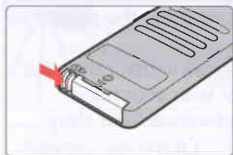
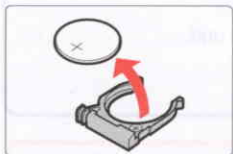
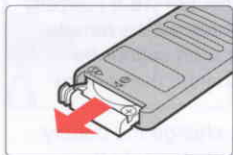


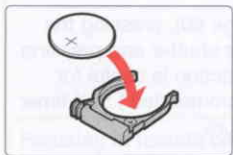
## ■ Changing battery inside the remote control unit



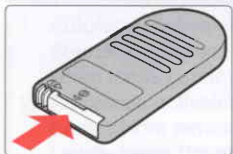
**1** While keeping the battery holder release lever pressed as the arrow on the remote control unit indicates to release the lock, pull out the battery holder from the remote control unit.



**2** Remove the used battery.



**3** Insert a new CR2025 3V lithium battery with ⊕ side facing up.











**4** Insert the battery holder until it clicks shut.










### NOTE: Storing batteries

Keep batteries out of children's reach. If swallowed, contact a doctor immediately. (For "Notes on Batteries", see page 98.)

# Available Mode Combinations

The following chart lists available modes when a CPU Nikkor lens such as D- or G-type lens is attached.

Exposure mode	AF-Assist Illuminator	Flexible Program	Exposure compensation	Auto Exposure Bracketing	Multiple exposure
	○	—	—	—	—
	○	—	○	—	—
	—	—	○	—	—
	○	—	○	—	—
	—	—	○	—	—
	○	○	○	○	○
	○	—	○	○	○
	○	—	—	○	○

Exposure mode	Metering system	Film advance mode	Focus mode		
			AF		MF
			①	②	③
	Matrix	Single frame	⊙	○	○
	Matrix	Single frame	⊙	○	○
	Matrix	Single frame	⊙	○	○
	Matrix	Single frame	○	⊙ (Center)	○
	Matrix	Continuous*	⊙	○	○
	Matrix	Single frame	⊙	○	○
	Matrix	Single frame	⊙	○	○
	Matrix	Single frame	⊙	○	○
	Center-Weighted	Single frame	⊙	○	○

①: Dynamic AF Mode with Closest-Subject Priority

②: Dynamic AF Mode

③: Single Area Mode

○: Available

⊙: Automatically set when the exposure mode is selected. (Other mode also selectable.)

—: Unavailable

\* Single frame with use of built-in Speedlight.

# About Depth of Field

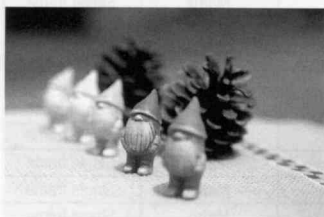
Basics of the relationship between focus and depth of field are explained in this section.

## ■ Depth of field

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



Small aperture  $f/22$



Large aperture  $f/2.8$






# FLASH PHOTOGRAPHY





This section introduces various aspects of flash photography using the built-in Speedlight.

- Matrix Balanced Fill-Flash, Standard TTL Flash
  - Ready-light, accessory shoe
  - Flash sync mode
  - Built-in Speedlight
  - Flash shooting distance range
  - Usable lenses with built-in Speedlight
- 

# Built-In Speedlight and TTL Flash Modes

## ■ Built-in Speedlight and TTL Flash modes

This camera is equipped with a built-in Speedlight that provides an angle of coverage for a 28mm lens with a guide number of 12 (ISO 100, m) or 40 (ISO 100, ft.). When the subject is dark or backlit, in  (AUTO mode) or Vari-Program, the built-in Speedlight automatically pops up. When the shutter is released, the flash fires to create natural-looking flash photography utilizing **Matrix Balanced Fill-Flash**.


In **P** (Auto-Multi Program), **S** (Shutter-Priority Auto), **A** (Aperture-Priority Auto) or **M** (Manual) exposure mode, when the subject is dark or backlit, flash recommended indication  blinks in the viewfinder, and the Speedlight pops up when the Speedlight lock-release button is pressed and the **Matrix Balanced Fill-Flash** is possible. (In Manual exposure mode, **Standard TTL Flash** is selected.) 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.

Five flash sync modes—**Front-Curtain Sync** (Normal Sync), **Slow Sync**, **Rear-Curtain Sync**, **Red-Eye Reduction** and **Red-Eye Reduction with Slow Sync**—are available with this camera.

- See below for the TTL Flash modes, page 80 for using the built-in Speedlight and page 78 for the flash sync modes.



### Matrix Balanced Fill-Flash

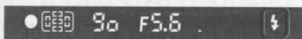
Matrix Balanced Fill-Flash is automatically set in , Vari-Program, **P**, **S** or **A** exposure mode. In this flash mode, a well-balanced exposure of the main subject (subject in focus) and the background is achieved—based on the brightness sensed by the Matrix Metering.


### Standard TTL Flash

Standard TTL Flash is automatically selected when the exposure mode is set to **M**. In Standard TTL Flash, the main subject is correctly exposed but background exposure is not considered. Standard TTL Flash is useful when you want to highlight the main subject.

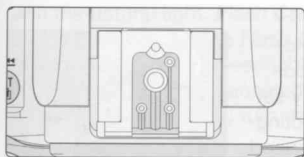
# Ready-Light/Accessory Shoe

## ■ Ready-light



- When using the built-in Speedlight or an optional Speedlight such as the SB-28/28DX, SB-27, SB-23 or SB-22s, the ready-light  appears in the viewfinder when the Speedlight is fully charged and ready to fire.
- If the ready-light blinks approx. 3 sec. after full flash output, underexposure may have occurred (when using built-in Speedlight or optional Speedlight set to TTL or non-TTL Auto Flash mode). Check the focus distance, aperture or flash shooting distance range and shoot again.

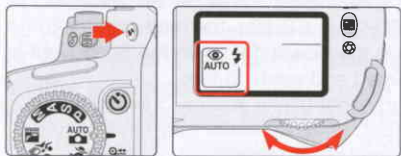
## ■ Accessory shoe




- An optional Speedlight, i.e. SB-28/28DX, SB-27, SB-23 or SB-22s can be attached directly to the accessory shoe of the N65/N65QD without a cord. This accessory shoe is equipped with a safety lock which prevents accidental drop when a Speedlight with a safety-lock pin (i.e. SB-28/28DX, SB-27, SB-23 or SB-22s) is attached.






# Flash Sync Mode Features

Five flash sync modes are available with the N65/N65QD.





Set the flash sync mode by rotating the Command Dial while pressing the flash sync mode button .

