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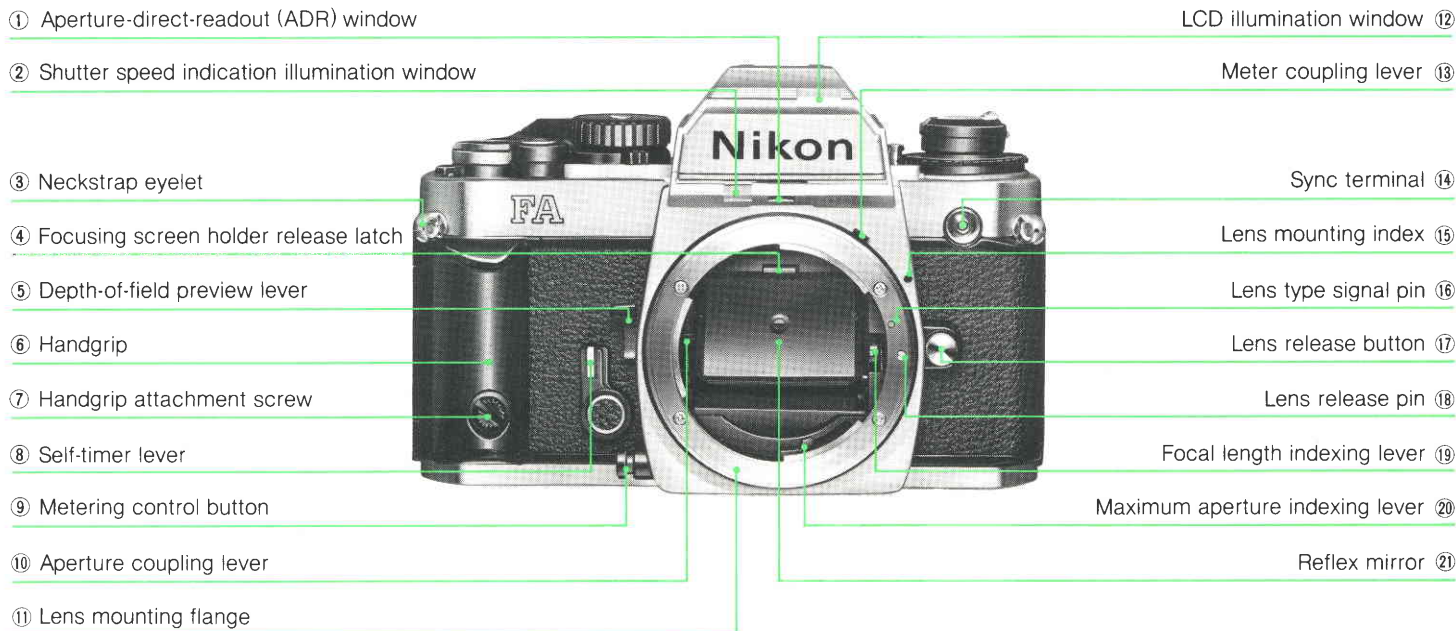
The large manuals are split only for easy download size.

Nikon

FA

INSTRUCTION MANUAL

NOMENCLATURE



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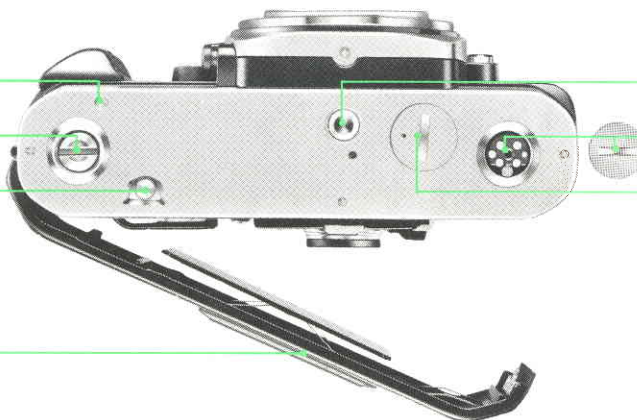
33 Film rewind button

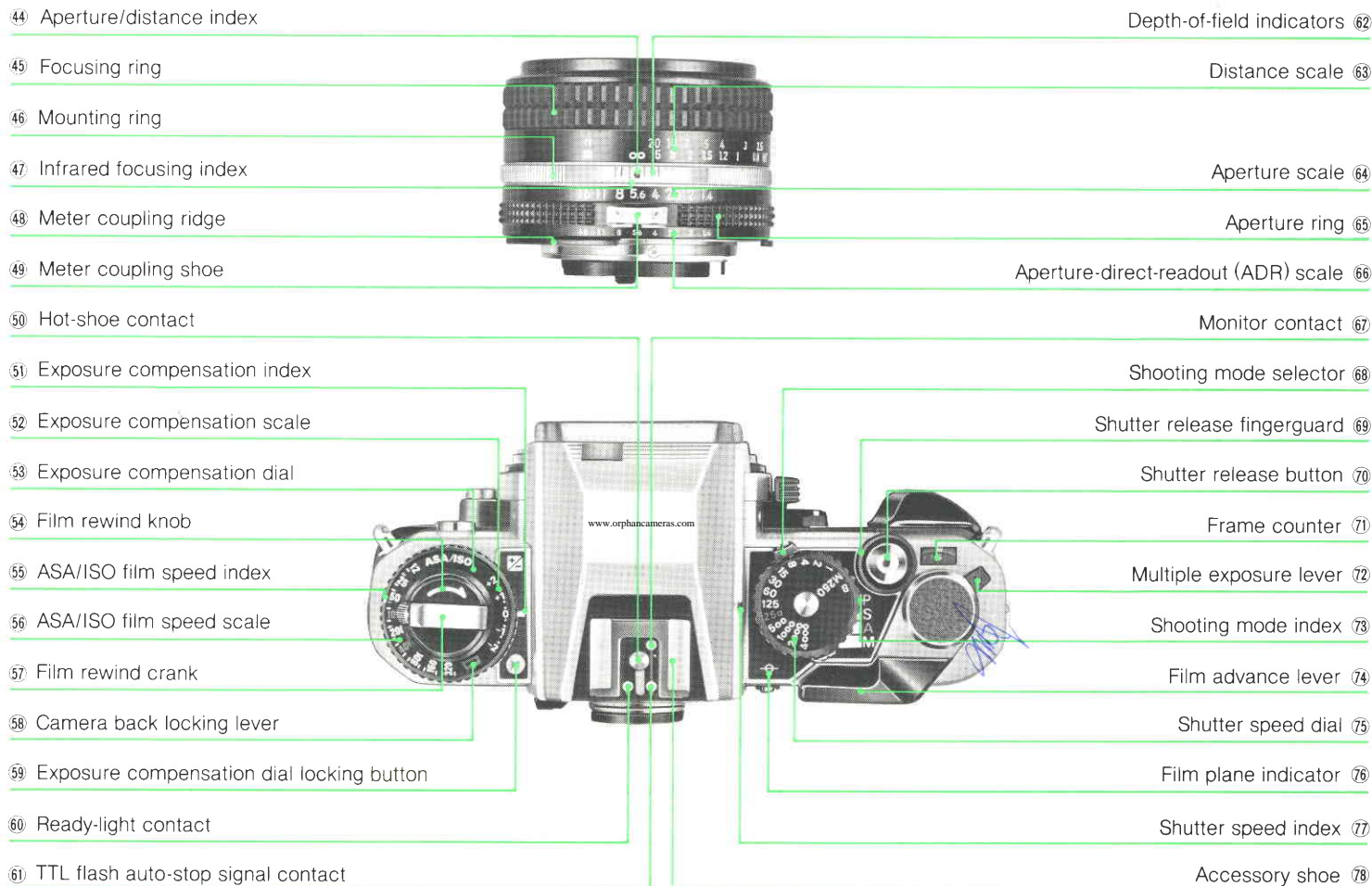
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FOREWORD

Welcome to Nikon's exciting world of picture-taking ease.

To put you in total control, the Nikon FA offers three automatic exposure modes, in addition to full manual override. For fast-breaking events, the **programmed** mode automatically sets both shutter speed and aperture for correct exposure in any light. Or when action must be stopped or blurred, such as in sports photography, **shutter-priority** lets you choose the shutter speed manually, then the FA automatically sets the aperture to match. If depth of field is important, **aperture-priority** allows you to select the precise aperture with the matching shutter speed set automatically.

But possibly even more important are the FA's two separate metering methods. In Nikon's revolutionary automatic multi-pattern metering system, the brightness from 5 areas of the focusing screen is analyzed by the camera's microcomputer; this automatically ensures the correct exposure—even in tricky lighting situations—without any exposure compensation whatsoever.

Traditional center-weighted metering is reserved for the manual mode, but is usable in any of the three automatic modes with the metering control button. Other features of the FA include 1/4000sec. top shutter speed, 1/250sec. flash sync, interchangeable focusing screens, and a comprehensive line of Nikon accessories.

