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EXPOSURE MODE

Light reaching the film is controlled by shutter speed and lens aperture. The proper combination results in a correct exposure. Shutter speed and lens aperture settings are based on the ISO speed set for the film in use and the operation of the camera's exposure control system.

The relationship between aperture and shutter speed is as follows: One change in shutter speed either doubles or halves the amount of light transmitted. For example, a shutter speed of 1/500 sec. passes half the light of 1/250 and double the light of 1/1000 sec. The aperture f/8 passes half the light of f/5.6 and double the light of f/11. If the correct exposure for a scene is 1/500 at f/8, then we can also select 1/250 at f/11 or 1/1000 at f/5.6 and achieve the same exposure results, and so on.

SELECTING EXPOSURE MODE

Selecting the exposure control mode means deciding if you want the shutter speed and/or lens aperture to be set automatically or manually.

The Nikon F70/F70D camera offers two types of programmed auto exposure modes, Auto-Multi-Program (P) and Vari-Program (P_s), as well as Shutter-Priority Auto (S), Aperture-Priority Auto (A), and Manual (M) exposure modes.

Programmed Auto exposure modes (P/P_s)

With the F70/F70D's microcomputer choosing the combination of shutter speed and aperture automatically, you can concentrate on picture composition, without worrying about exposure.

Note that programmed auto exposure modes operate only with Nikon lenses that have a built-in CPU (AF Nikkor and AI-P Nikkor lenses).

When P_s for Vari-Program is selected, you have a choice of eight options: (1) Portrait Program, (2) Hyperfocal Program, (3) Landscape Program, (4) Close-Up Program, (5) Sport Program, (6) Silhouette Program, (7) Night Scene Program and (8) Motion Effect Program.

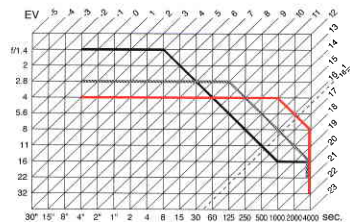
For details about Vari-Program, see pages 61 to 67.

Auto-Multi Program (P) is used for most common picture-taking situations. The chart at right shows the shutter speed/aperture combinations for Auto-Multi Program that are selected at each EV (exposure value) brightness level.

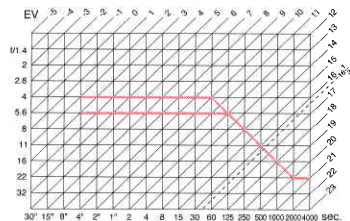
In Programmed Auto exposure mode, you can use the Flexible Program function to temporarily shift an automatically selected shutter speed/aperture combination and obtain the desired shutter speed/aperture (p. 51).

Program chart of Auto-Multi Program

To check shutter speed and aperture values, follow either the black or red line to where it intersects the diagonal line.



(ISO 100)



- With 50mm f/1.4
- With 180mm f/2.8
- With 300mm f/4
- With AF Zoom-Nikkor 35-80mm f/4-5.6D at 35mm and 80mm focal length settings.
- - - - - High-brightness limit for Matrix Metering

Shutter-Priority Auto exposure mode

You manually set the shutter speed you want. To freeze the action, use a high shutter speed; to create motion effects, choose a slower shutter speed. The F70/F70b's microcomputer automatically sets the proper aperture to match the manually selected shutter speed for correct exposure. See pages 52 to 54 for Shutter-Priority Auto operation.

Note that Shutter-Priority Auto exposure mode operates only with Nikon lenses that have a built-in CPU (AF Nikkor and AI-P Nikkor lenses).

Aperture-Priority Auto exposure mode

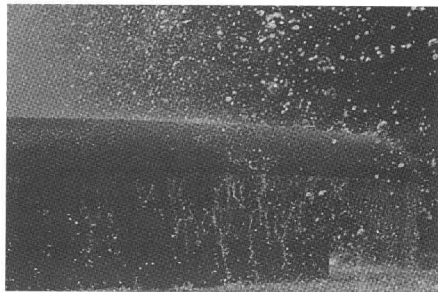
You can control depth of field by varying the aperture. Smaller apertures make the background and foreground sharper (recommended for landscape pictures) while larger apertures tend to blur the background (recommended for portraits). Your selected aperture will determine the shutter speed that is automatically set by the camera's microcomputer. When using smaller apertures with correspondingly slower shutter speeds, remember that, generally, any speed below 1/(focal length in use) second, requires the use of a tripod to prevent picture blur due to camera shake. The higher the corresponding shutter speed to the aperture you set, the easier it is to stop action. Adjust the selected aperture if the speed is not appropriate for conditions or the specific effect you want. For Aperture-Priority Auto operation, see pages 55 to 57.

Manual exposure mode

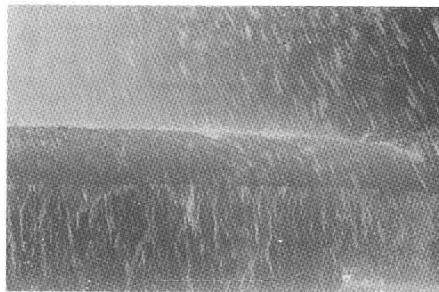
Manual exposure control allows you to make both aperture and shutter speed settings. For a technically correct exposure, follow the recommendation of the camera's light meter, as indicated by LCD readout. To achieve a specific creative effect (e.g., intentional blur, intentional under- or over-exposure), disregard the LCD and modify the recommended exposure settings.

