

e3/16-919

Canon

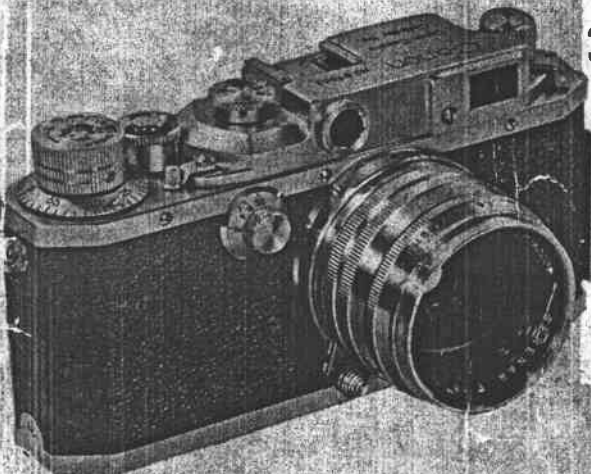
Directions for using 35mm CANON CAMERAS

MODELS

II - D

III - A

IV - S2



Introduction

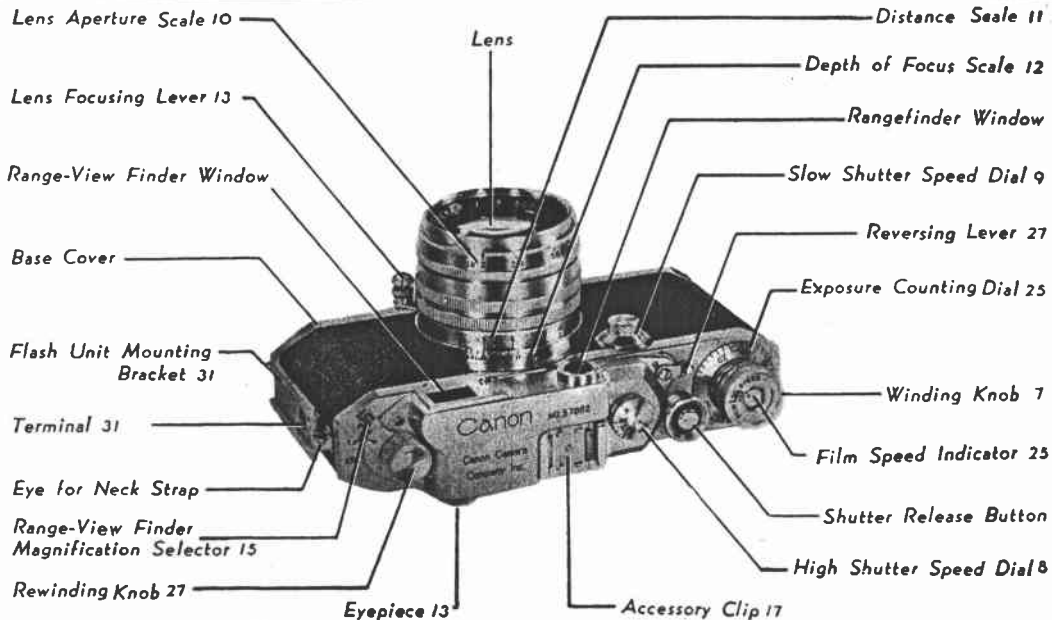
Your CANON CAMERA and CANON LENS are the products of the highest grade of precision engineering and optical research.

The camera is strong, compact and simple to operate. As it is a precision instrument, it is advisable that you understand how to operate it by studying the directions carefully.

The superior resolving power of the CANON LENS will produce negatives of extreme sharpness; the lens will resolve to a higher degree than the emulsion of modern high-grade film.

- ☆ USE YOUR CAMERA INTELLIGENTLY
- ☆ LEARN TO USE IT IN EVERY POSSIBLE WAY
- ☆ TREAT IT WITH RESPECT

Although fully guaranteed for five (5) years, it will, with care, last you a lifetime and give you photographs you will be proud to own.



Figures following the descriptions indicate pages where detail explanations are given.

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Practice these steps thoroughly before loading film

- ① Remove the Lens Cap.



See page 7

- ② Pull out the Lens and Lock it, if collapsible type (50 mm f: 1.9 & F: 3.5).



See page 7

- ⑤ Set the Lens Aperture Scale (f-stop).



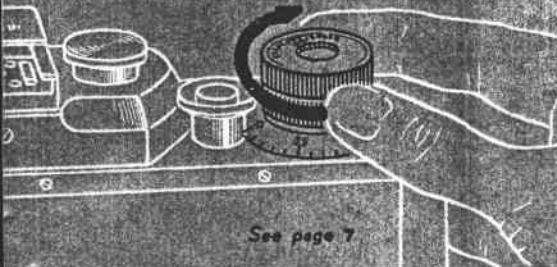
See page 10

- ⑥ Focus by rotating the Focusing Lever.

