On-line camera manual library
This is the full text and images from the manual. This may take 3 full minutes for the PDF file to download.

If you find this manual useful, how about a donation of $3 to: M. Butkus, 29 Lake Ave., High Bridge, NJ 08829-1701 and send your e-mail address so I can thank you. Most other places would charge you $7.50 for a electronic copy or $18.00 for a hard to read Xerox copy.

This will allow me to continue to buy new manuals and pay their shipping costs.
It'll make you feel better, won't it?
If you use Pay Pal or wish to use your credit card,
click on the secure site on my main page.

N
Ni
Nik
Niko
Nikon
Nikon
Nikon F3

Milton Heiberg

N

NI

NIK

NIKO

NIKON

NIKON

F3

CONTENTS

PART ONE:
THE CAMERA

NIKON F3

PART TWO:

GENERAL PHOTOGRAPHIC TECHNIQUES

PART ONE

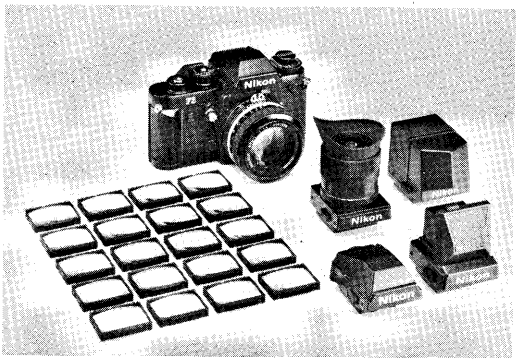
THE CAMERA

THE NIKON F3

Introduction

The Nikon F3 is a 35 mm, single-lens-reflex camera, with both manual and automatic-exposure capability. The F3 is a professional camera at the heart of an extensive system of lenses and accessories. The F3 features an electronic shutter, exposure metering directly from the film plane, and energy saving features for longer battery life.

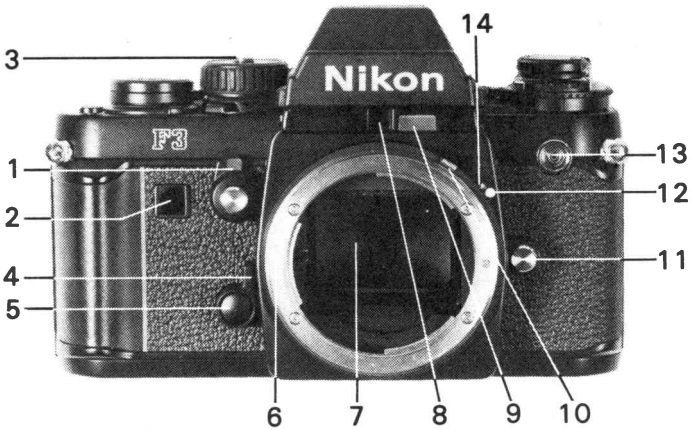
Central to the design of the Nikon F3 is flexibility. The F3 can be used with four different viewfinders, twenty different focusing screens, a six-frame-per-second motor drive, and electronic flash units that automatically synchronize with the through-the-lens

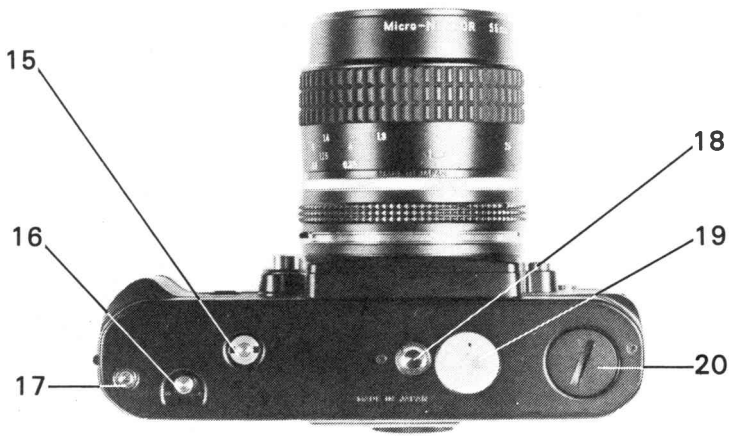


The Nikon F3 is a 35 mm, single-lens-reflex camera, with both manual and automatic exposure capability. It is the first automatic exposure camera with interchangeable finders and focusing screens.

exposure metering system. Since the metering system is contained in the body of the F3, any Nikon viewfinder can be used without losing metering capability. Other accessories designed for the F3 are Nikon Intervalometers, several camera backs, various remote-control units, and nearly 70 Nikon lenses, ranging from 6 mm to 2000 mm.

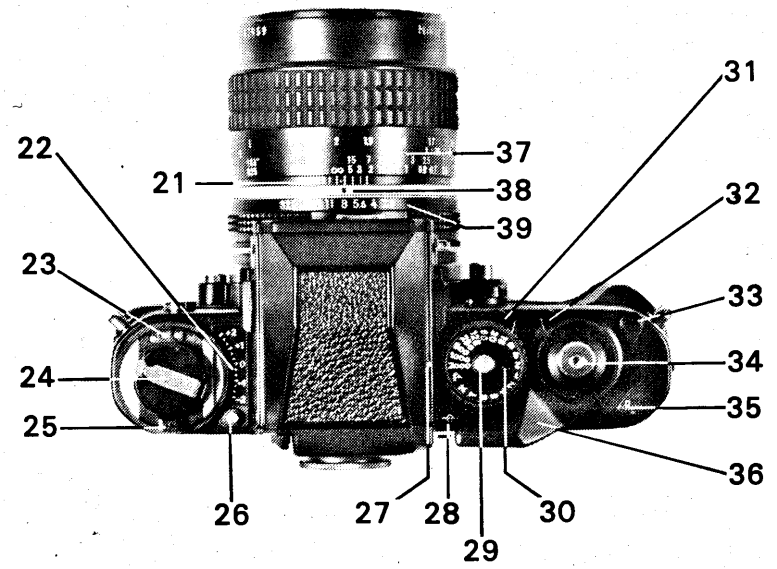
Following in the tradition of the Nikon F and F2, the Nikon F3 is designed to provide unparalleled quality, flexibility, and ruggedness. It is a camera capable of being modified to meet *any* photographic situation.

