

# Cosina Hi-Lite EC

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## Specifications

**Type:** Fully Automatic exposure control type 35mm SLR with TTL electronic system.

**Film:** 35mm roll film with 20 or 36 exposures.

**Picture size:** 24 x 36mm.

**Standard Lens:** Auto Cosinon MC 55mm f/1.4 or MC 50mm f/1.8 in straight helical action with fully automatic aperture.

**Distance Scale:** 00 - 0.5m.

**Shutter:** Copal EF-394 electrically controlled focal plane shutter

**Auto electronic shutter:** 2 - 1/2000 sec. (continuous with no stages)

**Manual shutter:** B, 1/1, 1/2, 1/4, 1/8, 1/15, 1/30, 1/60, 1/125(x) 1/250, 1/500, 1/1000 - 1/2000 sec.



**Finder:** Pentaprism finder with fresnel lens and cross microprism, magnification 0.9X, field of view approx. 95%, eyesight-0.8 diopter.

**Focusing:** Image on focusing plate blown up with distance scale for viewing.

**Mirror:** Quick return type.

**Film wind:** With wind lever (in an arc of 180° with a play of 20°)

**Film counter:** Automatic re-setting exposure counter.

**Film rewind:** Crank type.

**Lens Interchange:** thread mount (42¢mm P = 1mm.)

**Synchro flash:** FP and X (terminal of JIS B type), X-- 1/125 sec. with hot shoe (X).

**Exposure:** TTL meter of average light metering type (silicon blue cell), automatic exposure system giving priority to aperture determination (shutter speed indicated in finder), automatic exposure range EV 1 - 19 (with ASA 100 at F/1.4 - 16), film speed ASA 25 - 1600 with built-in light memory by IC circuit.

**Power Source:** 6V silver battery cell of 4G-13 type (eveready No. 544 or Mallory 4G13).

**Battery checker:** Run-down indicated in finder.

**Film Type Reminder:** Reversal, panchromatic and color.

**Others:** Release lock, film loading indicator window, self-timer.

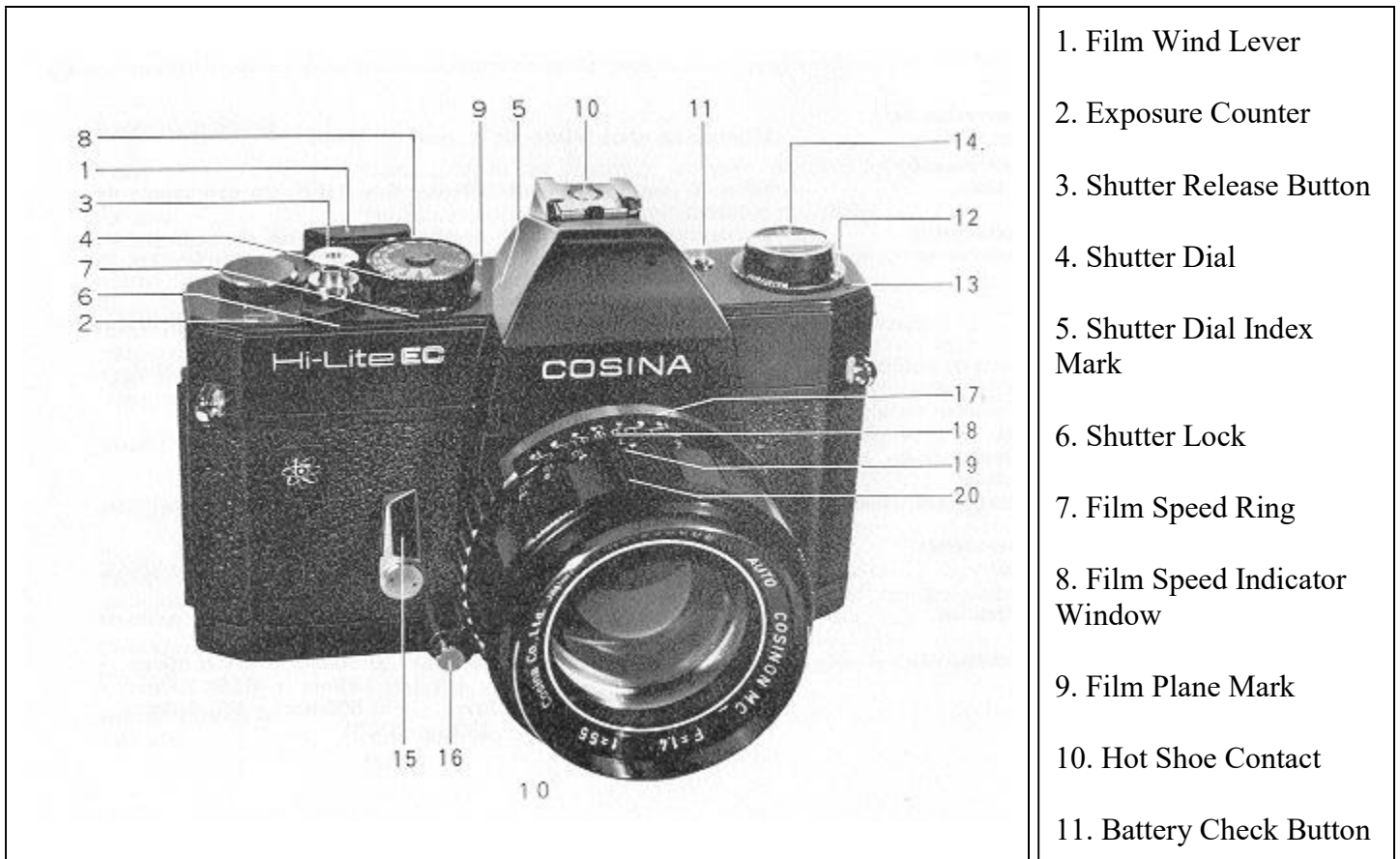
**Dimensions:** 145(W) x 98(H) x 92(D) mm with 55mm f/1.4 lens.