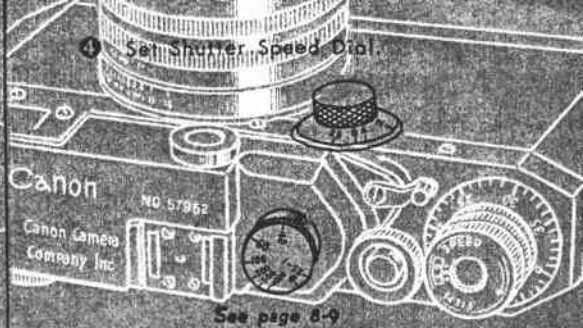


See page 13

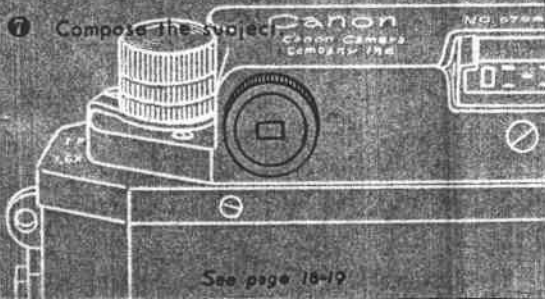
6 Turn the Film Winding Knob.



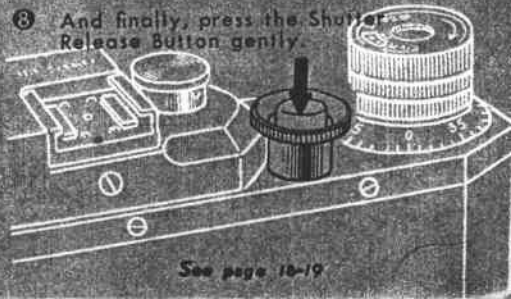
4 Set Shutter Speed Dial.



7 Compose the subject.



8 And finally, press the Shutter Release Button gently.



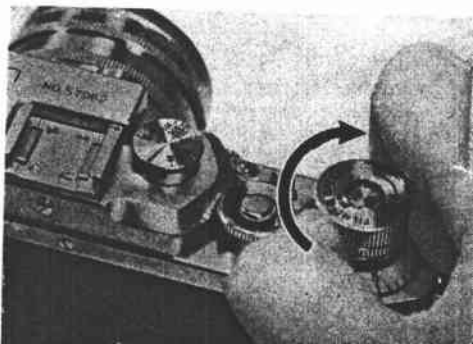
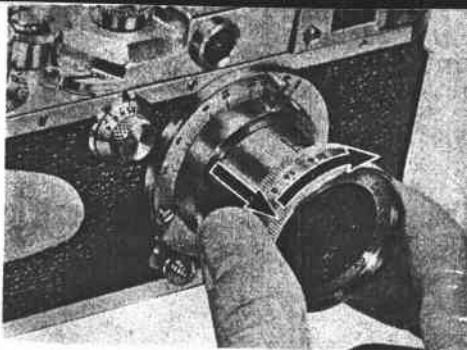
1. HOW TO OPERATE THE CANON CAMERA

Read the directions carefully. You can learn how to use your camera in a few minutes.

1. Remove the Lens Cap.
2. If you have a collapsible lens (CANON LENS 50mm f:1.9 or f:3.5) pull out the lens to the mark on the barrel and lock by turning as illustrated. The Standard lens (CANON LENS 50mm f:1.8) on the Model III-A and IV-S cameras is non-collapsible.
3. See that the Reversing Lever is at the "A" position (Advance). Then turn the Film Winding Knob one complete turn when it will stop. Each time the Film Winding Knob is turned the Exposure Counting Dial automatically registers the next number.

NOTE: This dial should be turned to one (1) each time a new film is loaded, and ready to make exposures (see page 25).

NOTE: Always wind the Film Winding Knob just before taking a picture. Do not leave it wound over long periods as this may weaken the Shutter Spring and may cause accidental exposure if the Shutter Release Button is pressed by mistake.



HIGH SHUTTER SPEED DIAL

On the Model II-D, III-A and IV-S2 cameras there are two

Shutter Speed Dials.

High: for speeds between 1/25-1/1000 second (1/500 on II-D) & B (Bulb).

Slow: for speeds between 1/25-1 second & T (Time).

INTERMEDIATE SPEEDS CANNOT BE USED

Correct exposures are best obtained with an exposure meter or by following the instructions supplied with the film.

To operate the camera at any of the speeds shown on the High Shutter Speed Dial, first turn the Film Winding Knob. The Shutter Speed Dial will not select the desired speed unless this has been done. Raise the dial with thumb and forefinger and turn until the speed required is exactly opposite the Index Mark and let the dial fall.

For 1/1000 sec., the dial drops only half the distance of the other speeds.

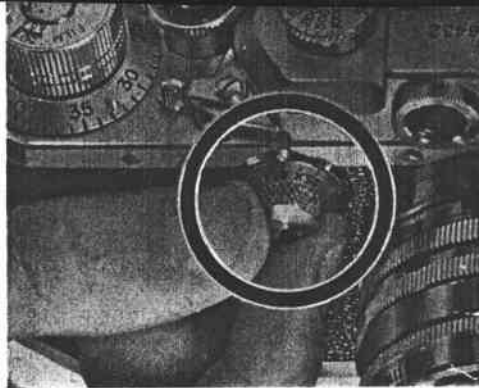
Press the Shutter Release Button and the Shutter operates at the selected speed.

NOTE: When the High Shutter Speed Dial is used the Slow Shutter Speed Dial must be set at 25 (1/25 sec.)



SLOW SHUTTER SPEED DIAL The Slow Shutter Speed Dial will record speeds between 1/25-1 sec. and T (Time) by turning the dial to the correct position so that the required speed registers uppermost opposite the index mark. Be sure that you have first turned the Film Winding Knob one complete turn and the High Shutter Speed Dial is set at 25-1 (1/25 sec.)

