

Canon

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YOUR **Canonflex RM**

with **BUILT-IN EXPOSURE METER**



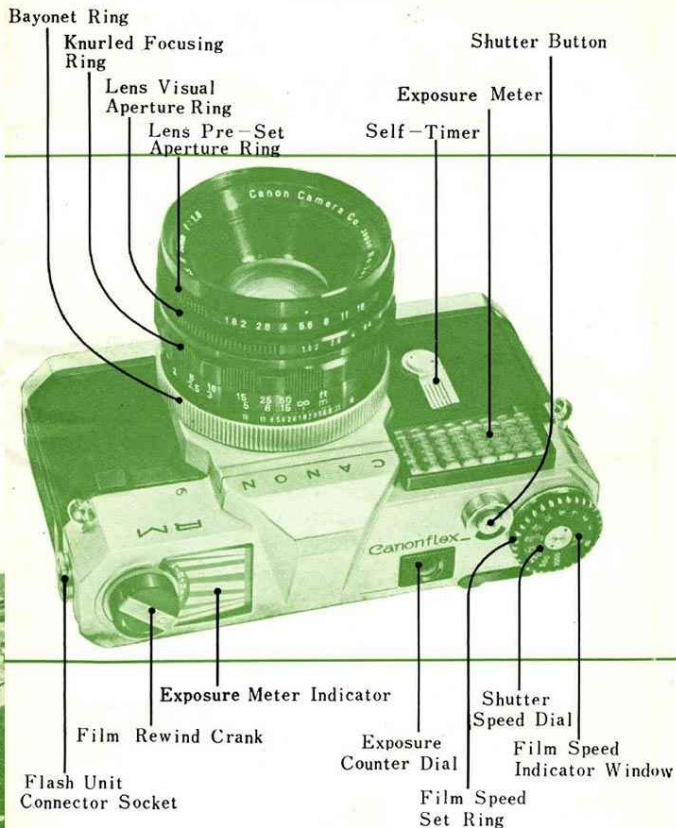
Foreword

Our sincerest gratitude for purchasing the Canonflex RM and our heartfelt congratulations on joining the thousands throughout the world who are proud owners of quality Canon cameras. Canon cameras are popular everywhere in the world. While leading the way to developments in the photographic circles in Japan, the Canon Camera Co. has continued untiring and consistent efforts to bring about a "Happier Life for Everyone" through various Canon products.

On the basis of production plans which always reflect the demand and trend, not just of the present, but also of the future, the Canon Camera Co. is striving to bring you better Canon cameras all time.

On the basis of many years of experience and of a most modern and rational production system combining Canon-exclusive theories and manufacturing technology, production is carried out according to an integrated system from raw materials to finished products. Consequently, we are confident that this Canonflex RM, just like all other Canon products, will completely satisfy you as to quality, performance, price and all other points.

We look forward to your making full and effective use of this Canon camera in your home, in your research laboratory, on trips and on hikes.

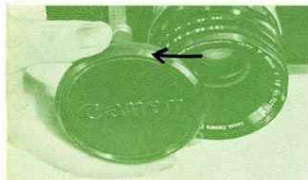


Main Specifications of Canonflex RM

Type	Single-lens reflex 35 mm camera
Finder	Pentaprism, single-lens reflex, eye-level type. The Waist-level Viewer 2 RM can be coupled.
Focusing Glass	Fresnel lens focusing glass using specially treated, high resolving power focusing glass. Split-image type rangefinder.
Mirror	Quick-return type.
Fully Automatic Pre-Set Aperture Mechanism	Super Canonmatic system completely controls automatic pre-set aperture mechanism.
Shutter	Linearly calibrated from 1/1000~1 sec. and B. Single-pivot focal plane shutter.
Built-in Exposure Meter	Needle type coupled to the shutter speed dial. When using ASA 100 film, it has a sensitivity range from LV 6 to LV 17. Effective with film from ASA 10 to ASA 800.
Flash Synchronization	Direct flash connector socket and automatic time-lag adjustment.
Interchangeable Lenses	Various types with pre-set diaphragms.
Self-Timer	Built-in type actuated by pressing shutter release button. Time can be adjusted.
Winding	Through winding of 120° film winding lever, the film is advanced one frame, the shutter is cocked and the mirror and the aperture are charged.
Film Rewind	Film rewind release button and folding type rewind crank.
Film Loading	One back cover to load either special magazine or regular cassette. Locking of back cover and release of magazine are carried out simultaneously. Opening of back cover automatically returns exposure counter dial to "S" (starting point).
Size	145×92×47 (mm)
Weight	680 (gr) without lens

Order of Photography

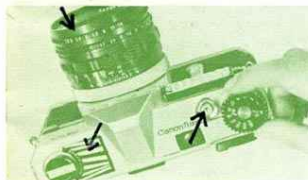
Please exercise following steps carefully before shooting the first film.



