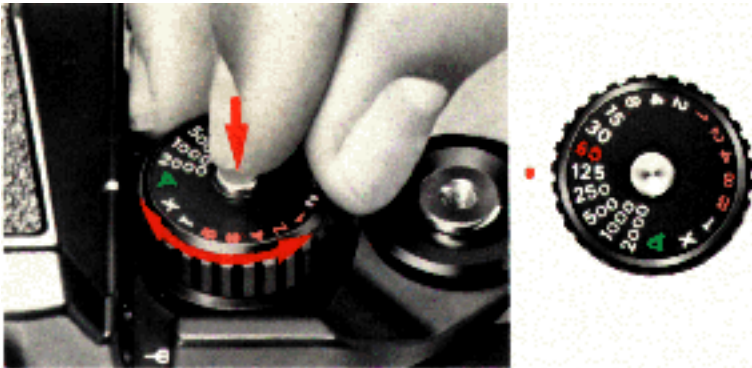



CONTROLS IN DETAIL



- M 500	Underexposure
+ M 125	Overexposure
- + M 250	Correct exposure

In addition to automatic stepless shutter speed control, the Nikon F3 offers manual control of all shutter speeds from 1/2000 sec. to 8 sec. including X, B, and T. To move the shutter speed dial off "A," depress the locking button  as you rotate the dial counterclockwise to the 1/2000 sec.

setting. You can then rotate the dial freely between any setting except "X" which, like "A," is a locked setting. Shutter speeds from 1/2000 sec. to 1/2 sec. are engraved in white, 1 to 8 seconds and "B" in orange, and "T" and "X" in white. 1/60 sec. is in red, indicating the highest manual shutter speed for proper synchronization with electronic flash except "X."

When the camera is on manual, an "M" appears to the left of the liquid crystal shutter speed display inside the viewfinder. In addition, above the "M," the following symbols appear: "-", " + " and "- + " indicating underexposure, overexposure and correct exposure, respectively. To obtain correct exposure, simply turn the shutter speed dial and/or aperture ring until the "- + " symbol appears.



The F3 has two separate settings for time exposures. On "B," the shutter remains open for as long as the shutter release button is depressed. On "T," the shutter stays open until the dial is rotated to another setting, making it ideal for really long time exposures. Being a mechanical setting, "T" will not cause battery drain regardless of how long the shutter remains open.

"X" provides a shutter speed setting of 1/80 sec. It is used to provide proper synchronization with electronic flash units other than the Nikon SB- 12.

The amount of light reaching the film plane is determined by a combination of the shutter speed and the lens aperture. Since the two are interrelated, different combinations will give the same degree of exposure. A one-step change in shutter speed, or a one-stop change in aperture setting, will either halve or double the degree of exposure. For example, a shutter speed of 1/125 sec. lets in twice as much light as a setting of 1/250 sec., and only half as much light at 1/60 sec. For an aperture setting of f/11, twice as much light as f/16 and half as much as f/8, is let in. Thus, if the correct exposure for a particular picture-taking situation is 1/125 at f/11, then 1/60 at f/16 or 1/250 at f/8 will give the same exposure. The following table illustrates the interrelation between shutter speed and aperture.

Shutter speed (sec.)	1/1000	1/500	1/250	1/125	1/60
Aperture (f/number)	4	5.6	8	11	16

The best combination will depend on the results you want. Use fast shutter speeds to freeze motion; use slow speeds to produce a deliberate blur. (See the example pictures on the opposite page.). Also, small apertures give greater depth of field, while large apertures restrict sharp focus to the main subject. (See page 26.)

A good rule to follow in preventing camera shake is to select a minimum shutter speed which is the reciprocal of the focal length of the lens in use. For example, when using a normal 50mm lens, select a speed no slower than 1/60 sec. (the closest number to 1/50). For a 500mm super-telephoto, use no less than 1/500 sec., and so forth.



