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back to my “Orphancameras” manuals /flash and light meter site

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The large manuals are split only for easy download size.

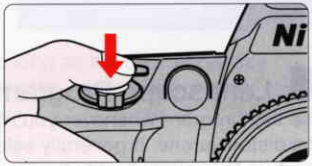
Vari-Program

Vari-Program

Vari-Program gives you the option to choose from five different programs designed for specific picture-taking situations.
For other available mode combinations, see page 64.

Shooting with Vari-Program

Set the exposure mode dial to the desired Vari-Program, confirm focus indicator ● in the viewfinder and shoot.



- The following warning indications appear in the viewfinder or LCD panel when the subject is too dark or bright.
  - H i: Use ND filter.
  - Lo: Use Speedlight.

NOTE: Vari-Program

Flexible Program (page 40) and exposure compensation (page 50) are canceled in Vari-Program. When using the flash in Vari-Program, the Flash Sync modes (page 59) automatically change according to each program selected.

Vari-Program selection

: Portrait Program

Use this program whenever you are taking pictures of people. It uses a relatively large aperture (smaller f-number) and shallow depth of field to create a blurred background to accentuate your main subject.
Recommended AF Nikkor lenses: 85mm to 200mm telephoto lenses with large maximum apertures.

: Landscape Program

Use this program whenever you're taking a picture of a distant scene. It generally selects a smaller aperture to assure sharply focused landscape pictures.
Recommended lenses: you can use the full range of lenses (wideangle to telephoto) to achieve different effects.

• To avoid camera shake, use a tripod.

: Close-Up Program

Use this program when you are taking pictures up close. It uses a larger aperture (smaller f-number) and a shallow depth of field to create a blurred background that accentuates your main subject.
Recommended AF Nikkor lenses: AF Micro-Nikkor lenses.

• To avoid camera shake, use a tripod.

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: Sport Program

Use this program to freeze action. It uses a fast shutter speed suitable for stop-action photography.
Recommended AF Nikkor lenses: 80mm to 300mm telephoto lenses

• In Sport Program, focus detection continues as long as the shutter release button is lightly pressed. By fully depressing the shutter release button and holding it in, you can perform continuous shooting.

: Night Scene Program

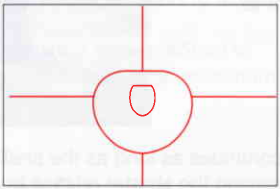
Use this program in the evening or at night. It allows you to capture the beauty of nighttime scenes.
You can also use it with the flash when you want to include portraits in a night scene composition.
Recommended lenses: you can use the full range of lenses (wideangle to telephoto) to achieve different effects.

• To avoid camera shake, use a tripod.

Exposure Metering System

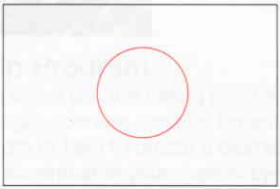
■ The exposure metering system of this camera is normally set to Matrix Metering. It automatically switches to Center-Weighted Metering when the exposure mode is set to Manual or when the Auto Exposure Lock function (page 49) is used.

Matrix Metering/3D Matrix Metering



Matrix Metering provides correct exposure control using a six-segment Matrix Sensor. With D-type AF Nikkor lenses, 3D Matrix Metering automatically activates to use scene brightness, scene contrast and subject distance information to ensure even more accurate exposure control. All exposure modes except Manual exposure and the Auto Exposure Lock function (page 49) employ Matrix Metering.

Center-Weighted Metering



Center-Weighted Metering places special emphasis on brightness within the 12mm-diameter circle in the viewfinder and is thus useful for basing exposure on a specific area of the scene. The metering system automatically switches to Center-Weighted Metering when exposure mode is set to Manual (page 43) or when the Auto Exposure Lock function (page 49) is used.

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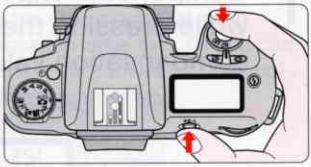
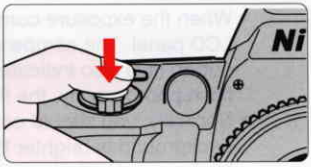
Auto Exposure Lock

■ When using the auto exposure modes, you can control the exposure based on the brightness of a specific area within the scene using the Auto Exposure Lock function. The metering system automatically switches to Center-Weighted Metering when this function is used.

1 **Center the main subject inside the viewfinder and zoom-in. Press the AE-L button while lightly pressing the shutter release button.**



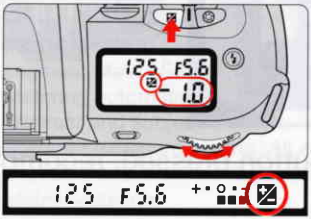
2 **Keeping the AE-L button pressed, recompose, focus and shoot.**



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). You can modify exposure control from –3EV to +3EV in 1/2 steps (except in AUTO mode and Vari-Program).