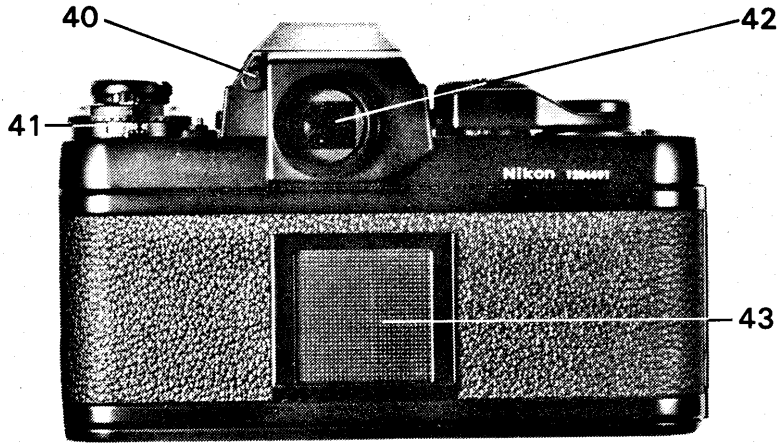

Nikon
F3
1
2
3
4
5
6
7
8
9
10
11
12
13
14


15
16
17
18
19
20

NIKON F3—PARTS NOMENCLATURE

1. Mirror lockup lever
2. Self-timer LED
3. Shutter-speed dial locking button
4. Backup mechanical release lever
5. Exposure memory lock button
6. Lens mounting flange
7. Reflex mirror
8. ADR window
9. Viewfinder illuminator
10. Meter coupling lever
11. Lens release button
12. Lens mounting index
13. Flash sync. terminal
14. Meter coupling lever release button
15. Motor drive coupling
16. Film rewind button
17. Motor drive positioning hole
18. Tripod/motor drive coupling socket
19. Battery chamber lid
20. Motor drive coupling cover


22
21
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39

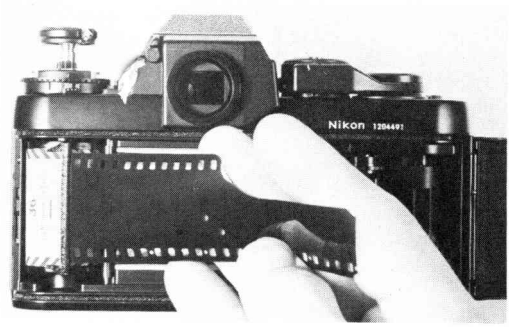

40
41
42
43
Nikon

21. Depth-of-field indicators
22. Exposure compensation scale
23. Hot-shoe contacts
24. Film rewind crank
25. Camera back lock lever
26. Exposure compensation locking button
27. Shutter speed index
28. Film plane indicator
29. Shutter speed dial
30. Shutter-speed scale
31. Self-timer lever
32. Power switch
33. Multiple exposure lever
34. Shutter release button
35. Frame counter
36. Film advance lever
37. Distance scale
38. Aperture/focusing index
39. Aperture ring
40. Eyepiece shutter lever
41. ASA film speed scale
42. Viewfinder eyepiece
43. Memo holder

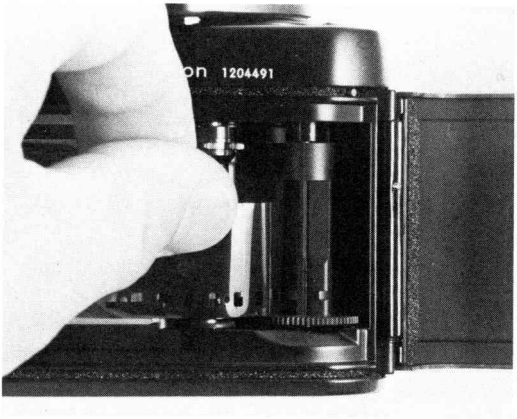
Basic Operation of the Nikon F3

LOADING FILM

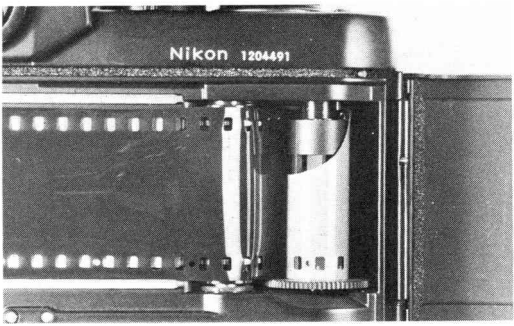
Open the camera back by first sliding the safety-lock lever toward the rear of the camera, then lifting the film-rewind knob until the back swings open. Insert a 35 mm film cassette into the film chamber. Push down the rewind knob, twisting it slightly to properly engage it with the cassette. Insert the film leader into a slot on the camera's take-up spool. Turn the take-up spool's wheel (on the lower end of the spool) to the left until the film leader is firmly and completely wrapped around the take-up spool making sure that the film perforations are properly engaged with both the top, and bottom, sprockets on the take-up spool. With the cartridge properly seated and the film straight, close the back of the camera. Alternately stroke the film-advance lever and release the shutter two or three times, until the film counter indicates the first frame is reached. Turn the rewind knob to take up any slack in the film. When the end of the roll of film is reached you must rewind the film. First depress the rewind button on the bottom of the camera. Pull out the rewind crank and turn it clockwise until you feel no more tension on the crank.



Place the film cartridge into the camera with the film leader facing to the right.



Insert the film leader into the take-up spool.

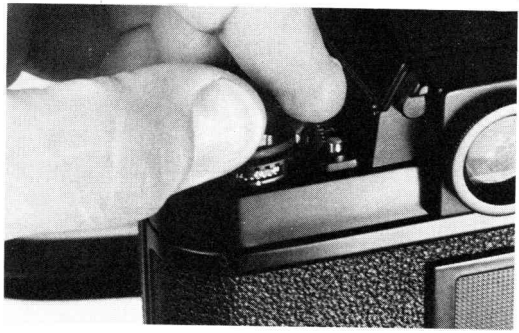


Turn the take-up spool until both the top and bottom sprocket wheels are properly engaged with the film perforations.

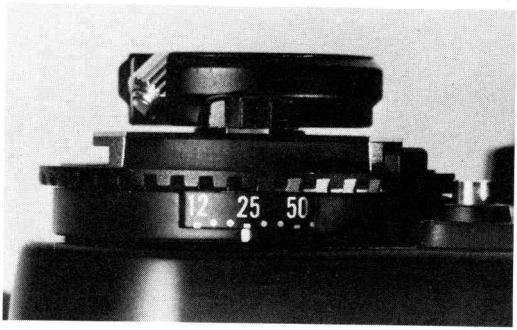
SETTING ASA FILM SPEED

To set the ASA, lift the outer collar of the ASA film-speed dial and rotate it until the ASA value of the film you are using is aligned with the white index mark.