## : Front-Curtain Sync (Normal Sync)

Set the flash sync mode to Front-Curtain Sync for normal flash photography. The camera's shutter speed is automatically set between 1/90 to 1/60 sec. for flash photography in  (AUTO mode) or , 1/90 to 1/15 sec. in , and to 1/90 sec. in Auto-Multi Program, Aperture-Priority Auto,  (Close-Up mode) or  (Sports Continuous mode). (With optional Speedlight SB-26, SB-25 and SB-24, set the Speedlight's sync mode selector to NORMAL.)



## : Slow Sync

Slow Sync can be used in  Night Scene mode, Auto-Multi Program or Aperture-Priority Auto exposure mode. Normally, the camera's shutter speed is automatically set to 1/90 sec. for flash photography. However, for shooting nighttime scenes, Slow Sync uses a slower shutter speed (down to maximum of 30 sec., 1 sec. in  Night Scene mode) to bring out background details using all of the available light.





## : Rear-Curtain Sync

Rear-Curtain Sync can be used in Auto-Multi Program, Shutter-Priority Auto, Aperture-Priority Auto or Manual exposure mode. Normally, the Speedlight fires at the end of the exposure, turning available light into a stream of light that follows the flash-illuminated moving subject. When Rear-Curtain Sync is set in Auto-Multi Program or Aperture-Priority Auto exposure mode, Slow Sync is automatically set. (With an optional Speedlight SB-26, 25 and 24, set the Speedlight's sync mode selector to REAR.)






## : Red-Eye Reduction

The Red-Eye Reduction lamp lights for approx. 1 sec. before the flash fires in order to reduce the red-eye effect in photos of people or animals. Red-Eye Reduction can be used in  AUTO mode, Vari-Program (except for  Night Scene), Auto-Multi Program, Shutter-Priority Auto, Aperture-Priority Auto or Manual exposure mode. (With optional Speedlight SB-28/28DX, SB-27 and SB-26, the Red-Eye Reduction lamp of the Speedlight lights.)




## : Red-Eye Reduction with Slow Sync

Red-Eye Reduction with Slow Sync can be used in  Night Scene mode, Auto-Multi Program or Aperture-Priority Auto exposure mode. Red-Eye Reduction and Slow Sync mode are simultaneously set. (With optional Speedlight SB-28/28DX, SB-27 and SB-26, the Red-Eye Reduction lamp of the Speedlight lights.)



## : Flash Cancel

Flash Cancel can be selected in  (AUTO mode) or Vari-Program. Set Flash Cancel when you want to cancel the flash and have the photograph exposed only with the natural light. Flash Cancel cannot be set when the built-in Speedlight is in the up position. Set the Flash Cancel before lightly pressing the shutter release button. (The built-in Speedlight is canceled but when optional Speedlights are attached, flash is not canceled.)

To cancel Flash Cancel, turn the power switch off or select another exposure mode.

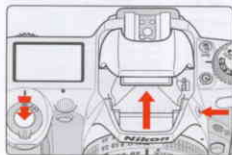
### NOTE: Flash Sync Modes

- In Front-Curtain Sync, shutter speed shifts automatically to 1/90 sec. when the shutter speed is set to faster than 1/90 sec. in Shutter-Priority Auto or Manual exposure mode.
- When Red-Eye Reduction or Red-Eye Reduction with Slow Sync is selected, the Red-Eye Reduction lamp lights for approx. 1 sec. before the flash fires. Do not move the camera or let the subject move until the shutter is released. (Red-Eye Reduction is not recommended in shooting situations where shutter release is your top priority.)
- With some lenses, light from the Red-Eye Reduction lamp may not reach the subject's eyes. In some cases, the red-eye effect may not be sufficiently reduced due to the location of 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.

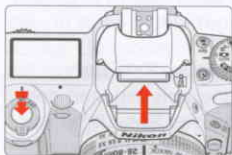


# Using Built-In Speedlight

This section explains how to use the built-in Speedlight set to desired flash sync mode when a D- or G-type AF Nikkor lens is attached.



In **P, S, A** or **M**  
exposure mode



In **AUTO** or Vari-Program

**1** In Auto-Multi Program, Shutter-Priority Auto, Aperture-Priority Auto or Manual exposure mode, release the built-in Speedlight by pressing the **⚡** flash lock-release button.



- When the subject is dark or backlit and shutter release button is lightly pressed, the flash recommended indication **⚡** blinks in the viewfinder in Auto-Multi Program, Shutter-Priority Auto, Aperture-Priority Auto or Manual exposure mode.
- In **AUTO** (AUTO mode) or Vari-Program, when the subject is dark or backlit and the shutter release button is lightly pressed, **AUTO ⚡** appears in the LCD panel and the built-in Speedlight automatically pops up.
- When the Speedlight is ready to fire, **⚡** appears without blinking in the viewfinder (when the camera's meter is on).
- Press the Speedlight down gently until it clicks into place to retract it.




**2** Set the flash sync mode by rotating the Command Dial while pressing the **⚡** flash sync button.




- **Matrix Balanced Fill-Flash** is selected in exposure modes other than Manual, and **Standard TTL Flash** is selected for Manual exposure mode. See page 76 for details.
- See the table on pages 83 and 86 for shutter speed and aperture, available sync mode in each exposure mode.

- In Auto-Multi Program, Shutter-Priority Auto, Aperture-Priority Auto or Manual exposure mode, selected flash sync mode remains once it is set. To change the flash sync mode, rotate the Command Dial while pressing the  button to select another flash sync mode.
- In  (AUTO mode) or Vari-Program, turning the power switch off or selecting another exposure mode cancels the selected flash sync mode and returns to its initial setting (table on page 86).

Rotating the Command Dial while pressing the  button changes the display as follows.


In  or Vari-Program (except ):



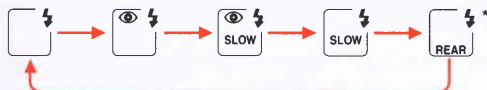
\*  does not appear when the built-in Speedlight is up.



In  (Night Scene mode):



\*  does not appear when the built-in Speedlight is up.

In Auto-Multi Program or Aperture-Priority Auto exposure mode:



\*  is displayed when you release your finger from the .

In Shutter-Priority Auto or Manual exposure mode:









# Using Built-In Speedlight—continued

● 90 F5.6

**3** Confirm appears in the viewfinder, make sure the subject is within the flash shooting distance range and shoot.

- The shutter cannot be released unless appears without blinking in the viewfinder.
- in the 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 dark, the AF-Assist Illuminator automatically turns on to guide autofocus. See page 48 for details.
- In (AUTO mode) or Auto-Multi Program exposure mode, the camera automatically controls maximum available aperture according to the film speed. See page 93.
- Continuous shooting cannot be used in flash shooting even when (Sports Continuous mode) is selected.
- With VR Nikkor lenses, the vibration reduction function when shutter release button is lightly pressed does not operate while the flash is charging.