**Weight:** 1,040g. with 55mm f/1.4 lens, 945g. with 50mm f/1.7 (730g without lens).

**Accessories:** Finder cap, lens cap, battery, shoulder strap stop, shoulder strap ring.

**Lens:** F2.8/ 28mm · F2.8/ 35mm F1.8/ 50mm · F1.7/ 50mm F1.4/ 55mm · F2.8/ 55mm F2.8/ 135mm · F3.5/ 200mm F5.5/ 300mm · F6.3/ 400mm F8/ 500mm · F8/ 800mm F8/ 1,000mm · F4.5/ 90~230mm ZOOM

## Appellation of Component Parts

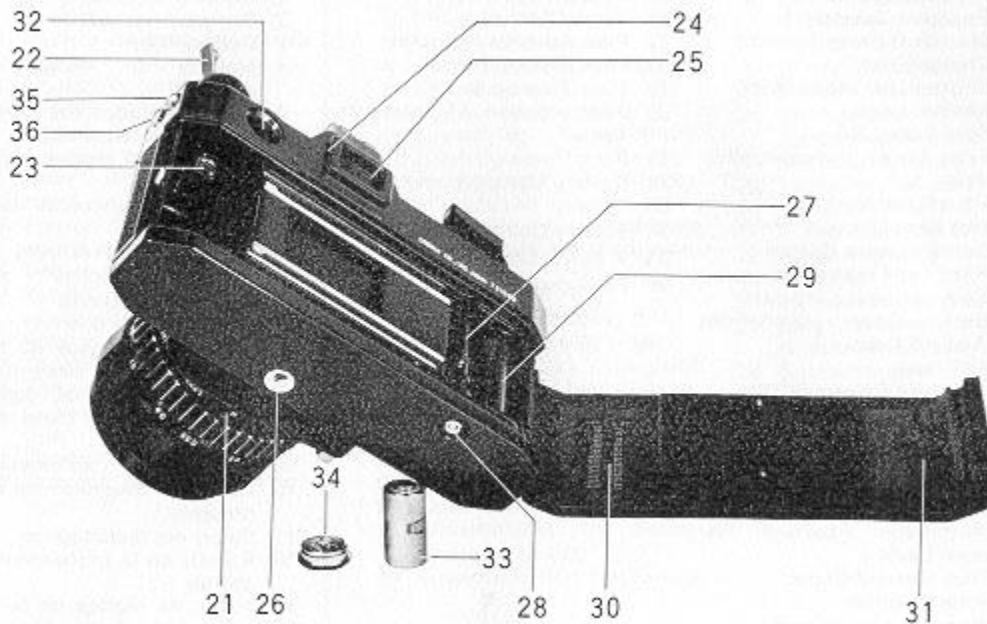


- 12. Film Type Reminder
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- 14. Back Cover Lock/Film Rewind Knob
- 15. Self-timer
- 16. Aperture Release Button
- 17. Aperture Ring
- 18. Depth-of-Field Scale

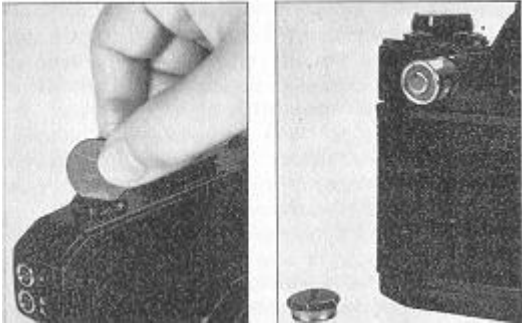
- 19. Focusing/Aperture Index Mark
- 20. Focusing Ring
- 21. Automatic Aperture Release Lever
- 22. Film Rewind Crank
- 23. Film Chamber
- 24. Accessory Set Window
- 25. Finder Eyepiece

- 26. Tripod Socket
- 27. Film Advance Sprocket
- 28. Film Rewind Button
- 29. Film Take-up Spool
- 30. Film Speed Conversion Table
- 31. Back Cover

- 32. Battery Compartment
- 33. Battery
- 34. Battery Compartment Cover
- 35. X Sync. Terminal
- 36. FP Sync. Terminal



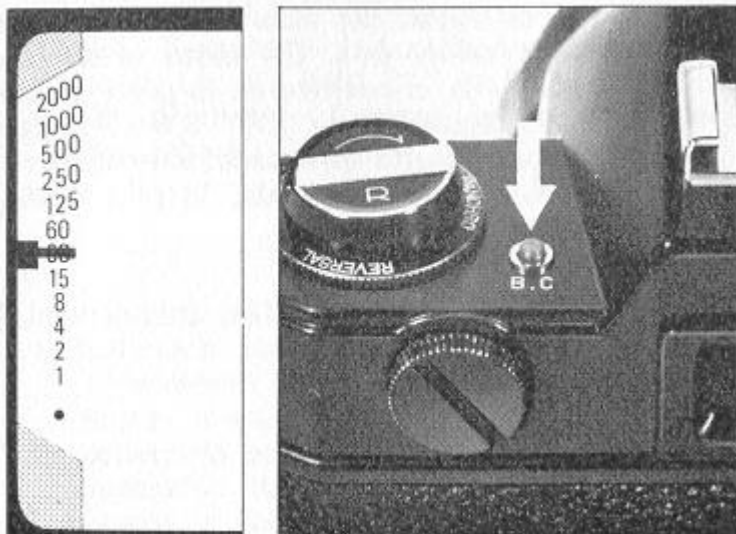
## Battery



The battery compartment is situated on the left-hand side of the finder. Turn the cover with something like a coin counter-clockwise and take it off. Insert the battery which comes in as accessory, the minus side down, and put the cover back into the original position. Make sure that the plus and minus poles are in the right positions.