For Manual exposure operation, see pages 58 to 60

Pictures taken at different shutter speeds

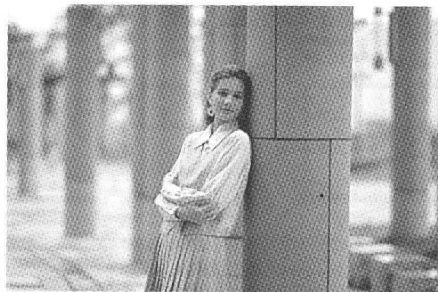


High shutter speed



Slow shutter speed

Pictures taken at different apertures

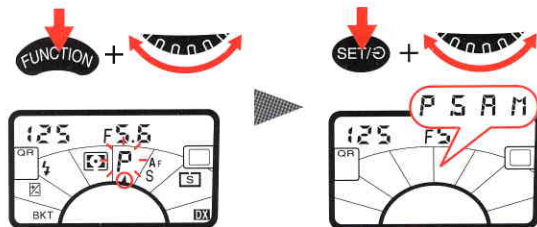


Large aperture



Small aperture

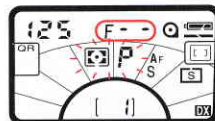
SETTING EXPOSURE MODE




Hold FUNCTION button and rotate command dial until the Function Area indicator appears in the Exposure Mode Area and **P**, **S**, **A** or **M** blinks. Then hold SET/⊙ button and rotate command dial until desired symbol appears.

- P** for Auto-Multi Program
- S** for Shutter-Priority Auto
- A** for Aperture-Priority Auto
- M** for Manual

To activate Vari-Program, use **Ps** button. For details, see page 62.



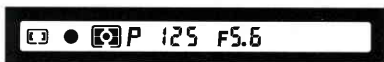
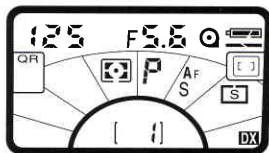
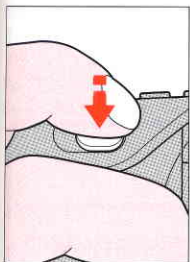
For users of lenses that have no CPU, or accessories such as bellows attachment or extension rings

Use Aperture-Priority Auto or Manual exposure mode. Programmed Auto (including Vari-Program) or Shutter-Priority Auto exposure mode automatically shifts to Aperture-Priority Auto exposure mode with **F-** and blinking **P** or **S**. (If Matrix Metering is set on the camera, metering system is also automatically shifted to Centre-Weighted and  blinks).

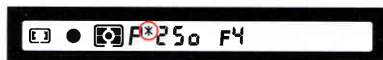
FLEXIBLE PROGRAM

If you want to change the shutter speed/aperture combination in Programmed Auto exposure mode (including Vari-Program), use the Flexible Program function. Flexible Program enables you to temporarily change an automatically set shutter speed/aperture combination in 1/3 EV steps*, while maintaining the correct exposure.

* Although aperture is shifted in 1/3 EV steps, aperture indication in the LCD panel and viewfinder changes in 1 EV steps.



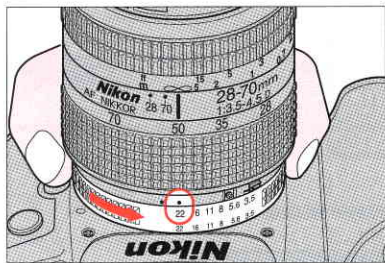
1 Lightly press shutter release button.



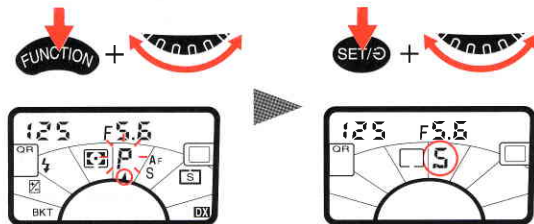
2 Turn command dial until desired shutter speed or aperture value appears in viewfinder and in LCD panel. The Flexible Program indicator (*) appears to indicate the program has been shifted or changed.

- As soon as the meter switches off (i.e., the viewfinder and LCD panel displays disappear), Flexible Program is canceled. Flexible Program is also canceled when you switch the exposure mode to another mode, when you change Vari-Program option, when the built-in flash pops up/returns to down-position, when an accessory Nikon Speedlight is turned off, when QR number is recalled, or when camera power is turned off.

OPERATION IN SHUTTER-PRIORITY AUTO EXPOSURE MODE



1 Set lens to its minimum aperture setting (highest f-number). With AF Nikkor and AI-P Nikkor lenses, lock lens aperture at minimum setting (refer to lens instruction manual).



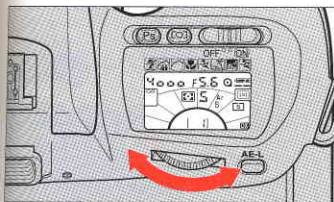
2 Hold FUNCTION button and rotate command dial until the Function Area indicator appears in the Exposure Mode Area and exposure mode symbol blinks. Hold SET/OK button and rotate command dial until **S** appears on LCD panel. **S** also appears in the viewfinder.



If lens is not set to its minimum aperture setting and you set the Shutter-Priority Auto, **FEE** blinks in the LCD panel and viewfinder as lens setting error alert.



If "bulb" is set on the camera, selecting the Shutter-Priority Auto exposure mode will cause **bulb** to blink—a warning that the "bulb" setting cannot be used in Shutter-Priority Auto exposure mode.

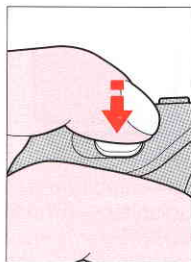


3 Remove finger from SET/⏏ button, and rotate command dial to select desired shutter speed.

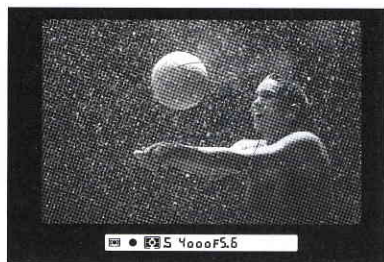
Shutter speed indication changes 1/3 step at a time in the following sequence:

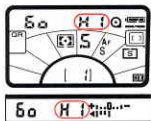
30" 25" 20" 15" 13" 10" 8" 6" 5" 4" 3" 2.5" 2" 1.6"
 1.3" 1" 1/3 1/6 2 2.5 3 4 5 6 8 10 13 15 20 25 30
 40 50 60 80 100 125 160 200 250 320 400 500 640
 800 1000 1250 1600 2000 2500 3200 4000

If meter has automatically turned off, along with LCD indications, turn on meter—and LCD readout—again by lightly pressing shutter release button.