First turn on the power switch then, check the batteries by slightly depressing the shutter release button. If the batteries are good the liquid crystal display (LCD) in the viewfinder will display the shutter speed. If it does not come on, batteries should be replaced.



To set the ASA film speed, lift the outer collar of the film speed dial and rotate it until the proper ASA number is opposite the white index mark.



Once the ASA is set, release the film speed dial and the appropriate setting is locked into place.

MAKING EXPOSURES

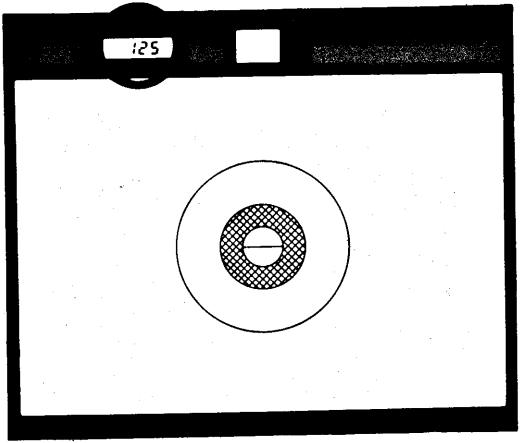
Take a picture by following these steps:

To set the camera for automatic operation, turn the shutter speed dial clockwise until the green "A" is aligned with the white mark on the prism housing.

Set aperture ring on lens to the desired *f*-stop.

As you look through the viewfinder, slightly depress the shutter release button so the LCD will display the

To test the batteries, turn the power on and lightly press the shutter-release button half way down. If the batteries are OK, the LCD will display the shutter speed.



shutter speed. The LCD will stay on for 16 seconds. If the shutter speed is too fast or too slow, turn the aperture ring to adjust. For hand-held photography, begin with a shutter speed of 1/125 sec.

Now focus by turning the focusing ring on the lens until the image appears sharp.

CHANGING LENSES

To remove a lens, press the lens-release button on the camera body located to the right of the lens housing and while firmly gripping both the lens and the camera body, turn the lens clockwise approximately 60 degrees until it comes off.

To mount a lens, place the lens on the lens mounting flange of the camera body. Align the black reference dot (or aperture/focusing index) on the lens mounting ring with the white dot (lens-mounting index) on the lens-mount housing of the camera body. When firmly seated, turn lens counterclockwise until it clicks into position.

When storing spare lenses, keep the front and back lens caps on. When carrying a camera body without a lens mounted, always protect the mirror mechanisms with a body cap.

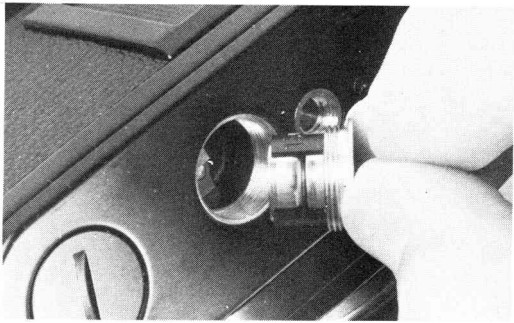
Detailed Operation of the Nikon F3

BATTERIES

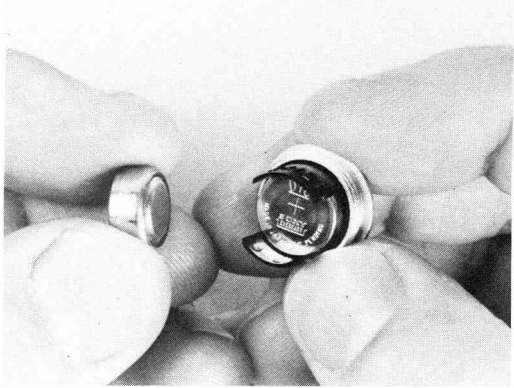
The normal operation of the Nikon F3 is entirely dependent on electrical power. With normal usage, a pair of 1.5-volt, silver-oxide, batteries (Eveready EPX76 or equivalent) will last up to one year.

To insert batteries, remove the battery-chamber lid by turning it counterclockwise with a coin. The lid has two extensions that hold the batteries in position. Place two 1.5-volt, silver-oxide, batteries into the lid so the negative side of the battery faces the lid, and the plus sign faces out. Replace clip, and lid, and tighten with a coin.

To test the batteries, turn on the power switch by pushing it to the right (facing away from the camera) so the red dot is showing. Then slightly press the shutter-release button only half way down. The exposure meter is activated by this procedure. If the batteries are good, the liquid crystal display (LCD) will illustrate the shutter speed in the top left window inside the viewfinder. The LCD remains on for 16 seconds and then goes off automatically to preserve power. If the batteries are too weak, or improperly installed, the LCD does not operate.



The batteries of the Nikon F3 are located in the battery chamber in the base of the camera.



The battery-chamber lid has a clip that holds batteries in place for easy installation.

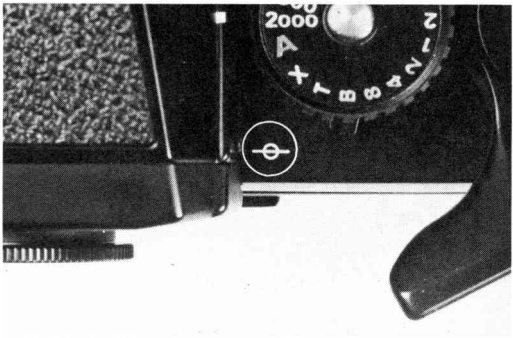
The Nikon F3 has a back-up mechanical release lever if batteries fail. By pulling out the back-up mechanical release lever part way, it becomes accessible to your fingertip. When pushed completely down it releases the shutter mechanically at a speed of 1/60 sec. The back-up mechanical release lever operates in this manner when the shutter speed dial is on any setting except "T". If the back-up lever is tripped when the dial is set on "T", the shutter will open and remain open, until the dial is moved to another setting.