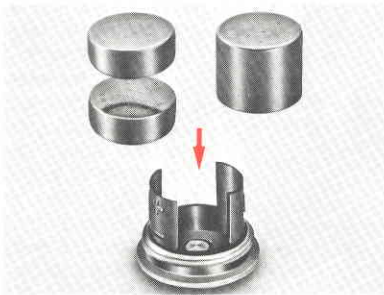
Before using the camera, please read this instruction manual from cover to cover. A few minutes invested now will pay off in years of rewarding picture-taking experiences.

BASIC OPERATION

INSTALLING BATTERIES

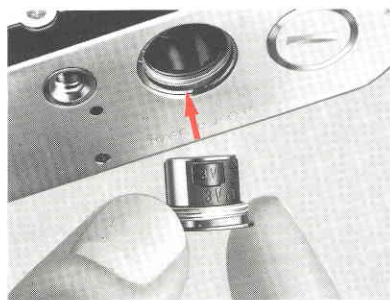


1. Remove the battery clip ④3. Use a coin to unscrew it in a counter-clockwise direction.



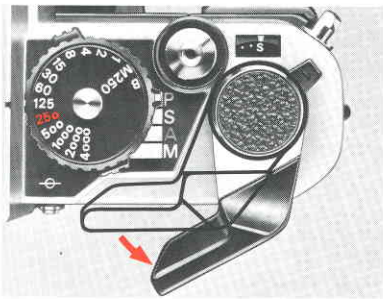
2. Insert batteries. Wipe the battery terminals clean and insert the batteries, making sure that the + signs are up. Usable batteries for the Nikon FA camera are:

- One 3V lithium battery
- Two 1.55V silver-oxide batteries (3.1V)
- Two 1.5V alkaline-manganese batteries (3V)

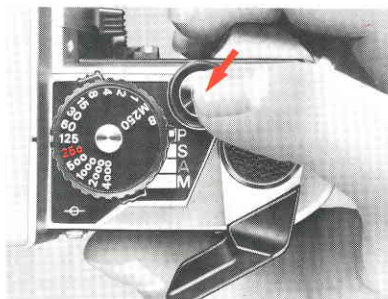


3. Reattach the battery clip. Slip the clip back into the camera body and screw it tightly into place.

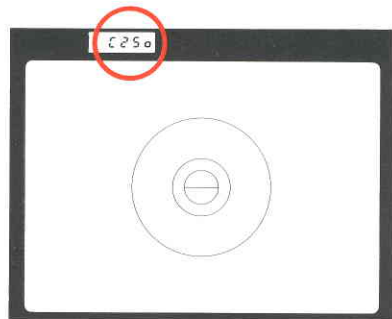
CHECKING BATTERY POWER



1. Pull out the film advance lever 74 to unlock the shutter release button 70. The lever doubles as a shutter release button lock.



2. Depress the shutter release button halfway to activate the exposure meter.



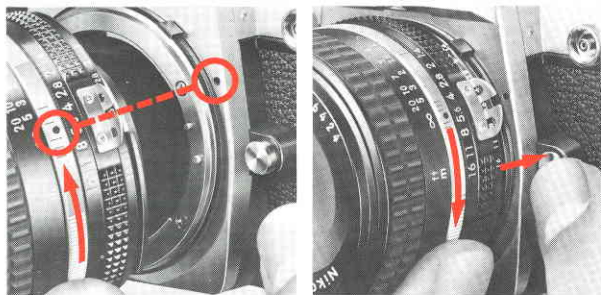
3. Check the LCD. Confirm that the LCD (liquid crystal display) is shown at the upper left in the viewfinder. This indicates that battery installation is correct and power is sufficient. If the LCD does not appear, recheck battery orientation or, if necessary, replace with a new set.

With sufficient battery power, the LCD stays on for 16sec. after you take your finger off the button. If the batteries are almost depleted, the LCD will turn off immediately when you take your finger off the button. In this case, replace batteries as soon as possible. With exhausted batteries, you cannot trip the shutter unless the shutter speed dial 75 is set at a mechanical setting of M250 or B.

• The LCD does not appear when the shutter dial is set at M250 or B.

BASIC OPERATION—continued

MOUNTING THE LENS



Lenses usable with the Nikon FA are AI-S Nikkor, Nikon Series E, AI-Nikkor, most AI-modified, and certain special lenses shown at the right. First line up the aperture/distance index ⑭ on the lens with the lens mounting index ⑮ on the camera body. Then twist the lens mounting ring ⑯ counterclockwise until the lens clicks into place. Confirm that the aperture/distance index is exactly at the top.

To remove: While pushing the lens release button ⑰, turn the lens mounting ring clockwise until the lens comes off.

- When changing lenses with film loaded in the camera, be careful not to expose the mirror box to direct sunlight.

Usable Lenses

The following lenses are usable with the Nikon FA:

- AI-S Nikkor lenses
- Nikon Series E lenses
- AI-Nikkor (including AI-modified Nikkor) lenses
- Reflex-Nikkor 500mm f/8
- PC-Nikkor 28mm f/3.5
- Medical-Nikkor 120mm f/4 IF
- Reflex-Nikkor 1000mm f/11 (No. 143001 or higher)
- Reflex-Nikkor 2000mm f/11 (No. 200311 or higher)
- PC-Nikkor 28mm f/4 (No. 180901 or higher)
- PC-Nikkor 35mm f/2.8 (No. 851000 or lower or No. 906201 or higher)
- Zoom-Nikkor 180-600mm f/8 ED (No. 174167 or higher)
- Zoom-Nikkor 200-600mm f/9.5 (No. 300491 or higher)
- Zoom-Nikkor 360-1200mm f/11 ED (No. 174088 or higher)

- The last seven lenses having serial numbers not listed above cannot be mounted on the FA as they hit the camera's meter coupling lever ⑬. However, they can be used after modification. In addition, AI-modification of most non-AI lenses having a meter coupling shoe ⑭ is available. Do not attempt to mount older Nikkor lenses which have not been AI-modified, as they might damage the camera. For further information concerning lens modification, please contact your local authorized Nikon dealer.
- The following lenses cannot be used on the FA even if they are modified to have the AI facility:
 - 55mm f/1.2 (No. 184711-970110)
 - 28mm f/3.5 (No. 625611-999999)
 - 35mm f/1.4 (No. 385001-400000)
- If you use lenses other than those manufactured by Nikon, proper performance may not be obtained and they may even damage the camera.

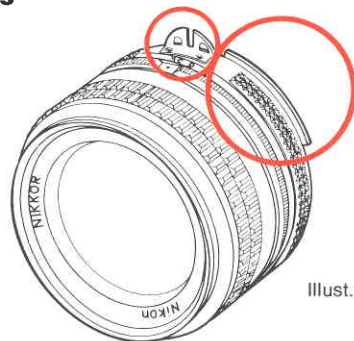
AI-S Nikkor: An Updated Version of AI-Nikkor Lenses

In 1977, Nikon introduced AI-Nikkor lenses which feature full-aperture metering via Nikon's "Automatic Maximum Aperture Indexing" or "AI" system. Just by mounting an AI lens on the camera, the maximum aperture is automatically indexed into the camera's metering system. All AI-type lenses feature a meter coupling ridge ㉔ and a meter coupling shoe having two holes (Illust. 1).

Then in 1981, Nikon modified their entire line of AI-Nikkor lenses, so that they would be fully compatible with the upcoming Nikon FA. These new lenses, called AI-S Nikkor, are easily distinguishable by (a) an orange minimum aperture on both regular aperture ㉔ and aperture-direct-readout (ADR) scales ㉕ (Illust. 2), and (b) a special notch on the bayonet mount (Illust. 3). In addition, the AI-S symbol appears on the front cover on the instruction manual for each lens.

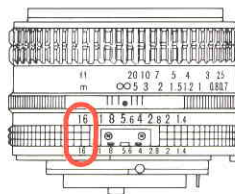
When used with the Nikon FA in the programmed mode, AI-S lenses provide either a normal or high-speed program depending on the focal length in use; in the shutter-priority mode, they give you uniform exposure control in any lighting situation.

Nikon Series E lenses also have the same features as AI-S Nikkors, but do not have a meter coupling shoe. Of course, older AI-Nikkor and AI-modified Nikkor lenses can be used with all current and older Nikon cameras, including the FA. Nikon's new series of teleconverters—the TC-201, TC-301, TC-14A and TC-14B—have been specially designed for AI-S Nikkor lenses, but can be used with older AI-type lenses, too. As soon as they are attached, they automatically switch the FA to the high-speed program in the programmed mode.