1. Open the camera leather case and take off the lens cap.



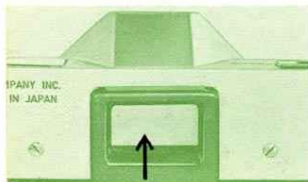
2. Wind the lever.



3. Shutter speed and aperture setting.



4. Focusing



5. Composing the picture



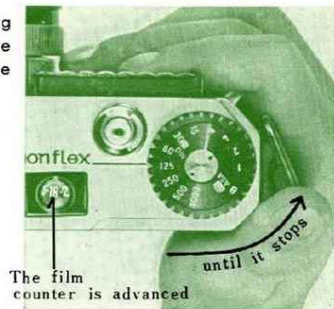
6. Shutter release

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1. Winding of Film and Shutter

If you turn the film winding lever until it stops, the film is advanced one frame and the shutter is set.



- Through the film winding operation, the operating mechanism of the mirror and the automatic pre-set aperture mechanism of the lens are set at the same time.
- When you wind the film for the first time after loading film, the lever may slip, so wind once more.

Exposure Counter Dial

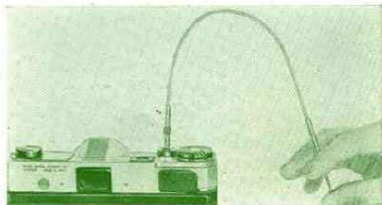
As the film is advanced one frame, the exposure counter dial advances one number to show how many pictures have been taken. When the back cover is opened, the exposure counter dial automatically returns to "S", the starting mark.

When the shutter release button is pressed, the mirror snaps up, the lens is stopped down at the same time to the pre-set aperture and the shutter is released. The winding lever can be immediately wound after release of the shutter.

- If the film winding is not complete, the shutter will not be released even if the shutter button is pressed. In such cases, wind the lever once more.



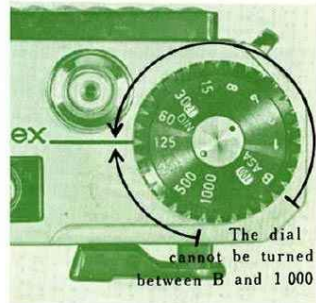
- A cable release can be attached to the shutter button.



2. Shutter and Aperture Setting

The shutter and aperture opening decide the exposure, and if the coupled exposure meter is used, the correct exposure can be easily set.

If the dial stops at B, turn in the opposite direction. If the dial stops at 1000, turn in the opposite direction.



- The dial cannot be turned between B and 1000.
- The numbers on the shutter speed dial are the denominators for such fractions of a second as 1/1000 and 1/15.

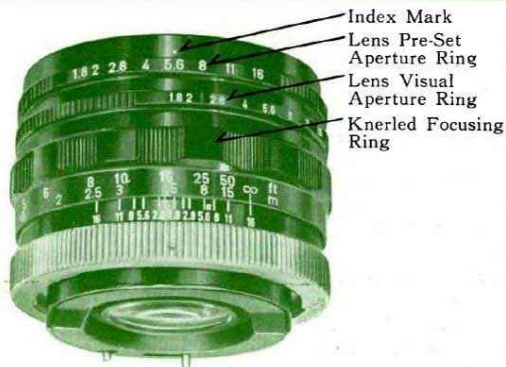
- B is used for bulb exposure. The lens remains open as long as the shutter button is kept pressed. It is used for long exposure of over 1 second.
- When time exposure is required, set the dial to B, use a cable release with a lock and lock the cable release during exposure.
- The 1/60 scale on the dial is concurrently used for X flash synchronization. It is used for speedlight (electronic flash) photography. The actual exposure time is the time of speedlight flash duration. (such as 1/1000, 1/500, see your speedlight instruction).
- Avoid setting the dial for an intermediate speed other than calibrated. Turn the lens automatic pre-set aperture ring to the required aperture stop. This adjusts the light volume and brightness of the photographic object. Be sure to set the manual aperture setting at the full opening.

