

**This camera manual library is for reference and historical purposes, all rights reserved.**

**This page is copyright by mike@butkus.org M. Butkus, N.J.**

**This page may not be sold or distributed without the expressed  
permission of the producer**

**I have no connection with any camera company**

**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 too 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. These donations allow me to continue to buy new manuals and maintain these pages. It'll make you feel better, won't it?**

**If you use Pay Pal, use the link below. Use the above address for a check, M.O. or cash. Use the E-mail of butkusmi@ptd.net for PayPal.**



**[back to my "Orphancameras" manuals /flash and light meter site](#)**

**Only one "donation" needed per manual, not per multiple section of a manual !**

**The large manuals are split only for easy download size.**

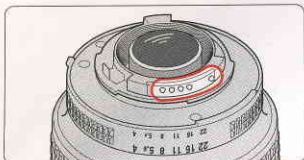
# DETAILED OPERATION

---

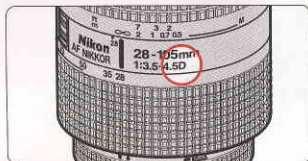
This section features detailed descriptions of all camera functions — including lens, film, focus, exposure and other functions.

# Lens Compatibility

- Use a CPU lens (except IX-Nikkor) with this camera. D-type AF lenses give you access to all available functions.




CPU contacts of CPU lens



D-type AF Nikkor

## When a non-CPU lens is attached

Set exposure mode to **A** (Aperture-Priority Auto) or **M** (Manual) and metering system to Center-Weighted or Spot with a non-CPU lens. When other modes are selected, exposure indication (**P** or **S**) in the LCD panel blinks, exposure mode is automatically set to Aperture-Priority Auto and metering system is set to Center-Weighted . (**A** appears in the viewfinder.) With a non-CPU lens, the aperture cannot be set using the Sub-Command Dial. **F - -** appears in place of the aperture indication in the LCD panel and viewfinder; set/confirm aperture using the lens aperture ring.

### CAUTION: Nikkor lenses that cannot be attached to the F100

The following Nikkor lenses cannot be attached to the F100 (otherwise camera body or lens may be damaged):

- TC-16A Teleconverter
- Non-AI lenses
- 400mm f/4.5, 600mm f/5.6, 800mm f/8 and 1200mm f/11 with Focusing Unit AU-1
- Fisheye 6mm f/5.6, 8mm f/8 and OP 10mm f/5.6
- Old type 21mm f/4
- K2 ring
- ED 180-600mm f/8 (No. 174041 or smaller)
- ED 360-1200mm f/11 (No. 174031 or smaller)
- 200-600mm f/9.5 (No. 280001-300490 or smaller)
- 80mm f/2.8, 200mm f/3.5 and TC-16 Teleconverter for F3AF
- PC 28mm f/4 (No. 180900 or smaller)
- PC 35mm f/2.8 (No. 851001-906200 or smaller)
- Old type PC 35mm f/3.5
- Old type Reflex 1000mm f/6.3
- Reflex 1000mm f/11 (No. 142361 to 143000)
- Reflex 2000mm f/11 (No. 200111-200310 or smaller)

## Types of CPU lenses and other usable lenses

Mode \ Lens		Focus mode			Exposure mode		Metering system		
		Autofocus	Manual with electronic rangefinder	Manual	P S	A M	Matrix		Center-Weighted, Spot*1
							3D 10-segment	10-segment	
CPU Nikkor*2	D-type AF Nikkor, AF-S, AF-I Nikkor	○	○	○	○	○	○	—	○
	AF-I Teleconverter*3	○*4	○*4	○	○	○	○	—	○
	Non-D-type AF Nikkor (except AF Nikkor for F3AF)	○	○	○	○	○	—	○	○
	AI-P Nikkor	—	○*5	○	○	○	—	○	○
Non-CPU Nikkor*6	AI-S or AI type Nikkor, Series-E, AI-modified Nikkor	—	○*5	○	—	○	—	—	○
	Medical-Nikkor 120mm f/4	—	○	○	—	○*7	—	—	—
	Reflex-, PC-Nikkor	—	—	○	—	○*8	—	—	○
	AI-S or AI type Teleconverters	—	○*4	○	—	○	—	—	○*9
	Bellows Focusing Attachment PB-6*10 with Auto Extension Rings	—	○*4	○	—	○*11	—	—	○
	Auto Extension Rings (PK-11A, PK-12, PK-13 and PN-11)	—	○*4	○	—	○	—	—	○

\*1 Spot Metering area can be shifted with focus area selector (page 45) with CPU Nikkor lens.

\*2 IX-Nikkor lenses cannot be attached.

\*3 Compatible with AF-S and AF-I Nikkor except AF-S 28-70mm f/2.8D IF-ED.

\*4 With maximum effective aperture of f/5.6 or faster.

\*5 With maximum aperture of f/5.6 or faster.

\*6 Some lenses cannot be attached. (See page 32.)

\*7 With exposure mode set to Manual and shutter speed set to 1/125 sec. or slower.

\*8 By stop-down metering with PC Nikkor. In Aperture-Priority Auto exposure mode, exposure is determined by presetting lens aperture. Exposure must also be determined before shifting; use AE-L/AF-L button before shifting. In Manual exposure mode, exposure is determined by presetting lens aperture. Exposure must also be determined before shifting.

\*9 Exposure compensation is necessary with Ai 28-85mm f/3.5, Ai 35-105mm f/3.5-4.5, Ai 35-135mm f/3.5-4.5 or AF-S 80-200mm f/2.8D lens. See the instruction manual of the teleconverter for details.

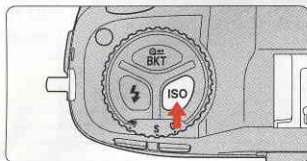
\*10 When used in combination with the PK-12 or thinner ring, attach the PB-6 vertically. (PB-6 can be set to horizontal position after attaching.)




\*11 By stop-down metering. In Aperture-Priority Auto exposure mode, exposure is determined by stopping down aperture on the bellows. Exposure must also be determined before shooting.



- Reprocopy Outfit PF-4 can be attached in combination with Camera Holder Adapter PA-4.

## ■ Setting and confirming film speed


Rotate the Main-Command Dial while pressing the film speed  button to set film speed in use.

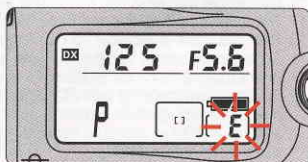
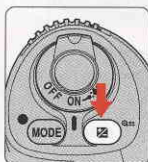
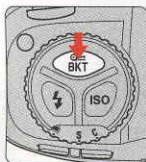



- Film speed can be set to  and between ISO 6-6400 in 1/3 steps by rotating the Main-Command Dial.
- When film speed is set to  and DX-coded film is installed, film speed is automatically set between ISO 25-5000. Film speed can also be set manually with DX-coded film to have an effect of increased or decreased film sensitivity.
- Film speed can be set between ISO 6-6400 with non-DX-coded film.
- Press the  button to confirm the film speed set on the camera.