Exposure mode	Available shutter speed	Available aperture	Page
	Automatically set to 1/90-1/60 sec.	Automatically set	51
			37
	Automatically set to 1/90-1/15 sec.		37
	Automatically set to 1/90 sec.		37
			38
	Automatically set to 1/90-1 sec.		38
<b>P</b>	Automatically set to 1/90 sec.*1		52
<b>S</b>	1/90-30 sec.*2		54
<b>A</b>	Automatically set to 1/90 sec.*1	Desired setting*3	56
<b>M</b>	1/90-30 sec.*2, -- (Time)		58

\*1 Shutter speed is prolonged up to 30 sec. with Slow Sync, Rear-Curtain Sync and Red-Eye Reduction with Slow Sync.

\*2 Shutter speed shifts automatically to 1/90 sec. when the shutter speed is set to faster than 1/90 sec. and the built-in Speedlight pops up (or attached optional Speedlight is turned on). In this case, 90 appears in the viewfinder and the selected shutter speed display blinks in the LCD panel.

\*3 Flash shooting distance range depends on the ISO speed of the film in use and aperture setting. In Aperture-Priority Auto or Manual exposure mode, set the aperture according to the flash shooting distance range table on page 84.

# Flash Shooting Distance Range

Flash shooting distance for the built-in Speedlight 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.	6/20	8.5/28	12/40	17/56	24/79	34/112	
Aperture value	—	—	1.4	2	2.8	4	2-8.5/6.6-28
	—	1.4	2	2.8	4	5.6	1.4-6/4.6-20
	1.4	2	2.8	4	5.6	8	1-4.2/3.3-14
	2	2.8	4	5.6	8	11	0.7-3/2.3-10
	2.8	4	5.6	8	11	16	0.6-2.1/2.0-6.9
	4	5.6	8	11	16	22	0.6-1.5/2.0-4.9
	5.6	8	11	16	22	32	0.6-1.1/2.0-3.6
	8	11	16	22	32	—	0.6-0.8/2.0-2.6

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

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

$12/2.8 = \text{approx. } 4.2\text{m}$  or  $40/2.8 = \text{approx. } 14\text{ ft.}$

# Usable Lenses with Built-In Speedlight

28mm to 200mm non-zoom CPU Nikkor lenses, AF 300mm f/4 ED and AF-S 300mm f/4 ED lenses can be used with the built-in Speedlight. AF-S 17-35mm f/2.8 ED, AF 18-35mm f/3.5-4.5 ED, AF 20-35mm f/2.8 zoom lenses cannot be used with the built-in Speedlight. Other zoom lenses can be used; however, refer to the table below for the zoom lenses with some limitations in usable focal length or shooting distance. (Non-CPU lenses are not recommended.)








## NOTE: Using built-in Speedlight







- Make sure to remove the lens hood.
- The built-in Speedlight cannot be used with zoom lenses set to Macro in wideangle.
- 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 24-85mm f/2.8-4	50mm or longer focal length; and at 50mm, 1m (3.3 ft.) or longer shooting distance; at 70-85mm, 0.7m (2.3 ft.) or longer shooting distance
AF 24-120mm f/3.5-5.6	35mm or longer focal length; and at 35mm, at 3m (9.8 ft.) or longer shooting distance; at 50mm, 1m (3.3 ft.) or longer shooting distance; at 70mm, 0.7m (2.3 ft.) or longer shooting distance
AF-S 28-70mm f/2.8 ED	70mm focal length and at 1.5m (4.9 ft.) or longer shooting distance
AF 28-70mm f/3.5-4.5	28mm or longer focal length; and at 28mm, at 1m (3.3 ft.) or longer shooting distance
AF 28-80mm f/3.5-5.6	28mm or longer focal length; and at 28mm, at 1.8m (5.9 ft.) or longer shooting distance
AF 28-85mm f/3.5-4.5	35mm or longer focal length; and at 35mm, at 2m (6.6 ft.) or longer shooting distance
AF 28-105mm f/3.5-4.5	28mm or longer focal length; and at 28mm, at 1.8m (5.9 ft.) or longer shooting distance
AF 28-200mm f/3.5-5.6	50mm or longer focal length
AF 35-70mm f/2.8	50mm or longer focal length
AF Micro 70-180mm f/4.5-5.6 ED	70mm or longer focal length; and at 70mm, at 1.7m (5.6 ft.) or longer shooting distance; at 85mm, 1.3m (4.3 ft.) or longer shooting distance; at 105-135mm, at 0.8m (2.6 ft.) or longer shooting distance
AF 80-200mm f/2.8 ED	80mm or longer focal length; and at 80mm, 3m (9.8 ft.) or longer shooting distance
AF-S 80-200mm f/2.8 ED	105mm or longer focal length

# Available Flash Sync Mode Combinations

The following chart lists available flash sync modes when a CPU Nikkor lens such as D- or G-type lens is attached.

Exposure mode	TTL Auto Flash	Front-Curtain Sync	Red-Eye Reduction	Red-Eye Reduction with Slow Sync
	①	⊙	○	—
	①	⊙	○	—
	①	⊙	○	—
	①	⊙	○	—
	①	⊙	○	—
	①	⊙	○	—
	①	—	—	○
<b>P</b>	①	○	○	○
<b>S</b>	①	○	○	—
<b>A</b>	①	○	○	○
<b>M</b>	②	○	○	—

Exposure mode	Slow Sync	Rear-Curtain Sync	Flash Cancel
	—	—	○*
	—	—	○*
	—	—	○*
	—	—	○*
	—	—	○*
	⊙	—	○*
<b>P</b>	○	○	—
<b>S</b>	—	○	—
<b>A</b>	○	○	—
<b>M</b>	—	○	—

①: Matrix Balanced Fill-Flash

②: Standard TTL flash

○: Available

⊙: Automatically set when the exposure mode is selected. (Other flash sync mode also selectable.)

—: Unavailable

\* Selectable when built-in Speedlight is retracted.

# MISCELLANEOUS

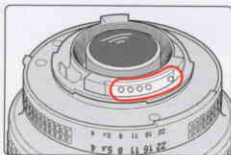
This section explains miscellaneous information.

- Lens compatibility
- Usable optional Speedlights
- Optional accessories
- Camera care
- Notes on batteries
- Troubleshooting
- Glossary
- Specifications
- Index

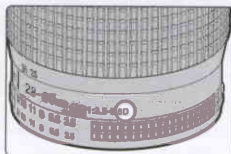


# Lens Compatibility

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



CPU contacts of CPU Nikkor lens



D-type Nikkor lens



G-type Nikkor lens

## G-type Nikkor and other CPU Nikkor lens

- The G-type Nikkor lens has no aperture ring; aperture should be selected from camera body. Unlike other CPU Nikkor lenses, aperture does not need to be set to minimum (largest f-number) (page 18).
- CPU Nikkor lenses other than G-type Nikkor lens have an aperture ring. Set the lens aperture to its minimum and lock. When the lens is not set to its minimum aperture setting and the power switch is turned on, **FE** blinks in the LCD panel and viewfinder and the shutter cannot be released (page 18).