- Leave the manual aperture setting at the full-opening position.
- The ratio between the aperture and the exposure volume is as follows, F 2 as the standard:

Lens Aperture	1.2	1.4	1.8	2.0	2.8	(3.5)	4.0	5.6	8.0	11	16	22
Exposure ratio	1/3	1/2	1/1.25	1	2	(3)	4	8	16	32	64	128

- The aperture ring can be set at positions between numbers.

3. Super Canomatic Lens



The Super Canomatic lens is equipped with the automatic pre-set diaphragm. Ordinarily, the lens is wide open, but when the shutter is actuated, the lens is closed down automatically to the pre-selected aperture stop. When the shutter operation is completed, it automatically reopens to full aperture.

Automatic Pre-Set Diaphragm

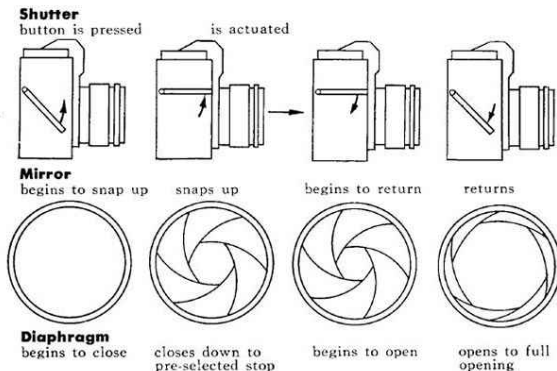
This is the mechanism for adjusting the size of the aperture which is automatically closed down. If this ring is turned and set to the mark, the lens is closed down to the pre-selected aperture stop for the instant that the shutter is released.

Manual Aperture Ring

If this ring is turned, the lens can be opened or closed without relation to the pre-selected aperture stop. Through use of this ring, you can see the actual sharpness of picture. When using the manual aperture mechanism, always have the automatic pre-set aperture ring at the full opening position, otherwise internal automatic mechanism will be strained.

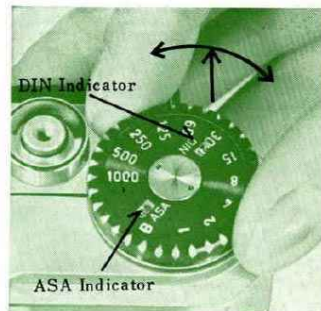
Super Canomatic Mechanism

Through this mechanism, the opening and closing of the aperture cannot be seen with the human eye at high shutter speed. However, the movement can be seen with the eye at B or slow speeds. The larger the aperture number, (e.g. smaller lens opening,) the less light will reach the film, as you advance one stop on the aperture ring, the light volume is reduced to one-half. Consequently, when you stop down one stop on the aperture stop, double the exposure time. If you stop down two stops, you must increase the exposure time by four times. Positions between numbers on the aperture ring can be used. Depending on the lens, this halving of the light volume does not effectively apply between full open and the stop next to it (e.g. F1.8 and F2). Since the Canonflex RM has a built-in exposure meter, an appropriate combination shutter speed and lens aperture is automatically decided.



Preparations

Set the film speed indicator to the speed of the film being used. To do this, lift up the outer sensitivity ring of the shutter dial and turn.



- Only the outer ring of the shutter dial can be lifted and turned. After 10 appears in the indicator, the dial cannot be turned any further to the right. If 800 appears, the dial cannot be turned any further to the left.
- The film speed is noted on the film box or in the instruction included the film.

Sensitivities

ASA	10	16	25	50	100	200	400	800
			(32, 40)	(64, 80)	(125, 160)	(250, 320)	(500, 640)	
			(16, 17)	(19, 20)	(22, 23)	(25, 26)	(28, 29)	
DIN	11	13	15	18	21	24	27	30

Deciding the shutter speed (1)

Set the desired aperture stop. Aim your camera toward the object to be photographed.

Turn the shutter speed dial and align the lens aperture reading with the needle.

Be sure to set the shutter dial to a click stop.

- When reading the light meter, take care not to cover the photo-cell with the hand.
- The reading of the aperture stop is carried out along the guide line.