**CSM 5:** When film speed is set to  and non-DX-coded film is loaded, **ISO**,  and **Err** blink in the LCD panel after film is advanced to the first frame. This warning indication can be changed to appear when the power switch is turned on (page 71).

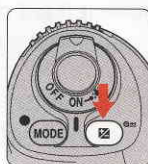
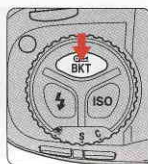
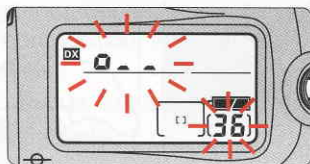
## ■ Mid-roll rewind

To rewind film at mid-roll, press the two film rewind buttons  simultaneously for approx. 1 sec.



-  blinks in the LCD panel during film rewind and the frame counter counts backwards until rewind is complete.
- Film is completely rewound when the frame counter shows blinking "E". (E appears without blinking when the exposure meter is off.) Open the camera back and remove the film cartridge.

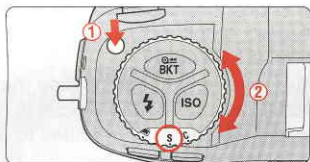
- If film does not start to rewind or film rewind stops at mid-roll



- When battery power is very low, or at low temperatures, film may not start rewinding or film rewind may stop at mid-roll, and  $\text{BKT}$  and frame number will blink in the LCD panel. In this case, turn the power switch off, change batteries, then turn the power switch on and rewind film again.

- Film advance mode

**Rotate the film advance mode selector while pressing the film advance mode selector lock release to select film advance mode.**



- The following film advance modes are available:

**S: Single-frame shooting**

Fully depressing the shutter release button takes one picture and automatically advances the film by one frame.

**C: Continuous shooting**

Shots are taken continuously at the rate of up to approx. 4.5 fps as long as you keep the shutter release button fully depressed.

**Cs: Continuous silent-low-speed shooting**

Shots are taken continuously at the rate of up to approx. 3 fps as long as you keep the shutter release button fully depressed. Film rewind speed also slows down and there is little rewind noise.

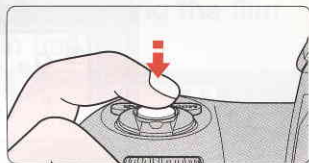
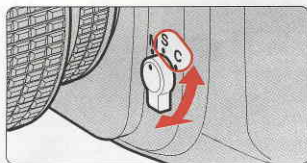
Film advance speed is tested using camera settings of focus mode **C**, exposure mode **M**, shutter speed 1/250 sec. or faster, aperture other than maximum, at normal temperature of 20°C (68°F), with AA-type alkaline-manganese batteries, for the first to 36th frames of a film.

- When the film advance mode selector is set to  $\text{M}$ , multiple exposure can be performed (page 60). Also, when it is set to  $\text{S}$ , self-timer operation can be performed (page 67).
- When the batteries are exhausted, film advance speed slows down since film advance automatically switches to start after the mirror is all the way down. (Normally, film advance starts immediately when the mirror starts to go down.) In this case, battery change is recommended.



# Autofocus

- Set focus mode selector to **S** or **C** for autofocus operation.



- Set focus mode selector to **S** (Single Servo AF with Focus-Priority) or **C** (Continuous Servo AF with Release-Priority). Camera continues to focus automatically on the subject when the shutter release button is lightly pressed.

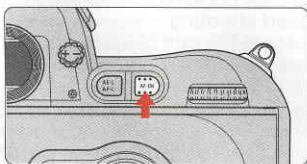
## **S: Single Servo AF with Focus-Priority**

The shutter can only be released when in focus indicator ● appears in the viewfinder (Focus-Priority). Once focused on a subject, keeping the shutter release button lightly pressed locks focus (Focus Lock). With a subject that has been moving, the camera continuously focuses on a subject as long as the shutter release button is kept lightly pressed (Focus Tracking, page 68) and focus locks when the subject stops moving.

## **C: Continuous Servo AF with Release-Priority**

Since the priority is on shutter release, you can release the shutter regardless of the focus status (Release-Priority). Focus is not locked when ● appears in the viewfinder and the camera continues to focus on a subject until shutter release. With a moving subject, the camera continuously focuses on a subject as long as the shutter release button is kept lightly pressed (Focus Tracking, page 68).

- AF start button

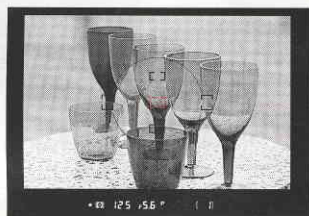
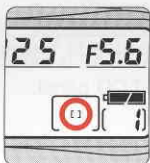
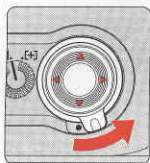


- Like lightly pressing the shutter release button, pressing the AF start **AF-ON** button automatically activates autofocus in autofocus operation.

**CSM** **Y:** Autofocus detection can be set to start by pressing the **AF-ON** button only (not by lightly pressing the shutter release button) (page 71).

- This camera's five focus areas cover a wide frame area, and you can select among them, depending on the subject's position in the frame or your desired composition. They reliably provide sharp focus without use of focus lock.

**Rotate the focus area selector lock release to release the lock, then select desired focus area with the focus area selector.**



- Lightly press the shutter release button and press the focus area selector up/down/right/left to change the focus area toward the corresponding direction. Selected focus area is indicated in red in the viewfinder. Selected focus area is also indicated in LCD panel.
- Selected focus area can be locked by rotating the focus area selector lock release to lock position.
- Focus area can also be changed with the optional focusing screen.

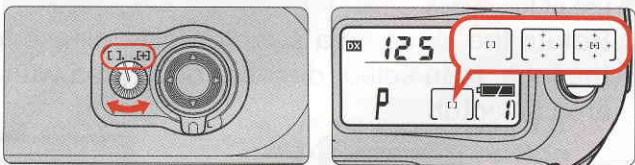
**CSM 5:** Focus area position can be set to change continuously in the same direction. For example, when the top of the focus area selector is pressed, focus area continues to change from top, bottom, middle and so on. With this option, focus area can be switched to the opposite position without pressing the opposite position on the focus area selector (page 72).



# AF Area Mode

- Autofocus operation lets you select Single Area AF that uses one focus area selected or Dynamic AF that also utilizes the other four focus areas.

**Rotate AF area mode selector to select AF area mode.**



- appears when the Single Area AF is selected and □ or □+ appears when Dynamic AF is selected in the LCD panel.

## [ ]: Single Area AF

With Single Area AF, only the focus brackets selected among five focus areas is used for autofocus. This mode is useful for achieving accurate focus on a selected focus brackets when shooting a relatively stationary subject.

## [+]: Dynamic AF







In Dynamic AF, you designate the primary sensor (the first to detect the subject), then if the detected subject moves, Dynamic AF automatically shifts to the next sensor that detects the subject, then the next again, shifting among the progression of sensors as the subject moves. Dynamic AF thereby follows and maintains accurate focus even on subjects that move irregularly. (Viewfinder indication does not change as sensoring shifts in Dynamic AF mode.) Dynamic AF Mode with Closest Subject Priority can also be activated in Dynamic AF mode. See next page.