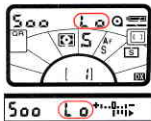


4 Look inside viewfinder, compose and lightly press shutter release button. Confirm the automatically set aperture value.

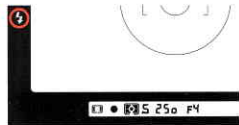




If **H** appears with electronic analog display*—**Overexposure alert:** Select higher shutter speed or use Nikon ND filter.

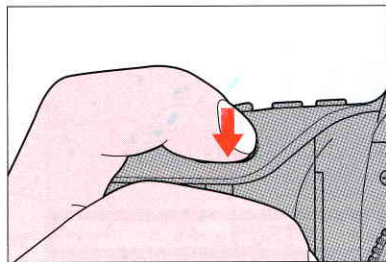


If **L** appears with electronic analog display*—**Underexposure alert:** Select slower shutter speed, or use built-in flash or accessory Nikon Speedlight.



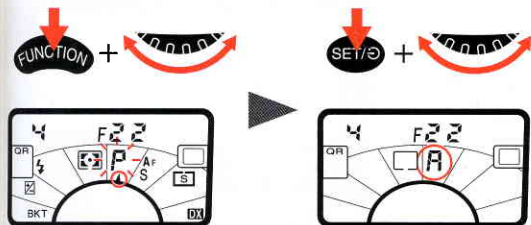
If green **4** mark appears—**Flash photography is recommended:** If subject brightness is insufficient, flash recommend light lights up. Use built-in flash or accessory Nikon Speedlight.

* Shows value difference from correct exposure. If difference is beyond ± 1 EV, **▶** for underexposure or **◀** for overexposure appears.



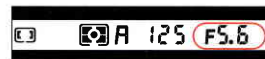
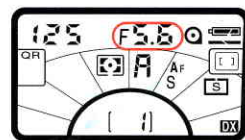
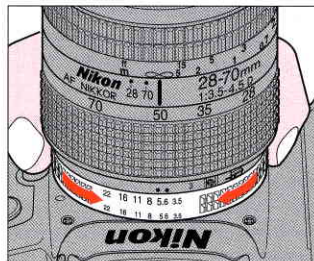
5 To take a picture, fully depress shutter release button.

OPERATION IN APERTURE-PRIORITY AUTO EXPOSURE MODE



1 Hold FUNCTION button and rotate command dial until the Function Area indicator appears in Exposure Mode Area and exposure mode symbol blinks. Hold SET/OK button and rotate command dial until **A** appears on LCD panel. **A** also appears in the viewfinder.

- If using an AF Nikkor or AI-P lens, make sure it is not locked to smallest aperture before next step.



2 Remove finger from SET/OK button and set lens to desired f-number by rotating lens aperture ring. Aperture set on lens is indicated in LCD panel and viewfinder as follows:

F 1.4 F 2 F 2.8 F 4 F 5.6 F 8 F 11 F 16 F 22 F 32

(Available apertures limited to those of lens in use.)

- Intermediate figure (e.g. **F 1.8**, **F 3.3**) displayed indicates maximum aperture of lens in use. Also, with zoom lenses, the maximum aperture for different focal length settings appears in 1/6 EV steps.

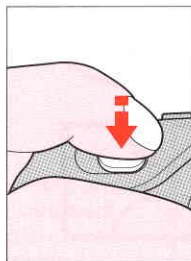
If meter has automatically turned off and LCD panel is off, turn meter on again by lightly pressing shutter release button.

With lenses having no CPU, F - - appears instead of aperture value in LCD panel and viewfinder.

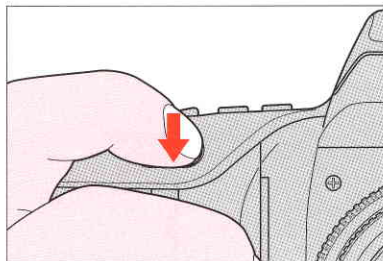
With AI-type lenses including AI-modified Nikkor lenses: Confirm aperture value on lens barrel.

With lenses having fixed aperture, such as Reflex-Nikkor lenses: Aperture cannot be changed.

With lenses having no auto diaphragm such as PC-Nikkor lenses: Switch to Manual exposure mode (pages 58 to 60).



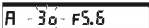
3 Look inside viewfinder, compose and lightly press shutter release button. Confirm automatically set shutter speed.



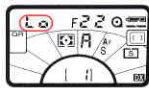
4 To take the picture, fully depress shutter release button.



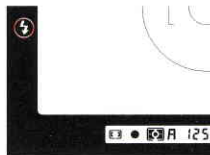
If **H** appears in the shutter speed position with electronic analog display*—**Overexposure alert:** Select a smaller aperture (larger f-number) or use ND filter.



If shutter speed indication blinks inside viewfinder—**picture blur possibility:** The automatically selected shutter speed is 1/50 sec. or slower and picture blur may occur due to camera shake. To reduce possibility of blur, hold camera very steady, use a tripod or use the built-in flash or an accessory Nikon Speedlight. Selecting a wider aperture (smaller f-number) results in a higher shutter speed.