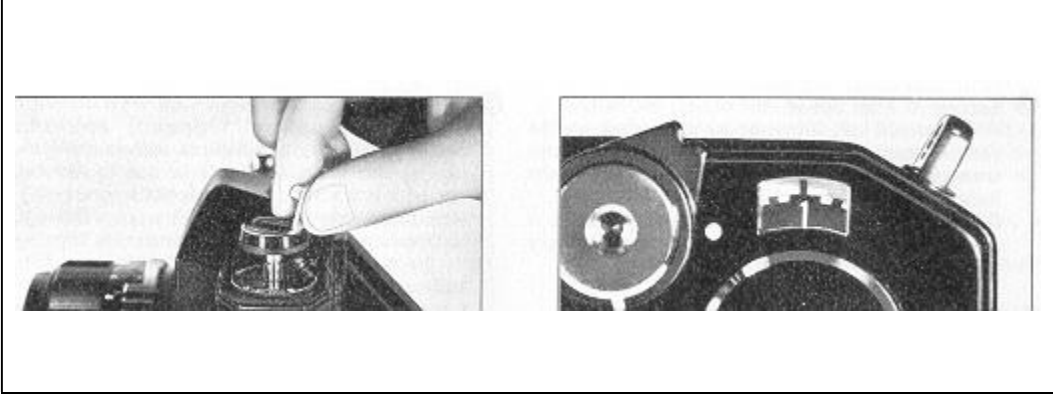
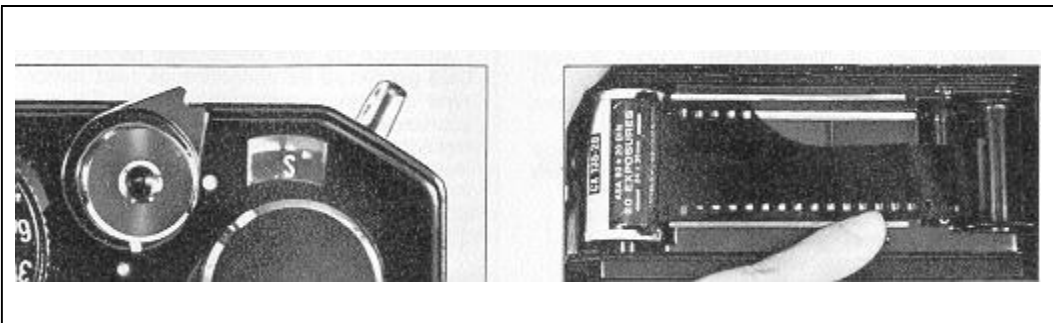
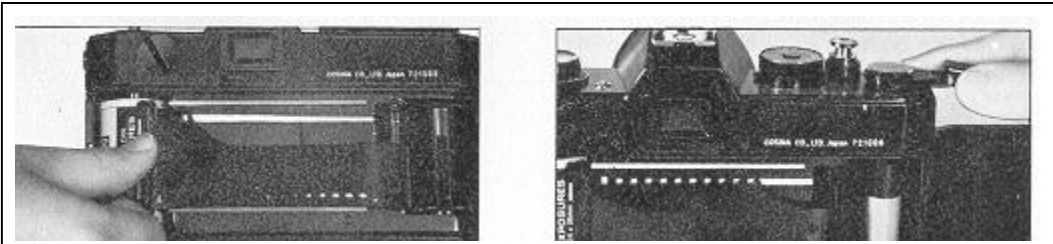
When your camera will not be used for a long span of time, take the battery cell out of the chamber. Otherwise, there will be cases in which the contact points are damaged by the leakage.

## Battery Check Button



While looking through the finder, depress the battery checker button. As long as the meter needle is found to be swinging in the dented part on the left-hand side of "30" or above this part, the battery cell is usable. If the needle is found to have come down below this part, the battery cell must be replaced with a new one.

## Film Loading

	<p>1. Flip up the film rewind crank. Pull it out one step and then pull it out with stronger force, and the back cover will open. As the back cover has opened "S" will automatically appear in the exposure counter window.</p>
	<p>2. Put a film cartridge into the film chamber. Make sure that the end of the film cartridge out of which its spindle juts out comes on the side of the bottom of the camera body.</p>
	<p>3. Pull out the tip of the film leader a little bit as shown in the photo. Pass it over the sprocket and insert it into the spool slit.</p>

4. It is advisable to take up the film until its perforations are in gear with the sprockets, by turning the film wind lever bit by bit.

5. After ascertaining that the film has been taken up evenly, snap the back cover shut.

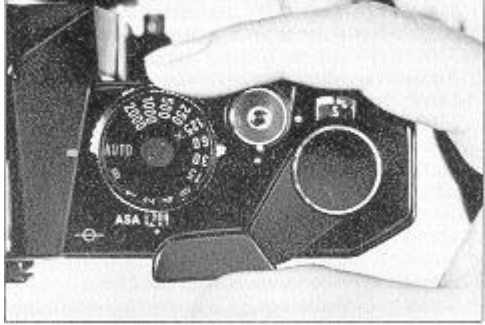
6. Turn the film wind lever until it does not move further and then depress the shutter button. Repeat this action while taking a look through the window. If you can see "1" in the film wind window, you are ready to take the first shot.

## Setting of Film Speed

After a roll of film has been loaded in the camera, turn the notched dial under the shutter speed dial so as to align the film speed with the index mark in the small window.

A film speed conversion table (ASA and DIN) is placed near the pressure plate of the back cover for your convenience.

## Film Type Reminder



When a roll of film has been loaded in your camera, set the film indicator, and this will make it easy for you to recall what type of film is in your camera.

Turn the notched ring under the film rewind knob, and bring the letters written on it in line with the " \* " mark on the left-hand side.



REVERSAL - Color film for slides

COLOR \* Negative color film

COLOR (bulb) - Color film of tungsten type

PANCHRO - Black-and-white film, infrared film

## Film-in-Camera Indicator



A red indicator mark appears when the camera has been loaded with film. It does not appear when the camera is not loaded with film. Before you start shooting pictures, make sure that you check the film-in-camera indicator.