## ■ Dynamic AF Mode with Closest Subject Priority

- The Closest Subject Priority AF operation is possible in the Dynamic AF, where the camera automatically selects the focus area with the closest subject. Focus is always achieved at any of the five focus areas so you can avoid out-of-focus pictures.
- In Dynamic AF Mode with Closest Subject Priority, focus area indication does not appear in the LCD panel and viewfinder.
- When the telephoto lens is attached or the subject is very dark, the closest subject may not be selected. In this case, use Single Area AF.

**CSM 9, 10:** Dynamic AF Mode with Closest Subject Priority can be set to be cancelled in Single Servo AF in **CSM 9** or activated in Continuous Servo AF in **CSM 10** (page 72).

## ■ Autofocus modes

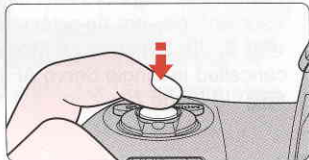
	Focus mode	Focus area	AF Area mode	Dynamic AF Mode with Closest Subject Priority	LCD panel	Focus area indication
I	Single Servo AF	Selectable	Single Area AF	—		Appears
II	Single Servo AF	Automatically selected	Dynamic AF	Activated in initial setting		Does not appear
III	Single Servo AF	Selectable	Dynamic AF	Cancelable with <b>CSM 9</b>		Appears
IV	Continuous Servo AF	Selectable	Single Area AF	—		Appears
V	Continuous Servo AF	Selectable	Dynamic AF	Not activated in initial setting		Appears
VI	Continuous Servo AF	Automatically selected	Dynamic AF	Activated with <b>CSM 10</b>		Does not appear

- See page 86 for the combinations of AF functions.

# Focus Lock

- Focus lock is useful in autofocus shooting when you want to capture a subject that's framed outside of the F100's five focus areas, and in situations where autofocus may not work as expected (page 42).

## 1 Position the focus area on the subject and lightly press the shutter release button.



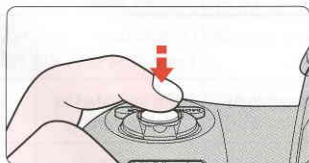
- ● appears when the subject is in focus.

## 2 Confirm focus indicator ● and lock focus.

Focus lock is operated differently in Single Servo AF or Continuous Servo AF.

### In Single Servo AF:

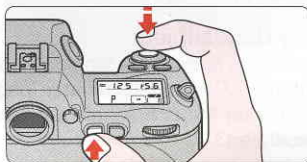
Focus is locked as long as the shutter release button is kept lightly pressed.



- Focus can also be locked by pressing the  button.

### In Continuous Servo AF

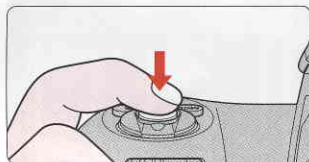
Confirm focus indicator ● then (while keeping shutter release button lightly pressed) press the **AF-L/AF-ON** button.



- Focus is locked as long as the **AF-L/AF-ON** button is kept pressed, even if you remove your finger from the shutter release button. In Auto Exposure mode, exposure is also locked in this case (page 54).

**CSM 2 i**: Only focus can be set to lock when **AF-L/AF-ON** button is pressed (page 75).

## 3 While keeping the focus locked, recompose and shoot.



- After you have locked focus, do not change the camera-to-subject distance. Otherwise, refocus and lock the focus again.
- If you keep the shutter release button lightly pressed after releasing the shutter in Single Servo AF, the shutter can be released repeatedly with the same focusing. Similarly, if you keep the **AF-L/AF-ON** button pressed after releasing the shutter, the shutter can be released repeatedly with the same focusing.

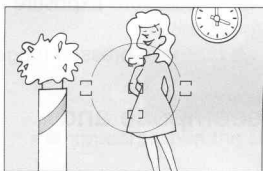
# Situations Where Autofocus May Not Work As Expected

- Autofocus may not work as expected in the following situations. In such situations, focus manually using the clear matte field (page 43) or focus using the method described.



## Very dark subject

Autofocus is possible when an optional Speedlight with the AF-Assist Illuminator (page 92) is used and center focus brackets are selected as the focus area.



## Low-contrast scenes

For example, where the subject is wearing the same color clothing as a wall or other background.

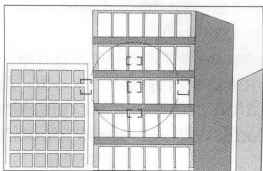
- Focus on a different subject located at the same distance, use focus lock (page 40) then recompose.



## Scenes with subjects within the focus brackets located at different distances from the camera

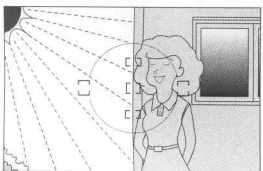
For example, when shooting an animal in a cage or a person in a forest.

- Focus on a different subject at the same camera-to-subject distance, use focus lock (page 40), then recompose.



## Patterned subject or scene

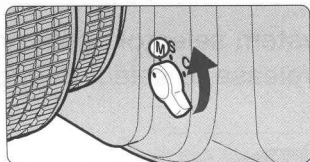
For example, building windows.



## Scenes with pronounced differences in brightness within the focus brackets

For example, when the sun is in the background and the main subject is in shadow.

- Focus can be set manually when the focus mode selector is set to **M**.



- Set the focus mode selector to **M**. Look through the viewfinder and rotate the lens focusing ring until a sharp image appears on the clear matte field in the viewfinder. The shutter can be released whether or not the subject is in focus, and **●** does not appear in the viewfinder.

Use Manual focus in situations where autofocus may not work as expected (page 42) or a lens other than an AF Nikkor (page 33) is attached.

- Manual focus using Electronic Rangefinder



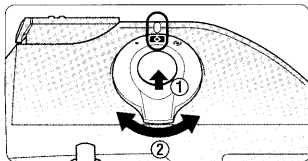
- Set the focus mode selector to **M**. The focus can be confirmed with **●** indication in the viewfinder. The Electronic Rangefinder works with most Nikkor lenses (including AF Nikkors when operated manually) having a maximum aperture of f/5.6 or faster.
- Lightly press the shutter release button and while the meter is on, rotate the lens focusing ring until **●** appears in the viewfinder. The shutter can be released anytime. Electronic Rangefinder can be activated with any of five focus brackets selected as the focus area (page 37).
- If **▶** appears in the viewfinder, focus region is in front of the subject. If **◀** appears in the viewfinder, focus region is behind the subject. In either case, rotate the lens focusing ring until **●** appears.



# Exposure Metering System

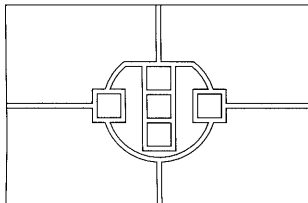
- Three choices of the metering system are available to suit the lighting for your subject.

