Nikon

N70

AF

INSTRUCTION MANUAL

E

www.orphacameras.com

CONTENTS

FOREWORD 4
NOMENCLATURE 5-11
BASIC OPERATION 12-25
MOUNTING LENS 13
INSTALLING BATTERIES 14
CHECKING BATTERY POWER 15
LOADING FILM 16-18
BASIC SHOOTING 19-24
REWINDING FILM 24-25
GENERAL FUNCTIONS 26-71
FILM SPEED SETTING MODE 27
FILM ADVANCE MODE 28
SINGLE-FRAME SHOOTING 28
CONTINUOUS SHOOTING 28
FOCUS AREA 29-30
FOCUS MODE 31-42
AUTOFOCUS 31-36
AUTOFOCUS WITH MAIN SUBJECT OFF CENTER 36-37
SPECIAL FOCUSING SITUATIONS 38-39
MANUAL FOCUS 40-42
EXPOSURE METERING SYSTEM 43-45
SELECTING METERING SYSTEM 43-44
SETTING METERING SYSTEM 45
EXPOSURE MODE 46-60
SELECTING EXPOSURE MODE 46-49
SETTING EXPOSURE MODE 50
FLEXIBLE PROGRAM 51
OPERATION IN SHUTTER-PRIORITY AUTO EXPOSURE MODE 52-54
OPERATION IN APERTURE-PRIORITY AUTO EXPOSURE MODE 55-57
OPERATION IN MANUAL EXPOSURE MODE 58-60
USING VARI-PROGRAM 61-67
WHAT IS VARI-PROGRAM? 61
SETTING VARI-PROGRAM 62-63
VARI-PROGRAM SELECTION GUIDE 64-67
FLASH SYNC MODE 68-69
QR (QUICK RECALL) FUNCTION 70-71
SPECIAL FUNCTIONS 72-84
EXPOSURE COMPENSATION 73-81
AUTO EXPOSURE LOCK FUNCTION WITH AE-L BUTTON 74-75
TO OBTAIN METER READING FOR A PARTICULAR SUBJECT IN MANUAL EXPOSURE MODE 76-77
EXPOSURE COMPENSATION FUNCTION 78-79
ALL MODE EXPOSURE BRACKETING 80-82

SELF-TIMER OPERATION 83
LONG TIME EXPOSURE—Using bulb setting 84
FLASH PHOTOGRAPHY 85-102
USING BUILT-IN FLASH 86-96
AUTOMATIC BALANCED FILL-FLASH WITH TTL MULTI SENSOR—3D MULTI-SENSOR BALANCED FILL-FLASH AND MULTI-SENSOR BALANCED FILL-FLASH 86
CENTER-WEIGHTED/SPOT FILL-FLASH 87
BUILT-IN FLASH OPERATION 88-89
FLASH SHOOTING DISTANCE RANGE 90
SHUTTER SPEED/APERTURE FOR EACH EXPOSURE MODE 91
FLASH OUTPUT LEVEL COMPENSATION—TO MAKE FLASH-ILLUMINATED SUBJECT BRIGHTER OR DARKER 92-93
FLASH EXPOSURE BRACKETING 94-95
USABLE LENSES WITH BUILT-IN FLASH 96
USING ACCESSORY NIKON SPEEDLIGHTS 97-102
SPEEDLIGHT COMPATIBILITY 97
TYPE OF TTL AUTO FLASH 98-99
WHAT YOU CAN DO WITH NIKON SPEEDLIGHTS 100
NOTES ON FLASH PHOTOGRAPHY 101
EV CHARTS FOR FLASH PHOTOGRAPHY 102
MISCELLANEOUS 103-127
LENSES 104-106
ACCESSORY COMPATIBILITY 107
CAMERA CARE TIPS 108-110
NOTES ON BATTERIES 111
SPECIFICATIONS 112-115
LCD PANEL/VIEWFINDER INDICATIONS 116-121
GLOSSARY 122-127

www.orphacameras.com

This manual is for reference and historical purposes, all rights reserved.
This page is copyright© by M. Butkus, NJ.
This page may not be sold or distributed without the expressed permission of the producer
I have no connection with any camera company

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

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

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

www.orphacameras.com

FOREWORD

Thank you for purchasing the new Nikon N70 camera.

Although the N70 offers many exciting features, it is easy to operate. The N70's Command Control Input System enables you to set camera function and shooting mode by just pressing buttons that are color-coordinated with their corresponding images in the large LCD.
With the built-in flash, which offers many advanced functions including 3D Multi-Sensor Balanced Fill-Flash, you will enjoy advanced flash photography and make better flash pictures than ever before.