1 Compensate exposure by rotating the Command Dial while pressing the ⊠ button until the desired compensation value appears.



–0.5EV compensation

+2EV compensation

- When the exposure compensation is set, ⊠ appears in the viewfinder and LCD panel. The compensation value can be checked by pressing the ⊠ button (it is also indicated in the viewfinder's electronic analog display). In flash photography, the flash output level is also compensated.
- 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.

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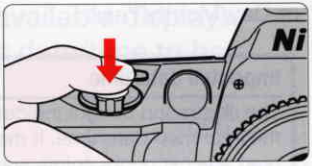
2 Compose picture and shoot.



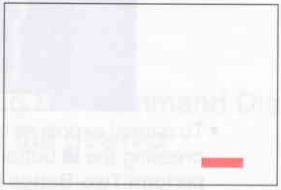
- To cancel exposure compensation, rotate the Command Dial while pressing the ⊠ button to reset the compensation value to 0. Or you can perform Two-Button Reset (page 57). (Turning the camera off does not cancel the exposure compensation function.)

Imprinting Date/Time (for N60QD only)

You can imprint the following date information on your picture (in any exposure mode): Year/Month/Day, Day/Hour/Minute, Month/Day/Year or Day/Month/Year.

Imprinted date/time

The illustration at right indicates the position of the imprinted date/time. It may be difficult to read against bright colors such as white or reddish hues.

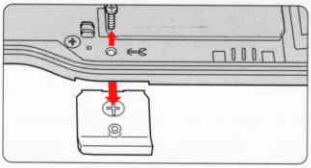


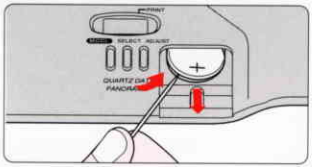
NOTE: Battery requirements for imprinting

Imprinting of date/time requires one CR2025 3V lithium battery separate from the batteries required for the camera body. Battery life is approx. 3 years. When the imprinting on the photo appears faded and/or the display of the data imprint on the LCD becomes faint or disappears, this indicates low battery power. Replace the battery (making sure to set correct date/time after changing battery, page 53).

Changing battery for imprinting

Open camera back, remove the screw on the inside of the camera back. Remove the battery chamber cover and then remove the used battery.





- Insert a new CR2025 3V lithium battery with + side facing up. Attach the battery chamber cover and tighten the screw on the inside of the camera back.

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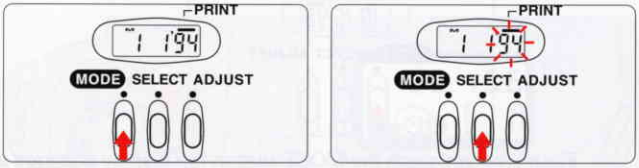
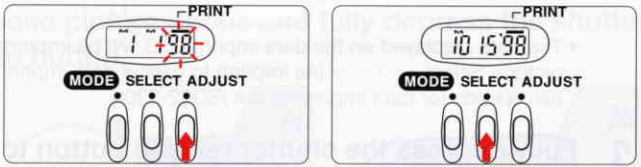
Adjusting date and time

1 Press MODE button to select available displays. Press SELECT button to select date/time to be adjusted.



- Date adjustment cannot be performed with the Day/Hour/Minute display. To do so, you must select Year/Month/Day, Month/Day/Year or Day/Month/Year displays.

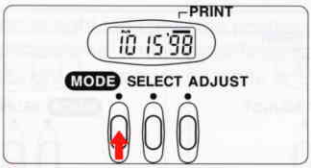
2 Press ADJUST button to set the correct number. Then press SELECT button until the number stops blinking.



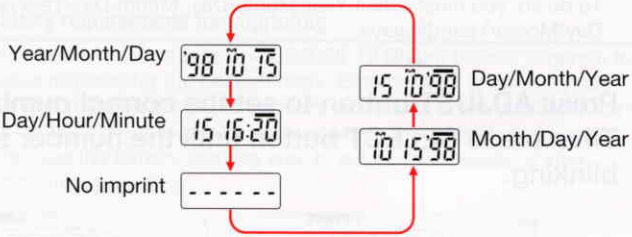
- To change the numerical indication rapidly, hold the ADJUST button down. The years are numbered 1 to 19, 87 to 99 and 00 in that order. To complete adjustment, press SELECT button so the number stops blinking and — (data imprint indicator) appears.

Taking pictures with imprinted date/time

1 Push MODE button to select available imprinting displays.

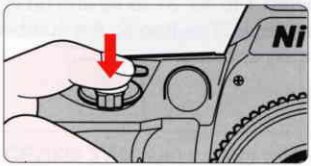


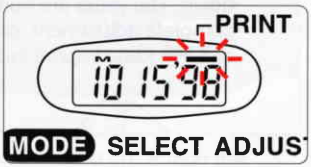
Each time you push the MODE button the display changes as follows:



- The data displayed on the data imprint LCD will be imprinted on the picture. Select -- -- -- (no imprint) to cancel data imprint. Compatible film speeds for data imprinting are ISO32-3200.