FILM-PLANE INDICATOR

The white engraved mark on the top of the camera body (see accompanying illustration) represents the exact location of the film plane inside the camera. In specialized areas of photography, such as macrophotography, it is necessary to measure the exact distance between the film plane and the subject. In such instances, this would be the point from which to measure. The distance between the film plane and the front surface of the lens-mount flange is exactly 46.5 mm.

FILM ADVANCE LEVER

The film advance lever on the Nikon F3 is designed for quick accessibility and operation. One stroke advances the film one complete frame. When released, it automatically springs back to its normal rest position. If the lever is not given one complete stroke, the film

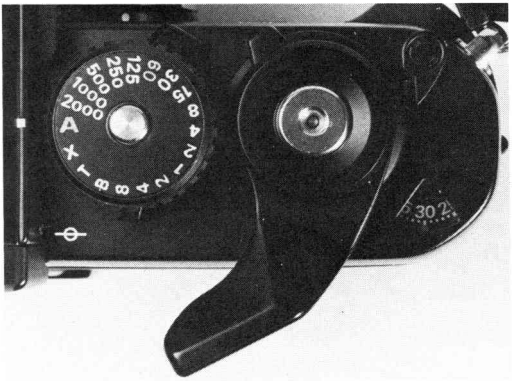


The film plane indicator shows the exact location of the film inside the camera. Precise measurements of subject-to-film distance are made from this mark.

may be advanced with several short strokes; but once the film is advanced completely, the mechanism locks. At this point the lever may be pulled out only thirty degrees from its closed position. This is a handy "ready" position when making quick sequential exposures. A complete stroke of the advance lever measures 170 degrees; 30 degrees for the handy pull-out, plus 140 degrees for a complete advance cycle.

FRAME COUNTER

The frame counter keeps track of the number of pictures taken on a roll of film. It has white marks at 12, 20, 24, and 36 for most packaged films, and blue

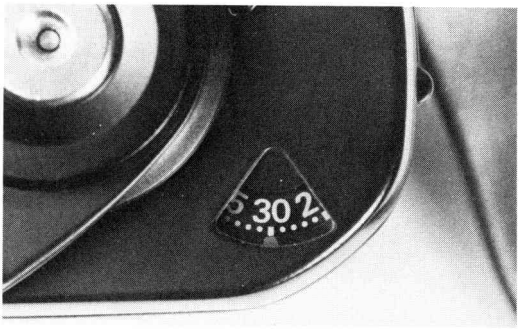


The film advance lever may be pulled out thirty degrees to a "ready" position. From this point, a single stroke of 140 degrees will advance the film completely to the next frame.

numerals for every five frames (5, 10, 15, etc.). It is graduated from two frames below zero to forty (four frames beyond the traditional thirty six). This is especially helpful for photographers who bulk load film.

REWINDING FILM

When a roll of film has been completely exposed, the advance lever will stop in mid-cycle. To rewind exposed film, press the film-rewind button on the bottom of the camera. This releases the film sprocket drive and allows the film to be rewound. Fold out the



The frame counter of the Nikon F3 is located to the right of the film advance lever.

rewind crank and turn it clockwise as its arrow indicates. Keep turning until there is no longer any tension from the film (the rewind crank will turn more freely) and the end of the leader will snap back into the cassette. Open the camera back by pushing the camera back lock lever to the right while lifting the rewind knob. The camera back then pops open. Loading and unloading of film should always be done out of direct sunlight.

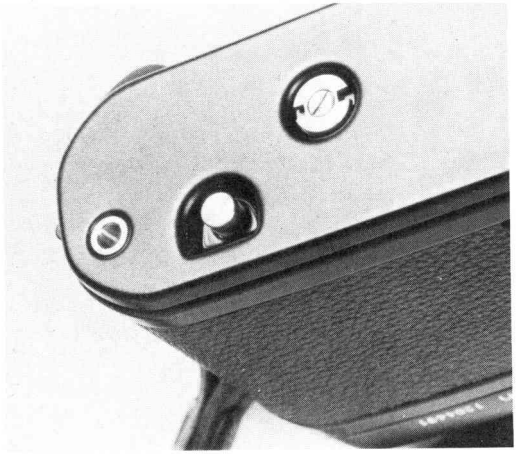
SETTING THE APERTURE

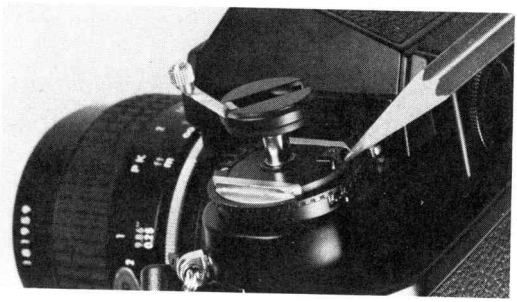
The aperture ring on most Nikkor lenses is the lens ring closest to the camera body. Turning it opens and closes the diaphragm inside the lens to the desired *f*-

stop. When turned to a higher number the diaphragm is closed to a smaller aperture, thus letting less light through the lens.

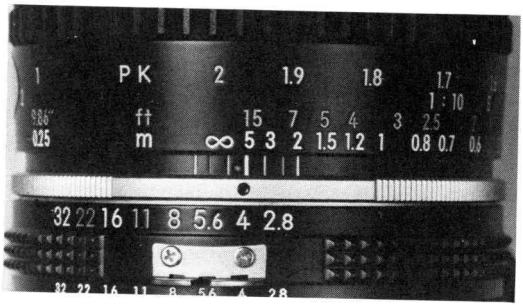
Most Nikkor lenses are automatic. This means that they remain at the largest aperture until the shutter-release button is pressed. Once the shutter-release button is pressed, the aperture automatically closes down to the selected *f*-stop.

To rewind the film when you have completed the roll, first press the rewind button on the bottom of the camera.

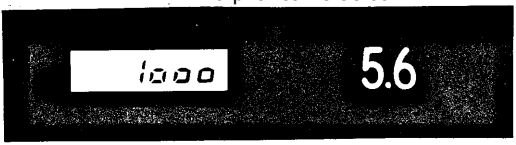




Once the rewind button has been pressed, fold out the rewind crank and turn it clockwise until all the film has been rewound. Then open the back of the camera by pushing the lock lever to the right and pulling up on the rewind crank.



Set the aperture by turning the aperture ring until the desired f *-number is opposite the index mark.*



When using an AI Nikkor lens, the selected f *- stop is displayed in the viewfinder to the right of the shutter speed.*

Setting the aperture may be done by turning the aperture ring so the desired *f*-stop is aligned with the black aperture/focusing index reference dot on the lens' mounting ring. The aperture can also be set while looking in the viewfinder. Just turn the aperture ring until the desired *f*-stop appears in the aperture window.