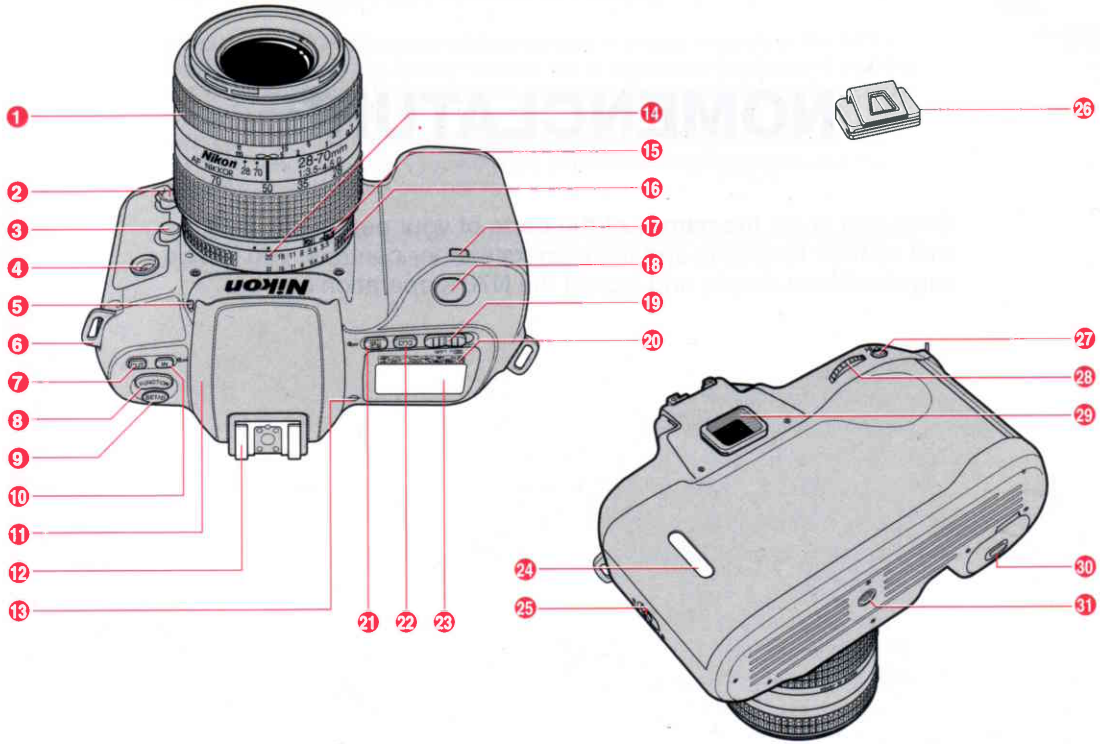
Get to know your N70, but before using it, be sure to read this manual thoroughly; then turn your vision into reality with the N70 camera.

www.orphacameras.com

NOMENCLATURE

Once you know the names of the parts of your new Nikon N70, as well as their functions and the camera's other controls, you will be surprised how simple and logical the N70's operation can be.

www.orphacameras.com

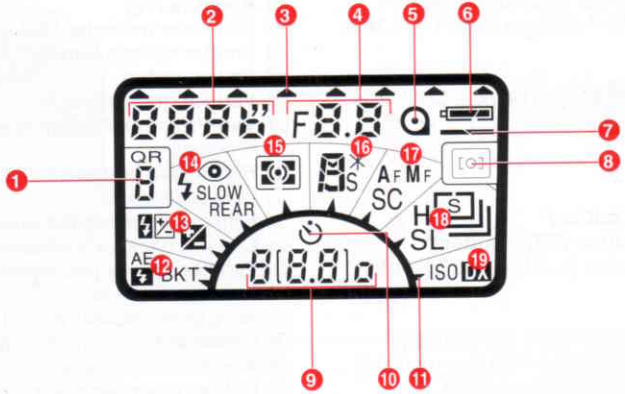


www.orphacameras.com

① **Focusing ring:** Used for manual focus (pp. 40-42)
② **Focus mode selector: AF** for Autofocus (pp. 31-37); **M** for Manual focus (pp. 40-42)
③ **Lens release button**
④ **Remote terminal:** For optional Nikon Remote Cord MC-12B
⑤ **Flash lock-release button**
⑥ **Camera strap eyelet**
⑦ **QR call (OUT) button**
⑧ **Function button (FUNCTION button)***
⑨ **Function set*/self-timer button (SET/⏲ button)***
⑩ **QR set (IN)/film rewind button** (p. 20 and pp.70-71 for Quick Recall function)
⑪ **Built-in flash** (pp. 86-96)
⑫ **Accessory shoe:** For Nikon dedicated Speedlights.
⑬ **Film plane indicator:** Exact distance from lens mounting flange to film plane is 46.5mm
⑭ **Aperture scale**
⑮ **Minimum aperture lock:** Lock for Programmed Auto or Shutter-Priority Auto
⑯ **Aperture ring**
⑰ **Self-timer indicator LED** (p. 83)
⑱ **Shutter release button**
⑲ **Power switch**
⑳ **Vari-Program symbols**
㉑ **Vari-Program (Ps)/film rewind button** (pp. 62-67 for Vari-Program)
㉒ **Focus area button** (pp. 29-30)
㉓ **LCD panel** (p. 8)
㉔ **Film cartridge confirmation window**
㉕ **Camera back lock release**
㉖ **Eyepiece cover (provided):** Prevents stray light from entering viewfinder.
㉗ **AE-L (auto exposure lock) button** (pp. 74-75)
㉘ **Command input control dial (command dial)***
㉙ **Viewfinder eyepiece**
㉚ **Battery chamber cover lock release**
㉛ **Tripod socket**