Deciding the Aperture (2)

Set the desired shutter speed as recommended in the film instruction. Point the camera at the object to be photographed. Read the aperture stop indicated by the exposure meter needle and set the automatic pre-set aperture ring accordingly. Be sure to read corresponding position of the zebra pattern edges.



- Positions between numbers on the shutter speed dial cannot be used, but positions between numbers on the aperture ring can be used. Consequently, in the strict sense of correct exposure, it is strongly recommended to set the shutter speed first and then adjust the lens aperture accordingly.

Zero Adjustment of Exposure

Adjust the exposure meter so that the needle always points to "O" when the photo-cell is covered.

Adjustment Method

1. First, turn the zero adjustment cover to the left and remove (easily possible if a rubber plate is used.)
2. An adjustment pin with a groove can be seen in the hole, so use a screwdriver or stick to turn the pin to the left or right so that the needle points to "O".
During this operation, the photo-cell must be completely covered.

Adjustment Angle

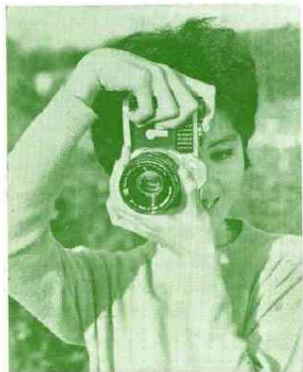
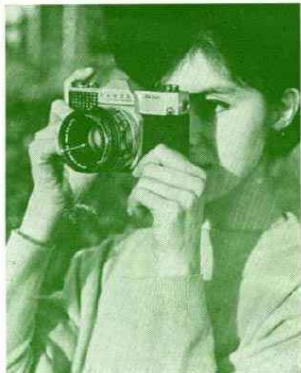
- When the background of the object being photographed is very bright as in the case of blue sky, there is the tendency that the main object being photographed will be under-exposed if the photo-cell is faced too far upward. When reading the exposure meter, it is necessary to avoid the camera from tilting upward.
- When shooting against the light, it is important to decide which to emphasize, the background or the main object, in order to determine the exposure.

5. How to Hold the Canonflex RM

The camera can be in the positions shown in the photographs on the right, depending on whether you are taking vertical or horizontal pictures. While looking through the finder, focus and decide the composition of the picture and then press the shutter button.

At this time, the following points are particularly important:

1. Grasp the camera as deeply as possible with both hands.
2. Steady the camera against either the cheek or forehead.



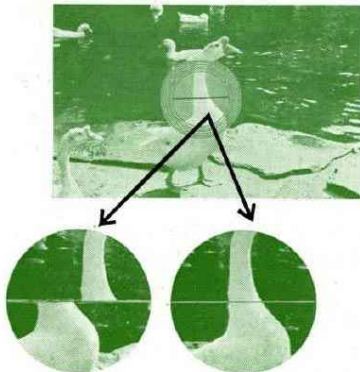
3. When taking a horizontal picture, have both elbows tight against the body. When taking a vertical picture, have at least one elbow tight against the body.

Pressing the shutter button roughly will result in shaking the camera and blurred pictures.

It is best to use a tripod and a cable release. This is particularly true when shooting at speeds slower than $1/30$ sec.

6. Focusing

Remove the lens cap and look through the finder. Turn the focusing ring.



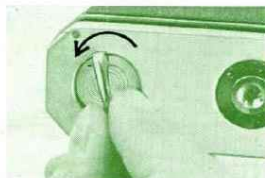
When the picture in the circle in the finder is split in two by the center line, then the object is out of focus. The object is in focus when the image seen in the center aligns vertically.

- Almost entire picture that will appear on the finished film can be seen in the focusing glass, so there will be no parallax even if the lens is interchanged or the distance is altered.
- When focusing, disregarding the split-image method for special effects or under a certain required situation, focus the subject on the part outside the circle.
- A waist-level viewer can be attached to the eye-level finder. The waist-level viewer is best suited for ultra telephoto lens, copying work and microphotography.



7. Loading the Film

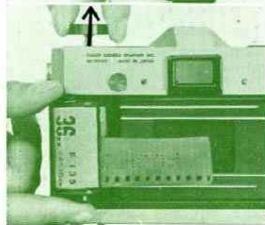
Either daylight loading film (film in cartridge) or film loaded in special Canon magazine V can be used.