NOTE: Speeds intermediate between the 25, 1/8, 1/4 and 1 sec. may be obtained by setting the dial to the estimated position. "X" mark is explained on page 32.



TIME EXPOSURES LONGER THAN ONE SECOND A time exposure may be obtained by using the B (Bulb) position on the High Shutter Speed Dial. The shutter remains open from the time you press the Shutter Release Button until the pressure is removed. The use of a Cable Release is recommended for this purpose.

You may also obtain a time exposure with the Slow Shutter Speed Dial at T (Time). Press the Shutter Release Button and the shutter will open and remain open until you turn the Slow Shutter Speed Dial to 1 or until you turn the Film Winding Knob. (The latter method is

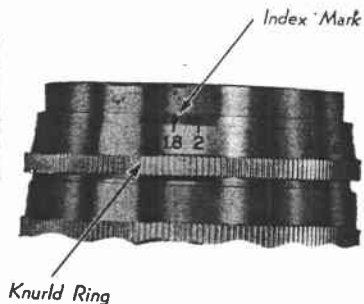
recommended only for microphotography; etc.). The shutter will close only when either of the two methods given above are used.

NOTE: For speed slower than 1/25 sec. a solid tripod is essential and preferably a Canon Camera Holder.

IMPORTANT: When using Flash Unit with the Model IV-S2 camera and making exposures with the High Shutter Speed Dial precise flash and speedlight synchronization will be affected if the Slow Shutter Speed Dial is not set at 25. See pages 30-33.

LENS APERTURE SCALE The Lens Aperture controls the amount of light entering the lens and also the Depth of Focus. Set the Lens Aperture (f-stop) by turning the Aperture Scale (knurled ring, see illustration) to the proper position. This is best determined with an exposure meter or following the instructions given with the film.

NOTE: The more light you want to enter the lens, the larger must be the Lens Aperture. Rotate the Knurled Ring while looking into the lens and see the movement of the diaphragm.



When the Lens Aperture is closed by one stop, the amount of light entering the lens is decreased by one half; two stops, by one quarter and so on. Therefore you should adjust the Lens Aperture in conjunction with your shutter speed. Suppose your exposure meter indicates a speed of 1/200 sec. at f:5.6. If you want to expose for a slower speed, say 1/100 sec., than you must close down the Lens Aperture to f:8. In other words, as you have doubled the time of the shutter opening, you must reduce the amount of light entering the lens by half to obtain the correct exposure.

The table below gives you the relation between the Lens Aperture and the relative time of exposure for Canon Camera.

Lens Aperture	1.8	2.0	2.8	3.5	4.0	5.6	8.0	11	16
Relative Exposure Time	0.8	1	2	3	4	8	16	32	64

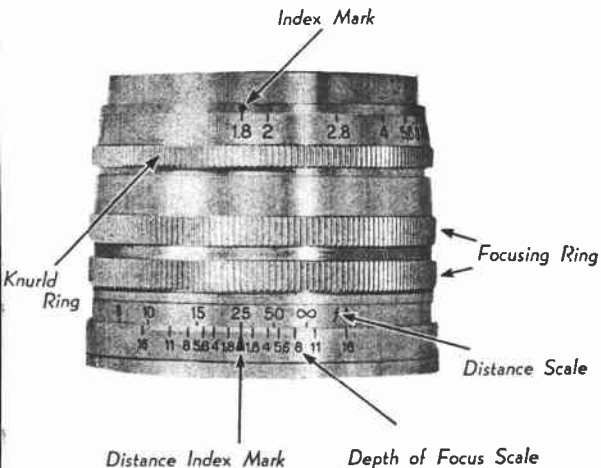
DISTANCE SCALE When accurate focus (see page 13) has been made on any object, the actual distance from the plane of the film to the object is shown by the Distance Scale (see next page) which is marked from 3.5 to infinity (∞) in feet. Lenses with meter scales are provided when specially ordered.

DEPTH OF FOCUS SCALE

See Illustration below. A little study will show how to plan the exposure you want. The Distance Scale and the Depth of Focus Scale are used together.

Depth of Focus means the range of objects which will be in focus on your film. This range varies with the distance of the object of sharp focus and the Lens Aperture (see page 11). It extends from in front of the object of sharp focus to beyond it. The greater the Lens Aperture, the less will be the Depth of Focus. Depth of Focus also diminishes in proportion to decrease in distance the object of sharp focus is from the film plane.

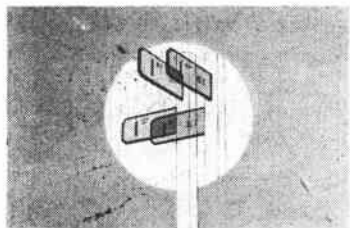
The illustration shows the Lens Aperture at $f:1.8$ and the Distance Scale at 25 feet. An object at 25 ft is in sharp focus. The Depth of Focus Scale shows that the nearest object also in focus is approximately 21 feet and the farthest object in focus is approximately 30 feet. If the Lens Aperture Scale is set at $f:11$ the object in focus will extend from 12 feet to infinity (∞).