* *Used for N70's Command Control Input System. See pages 10 to 11.*

www.orphacameras.com

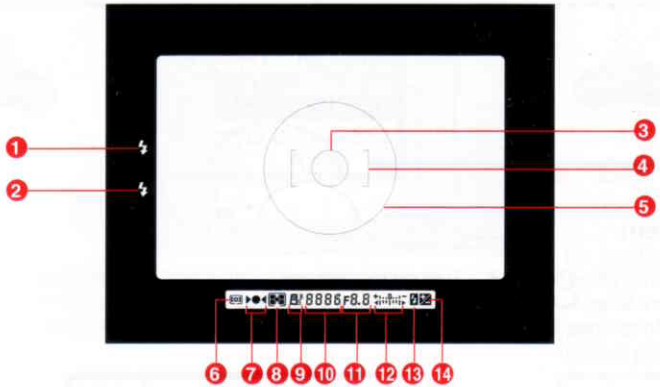


LCD panel indications

1. Quick Recall function
2. Shutter speed
3. Vari-Program set indicator
4. Aperture
5. Film loading
6. Battery
7. Film advance/rewind
8. Focus area
9. Frame counter/ISO speed/self-timer duration/ compensation value
10. Self-timer
11. Function Area indicator
12. Auto Exposure Bracketing/Flash Exposure Bracketing*
13. Exposure compensation/Flash Output Level Compensation*
14. Flash sync mode*
15. Metering system*
16. Exposure mode*/Flexible Program
17. Focus mode*
18. Film advance mode*
19. Film speed setting mode*

* *These symbols displayed in each Area in the Function Zone, are selected with Nikon Command Input Control System. See pages 10 to 11.*

www.orphacameras.com

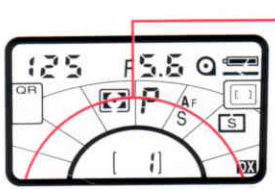


Viewfinder indication

1. Flash ready-light (red)
2. Flash recommend light (green)
3. 3mm-dia. reference circle for Spot Metering/Spot Area AF
4. Wide Area focus brackets
5. 12mm-dia. reference circle for Center-Weighted Metering
6. Focus area
7. Focus indicators:
   ● indicates a stationary subject is in focus.
   ▸ ◂ shows Focus Tracking; also indicates that a moving subject is expected to be in focus.
   Blinking ▸ ◂ indicates autofocus is impossible.
   ▸ and ◂ arrows indicate front and rear focus, respectively, in manual focus mode
8. Metering system
9. Exposure mode/Flexible Program
10. Shutter speed
11. Aperture
12. Electronic analog display
13. Flash Output Level Compensation
14. Exposure compensation

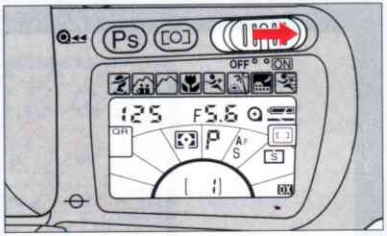
Turning the camera power on or lightly pressing shutter release button to activate the exposure meter switches on the viewfinder illuminator. When the camera's power is turned off or when the exposure meter is automatically switched off, the illuminator turns off.

www.orphacameras.com

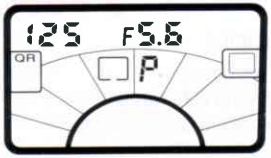


N70's Command Input Control System

Using FUNCTION and SET/⏻ buttons plus command dial, set desired functions/modes indicated in LCD panel Function Zone. The Function Zone contains eight Function Areas—Film Speed Setting Mode Area, Film Advance Mode Area, Focus Mode Area, Exposure Mode Area, Metering System Area, Flash Sync Mode Area, Exposure Compensation/Flash Output Level Compensation Area, and Auto Exposure Bracketing/Flash Exposure Bracketing Area. (The example illustrated in the following procedure shows the setting of Shutter-Priority Auto exposure mode.)

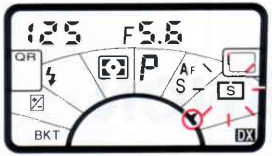


1 Turn on the camera.

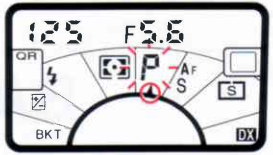


4 Remove finger from FUNCTION button, then press SET/⏻ button.

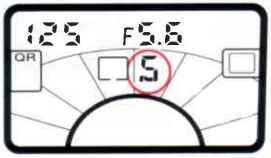
www.orphacameras.com



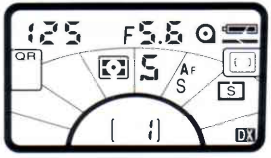
2 Press and hold FUNCTION button. The Function Area indicator appears in the last selected area and the symbol in the area starts blinking.



3 While holding FUNCTION button, rotate command dial until the Function Area indicator appears in the desired area and the symbol in the area blinks.