## Aperture Determination



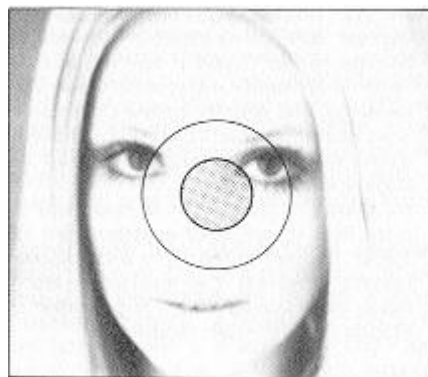
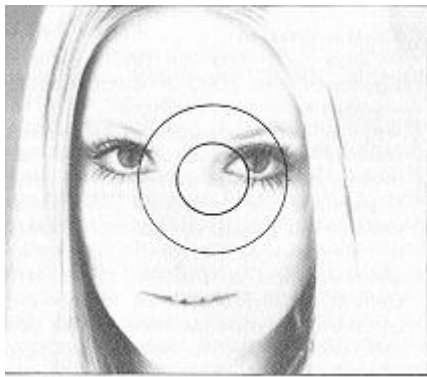
The Cosina Hi-Lite EC incorporates an automatic exposure shutter in which preference is given to aperture determination. Set the aperture first, and the shutter speed will be accurately determined according to the selected aperture value, film speed and lighting condition of your subject.

For example: Set the shutter dial to "AUTO". if you set the aperture to f/2.8 for indoor shooting or f/11 for outdoor shooting, it will be possible for you to take a picture on the instant, as the range within which the electric eye system works is so broad that it reacts to the brightness of practically every subject.

## Focusing

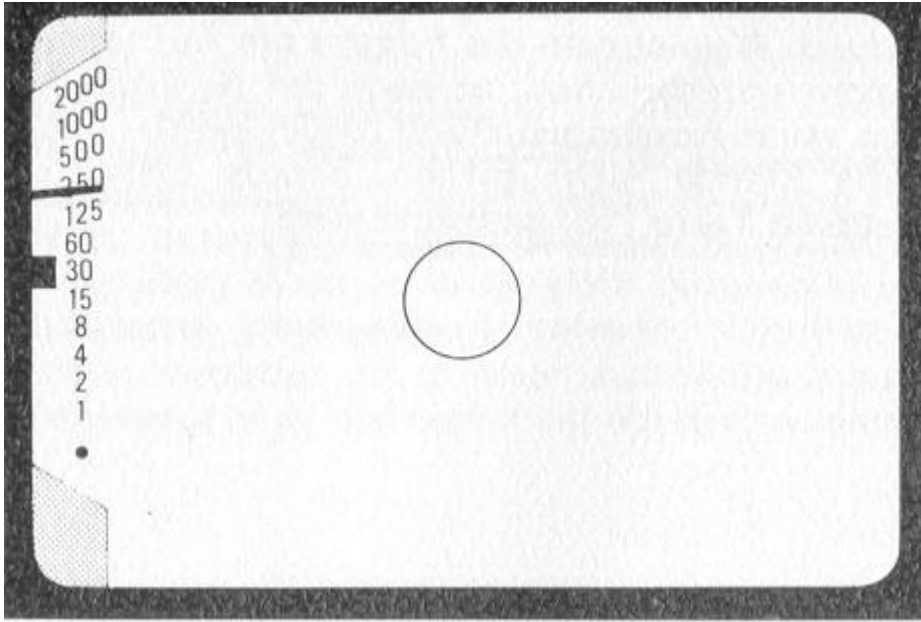


While looking through the finder, turn the focusing ring so that your subject is clearly visible. When the image of your subject does no longer "flicker" in the small round center of the finder, it means that your subject is focused. In the event that the lens is stopped down for metering purposes and the inside of the finder looks dim, press the aperture release button.





## Shutter Release



As you look into the finder, you will see the figures of 1 to 2000 on the left-hand side. They are shutter speed readings.

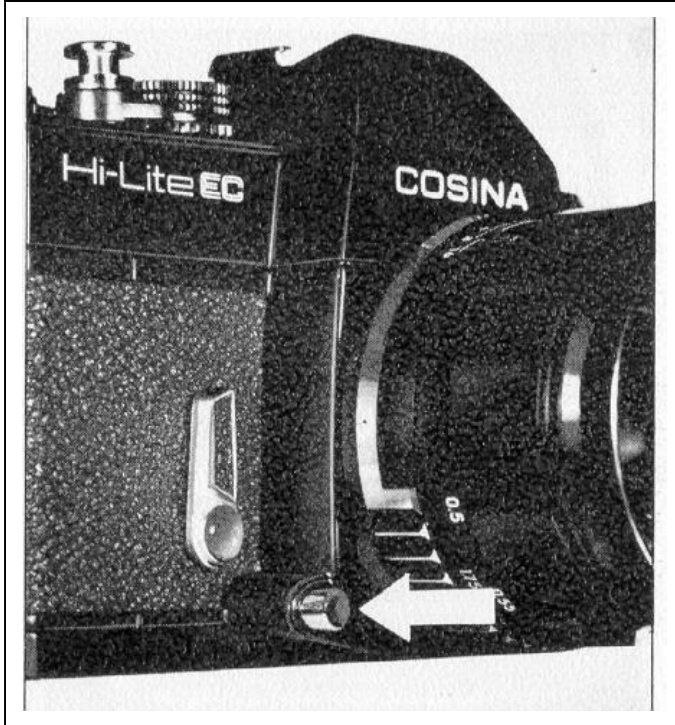
As you keep depressing the shutter button slowly, you will hear the shutter click. At this moment, the light meter will be switched on to trigger the meter needle. The meter indicates the correct length of exposure time, depending on the amount of light in a given situation. In other words, a shutter speed fitted to the correct exposure will be instantly determined by the electronic circuitry of the silicon photocell, and the shutter speed reading is indicated in the finder.



As you further depress the shutter button, the shutter will be released at the speed indicated by the meter. Even if the meter needle points to an intermediate point between shutter speed readings, the shutter of the Cosina Hi-Lite EC is so designed that it will be released at a speed fitted to the determined aperture with a non-stage speed variation.