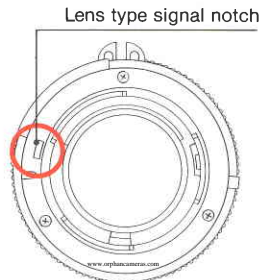
Illust. 1

AI-Type Lens



Illust. 2

AI-S Nikkor Lens



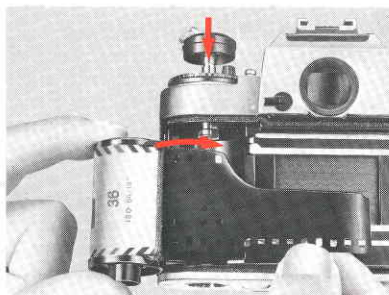
Illust. 3

BASIC OPERATION—continued

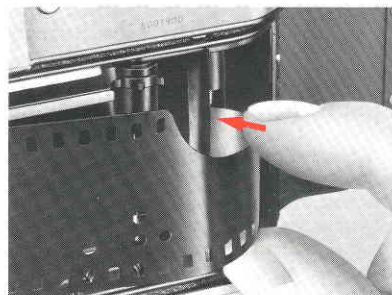
LOADING FILM



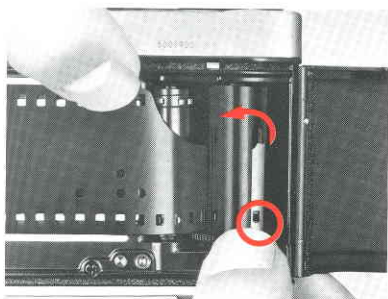
1. Open the camera back ④①. While pushing the camera back locking lever ⑤③ counterclockwise, pull up the film rewind knob ⑤④ until the camera back pops open.



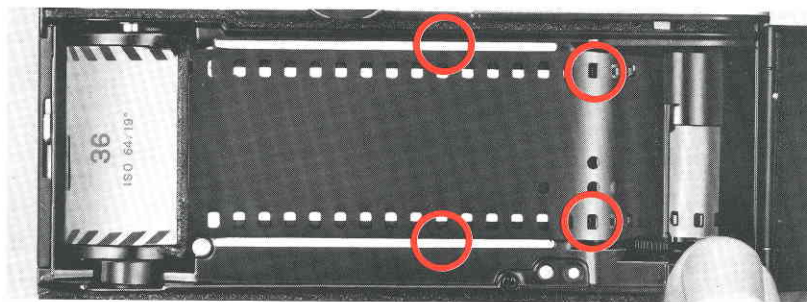
2. Install the film cartridge. Position the cartridge in the film cartridge chamber ②⑦ with the leader pointing towards the takeup spool ③⑥; then push the rewind knob back down to secure the cartridge in place. You can use any type of 35mm film on the market. It is advisable to handle film in the shade to avoid direct exposure to sunlight.



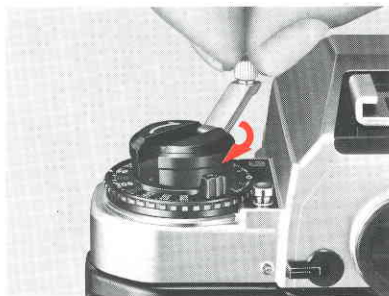
3. Insert the film leader in the take-up spool. Pull the leader across the camera and insert it into any one of the slots in the takeup spool.



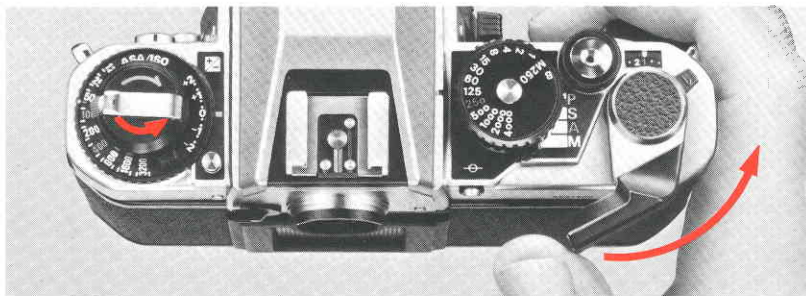
4. Engage the film's perforations with the sprocket teeth. Turn the takeup spool slightly with your thumb, so that the first or second perforation at the bottom edge of the film is engaged with the small tooth at the bottom of the slot in the takeup spool, and the top and bottom perforations mesh securely with the sprockets ㉞.



5. Advance the film by rotating the takeup spool further with your thumb. Make sure the perforations on both film edges are securely engaged with the sprocket teeth. Also confirm that the film is properly seated between both film guide rails ㉞ and there is no film slack. Then close the camera back until it snaps shut.

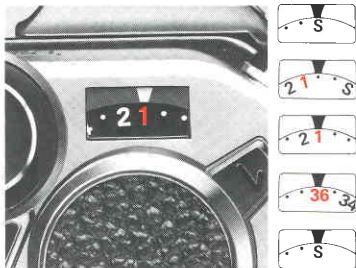


6. Take up film slack. Fold out the film rewind crank ⑦ and rotate it gently in the direction of the arrow on the film rewind knob until you feel a slight resistance. Then fold the crank back in.



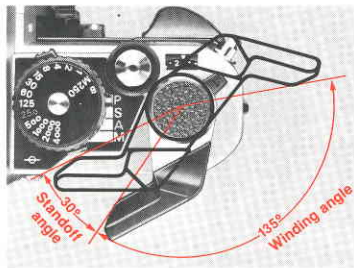
7. Make blank exposures. To dispose of the first few frames exposed during film loading, continue to alternately advance the film and depress the shutter release button until the frame counter ⑪ reaches frame 1. While making blank exposures, check that the rewind knob is rotating, indicating the film has been loaded correctly and is being advanced. If the knob does not rotate, reload the film.

• Do not take pictures prior to frame 1, because the meter does not function properly and the shutter fires at a fixed speed of 1/250sec. regardless of the shutter speed dial setting. To indicate blank exposures, the LCD displays C250 when the shooting mode selector is set at the P, S, or A position or M C250 at M.



Frame Counter

The additive type frame counter is graduated from S, two dots, 1, 2, 4—up to 36—in even numbers with odd numbers indicated by white dots in-between. The frame counter advances a single frame by one complete stroke of the film advance lever. After reaching frame 36 of a 36-exposure roll of film, the counter will not operate; however, film will be advanced until the actual end of the film roll. The frame counter automatically resets to S when the camera back is opened.



Film Advance Lever

To advance the film, wind the lever to the right completely until it stops. The lever returns to the standoff position as soon as you take your thumb off the lever. A single complete stroke advances the film one frame and simultaneously cocks the shutter.

- If the lever becomes difficult to operate at the beginning of the roll, this means that the film is not winding onto the takeup spool properly. In this case, rewind the film immediately and load again.

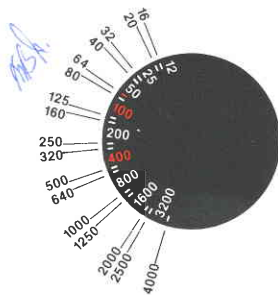
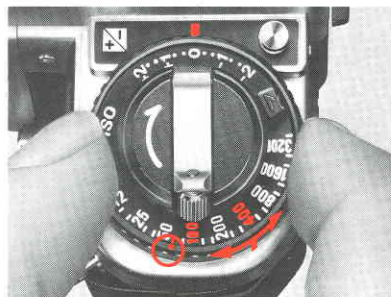


Memo Holder ²⁴

To remind yourself of the type of film and number of exposures, clip off the end of the film carton and insert it into the memo holder. Of course, you can use the holder to store something else like your name card or a handwritten note.

BASIC OPERATION—continued

SETTING FILM SPEED



To program the camera to give the correct exposure with a particular film, you must set the camera to the correct film speed.

Lift up the ASA/ISO film speed ring and rotate it in either direction until the red index dot (55) is opposite the film speed in use. The scale (56) on the ASA/ISO dial has settings from ASA/ISO 12 to 4000. Two lines between each number stand for intermediate settings, such as 64, 80, etc.

The film speed, indicated by an ASA/ISO number printed on both the film carton and cartridge, 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.

- Make sure that the exposure compensation dial (53) is set at 0. If not, turn the dial until the 0 click-stops opposite the red index line (51) while depressing the exposure compensation dial locking button (59).

SELECTING THE SHOOTING MODE

The Nikon FA offers four shooting modes: three automatic exposure modes, including P (programmed), S (shutter-priority), and A (aperture-priority), in addition to M (manual) mode.

Moreover, the FA utilizes an automatic multi-pattern metering system in all three automatic modes to ensure correct exposure even in difficult lighting situations. In this system, light is individually measured from five separate areas of the focusing screen and then analyzed by the camera's microcomputer, giving you the automatically corrected exposure without the need for manual exposure compensation. In the manual mode, regular centerweighted metering is always in operation. Just center the main subject in the viewfinder to get correct exposure. Selection of centerweighted metering is also possible in all automatic modes by depressing the metering control button ⑨ (refer to page 40 for more information). The metering system in use also depends on which lens is mounted on the camera (see page 18).