(Stop action)



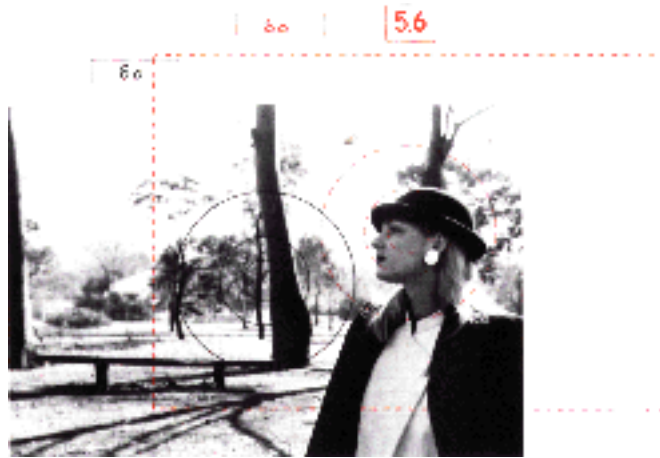
(Subject motion blur)

Exposure memory lock button

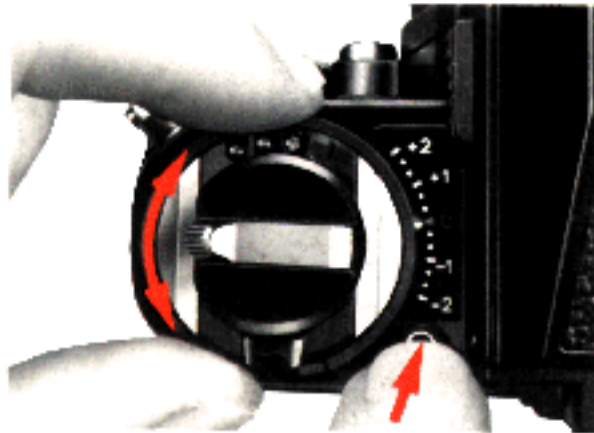
When there is a substantial difference between the main subject and the background, unimportant bright spots or dark spots are likely to fool the camera's metering, resulting in under or overexposure (see Fig. 1). One way to make exposure compensation is to use the memory lock. This control allows you to lock in an exposure reading with the camera on automatic control. To compensate for an excessively bright or dark background, center the main subject in the viewfinder or move in close to the subject, depress the memory lock button and hold it in; then recompose and shoot (see Fig. 2).



(fig. 1)



(fig. 2)

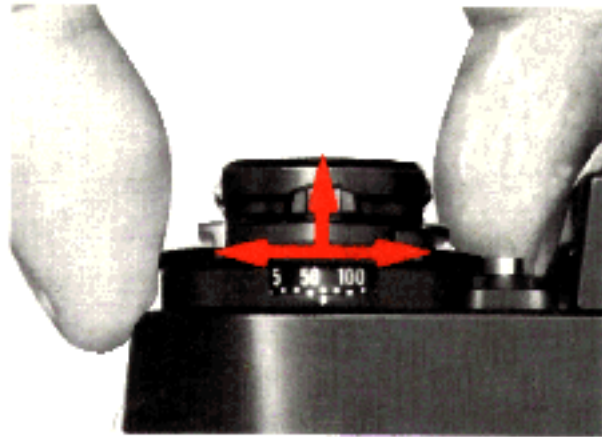


Exposure compensation dial 15

Another way to correct exposure is to use this dial. Push the locking button 38 while rotating the dial. The dial is graduated in one-third stop increments. - 1 and - 2 indicate one and two stops underexposure, whereas + 1 and + 2 indicate one and two stops overexposure.

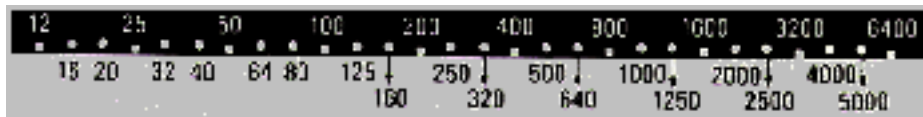
At ASA 6400, the compensation extends to only - 1; at ASA 12, up to + 1. The following table indicates the recommended settings for various subjects. After use, make sure you set the dial back to "0."