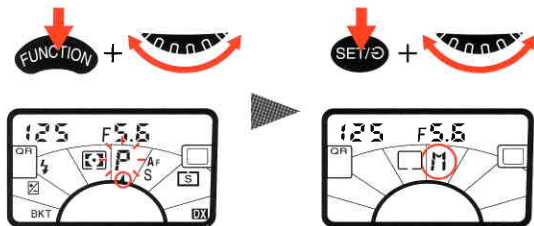
If **L** appears in the shutter speed position with electronic analog display*—**Underexposure alert:** Select a wider aperture (smaller f-number), or use built-in flash or accessory Nikon Speedlight.



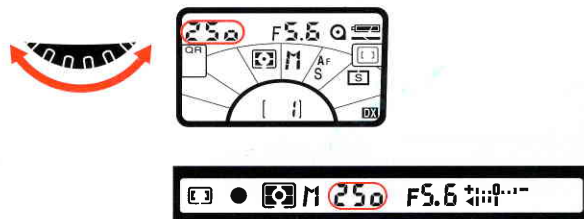
If green **⚡** mark appears—**Flash photography recommended:** If subject brightness is insufficient, flash recommended light lights up. Use built-in flash or accessory Nikon Speedlight.

* Shows value difference from correct exposure. If difference is beyond ± 1 EV, **▶** for underexposure or **◀** for overexposure appears.

OPERATION IN MANUAL EXPOSURE MODE

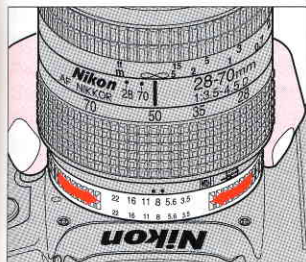


- 1 Hold FUNCTION button and rotate command dial until the Function Area indicator appears in the Exposure Mode Area and exposure mode symbol blinks. Hold SET/OK button and rotate command dial until **M** appears on LCD panel. **M** also appears in the viewfinder.
- If using an AF Nikkor or AI-P lens, make sure it is not locked to smallest aperture before proceeding to next step.

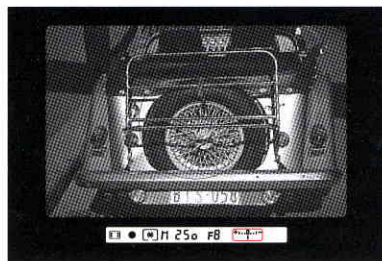
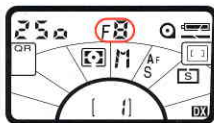


- 2 Remove finger from SET/OK button, set shutter speed by rotating command dial.
- In Manual exposure mode, you can set shutter speed to **bulb** for long time exposure by rotating command dial. For details about **bulb** setting, see page 83.

If meter has automatically turned off and LCD readout is off, turn meter on again by lightly pressing shutter release button.



Set aperture by rotating lens aperture ring.



3 Look into viewfinder, compose and lightly press shutter release button.
Adjust aperture and/or shutter speed (by rotating lens aperture ring/command dial) until electronic analog display shows "0" or desired amount.

Electronic analog display examples

Over +1EV

+1EV

+1/3EV

±0EV

-2/3EV

Below -1EV

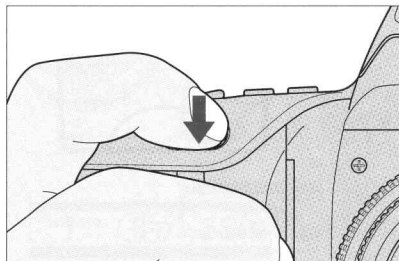
Electronic analog display blinks when the shutter speed/aperture set on the camera is beyond the metering range of the F70/F70D.

With lenses having no CPU, **F -** appears instead of aperture value in LCD panel and viewfinder.

With AI-type lenses including AI-modified Nikkor lenses: Confirm aperture value on lens barrel.

With lenses having fixed aperture, such as Reflex-Nikkor lenses: Aperture cannot be changed. Adjust exposure by changing shutter speed.

With lenses having no auto diaphragm such as PC-Nikkor lenses: Lens is stopped down when a smaller aperture (larger f-number) is selected. Focus manually with the lens set at maximum aperture.



4 To take the picture, fully depress shutter release button.

USING VARI-PROGRAM

WHAT IS VARI-PROGRAM?

Programmed exposure control enables the camera's computer to automatically adjust both lens aperture and shutter speed for the correct exposure. The F70/F70D camera's Matrix Metering System determines the correct exposure, applying exposure compensation as deemed necessary by the computer's program. However, other factors can affect the picture, including the use of different shutter speeds and different apertures.

The F70/F70D's Auto-Multi Program is designed to coordinate the selection of shutter speed and aperture for average situations. It guides the exposure control system into using reasonably high shutter speeds to avoid blur due to camera shake. The F70/F70D incorporates a versatile Vari-Program System that gives you the option to choose from different programs, each designed to accommodate different picture-taking situations. Please review the concept behind and recommended use for each program, using each as described, or in a different way to express your own picture-taking creativity. Once you understand how each program operates, you'll be able to experiment, using each program for an application different from its originally intended use.

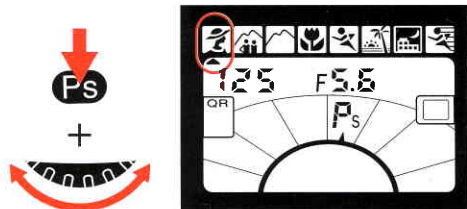
Please note that the effect achieved by using each Vari-Program can be reproduced with the use of other exposure control methods such as Shutter-Priority Auto, Aperture-Priority Auto and Manual. But with Vari-Program control, you allow the camera's computer to take care of all exposure control tasks while you concentrate on composition. This versatility is one of the highlights of the F70/F70D camera's advanced exposure control system.

The F70/F70D's Vari-Program control offers eight programs:

-  Portrait Program
-  Hyperfocal Program
-  Landscape Program
-  Close-Up Program
-  Sport Program
-  Silhouette Program
-  Night Scene Program
-  Motion Effect Program

For features of each program, see "VARI-PROGRAM SELECTION GUIDE" on pages 64 to 67.