Each shooting mode has its own advantages as explained below. Choose your desired mode and set the shooting mode selector ⑧ to the appropriate click-stop. Intermediate settings cannot be used. According to the shooting mode you select, you must also set the shutter speed and/or aperture which will then be displayed in the viewfinder.

P (Programmed)

The optimum combination of shutter speed and aperture is automatically set by the FA's microcomputer, depending upon scene brightness, film speed, and lens focal length in use. For short lenses (less than 135mm), the FA uses a normal program to ensure correct exposure. But with telephotos of 135mm or longer, the camera automatically switches to a special high-

speed program to reduce the possibility of camera shake caused by slow shutter speeds. The P mode not only greatly simplifies operation but also lets you concentrate on picture composition, making it desirable for fast-breaking action when there isn't time to think.

S (Shutter-Priority)

You set the shutter speed manually and the FA's microcomputer automatically selects the matching aperture. This mode is good for stopping fast action and required when motion is an important factor in your pictures, such as in sports photography.

A (Aperture-Priority)

Select the lens aperture first; then the FA's microcomputer selects the matching shutter speed for you. This mode is recommended when the rendition of depth must be controlled exactly. For instance, you may want to blur out the background in portraiture or make everything come out sharp in scenic photography.

M (Manual)

You set both the shutter speed and aperture manually according to the desired effect. Necessary exposure information is shown in the viewfinder. With this mode, it's possible to create intentional over- or underexposed photos. It's also good under special shooting situations. Time exposures at the B setting or mechanical release at M250 are performed in the manual mode. Flash photography with flash units other than Nikon dedicated flash units should also be performed in this mode.

BASIC OPERATION—continued

Usable Shooting Modes/Metering Method Combination Chart

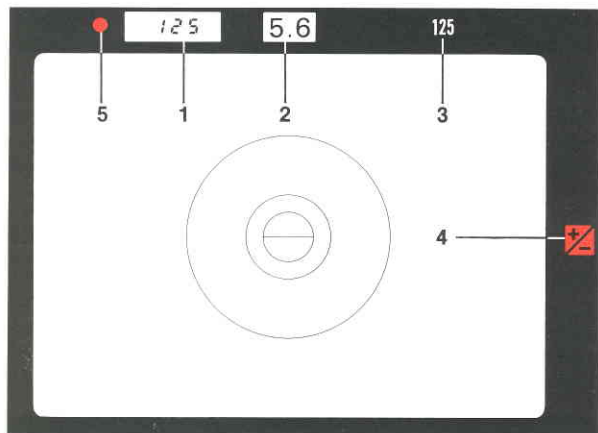
Lens or accessory		Shooting mode					Metering method	
		P		S	A	M	automatic multi-pattern	centerweighted
		normal	high-speed					
AI-S Nikkor	135mm or longer	×	○	○	○	○	○	○
	105mm or shorter	○	×	○	○	○	○	○
AI-Nikkor		○	×	○	○	○	○	○
Nikon Series E	135mm or longer	×	○	○	○	○	○	○
	100mm or shorter	○	×	○	○	○	○	○
AI-modified Nikkor		○	×	○	○	○	×	○
PC-Nikkor		×	×	×	×	○	×	○
Reflex-Nikkor		Δ	×	Δ	○	○	×	○
Medical-Nikkor		×	×	×	×	○	×	○
Teleconverters TC-201, TC-301, TC-14A and TC-14B		×	○	○	○	○	○	○
Teleconverters TC-200, TC-300 and TC-14		○	×	○	○	○	×	○
Bellows, K ring		×	×	×	○	○	×	○

○ = In operation or possible

×

Δ = Because Reflex-Nikkors have a fixed aperture, the shutter speed is shifted according to the aperture, just as in the A mode.

- When using any Nikon teleconverter attached to lenses of f/1.8 or faster, no exposure compensation is required in the P, S, or A mode, but is necessary in the M mode as explained in the teleconverter's instruction manual.

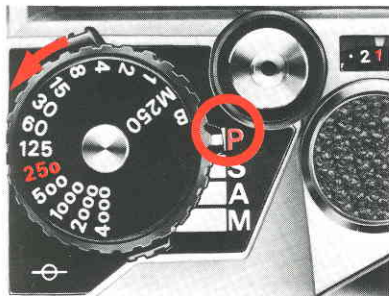


Viewfinder Information

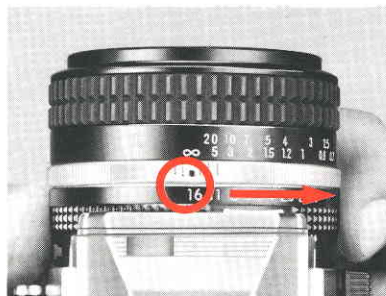
- 1. LCD exposure display.** Appears when the exposure meter is turned on to show you the shutter speed or aperture selected by the camera in an automatic exposure mode or the shutter speed you set in the manual mode. Although the shutter speed and/or aperture is controlled steplessly in the automatic exposure modes, intermediate shutter speeds or f-numbers appear in the display as discrete numbers which are closest to actual shutter speeds or f-numbers.
- 2. ADR f-number.** Appears in the A or M mode to show you the aperture set on the lens (AI-S Nikkor, Nikon Series E, and AI-Nikkor, including AI-modified lenses).
- 3. Shutter speed indication.** Appears only in the S mode to show you the shutter speed set on the shutter speed dial.
- 4. LED exposure compensation mark.** Appears when the exposure compensation dial is not set to 0 to indicate exposure compensation.
- 5. Flash ready-light.** Lights up to indicate flash readiness of Nikon dedicated electronic flash units.

BASIC OPERATION—continued

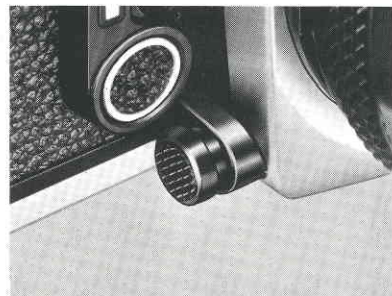
P (Programmed) Mode



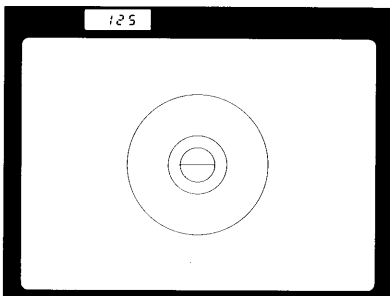
- 1.** Set the mode selector to P.



- 2.** Set the lens to its minimum aperture (the largest f-number). The shutter speed dial can be set at any position except M250 and B.



- 3.** Confirm that automatic multi-pattern metering is in operation by making sure that the metering control button is in the normal "out" position and the red index is not on top (refer to page 40 for more information).



- 4. Look through the viewfinder and check the exposure information.** Depress the shutter release button halfway and you will see the LCD showing the shutter speed (as a reciprocal) selected by the camera to provide correct exposure. Note that a slow shutter speed results in blurred images (techniques for avoiding blurred images are explained on page 46).

Warning Indications


HI

If the LCD shows **HI**, this means the scene is too bright, indicating overexposure may occur. In this case, use a neutral density (ND) filter or change to a slower speed film.

Lo

If the LCD displays **Lo**, this means the scene is too dark, indicating underexposure may occur. Use an electronic flash or change to faster film.

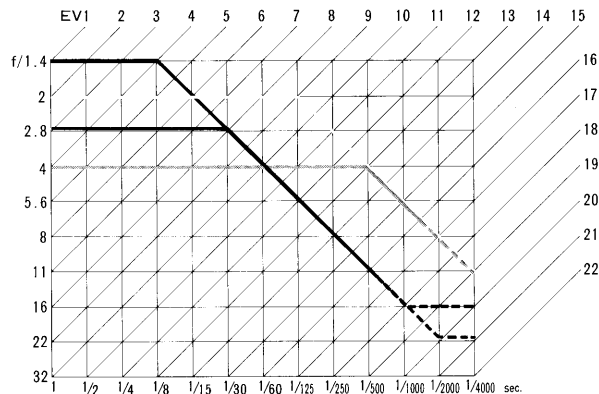
FEE

If the LCD shows **FEE**, this means the aperture ring  is not set at f/11 or a larger f-number. Reset the lens to its minimum aperture. When using an AI-modified Nikkor lens, a Nikon Teleconverter TC-200, TC-300, or TC-14, or a PK ring, this warning will not appear. So, be sure to set the aperture to its minimum. However, even if the aperture is set incorrectly, you can still get the correct exposure (in most cases), but the programmed aperture will be restricted to the range between the lens maximum aperture and the actual aperture you set on the lens.