5 While holding SET/ button, rotate command dial until your desired symbol appears.



6 Remove finger from SET/ button to complete the setting.

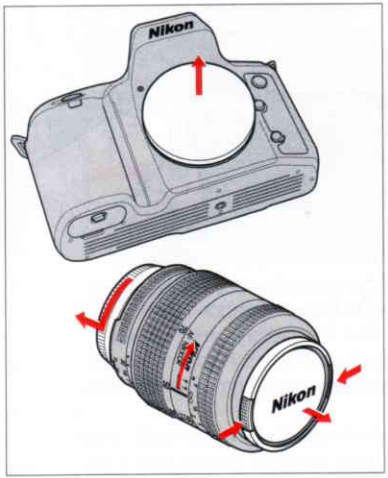
www.orphacameras.com

BASIC OPERATION

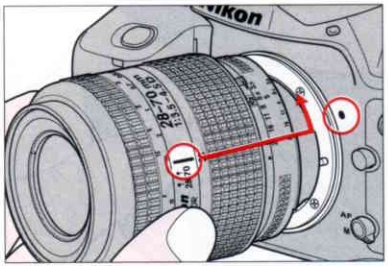
This section shows you how to prepare the camera for shooting—e.g., how to mount lens, load film, etc.—as well as how to actually take pictures. Whether you're a beginner or a seasoned photographer, you should master this section before proceeding further.

www.orphacameras.com

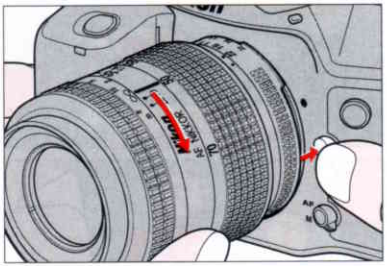
MOUNTING LENS



1 Remove camera body cap and front and rear lens caps.



2 Position lens in the camera's bayonet mount so that the mounting indexes on lens and camera body are aligned. Taking care not to press lens release button, twist lens counterclockwise until it locks into place.

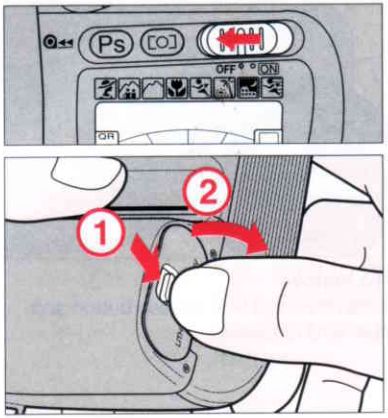


To remove
Push and hold lens release button and turn lens clockwise.

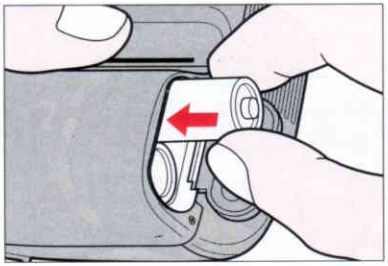
- When mounting/removing lens, make sure that the camera's power is turned off and avoid direct sunlight.
- See page 104 for Nikon lens compatibility chart.

www.orphacameras.com

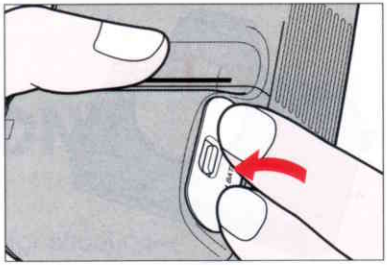
INSTALLING BATTERIES



1 Make sure the power switch is set at OFF position, then open battery chamber cover by sliding the lock release.



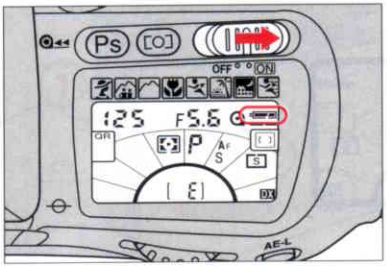
2 Insert two CR123A lithium batteries with "+" and "–" ends positioned as illustrated inside the cover.



3 Close the cover by pushing until it clicks.

www.orphacameras.com

CHECKING BATTERY POWER



Slide power switch to ON position, and confirm that a full battery mark ( ) appears on LCD panel, indicating sufficient battery power. The battery mark and exposure indications automatically turn off after 8 sec.
If blinks: Batteries are nearing exhaustion. Have a fresh set ready.
If blinks: Batteries are just about exhausted. Slide power switch to OFF and replace batteries with a fresh set.
If no indication/mark appears, batteries are completely exhausted or improperly installed. Replace.

When installing/replacing batteries, always read "NOTES ON BATTERIES" on page 111.

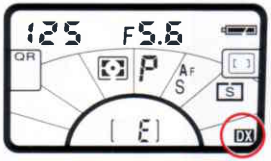
About exposure meter

You can check battery power anytime by lightly pressing shutter release button. This action activates the exposure meter; LCD panel and viewfinder LCD show aperture/shutter speed indications, and autofocus operation starts (unless camera is set for manual focusing). The exposure indications and battery mark stay on for approx. 8 sec. after you take your finger off shutter release button, then automatically turn off.
If you remove your finger from the button, these LCD readouts go off approx. 2 sec. after the shutter is released without the flash. With the built-in flash or accessory Speedlight activated, these LCD readouts stay on for approx. 8 sec. after shutter release.

www.orphacameras.com

The loading film procedure on pages 16 to 17 shows how to load film with auto film speed setting for DX-coded films.