**Rotate the metering system selector while pressing the metering system lock release to select desired metering system.**



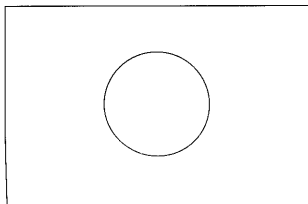
- Certain metering systems cannot be used with some lenses (page 33).
- Metering systems and characteristics of each are as follows:

## **Matrix Metering/3D Matrix Metering**



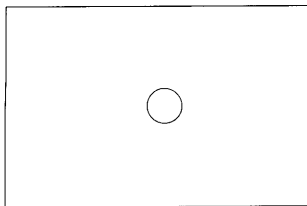
Matrix Metering provides correct exposure control using a 10-segment Matrix Sensor. With D-type AF Nikkor lenses, 10-segment 3D Matrix Metering automatically activates, applying scene brightness, scene contrast and subject distance information to ensure even more accurate exposure control. Center-Weighted or Spot Metering is recommended for the Auto Exposure Lock function (page 54) or exposure compensation (page 56).

## : Center-Weighted Metering



Center-Weighted Metering places special emphasis on brightness within the 12mm-diameter circle in the viewfinder, so it is useful for basing exposure on a specific area of the scene.

## : Spot Metering



Nearly 100% of the meter's sensitivity is concentrated on the 4mm-dia. area (approx. 1% of entire frame) within the selected focus area of the viewfinder. Use Spot Metering when you want to base the exposure on a very small area within the frame, such as with a backlit subject or low-contrast scenes. When Spot Metering is selected, shifting focus area also shifts Spot Metering area to a corresponding position. However, Spot Metering area stays at center (does not shift) as long as Dynamic AF Mode with Closest Subject Priority (page 39) is activated or non-CPU lens (page 32) is attached.

# Shooting in Each Exposure Mode

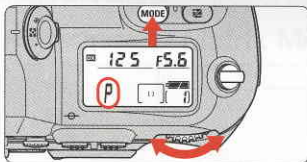
## ■ P: Programmed Auto

The camera automatically controls exposure according to the exposure combination in the program chart for exposure that is correct for any shooting situation. For more complex shooting, use Flexible Program, exposure compensation (page 54) or exposure bracketing (page 57).

- Programmed Auto can only be selected when using a CPU lens.



- 1 Rotate the Main-Command Dial while pressing the exposure mode **MODE** button to select **P**.



- When the lens is not set to its minimum aperture setting, **FE** blinks in the LCD panel and viewfinder and the shutter locks.
- When a non-CPU lens is attached, exposure mode automatically switches to Aperture-Priority Auto. **P** blinks in the LCD panel and **A** appears in the viewfinder. Set/confirm aperture with the lens aperture ring since **F -** appears instead of the aperture value in the LCD panel and viewfinder.

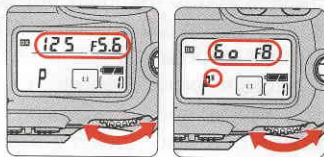
## 2 Compose picture, focus and shoot.

- When the subject is too dark or bright, one of the following warning indications will appear in the viewfinder or LCD panel.
  - **H i**: Use ND filter.
  - **L o**: Use Speedlight.

**CSM** **z**: Shutter speed/aperture value displayed in the LCD panel and viewfinder can be set to change in steps of 1/2 or one (page 71).

**NOTE: Flexible Program**

In Programmed Auto, by rotating the Main-Command Dial you can change the combination of shutter speed and aperture while maintaining correct exposure. With this function, you can shoot in Programmed Auto as though you were shooting in

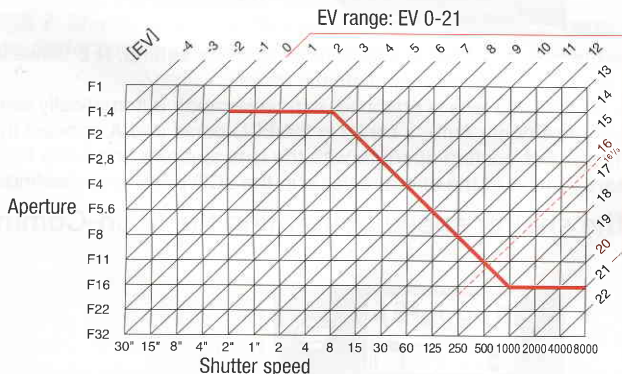


Shutter-Priority Auto or Aperture-Priority Auto. \* appears in the LCD panel when the Flexible Program is used. To cancel the Flexible Program, rotate the Main-Command Dial until \* disappears, change the exposure mode, turn the power switch off, or perform Two-Button Reset (page 76).

**Program chart**

The program chart shows exposure control in Programmed Auto exposure mode.

— With ISO 100, lens with maximum aperture of f/1.4 and minimum aperture of f/16 (e.g. AF 50mm f/1.4D).



- There are limitations for minimum and maximum EV depending on the film speed.
- In Matrix Metering, any EV above 16 $\frac{1}{3}$  is controlled to EV 16 $\frac{1}{3}$  when using ISO 100 film.

# Shooting in Each Exposure Mode—continued

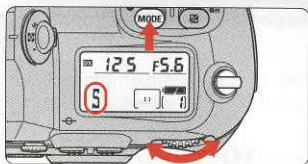
## ■ 5: Shutter-Priority Auto

Enables you to manually set your desired shutter speed (30-1/8000 sec.); the camera automatically selects the proper aperture to provide correct exposure. With high shutter speeds, you can freeze the motion of a fast-moving subject; with slower speeds, you can create a blurry, motion effect.

- Shutter-Priority Auto can only be selected with CPU lens.

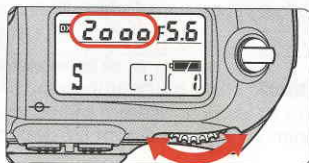


- 1 Rotate the Main-Command Dial while pressing the exposure mode **MODE** button to select 5.



- When the lens is not set to its minimum aperture setting, **FEE** blinks in the LCD panel and viewfinder, and shutter locks.
- When a non-CPU lens is attached, exposure mode automatically switches to Aperture-Priority Auto. **S** blinks in the LCD panel and **A** appears in the viewfinder. Set/confirm aperture with the lens aperture ring since **F - -** appears instead of the aperture value in the LCD panel and viewfinder.

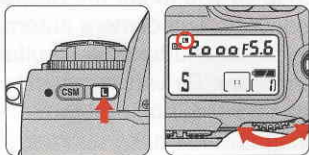
- 2 Set the shutter speed by rotating the Main-Command Dial.



**CSM** **12:** Shutter speed can be set to change with Sub-Command Dial (page 73).

### Locking shutter speed

To lock the shutter speed set in step 2, rotate the Main-Command Dial while pressing the shutter speed/aperture lock button **L** so shutter speed lock indication **L** appears in the LCD panel and viewfinder. To release the lock, rotate the Main-Command Dial while pressing the shutter speed/aperture lock button **L** so shutter speed lock indication **L** disappears in the LCD panel and viewfinder.