Copy work	Photographs and pictures with continuous gradation	Compensation not necessary
	Documents and drawings of high contrast	Approx. +1 to +2 stops for black letters on white background; approx. -1/2 to -1 stop for white letters on black background.
Slide duplication	General film with continuous gradation	Approx. +1 to +2 stops
	Film of documents and drawings photographed	Approx. +1.1/2 to +2.1/2 stops for black letters on white background
		0 to approx. -1/2 stop for white letters on black background



ASA film speed dial (15)

The scale (39) on the ASA dial has numbered settings for speeds from ASA 12 to 6400. Two dots between each pair of ASA numbers stand for intermediate settings, such as 64, 80, etc. The table below gives the speeds for all intermediate settings.



ASA is a numerical rating of the film's sensitivity to a given amount of light. The higher the number, the greater the sensitivity, and vice versa. The ASA of your film is indicated on the cartridge itself. It is also printed on the film carton and on the data sheet packed inside.



Memo holder 13

As a reminder of the film type and the number of exposures on the roll in use, clip off the end of the film carton and insert it into the memo holder.

Note: At the "B" setting, unless you hold the shutter release button down all the way, the shutter may close prematurely.



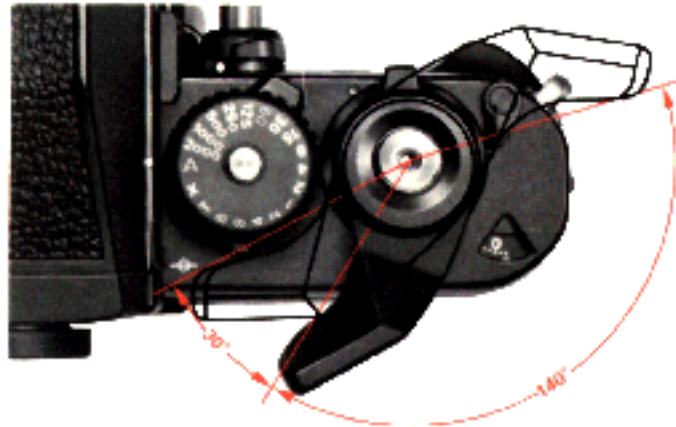
Shutter release button 53

Slight pressure on the shutter release button switches on the exposure meter. Pushing the button all the way down releases the shutter. The shutter release button is threaded at the center to accept a standard cable release.

When battery power fails, the F3's electromagnetically controlled shutter ceases to operate. You cannot release the shutter release button unless you use the backup mechanical release lever 6.

To lock the shutter release button when the camera is not in use, turn the power switch to the "OFF"

position.



Film advance lever 55

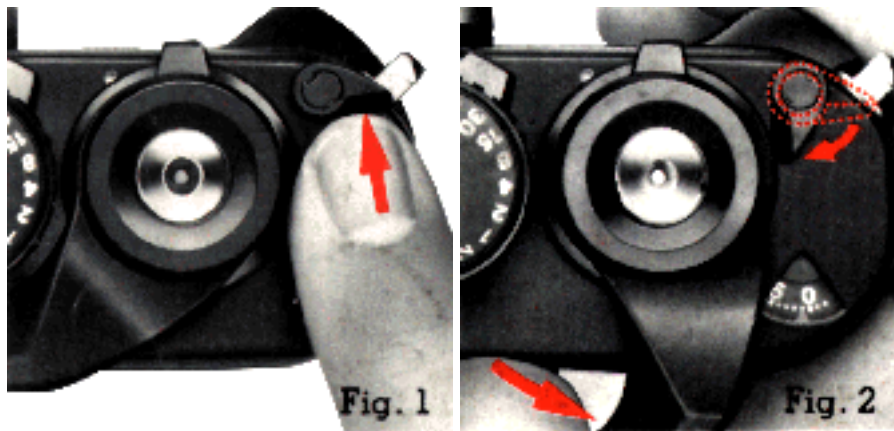
The film advance lever is specially contoured to fit the thumb and is coaxial with the shutter release button. It has a 30° stand-off with a throw of 140° and may be operated in one complete stroke or a series of shorter ones.