## Types of CPU lenses and other usable lenses/accessories

Lens/accessories	Mode	Focus mode			Exposure mode		Metering system		
		Autofocus	Manual with electronic rangefinder	Manual	Any mode other than M	M	Matrix		Center-Weighted*1
							3D 6-segment	6-segment	
CPU Nikkor*2	D-type AF Nikkor*3, G-type AF Nikkor, AF-S, AF-I Nikkor	○	○	○	○	○	○	—	○
	PC Micro-Nikkor 85mm f/2.8D*4	—	○*5	○	—	○	—	—	○
	AF-I Teleconverter*6	○*7	○*7	○	○	○	○	—	○
	Non-D or G-type AF Nikkor (except AF Nikkor for F3AF)	○	○	○	○	○	—	○	○
	AI-P Nikkor	—	○*8	○	○	○	—	○	○
Non-CPU Nikkor*9	AI-S or AI type Nikkor, Series-E, AI-modified Nikkor	—	○*8	○	—	○*10	—	—	—
	Medical-Nikkor 120mm f/4	—	○	○	—	○*11	—	—	—
	Reflex-Nikkor	—	—	○	—	○*10	—	—	—
	PC-Nikkor	—	○*5	○	—	○*10	—	—	—
	AI-S or AI type Teleconverters	—	○*7	○	—	○*10	—	—	—
	Bellows Focusing Attachment PB-6*12	—	○*7	○	—	○*10	—	—	—
	Auto Extension Rings (PK-11A, PK-12, PK-13 and PN-11)	—	○*7	○	—	○*10	—	—	—

\*1 Metering system automatically switches to Center-Weighted Metering when the exposure mode is set to Manual.

\*2 IX-Nikkor lenses cannot be attached.

\*3 This camera is compatible with the Vibration Reduction function of the VR Nikkor lens.

\*4 The camera's exposure metering and flash control system do not work properly when shifting and/or tilting the lens, or when using an aperture other than the maximum aperture.

\*5 Without shifting and/or tilting the lens.

\*6 Compatible with AF-S and AF-I Nikkor except AF-S 17-35mm f/2.8D IF-ED and AF-S 28-70mm f/2.8D IF-ED.

\*7 With maximum effective aperture of f/5.6 or faster.

\*8 With maximum aperture of f/5.6 or faster.

\*9 Some lenses/accessories cannot be attached. (See page 90.)

\*10 With exposure mode set to Manual. The exposure meter cannot be used.

\*11 With exposure mode set to Manual and shutter speed set to 1/90 sec. or slower, the exposure meter cannot be used.

\*12 Attach the PB-6 vertically. (PB-6 can be set to horizontal position after attaching.)

- AS-15 must be attached in combination with Medical-Nikkor 200mm f/5.6 for the lens to fire the flash.
- Reprocopy Outfit PF-4 can be attached in combination with Camera Holder PA-4.

# Lens Compatibility—continued

## When a non-CPU lens is attached

Set exposure mode to Manual with a non-CPU lens. (When other modes are selected, shutter cannot be released.) The camera's exposure meter cannot be used and the aperture cannot be set using the Command Dial when using non-CPU lenses.  $F^{-}$  appears in place of the aperture indication in the LCD panel and viewfinder; set/confirm aperture using the lens aperture ring.

## CAUTION: Nikkor lenses/accessories that cannot be attached to the N65/N65QD

The following Nikkor lenses/accessories cannot be attached to the N65/N65QD (otherwise camera body or lens may be damaged):

- TC-16A Teleconverter
- Non-AI lenses
- 400mm f/4.5, 600mm f/5.6, 800mm f/8 and 1200mm f/11 with Focusing Unit AU-1
- Fisheye 6mm f/5.6, 8mm f/8 and OP 10mm f/5.6
- Old type 21mm f/4
- K1, K2 Ring, Auto Extension Ring PK-1, PK-11, Auto Ring BR-2, BR-4
- ED 180-600mm f/8 (No. 174041-174180)
- ED 360-1200mm f/11 (No. 174031-174127)
- 200-600mm f/9.5 (No. 280001-300490)
- 80mm f/2.8, 200mm f/3.5 and TC-16 Teleconverter for F3AF
- PC 28mm f/4 (No. 180900 or smaller)
- PC 35mm f/2.8 (No. 851001-906200)
- Old type PC 35mm f/3.5
- Old type Reflex 1000mm f/6.3
- Reflex 1000mm f/11 (No. 142361-143000)
- Reflex 2000mm f/11 (No. 200111-200310)

# Usable Optional Speedlights

Usable optional Speedlights and available flash modes are listed in the following table. Available modes are listed assuming a CPU lens is attached.

Flash mode Speedlight	Matrix Balanced Fill-Flash*1	Non-TTL Auto flash	Manual	Repeating Flash	Rear- Curtain Sync	Red-Eye Reduction
SB-28, SB-28DX	○	○	○	○	○	○
SB-27	○	○	○	—	○	○
SB-26*2	○	○	○	○	○	○
SB-25, SB-24	○	○	○	○	○	○
SB-23, SB-29*3, SB-21B*3	○	—	○	—	○	○
SB-22s, SB-22, SB-20, SB-16B, SB-15	○	○	○	—	○	○
SB-11*4, SB-14*4, SB-140*4	○	○	○	—	○	○

\*1 Selecting Manual exposure mode automatically changes the Matrix Balanced Fill-Flash mode to Standard TTL Flash (page 76).

\*2 Wireless Slave Flash can be performed. Shutter speed is automatically controlled to 1/60 sec. (or 1/60 sec. or slower in S or M exposure mode) with the Wireless Slave Flash selector set to D and camera's flash sync mode set to Front-Curtain Sync or Red-Eye Reduction.


\*3 With the SB-29 and SB-21B, autofocus can only be used when an AF Micro-Nikkor (60mm, 105mm, 200mm and 70-180mm) is attached.

\*4 TTL Auto Flash is possible with TTL Remote Cord SC-23.

In A or M flash 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.






Ultraviolet photography can be performed only when SB-140 is set to M. (Infrared photography cannot be performed.)


## NOTE: Flash attachments made by manufacturers other than Nikon

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. When flash attachments made by manufacturers other than Nikon are attached, the built-in Speedlight may not pop up all the way (with power switch of the Speedlight on or off). When the built-in Speedlight is automatically fired in  AUTO mode or Vari-Program, vignetting or uneven illumination may result.