2 Fully depress the shutter release button to take a picture with the imprinted date/time.





- To confirm whether date/time is imprinted, check that the imprint indicator — blinks for approx. 2 sec. immediately after taking a picture.

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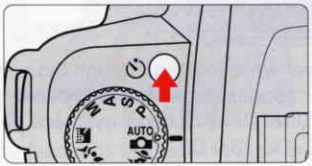
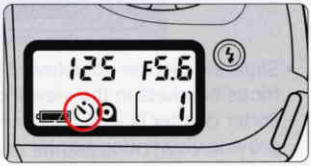
Self-Timer Operation

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.

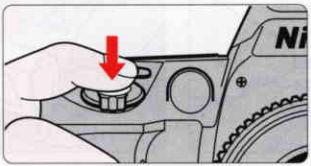
1 Press ⏲ (self-timer) button and confirm that ⏲ appears on the LCD panel.

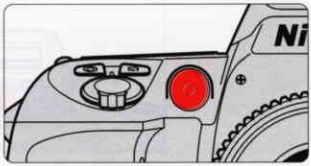




- When ⏲ button is pressed, duration of camera's meter changes to 30 sec. Press the shutter release button within 30 sec. of pressing the ⏲ button.
- The self-timer cannot be performed unless the camera's shutter can be released (i.e. when subject cannot be in focus with autofocus).
- To shoot in an exposure mode other than Manual, cover the eyepiece with the supplied eyepiece cap (page 56) or hand before pressing the shutter release button to prevent interference to 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.

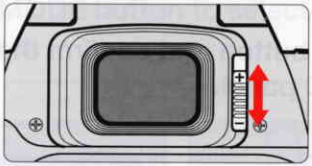




- When the self-timer is activated, the shutter will release in 10 seconds. The self-timer/red-eye reduction lamp and ⏲ in the LCD panel blink for 8 sec. and then stop blinking for 2 sec. before the shutter is released. When Red-Eye Reduction (page 59) is set, the self-timer/red-eye reduction lamp lights for 2 sec. before the shutter releases at the same output level as the normal Red-Eye Reduction function.
- To cancel the self-timer (before or during self-timer operation), press ⏲ button again, turn the main switch off or perform Two-Button Reset (page 57). The self-timer can also be canceled by leaving the camera untouched for more than 30 sec. after setting the function.

Diopter Adjustment/Eyepiece Cap

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

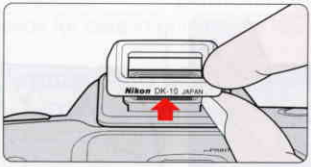


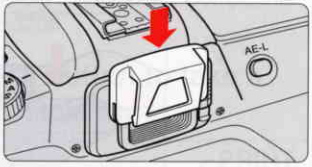
• Slide the diopter adjustment lever while looking through the viewfinder until the focus brackets in the viewfinder appear sharp. The adjustable range of the finder diopter is –1.5 DP. to +1.0 DP. Nine optional eyepiece correction lenses provide viewfinder diopter of –5.0 to +3.0 DP.

NOTE: Using the diopter adjustment lever

Since the diopter adjustment lever is located next to the viewfinder, be careful not to poke your eyes with your finger or fingernail while sliding the lever.

■ Using the eyepiece cap or optional eyepiece correction lens





• To attach an eyepiece cap or optional eyepiece correction lens, remove the rubber eyecup and slide down the eyepiece cap or eyepiece correction lens. To reattach the rubber eyecup, make sure the "***Nikon*** DK-10 JAPAN" stamp is at the bottom.

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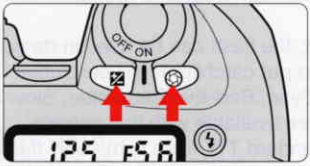
Two-Button Reset

■ Two-Button Reset lets you instantly reset specified settings to their original default settings.

Press the ⊠ and ⊙ buttons simultaneously for more than 2 sec.



- The following functions are reset to their original settings:

Flexible Program:	Canceled
Exposure Compensation:	Canceled
Flash sync mode:	Slow Sync with exposure mode set to ⬓ or normal sync with other exposure modes
Self-timer:	Canceled

- See page 64 for the camera's default setting and available mode combinations.
- When the ⊠ and ⊙ buttons are pressed for less than 2 sec., automatically set film speed of loaded DX-coded film appears in the LCD panel. (Page 34.)

Flash Photography

Built-in Speedlight and Matrix Balanced Fill-Flash

This camera is equipped with built-in Speedlight that provides an angle of coverage for a 28mm lens with a guide number of 15 (ISO100, m) or 49 (ISO100, ft.).