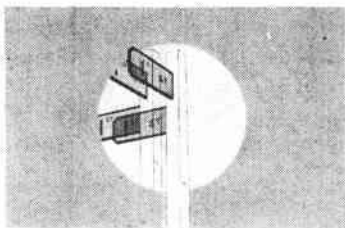
FOCUSING It is recommended that the camera be held as illustrated. It should rest comfortably on the heel of the left hand and be balanced by the right hand. Hold the camera to your cheek to keep it steady while sighting through the Range-View Finder Eyepiece. Manipulate the Focusing Lever with either your left or right forefinger whichever is more comfortable. More precise focusing is possible by setting the Magnification Selector at 1.5x (see page 17) and rotating the Milled Focusing Ring as shown in lower illustration.

NOTE: The Focusing Lever is released from the Infinity Catch on the lens by depressing the knob and turning.

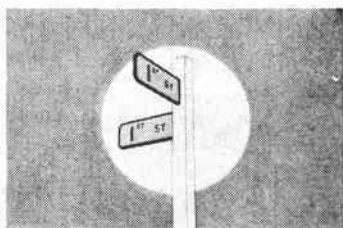




Out of focus



Out of focus



In correct focus

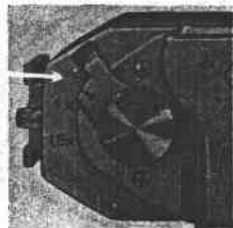
As you look through the Range-View Finder Eyepiece and rotate the Focusing Lever you will see two images of the same object. The images will move apart or together as the lever is rotated. Turn the Focusing Lever until the two images of the object on which you are focusing coincide exactly. Your lens is now in sharp focus on the object. At the same time all objects in the range shown on the Depth of Focus Scale will also be in focus at the f-stop you select for the exposure.

MAGNIFICATION SELECTOR There are three positions for the Magnification Selector, F, 1x, and 1.5x. When really sharp focusing is required, turn the Selector to 1.5x when the object will be magnified 1.5 times. Remember however, the actual image recorded on the film will be the picture seen at F position of the Selector.

The 1x position corresponds to the image seen and recorded by any CANON LENS with a focal length of 100 mm. The 1.5x position shows the image for any CANON LENS of focal length of 135 mm.

A certain difference between the picture seen through the Range-View Finder Eyepiece and the image recorded by the lens is inevitable. For normal photography the difference is immaterial being so slight. But for certain work compensation should be allowed.

The diagram shows the difference, or parallax, when the Selector is at F for a 50 mm lens.



Field-of-View of the lens (50 mm).

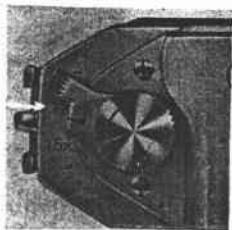
Field-of-View of the finder at 3.5 ft.

Field-of-View of the finder at 12 ft.

Field-of-View of the finder at infinity.

The diagram below shows the parallax when the Selector is set at 1x for CANON LENSES with focal length of 100 mm. Note that when the object distance is less than 13 feet a special viewfinder with parallax compensation adjustment should be used.

NOTE: Specially designed Viewfinders to compensate for parallax are available for all CANON LENSES except for the Standard 50 mm.



*Field-of-View of the lens (100 mm)
Field-of-View of the finder at 5 ft.*

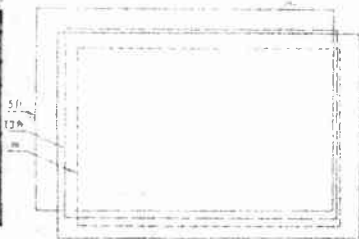
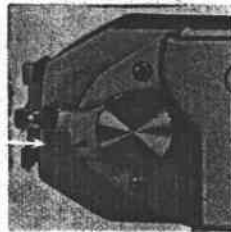


*Field-of-View of the finder at 13 ft.
Field-of-View of the finder at Infinity*

At 1.5x for 135 mm CANON LENSES the parallax will be as shown below. For distances less than 14 feet it is essential to use the special viewfinder available for each type of accessory lens.

ACCESSORY CLIP
any attachments
such as the Spe-
cial Viewfinder,
Universal View-
finder, etc.

This is used for fitting



- *Field-of-View of the lens (135 mm).*
- - - - - *Field-of-View of the finder at 5 ft.*
- - - - - *Field-of-View of the finder at 13 ft.*
- - - - - *Field-of-View of the finder at infinity.*

EXPOSURE and COMPOSITION To expose and compose your picture are the last steps and perhaps the most important. Be sure that the main object in the scene you are photographing is in sharp focus.

For 50 mm CANON LENSES, the image recorded on the film will be the one seen through the Eyepiece with the Magnification Selector at F. Having composed your picture gently press the Shutter Release Button with your forefinger. Never jerk while making an exposure. The slightest movement for an exposure made at 1/25 sec. or slower will give you a blurred picture.

By pressing the camera to your cheek, keeping your elbows into your side and by holding your breath





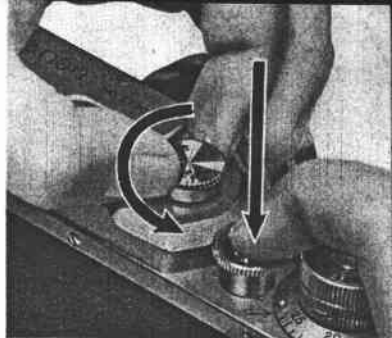
just before and during the actual instant of exposure you will get an extremely sharp picture.

