55mm/58mm Filter
- 19. Lens Hood
- 20. Handy Stand F
- 21. Copy Stand 4
- 22. Camera Holder F2
- 23. Gadget Bag 4 and G-1



Canon FD 20mm f/2.8 S.S.C., 1/125 sec., AE, ASA 400.

[www.orphancameras.com](http://www.orphancameras.com)

# IX 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:** Fixed eye-level pentaprism.

**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 surrounded by plain ground glass ring, and ground glass with Fresnel screen.

**Field of View:** 92% vertical and 93% horizontal coverage 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.

**Mirror:** Instant-return type.

**Electro-Mechanical Shutter:** Vertically moving metal focal plane shutter. 1/2 sec. —1/1,000 sec. and B in 11 steps (mechanically controlled); 30 —1 sec. in 6 steps (electronically controlled).

## Shutter Speed Dial:

B, 1—1/1,000 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:** The built-in self-timer is activated by the shutter button with a time lag of approximately 10 sec. A self-timer lock button prevents unintentional operation.

**Exposure Adjustment:** Variable Aperture AE with FD series lenses. The aperture is adjusted automatically after shutter speed and ASA are set. Central Emphasis Metering gives an average reading of the screen brightness with more emphasis on the center portion utilizing a wide range Silicon Photocell. 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 1/1,000 sec. at f/16. At ASA 25 : 30 sec. at f/1.4 to 1/1,000 sec. at f/8.

**Film Speed Range:** ASA 12 — ASA 3200.

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

**Battery Check:** LED flashes when battery check

button is depressed if power is sufficient.

**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 with a built-in cover is on the left end of the camera body.

**Canon Auto Tuning (CAT) System:** Possible by combination of the Flash Auto-Ring A<sub>2</sub> or B<sub>2</sub> and the Speedlite 133D. According to the ASA and focused distance, the aperture is adjusted automatically with the selected f/stop indicated in the viewfinder.

**Multiple Exposures:** Possible by depressing the multiple exposure button while operating the winding lever. Operation may be repeated any number of times. The frame counter is stopped during multiple exposures.

**Lens Mount:** Canon Breech Lock: FD, FL and R lenses can be used.

**Depth-of-Field Preview:** Possible by pressing the multipurpose lever, after manually setting the

aperture ring and cocking 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:** Performed by pulling up the rewind crank to open the back cover. Easy film loading with multi-slot take-up spool.

**Winding Lever:** Single stroke 120° throw. 15° stand-off. The lever moves to the stand-off position when the camera is turned on.

**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—740gm (1 lb., 10 ozs.).  
With f/1.4 Lens—1,045gm (2 lbs., 5 ozs.).

Subject to change without notice.

# X PROPER CARE OF THE CAMERA

## A Cleaning the Camera and Lens

Use a camel hair or blower brush to clean the film cartridge chamber and the area around the multi-slot take-up spool before loading film into the camera. Also, use the brush to wisk away dirt and dust from the eyepiece and the front and rear surfaces of the lens. If salt water spray or fingerprints inadvertently get on the lens, they should be cleaned off as soon as possible using commercially-available cleaning tissue and a good quality lens cleaning liquid. Put one or two drops of cleaning liquid on the tissue, and lightly wipe the lens in a circular motion from the center toward the outer edges. Do not use a handkerchief or other cloth, as the lens elements may be permanently scratched. If you cannot remove dust particles from the surface of the instant-return mirror simply by brushing, you should not attempt to clean the mirror yourself with tissue and cleaning liquid. Only an authorized serviceman should undertake this delicate task. Actually dirt on the mirror has absolutely no effect on the quality of your photographs.

## B Storing the Camera


If the camera will not be used for an extended length of time, leave the shutter uncocked and remove the mercury batteries. Take the camera out of its eveready case and wrap it up in a clean, soft towel together with silica gel or some other desiccant to keep it dry.

## C Using the Camera in Extremely Cold Conditions

In severely cold weather (down to  $-20^{\circ}\text{C}$  or  $-4^{\circ}\text{F}$ ), you should keep the Canon EF inside your coat and expose it to the outer air only when you are ready to take a picture. This procedure is necessary primarily to keep the mercury batteries warm. Since the film gets brittle at low temperatures, perform film winding and rewinding as slowly as possible.

## D Having the Camera Serviced

You should never attempt to disassemble or repair the Canon EF yourself! If the camera ceases to function properly, it should be serviced by an authorized Canon repair facility. See your local camera dealer for further details.

Fold out both front and back nomenclature pages for easy reference when reading the instructions. 