1. Turn up the back cover opening key and make a half-turn to the left. The film magazine cannot be inserted unless the opening key is in the complete open position.

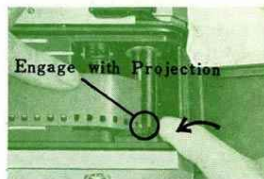


2. The back cover will float up slightly, open door completely the rest of the way by hand.

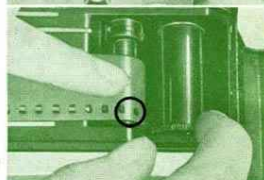


3. Lift up the rewind crank and pull out the rewind knob completely.

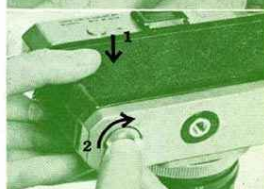
4. Pull out the end of the film and insert fully into the film take-up spool. While turning the flange of the spool slightly in arrow direction, hook the protuberance on the groove side with the perforation of the film.



5. At this stage, have the both sides of film perforations accurately fit the teeth of the sprocket. Also, if there is slack in the film, turn the rewind crank slowly to the right to remove the slack.



6. Close the back cover. While holding down the back cover, turn the back cover opening key to the right. The rewind crank should be folded.



7. Keeping the lens cap on, wind the film and release the shutter twice.



8. The exposure counter dial will be at the S (starting point) position, but after two blank shots, it will indicate 0. The camera will be ready for taking pictures when you wind the film for the next shot, i.e. film counter at No. 1 position.

Canonflex

Film Counter



Film Speed Indication

After you have loaded the film, show the film speed without fail in the film speed indicator window on the shutter speed dial. Refer to page 9 in connection with film speed.

Checking Correct and Incorrect Loading

The rewind crank will turn each time the film is wound. The turning of the rewind crank will show you that the film is being correctly wound up by the film take-up spool. So when winding the film, always watch the rewind crank.

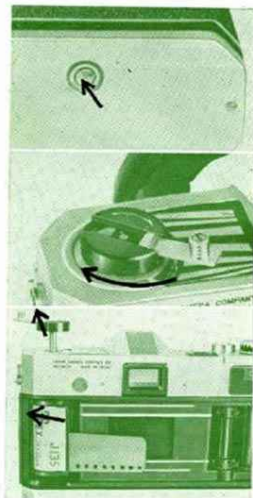


If the rewind crank does not turn, it means that either the end of the film has come loose from the take-up spool or the film perforations are not caught on the sprocket teeth. In such a case, refer to the section on rewinding the film in taking out the film and then reloading the camera.

8. Film Rewinding

When you come to the end of the film, it will be hard to wind the film any more, so rewind the film back into the cassette (or magazine) according to the following steps.

1. After pressing the film rewind release button in the bottom of the camera, raise the rewind crank and turn to the right to wind film back into the magazine.
2. If the turning of the film rewind release button stops, stop rewinding immediately.
3. Turn the back cover opening key to the left and open the back cover.
4. Pull out the rewind knob completely and take out the cassette (magazine).



* Once you have pressed the film rewind release button, you can remove your finger. The button will automatically return to its normal position when the film winding lever is wound.

* Do not forget to attach the lens cap when rewinding the film.

* If you forcefully wind the film even after you have reached the end of the roll of film, you may cut the film, thereby making it impossible to rewind the film. In such a case, remove the film in a darkroom.

9. Self Timer



Wind the film, turn the self-timer lever in the arrow direction and press the shutter button. The shutter will click about 10 seconds later.

- Wind the self-timer lever more than 2/3 its complete turn.
- The time can be adjusted by the position of the self-timer lever.
- The winding of the film can be carried out after the self-timer lever has been set.

10. Flash Synchronization

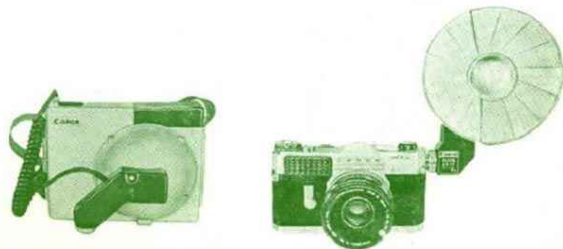
If the Canon Flash Unit V-2 is mounted to the direct flash connector socket, flash photography can be carried out at the shutter speeds shown in the chart below. The speedlight (electronic flash) can be used with the Canonflex RM at 1/60 sec. setting.