Older non-AI Nikkor lenses will not display the *f*-stop in the aperture window of the viewfinder.

SETTING THE SHUTTER SPEED

The Nikon F3 features an electronically controlled, quartz-timed shutter made of quilted titanium foil. This focal plane shutter moves horizontally and has speeds from 8 to 1/2000 sec. It also has settings for "T", "B" and "X" (1/80 sec.), plus an electronic self-timer.

The shutter-speed dial is on the right side of the prism housing. To set the shutter speed, rotate the dial and line up the desired shutter speed with the white shutter-speed index mark on the right side of the prism

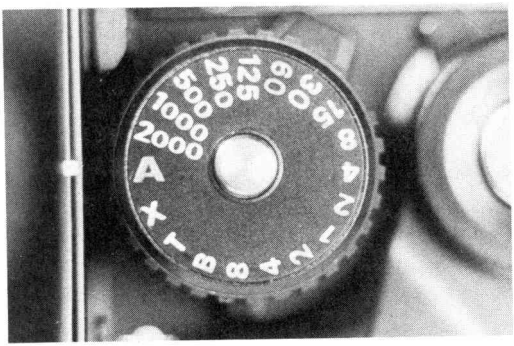
housing. The dial has two "lock" positions: the "A" (automatic) setting, and the "X" (1/80 sec. flash sync) setting.

If either of these settings come into position while rotating the dial, it automatically locks itself in position. To rotate the dial out of that position, depress the button in the center of the dial and rotate the dial away from the lock position. The dial moves freely with soft clicks across all other settings.

The shutter-speed dial is color coded for quick identification of various shutter speeds. The "A" is green, speeds of one full second or slower are orange and fractional speeds are displayed in white without numerators. There is one exception. The speed of 1/60 sec. is in red as a reminder that this is the fastest manual-exposure shutter speed to be used with flash synchronization (besides the "X" sync setting).

When the dial is set on "A," the camera is in the automatic exposure mode. In automatic the shutter speed is completely governed by the metering system. Once the exposure range is established a change in shutter speed is accomplished by turning the aperture ring. The shutter-speed dial, through most picture taking, will be left alone. Therefore, an unintentional shift must be prevented and the lock position at this setting is essential.

For similar reasons the "X" setting is a locked position. When taking pictures using electronic flash, the shutter speed dial cannot shift accidentally out of the synchronized position. This setting fires the shutter at 1/80 sec.



The shutter speed dial has two lock positions: "A" and "X." To unlock the dial from these positions, press the release button in the center of the dial.

The "B" setting is for timed exposures. This setting is usually used with a tripod and a cable release. The shutter remains open for as long as the button on the cable release is held. The shutter closes with the release of the button.

The "T" setting is also for timed exposures, except that once the shutter-release button is pressed, the shutter remains open after the button is let go. In this setting, the shutter remains open until the shutter-speed dial is moved to another position.

There are two situations where the shutter-speed dial is bypassed in favor of other priorities.

The first is when a fresh roll of film is loaded into the camera. The shutter speed is automatically set at 1/80 sec. for the first few frames when the shutter speed dial is set on any of the following settings: "A", "X", or 1/125 through 1/2000 sec. When the frame counter indicates the first frame has been reached, the shutter speed returns to its actual setting.

The second situation occurs when the SB-12 or SB-11 flash units are used with the Nikon F3. In this event the shutter speed is automatically set at 1/80 sec. except when manual settings of 1/30 sec. and slower are used. This feature prevents accidental release of the shutter at the wrong shutter speed (since the SB-12 and SB-11 actually set the shutter speed of the camera) and allows the flash to be used as a fill-in outdoors with a shutter speed of 1/60 sec. or less.

LCD DISPLAY WINDOW

When the shutter speed dial is set for the automatic mode, the LCD window displays the approximate shutter speed at which the picture will be taken. In this mode, the shutter speed is completely governed by the automatic-exposure metering system. The system provides stepless shutter speeds from 8 sec. to 1/2000 sec. If a given lighting situation demands an actual shutter speed of 1/463 or 2-1/2 sec., then that's what the shutter speed will be.

To avoid confusion the LED window displays one of the closest commonly recognized shutter speeds: 8, 4, 2, 1, 1/2, 1/4, 1/8, 1/15, 1/30, 1/60, 1/125, 1/250, 1/500, 1/1000, or 1/2000 sec.

In addition, each time a new number appears on the LCD, it remains for 1/2 sec. before a shift in light may change it. If it were not for this feature even the slightest change in light would cause the LCD to flicker, making the numbers too difficult to read.

In the automatic mode the LCD displays only the denominator of the fraction of a second. For example, 1/250 sec. reads 250 and 1/2 sec. reads 2.

When the light level decreases to the point where the meter demands one full second shutter speed or more, the LCD displays that number with a dash to the right of it. This dash distinguishes a whole number from a fraction.

If the light level drops below the eight second range of the automatic metering system a minus sign appears to the left of the numeral 8. This indicates there is not enough light to take a picture at the present aperture. When this occurs there are four alternatives: make the aperture larger, shoot a timed exposure, or use a faster film or ASA rating.

If the LCD shows the numeral eight with a minus sign to the right of it, there is not enough light to make a correct exposure at the shutter speed you have selected.

If the light entering the automatic metering system requires a shutter speed beyond the 1/2000 sec. range of the LCD, (1/2000 sec. is the maximum shutter speed) a plus sign appears to the left of the numeral 2000. A smaller aperture, slower film, or neutral-density filter must be used to compensate for the light. (see the section on Neutral-density filters). In the manual mode, the LCD window in the viewfinder displays an "M" to the left of the number of the set shutter speed.

When using manually controlled shutter speeds from 8 seç. to 1/2000 sec. the LCD displays a plus or minus sign (or both) just above the letter "M". This is to indicate an under or overexposure.

For example, if the LCD is displaying a minus sign the picture will be underexposed. Either the shutter speed should be decreased or the aperture made larger. If a plus sign should appear, the picture will be overexposed.

In either case, manipulation of shutter speed and/or aperture must be done until both the plus and minus signs appear together. Then the camera is set for a correct exposure. To operate the camera in the manual mode, see the section on manual metering.