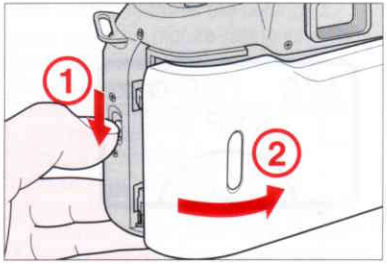
- To avoid fogging film (especially high-ISO film), do not load/unload film in direct sunlight.
- Usable film speed range for DX-coded film is ISO 25 to 5000.
- For non-DX coded film, see p. 27.



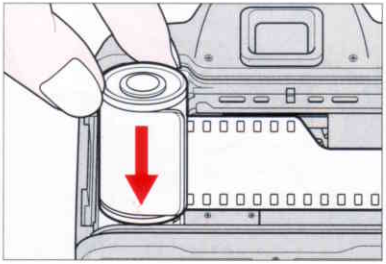
1 Confirm whether DX for DX-coded film is shown on LCD panel.

- If not, set auto film speed setting mode by using FUNCTION button, SET/☋ button and command dial (see page 27).

www.orphacameras.com

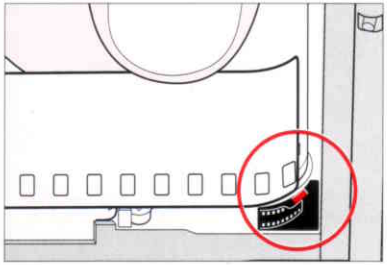


2 Slide camera back lock release down to open camera back.

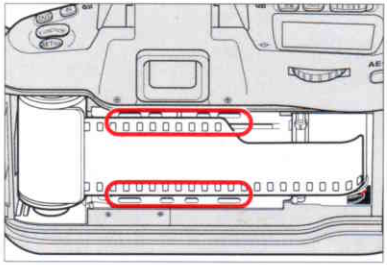


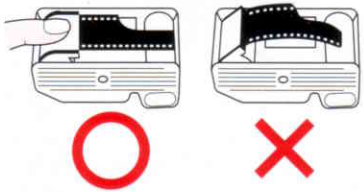
3 Install film. Insert the film cartridge by placing the cartridge spindle on the fork at the bottom of the film cartridge chamber.

Do not touch shutter curtains with your finger or with film leader.



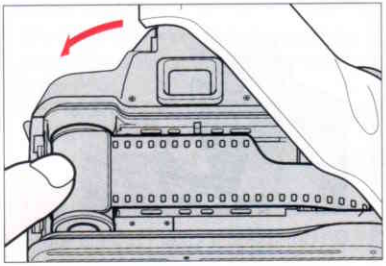
4 Pull film leader out to red index mark.



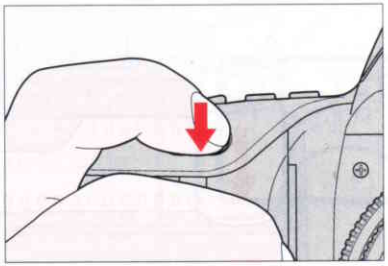


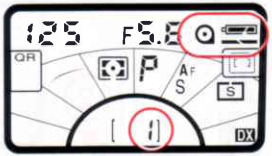
5 Check to ensure film is properly positioned with no slack (see illustration).

www.orphacameras.com



6 Gently close camera back until lock release snaps closed.





7 Fully depress shutter release button to advance film to frame #1. Confirm frame counter shows 1 and ⊙ symbol appears on LCD panel.

- If film is incorrectly positioned, **E** remains, ⊙ symbol blinks and shutter is locked. Open camera back and reload film properly.
- If non-DX-coded film or film with an unacceptable DX code is loaded, the **Err**, ISO and DX marks in LCD panel blink and the shutter is locked. Set ISO speed manually (see p. 27).

www.orphacameras.com

This section features the settings for most common picture-taking situations when AF Nikkor (including AF-S/AF-I Nikkor) lenses are used:

Film advance mode: single-frame shooting S

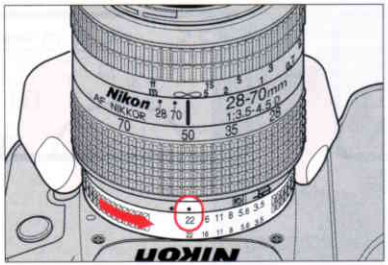
Metering: Matrix Metering

Focus Area: Wide

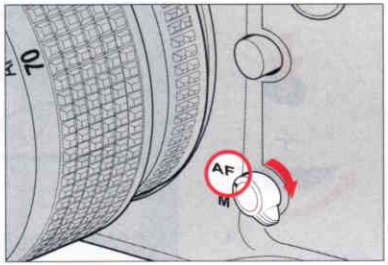
Focus mode: Single Servo AF **A** F-S

Exposure mode: Auto-Multi Program **P**

- *IF you are using AI-P-Nikkor lens, use manual focus (see pp. 40-42). If you are using other non-AF Nikkor lenses, use Center-Weighted or Spot Metering (see pp. 43-45), manual focus, and Aperture-Priority Auto or Manual Exposure mode (see pp. 55-57 or 58-60). To confirm usable mode by lens, see chart on p. 104.*