# Usable Optional Speedlights—continued

## ■ Notes on using optional Speedlights

- 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 II**.
- Flash sync speed is 1/90 sec. or slower when using an optional Speedlight.
- Available film speeds for TTL Auto Flash are ISO 25 to ISO 800.
- When Red-Eye Reduction or Red-Eye Reduction with Slow Sync is set on a camera attached with the SB-28/28DX, 27 or 26, the Red-Eye Reduction lamp of the Speedlight lights up. With other Speedlights, the Red-Eye Reduction lamp of the camera body lights up.
- When optional Speedlight with AF-Assist Illuminator, SB-28/28DX, 27, 26, 25 or 24, is attached, the AF-Assist Illuminator of the optional Speedlight emits light when the focus mode is set to AF, an AF Nikkor lens is attached, the subject is dark and center focus area is selected or Dynamic AF Mode with Closest-Subject Priority is activated. With other optional Speedlights, the AF-Assist Illuminator on the camera emits light.
- Set the exposure mode to Aperture-Priority Auto or Manual to take flash pictures with non-TTL flash mode.
- With the SB-26, 25 or 24, even if Front-Curtain Sync is set on the camera body, the Speedlight performs Rear-Curtain Sync when Rear-Curtain Sync is set on the Speedlight in **P**, **S**, **A** or **M** exposure mode (camera setting is overridden). In  or Vari-Program (except ) Speedlight performs Front-Curtain Sync even if Rear-Curtain Sync is set on Speedlight (Speedlight setting is overridden).
- With the SB-26, 25 or 24, when Slow Sync is set on the camera body in , Rear-Curtain Sync is performed if Rear-Curtain Sync is set on the Speedlight.
- With the SB-26, 25 or 24, when Red-Eye Reduction or Red-Eye Reduction with Slow Sync is set on the camera body, Speedlight performs Red-Eye Reduction or Red-Eye Reduction with Slow Sync even if Rear-Curtain Sync is set on the Speedlight.
- **FE** in the LCD panel and **FE** and  in the viewfinder blink and the shutter cannot be released when the exposure mode is set to **P**,  or Vari-Program and the attached optional Speedlight is not set to TTL Auto Flash. Set the Speedlight flash mode to TTL, or set the camera's exposure mode to **S**, **A** or **M**.


- With SK-6 and SB-24 attached, the AF-Assist Illuminators of the camera body and the Speedlight do not emit light.
- In **P** or  exposure mode, the camera automatically controls the 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	2	2.4	2.8	3.3	4	4.8
	Optional Speedlight	2.8	3.3	4	4.8	5.6	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, the automatically controlled aperture range is from the lens' maximum to minimum aperture.

- Use the optional Accessory Shoe Adaptor AS-15 to use the sync terminal.


#### **NOTE: When optional Speedlight is attached**

Turn on the optional Speedlight power switch or set the built-in Speedlight to Flash Cancel mode so the built-in Speedlight won't pop up automatically when an optional Speedlight is attached. When the built-in Speedlight automatically pops up in  AUTO mode or Vari-Program, vignetting or uneven illumination may result since the Speedlight may not pop up all the way.

# Optional Accessories

A variety of optional accessories, including power source and Speedlight is available for the N65/N65QD.

## Battery Pack MB-17

- With Battery Pack MB-17, four 1.5V AA-type alkaline-manganese, lithium, NiCd or Ni-MH batteries can be used to power the N65/N65QD. When AA-type lithium batteries are used, the usable number of film rolls increases and stable performance is maintained at low temperatures. (Film advance speed in  Sports Continuous mode remains the same [as that of batteries installed only in the camera body] with the MB-17.)

## Remote Control Unit ML-L3

- Remote control releases the camera's shutter from a distance. As with self-timer operation, the remote control can also be used when you want to be in the photograph. You can also use the remote control instead of a cable release to reduce camera shake.

## Eyepiece correction lenses


- Eyepiece correction lenses enable near- or far-sighted photographers to adjust the eyepiece diopter to suit their vision, and can be attached easily by inserting onto the viewfinder eyepiece. Nine optional eyepiece correction lenses provide viewfinder diopter settings of -5, -4, -3, -2, 0, +0.5, +1, +2 and +3m<sup>-1</sup> (combined diopter with setting on camera body). We recommend that you actually look through the viewfinder with various correction lenses attached before making a purchase, since viewfinder diopter differs from one person to another. Use the optional eyepiece correction lens when you need eyepiece correction over -1.5 to +0.8m<sup>-1</sup> that can be adjusted using the N65/N65QD's diopter adjustment lever.

## Lenses

- A wide variety of lenses — 14mm to 600mm wideangle, telephoto, zoom, Micro or DC (Defocus image Control) — is available for the N65/N65QD.

## Filters

- Nikon filters can be divided into three types: screw-in, drop-in and rear-interchange. With the N65/N65QD, the filter factor need not be considered except for the R60 filter. Compensate exposure +1 EV when using the R60. Note that when special filters available from manufacturers other than Nikon are used, autofocus or the electronic rangefinder may not operate properly.

- 
- file*
- Use circular-polarizing filter C-PL instead of polarizing filter Polar. The linear polarizing filter cannot be used with the N65/N65QD.
  - Use NC filter when using the filter to protect the lens.
  - Moiré may occur when shooting a subject against bright light or if a bright light source is in the frame. In this case, remove the filter before shooting.

## **Speedlight SB-28/SB-27**

- Speedlight SB-28/SB-27 normally uses four AA-type alkaline-manganese batteries with a guide number of 36/118 (SB-28) and 30/98 (SB-27) (manual flash, 35mm zoom-head position, ISO 100, m/ft., 20°C/68°F). Optional external power source SD-7 and SD-8A or Power Bracket SK-6A (SB-28 only) can also be used.
- Matrix Balanced Fill-Flash, which enables natural-looking overall exposures and a better balance between ambient light and the fill-flash is compatible with the SB-28/SB-27. Also, the AF-Assist Illuminator enables autofocus operation in a dark environment.
- Automatic power zoom continuously changes the zoom-head position according to the lens' focal length. Also, a variety of flashes, including Slow Sync, Rear-Curtain Sync, non-TTL Auto Flash or manual flash is compatible with the SB-28/SB-27. With the SB-28, Repeating Flash is also available.

## **Wireless Slave Flash Controller SU-4**

- TTL multi-flash, where a Speedlight to which Wireless Slave Flash Controller SU-4 is attached is fired simultaneously with the built-in Speedlight or optional Speedlight attached to the N65/N65QD, can also be used. Both Diffuser SG-1 and SG-2 can be used.

## **Soft case (CF-61)**

- Camera case CF-61 is available for this camera. The camera body fits inside the case with AF 28-80mm f/3.5-5.6D IF or smaller lens attached.

## **Neckstraps/Handstrap AH-4**

- Braid-type AN-4B (black) and AN-4Y (yellow), wide braid-type AN-6Y (yellow) and AN-6W (burgundy) neckstraps are available.
- Handstrap AH-4 helps you hold the camera firmly and easily, and shoot in quick-motion.