Matrix Balanced Fill-Flash ensures proper exposure of the main subject and background, and controls adequate flash output to create natural-looking flash photography (with CPU lens).

In addition to shooting in dim light, the flash can be used in daylight to reduce shadows on the main subject or to put catchlights in your subject's eyes.

Four flash sync modes—Normal Sync, Red-Eye Reduction, Slow Sync and Red-Eye Reduction with Slow Sync—are available with this camera.

- When using a non-CPU lens, standard TTL flash is the only flash mode available. To ensure optimum performance, use only CPU lenses.

Flash shooting distance range

Flash shooting distance changes according to the film speed in use and aperture setting.

ISO Film speed	25	50	100	200	400	800	Flash shooting distance range* m/ft.
Guide number m/ft.	8/26	11/36	15/49	21/69	30/98	42/138	
Aperture value	—	—	1.4	2	2.8	4	2-10.6/6.6-35
	—	1.4	2	2.8	4	5.6	1.4-7.5/4.6-25
	1.4	2	2.8	4	5.6	8	1-5.3/3.3-17
	2	2.8	4	5.6	8	11	0.7-3.8/2.3-13
	2.8	4	5.6	8	11	16	0.6-2.7/2.0-8.9
	4	5.6	8	11	16	22	0.6-1.9/2.0-6.2
	5.6	8	11	16	22	32	0.6-1.3/2.0-4.3
	8	11	16	22	32	—	0.6-0.9/2.0-3.0

* *The table shows the flash shooting distance range for print films. The flash shooting distance range of color slide film is approx. 2/3 that of print film with the same ISO film speed rating.*

- The flash shooting distance range can also be calculated by dividing the guide number by the aperture value selected.

Example: when f/2.8 is selected with ISO 100 film using this camera's built-in Speedlight, the maximum flash shooting distance will be;

$$\frac{15}{2.8} = \text{approx. } 5.3\text{m} \quad \text{or} \quad \frac{49}{2.8} = \text{approx. } 17\text{ ft.}$$

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Flash sync mode features

ϟ◎: Red-Eye Reduction

The Red-Eye Reduction lamp lights for approx. 1 sec. before the flash fires to reduce the red-eye effect in photos of people or animals.

ϟSLOW: Slow Sync

Normally, the camera's shutter speed is automatically set to 1/125 sec. with flash photography. But for shooting nighttime scenes, Slow Sync uses a slower shutter speed to bring out background details using all of the available light.

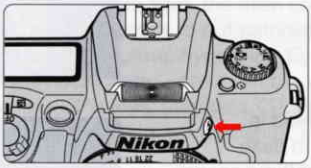
- Red-Eye Reduction and Slow Sync can be set simultaneously by selecting ϟSLOW◎. See page 60.
- Selectable flash sync modes depends on the exposure mode selected. See page 64 for the available combinations of flash sync modes and exposure modes.

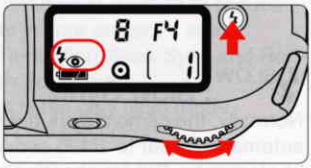
NOTE: Flash Sync Modes

- When Red-Eye Reduction or Red-Eye Reduction with Slow Sync is set, Red-Eye Reduction lamp (page 2) lights for approx. 1 sec. before the flash fires. Do not move the camera or let the subject move until shutter is released.
- With some lenses, light from the Red-Eye Reduction lamp may not reach the subject's eyes. In some cases, red-eye effect may not be reduced effectively due to the location of main subject.
- With Slow Sync and Red-Eye Reduction with Slow Sync, keep the camera steady to prevent picture blur since the shutter speed is slow. Use of a tripod is recommended.

Using built-in Speedlight

1 Release the built-in Speedlight by pressing the Speedlight lock-release button, and set the flash sync mode by rotating the Command Dial while pressing ϟ button.





- Speedlight starts to charge when it is released and ϟ appears in the viewfinder when Speedlight is fully charged.
- ϟ (normal sync) disappears from the LCD panel when Normal Sync is set and ϟ button is released.
- Press down gently on the Speedlight to retract.

2 Set exposure mode and confirm shutter speed and aperture.

Available shutter speed and aperture in each exposure mode

Exposure mode	Available shutter speed	Available aperture	Page
General-Purpose Program	Automatically set	Automatically set	39
Auto-Multi Program			40
Vari-Program			45
Shutter-Priority Auto	1/125-30 sec.*1		41
Aperture-Priority Auto	Automatically set	Desired setting*2	42
Manual	1/125-30 sec.*1, Long Time Exposure		43

*1 *Shutter speed shifts automatically to 1/125 sec. when the shutter speed is set to 1/125 sec. or faster and the flash is fired (or attached optional Speedlight is turned on).*

*2 *Flash shooting distance range depends on the ISO film speed of film in use and aperture selected. In Aperture-Priority Auto or Manual exposure mode, set the aperture according to the flash shooting distance range table on page 58.*

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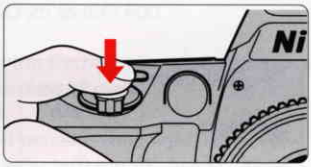
3 Confirm ϟ appears in viewfinder and make sure the subject is within the flash shooting distance range (page 58).