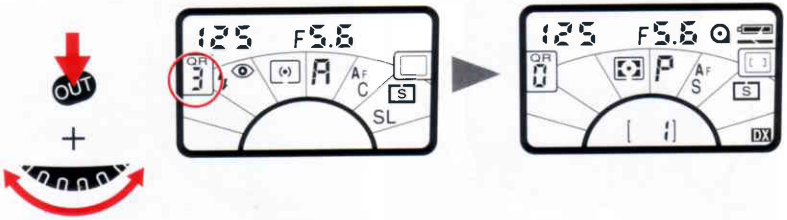


1 Set lens to its minimum aperture (highest f-number marked in orange on AF Nikkor lenses) and lock lens aperture of AF Nikkor lens at its minimum setting (see lens instruction manual).



2 Set focus mode selector to **AF** for Autofocus. If lens has an A-M switch, set switch to A.

www.orphacameras.com



3 Hold the **OUT** button and rotate command dial until 0 appears in the QR (Quick Recall) window on LCD panel. Remove your finger from the **OUT** button. The camera's settings are automatically reset to factory initial settings (as shown below) for basic shooting:

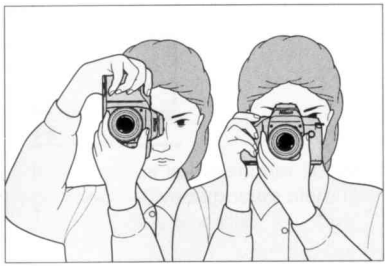
Film advance mode:	Single frame (S)
Focus area:	Wide
Focus mode	Single Servo AF (A F-S)
Metering system:	Matrix
Exposure mode (including Vari-Program):	Auto-Multi Program (*P*)
Flash sync mode	Normal (If accessory Nikon Speedlight attached is set at Rear-Curtain Sync, Rear-Curtain Sync will be performed.)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

For details about QR function, see pages 70 to 71.

For details about each function/mode, see following pages:

- Film advance mode p. 28
- Metering system pp. 43-45
- Exposure mode pp. 46-60
- Focus area pp. 29-30
- Focus mode pp. 31 -42
- Flexible Program p. 51
- Flash sync mode pp. 68-69
- Exposure compensation function pp. 78-79
- All Mode Exposure Bracketing pp. 80-82
- Flash Exposure Bracketing pp. 94-95

www.orphacameras.com

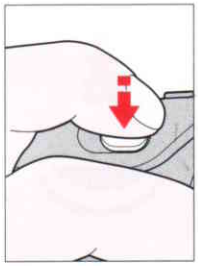


4 Hold camera. Grasp the camera handgrip with your right hand. Use your left hand to cradle the camera with the elbow propped against your body for support, as you look through the viewfinder. Use your right hand index finger to press shutter release button.

5 Look through the viewfinder and position focus brackets on main subject.

Although the viewfinder covers approx. 92% of the image area of the actual photograph, a negative film will show you an image larger than what you see through the viewfinder.
Note: The image in a slide film may be partially cropped by the mount. Also, the edges of negative film are partially cropped by most labs.

www.orphacameras.com



6 Lightly press shutter release button to start autofocus operation and switch exposure meter on.

With a stationary subject, confirm that the in-focus indicator ● appears on the viewfinder's LCD readout. With a moving subject, confirm that Focus Tracking indicator ▸ ◂ appears. Confirm, too, that the shutter speed and aperture indications are shown inside viewfinder. (Exposure readouts also appear in the camera's external LCD panel.)

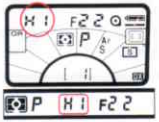
- If ◂ appears, subject is located closer than the lens' closest focusing distance. Move away from the subject and refocus.
- If ▸ ◂ blinks in the viewfinder, autofocus is not possible (p. 38).

Note on Single Servo AF with a stationary subject

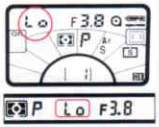
After focusing is achieved and in-focus indicator ● appears, focus is locked as long as the shutter release button is lightly pressed. If the distance between you and the stationary subject changes, remove your finger from shutter release button, then lightly press it again to refocus.

For details about Single Servo AF, see page 32.

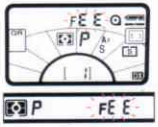
www.orphacameras.com



If H I appears in the shutter speed position—Overexposure alert: Use Nikon ND or similar filter.



If Lo appears in the shutter speed position—Underexposure alert: Use a Nikon Speedlight, higher ISO film or lens with faster aperture, whichever is suitable.



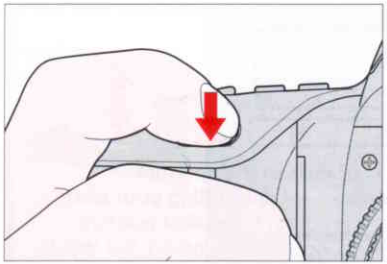
If FEE blinks in the aperture position—Lens setting error alert: Lens is not set to smallest aperture setting, so shutter is locked. Set lens to smallest aperture.