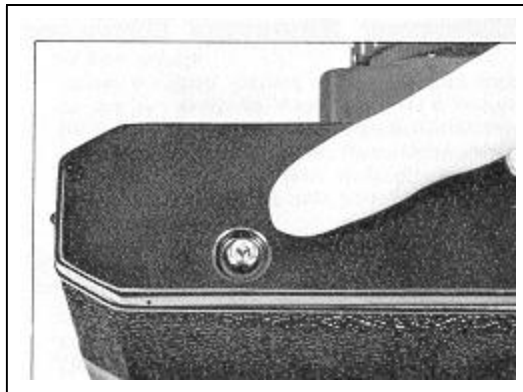
In taking a picture in a relatively dark place, note that it will take a little more time for the meter to start swinging in a stop-down metering system. Depress the shutter button after you have ascertained that the meter needle has stopped at a certain reading.

## Aperture Release Button

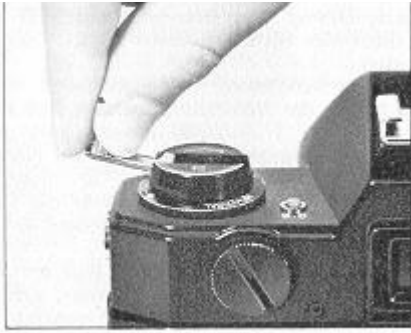


The Cosina Hi-Lite EC is so designed that when the shutter button has been depressed one step, the lens is stopped down and a further depression of the shutter button will release the shutter. When your finger is detached as the shutter button has been depressed one step, the lens will be locked and remain stopped down. Depress the aperture release button near the self timer, and the lens aperture will be opened.

## Film Rewind

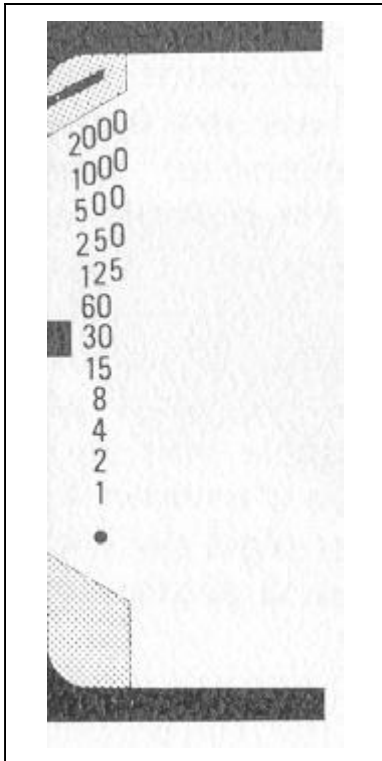


1. Push down the film rewind button on the bottom of your camera.
2. Flip up the film rewind crank and turn it in the direction indicated by the arrow mark, and the film will be rewound into the cartridge.



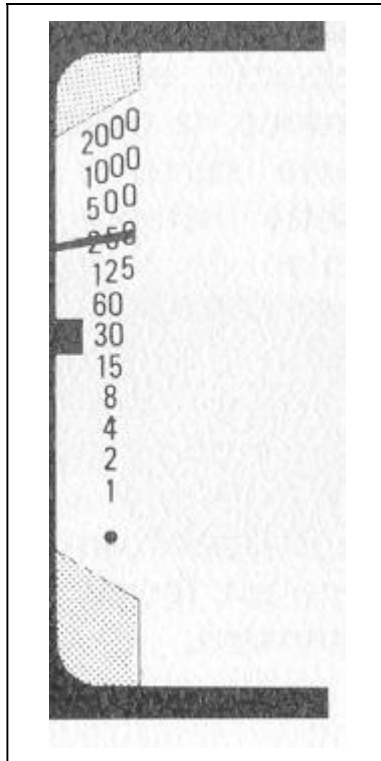
3. Fully pull out the film rewind knob to open the back cover and take out the film.

**Exposure / Over-exposure**



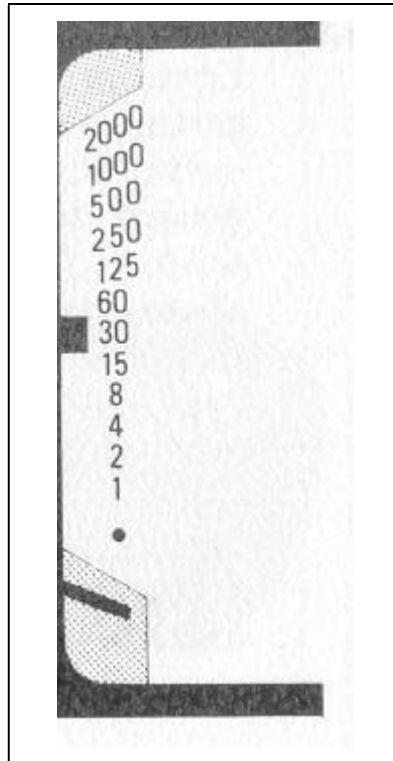
When the meter needle stops in the red part above "RED PART" as indicated

**Correct Exposure**



The correct exposure may be secured as long as the meter swings within a

**Under-exposure**



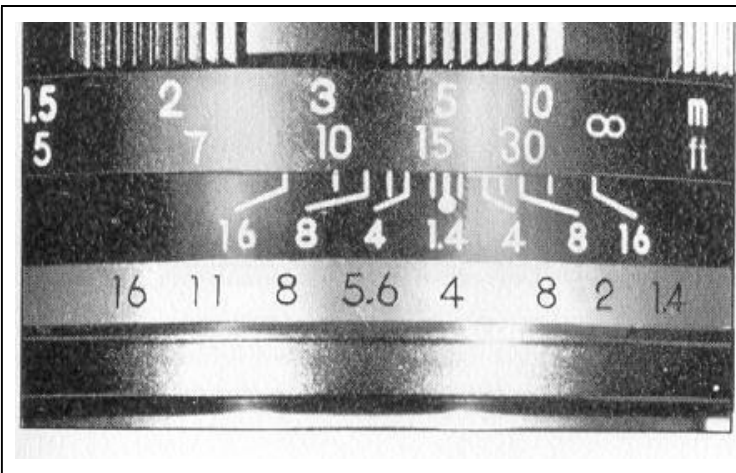
When the meter needle points to a red figure or the lower red part, open the

in the figure, stop down the lens so that the needle comes under "RED PART".

range of 1 to 2000 as indicated in the figure, but when pictures are to be taken with the meter needle pointing to any of the red readings under "30", it is advisable to use a tripod, instead of holding your camera in your hands.