Frame counter 54

To keep track of the number of exposed frames, the frame counter is graduated from two frames below 0 up to 40. Blue numerals appear every 5 frames (0, 5, 10, etc.) with dots in between. White marks at 12, 20, 24, and 36 indicate the number of frames available on most film cartridges. When making blank shots with the shutter speed dial set to "A," the shutter will fire at 1/80 sec. until the frame counter reaches "1." In addition, the LCD shows 80 in the finder. Or if you set the dial manually between 1/125 and 1/2000 sec., the shutter will still fire at 1/80 sec. In the finder, an "M80" is displayed. However, if the speed is manually set to 1/80 sec. (X) or below, the shutter will fire at the speed set and the speed will be displayed by the LCD. Therefore, to speed up film loading, set the dial to "A" or to 1/80 sec. (X) or above. "T" should not be used when making blank shots as

the shutter will remain locked open.



Multiple exposure lever 52

Double or multiple exposures are easy to accomplish with the F3's multiple exposure lever. Follow this procedure:

1. Take the first shot.
2. Then to recock the shutter without advancing the film, push the multiple exposure lever forward (Fig. 1), and stroke the advance lever. Immediately the multiple exposure lever will spring back to its normal position (Fig. 2).
3. Now you're ready to take the second shot on the same frame. For more than two shots on the same frame, just repeat the same procedure for each additional exposure. When you've finished, simply advance the film normally to the next frame.

Note: While making multiple exposures, the frame counter doesn't advance.

Batteries

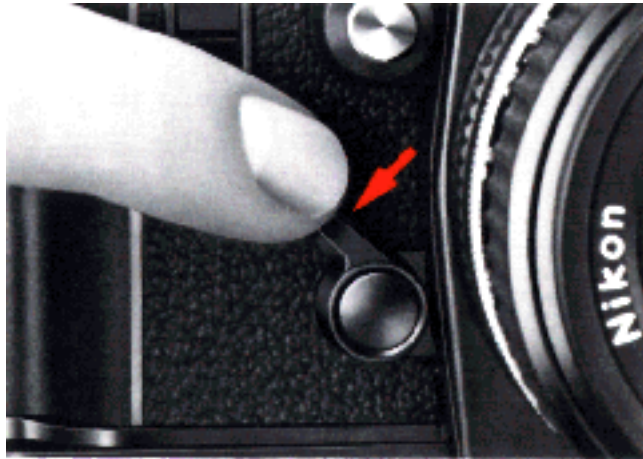
When battery power fails, the camera's exposure meter stops working and the shutter won't work either unless you use the backup mechanical release lever. For this reason, it is a good idea to carry an extra set of batteries with you whenever you set out to take pictures.

Under normal usage, one set of 1.5V silver-oxide batteries (Eveready EPX76 or equivalent) will last for about one year. Try not to touch the + or - surfaces of the batteries as this may result in poor electrical contact. If you do get fingerprints on the battery terminals, wipe them off with a soft cloth.

At below-freezing temperatures, battery performance deteriorates. The use of a fresh set of batteries is recommended to ensure reliable service at low temperatures. In extremely cold climates, it is recommended to use the F3 in conjunction with the MD-4 Motor Drive. With the motor drive attached, the camera gets all its power from the batteries in the motor drive. Thus, if you use a NiCd battery, the camera/motor drive will operate down to -20°C.

Note: At -10°C or below, the LCD may exhibit a slight delay in response time. This is natural and should be no cause for concern. However, exposure to extremely high temperatures (80°C and

above) may actually shorten the life of the LCD.




Backup mechanical release lever

This lever is provided as an alternative method of tripping the shutter in case the camera's batteries become weak or completely exhausted. To operate the lever, first use your fingernail to pull it down to the ready position. Then push it down to trip the shutter. The shutter operates at a mechanical speed of approx. 1/60 sec. regardless of the setting on the shutter speed dial. Even when the batteries are exhausted, you can still make time exposures by setting the dial to "T" and using the backup mechanical release lever to trip the shutter.

Caution: If you advance the film while holding down the backup mechanical release lever, the shutter will fire immediately at the completion of the film advance stroke, thus wasting a frame.

Also if you fail to advance the film completely and then use this lever to trip the shutter, the mirror

 will remain in the "up" position until the advance lever stroke is completed.