# Camera Care

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## • 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 seawater, 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. **NEVER** use organic solvents like thinner or benzene. They may damage the camera.

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## • 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.

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## • 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.

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## • 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.

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## • Avoid water or moisture

Keep the camera away from water or moisture. When using the camera near water, guard against splashes, especially salt water spray.

---

### • **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 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.

# Notes on Batteries



**WARNING**



Do not leave

**Keep batteries out of children's reach.**

If someone accidentally swallows batteries, call a doctor immediately.

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## • Use two CR2-type 3V lithium batteries

Use two CR2-type 3V 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  $\oplus$  and  $\ominus$  ends positioned correctly.

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

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## • 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 rolls becomes less at low temperatures. However, battery power may recover when the temperature returns to normal.

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## • 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.

# Troubleshooting

LCD panel	Viewfinder	Cause	Remedy	Page
 blinks	 blinks	<ul style="list-style-type: none"> <li>• Lens is not set to its minimum aperture.</li> </ul>	<ul style="list-style-type: none"> <li>• Set lens to minimum aperture.</li> </ul>	18
 blinks	 and  blink	<ul style="list-style-type: none"> <li>• Attached Speedlight is not set at TTL Auto Flash in , Vari-Program or <b>P</b> mode.</li> </ul>	<ul style="list-style-type: none"> <li>• Set the Speedlight flash mode to TTL, or set the camera's exposure mode to <b>S</b>, <b>A</b> or <b>M</b>.</li> </ul>	92
 appears	—	<ul style="list-style-type: none"> <li>• Batteries are nearing exhaustion.</li> </ul>	<ul style="list-style-type: none"> <li>• Have fresh ones ready.</li> </ul>	17
 blinks	—	<ul style="list-style-type: none"> <li>• Batteries are just about exhausted.</li> </ul>	<ul style="list-style-type: none"> <li>• Turn the power off and replace batteries with new ones.</li> </ul>	17
 and frame counter blink	—	<ul style="list-style-type: none"> <li>• Batteries are exhausted during film rewind.</li> </ul>	<ul style="list-style-type: none"> <li>• Replace batteries with new ones or recharge batteries and turn the power on again, then press two  film rewind buttons simultaneously for more than 1 sec. to start film rewind again. If this warning appears frequently, contact authorized Nikon dealer or service center.</li> </ul>	66
 blinks	 blinks	<ul style="list-style-type: none"> <li>• Non-CPU lens is attached or lens is not attached.</li> </ul>	<ul style="list-style-type: none"> <li>• Attach CPU lens (except IX-Nikkor). With a non-CPU lens, set the exposure mode to <b>M</b> and set the aperture with lens' aperture ring.</li> </ul>	19, 88, 89, 90
 and  blink	 and  blink	<ul style="list-style-type: none"> <li>• Film is not correctly advanced.</li> </ul>	<ul style="list-style-type: none"> <li>• Reload film.</li> </ul>	21
 blinks when exposure meter is turned on	 blinks when exposure meter is turned on	<ul style="list-style-type: none"> <li>• Film remains in the camera after film rewind is complete.</li> </ul>	<ul style="list-style-type: none"> <li>• Remove the film cartridge.</li> </ul>	33

# Troubleshooting—continued

LCD panel	Viewfinder	Cause	Remedy	Page
—	● blinks	• Autofocus is not possible.	• Focus manually.	45
H i appears	H i appears	• Overexposure warning (subject is too bright).	<ul style="list-style-type: none"> <li>• In <sup>AUTO</sup> Vari-Program or <b>P</b> mode, use ND filter.</li> <li>• In <b>S</b> mode, select faster shutter speed.</li> <li>• In <b>A</b> mode, select smaller aperture (larger f-number).</li> </ul> (If the warning indication remains after performing above remedies in <b>S</b> or <b>A</b> mode, use ND filter as well.)	51-57 55 57
L o appears	L o appears	• Underexposure warning (subject is too dark).	<ul style="list-style-type: none"> <li>• In <b>P</b> mode, use flash.</li> <li>• In <sup>AUTO</sup> or Vari-Program, cancel the Flash Cancel and use flash.</li> <li>• In <b>S</b> mode, select slower shutter speed.</li> <li>• In <b>A</b> mode, select larger aperture (smaller f-number).</li> </ul> (If the warning indication remains after performing above remedies in <b>S</b> or <b>A</b> mode, use flash as well.)	53 51, 36 55 57
—	Electronic analog exposure display blinks	• Subject brightness is beyond camera's exposure range.	• When the subject is bright, use ND filter and when the subject is dark, use flash. The electronic analog exposure display remains blinking when the Speedlight is used.	59

LCD panel	Viewfinder	Cause	Remedy	Page
-- blinks	-- blinks	<ul style="list-style-type: none"> <li>Shutter speed is set to -- (Time) in <b>S</b> mode.</li> <li>Auto Exposure Bracketing is set during Long Time exposure</li> </ul>	<ul style="list-style-type: none"> <li>Cancel the -- by selecting 30 sec. or faster shutter speed, or select <b>M</b> mode to perform Long Time Exposure.</li> <li>Select shutter speed other than -- to cancel Long Time exposure, or cancel Auto Exposure Bracketing</li> </ul>	54, 60  60, 63
Shutter speed indication blinks	90 appears	<ul style="list-style-type: none"> <li>Shutter speed faster than sync speed is selected in <b>S</b> or <b>M</b> mode.</li> </ul>	<ul style="list-style-type: none"> <li>Simply release the shutter to take a flash picture. (Shutter speed automatically shifts to 1/90 sec.)</li> </ul>	80, 83
—	⚡ blinks	<ul style="list-style-type: none"> <li>Subject is too dark and flash is recommended in <b>P</b>, <b>S</b>, <b>A</b> or <b>M</b> mode.</li> </ul>	<ul style="list-style-type: none"> <li>Use Speedlight.</li> </ul>	53, 55, 57, 59, 76, 80
—	⚡ blinks for 3 sec. after flash	<ul style="list-style-type: none"> <li>Flash has fired at full output and underexposure may have occurred.</li> </ul>	<ul style="list-style-type: none"> <li>Shoot again after confirming focus distance, aperture or flash shooting distance range.</li> </ul>	77, 84
Err blinks	Err blinks	<ul style="list-style-type: none"> <li>Malfunction detected.</li> </ul>	<ul style="list-style-type: none"> <li>Release shutter again. If the warning indication remains, or this warning appears frequently, contact authorized Nikon dealer or service center.</li> </ul>	

In certain cases, due to static electricity, the N65/N65QD's microcomputer may turn the camera off, even with fresh, properly installed batteries. For the same reason, the film may not advance properly. In each of these cases, to resume operation, simply turn the power off, then turn it on again. Or, remove and reinstall the batteries.