Avoid storing the Nikon F3 in a hot place such as a trunk or glove compartment of a car because the LCD is sensitive to heat, and at temperatures of 60 degrees C (140 degrees F) the whole surface of the LCD turns black and is temporarily unusable. This condition disappears as the temperature drops to normal and has no effect on the actual function of the F3. Storage of

Overexposed

Underexposed

Correctly exposed

In the manual mode a small "m" appears to the left of the shutter speed. Overexposure is indicated by a "+"; sign; underexposure is indicated by a "−" sign; and correct exposure is indicated by a "− +" sign.

the camera in heat such as this, however, may shorten the life of the LCD. Temperatures below freezing increases the viscosity of the liquid crystal, making its response sluggish. But again this situation returns to normal as the temperature rises.

The LCD may deteriorate over a period of six or seven years. It can lose contrast and become difficult to see. When this happens see your camera dealer or nearest Nikon service office for a replacement element.

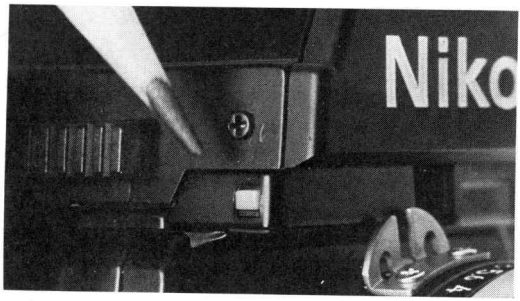
VIEWFINDER ILLUMINATOR

In low light situations it becomes difficult to see the LCD and aperture windows inside the viewfinder. A small red button on the far right corner of the prism housing (from behind the camera) when pressed, illuminates these two windows with a small "grain-of-wheat" lamp, providing a very dim but sufficient light.

BACK-UP MECHANICAL RELEASE LEVER

The Nikon F3 has an emergency provision for a mechanical shutter release if the batteries should fail. This back-up mechanical shutter-release lever is at the lower left side of the lens-mount housing.

In low light situations the LCD becomes difficult to read. To illuminate the display, press the viewfinder-illuminator button on the corner of the prism housing.



To use it, pull it part way out from the wall of the lens-mount housing so it is accessible. By pressing it, a 1/60 sec. shutter speed is achieved. A hand meter or educated guess determines the aperture setting. When the shutter speed dial is set on the "T" position it will allow timed exposures.

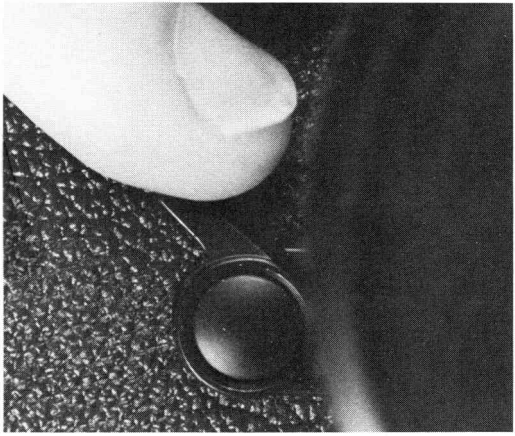
Note: If the film is advanced while the back-up mechanical release lever is being held down, the shutter will release immediately when the film advance cycle is completed, thus wasting one frame. Also, if the film is advanced incompletely and the back-up lever is used to release the shutter, the mirror will go up and remain in the "up" position until the advance lever cycle is completed. This too will waste one frame.

METERING EXPOSURE

The Nikon F3's automatic-exposure metering system is aperture preferred. You set the aperture and the metering system sets the correct shutter speed.

Before using the metering system, make sure the ASA rating of the film being used is set correctly on the ASA dial. Then, turn on the meter switch found at the base of the advance lever/shutter-release button. This is accomplished by pushing it to the right so the red dot is showing. This turns on both the metering system and the electromagnetic shutter-release button. When in the "off" position, the shutter-release button does not operate.

Next, activate the LCD exposure readout window inside the viewfinder. To do this, press softly on the



The Nikon F3 is equipped with a 1/80 sec. mechanical shutter speed in the event of a battery failure. To fire the shutter mechanically, use the mechanical shutter-release lever on the front of the camera.

shutter-release button. Be careful to press the shutter-release softly or you will trigger the shutter. The LCD will remain on for 16 seconds after your finger is removed from the button.

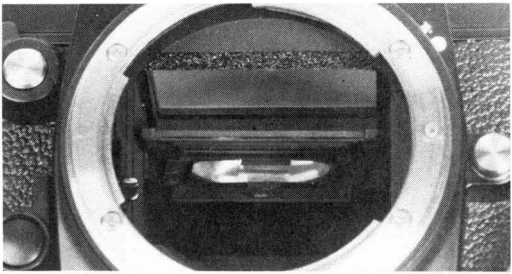
Each time the shutter-release button is pressed while the camera is in the automatic mode, the LCD window displays the *approximate* shutter speed at which the exposure will be made. The display is the approximate as it indicates only the closest conventional shutter speed. The actual shutter speed is

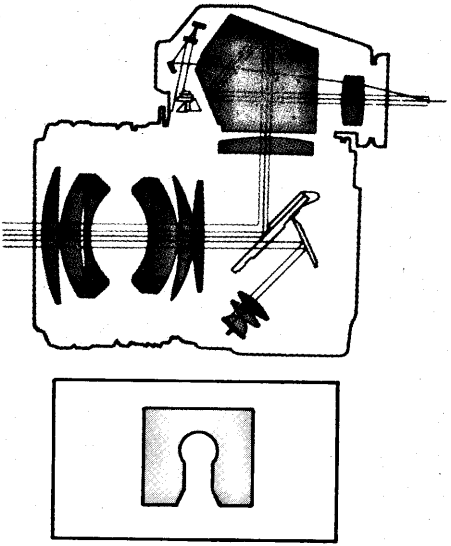
determined (on a stepless scale) at the exact interval needed for a correct exposure. This shutter speed could be 1/157 sec. but the LCD would read 1/125 sec. (see section on LCD).

As the light reflected from the subject passes through the lens, 92 percent of that light is transferred to the focusing screen with a reflex mirror. The other eight percent of the light is transmitted through the mirror via 50,000 minute eliptical holes (see accompanying illustration) to a second mirror hinged to the back of the main reflex mirror.