SETTING VARI-PROGRAM



Use Nikkor lenses with CPU such as AF Nikkor or AI-P-Nikkor lenses and be sure to set lens aperture to the minimum setting.

Press Vari-Program (**Ps**) button and confirm exposure mode symbol (**P**, **S**, **A** or **M**) starts blinking. While holding **Ps** button, rotate command dial until **Ps** appears in the Exposure Mode Area and Vari-Program set indicator appears under your desired Vari-Program symbol. Then remove your finger from **Ps** button.

When Vari-Program is set, camera settings are automatically reset as follows:

Metering system
Focus area

Matrix*

Wide*, or Spot with flash

Flexible Program
Sync mode

Cancel*

Slow Sync for Night Scene Program and Motion Effect Program, or normal sync for others**

Exposure compensation function

Cancel*

* You can change setting as desired.

** You can set Red-Eye Reduction with built-in flash or SB-28/SB-27/SB-26, without canceling Slow Sync. If an accessory Speedlight other than the SB-28/SB-27/SB-26 is attached, setting sync mode to Red-Eye Reduction causes , , and SLOW blinking in the LCD panel. In this case, Slow Sync will be performed without Red-Eye Reduction.

To cancel Vari-Program

While pressing **Ps** button and rotate command dial until Vari-Program set indicator disappears. Then remove your finger from the **Ps** button. The previously set exposure mode (**P**, **S**, **A** or **M**) will activate.

If you want to change exposure mode: Without pressing **Ps** button, hold FUNCTION button and rotate command dial until Function Area indicator appears in the exposure mode area and **P**, **S**, **A** or **M** blinks. Then hold SET/☺ button to set desired exposure mode.

For Flash photography with Vari-Program

Use ISO 100 to ISO 400 films. Films having film speed over ISO 400 may cause overexposed background.

VARI-PROGRAM SELECTION GUIDE



Portrait Program

Use this Program whenever you are taking pictures of people. It creates an artistically blurred background to accentuate your main subject.

Recommended AF Nikkor lenses: To obtain pronounced blurred background effect, use 85mm to 200mm telephoto lenses.



Hyperfocal Program

Use this Program when photographing landscapes and other subjects that encompass great depth. The effect becomes more pronounced if there is an interesting foreground within the scene.

Hyperfocal Program tends to select a *slow shutter speed* and smaller aperture to assure both subject and background in focus. To avoid camera shake, use a tripod.

Recommended AF Nikkor lenses: 50mm or wider angle lenses.



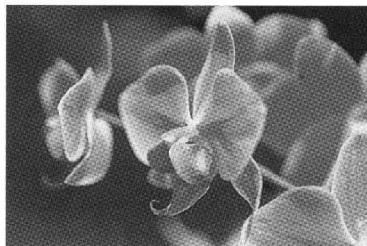
Landscape Program

Use this Program whenever you're making a picture of a distant scene. Don't use flash—the scene may be too far.

Landscape Program tends to select a *slow shutter speed* and smaller aperture to assure sharply focused landscape pictures.

To avoid camera shake, use a tripod.

Recommended AF Nikkor lenses: Select lens according to the desired effect. If you want an expansive view, use a wideangle lens. If you prefer to emphasise your subject by magnifying it, use a telephoto lens.



Close-Up Program

Use this Program when you are taking pictures up close—a flower, an ornamental detail, a butterfly, or if you are copying a picture. Do not use flash.

To avoid camera shake, use a tripod.

Recommended AF Nikkor lenses: AF Micro-Nikkor lenses.



Sport Program

Use to freeze the action. Recommended for use with Continuous Servo AF (page 34). Do not use flash because it restricts the available shutter speed.

Recommended AF Nikkor lenses: For a more pronounced blurred background effect, use 80mm to 300mm telephoto lenses.



Silhouette Program

Effective only when the background is bright and the subject is in shadow or comparatively dark. The result is dramatic with a wideangle lens although a telephoto can also be used. Excellent for sunsets with dark foreground silhouette or pictures of people against the sky. Do not use flash. Silhouette Program tends to select a *slow shutter speed* to produce effectively silhouetted pictures. To avoid camera shake, use a tripod.

Recommended AF Nikkor lenses: Choose your lens according to the desired effect.



Night Scene Program

Use this Program in the evening or at night.

To capture the beauty of a night scene in available light, such as an illuminated monument, traffic lights or neon signs, shoot without flash. As the automatically set shutter speed is rather slow, use a tripod to avoid camera shake.

With flash, this Program captures all the lighting in the scene, including the foreground subject which is illuminated by the flash, and the background.

Recommended AF Nikkor lenses: Select lens according to the desired effect.

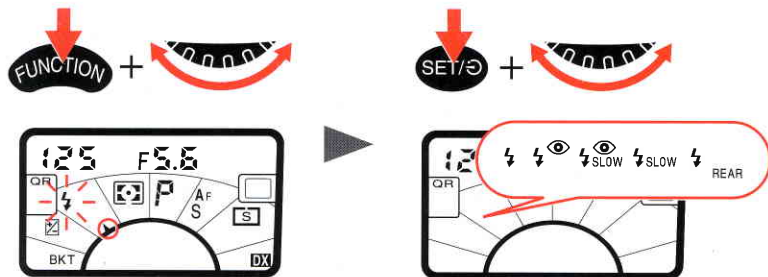


Motion Effect Program

Use this Program to express movement. Stationary subjects will come out in sharp images and moving subjects in blurred images. Also suitable for when your subject is moving and you are following along with your camera in a panning motion. The subject will come out relatively sharp, with the background becoming a blurred streak of colours and shades.