The time lag of the flash is automatically adjusted at the time of setting the shutter speed dial. The lens hood is necessary for flash photography.

Scope of Synchronization

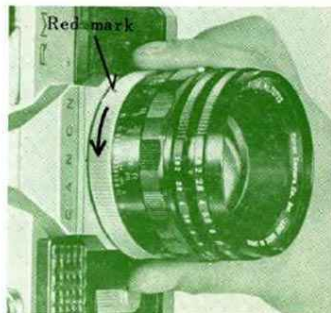
Type of Flash Bulb	1000	500	250	125	$\times \frac{1}{60}$	30	15	8	4	2	1	B
FP Type	○	○	○	○	●	●	○	○	○	○	○	○
M Type	●	●	●	●	●	●	○	○	○	○	○	○
F Type	●	●	●	●	●	○	○	○	○	○	○	○

● Mark means it does not synchronize. The 1/60 sec. position is used for "X" contact. As the light quantity of the extra small flash bulbs is very small, choose a speed slower than 1/15 sec.



11. Changing of Lens

In order to remove the lens from the camera, turn the bayonet ring of the lens counter clockwise and then pull out the lens. When you mount the lens, match the red mark on the lens to the red mark on the mounting part of the camera and insert the lens. Turn the bayonet ring clockwise to secure the lens to the camera.



Match the red mark and the pin



In the back end of the lens, there are the charging lever and operating lever of the automatic pre-set diaphragm.

When attaching the lens charge this charging lever before attaching the lens as shown.

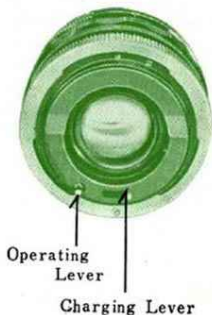
If an uncharged lens is attached to a camera which has already been wound, the automatic pre-set aperture system will not work for the first shot. Of course, the automatic pre-set will operate from the second shot.

- When removing the lens, take care not to touch the mirror with the finger. Also, if the lens is to be removed for a long time, cover both the camera and lens mounts with caps or covers.

Small bubbles in the lens will reduce the brightness by 1/500-1/1000, but it will have no adverse effects on taking pictures and on the sharpness of the finished picture.

Distance Scale

The distance scale indicates the distance between the focused object and the film surface. It is not absolutely necessary for ordinary photography, but it is needed for checking the depth of field, for infra-red photography, and for flash. On the distance scale, the exact positions are the center of the number for single digit numbers, the point midway between two numbers for two digit numbers and the middle number for three digit numbers.



Infra-Red Photography



- When you want to take pictures by actually measuring the distance, measure from the film position mark on the camera to the desired point and then turn the distance scale to the appropriate number for the distance.

On the depth-of-field scale of Canon lenses is the letter "R". This is for infra red film. When using this film, focus in the normal way. Read off the distance of the object you are focusing on as shown opposite the red distance scale.

Turn the lens barrel until the distance reading is opposite the "R" mark. Your lens is now focused for infra-red photography. In other words, if the distance is 15 ft. after focused have the 15 move to the R position.

12. Double Exposure

Accident double exposure is not possible with the Canonflex RM because of the double exposure preventive device. However, double exposure can be made by the following steps:

1. After the first exposure, press the film rewind release button.
2. While watching the dot on the film rewind release button, turn the rewind crank.
3. Stop rewinding when the dot shows $\frac{3}{4}$ of a turn.
4. Lightly hold the rewind crank and wind the film winding lever. When you feel resistance in the rewind crank, release it.
5. Then carry out regular film winding.
6. If you repeat the above procedures, you can make as many exposures as you please on one frame.



In extremely cold areas, avoid exposing camera except when actually taking pictures. It is desirable to complete photography as quickly as possible to protect the camera.