## 3 Compose picture, focus and shoot.

- When the subject is too dark or bright, one of the following warning indications will appear in the LCD panel or viewfinder. (Electronic analog exposure display will also indicate the amount of under- or overexposure.)
  - **H i**: Select higher shutter speed. If the warning indication still remains on, use ND filter.
  - **L o**: Select a slower shutter speed. If the warning indication still remains on, use Speedlight.
- **CSM 2**: Shutter speed/aperture value displayed in the LCD panel and viewfinder can be set to change in steps of 1/2 or one (page 71).



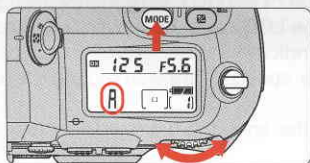
# Shooting in Each Exposure Mode—continued

## ■ **A**: Aperture-Priority Auto

Enables you to set the desired aperture manually. The camera automatically selects a shutter speed suitable for correct exposure. By varying the aperture, and thus controlling the depth of field, you can sharpen the background and foreground, or blur the background. In flash photography, varying the aperture changes the flash shooting distance (page 85).



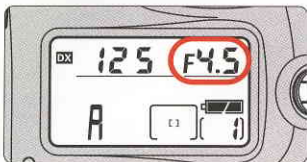
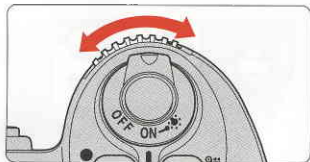
- 1 Rotate the Main-Command Dial while pressing the exposure mode **MODE** button to select **A**.



- When the lens is not set to its minimum aperture setting, **FE** blinks in the LCD panel and viewfinder, and the shutter locks.
- When a non-CPU lens is attached, set/confirm aperture with the lens aperture ring since **F--** appears instead of the aperture value in the LCD panel and viewfinder.

**CSM 22**: Aperture can be set to change only with the lens aperture ring (page 75).

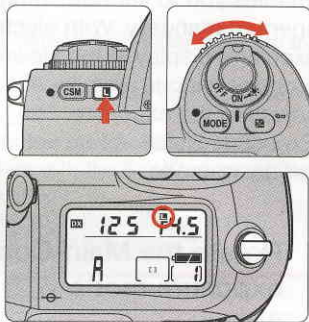
- 2 Set the aperture by rotating the Sub-Command Dial.



**CSM 12**: Aperture can be set to change with Main-Command Dial (page 73).

### Locking aperture

To lock aperture set at step 2, rotate the Sub-Command Dial while pressing the shutter speed/aperture lock button **L** so aperture lock indication **L** appears in the LCD panel and viewfinder. To release the lock, rotate the Sub-Command Dial while pressing the shutter speed/aperture lock button **L** so aperture lock indication **L** disappears in the LCD panel and viewfinder.



## 3 Compose picture, focus and shoot.

- When the subject is too dark or too bright, one of the following warnings will appear in the LCD panel or viewfinder. (Electronic analog exposure display will also indicate the amount of under- or overexposure.)
  - **H** : Select smaller aperture (larger f-number). If the warning indication persists, use an ND filter.
  - **L** : Select larger aperture (smaller f-number). If the warning indication persists, use the Speedlight.
- **CSM** 2: Shutter speed/aperture value displayed in the LCD panel and viewfinder can be set to change in steps of 1/2 or one (page 71).

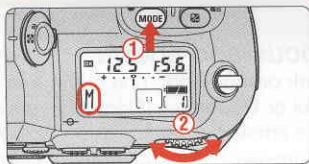
# Shooting in Each Exposure Mode—continued

## ■ M: Manual

Enables you to set both shutter speed and aperture manually. With electronic analog exposure display in the viewfinder, you can produce various creative effects by adjusting the exposure. Long Time Exposure (Bulb) can be set in Manual exposure mode.



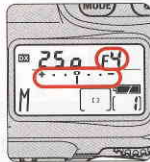
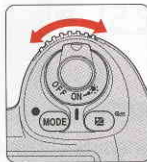
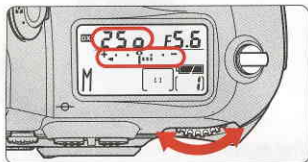
- 1 Rotate the Main-Command Dial while pressing the exposure mode **MODE** button to select **M**, then compose picture.



- When the lens is not set to its minimum aperture setting, **FE** blinks in the LCD panel and viewfinder, and the shutter cannot be released.
- When a non-CPU lens is attached, set/confirm aperture with the lens aperture ring since **F--** appears instead of the aperture value in the LCD panel and viewfinder.

**CSM 22:** Aperture can be set to change only with the lens aperture ring (page 75).

- 2 Set the shutter speed and aperture and confirm by looking at the electronic analog exposure display in the viewfinder.



- Set the shutter speed by rotating the Main-Command Dial and the aperture by rotating the Sub-Command Dial. These functions can be set independently.
- Long Time exposure (Bulb) can be set by setting the shutter speed to **bulb** (page 62).
- When the shutter speed is set to 1/250 sec., the shutter can be released with the camera back open.
- The shutter speed and aperture can be locked (pages 49 and 51).
- **CSM 12**: Shutter speed can be set to change with the Sub-Command Dial and aperture with the Main-Command Dial (page 73).
- **CSM 2**: Shutter speed/aperture value displayed in the LCD panel and viewfinder can be set to change in steps of 1/2 or one (page 71).

### Electronic analog exposure display

The following examples show electronic analog exposure display indications.

The electronic analog display blinks when the subject brightness is beyond camera's exposure range.

In 1/3 EV steps	In 1/2 EV steps	In one EV steps
Correct exposure + . . .  . . . -	Correct exposure + . . .  . . . -	Correct exposure + . . .  . . . -
-2/3 EV + . . .  . . . -	-1/2 EV + . . .  . . . -	-1 EV + . . .  . . . -
Over +2 EV + <  . . . -	Over +3 EV + <  . . . -	Over +3 EV + <  . . . -

## 3 Compose picture, focus and shoot.

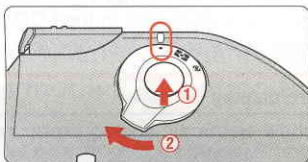
### Exposure factor with AF Micro-Nikkor lens

When an AF Micro-Nikkor lens is attached and you're setting aperture using Sub-Command Dial aided **by an external exposure meter**, you do not need to take the exposure factor into consideration. Exposure compensation is required only when setting aperture using the lens aperture ring.

# Auto Exposure Lock

- When you want to control the exposure of a specific area within a scene, measure the exposure on the area with Spot or Center-Weighted Metering, press the **AE-L/AF-ON** button to lock the exposure, then recompose the picture. Set exposure to a mode other than Manual.

## 1 Rotate the metering system selector while pressing the metering system selector lock release to select Center-Weighted or Spot Metering.



- Matrix Metering is not recommended since the exposure cannot be properly locked.

## 2 Position focus area on subject and lightly press the shutter release button, then press the **AE-L/AF-ON** button. Confirm focus indicator ● appears in the viewfinder.