- ϟ in viewfinder blinks approx. 3 sec. after full flash output. This may indicate underexposure has occurred. Check the focus distance, aperture or flash shooting distance range and shoot again.
- When the subject is dimly lit, the AF-Assist Illuminator automatically emits (page 36) to guide autofocus.
- In General-Purpose or Auto-Multi Program exposure mode, camera automatically controls maximum available aperture according to the film speed. See page 63.

Usable lenses with built-in Speedlight

28mm to 200mm CPU lenses and AF 300mm f/4 can be used with the built-in Speedlight. However, AF 20-35mm f/2.8 and AF-S ED 17-35mm f/2.8 cannot be used.

- Vignetting occurs at the edges of the frame resulting in underexposure with the following zoom lenses, which have limitations in usable focal length or shooting distance:

Lens	Limitations
AF 24-50mm f/3.3-4.5	35mm or longer focal length.
AF 24-120mm f/3.5-5.6	35mm focal length at 1.5m or longer shooting distance or 50-70mm at 1m or longer.
AF-S ED 28-70mm f/2.8	70mm focal length at 1.2m or longer shooting distance.
AF 28-80mm f/3.5-5.6	28mm focal length at 1m or longer shooting distance.
AF 28-85mm f/3.5-4.5	35mm focal length at 1.5m or longer shooting distance.
AF 28-200mm f/3.5-5.6	35mm or longer focal length.
AF 35-70mm f/2.8	50mm or longer focal length.
AF 70-180mm f/4.5-5.6	70mm focal length at 1.5m or longer shooting distance or 85mm at 1m or longer.
AF-S ED 80-200mm f/2.8	105mm or longer focal length (not usable at 105mm focal length when the shooting distance is 2m or less).

- Do not set the zoom lens to Macro in wideangle and always remove the lens hood when using the built-in Speedlight.

Usable Optional Speedlights

■ Usable optional Speedlights and available flash modes are listed in the following table. (The built-in Speedlight and optional Speedlight cannot be used together.) Available modes are listed assuming a CPU lens is attached. (Non-CPU lenses are not recommended.)

Flash mode / Speedlight	Matrix Balanced Fill-Flash*1	Non-TTL Auto Flash	Manual	Repeating Flash	Wireless Slave Flash
SB-28	○	○	○	○	—
SB-27	○	○	○	—	—
SB-26	○	○	○	○	○
SB-25, SB-24	○	○	○	○	—
SB-29, SB-23, SB-21B*2	○	—	○	—	—
SB-22, SB-22s, SB-20, SB-16B SB-15	○	○	○	—	—
SB-11*3, SB-14*3 SB-140*3	○	○	○	—	—

*1 *When the exposure mode is set to Manual, the flash mode switches to Center-Weighted Fill-Flash.*

*2 *With SB-21B, autofocus can only be used when an AF Micro-Nikkor (60mm, 105mm, 200mm and 70-180mm) is attached.*

*3 *TTL Auto Flash is possible with TTL Remote Cord SC-23.*
In A or M exposure mode, attach SU-2 to SC-13 with SB-11 and SB-14 or attach SU-3 to SC-13, SC-11 or SC-15 to AS-15 with SB-140 in conjunction with SC-23.
• Ultraviolet and infrared photography can be performed only when SB-140 is set to M.

• See your Speedlight manual for details. If the camera groups are defined in the manual of the Speedlight with TTL auto flash, see the section for camera group IV.

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■ Notes on using the optional Speedlight

- Flash sync speed is 1/125 sec. or slower when using an optional Speedlight.
- Available film speeds for TTL Auto Flash are ISO 25 to ISO 800.
- When the Red-Eye Reduction function is used, the Red-Eye Reduction lamp on the camera body (not on Speedlight unit) illuminates.
- The AF-Assist Illuminator on the Speedlight unit usually emits light. However, when a non-TTL Auto Flash or manual flash is selected, the AF-Assist Illuminator on the camera body lights up instead.
- Set the exposure mode to A or M when shooting with the Speedlight in mode other than TTL Auto Flash.
- In General-Purpose or Auto-Multi Program exposure mode, camera automatically controls maximum available aperture as follows in relation to the film speed.

ISO film speed	25	50	100	200	400	800
Maximum available aperture (built-in Speedlight)	f/2	f/2.4	f/2.8	f/3.3	f/4	f/4.8
Maximum available aperture (optional Speedlight)	f/2.8	f/3.3	f/4	f/4.8	f/5.6	f/6.7

* *When film speed increases by one step, the maximum available aperture is stopped down by 1/2 f/stop. If you are using a lens with a maximum aperture smaller than that listed above, automatically controlled aperture range is from the lens' maximum to minimum aperture.*

- Attach the optional Sync Terminal Adapter AS-15 when a sync terminal is needed.
- Use only Nikon Speedlights. Other units may damage the camera's electrical circuit due to incompatible voltage requirements (not compatible with 250V or higher), electric contact alignment or switch phase.