Programmed Exposure Measurement Graph

In the programmed automatic exposure mode, the FA provides the optimum combination of aperture and shutter speed to match the film speed in use and the brightness of the scene. These combinations were arrived at through intensive research and then fed into the FA's microcomputer to provide a predetermined exposure program. Thus, when actual exposure measurement takes place at the time of shooting, the ideal combination is selected, resulting in perfect exposures for every shot.

Moreover, the FA features two different exposure programs to match the lens focal length (applies only to AI-S Nikkor and Nikon Series E lenses). The normal program is for lenses less than 135mm; the high-speed program is for 135mm and longer (including zoom lenses whose longest focal length exceeds 135mm). To minimize camera shake with telephoto lenses, the high-speed program does not go below 1/125 sec. until the lens maximum aperture is reached; then slower speeds are progressively chosen. With all other lenses, the normal program is in operation. The high-speed program is also automatically chosen by the FA when a Nikon Teleconverter TC-201, TC-301, TC-14A, or TC-14B is attached to AI-S, Nikon Series E, and AI-Nikkor (including AI-modified) lenses; with Nikon Teleconverters TC-200, TC-300, or TC-14, the normal program is in operation.

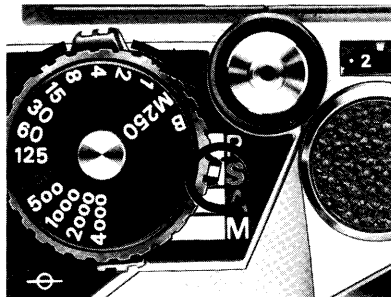


The black line represents the normal program for an AI-S or AI-Nikkor 50mm f/1.4 lens with ASA/ISO 100 film, whereas the green line represents the high-speed program for an AI-S Nikkor 135mm f/2 lens. For lenses with different maximum apertures (e.g. an AI-S or AI-Nikkor 24mm f/2.8 which is indicated by a red line or an AI-S Nikkor 200mm f/4 by a pink line), the graph is read from that particular aperture until intersection with the diagonal line and then downward along the same line. Solid program lines represent automatic multi-pattern metering, whereas solid and dotted lines centerweighted metering. In extremely bright lighting situations such as snow scenes, scenes at the beach, etc., exposure compensation of approx. +2 EV is required with conventional centerweighted metering. Taking this into consideration, automatic multi-pattern metering is pre-programmed to automatically make exposure compensation by reducing extreme brightness to EV 16-1/3.

- *The following lenses cannot be used in the P or S mode:
Zoom-Nikkor 50-300mm f/4.5 ED (older AI-type without orange minimum aperture on ADR scale)
AI-modified Micro-Nikkor 105mm f/4*
- *When using a Nikon Teleconverter TC-200, TC-300 or TC-14, the shutter speed may vary by approx. one step from that displayed in the viewfinder. However, you will still obtain the correct exposure.*
- *With a teleconverter attached, shutter speeds become slower than those indicated by the normal or high-speed program line, respectively. Similarly, with an AI-modified Nikkor or PK ring attached, shutter speeds become slower. While the actual shutter speed will be the one indicated by the LCD and correct exposure is assured even in these cases, be sure to check the LCD to avoid blurred images at slower shutter speeds.*

BASIC OPERATION—continued

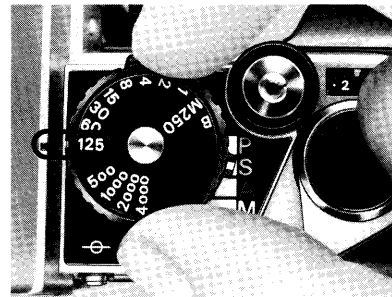
S (Shutter-Priority) Mode



1. Set the mode selector to S.



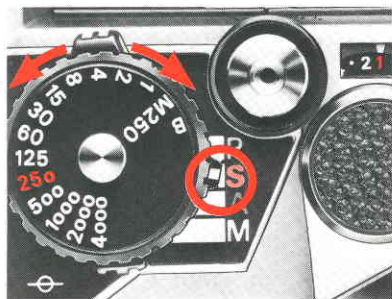
2. Set the lens to its minimum aperture.



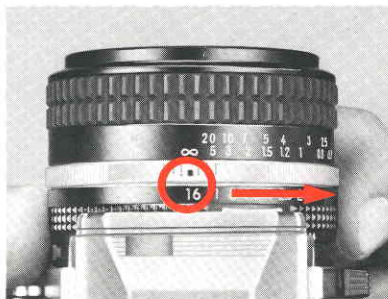
3. Set the shutter speed dial to the desired shutter speed. The numbers on the dial are reciprocals, e.g., 4000 means $1/4000\text{sec}$. The 250 engraved in red indicates the fastest sync speed for an electronic flash unit. Each setting has a click stop; intermediate settings **cannot** be used. Use fast shutter speeds to freeze motion or use slow speeds to produce a deliberate blur. Note that in the S mode, M250 and B settings cannot be used. (To prevent accidental missetting of the dial, a locking mechanism is provided.)

BASIC OPERATION—continued

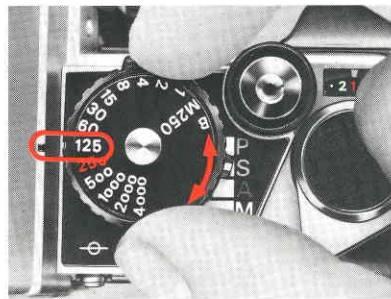
S (Shutter-Priority) Mode



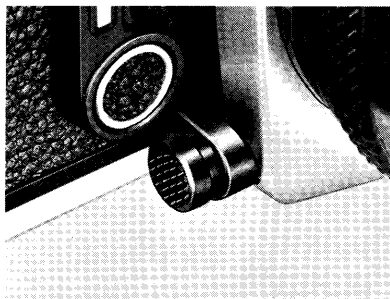
1. Set the mode selector to S.



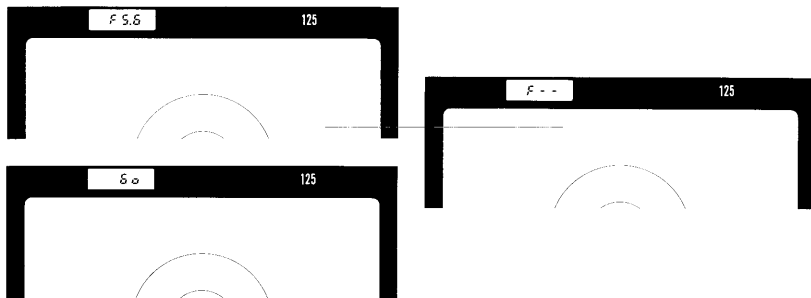
2. Set the lens to its minimum aperture.



3. Set the shutter speed dial to the desired shutter speed. The numbers on the dial are reciprocals, e.g., 4000 means $1/4000\text{sec}$. The 250 engraved in red indicates the fastest sync speed for an electronic flash unit. Each setting has a click stop; intermediate settings **cannot** be used. Use fast shutter speeds to freeze motion or use slow speeds to produce a deliberate blur. Note that in the S mode, M250 and B settings cannot be used. (To prevent accidental missetting of the dial, a locking mechanism is provided.)



4. Confirm that automatic multi-pattern metering is in operation by making sure that the metering control button is in the normal "out" position and the red index is not on top (refer to page 40 for more information).



5. Look through the viewfinder and check the exposure information. The shutter speed you set is shown at the upper right-hand corner. When the shutter release button is depressed halfway, the LCD at the upper left-hand corner shows the aperture (a number preceded by F) selected by the camera to match the shutter speed you selected.

If the LCD shows the shutter speed (a number without F), this means you cannot obtain the correct exposure at the shutter speed you selected and the camera is overriding your choice by automatically selecting a slower or faster speed.

With an AI-modified Nikkor lens, Nikon Teleconverter TC-200, TC-300 or TC-14, PK ring or bellows attachment attached, the LCD shows **F--**, instead of the aperture selected by the camera. In the same way, a shutter speed will appear instead of the **F--**, if the camera automatically modifies the shutter speed you selected to obtain correct exposure.

BASIC OPERATION—continued

Warning Indications

HI

125

If the LCD shows **HI**, this means the scene is too bright, indicating overexposure may occur. In this case, use a neutral density (ND) filter or change to a slower speed film.

Lo

125

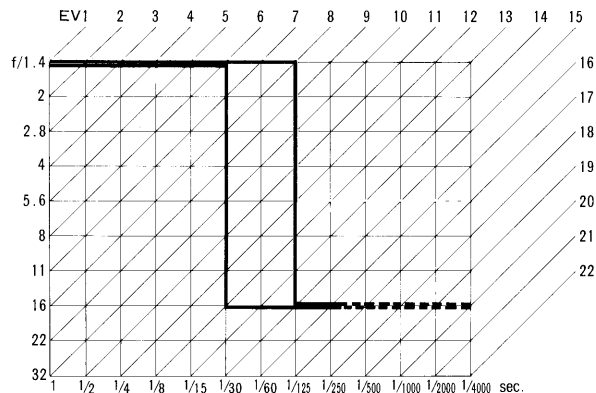
If the LCD displays **Lo**, this means the scene is too dark, indicating underexposure may occur. In this case, use an electronic flash or change to faster film.