Depth of Field Scale

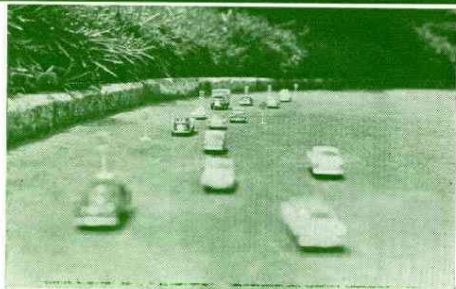


The depth-of-field scale shows the range of distance in feet which will be in sharp focus at each aperture setting. Range will vary with the F-stop chosen. The larger the lens aperture, the lesser will be the depth-of-field. For example: with an F-stop of 5.6, and with the object you have focused on at 5 m (15 ft.), your camera will give you a sharp picture from approximately 3.7 m (12.3 ft.) to 7.8 m (26 ft.) away from the camera. At F11 you will get a sharp picture from 2.9 m (9.7 ft.) to 17 m (56.7 ft.) (Please see illustration).

The versatile Super Canomatic Lens has a feature which enables you to see the actual sharpness through the viewfinder eyepiece by manually rotating the manual aperture ring.

13. Canon Interchangeable Lenses for Canonflex RM

50 mm
Lens



Depth of field 3.7m-7.8m

F5.6



Focused at 5m

50 mm
Lens



Depth of field 2.9m-17m

F11



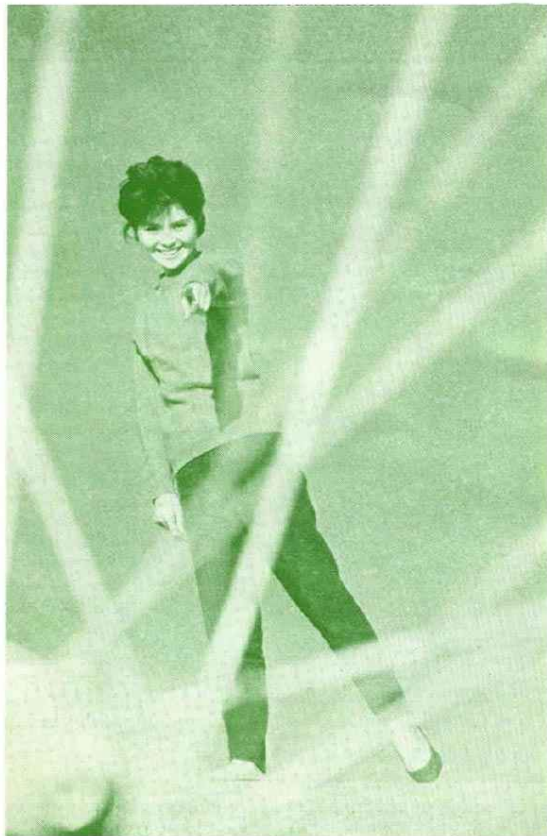
Focused at 5m

Canon lenses are held in the highest esteem by professionals and discerning amateurs the world over for their unmatched performance in black and white or color, unique optical design, precision engineering and Canon-exclusive Spectra-Coating. Canon pioneered development of high-speed lenses... opening up a new lane in photographic versatility to many serious photographers. Every Canon lens is thoroughly tested to insure the highest resolution, contrast, brilliance, and color fidelity. Interchangeable lenses

for Canonflex extend the range to as long as 1000 mm F 11... 14 lenses in all.

The Super Canonomatic Lenses have fully automatic springback diaphragm. As the shutter is released, the diaphragm closes down to the pre-selected aperture stop, and returns to full-opening view instantly... thus, you view with full brightness at all times.





14. Photo Aids for Canonflex RM

Canon Filters

Canon filters are made of solid, specially selected optical glass, polished optically flat and coated hard on both surfaces. Canon filters are made with the same precision care as the Canon cameras and lenses. Screw-in filters for Canonflex are available in nine varieties, in sizes of 40, 48, and 58 mm to fit any Canonflex lenses.



For Black and White

- UV Ultra Violet
- Y1 Light Yellow
- Y3 Yellow
- O1 Orange
- R1 Red
- G1 Green

For Color

- CCA Color Conversion A
- CCB Color Conversion B
- Sky Skylight
- —
- ND4 Neutral Density (×4)
- ND8 Neutral Density (×8)

Film Magazine

(Available separately as an accessory.)

Holds up to 36 exposures (five feet) of film. Nickel in black finish; scratch-proof film slots. Supplied in plastic case.