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.

If green ϟ mark appears—Flash-photography recommended: If available light is insufficient, ϟ mark appears. Use built-in flash or accessory Nikon Speedlight.

www.orphacameras.com

REWINDING FILM



7 To take picture, fully depress shutter release button. Camera automatically advances film by one frame, and LCD frame counter increases by one.

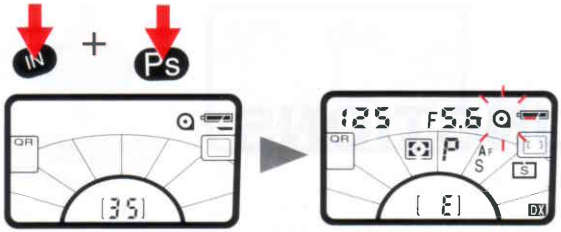
1 When film reaches its end of roll, film advance stops automatically and shutter locks. End and ⊙_ symbol blink in LCD panel, and End blinks inside viewfinder. (Those symbols stop blinking and stay on when the exposure meter is automatically switched off.)

Shutter speed/aperture indications in LCD panel and inside viewfinder turn off approx. 2 sec. after you release shutter and take your finger off shutter release button.

Silent film rewind

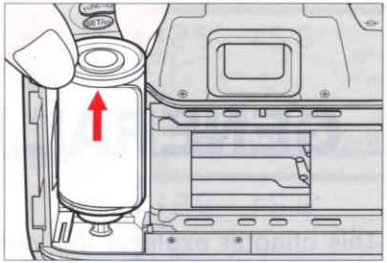
With the film advance mode set at SL for Single Silent, you can rewind film in very quiet environments. (For film advance mode, see p.28).

www.orphacameras.com



2 Press **IN** button and **Ps** button to start film rewind. During film rewind, ⊙ _ appears on LCD panel, and frame counter counts backwards until rewind is complete.

- You can rewind film, before it reaches end of roll, in the same manner.
- If film does not start rewind or if film rewind has stopped at mid-roll, check battery power. If battery power is insufficient, turn power switch off, replace batteries with a fresh set, turn power on, then press **IN** and **Ps** buttons again to restart film rewind. (When replacing batteries, read "NOTES ON BATTERIES" on page 111.)
- Do not open camera back during film rewind. If camera back is opened, film rewind will stop at mid-roll and Err and ⊙ _ blink in LCD panel; to restart film rewind, press **IN** button and **Ps** button again.



3 After rewind automatically stops, confirm the frame counter shows **E** and film installation symbol ⊙ blinks for a few seconds.

Open camera back and remove film cartridge.

- To remove film, pull out the upper part of the cartridge then lift up.
- With an exposed film cartridge left in the film cartridge chamber, depressing shutter release button causes ⊙ to blink in LCD panel.

To conserve battery power, turn off power switch when you are not using the camera. Always remove batteries before storing the camera to prevent damage due to leaking batteries.

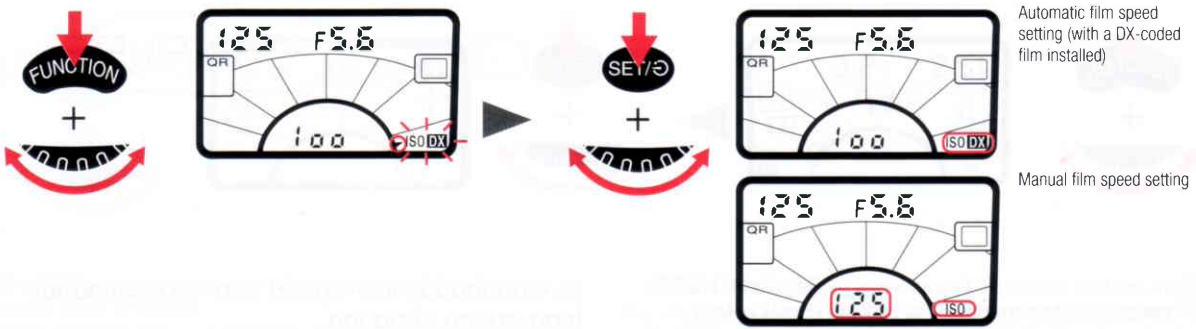
www.orphacameras.com

GENERAL FUNCTIONS

This chapter explains the various modes of the N70 camera's operation. Please review it thoroughly.

www.orphacameras.com

FILM SPEED SETTING MODE



Automatic film speed setting (with a DX-coded film installed)

Manual film speed setting

The N70 offers two ways to set film speed—automatic film speed setting for DX-coded film and manual film speed setting.

Automatic film speed setting for DX-coded films

Usable film speed range for DX-coded film is ISO 25 to ISO 5000.

Make sure DX is shown on the LCD panel. If not, hold FUNCTION button and rotate command dial until the Function Area indicator appears in the Film Speed Setting Mode Area and ISO blinks. Then hold SET/⏲ button and rotate command dial until ISODX appears.