Depth-of-field preview button

This control allows you to get a visual impression of the various parts of the scene in front of and behind the main subject which will appear sharp in the final photograph (see the photos on the next page.) To operate this control, push the button while looking through the viewfinder. If the lens is set to anything other than maximum aperture, the image on the focusing screen will give you an indication of exactly what will be in focus in the final photo. The image progressively gets darker as the lens aperture gets smaller.



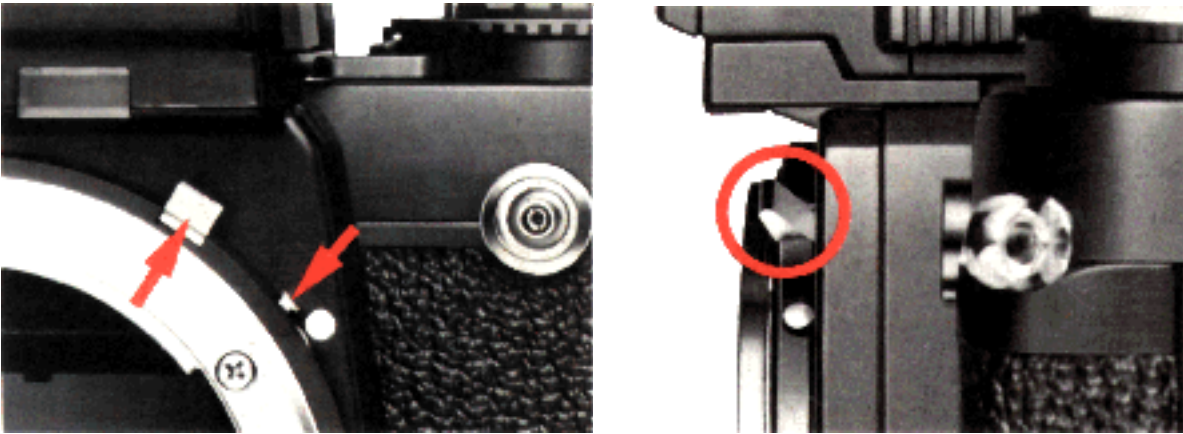
Lens set at $f/2.8$



Lens set at $f/16$

At wide apertures, the depth-of-field is very shallow with the main subject in focus.

But when the lens is stopped down to f/16, most objects from near to far are in sharp focus.



Meter coupling lever (21)

Push the meter coupling lever release button (20) and lock the meter coupling lever in the "up" position before mounting a non-AI Nikkor lens. Then perform stopped-down metering in the following manner:

For non-AI Nikkor lenses with automatic diaphragms

On AUTO: Push in and hold the depth-of-field preview button while you trip the shutter.

Caution: If the depth-of-field preview button is not depressed all the way, the mirror may remain in the "up" position.

On MANUAL: Select a shutter speed. Then hold in the preview button and turn the aperture ring until the "- +" symbol appears in the finder. Release the preview button and take the shot.

For non-AI lenses or accessories without automatic diaphragms

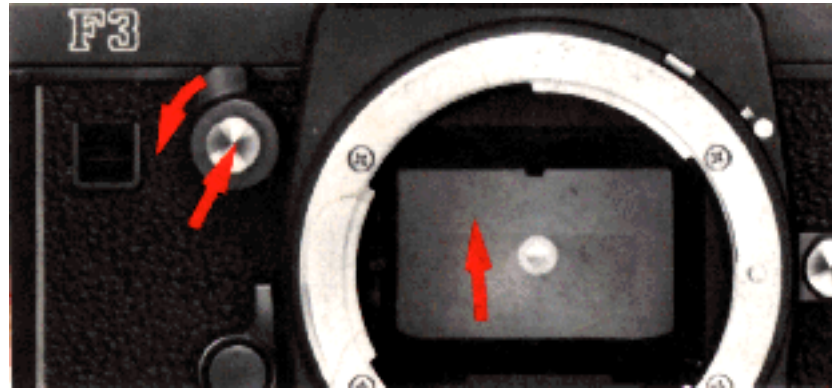
On AUTO: Stop the lens down manually until the desired shutter speed appears in the finder. Then take the picture.