Available Mode Combinations

■ The following chart lists available modes when an AF Nikkor is attached (except IX-Nikkor, AF-S or AF-I lens).

Exposure mode	AF mode	AF-Assist Illuminator	Flexible Program	Exposure compensation	Metering system*1	Normal sync	Red-Eye Reduction	Red-Eye Reduction with Slow Sync	Slow Sync
AUTO	Auto-Servo AF	○	—	—	Matrix	◎	○	—	—
P	Auto-Servo AF	○	○	○	Matrix	○	○	○	○
S	Auto-Servo AF	○	—	○	Matrix	○	○	—	—
A	Auto-Servo AF	○	—	○	Matrix	○	○	○	○
M*2	Auto-Servo AF	○	—	○	Center-Weighted	○	○	—	—
	Auto-Servo AF	○	—	—	Matrix	◎	○	—	—
	Auto-Servo AF	—	—	—	Matrix	◎	○	—	—
	Auto-Servo AF	○	—	—	Matrix	◎	○	—	—
	Continuous Servo AF	—	—	—	Matrix	◎	○	—	—
	Auto-Servo AF	○	—	—	Matrix	—	—	○	◎

○ : Can be set.
◎ : Automatically selected when the exposure mode is set. (Can be changed to another flash sync mode.)
— : Cannot be set.

*1 *When Auto Exposure Lock (page 49) is used, Center-Weighted Metering is selected in any exposure mode.*

*2 *Only Manual exposure mode can be used when a non-CPU lens is attached. Camera's exposure meter cannot be used and aperture cannot be set with camera's aperture button and Command Dial. (Select the aperture using the lens' aperture ring.) See "Lens Compatibility" on page 32.*

• With built-in Speedlight, each flash sync mode is controlled with the Matrix Balanced Fill-Flash (page 58); however, flash sync mode changes to Center-Weighted Fill-Flash with Manual exposure mode.

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MISCELLANEOUS

The Nikon N60/N60QD is a high-performance, precision instrument, designed to give you superior pictures. You'll want to take good care of your camera to ensure the best performance. Take time to review this section thoroughly, as doing so will add to your picture taking pleasure. We've also included information about optional accessories and a detailed section with technical specifications. Please read them carefully.

Optional Accessories

Soft Case

Two camera cases are available for this camera.

- CF-49: Camera body fits inside case with AF 35-80mm f/4-5.6D lens attached.
- CF-50: Camera body fits inside case with AF 35-135mm f/3.5-4.5 lens attached.

Straps

Nikon offers a variety of camera straps.

- AN-4B (black), AN-4Y (yellow): Braid-type neckstrap
- AN-6Y (yellow), AN-6W (Burgundy): Wide braid-type neckstrap

AF Nikkor lens

Various AF Nikkor lenses, from 16mm fisheye to 600mm telephoto, are available. Most AF Nikkor lenses can be used with this camera.

Filters

Nikon offers a range of filters including NC filter for lens protection, and Soft Filter Soft 1, 2 or Circular Polarizing Filter C-PL for special effects.

Nikon Speedlight

Flash photography with a wider range or greater focus distance is possible since the optional Speedlights offer larger guide numbers than the built-in Speedlight. For usable optional Speedlight and available flash modes, see page 62.

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Camera Care

WARNING

Do not use

Do NOT ever use organic solvents like thinner or benzene.
It causes fire or health hazard.
It damages the camera.

- **Cleaning camera body**

Use a blower brush to remove dirt and dust from the camera body and clean it with a soft, clean cloth. After using the camera near sea water, wipe the camera body with a soft, clean cloth slightly moistened with pure water to remove salt, and then dry it with a dry cloth.

- **Cleaning mirror and lens**

Use a blower brush to remove dirt and dust from the mirror or lens. To remove fingerprints or smudges from the lens' surface, use a soft, clean cotton cloth or lens tissue moistened with ethanol (alcohol) or lens cleaner.

- **Do not subject the camera or lens to strong vibration or shock**

Do not drop the camera body and lens or hit them against a hard surface as this may damage their precision mechanism.

- **Do not touch the shutter curtains**

The shutter is made of very thin curtains. Do not hold, poke, or blow strongly with a blower brush. Doing so may scratch, deform or tear the shutter curtains.

- **Avoid strong electric or magnetic fields**

The camera may not function properly in strong electric or magnetic fields such as near a transmitter tower. Avoid using the camera in such locations.