There are two ways to hold the camera. One is for horizontal pictures as shown in the preceding page and the other is for vertical pictures as shown here. For vertical pictures the Shutter Release Button is pressed by your thumb instead of forefinger.

NOTE: Make sure your finger does not touch the High Shutter Speed Dial as it will alter the correct speed. Give particular attention to this when gloves are worn.

DOUBLE EXPOSURES Double exposures are normally quite impossible on the CANON CAMERA, but for special effects they are sometimes needed. Expose the first picture as usual. Then while keeping the Shutter Release Button pressed down, turn the High Shutter Speed Dial COUNTER-CLOCKWISE without lifting the Dial until you hear a "Click" and the Dial turns no further. Release the Shutter Release Button first then the Dial. The Shutter is now completely rewound and the second exposure may be made.

This action may be repeated any number of times. After each exposure the Dials may be adjusted to another speed, if required.

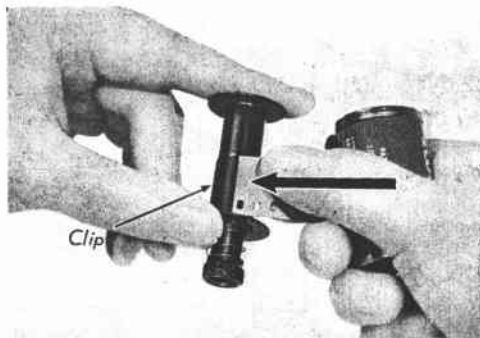
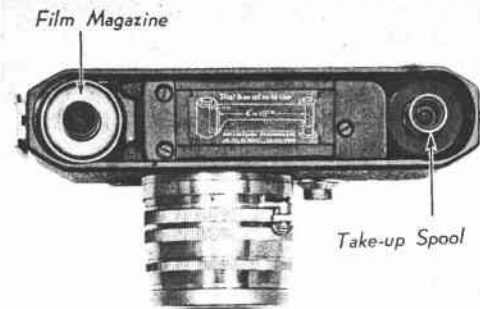


II. LOADING AND UNLOADING YOUR CAMERA

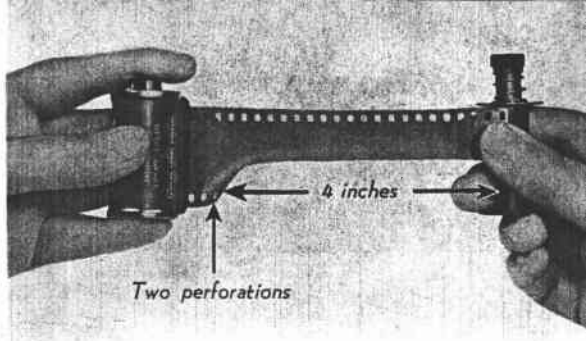
LOADING Always load in subdued light. Before you begin loading, set the Reversing Lever to "A" (Advance) and turn the Film Winding Knob until it stops. Press the Shutter Release Button. Keep the Lens Cap in place.

Open the Baseplate by lifting the lock handle and turn it in the direction shown by the arrow, from "Close" to "Open."

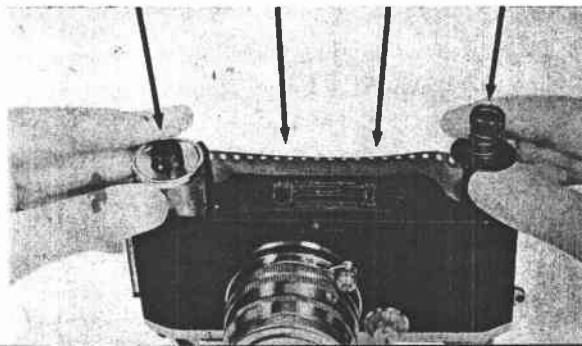
Pull out the Take-up Spool, and slide the ready cut leader end up under the Take-up Spool Clip as far as it will go. The glossy side of the film should face the spool. Make sure that the perforated edge of the film is flush with flange of the Take-up Spool. Do not wind the film around the spool.



With the Take-up Spool in your right hand and the film magazine in your left hand, draw out the film about four inches so that the first two perforations are showing. See diagram plate inside the camera.



Slide both the film magazine and the Take-up Spool evenly and gently into their correct chambers, all the way down. The dull (emulsion) side of the film should be facing the lens.





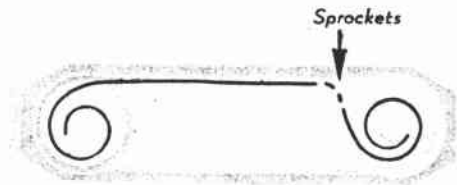
Turn the Film Winding Knob slightly to engage the sprockets in the film perforations as shown.

The brown line as shown in the diagram indicates the film path when correctly loaded.