On MANUAL: Adjust the shutter speed or aperture until the "- +" sign appears.

For fixed-aperture reflex lenses, photomicrography, or astrophotography

On AUTO: No control is necessary.

On MANUAL: Adjust the shutter speed dial until the "- +" appears.



Mirror lockup lever 3

When using super-telephoto lenses or doing photomicrography, it becomes necessary to reduce camera vibration to the absolute minimum. To lock the reflex viewing mirror in the "up" position, push in the depth-of-field preview button and rotate the lever counterclockwise until it stops.

Note: Two Nikkor lenses require that the mirror be locked up before mounting — the Fisheye Nikkor 6mm f/5.6 and OP Fisheye Nikkor 10mm f/5.6.

Caution: With the mirror locked up, you should not operate the camera on automatic. Even though the LCD continues to show you the shutter speed automatically selected by the camera, this speed will not produce the correct exposure.

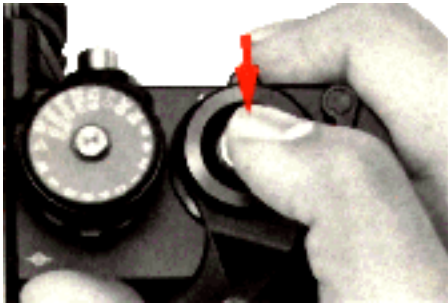
Self-timer

The F3 High-Eyepoint camera's blinking self-timer provides a 10 sec. delay in shutter release.

To operate the self-timer:




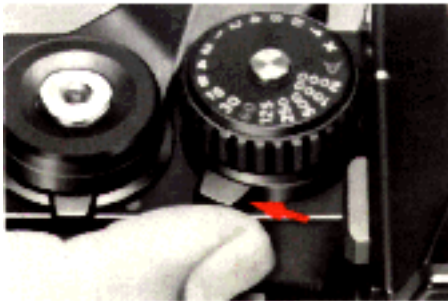
1. Push the self-timer lever 48 to uncover the red dot 49.



2. Push the shutter release button.

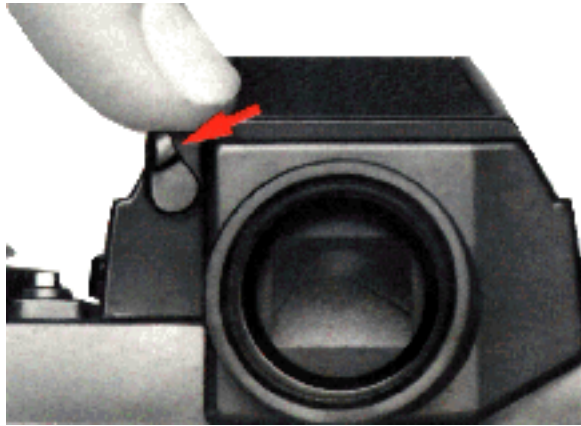


3. Watch the blinking red LED  on the front of the camera. The LED blinks faster during the final two seconds before the shutter opens to warn you to get ready.



4. Don't forget to return the self timer to its original position after using it.

If you want to cancel the self timer after pushing the shutter release button, return the selftimer lever to its original position. The picture then will not be taken.



Eyepiece shutter lever 40

When it's impossible to keep your eye at the viewfinder (such as when utilizing the self timer), you should use the eyepiece shutter. This shutter prevents stray light from entering the eyepiece and adversely affecting the automatic exposure meter reading. Just push the lever to the left to close the shutter. As a visual reminder that it's in use, the blind is painted red.



Accessory shoe 36

Located at the base of the rewind knob, the accessory shoe allows direct mounting of the Nikon SB-12, SB-16A, SB-17 or SB-21A Speedlight. Three electrical contacts 35 provide for synchronization of the flash unit, automatic through the lens flash output control, and ready light indication in the camera's viewfinder (via an LED), plus auto switching to the proper synchronization speed of 1/80 sec. Three Nikon Flash Unit Couplers are available allowing either ISO- or Nikon F2-type direct-mounting electronic flash units to be attached.