FEE

125

If the LCD shows **FEE**, this means you failed to set the lens to its minimum aperture and the scene is too bright for the aperture set. (If you failed to set the lens to its minimum aperture and **FEE** does not appear, you can still get correct exposure.) In this case, reset the lens to its minimum aperture. When using an AI-modified Nikkor lens, Nikon Teleconverter TC-200, TC-300 or TC-14, or PK ring, the **FEE** warning will not appear; however, the correct exposure can be obtained until **HI** appears, but the operative metering range will be reduced. So, for best results, be sure to set the aperture to its minimum.

Shutter Speed/Aperture Combinations in S Mode

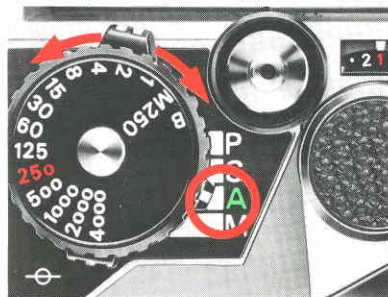


The graph shows the shutter speed/aperture combinations in the S mode at ASA/ISO 100. The red line represents an AI-S or AI-Nikkor 50mm f/1.4 lens at a shutter speed of 1/125 sec., while the black line is for the same lens used at 1/30 sec. The green line represents the control when the aperture ring is set by mistake to settings other than the minimum aperture (in this case, f/5.6). Solid lines represent the usable metering range for the lens when automatic multi-pattern metering is in use; solid and dotted lines show the usable metering range with centerweighted metering.

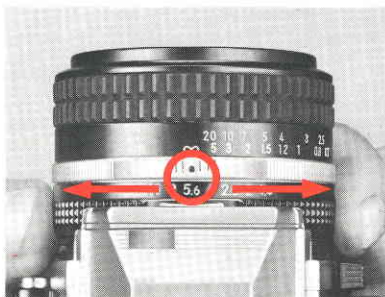
- *The following lenses cannot be used in the P and S modes:
Zoom-Nikkor 50-300mm f/4.5 ED (older AI-type without orange minimum aperture on ADR scale)
AI-modified Micro-Nikkor 105mm f/4*
- *In the S mode, if an aperture of f/11 or smaller is selected, the following AI-Nikkor (including AI-modified) lenses may cause approx. one step slower shutter speeds than those indicated by the shutter speed indication or by the LCD in the viewfinder; however, you will still get the correct exposure. In case exact shutter speed information is desired, use the A or M mode. The lenses are:
Nikkor 24mm f/2
Nikkor 28mm f/2
Nikkor 35mm f/1.4
Nikkor 35mm f/2
Nikkor 35mm f/2.8
Nikkor 50mm f/1.2
Nikkor 50mm f/1.8
Nikkor 50mm f/2
Nikkor 55mm f/1.2
Noct-Nikkor 58mm f/1.2
Nikkor 105mm f/2.5 (The same thing happens with this lens at apertures between f/5.6 and f/16)
Nikkor 135mm f/2.8
Nikkor 200mm f/4*
- *When using a Nikon Teleconverter TC-200, TC-300, or TC-14, the shutter speed may vary by approx. one step from that displayed in the viewfinder. However, you will still obtain the correct exposure.*

BASIC OPERATION—continued

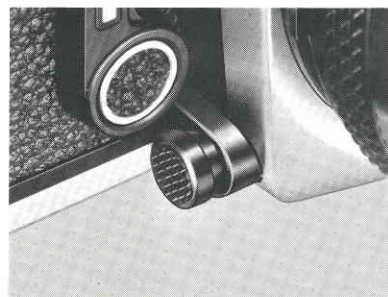
A (Aperture-Priority) Mode



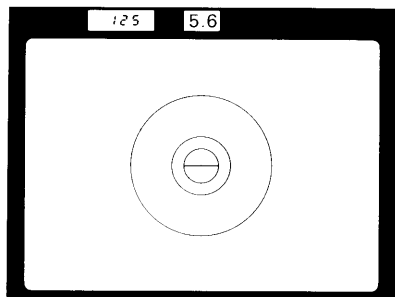
1. Set the mode selector to A.



2. Set the lens to the desired f-number. Although each number on the lens aperture ring has a click stop, you can also set the ring to intermediate settings. Note that small apertures give greater depth of field, while large apertures restrict the zone of sharp focus to the main subject. The shutter speed dial can be set at any position except M250 and B.

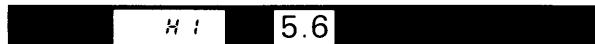


3. Confirm that automatic multi-pattern metering is in operation by making sure that the metering control button is in the normal "out" position and the red index is not on top (refer to page 40 for more information).

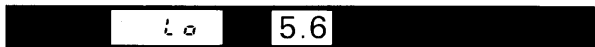


4. Look through the viewfinder and check the exposure information. The aperture you set is shown through the ADR window ①. When the shutter release button is depressed halfway, the LCD shows the shutter speed selected by the camera to obtain correct exposure with the aperture you set. If necessary, use a wider aperture to prevent a slow shutter speed from causing blurred images. (For additional information on avoiding blurred images, see page 46.)

Warning Indications



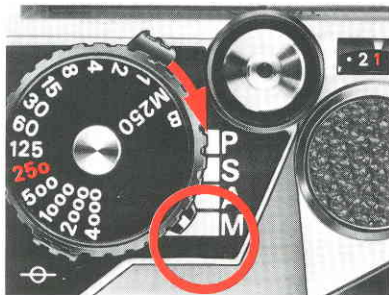
If the LCD shows **HI**, this means the scene is too bright and there is no shutter speed to match the aperture you selected. In this case, overexposure may occur. To prevent this, stop the lens down until **HI** disappears; if all else fails, attach a neutral density (ND) filter to the lens or change to a slower speed film.



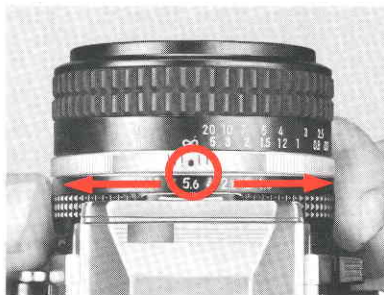
If the LCD displays **Lo**, the scene is too dark and there is no shutter speed to match the aperture you selected. In this case, underexposure may occur. To prevent this, select a wider aperture or, if necessary, attach an electronic flash. As a last resort, change to a faster film.

BASIC OPERATION—continued

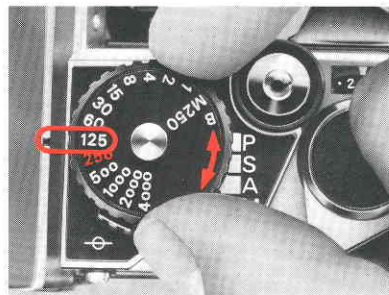
M (Manual) Mode



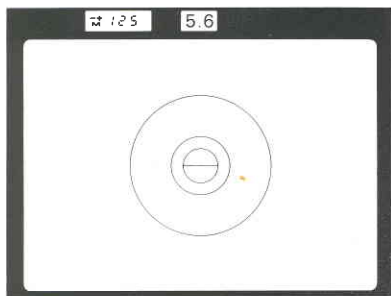
- 1.** Set the mode selector to M.



- 2.** Set the lens to the desired f-number. Although each number on the lens aperture ring has a click stop, you can also set the ring to intermediate settings.



- 3.** Set the shutter speed dial to the desired shutter speed. The numbers on the dial are reciprocals, e.g., 4000 means 1/4000sec. The 250 engraved in red indicates the fastest sync speed for an electronic flash unit. Each setting has a click stop. Shutter speeds from 1 to 1/4000sec. are electromagnetically controlled while the FA's shutter is mechanically controlled at M250 and B.
- The shutter speed dial should not be set between click stops. Fine adjustment of the exposure should be performed by adjusting the aperture ring.



Correct exposure

M 125

Underexposure

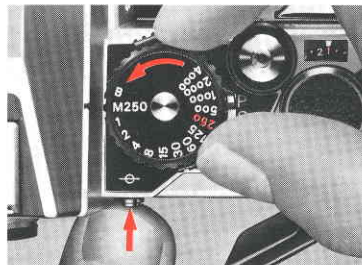
M 250

Overexposure

M 60

4. Center your main subject in the viewfinder and check the exposure information. Remember that in the manual mode, centerweighted metering is always in operation regardless of the position of the metering control button. The selected f-number is shown through the ADR window. When the shutter release button is depressed halfway, the LCD shows the selected shutter speed preceded by the letter M.