# Glossary

## **CPU**

Central Processing Unit. The electronic component that controls an electronic product's functions.

AF Nikkor (including D- and G-type AF Nikkor) and AI-P-Nikkor lenses have built-in CPUs.

## **EV**

Exposure Value: A number representing the available combinations of shutter speeds and apertures that give the same exposure effect under conditions of similar scene brightness and ISO.

At ISO 100, the combination of a one-second shutter speed and an aperture of f/1.4 is defined as EV1.

The camera can be used only within the EV range of the exposure meter. For example, with the N65/N65QD, the exposure metering range is from EV1 to EV20 for 3D Matrix Metering and Center-Weighted Metering, at ISO 100 with an f/1.4 lens.

## **Exposure bracketing**

Shooting the same subject a number of times at a range of different exposures to attain proper exposure. Three shots with metered EV, under EV, and over EV exposure are performed in that order with the N65/N65QD.

Automatic exposure bracketing is performed with varied shutter speeds and/or apertures.

## **Exposure Compensation**

In a situation such as when your subject is strongly backlit, exposure compensation enables you to intentionally compensate the standard exposure value measured by the camera to create a desired effect. exposure compensation of -2 EV to +2 EV in 1/2 steps is available with the N65/N65QD.

### **Flash shooting distance range**

The distance range over which a flash can effectively provide light. Flash shooting distance range is controlled by the amount of flash output available. Each automatic Speedlight's flash output varies from maximum duration to minimum duration. Close-up subjects will require lower (to minimum) output, while more distant subjects will require more light up to the maximum output.

The flash shooting distance range varies with the aperture, film speed, etc.

### **Flash synchronization**

Timing of the flash so it coincides with release of the camera's shutter. There are two types of synchronization: Front-Curtain Sync, which fires the flash at the start of the exposure, and Rear-Curtain Sync, which fires the flash at the end of the exposure.

### **Flash sync speed**

Shutter speed at which the entire film frame is exposed when the flash is fired in flash shooting. The N65/N65QD's flash sync speed is 1/90 sec. or slower.

### **Flexible Program**

Flexible Program function temporarily shifts an automatically selected shutter speed/aperture combination while maintaining correct exposure. That is, the desired shutter speed or aperture can be selected in Auto-Multi Program.

### **f-number**

The f-number represents the aperture value and is calculated from lens' focal length divided by the effective aperture opening. The standard numbers for calibration are 1, 1.4, 2, 2.8, 4, 5.6, 8, 11, 16, 22, 32, etc.

The smallest f-number is called maximum aperture and the largest f-number is called minimum aperture. Lenses with large maximum apertures (smaller f-numbers) are 'fast' lenses that allow photographers to use faster shutter speeds in dim light. Lenses with smaller maximum apertures (larger f-numbers) allow the use of lower shutter speeds for available light but are also lighter and smaller than faster lenses.



## Focus Tracking

Enables the camera to analyze the speed of a moving subject according to the focus data detected, and to obtain correct focus by anticipating the subject's position—at the exact moment of exposure.

Lock-On™ Autofocus keeps focus firmly on a main subject during Focus Tracking even if some other object momentarily blocks it in the viewfinder.

## Focal length

The distance from the principal point to the focal point. In 35mm-format cameras, lenses with a focal length of approx. 50mm are called normal or standard lenses. Lenses with a focal length less than approx. 35mm are called wideangle lenses, and lenses with a focal length more than approx. 85mm are called telephoto lenses. Lenses which allow the user to continuously vary the focal length without changing focus are called zoom lenses.

## Front-Curtain Sync

The flash fires an instant after the front curtain of a focal plane shutter has completed its travel across the film plane. This is the way the N65/N65QD operates with the flash sync mode at Normal Sync. (See "Rear-Curtain Sync".)

## Guide number

The guide number indicates the power of a flash in relation to ISO film speed. Guide numbers are quoted in either meters or feet. Guide numbers are used to calculate the f/stop for correct exposure as follows:

$$f/stop = \frac{\text{guide number}}{\text{flash-to-subject distance}}$$

Using a selected aperture, we can calculate the required flash-to-subject distance with the formula:

$$\text{flash-to-subject distance} = \frac{\text{guide number}}{f/stop}$$

Useful for determining the maximum flash-to-subject distance for flash photography.

### **ISO film speed**


The international standard for representing film sensitivity. The higher the number, the greater the sensitivity, and vice versa. A film speed of ISO 200 is twice as sensitive as ISO 100, and half that of ISO 400 film.

### **Rear-Curtain Sync**

Flash fires an instant before the second (rear) curtain of the focal plane shutter begins to move. When slow shutter speeds are used, this feature can create a blur effect from the ambient light, i.e., flowing-light patterns following a moving subject with subject movement frozen at the end of the light flow. (See "Front-Curtain Sync".)

### **Slow Sync**

A flash technique for using the flash at a slow shutter speed. Flash shooting in dim light or at night at a fast shutter speed often results in a flash-illuminated subject against a dark background. Using a slower shutter speed with the flash brings out the background details in the picture. Use of a slow shutter speed with Rear-Curtain Sync is particularly effective for illustrating the movement of a stream of light.



The N65/N65QD's Slow Sync mode extends the automatically controlled shutter speed range down to 30 sec. (in Auto-Multi Program, Aperture-Priority Auto) or 1 sec. (in  Night Scene mode).

### **Vignetting**















Progressively diminished illumination on the film from the center to the corners. There are two kinds of vignetting—natural vignetting caused by the lens, and vignetting that is caused by improper use of accessories such as a lens hood or filter.


# Specifications

Type of camera	Integral-motor autofocus 35mm single-lens reflex with electronically controlled focal-plane shutter and built-in Speedlight
Exposure modes	: AUTO mode Vari-Program (: Portrait, : Landscape, : Close-Up, : Sports Continuous, : Night Scene mode) <b>P</b> : Auto-Multi Program (Flexible Program possible) <b>S</b> : Shutter-Priority Auto <b>A</b> : Aperture-Priority Auto <b>M</b> : Manual
Picture format	24 x 36mm (standard 35mm film format)
Lens mount	Nikon F mount (with AF coupling, AF contacts)
Lens	Nikkor and Nikon lenses having Nikon F mount* * With limitations; see chart on page 89.
Viewfinder	Fixed eye-level pentaprism, built-in diopter adjustment (-1.5 to +0.8m <sup>-1</sup> )
Eyepoint	17mm (at -1.0m <sup>-1</sup> )
Focusing screen	B-type Clear Matte Screen V with focus brackets
Viewfinder frame coverage	Approx. 89%
Finder magnification	Approx. 0.68-0.60x with 50mm lens set to infinity (at -1.5 to +0.8m <sup>-1</sup> )
Viewfinder information	Focus indications, focus area, shutter speed, aperture, electronic analog exposure display/Exposure Compensation value display, Exposure Compensation, flash ready-light/flash recommended/full flash output Five sets of focus brackets (area)/12mmØ reference circle for Center-Weighted metering
Reflex mirror	Automatic, instant-return type
Lens aperture	Instant-return type, with depth-of-field preview button