This secondary mirror is ribbed in several curved directions to diffuse light. It reflects the light onto a single SPD (Silicon photo diode) cell at the bottom of the mirror box. The instant the shutter is released the

The Nikon F3 meters the exposure by allowing light to pass through the main mirror and on to a secondary mirror (shown here) which reflects the light on to the SPD photocell.

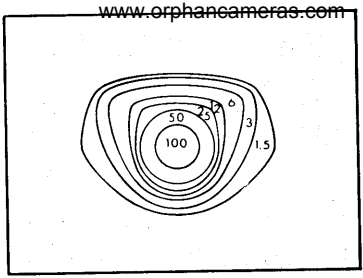




The Nikon F3 exposure metering system allows light to pass through the main mirror by means of tiny holes randomly placed in a keyhole pattern. The light passing through the mirror is reflected on to the SPD by a secondary mirror located behind the main mirror.

light being measured by this SPD cell determines the shutter speed.

The Nikon F3's metering system is center-weighted. When viewing a subject through the type "K" focusing screen supplied with the camera, the meter is 80



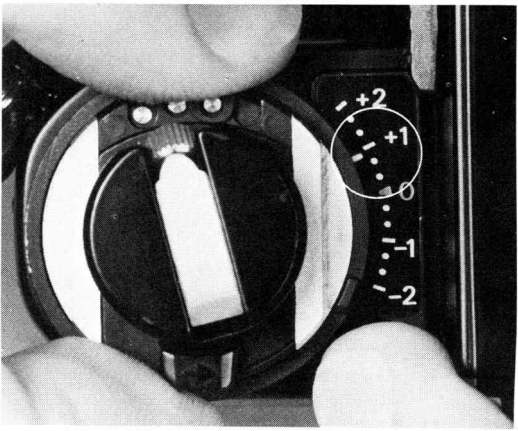
The F3 metering system is eighty percent center-weighted. The light meter concentrates primarily on the central portion of the image area. Shown here is the relative "importance" of various areas of the image to the light meter.

percent dependent on the light within the screen's larger 12 mm circle.

When the camera is set for automatic metering, depth-of-field and shutter speed are controlled by turning the aperture ring. To control depth of field, set the aperture ring on the desired *f*-stop. The shutter speed is automatically adjusted. If the shutter speed is too fast or slow for a particular shot, turn the aperture ring until the desired shutter speed appears in the LCD window.

The automatic-exposure meter reads all light as if it were being reflected from a standard 18 percent gray panel. It is designed to reproduce that tone on film and, for most general photography, this is desirable.

Some lighting situations however fool the automatic metering system. For example when photographing a



To operate the exposure compensation dial, press the lock release button and rotate the dial until the appropriate exposure compensation number is opposite the index mark.

small, light subject against a dark background, the meter will read the background. This overexposes the subject. To avoid this situation, underexpose slightly. In a situation where most of the background is light and the subject is moderately dark, overexpose slightly.

In these difficult lighting situations try to take a reading directly from the subject. (see the section on the exposure memory-lock button.) If the subject is distant, take a close-up reading from an 18 percent gray card, or from the palm of your hand. Remember the shutter speed being displayed by the LCD and return

the camera to the original field of view. Next, turn the exposure-compensation index/ASA dial until the shutter speed obtained from the close-up reading appears in the LCD window.

Exposure compensation may be used to underexpose or overexpose the photo up to two *f*-stops. Increments are one-third of a stop each. A lock button keeps the exposure compensation dial from accidentally slipping away from "0." To move the dial to a new position, press the lock button and rotate the dial. Be sure that the dial ring is firmly locked in position when setting it. Do not forget to return the dial to the "0" position after making a compensated exposure.

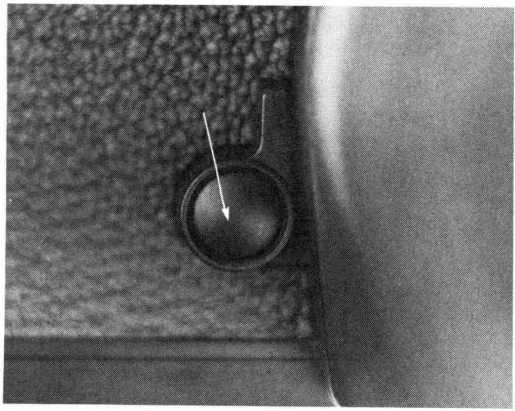
EXPOSURE MEMORY-LOCK BUTTON

The exposure memory-lock button is used to accurately expose bright or dark subjects against their opposite backgrounds.

To use the exposure memory-lock, center the subject on the larger circle of the "K" type viewfinder. Press the memory-lock button and hold it in. Recompose the scene and take the picture while the button is still depressed. The photograph will be properly exposed.

USING THE MANUAL MODE

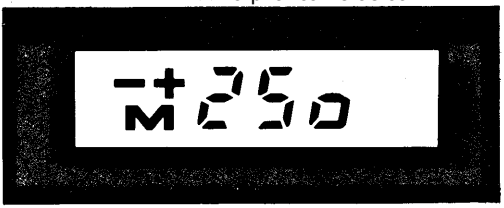
For manual operation, move the shutter-speed dial from the "A" setting. Press the lock-release button in the center of the dial and rotate the dial to a desired



To use the exposure-memory-lock, press the exposure-memory-lock-button and keep it pressed as you recompose your photograph.

shutter speed. The LCD window in the viewfinder will display an "M" to the left of the shutter speed numerals. This indicates the camera is in the manual mode.

In all manual settings except "B" and "T" either a plus sign, minus sign, or both appear above the "M". The minus sign indicates underexposure. The plus sign indicates overexposure. A correct exposure is indicated when the plus and minus sign appear together. Use this exposure or deviate from it as you see fit.



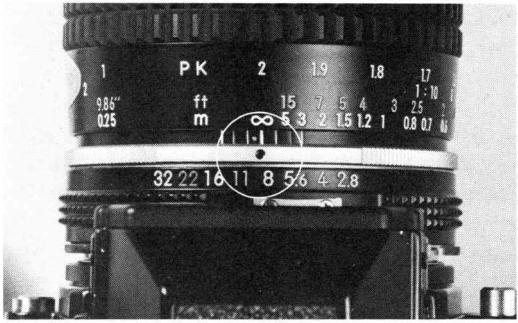
In the manual mode a correctly exposed photograph is indicated by a "– +" above the "m" and to the left of the selected shutter speed.