Not correct



Correct



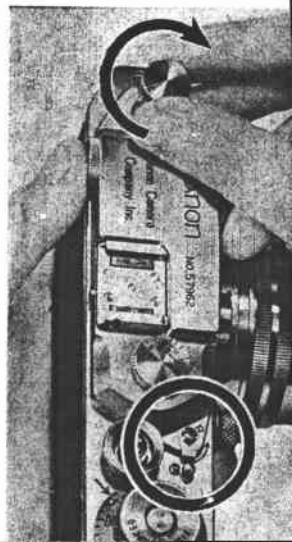


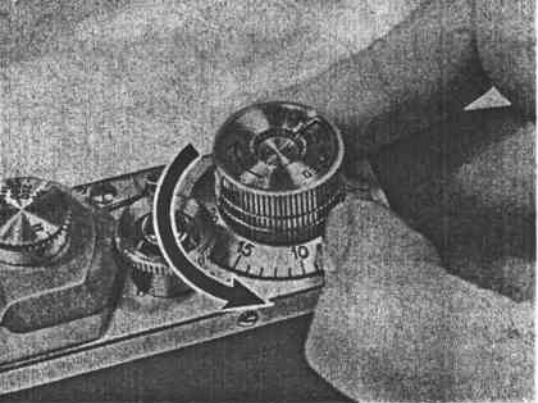
Replace the Baseplate by hooking it into the lug first and lock the Baseplate.

Keep the Reversing Lever still at "A". Pull up and turn the Rewinding Lever gently in the direction shown by the arrow in the diagram.

When it will not turn further, your film is taut, having taken up the slack film in the magazine.

Lastly, turn the Film Winding Knob and press the Shutter Release Button. Repeat this process once again. By doing this you ensure that you will not use the first two frames which have been exposed to light while you were loading. Please turn to page 26 to verify that you have correctly loaded the film.





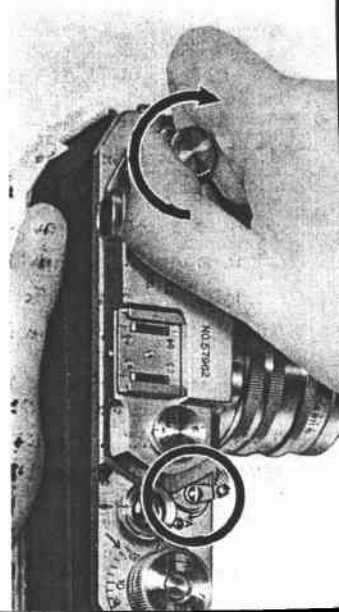
Remember to set Exposure Counting Dial at the base of the Film Winding Knob to "1" by turning it counterclockwise with your thumb nail catching one of the lugs on the Dial. Next set the Film Speed Indicator at the top of the Film Winding Knob to the speed of your film. This will serve as a reminder that your camera is loaded and will show speed of the film you are using.

NOTE: Each time the Winding Knob is turned the Rewinding Knob rotates in a reverse direction. This indicates that the film is properly passing to the Take-up Spool for the next exposure, provided you have taken care to make the film taut by tightening the film wound in the magazine. Should the Rewinding Knob not turn, obviously the sprockets are not engaging the film perforations. You should then rewind the film until it disengages the Take-up Spool, open the baseplate and reload.

IMPORTANT: THE LEADER CAN BE PREVENTED FROM DRAWING COMPLETELY INTO THE MAGAZINE BY STOPPING THE REWINDING MOTION (SEE NEXT PAGE) AS SOON AS THE REVOLVING OF THE SHUTTER RELEASE BUTTON CEASES.

UNLOADING When the Film Winding Knob will no longer turn, you have come to the end of your film roll. **DO NOT FORCE IT.** Turn the Reversing Lever from "A" to "R" (Rewind). Raise the Rewinding Knob and rewind the whole film back into its original magazine. When you have done this, you may open the Baseplate and take out the film magazine. The film is now ready for developing.

During the rewinding operation the Shutter Release Button turns and stops the moment the film leader is pulled off from the Take-up Spool. Rewind a few more turns so that the leader will be drawn completely into the magazine.



III. HOW TO CHANGE YOUR CANON LENSES

DISMOUNTING Place your **CANON CAMERA** in your hand. Grip the base of the lens barrel by the **Lens Focusing Lever** and twist counter-clockwise. The lens will unscrew without difficulty. The **Lens Focusing Lever** should be kept locked in the **Infinity Lock** all the while.

Immediately the lens has been taken off, place it into a clean container (**Canon Leather Lens Case** or **Canon Plastic Lens Case**) to prevent the lens elements being scratched or contaminated by dirt or finger marks.



MOUNTING Before fitting the new lens into place be sure to unscrew the Dust Cap. First turn the lens counterclockwise a little way and then clockwise. You will find the thread will be introduced more easily. Do not hold the lens by any part other than the base but the Milled Ring or the Lens Focusing Lever. Take care not to force if the thread binds while turning, as you have crossed the threads.

NOTE: *During the interchange, do not face the Lens Flange of the camera to strong light. It is recommended that you shield the Flange while the new lens is being prepared.*



IV. BUILT-IN FLASH SYNCHRONIZER

The built-in flash synchronizer of the Canon camera model IV-S2 is of three synchronization systems:

1. High shutter speed synchronization
2. Speedlight synchronization
3. Slow shutter speed synchronization

and designed to be used in conjunction with the Canon Flash Unit model X, except the Speedlight synchronization.

HIGH SHUTTER SPEED SYNCHRONIZATION

This systems is generally for focal-plane flash bulbs GE No. 6, 31; Sylvania FP-26, 2A; Westinghouse No. 6; etc., but peak type flash bulb such as GE No. 5, 11, 22, 50; Sylvania No. 0, 2, 3, 25, 40; etc. can be used as well. For guide numbers and Micro Sync settings please refer to the cards which accompany the instruction booklet for the Canon Flash Unit model X.