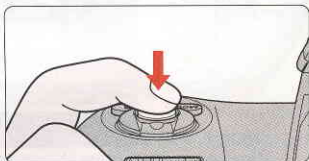
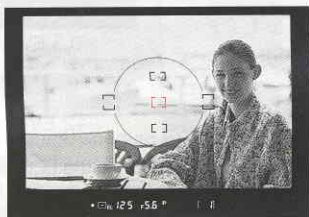
- When the **AE-L/AF-ON** button is pressed, exposure at the area of selected metering system is locked and remains locked as long as the button is kept pressed.
- When the **AE-L/AF-ON** button is pressed, **EL** appears in the viewfinder.
  1. When the focus area and metering area are linked in Spot Metering (page 45), exposure is locked at selected focus area.
  2. When the focus area and metering area are not linked in Spot Metering (page 45), exposure is locked at center focus area.

3. When the Center-Weighted Metering is selected, exposure at 12mm-diameter circle is locked.

- In Single Servo AF or Continuous Servo AF, focus is also locked simultaneously (page 40). Make sure to confirm focus indicator ● appears in the viewfinder.

**CSM 2** !: Only exposure can be set to be locked when the **AE-L/AF-ON** button is pressed (page 75).

### 3 While keeping the **AE-L/AF-ON** button pressed, recompose, focus and shoot.



- The following functions can be operated while the **AE-L/AF-ON** button is kept pressed:
  1. Flexible Program (page 47) in Programmed Auto Exposure mode
  2. Shutter speed adjustment in Shutter-Priority Auto Exposure mode
  3. Aperture adjustment in Aperture-Priority Auto Exposure mode
 In any of these three situations, controlled shutter speed and/or aperture will be displayed after change.

**CSM 7**: Auto Exposure Lock can be set to be activated by lightly pressing the shutter release button (page 72).

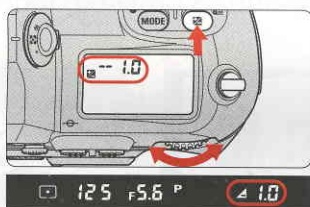
**CSM 2** !: Auto Exposure Lock can be set to remain after you remove your finger from the **AE-L/AF-ON** button. In this case, AE lock is released when the **AE-L/AF-ON** button is pressed again (page 75).



# Exposure Compensation

- To modify exposure control (i.e. from the ISO standard), use the exposure compensation function. This can be useful when the subject has pronounced contrast or when bracketing exposure with color slide film (where the latitude of the proper exposure is minimal). Use Center-Weighted or Spot Metering. Exposure compensation can be performed in any exposure mode.

## 1 Set exposure compensation by rotating the Main-Command Dial while pressing the button until the desired compensation value appears (-5 EV to +5 EV in 1/3 steps).





Electronic analog exposure display



-0.3 EV compensation



+2 EV compensation

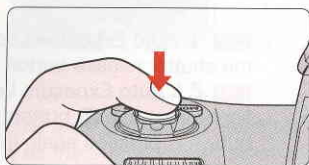
- When the exposure compensation is set,  appears in the LCD panel and viewfinder. The compensation value can be checked by pressing the  button.
- Electronic analog exposure display indicates the exposure compensation value and 0 blinks.


- Normally, you should compensate exposure to the + side when the background is brighter than your main subject, or to the - side when the background is darker.

**CSM 2:** Compensation value can be set to be changed in 1/2 or one steps (page 71).

**CSM 13:** Exposure compensation can be set to be performed using the Main- or Sub-Command Dial without pressing the exposure compensation button (page 73).

## 2 Compose picture, focus and shoot.

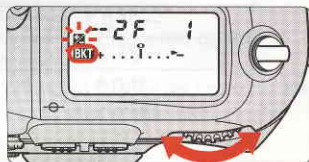
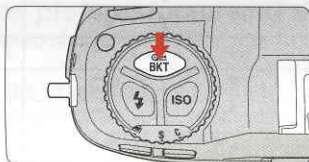


- To cancel exposure compensation, rotate the Main-Command Dial while pressing the  button to reset the compensation value to 0.0. Alternately, you can perform Two-Button Reset (page 76). (Turning the power switch off does not cancel the exposure compensation function.)

# Auto Exposure/Flash Exposure Bracketing

- Auto Exposure/Flash Exposure Bracketing allow you to shoot in selected compensated EV value (maximum of  $\pm 2$  EV) shifting from the automatically set proper exposure (selected exposure in Manual exposure mode) for a selected number of shots (maximum of three) each time the shutter is released. Auto Exposure/Flash Exposure Bracketing can be performed in any exposure mode.

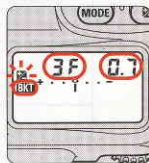
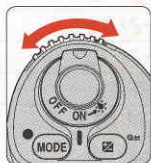
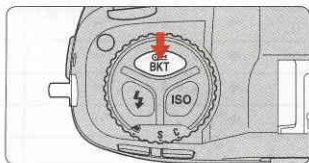
## 1 Rotate the Main-Command Dial while pressing the Auto Exposure/Flash Exposure Bracketing button so **BKT** appears in the LCD panel.



- Shutter speed and aperture in Programmed Auto, aperture in Shutter-Priority Auto and shutter speed in Aperture-Priority Auto and Manual exposure mode differ.
- In any of the exposure modes, Flash Exposure Bracketing (in which the TTL Auto Flash level of the lighted main subject is shifted) and Auto Exposure Bracketing (in which the exposure of a background lighted by ambient light is shifted) are simultaneously performed when a Speedlight is used.

**CSM** 1: Bracketing can be set to perform only Auto Exposure Bracketing or Flash Exposure Bracketing where both are normally performed simultaneously (page 73).


## 2 Set the number of shots and compensated EV value by rotating the Sub-Command Dial while pressing the Auto Exposure/Flash Exposure Bracketing button.



- See the table on the next page for the combinations of the number of shots and compensated EV value.

**CSM** 2: Compensation value can be set to change in steps of  $1/2$  or one (page 71).

# Auto Exposure/Flash Exposure Bracketing—continued

- Rotating the Sub-Command Dial while pressing the Auto Exposure/Flash Exposure Bracketing button  changes the setting as follows (when compensation value is set in steps of 1/3, 1/2 or one with Custom Setting):

## 1. With 1/3 steps

Number of shots and compensated EV value	Electronic analog exposure display	Shooting order
+2F0.3	+◀. . .   . . . -	0, +0.3
+2F0.7	+◀. . .   . . . -	0, +0.7
+2F 1.0	+◀. . .   . . . -	0, +1.0
--2F0.3	+ . . .   . . ▶-	0, -0.3
--2F0.7	+ . . .   . . ▶-	0, -0.7
--2F 1.0	+ . . .   . . ▶-	0, -1.0
3F0.3	+◀. . .   . . ▶-	0, -0.3, +0.3
3F0.7	+◀. . .   . . ▶-	0, -0.7, +0.7
3F 1.0	+◀. . .   . . ▶-	0, -1.0, +1.0
+3F0.3	+◀. : .   . . . -	+0.3, 0, +0.7
+3F0.7	+◀. : .   . . . -	+0.7, 0, +1.3
+3F 1.0	+◀. : .   . . . -	+1.0, 0, +2.0
--3F0.3	+ . . .   : . ▶-	-0.3, -0.7, 0
--3F0.7	+ . . .   : . ▶-	-0.7, -1.3, 0
--3F 1.0	+ . . .   : . ▶-	-1.0, -2.0, 0