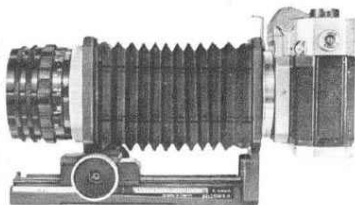


Bellows R

It has wide usage ... in close-ups, focusing of long-telephoto and extra-long-telephoto lenses, copy work, microphotography, etc. The Bellows R can be adjusted freely either vertically or horizontally by a lever that rotates 90 degrees.

The focusing device is specially designed to assure precision performance in the forward and backward movement.

- When the rangefinder type camera lenses of focal length longer than 85 mm are used, close-ups from infinity to 1:1 life-size are possible.



Camera Holder R3

To steady camera position, this holder is used conveniently for easy and versatile copy work. The holder has a tripod bush on two sides. The camera can be used in normal and inverted positions. Copy work can be done with camera on holder attached to a tripod facing downward.



Lens Mount Converter

There are two types available, A and B. Converter A is used to mount the screw-in type lenses (for rangefinder type cameras) to the Canonflex which is of bayonet mount. Unlike focusing adapter, only the mounting part changes (converter is added), thus, it can be used for close-ups and

copy work. Conversely, the Converter B is used when mounting the lenses designed originally for Canonflex on to the rangefinder type cameras. If you use A and B together, they will act as extension tubes. If extension tube is added, macrophotography is possible.

15. Other Photo Aids for Canonflex RM

Copy Stand 3R

Designed for easy copy work with the Canonflex. The set consists of baseboard, stanchion, arm, camera holder, and close-up lens. Using the baseboard and with a camera-to-subject distance of 60 cm., a picture with a field-of-view of about the full page size of LIFE magazine can be taken.

Without the baseboard a field-of-view of 580mm×385mm (about the size of newspaper) or larger can be photographed. Use cable release to steady the camera. Waist-level viewer can be conveniently used if you view the subject horizontally.



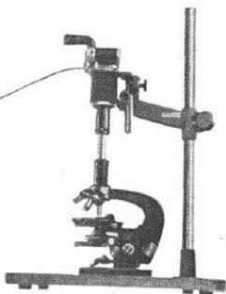
Macrophotography

For macrophotography, Canon provides macrophoto unit to be used with the Canonflex. It is coupled to the Bellows R and used in combination with Super Canomatic Lens R 50 mm F1.8, macrophoto coupler, extension tube, lens mount converter A, Bellows R. Tubes are available in 6 different length; 25 mm, 50mm, 75mm, 100mm, 150mm, and 200 mm. Subjects can be blown up from 1.5 to 6.5 times of their original sizes. Macrophoto strut is recommended for extension tubes longer than 75 mm.



Microphotography

Microphotography by Canonflex is done in combination with the Copy Stand 3 R. Waist-Level Viewer can be used conveniently. Bellows R is used to facilitate the operation. It also makes possible the microphotography in which you will get greater magnification that can be taken only with the microscope. With lens mount converter A and microphoto hood mounted on Canonflex camera body, the unit couples to the ocular tube of any standard microscope with an outside diameter of from 24.7 to 25.2 mm.



16. Maintenance and Cleaning of the Camera

1. Maintenance

Moisture and dust are harmful for the camera. If the camera is stored for a long time, there is the possibility of stains and rusting. It is best to use the camera from time to time so that it will "breathe" the outside air. When the camera is to be put away for a long time, insert silica gel or other desiccating agent. When storing, remove the camera from the eveready case.

2. Cleaning

Dust adheres to cameras used outdoors, while moisture and salt after use on a rainy day or at the seaside will create stains and rust and may become the cause of "burns" on or rusting of the lens. Use a soft brush to brush away dust and a soft, dry cloth to carefully wipe the lens. Avoid touching the lens with the fingers. Use a blower with a rubber ball to blow away the dust or use a soft brush to brush away dust. When wiping the lens cannot be avoided, wind a completely clean and soft cloth around a stick, moisten the end slightly with alcohol (best to add a little ether) and wipe lightly from the center outwards, describing circles all the time. Be careful not to wipe with too much force or with cloth with dust attached because such action will result in damaging the lens surface. Take special care not to touch the mirror. If you drop your camera in the sea water, wash immediately with fresh water and wipe completely clean. Send out immediately for repair. If you wait too long, the whole camera will become rusted and it will be impossible to clean and repair your camera.



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