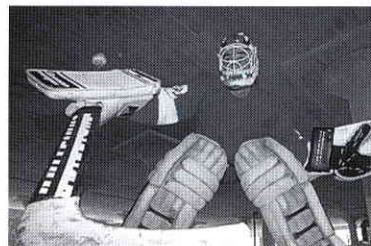
Recommended AF Nikkor lenses: For a more pronounced blurred background effect, use 80mm to 300mm telephoto lenses.

FLASH SYNC MODE



For flash photography with the built-in flash, the F70/F70D offers five flash sync modes. Hold FUNCTION button and rotate command dial until the Function Area indicator appears in the Flash Sync Mode Area and blinks in the area. Then hold SET/OK button and rotate command dial until desired symbol appears. Set for Normal Sync*, for Red-Eye Reduction, for Red-Eye Reduction with Slow Sync, for Slow Sync, or for Rear-Curtain Sync.

* After removing your finger from SET/OK button to complete setting, disappears.



Normal Sync

For most flash-shooting situations.

For built-in flash operation, see page 94 to 104.



Red-Eye Reduction

When shooting people or animals in dim light using a flash, the subject's eye may sometimes appear red in color pictures or white in B&W pictures. The Red-Eye Reduction function reduces the possibility of "red-eye".

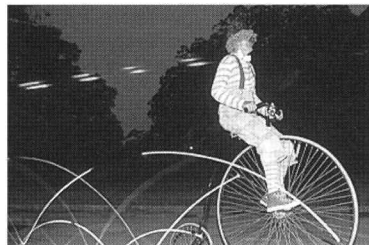
Red-Eye Reduction with Slow Sync

Lets you can set Red-Eye Reduction and Slow Sync simultaneously.



Slow Sync

When flash pictures are taken at high shutter speeds in dim light, the background may come out dark. To improve background exposure, use Slow Sync. Setting Slow Sync extends the automatic controlled shutter speed range down to 30 sec., enabling background details to come out.



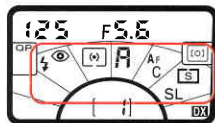
Rear-Curtain Sync

REAR When Rear-Curtain Sync is set, flash fires at the end of the exposure, turning available light into a stream of light that follows the flash-illuminated moving subject.

QR (QUICK RECALL) FUNCTION

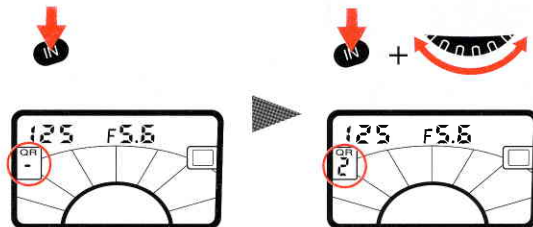
Settings for film advance mode, focus area, focus mode, metering system, exposure mode (including Vari-Program), flash sync mode and exposure compensation function can be

memorised on the F70/F70D's microcomputer for easy recall. Four numbers are provided: 0 for the permanent default settings; 1, 2 and 3 for the custom settings.



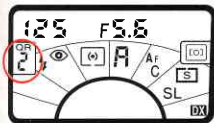
To memorise

1 Confirm film advance mode, focus area, focus mode, metering system, exposure mode (including Vari-Program) and flash sync mode set on the camera. If necessary, change settings as desired.



2 Press **IN** button and confirm "-" appears in the QR window of LCD panel. While holding **IN** button, rotate command dial until your desired custom setting number (from 1 to 3) appears in the QR window. Remove finger from **IN** button.

- If you have already customised the QR number and selected the same number to memorise another customised setting, the previous settings will be cleared.



To recall

While pressing **OUT** button*, rotate command dial until "0" or the number representing your previously memorised settings appears. Remove finger from **OUT** button.

* If no QR number is shown in the QR window, "-" appears when you press **OUT** button.

- For AF mode, make sure the focus mode selector is set at **AF**. With focus mode selector set at **M**, AF mode cannot be recalled.
- Recalling QR number 1, 2 or 3 cancels Flexible Program function. All Mode Exposure Bracketing, Flash Output Level Compensation and Flash Exposure Bracketing are not canceled.

About No. 0

QR No. 0 is for the following factory-set initial settings and cannot be customised.

Film advance mode:	Single frame (S)
Focus area:	Wide (□)
Focus mode:	Single Servo AF
Metering system:	Matrix (E)
Exposure mode (including Vari-Program):	Auto-Multi Program (P)
Flash sync mode:	Normal (If accessory Nikon Speedlight attached is set at Rear-Curtain Sync, Rear-Curtain Sync will be performed.)
Flexible program setting:	Cancel
Exposure compensation function:	Cancel
All Mode Exposure Bracketing:	Cancel
Flash Exposure Bracketing:	Cancel

Once you have recalled one of the QR numbers (0, 1, 2 or 3), adjusting film advance mode, focus area, focus mode, metering system, exposure mode, flash sync mode or exposure compensation value will make the QR number disappear from the QR window. (This does not cancel memorisation. To recall the settings again, simply press **OUT** button.)

SPECIAL FUNCTIONS

This chapter explains advanced photographic techniques and applications including exposure compensation methods. It also shows you how to use the self-timer and how to perform long time exposure.

Exposure compensation is a photographic technique that enables you to vary the final exposure settings from those measured by the camera's light meter. Nikon's 3D Matrix Metering employs methods of exposure calculation that automatically apply exposure compensation, depending upon scene brightness and contrast, and distance information. As a result, your subject, whether it is centred in the viewfinder or not, is given corrected exposure in most lighting situations. We do not recommend using any manually or automatically applied exposure compensation when using Matrix Metering. If you identify an extreme condition under which Matrix may have some difficulty, such as a severely backlit scene or one with extremes of contrast, we recommend using your camera's other built-in meters, Centre-Weighted or Spot. Ultimately, only you know what the subject or a part of it requires in terms of exposure measurement. That's why the F70/F70D camera incorporates three meters plus a variety of exposure compensation systems. The photographer's creativity is always the final deciding and controlling factor. To use the various exposure compensation functions, please refer to the following.