If the $-+$ indication is displayed above the M, you will get the correct exposure with the selected combination of aperture and shutter speed. If only $-$ is shown, this indicates possible underexposure; use a wider aperture or a slower shutter speed. If only $+$ is shown, this indicates possible overexposure; in this case, use a smaller aperture or faster shutter speed.




M250 and B Settings

At M250 and B, the FA's shutter is mechanically controlled without the exposure meter being activated or exposure information appearing in the viewfinder.

At M250, the shutter operates at a mechanical speed of 1/250sec. This setting is used when the batteries are depleted and other shutter speeds are not operable. It also can be used for flash photography.

At B, the shutter remains open for as long as the shutter release button is depressed. B is especially useful for making long time exposures with a cable release and tripod.

A locking mechanism is provided between 1 and M250 on the shutter speed dial. To set either M250 or B, depress the locking button  and rotate the dial to either M250 or B.

- At these mechanical settings, you must depress the shutter release button a little bit more than at other settings to trip the shutter.

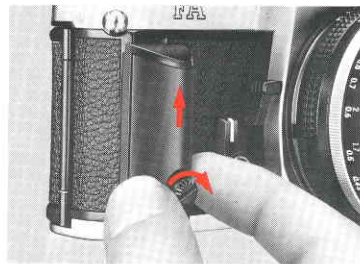
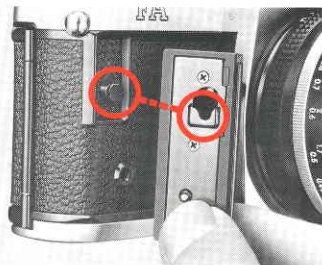
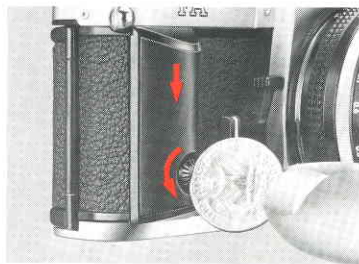
BASIC OPERATION—continued

HOLDING THE CAMERA



Many blurred shots are caused by unsteady holding of the camera. The basic shooting posture is: Hold the camera at eye level while looking through the viewfinder. Cradle it in your hands with the fingers of your left hand wrapped around the lens barrel and your elbow propped against your body for support. Grasp the handgrip ⑥ with your right hand and use your index finger to depress the shutter release button and your thumb

to wind the film advance lever. You can look through the viewfinder with either the right or left eye, while the other eye is opened or closed. It's easy to adapt this basic posture to both horizontal- and vertical-format shooting. To hold the camera steady, stand with your feet flat on the ground and slightly apart; if possible, lean on or against something strong and stable, such as a wall, especially when using slow shutter speeds.

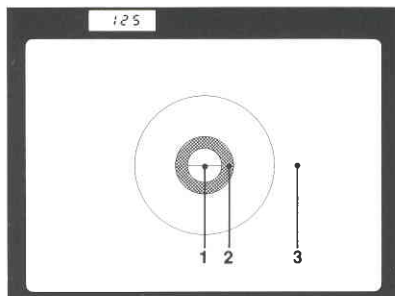


Detachable Handgrip

The FA's handgrip not only allows steady shooting but also fits comfortably in your hand. However, when shooting with a motor drive, you should remove the grip first. To do this, insert a coin into the slot, turn the screw ⑦ counterclockwise until it loosens, then slide the grip down until it separates from the body.

To reattach, align the grip attachment screw with the inner hole in the handgrip, slip the grip up until it stops, then screw clockwise until it becomes tight.

FOCUSING



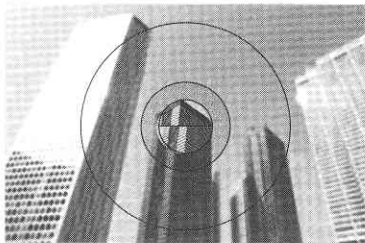
1. Split-image rangefinder
2. Microprism collar
3. Matte field

The FA comes equipped with Type K2 focusing screen suitable for all-purpose photography. While looking through the viewfinder, compose your photo and turn the focusing ring (45) of the lens until the subject looks clear. For precise pinpoint focusing on subjects with distinct contours, use the central split-image rangefinder; turn the focusing ring until the split-image becomes whole (A). For rapid focusing and for subjects with indistinct outlines, use the microprism collar; turn the focusing ring until

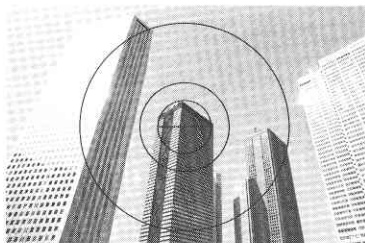
the shimmering image becomes sharp (B). In close-up or micro-photography, or when using telephoto lenses with maximum apertures of approx. $f/4.5$ or smaller, the split-image spot and micropism collar are likely to darken. Therefore, use the matte portion of the screen; turn the focusing ring until the image looks sharp (C).

- Finder coverage of the FA is approx. 93%; therefore the actual image size will be slightly larger than the image seen in the viewfinder.

**(A) Split-image
focusing**

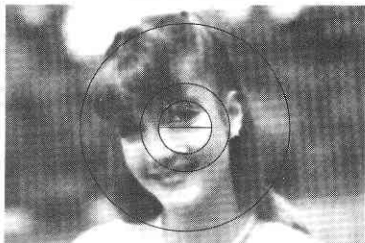


Out of focus

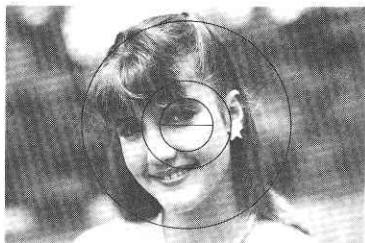


In focus

**(B) Microprism
focusing**

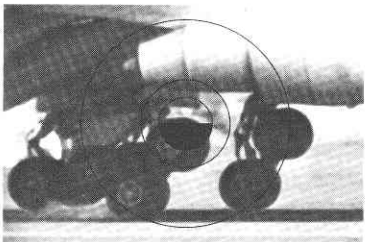


Out of focus

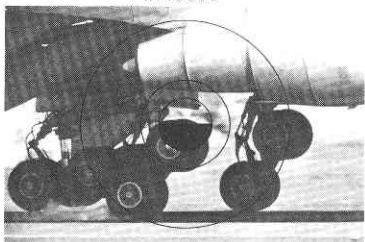


In focus

**(C) Matte field
focusing**



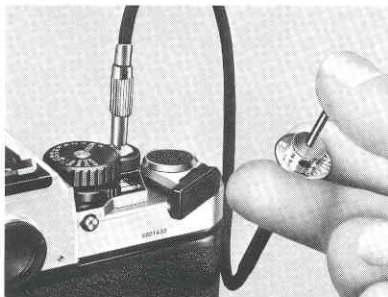
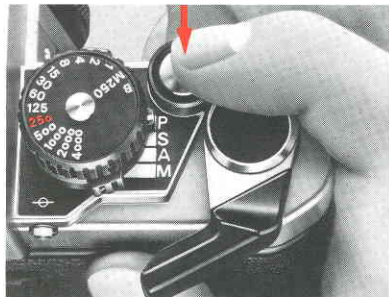
Out of focus



In focus

BASIC OPERATION—continued

TAKING PICTURES



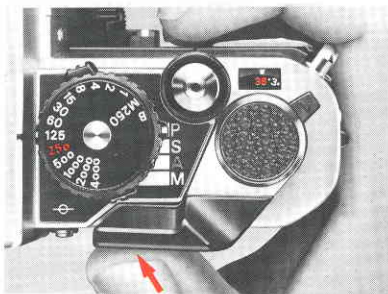
Trip the shutter by pushing the shutter release button all the way down; apply light but steady pressure with the ball of your index finger to avoid camera shake which might result in blurred images.

The shutter release button is threaded in its center to accept a standard cable release for tripping the shutter with the camera mounted on a tripod.