Caution:

1) For flash photography, it is recommended that you use a Nikon dedicated electronic flash unit which operates with a low-voltage current. Use of any other flash which operates at high voltages may damage the camera's circuitry. Any damage caused by such use is not covered by the Nikon Warranty.

2) Even with the coupler, the Nikon Speedlight SB-19, SB-18, SB-16B and SB-E cannot be used with an F3 High-Eyepoint camera when a finder other than the standard DE-3 or Eye-Level Finder DE-2 is used.



Sync terminal 17

A separate sync terminal with a protective screw-in-cover is provided on the Nikon F3 High-Eyepoint camera. It accepts all standard plug-in sync cords, plus it is threaded for use with a Nikon screw-in sync cord. When using flash bulbs or an electronic flash without a hot shoe, it is necessary to use the sync terminal. Use the following table to determine the correct synchronization speed to set on the camera.

		Shutter speed (sec.)															
		1/2000	1/1000	1/500	1/250	1/125	1/60	1/30	1/15	1/8	1/4	1/2	1	2	4	8	X
Speedlight																	
Flashbulb	FP																
	M																
	MF																

	Synchronized
	Cannot be used

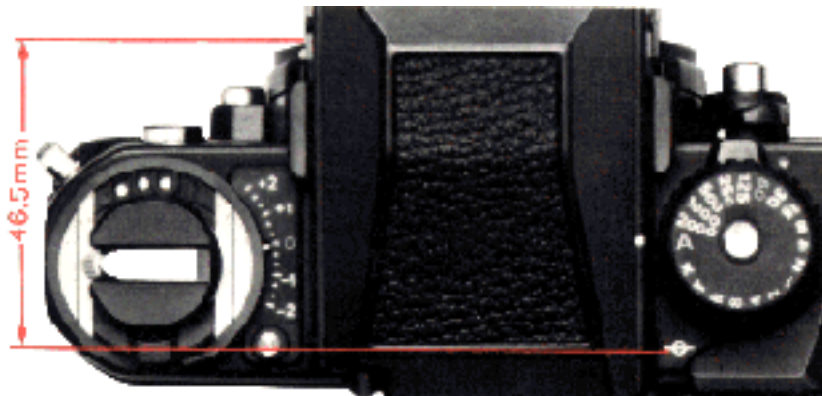
Note: When using a special electronic flash unit with provision for time lag, an electronic flash unit with long flash duration time, or the Medical-Nikkor 120mm f/4 IF, adjust shutter speed down to 1/30 sec. or slower.



Viewfinder illuminator (22)

A convenient built-in viewfinder illuminator lets you see the liquid crystal display shutter speed, including the aperture, even in dim light. While the LCD is displayed in the finder, push the illuminator button (47).

Note: The power switch must be turned on and the shutter button must be depressed halfway prior to using the illuminator. Otherwise, it will not light up.



Film plane indicator (58)

The film plane indicator (ϕ) is engraved in white on the top deck just behind the shutter speed dial. It indicates the exact position of the film plane inside the camera. Whenever it becomes necessary to measure the exact distance between the subject and film plane, such as in macrophotography, use the film plane indicator. The distance between the film plane and the lens mounting flange (8) is exactly 46.5mm.



Infrared focusing index

When you shoot infrared film, note that the plane of sharpest focus is slightly farther away than that in visible-light photography. As a rule of thumb, you can compensate for this shift in focus by referring to the infrared compensation index (in the form of either a red dot or a red line) near the focusing index on the lens barrel. (Some lenses, including the Reflex Nikkor, do not need compensation.)

After focusing the image sharply through the viewfinder check the focused distance and turn the focusing ring to the left until the red infrared compensation index lines up with the prefocused distance. Be sure to shoot with the appropriate filter, such as R60, etc. (In this photo, the subject-to-camera distance is set at i.).

* **Credit:** Shiro Malaysia, local distributor for Nikon Optical Products for providing this info, some parts of the manual was modified slightly to suit the PDF format.

The headquarter of Nikon Corporation has a section detailing how to request for their Instruction Manual of various optical products, the URL is here: <http://www.nikon.co.jp/main/eng/faq-impe.htm>
Information in this site was merely created for your quick reference. We strongly suggest you write to Nikon corporation for actual copy of the official manual.
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