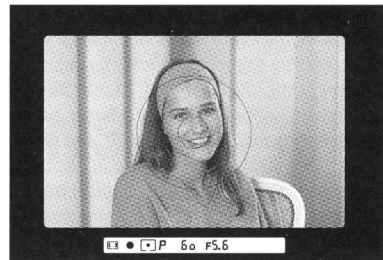
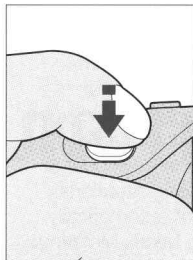
- Using auto exposure lock function with AE-L button (pages 74 to 75)
 - To obtain meter reading for a particular subject in Manual exposure mode (pages 76 to 77)
 - Modifying exposure control by exposure compensation function (pages 78 to 79)
 - All Mode Exposure Bracketing (pages 80 to 81)
- Results will vary, depending on conditions, so you will want to experiment with each method.

About reflectance

When using the Centre-Weighted or Spot Meter, always keep in mind that the exposure indicated will assume that the subject's reflectance is equivalent to 18%. If the subject varies from this reflectance, you must make an adjustment to exposure. Generally speaking, a white subject will have about a 90% reflectance, and an adjustment of 2.5 f/stops (further open) will bring the exposure back to the equivalent of an 18% reading. As another rule of thumb, when shooting a landscape, the light meter reading from green grass is roughly equivalent to 18% reflectance.

AUTO EXPOSURE LOCK FUNCTION WITH AE-L BUTTON

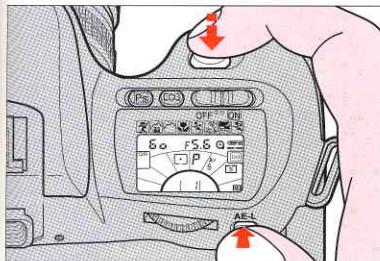
In the auto exposure mode, when you want to control exposure based on the brightness of a specific area within the scene, use Auto Exposure Lock function. For Auto Exposure Lock function, it is recommended that you should switch the metering system to Centre-Weighted or Spot.




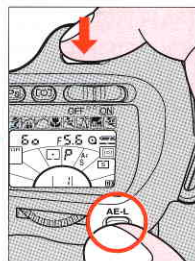
- 2 Lightly press shutter release button, and confirm shutter speed and aperture in viewfinder.



- 1 Centre main subject inside viewfinder and/or move in closer until reference circle for Centre-Weighted metering or Spot metering is fully covered by the subject.



- 3 Keep shutter release button lightly pressed, push AE-L button and hold it in to lock auto exposure.
- While AE-L button is held in, the flash recommended light (green ) does not light up.
 - While AE-L button is held in, shutter speed indication does not blink for picture-blur alert even if a shutter speed is set at 1/50 sec. or slower.



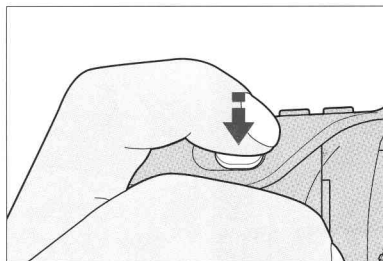
- 4 Recompose picture and shoot.
- In Single Servo AF mode, if recomposing the picture could change subject-to-camera distance, refocus by briefly removing your finger from shutter release button and lightly pressing it.
 - Continuous Servo AF is not recommended if the subject becomes off-centred after recomposing with AE-lock.

TO OBTAIN METER READING FOR A PARTICULAR SUBJECT IN MANUAL EXPOSURE MODE

In Manual exposure mode, if you want to set exposure as desired on a particular subject, switch metering system to Centre-Weighted or Spot and use the following method.



1 Centre main subject inside viewfinder and/or move in closer until reference circle for Centre-Weighted metering or Spot metering is fully covered by the subject.



2 Lightly press shutter release button.



- 3 Adjust shutter speed and aperture until electronic analog display shows desired exposure.



- 4 Recompose picture and shoot.

- In Single Servo AF mode, if recomposing the picture could change subject-to-camera distance, refocus by briefly removing your finger from shutter release button and lightly pressing it.
- Continuous Servo AF is not recommended if the subject becomes off-centred after recomposing.

EXPOSURE COMPENSATION FUNCTION

To modify exposure control (i.e., from the ISO standard) use the exposure compensation function. You can modify exposure control from -5EV to +5EV in 1/3 steps is possible. In flash photography, flash output level is also compensated. *After taking your photographs, be sure to reset the control to "0" to resume normal operation.*

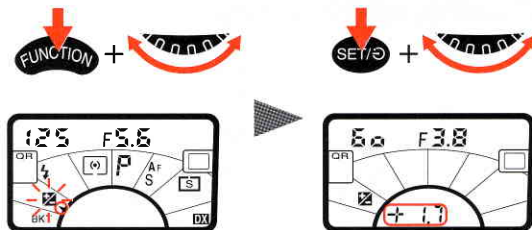
(Centre-Weighted Metering)





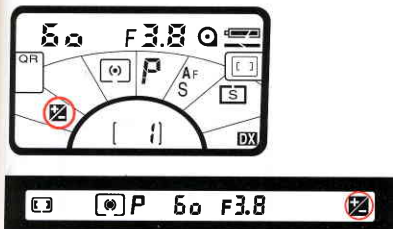
Without compensation




With compensation

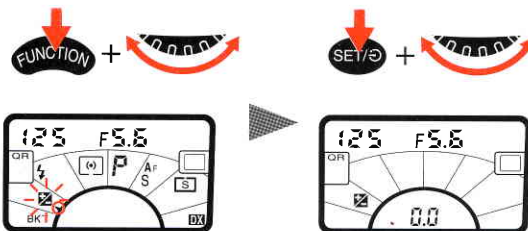


- 1 Hold FUNCTION button and rotate command dial until the Function Area indicator indicates blinking  in the Exposure Compensation Area. Then hold SET/OK button and rotate command dial until desired compensation value appears in place of frame counter on LCD panel.  also appears inside viewfinder.
(In the example above, +1²/₃ compensation is set.)