## 2. With 1/2 steps

Number of shots and compensated EV value	Electronic analog exposure display	Shooting order
+2F0.5	+◀. . .   . . . -	0, +0.5
+2F 1.0	+◀. . .   . . . -	0, +1.0
--2F0.5	+ . . .   . . ▶-	0, -0.5
--2F 1.0	+ . . .   . . ▶-	0, -1.0
3F0.5	+◀. . .   . . ▶-	0, -0.5, +0.5
3F 1.0	+◀. . .   . . ▶-	0, -1.0, +1.0
+3F0.5	+◀. : .   . . . -	+0.5, 0, +1.0
+3F 1.0	+◀. : .   . . . -	+1.0, 0, +2.0
--3F0.5	+ . . .   : . ▶-	-0.5, -1.0, 0
--3F 1.0	+ . . .   : . ▶-	-1.0, -2.0, 0

### 3. With one steps

Number of shots and compensated EV value	Electronic analog exposure display	Shooting order
+2F 1.0	+ ◀... ...-	0, +1.0
--2F 1.0	+ ... ...▶-	0, -1.0
3F 1.0	+ ◀... ...▶-	0, -1.0, +1.0
+3F 1.0	+ ◀.!. ...-	+1.0, 0, +2.0
--3F 1.0	+ ... .!.▶-	-1.0, -2.0, 0


## 3 Compose picture, focus and shoot.

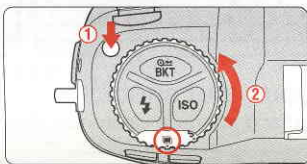
- Compensated shutter speed and aperture values are displayed during shooting.
- To cancel the Bracketing, rotate the Main-Command Dial while pressing the Auto Exposure/Flash Exposure Bracketing button  so **BKT** disappears from the LCD panel. The number of shots and compensated EV values previously selected will remain.
- If the exposure compensation function (page 56) is also set, Bracketing will be combined with the exposure compensation values. It is useful to perform Bracketing with a compensated value of over +2 EV or under -2 EV.
- With film advance mode in continuous shooting (**C** or **Cs**), fully depress and hold the shutter release button until the set number of shots has been taken and film advance stops automatically.
- If the end of the film roll is reached during Bracketing, the remaining shots can be taken after new film has been loaded. Also, if you turn the power switch off during Bracketing, the remaining shots can be taken after the power is turned back on.
- Bracketing is performed with one frame at a time when the self-timer (page 67) is set.


**CSM 3:** Bracketing order can be set to change from negative EV value to positive EV value (page 71).

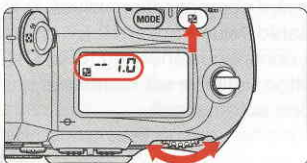
# Multiple Exposure

- Multiple exposure consists of two or more exposures of one or more subjects in the same frame. Multiple exposure can be performed in any of the available exposure modes.

**1** Rotate and set the film advance mode selector to  while pressing the film advance mode selector lock release.



**2** Rotate the Main-Command Dial while pressing the  button to set the desired exposure compensation.





- Exposure compensation is necessary depending on the number of exposures in multiple exposure since more than one image is exposed in the same frame.
- Standard compensation value:

Number of exposures	Compensation value
Two	-1.0 EV
Three	-1.5 EV
Four	-2.0 EV
Eight or Nine	-3.0 EV

- Test shooting is recommended since the compensation actually required varies depending on the shooting situation.
- When the background is completely dark and subjects do not overlap, no compensation is necessary for each shot.
- In some cases, frames may shift slightly in multiple exposure. In particular, film advance/rewind becomes unstable at the beginning and near the end of a film roll so multiple exposure is not recommended.

### 3 Compose picture, confirm focus indicator ● and shoot.

- The first shot is taken when the shutter release button is fully depressed. The film does not advance and multiple exposures can be taken from the second shutter release.
- The film does not advance and the frame counter does not count up as long as the film advance mode selector is set to .
- To cancel multiple exposure, set the film advance mode selector to a position other than .

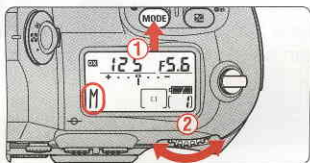
**CSM** 14: The film advance mode in multiple exposure is normally set to single-frame shooting. However, it can be set to continuous shooting (page 73).



# Long Time Exposure

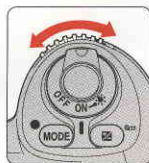
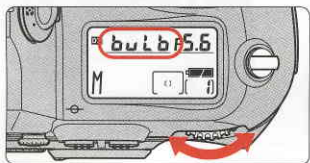
- This function is useful for shooting nighttime scenes or stars, which require extended exposure of more than 30 sec. The shutter will be open as long as the shutter release button is kept fully depressed. (Use of a tripod is recommended.)

- 1** Rotate the Main-Command Dial while pressing the exposure mode button **MODE** to select **M** (Manual exposure).



- Use the LCD illuminator (page 63) to view the LCD panel in the dark.

- 2** Rotate the Main-Command Dial to select **bulb** and rotate the Sub-Command Dial to set the aperture.



- If **bulb** is selected in Manual exposure mode and the exposure mode is changed to Shutter-Priority Auto, **bulb** blinks and the shutter locks.
- Continuous exposure of approx. 4 hours is possible with a fresh set of alkaline-manganese batteries, and approx. 7 hours with lithium batteries. Note that continuous exposure time is reduced when shooting at low temperatures.

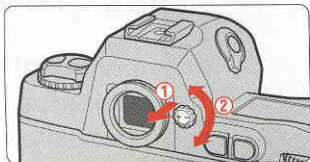
- 3** Compose picture, focus and shoot.

- The shutter will be open as long as the shutter release button is kept fully depressed.
- Use of the optional remote cord (page 94) reduces camera shake.

# Dioptr Adjustment/LCD Illuminator

www.oplancameras.com

- The finder diopter enables near- or far-sighted photographers to adjust the eyepiece diopter to suit their vision.

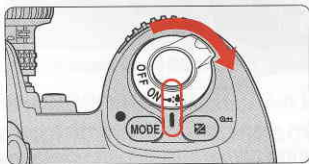



- Pull up and rotate the diopter adjustment knob while looking through the viewfinder until the focus brackets in the viewfinder appear sharp. The adjustable range of the finder diopter is  $-3$  DP to  $+1.0$  DP. Nine optional eyepiece correction lenses provide a viewfinder diopter range of  $-5.0$  to  $+3.0$  DP.


## NOTE: Using the diopter adjustment knob

Since the diopter adjustment knob is located next to the viewfinder, be careful not to poke yourself in the eye with your finger or fingernail while rotating the knob.

- Displays in the LCD panel can be confirmed in the dark with the LCD illuminator

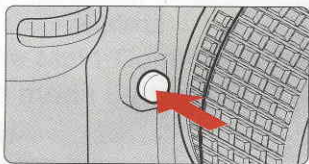


- Rotate the power switch to . The exposure meter turns on and the LCD panel is illuminated in green.
- The power switch returns to the "on" position when you remove your finger from the power switch, but illumination remains on as long as the exposure meter is on. Illumination turns off after shutter release.