DEPTH-OF-FIELD SCALE

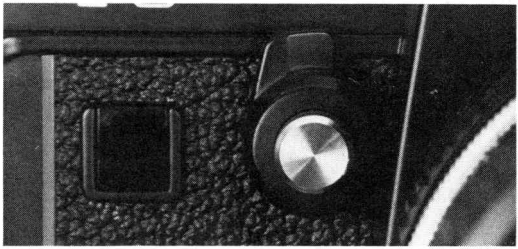
The depth-of-field scale is directly in front of the mounting ring on almost every Nikkor lens. The scale is usually color coded to match the color coding of the *f*-stop numbers on the aperture ring. If you want to get an indication of the depth-of-field you are working with before you make the exposure, use the depth-of-field preview. By pressing the depth-of-field button you close the diaphragm down to the pre-selected aperture. At this point, just look through the viewfinder to preview the depth-of-field.

FOCUSING

The Nikon F3 is equipped with the standard Nikon Type K focusing screen. In the center of this screen is a split-image range finder surrounded by microprism collar and fine-matte outfield.



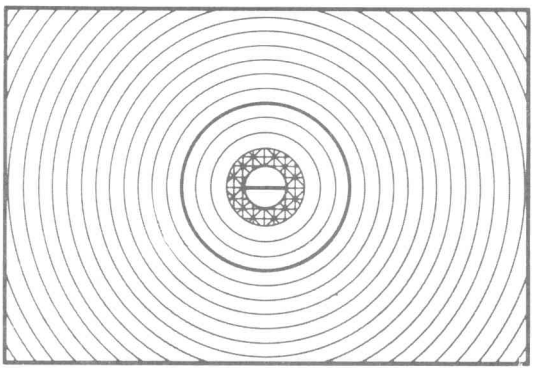
Next to the distance markings on Nikkor lenses is a color coded depth-of-field scale that indicates zones of relative sharpness given by various apertures.



The depth-of-field preview-button allows you to visually check the depth of field by temporarily stopping down the lens aperture from the maximum aperture to the selected aperture. The image darkens in the viewfinder but the depth of field afforded by the selected aperture then becomes visible.

The split-image rangefinder is useful in most situations where the subject matter has vertical lines. Simply rotate the focusing ring until the two halves of the image coincide. The microprism collar breaks up an out of focus image so that it appears shattered until brought into focus. Both the microprism and the rangefinder may become difficult to use in low light or with lenses having small maximum apertures. In these situations, use the matte outfield of the focusing screen.

The type K focusing screen is the standard focusing screen on the Nikon F3.



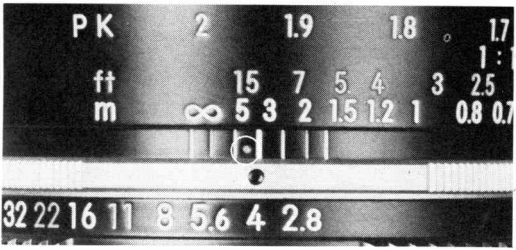
INFRARED FOCUSING

Infrared light rays focus at a point slightly in front of rays from the visible spectrum. Therefore, when using black and white infrared film a slight adjustment in focusing is necessary. A small red dot located to the left of the aperture/distance scale index (on most Nikkor lenses) is used as the focusing index for black-and-white infrared film.

First, focus normally. Then, shift the distance marking indicated by the distance scale over to the infrared focusing dot. The camera is now focused for infrared rays.

Because of the special nature of black and white infrared film, use a medium-red lens filter when taking pictures.

Infrared films require a slight adjustment of focus to provide sharp photographs. Nikkor lenses have a small infrared focusing index dot just to the left on the normal focusing index mark.



FOCUSING SCREENS

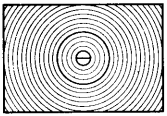
The Nikon F3 offers the photographer the option of using various focusing screens with his camera. There are twenty focusing screens available for the F3, ranging from the standard "K" screen supplied with the camera, to such screens as the type "T" that is used when preparing TV broadcasts. Like many of the accessory focusing screens designed for the F3, the type "T" has specialized markings etched into the surface to guide photographers in composing difficult shots. In the case of the type "T" a dotted line indicates standard TV screen format, while a solid outline shows a "safe action" area. Other screens, such as the type "E", for architectural photography, and the type "M", for close-up and photomicrography, are also available to the F3 photographer.

To change focusing screens, first remove the viewfinder by sliding the finder-release levers to the back of the camera and lifting the unit straight up, and off the camera. Now the focusing screen is accessible. Insert your fingernail under the rear edge of the screen and lift if out.

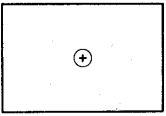
To install another screen, insert the front edge (the edge with the slot in the center) under the pin and push down the rear edge of the screen until it falls into place.

EYEPIECE SHUTTER

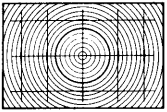
The Nikon F3's standard DE-2 eye level viewfinder features an eyepiece shutter that should be used when



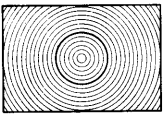
Type A



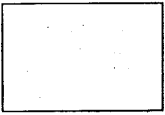
Type C



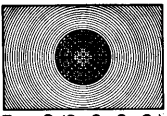
Type E



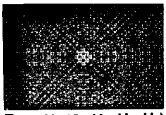
Type B



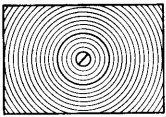
Type D



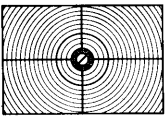
Type G (G_1, G_2, G_3, G_4)



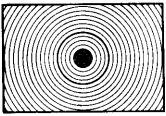
Type H (H_1, H_2, H_3, H_4)



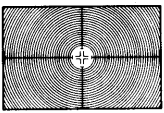
Type L



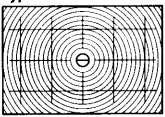
Type P



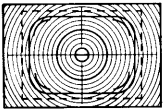
Type J



Type M



Type R



Type T

13 accessory focusing screens for the F3.

To remove a focusing screen, remove the prism housing, and place your fingernail under the back edge of the screen and lift it out.

it is impossible to keep your eye at the viewfinder (such as when the self-timer is in use). This shutter prevents stray light from entering the eyepiece and affecting the automatic exposure meter reading.

To use the eyepiece shutter, push the small lever, located to the left of the eyepiece, to the left. The eyepiece appears red, to signal that the eyepiece shutter is in use.