- **Store the camera in a cool, dry place**

Store the camera in a cool, dry place to prevent mold and mildew.
Keep it away from naphthalene or camphor (moth repellent), electrical appliances that generate magnetic fields or an excessively hot place such as inside a vehicle during the summer or near a heater.

- **Avoid extreme temperature change**

An extreme temperature change can cause condensation inside the camera body. When taking the camera to a very hot place from a very cold place or vice versa, place it inside an airtight container such as a plastic bag and leave it inside a while to expose the camera gradually to the temperature change.

• Remove the batteries and store the camera with a desiccant

If you do not intend to use the camera for a long time, remove the batteries to protect the camera from battery leakage.

- In a humid environment, store the camera inside a plastic bag with a desiccant to keep out dust, moisture and salt. Note, however, that storing leather cases in vinyl bags may cause the leather to deteriorate. Keep the batteries in a cool, dry place away from heat or humidity.
- Change the desiccant occasionally since it does not absorb moisture effectively after using it for a while.
- Leaving the camera unused for a long period of time may cause mold to grow and result in malfunction. Turn the power on and release the shutter a few times once per month.
- To maintain the built-in Speedlight in peak condition, fire it a few times every month. This will enable you to use the flash for many years.

Nikon cannot be held responsible for any malfunction resulting from the use of the camera other than as specified in this manual.

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Notes on Batteries

Keep batteries out of children's reach.
If someone accidentally swallows batteries, call a doctor immediately.

• Use two CR123A or DL123A lithium batteries

Use two CR123A or DL123A lithium batteries.

- Change the batteries well before the end of their life and prepare spare batteries before important photographic occasions.

• Turn the camera power off when changing batteries

Turn the camera power off before changing batteries and insert the batteries with ⊕ and ⊖ ends positioned correctly.

- Stains on the battery poles may cause lack of contact. Wipe the batteries well with a dry cloth before installing.

• Use fresh batteries at low temperatures

Battery power diminishes at extremely low temperatures and the camera may not function properly with old batteries. Use a fresh set of batteries at low temperatures, keep spare batteries warm, and use them alternately.

- Film advance speed lowers and number of usable film roll becomes less at low temperatures. However, battery power may recover when the temperature returns to normal.

• Do not throw batteries into a fire or short circuit batteries

Do not throw batteries into a fire. Do not short, disassemble, heat or charge batteries.

Specifications

Type of camera	Integral-motor autofocus 35mm single-lens reflex
Exposure modes	AUTO: General-Purpose Program **P**: Auto-**Multi** Program (Flexible Program possible) **S**: Shutter-Priority Auto **A**: Aperture-Priority Auto **M**: Manual Vari-Program (: Portrait, : Landscape, : Close-Up, : Sport, : Night Scene)
Picture format	24 x 36mm (standard 35mm film format)
Lens mount	Nikon F mount
Lens	Nikkor and Nikon lenses having Nikon F mount* ** With limitation; see chart on p. 32.*
Viewfinder	Fixed eyelevel pentaprism high-eyepoint type
Focusing screen	Clear Matte Screen II (with focus frame)
Viewfinder frame coverage	Approx. 90%
Finder magnification	Approx. 0.69X to 0.74X with 50mm lens set at infinity
Diopter adjustment	–1.5 DP. to +1.0 DP.
Viewfinder information	Focus indication (in-focus indication and AF impossible warning), FEE warning, Err warning, F-- warning, exposure value (shutter speed, aperture), exposure warning, electronic analog display, exposure compensation, focus brackets, Center-Weighted Metering area, flash ready-light (charged indication, full output warning and flash recommended)
Autofocus	• TTL phase detection AF system with AF-Assist Illuminator • Activated by lightly pressing the shutter release button • Detection range: EV –1 to EV 19 (at ISO 100, normal temperature)

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Lens servo	**AF:** Auto-Servo AF : Camera automatically chooses Single Servo AF or Continuous Servo AF operation according to the subject status, i.e. stationary or moving (including directional information). • Single Servo AF: Once focused on a subject, focus is locked • Continuous Servo AF: The camera continuously focuses on a moving subject **M:** Manual
Focus lock	Focus is locked when shutter release button is lightly pressed and subject is in focus in Single Servo AF
Exposure metering	3D Matrix: with D-type AF Nikkor Six-segment Matrix: with non-D-type AF Nikkor (except AF lens for F3AF and IX-Nikkor), AI-P Nikkor Center-Weighted: in Manual exposure mode or with Auto Exposure Lock
Metering range	EV 1 to EV 20 at ISO 100, 50mm f/1.4 lens
Film speed setting	Automatically set to ISO speed of DX-coded film used; film speed range: ISO 25 to 5000
Exposure meter	Activated by turning on power, lightly pressing shutter release button; stays on for 5 sec. after removing finger from button, or 2 sec. after releasing shutter
Exposure compensation	With exposure compensation button; ±3 EV range, in 1/2 steps (in **P**, **S**, **A** and **M** mode)
Auto exposure lock	By pressing AE-L (auto exposure lock) button while exposure meter is activated (Center-Weighted Metering is automatically selected.)
Shutter	Electromagnetically controlled vertical-travel focal-plane shutter
Shutter speeds	• In AUTO, **P**, **A**, , , , , : 30 to 1/2000 sec. automatically set • In **S**, **M**: 30 to 1/2000 sec., Long Time Exposure (only be selected in **M**)
Self-timer	Electronically controlled; timer duration: 10 sec.; cancelable
Sync contact	• X-contact only (semiconductor-type); flash synchronization up to 1/125 sec. • Automatically set to 1/125 sec. when shutter speed is set to 1/2000 to 1/180 sec.