**CSM** : The illuminator can be set to come on when any button is pressed (page 74).

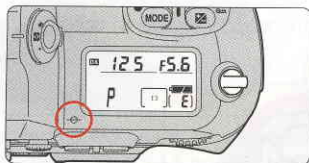
# Depth-of-Field Preview/Film Plane Indicator

- Depress the depth-of-field preview button to confirm the depth of field through the viewfinder (see page 68).



- Pressing the depth-of-field button stops the lens down to the aperture controlled in Programmed Auto or Shutter-Priority Auto exposure mode, and down to the aperture selected in Aperture-Priority Auto or Manual exposure mode. By looking through the viewfinder, the approximate depth of field with the given aperture can be confirmed.

- The film plane indicator shows the position of the film plane inside the camera body.



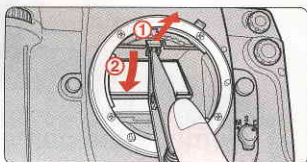
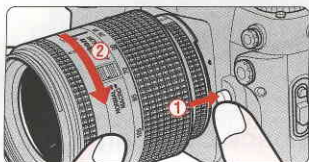
- The film plane indicator shows the standard line of the shooting distance and indicates the position of the film plane inside the camera body. Use this indicator when actually measuring camera-to-subject distance, e.g. in close-up photography.
- The exact distance from the lens mounting flange to the film plane is 46.5mm.

# Changing Focusing Screens

www.orphancameras.com

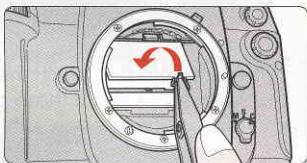
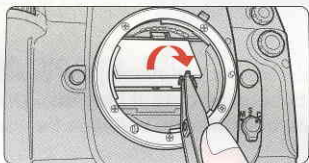
- In addition to the B-type BriteView screen supplied with the F100 camera, an E-type clear Matte/Fresnel screen with grid is available as an option. This screen is suitable for copying and architectural photography.

**1** Remove the lens from the camera body and pull the focusing screen release latch outward using the supplied tweezers.



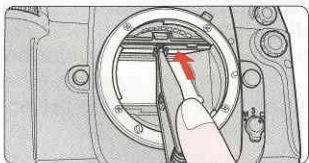
- The holder will spring open when the focusing screen release latch is pulled outward using the tweezers.

**2** Remove the screen by grasping the small tab with the tweezers, and set the replacement screen in place.



- Make sure the screen is in its proper place.

**3** Using the tweezers, push the front edge of the holder upward until it clicks into place.

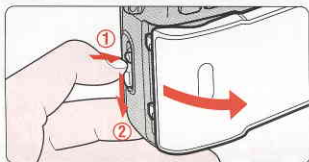


- Be sure not to touch the reflex mirror or the surfaces of the focusing screens.
- Always use F100 focusing screens (focusing screens for other cameras cannot be used).

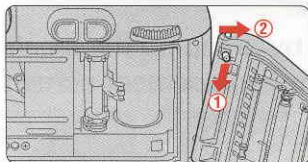
# Changing Camera Back (Data Back MF-29)

- Optional Data Back MF-29 is available for the F100.  
Confirm through the film confirmation window that no film is loaded.

- 1** Open the camera back by sliding the camera back lock release lever while pressing the camera back lock release.



- 2** Remove the camera back by tilting it to the right while pressing the camera back release pin.

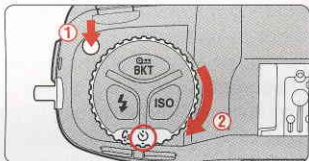


- Be sure not to touch the camera back contacts, film pressure plate or film pressure roller. If these parts become dirty, it may result in damage to the film or interference with data transmission between the camera back and body.
- To attach the camera back, attach it while pressing the camera back release pin. See the instruction manual of the Data Back MF-29 for details.

# Self-Timer Operation

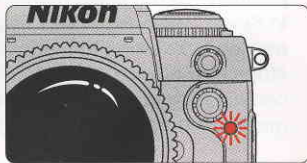
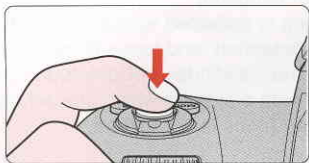
- You can use the self-timer when you want to be in the photograph. Use a tripod or place the camera on a stable surface before using the self-timer.


## 1 Set the film advance mode selector to while pressing the film advance mode selector lock release.



- Self-timer shooting cannot be performed unless the camera's shutter can be released (i.e. when subject cannot be brought into focus with autofocus in Single Servo AF).
- To shoot in an exposure mode other than Manual, cover the eyepiece with the supplied eyepiece cap (page 3) or with your hand before pressing the shutter release button to prevent interference and achieve correct exposure from stray light.
- Do not stand in front of the lens when setting the self-timer in autofocus mode.

## 2 Compose picture, focus and fully depress the shutter release button.



- Once the self-timer is activated, the shutter will release in 10 seconds. The self-timer indicator LED will blink for 8 sec. and then stop blinking for 2 sec. before the shutter is released.
- To cancel the self-timer, set the film advance mode selector to a position other than .
- When **BULB** is selected in Manual exposure mode, shutter speed is controlled to approx. 1/10 sec.

**CSM** **15:** The time delay of the self-timer can be set to 2, 5, or 20 sec. (page 74).

# About Depth of Field and Focus Tracking

This camera is equipped with autofocus where focusing is automatically executed by the camera. Basics of the relationship between focus and depth of field and Focus Tracking are explained in this section.

## ■ Depth of field

When focusing, depth of field should be considered. Depth of field is the zone of sharpest focus in front of and behind the subject on which the lens is focused. It varies according to shooting distance, focal length and, above all, aperture. Smaller apertures (larger f-numbers) will produce a deeper depth of field where the background and foreground become sharper; larger apertures (smaller f-numbers) will produce a shallower depth of field where the background becomes blurred. Similarly, shorter shooting distance or longer focal length will produce a shallower depth of field, and longer shooting distance or shorter focal length will produce a deeper depth of field. Note that depth of field tends to be shallower in front of and deeper behind the subject in focus.

## ■ Focus Tracking

When the focus mode selector is set to Single Servo AF (**S**) or Continuous Servo AF (**C**) and the shutter release button is lightly pressed or AF Start button is kept pressed, the camera automatically switches to Focus Tracking when a moving subject is detected. Focus Tracking enables the camera to analyze the speed of the moving subject according to the focus data detected, and to obtain correct focus by anticipating the subject's position—and driving the lens to that position—at the exact moment of exposure.

In Single Servo AF, Focus Tracking is activated with a subject that has been moving in advance to the focus detection, and focus is locked when the subject stops moving and ● appears in the viewfinder. In Continuous Servo AF, camera continues to track subject (even with a subject which started moving in the middle of the focus detection) and focus is not locked.