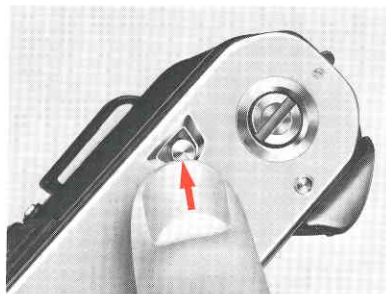
- *The shutter cannot be tripped unless: a) the film advance lever is pulled out to standoff position, b) the film advance lever is stroked completely to cock the shutter, and c) the batteries are in proper working order. To release the shutter when the batteries are dead, use a mechanical setting of M250 or B.*
- *When using a tripod, be careful not to screw it into the camera's tripod socket ④ too tightly, as this might damage the camera. Also, if the tripod has a large head, contact between the lens barrel and the head may make it impossible to turn the lens aperture ring. In this case, use the special tripod adapter (supplied with the camera) between the tripod head and the camera body.*

UNLOADING FILM

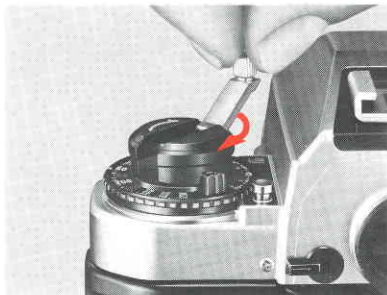
When the film reaches the end of the roll, the film advance lever cannot be wound any further. In this case, rewind and unload the film without forcing the lever using the following procedure:



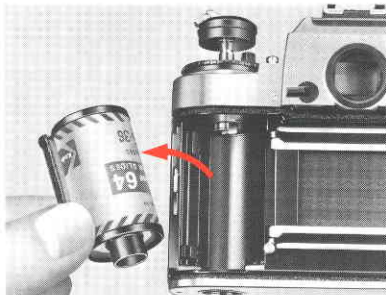
- 1. Push the film advance lever back into place** to turn off the camera and lock the shutter release button. This action prevents inadvertent shutter release.



- 2. Depress the rewind button ③ on the bottom of the camera.** You don't have to apply continuous pressure to the button; just press it once.



3. Rewind the film by unfolding the film rewind crank and turning it in the direction of the arrow. When you feel the tension lessen, give it a few more turns until the crank turns freely, indicating the film leader is rewound completely back into the cartridge.

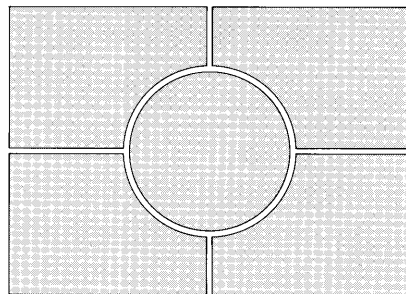


4. Open the camera back and take out film cartridge. Avoid unloading in direct sunlight. If there is no shade available, turn your back to the sun and use your own shadow to shield the camera.

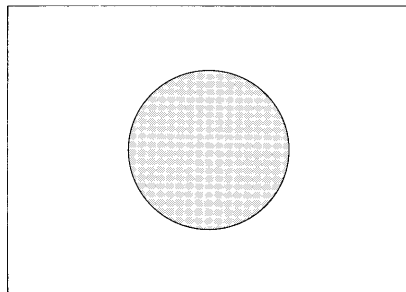
TECHNICAL INFORMATION/ PHOTOGRAPHIC TECHNIQUES

EXPOSURE METERING SYSTEM

The Nikon FA employs through-the-lens (TTL) full aperture exposure metering. This means that light passing through the lens is measured at maximum aperture, thus assuring a bright finder image during shooting. Furthermore, to make exposure measurement easier than ever, the Nikon FA features two types of metering methods—automatic multi-pattern and center-weighted. In automatic multi-pattern metering, light from five separate areas of the focusing screen is metered individually so that not only brightness in the central area but also around the outside is measured. This exposure data is then fed into the FA's microcomputer where it is compared with various predetermined metering patterns stored in the memory. Only then is the exposure determined, thus assuring the correct automatic exposure. By just composing the picture and tripping the shutter, you can get good results even in difficult lighting situations where experience and complicated exposure-compensation techniques would be required with conventional centerweighted metering. In regular centerweighted metering, special emphasis is placed on the brightness in the 12mm-diameter central area. So, by placing the main subject in the center of the frame, you can get the correct exposure in most situations. Centerweighted metering is also highly recommended when you want to create special effects, such as high-key or low-key photographs.



Automatic multi-pattern metering



Centerweighted metering

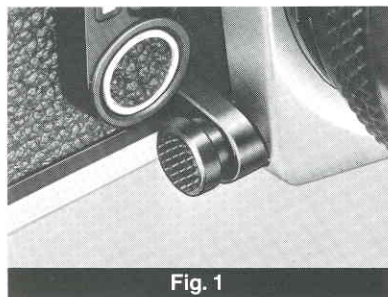


Fig. 1

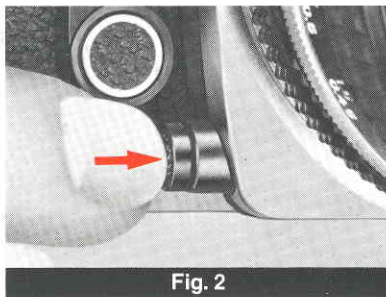


Fig. 2

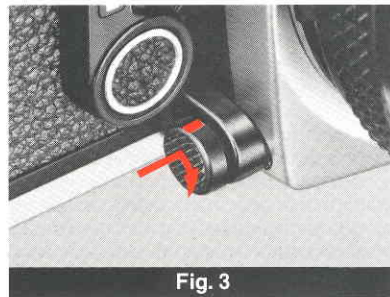


Fig. 3

Metering Control Button ⑨

To change from one metering method to the other, the Nikon FA features a metering control button. In its normal “out” position, you cannot see the red index (Fig. 1). In this position, the automatic multi-pattern metering method is automatically operating with the camera set at any of its automatic modes and with an AI-type Nikkor lens attached.

At any time, you can change to centerweighted metering by simply pushing in the button (Fig. 2). To lock it in position, hold in the button as you rotate it clockwise until the red index faces up (Fig. 3). With the button at the “in” position, metering is always centerweighted.

To return the button to the normal “out” position, rotate it counterclockwise until the red index disappears. Confirm that the button is in the “out” position after you remove your finger. Regardless of the position of the button, metering is always centerweighted when the camera is in the manual mode or when a lens other than an AI-S Nikkor, AI-Nikkor or Nikon Series E is used.

Comparison of Automatic Multi-Pattern and Centerweighted Metering

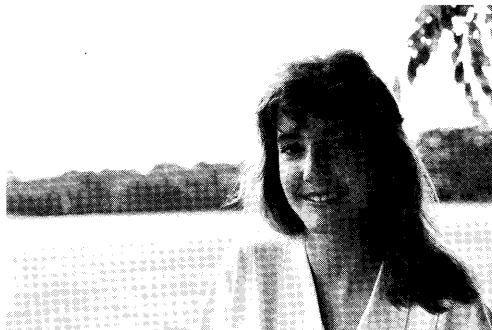
If you compare the automatic multi-pattern and centerweighted metering systems, meter readings are virtually the same for ordinary front-lit subjects or scenes having little difference in contrast between the main subject and the background.

However, with scenes containing both very bright and very dark areas, the results are quite different. For example:

Outdoor backlit subjects

A backlit subject or a scene containing people against a bright sky and/or clouds may lead to an underexposed shot with centerweighted metering. But with automatic multi-pattern metering, exposure compensation is automatically made, giving more exposure to the darker subject to ensure the correct over-all exposure.

Outdoor backlit subject



Automatic multi-pattern



Centerweighted

Front-lit subjects against dark background

If a brightly lit subject is positioned against a dark background, and is not in the center, centerweighted metering places too much emphasis on the dark center of the picture. The result is a correctly exposed background, but an overexposed main subject. However, with automatic multi-pattern metering, the camera automatically integrates both the dark background and bright subject to ensure the best overall exposure.

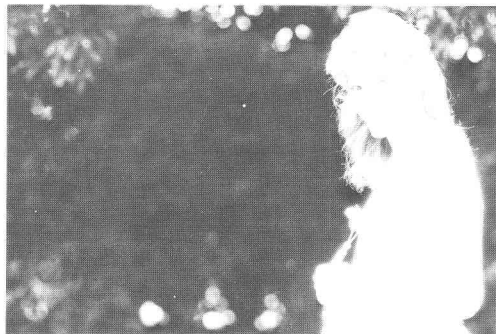
Scenes with high reflectivity

If a scene contains spectral highlights, such as the sun itself or bright reflections from water or metallic objects, the main subject will come out as a silhouette with regular centerweighted metering. However, with automatic multi-pattern metering, the light value of the darker parts is also measured, resulting in a well-balanced exposure. In addition, overall bright scenes, such as snow scenes, come out correctly exposed with automatic multi-pattern metering. What happens is that extreme brightness is uniformly reduced to EV 16-1/3, automatically making the right amount of exposure compensation for correct exposure.

Front-lit subject



Automatic multi-pattern



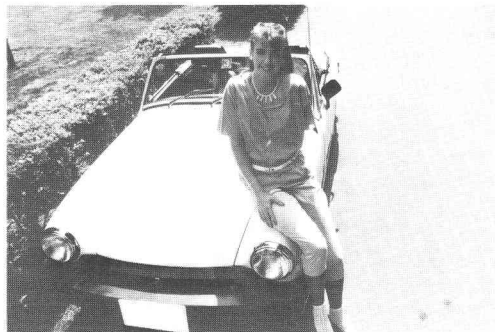
Centerweighted

Scene containing the sun



Automatic multi-pattern

Scene containing bright reflection



Automatic multi-pattern



Centerweighted



Centerweighted