Manual film speed setting

Usable range for manual film speed setting is ISO 6 to 6400. Hold FUNCTION button and rotate command dial until the Function Area indicator appears in the Film Speed Setting Mode Area and ISODX or ISO blinks. Then hold SET/⏲ button and rotate command dial until desired film speed is shown in place of frame counter with ISO in the film Film Speed Setting Mode Area.

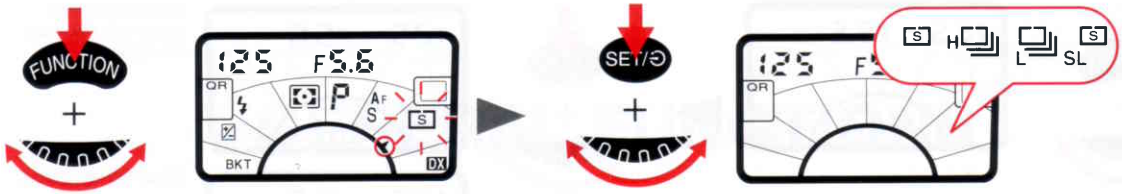
- If DX-coded film is loaded but manual film speed setting is selected, camera gives priority to the manually set ISO number.

To check ISO film speed setting

Hold FUNCTION button and rotate command dial until the Function Area indicator appears in the Film Speed Setting Mode Area and ISODX or ISO blinks. Then hold SET/⏲ button.

www.orphacameras.com

FILM ADVANCE MODE



There are four automatic film advance modes. Hold FUNCTION button and rotate command dial until the Function Area indicator appears in the Film Advance Mode Area and S, H, L or SL blinks, then hold SET/⏲ button and rotate command dial until desired symbol appears. Set S for single-frame shooting, L for continuous low-speed shooting, H for continuous high-speed shooting, or SL for silent rewind, and so on.

S Single-frame shooting and SL silent rewind

Fully depressing shutter release button takes one picture and automatically advances film by one frame. Film is advanced immediately after shutter closes whether you remove your finger from shutter release button or keep the button depressed. To take the next shot, lift your finger from the button, then fully depress it again.

SL for silent rewind is for times when conditions require a minimum of operating noise. You can rewind film very quietly.

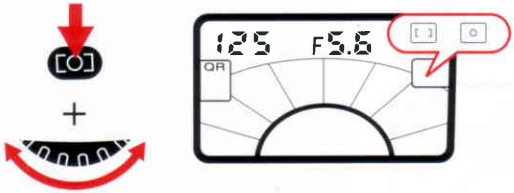
L Continuous low-speed and H continuous high-speed shooting

Shots are taken continuously as long as you keep shutter release button fully depressed. You have a choice of shooting speeds: approx. 3.7 fps (frames per second) in the H mode, and approx. 2.0 fps in the L mode—with fresh lithium batteries at normal temperature (20°C or 68°F) and at shutter speeds of 1/250 sec. or higher in the Manual exposure and Manual focus modes. With shutter speeds slower than 1/250 sec., the framing rate becomes progressively slower in proportion to the shutter speed in use.

- When built-in flash is activated, continuous shooting is automatically switched over to single-frame shooting (S). In this case, H or L blinks in LCD panel.

www.orphacameras.com

FOCUS AREA



The N70's autofocus system offers a choice of two focus areas: Wide and Spot.
While pressing focus area button, rotate command dial until the desired symbol—[ ] for Wide Area or [ ] for Spot Area—appears in LCD panel.

For flash photography
When built-in flash is activated or accessory Nikon Speedlight is turned on, Wide Area is automatically switched over to Spot Area. In this case, [ ] blinks in LCD panel and [ ] appears inside viewfinder.

[ ] Wide Area AF

The Wide-Area focus brackets delineate the focus detecting area in the viewfinder. Subjects of sufficient brightness and detail can be detected within these brackets. In addition to general photography, autofocus using Wide-Area focus brackets is suited to action photography in which the moving subject requires a wide-range focus detection area.
However, focus detection may not be possible if the subject is too small to fully cover the Wide-Area focus brackets. If various subjects, each at a different distance, fall within the focus detection area, focus will be confirmed for a single subject as follows:

- For subjects of equal brightness: the closer one will be focused.
- For subjects of unequal brightness: the brighter one will be focused.

www.orphacameras.com

[ ] Spot Area AF

Spot Area AF, in which the focus detecting area is shown by the 3mm-dia. circle at the center of the viewfinder, is recommended in the following situations:

a. Subject considerably smaller than the Wide-Area focus brackets*

b. Subject obscured by an object, such as a fence, in the foreground

c. A particular portion of the subject must be in focus, such as the eyes in a portrait

d. Strongly backlit subject, such as someone standing beside bright window**

** Lock focus. See "AUTOFOCUS WITH MAIN SUBJECT OFF CENTER" on pages 36 to 37.*

*** To give correct exposure on your subject, see "AUTO EXPOSURE LOCK FUNCTION WITH AE-L BUTTON" on pages 74 to 75 or "TO OBTAIN METER READING FOR A PARTICULAR SUBJECT IN MANUAL EXPOSURE MODE" on pages 76 to 77.*