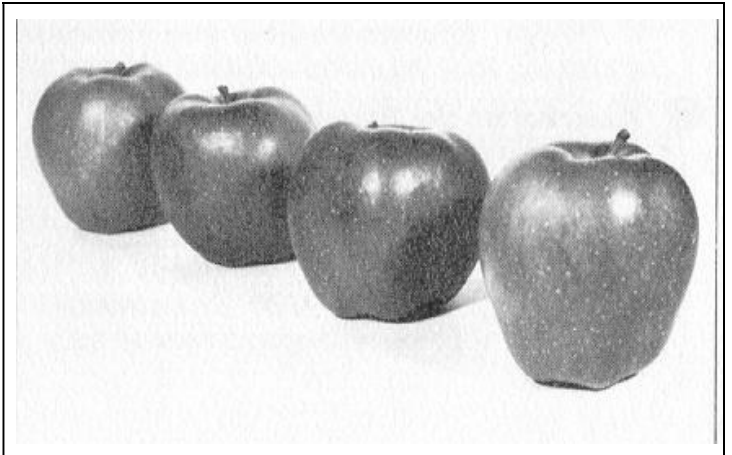
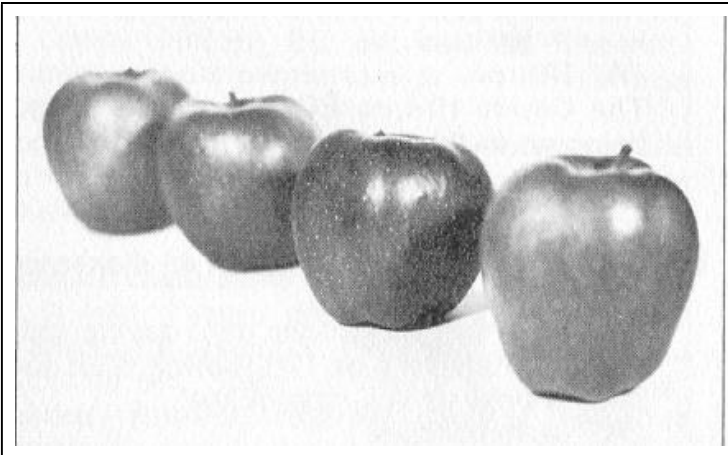
lens till it comes into correct position. When pictures are to be taken with the meter needle pointing to a red value, use a tripod so that your camera may not be accidentally shaken.

## Depth of Field

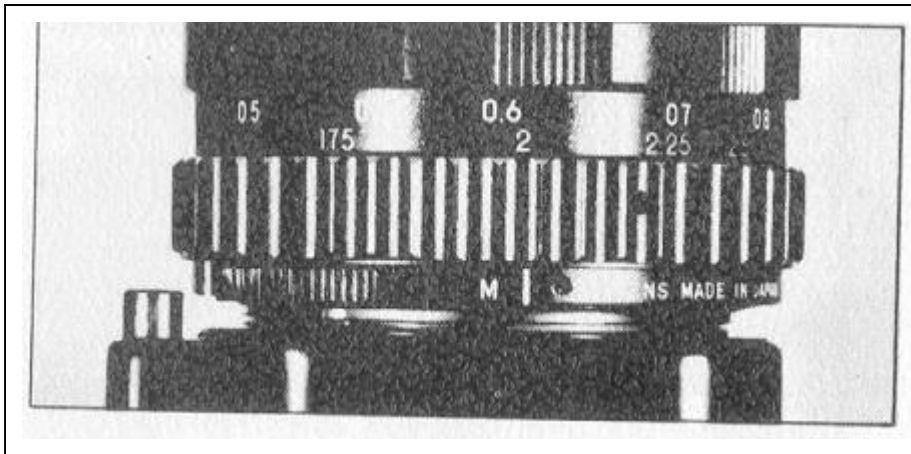


When the lens is focused on a subject, there is an area around it which is also in focus. This area is called a depth of field.

The depth of field is numerically indicated with taking distance values and a depth-of-field scale. For example, when a 55mm lens is used and pictures are to be taken of a subject five meters from the lens with its aperture set at  $f/4$ , the area between about 4.5 and 7 meters from the lens will be clearly photographed. The more the lens is stopped down, the larger the depth of field is.



## Automatic Aperture Release Lever



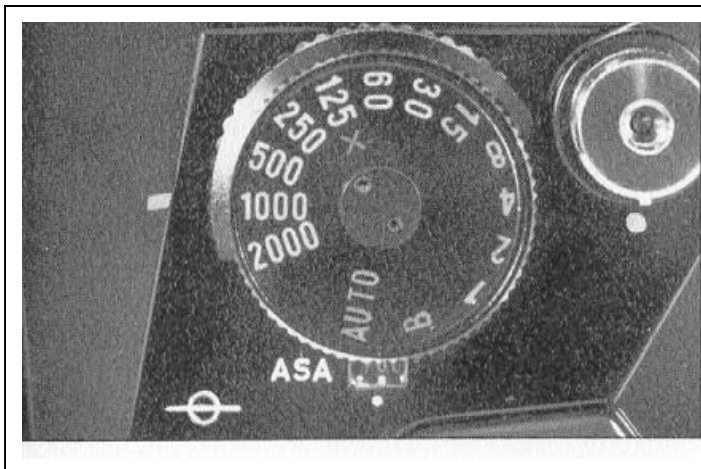
### **"M" (Manual)**

For use in special types of photography (such as with bellows).

### **"A" (Auto)**

The Cosine Hi-Lite EC is normally used while being set to "Auto".