2 To complete setting, remove your finger from SET/⏏ button. Once set, exposure compensation remains fixed until reset. Although  stays on to indicate that exposure compensation is on, the compensation value disappears from the readout when you remove your finger from SET/⏏ button. Inside the viewfinder,  appears.

To confirm compensation value on the LCD panel, Hold FUNCTION button and rotate command dial so that the Function Area indicator indicates blinking , then press SET/⏏ button.



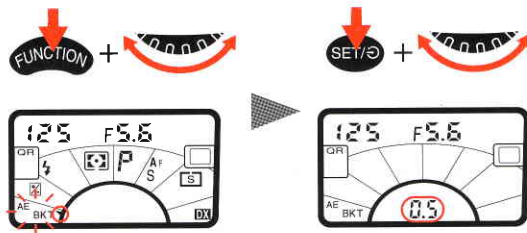
3 After shooting, be sure to reset amount of compensation to "0" to resume normal operation.

- You can cancel exposure compensation function by setting QR number to "0". In this case camera resets to the factory-set initial settings (page 70).

ALL MODE EXPOSURE BRACKETING

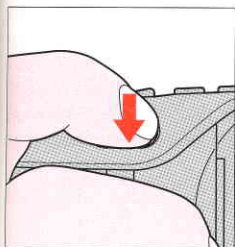
In situations where you might find it difficult to obtain a proper exposure, All Mode Exposure Bracketing lets you shoot the same subject at three different exposures, with a varying exposure compensation degree of 0.3 EV, 0.5 EV, 0.7 EV or 1 EV.

If you set a compensation degree of 0.5 EV, for example, you will take three pictures, the first shot having a -0.5 EV compensation, the second shot having no compensation and the third shot with a compensation of 0.5 EV.



1 While pressing FUNCTION button, rotate command dial until the Function Area indicator indicates blinking **AEBKT** in the Bracketing Area. Then hold SET/OK button and rotate command dial until your desired compensation degree appears in place of frame counter.

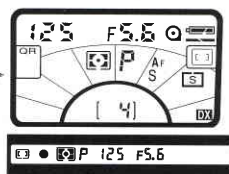
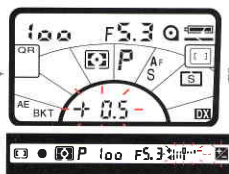
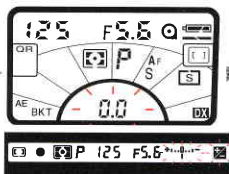
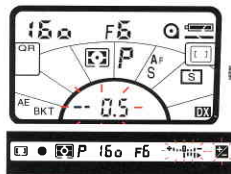
- If Flash Exposure Bracketing has already been set, setting All Mode Exposure Bracketing cancels Flash Exposure Bracketing.
- When "bulb" is set, setting All Mode Exposure Bracketing locks shutter and makes **bulb** indication blink in LCD panel and viewfinder.
- When All Mode Exposure Bracketing is set, "bulb" cannot be set.



First shot is taken.

Second shot is taken.

Third shot is taken.



- 2 Remove your finger from SET/SH button to complete setting.
- 3 Compose picture, confirm focus and exposure then fully depress shutter release button.

Inside the viewfinder, and the electronic analog display showing direction of compensation blink.

With film advance mode at or : Fully depress shutter release button three times to take the three shots.

With film advance mode at or : Fully depress shutter release button and hold it in until three shots are taken.

- 4 After three shots are taken, All Mode Exposure Bracketing is automatically canceled.

If you want to take one more set of exposure bracketing shooting with the same degree of compensation, press FUNCTION button then SET/SH button.

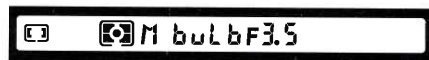
- If film reaches end of roll during shooting, rewind film, load a new roll of film, fully depress shutter release button to advance film to frame 1, then fully depress shutter release button again to resume operation.

- In Programmed Auto exposure mode, shutter speed and aperture will vary.
In Shutter-Priority Auto exposure mode, aperture will vary.
In Aperture-Priority Auto and Manual exposure mode, shutter speed will vary.
- When using All Mode Exposure Bracketing with Exposure Compensation function, the compensated value will be added. For example, If exposure has been compensated at +1 EV and you set All Mode Exposure Bracketing with 0.5 EV degree, the first shot will be taken with +0.5 EV compensation, the second shot with +1 EV compensation and the third shot with +1.5 EV compensation.
- In flash shooting, All Mode Exposure Bracketing compensates background exposure, not affecting flash light output level.
- Turning the camera's power off cancels All Mode Exposure Bracketing.
- If you set self-timer immediately after setting All Mode Exposure Bracketing, you can perform self-timer shooting without bracketing. After self-timer shooting, fully depress shutter release button to perform All Mode Exposure Bracketing.

LONG TIME EXPOSURE USING *bulb* SETTING

At *bulb* setting, shutter remains open as long as shutter release button remains depressed.

To avoid camera shake, which may cause picture blur, use a tripod. Use of remote control accessories such as Nikon Remote Cord MC-12B, Modulite Remote Control Set ML-2, etc. is also recommended to avoid camera shake.



- 1 Hold FUNCTION button until the Function Area indicator shows Exposure Mode Area and exposure mode symbol starts blinking. Then hold SET/☺ button and rotate command dial until *M* for Manual exposure mode appears on LCD panel and viewfinder.
- 2 Remove your finger from SET/☺ button, rotate command dial until *bulb* appears in LCD panel and viewfinder.
- 3 Fully depress shutter release button and hold it as long as desired.