## CANON FILTERS (Screw-in type)

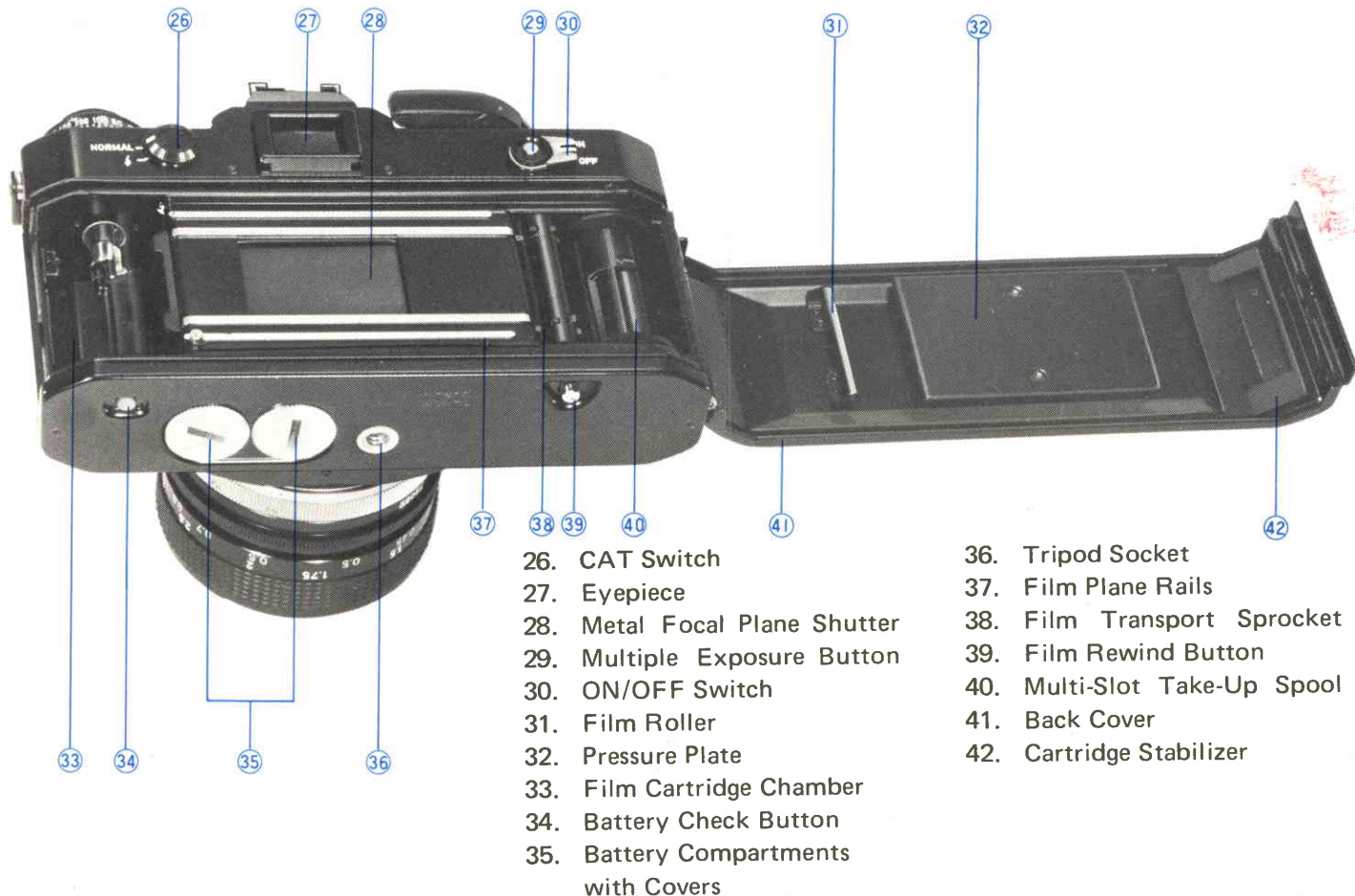
For Black and White Film			For Color Film		
Type	Factor	Use and Effect	Type	Factor	Use and Effect
*UV	1x	Recommended especially for high mountain areas and where ultra-violet rays are strong.	Sky-light	1x	For distant snow or mountain scenes on an overcast day and for open shade photos under a clear sky to reduce excessive bluish results.
Y1	1.5x	For landscapes and portraits with low sun. Darkens the blue of the sea and sky and brings out the whiteness of the clouds.			CCA4 (Amber)
**Y3	2x	For landscapes and still-life. This filter is similar to the Y1, but the effects are stronger.	CCA8 (Amber)	2x	Used with daylight type film for shooting in cloudy or rainy weather or in the shade. Used with tungsten type film for shooting in the morning or evening.
G1	2x	For portraits against the sky. Natural reproduction of foliage.			CCA12 (Amber)
**01	3x	For haze penetration, contrast in marine scenes, distant landscapes, aerial photography and sky/cloud contrast.	CCB4 (Blue)	1.5x	Used with daylight type film for shooting in the morning or evening to eliminate reddish tinge.
***R1	6x	For distant landscapes. Exaggerated sky/cloud contrast with a very dark sky. Gives dramatic and interesting effects.	CCB8 (Blue)	2x	Used with daylight type film for shooting at night or indoors with clear flash bulbs.
*ND-4	4x	Neutral density filters are used only to control exposure and have no effect on colors.	CCB12 (Blue)	3x	Used with daylight type film for shooting under artificial lighting to obtain normal color rendition.
*ND-8	8x	Especially used with high speed black and white film in bright daylight.			

\* Also can be used with color film

\*\* For color infrared film.

\*\*\* For black and white infrared film.

# NOMENCLATURE



- 26. CAT Switch
- 27. Eyepiece
- 28. Metal Focal Plane Shutter
- 29. Multiple Exposure Button
- 30. ON/OFF Switch
- 31. Film Roller
- 32. Pressure Plate
- 33. Film Cartridge Chamber
- 34. Battery Check Button
- 35. Battery Compartments with Covers
- 36. Tripod Socket
- 37. Film Plane Rails
- 38. Film Transport Sprocket
- 39. Film Rewind Button
- 40. Multi-Slot Take-Up Spool
- 41. Back Cover
- 42. Cartridge Stabilizer