Built-in Speedlight	Activated by pressing Speedlight lock-release button, guide number: 15/49 (at ISO 100, m/ft.); flash coverage: 28mm or longer lens; film speed range: ISO 25 to ISO 800 (same range as optional Speedlight)
Flash control	Controlled by TTL Sensor • Matrix Balanced Fill-Flash: possible with CPU lens and built-in Speedlight or optional Speedlight • Center-Weighted Fill-Flash: in **M** exposure mode, Center-Weighted Metering • Standard TTL: non-CPU lens
Flash sync mode	Normal, Red-Eye Reduction, Red-Eye Reduction with Slow Sync, Slow Sync
Flash recommended indication	Blinks in low brightness or when flash is recommended
Ready light	• Flash fully charged: lights red (minimum charging time: approx. 4 sec.) • Full output warning: blinks red (3 sec. after flash)
Accessory shoe	Standard ISO-type hot-shoe contact; ready-light contact, TTL flash contact, monitor contact; mount receptacle for Posi-Mount system
Film loading	Film automatically advances to first frame when camera back is closed
Film advance	Film automatically advances one frame when shutter is released; in exposure mode, shots are taken as long as shutter release button is depressed; shooting speed: approx. 1 fps
Frame counter	Digital display in LCD panel; additive type; counts back while film is being rewound
Film rewind	Film automatically starts to rewind at the end of the film roll; rewind speed: approx. 17 sec. with 36-exposure film or approx. 14 sec. with 24-exposure film; mid-roll rewind possible

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<table>
<tr><td>Number of 36-exposure (24-exposure) film rolls per set of fresh batteries</td><td>
<table>
<tr><th></th><th>At 20°C/68°F</th><th>At –10°C/14°F</th></tr>
<tr><td>Without flash</td><td>Approx. 65 (85)</td><td>Approx. 38 (50)</td></tr>
<tr><td>With flash for half of all exposures</td><td>Approx. 16 (21)</td><td>Approx. 10 (13)</td></tr>
</table>
* For autofocus operation using an AF Zoom-Nikkor 35-80mm f/4-5.6D lens, covering the full range from infinity (∞) to the closest distance and back to infinity (∞) before each shot, with a shutter speed of 1/125 sec. or faster.
</td></tr>
<tr><td>LCD panel information</td><td>Shutter speed, aperture, flash sync mode, film speed, exposure compensation, frame counter/compensation value, FEE warning, Err warning, F-- warning, film loading, self-timer, battery power and Flexible Program</td></tr>
<tr><td>Date/time imprint function
(For N60QD only)</td><td>Display mode: Year/Month/Day, Day/Hour/Minute, No Imprint, Month/Day/Year and Day/Month/Year
Built-in clock: 24-hour type with timing accuracy within ±90 seconds a month; leap year adjustment until 2019
Usable film: ISO 32 to 3200 DX-coded film
Power source: One 3V lithium battery (CR2025 type)
Battery life: Approx. 3 years*
* May vary depending on extent of imprint use, film speed in use, etc.</td></tr>
<tr><td>Camera back</td><td>Hinged back with film cartridge confirmation window; unchangeable</td></tr>
<tr><td>Power source</td><td>Two CR123A or DL123A-type lithium batteries</td></tr>
<tr><td>Battery power confirmation</td><td>for sufficient power; indicates batteries are nearing exhaustion; blinking indicates batteries are just about exhausted; no indication/ symbol appears when batteries are completely exhausted or improperly installed</td></tr>
<tr><td>Tripod socket</td><td>1/4 (diameter, JIS standard)</td></tr>
<tr><td>Dimensions (WxHxD)</td><td>N60: Approx. 148.5 x 96 x 69mm (5.9 x 3.8 x 2.7 in.)
N60QD: Approx. 148.5 x 96 x 70mm (5.9 x 3.8 x 2.8 in.)</td></tr>
<tr><td>Weight (without batteries)</td><td>N60: Approx. 575g (20.3 oz.)
N60QD: Approx. 585g (20.6 oz.)</td></tr>
</table>

All specifications apply when fresh CR123A-type batteries are used at normal temperature (20°C/68°F).

Specifications and design are subject to change without notice.

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