## **Manual Shutter**



The Cosina Hi-Lite EC is equipped with a manual shutter which enables you to optionally determine the exposure time so as to produce special exposure effects, in addition to the electronic shutter with which the exposure is automatically determined for photographing. Change the shutter speed to one of the values of B. 1 - 1/2000 sec., and your camera will be set to manual.

## **For stop-down metering**

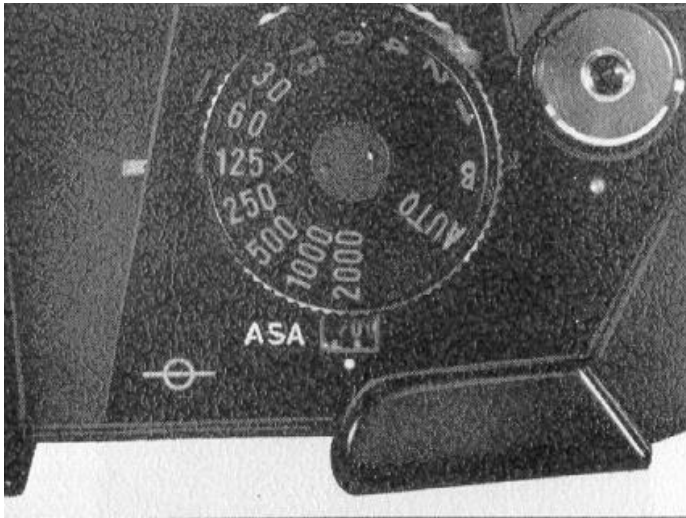
Here, determine a shutter speed first. For example, when you wish to take pictures at 1/250 sec., set the shutter speed at 1/250 sec. first. Next, look into the finder and turn the aperture ring till the meter needle points to "250".

The correct exposure is assured for your subject as long as the meter needle is brought in line with "250".

When you wish to take high- or low-key pictures, determine the correct exposure in the aforementioned manner. With this correct aperture reading serving as the basis, deliberately set the aperture ring to another reading, depending on the tone of picture you have in mind.

For example, when the correct aperture is  $f/5.6$ , set the ring to  $f/4$ , and you will be able to obtain a picture over-exposed by 1 EV. If the ring is set to  $f/8$ , the picture will under-exposed by 1EV.

## Synchro Flash Photography



The Cosina Hi-Lite EC is equipped with an X terminal for a strobo and an FP terminal for FP flash bulbs. The accessory shoe of this camera is a cord-less hot shoe exclusively for X synchro.

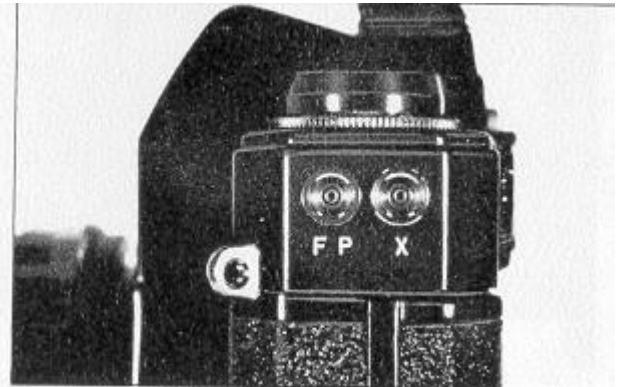
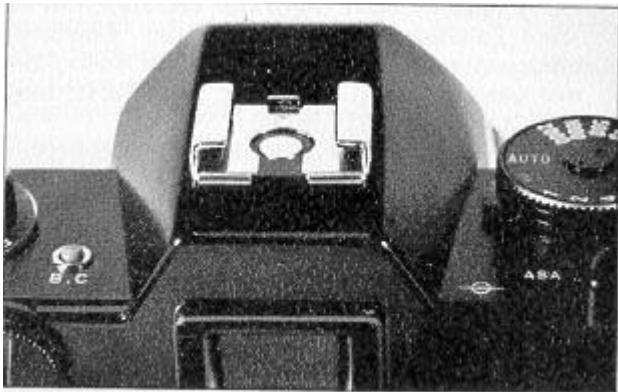
### 1. Strobo

Connect the cord of the strobo unit with the X terminal and set the shutter dial to the X mark (1/125 sec.).

If your strobe unit is equipped with a hot shoe, connect it with the accessory shoe of your camera.

### 2. Flash gun

When flash bulbs are used, connect the cord with the FP terminal.

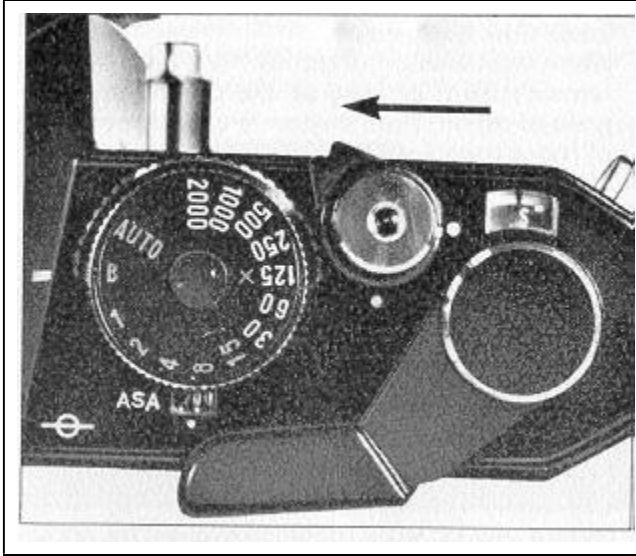


### 3. Exposure Determination for Flash Photography

The using directions of strobes and flash bulbs carry their respective guide numbers and indicate indices for the determination of correct exposure, depending on the speed of film and shutter speed to be used for photographing.

Bulb-to-subject distance x f-stop value = guide number. From this equation, the correct exposure value is obtained by dividing the guide number with the distance (from the subject to the lighting source).