NOTE: Do not press the Shutter Release Button even though the shutter is not wound, as it will fire the flash bulb.

SPEEDLIGHT SYNCHRONIZATION

Speedlight unit (having not more than 10 millisecond delay) is connected with a Canon Extension Cord "A" (15ft) through a Canon Self-Extension Adapter fitted to the flash mounting bracket of the camera. As for the setting make sure to set the Slow Shutter Speed Dial to "X" keeping the High Shutter Speed Dial at 1/25 sec. DO NOT USE OTHER SPEEDS. Aperture openings (f-stops) should be determined by instruction given with the speedlight unit.

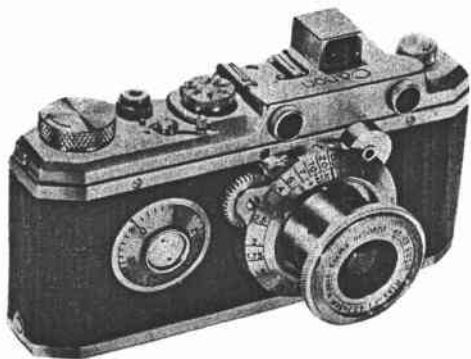
NOTE: *Do not press the Shutter Release Button other than checking the connection, even though the shutter is not wound, for it discharges the speedlight.*

SLOW SHUTTER SPEED SYNCHRONIZATION

This is generally for peak type flash bulbs such as GE No. 5, 11, 22, 50 ; Sylvania No. 0, 2, 3, 25, 40 ; etc. However, focal-plane flash bulbs can be used just as well. For setting please refer to the cards which are furnished with the instruction booklet for the Canon Flash Unit model X.

NOTE: *Do not press the Shutter Release Button even though the shutter is not wound. Otherwise the flash bulb will fire.*