## Long-time Exposure

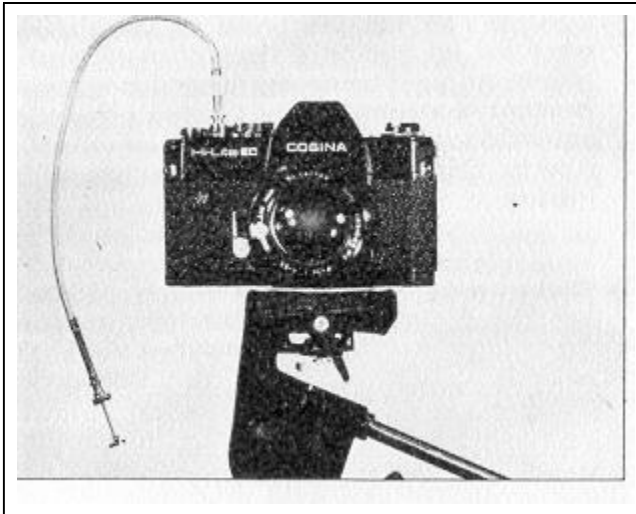


When the shutter is set to "B" (bulb), it will remain open, as long as the shutter button is pressed down. Bulb shutter is used for exposure of more than 1 second.

The Cosina Hi-Lite EC is equipped with an exclusive shutter lock. Depress the shutter button turn the lock lever from the blue to the red marks, and the shutter will be locked.

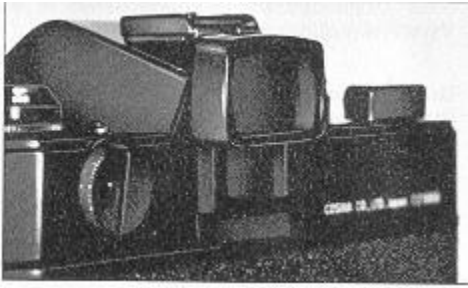
When the lock lever has been returned to the original position, the shutter will be closed. Note that the unnecessarily repeated use of this lock will result in the run-down of the battery.

## Use of Cable Release



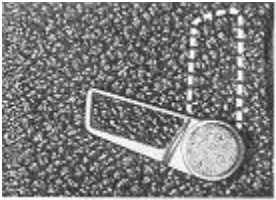
When the shutter is to be released at slow speed, use a tripod and a cable release. The cable release is screwed in on the socket of the shutter button.

## Finder Cape



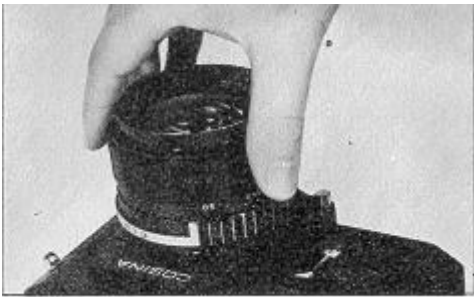
When your eye is detached from the finder eyepiece in taking pictures with a tripod and a self-timer or when slow shutter speeds are used with your camera set to auto as small apertures have to be used as in the case of close-up and copying work, use the finder eyepiece cap to fully prevent light from straying into the eyepiece.

## Self-timer



1. When the self-timer has been flipped down as indicated in the photograph, the self timer is charged.
2. As the shutter button is depressed, the shutter will be released in about 10 seconds.
3. When the self-timer is used in bright lighting conditions, it is advisable to use the finder cap.

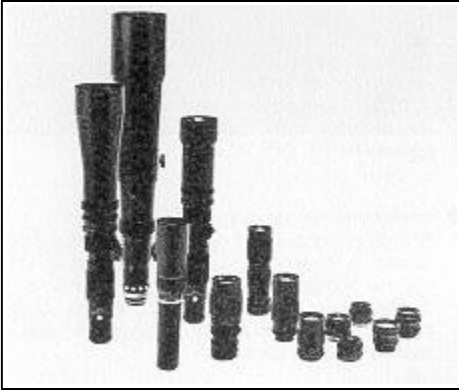
## Interchangeable Lenses



The Cosina Hi-Lite EC takes lenses of the thread mount. Interchanging is quite simple and any lenses of this type are usable.

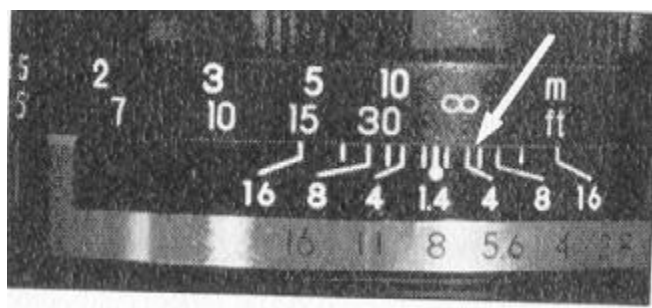
When the lens is dismounted, grip the base of the lens barrel and keep turning the lens counterclockwise until it comes off the lens mount.





Note: Interchange lenses with your camera handled as indicated in the photograph. Do not touch the mirror visible in the camera body when the lens has been dismounted.

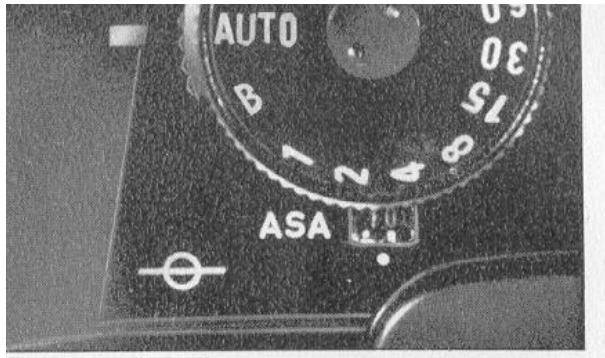
### Index for Infra-red Ray Photography



The red index on the right side of the focusing index mark is used when taking a picture on an infra-red ray film. Focus the camera on your subject in the ordinary manner and set the distance reading to this red index.



### Film Plane Mark



The red mark on the camera top indicates the position of the film plane. In close-up photography, it is advisable to measure the distance from this mark to the subject in order to secure the most accurate focus.