V. EVOLUTION OF CANON CAMERAS

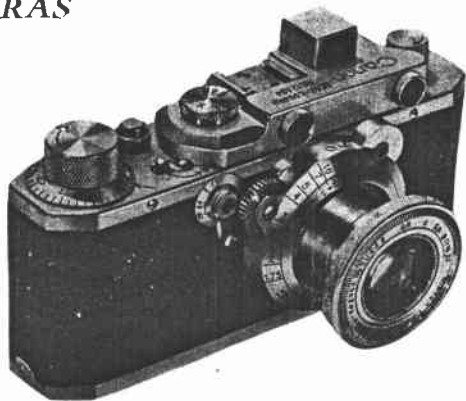


1935 to 1937

Model: Original

Shutter Speeds: 1/20 to 1/500 sec. & B

Lens: Nikkor 50 mm f: 4.5

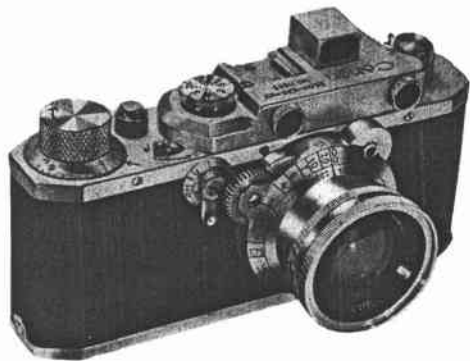


1937 to 1939

Model: S

Shutter Speeds: 1 to 1/500 sec. & B

Lens: Nikkor 50 mm f: 2.8

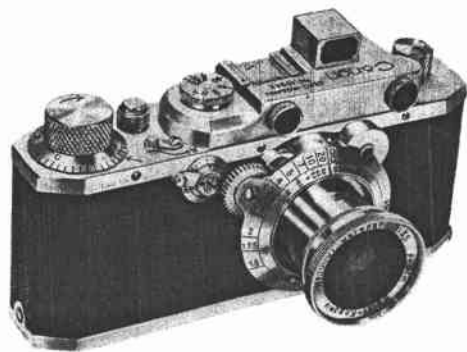


1939 to 1942

Model: S

Shutter Speeds: 1 to 1/500 sec. & B

Lens: Nikkor 50 mm f: 2

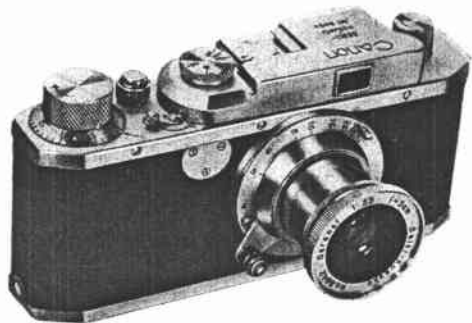


1942 to 1945

Model: S

Shutter Speeds: 1 to 1/500 sec. & B

Lens: Serenar 50 mm f: 3.5

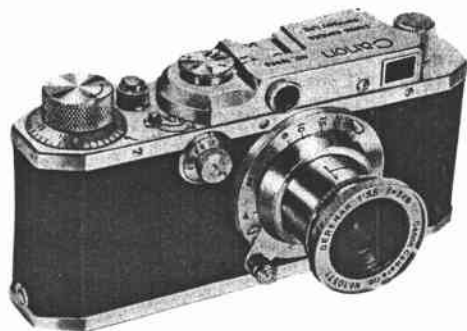


1945 to 1947

Model : J

Shutter Speeds : 1/20 to 1/500 sec. & B

Lens : Serenar 50 mm f : 3.5



1947 to 1948

Model : S-II

Shutter Speeds : 1 to 1/500 sec. & B

Lens : Serenar 50 mm f : 3.5



1948 to 1950

✓ Model : 11-B

Shutter Speeds : 1 to 1/500 sec. & B

Lens : Serenar 50 mm f : 2



1950 to 1952

Model : 111

Shutter Speeds : 1 to 1/1000 sec., B & T

Lens : Serenar 50 mm f : 1.9



1950 to 1952

Model: IV

**Shutter Speeds: 1 to 1/1000 sec., B & T
Built-in Flash Synchronizer**

Lens: Serenar 50 mm f:1.9



1952 to

Model: III-A ✓

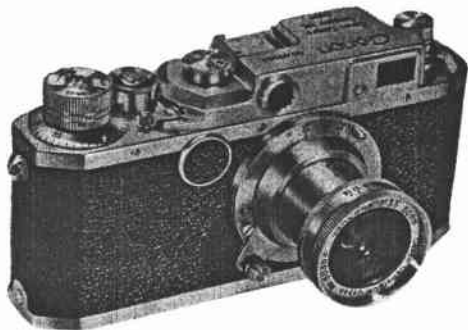
Shutter Speeds: 1 to 1/1000 sec., B & T

Lens: Serenar 50 mm f:1.8



1952

Model: IV-F (later renamed as IV-S)
Shutter Speeds: 1 to 1/1000 sec., B & T
Built-in Flash Synchronizer
Lens: Serenar 50 mm f:1.8



1952

Model: II-A
Shutter Speeds: 1/25 to 1/500 sec. & B
Lens: Serenar 50 mm f:3.5

ACCESSORIES

CANON FLASH UNIT MODEL X

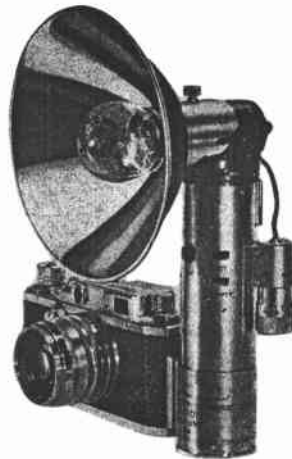


1952 to

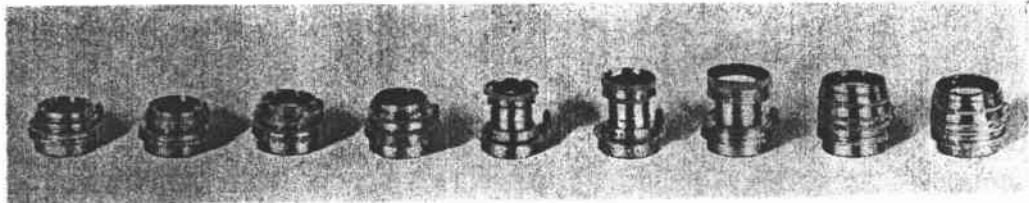
Model: II-D

Shutter Speeds: 1 to 1/500:sec., B & T

Lens: Serenar 50mm f:3.5



CANON INTERCHANGEABLE CANON LENSES

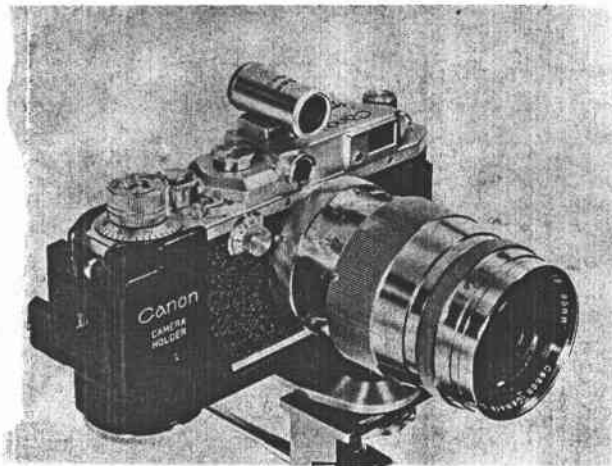


28 mm f : 3.5	35 mm f:3.5 Not Avail- able	35 mm f : 3.2	35 mm f : 2.8	50 mm f: 3.5 Not Avail- able	50 mm f : 3.5	50 mm f:1.9 Not Avail- able	50 mm f : 1.8	50 mm f : 1.5
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85 mm f:2 Not Avail- able	85 mm f : 1.9	85 mm f : 1.5	100 mm f : 3.5	100 mm f:4 Not Avail- able	135 mm f:4 Not Avail- able	135 mm f : 3.5
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CANON CAMERA HOLDER



The Canon CAMERA HOLDER is an ideal accessory for close-up, telephoto and long exposure shots. It is designed to hold the camera sturdy in a balanced position when using a tripod. The camera can be easily seated either vertically or horizontally. Spirit Level assures accurate composition of subject. Additional tripod sockets may be used for mounting the Canon Side Lighting Units.

Wind PC
FD 1.



CANON CAMERA COMPANY, INC. TOKYO, JAPAN

No. 197 (JMC-4) 5T K-9-52



Daite