Autofocus	TTL phase detection, Nikon Multi-CAM900 autofocus module with AF-Assist Illuminator (approx. 0.5m-3m or 1.6-9.8 ft.) • Detection range: EV -1 to EV 19 (ISO 100, at normal temperature)
Lens servo	<b>AF:</b> 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 (focus is locked when the subject is in-focus) • Continuous Servo AF (camera continues to focus on a moving subject) Focus Tracking with Lock-On™ automatically activated by subject's status <b>M:</b> Manual focus
Focus area	One of five focus areas can be selected
Focus Area mode	• Dynamic AF Mode with Closest-Subject Priority • Dynamic AF Mode • Single Area with <b>M</b> focus mode
Metering system	TTL full-aperture exposure metering system Three metering systems selectable (limitations with lens used) • 3D six-segment Matrix Metering: with D- or G-type AF Nikkor • Six-segment Matrix Metering: with AF Nikkor other than D- or G-type (except AF Nikkor for F3AF and IX-Nikkor), AI-P Nikkor • Center-Weighted Metering: automatically selected with Manual exposure mode
Metering range	3D Matrix Metering: EV 1-20 Center-Weighted Metering: EV 1-20 (at normal temperature, ISO 100, f/1.4 lens)
Exposure meter coupling	CPU
Exposure Compensation	Exposure compensated in $\pm 2$ EV range, in 1/2 steps (except in <b>M</b> or  )
Auto Exposure Bracketing	Bracketing range: $\pm 2$ EV; number of shots: three; bracketing steps: 0.5, 1, 1.5 or 2 EV (except in  or Vari-Program)
Film speed setting	• Automatically set to ISO film speed of DX-coded film in use (manual not selectable) • Film speed range: DX: ISO 25-5000, automatically set to ISO 100 with non-DX-coded film



<b>Shutter</b>	Electronically controlled vertical-travel focal-plane shutter
<b>Shutter speeds</b>	<ul style="list-style-type: none"> <li>• In , , , , , , , <b>P</b>, <b>A</b>: Automatically set between 30 and 1/2000 sec.</li> <li>• In <b>S</b>: 30 to 1/2000 sec. (in 1/2 steps)</li> <li>• In <b>M</b>: 30 to 1/2000 sec. (in 1/2 steps), Time</li> </ul>
<b>Sync contact</b>	X-contact only; flash synchronization up to 1/90 sec.
<b>Built-in Speedlight</b>	<ul style="list-style-type: none"> <li>• In , , , , , ,  Automatically activated</li> <li>• In <b>P</b>, <b>S</b>, <b>A</b>, <b>M</b>: Activated by pressing flash lock-release button</li> </ul> Guide number: 12/40 (at ISO 100, m/ft.); flash coverage: 28mm or longer lens; film speed range: ISO 25 to ISO 800
<b>Flash control</b>	<p>Controlled by TTL Sensor</p> <ul style="list-style-type: none"> <li>• Matrix Balanced Fill-Flash: built-in Speedlight or optional Speedlight and CPU Nikkor lens (except in Manual exposure mode)</li> <li>• Standard TTL: in Manual exposure mode</li> <li>• Film speed range in TTL auto flash: ISO 25 to 800</li> </ul>
<b>Flash sync mode</b>	Front-Curtain Sync (normal sync), Slow Sync, Rear-Curtain Sync, Red-Eye Reduction, Red-Eye Reduction with Slow Sync, Flash Cancel
<b>Ready-light</b>	<ul style="list-style-type: none"> <li>• Flash fully charged: ready-light lights</li> <li>• Full output warning: ready-light blinks</li> </ul>
<b>Flash recommended indication</b>	Blinks when the subject is dark or backlit and Speedlight is recommended in <b>P</b> , <b>S</b> , <b>A</b> and <b>M</b>
<b>Accessory shoe</b>	Standard ISO-type hot-shoe contact (sync contact, ready-light contact, TTL Auto Flash contact, monitor contact, GND), safety lock provided
<b>Self-timer</b>	Electronically controlled; timer duration: 10 sec.
<b>Remote control (optional)</b>	Infrared, activated by pressing the shutter release button; immediate release mode and 2-sec. delay mode; operating distance: approx. 5m directly in front of the camera; battery: one 3V CR2025 lithium battery; battery life: approx. 5 years (may differ with usage amount or other operating conditions); dimensions: approx. 60 x 28 x 7mm or 2.4 x 1.1 x 0.3 in. (W x H x D); weight: approx. 10g or 0.35 oz. including battery

Depth-of-field preview button	Stop-down lens aperture by pressing depth-of-field button; electronically controlled
Film loading	Film automatically advances to first frame when camera back is closed (shutter and reflection mirror not activated)
Film advance	<ul style="list-style-type: none"> <li>• Automatic advance with built-in motor</li> <li>• Continuous shooting possible in  Sports Continuous mode (built-in Speedlight cannot be used)</li> <li>• Film advance speed: approx. 2.5 fps (fresh batteries)</li> </ul>
Film rewind	<ul style="list-style-type: none"> <li>• Automatic rewind with built-in motor</li> <li>• Rewind speed with fresh batteries: approx. 16 sec. with 36-exposure film, approx. 13 sec. with 24-exposure film</li> </ul>
Multiple Exposure	Selectable in <b>P, S, A, M</b>
LCD panel information	Shutter speed, aperture, Exposure Compensation, Exposure Compensation value, Auto Exposure Bracketing, Multiple Exposure, flash sync mode, focus area, battery power, frame counter, self-timer, remote control
Date/time imprint function (N65QD only)	<p>Built-in clock: 24-hour type with timing accuracy within <math>\pm 90</math> seconds a month; leap year adjustment until December 31, 2049</p> <p>Usable film: ISO 32 to 3200 DX-coded film</p> <p>Display mode: Year/Month/Day, Day/Hour/Minute, No Imprint, Month/Day/Year and Day/Month/Year</p> <p>Power source: one 3V CR2025 lithium battery, battery life; approx. three years (depending upon use of data imprint function and other operating conditions)</p>
Camera back	Hinged back with film confirmation window N65QD: data imprint LCD panel/buttons
Power source	Two 3V CR2 lithium batteries; optional Battery Pack MB-17 is also available (for four AA-type alkaline-manganese, lithium, NiCd or Ni-MH batteries)
Power switch	Power ON and OFF position
Exposure meter	Auto meter shut-off 5 sec. after power turned on if no operations are performed; activated by lightly pressing shutter release button after power is turned on

# Specifications—continued

Battery power confirmation	In LCD panel, with exposure meter on <ul style="list-style-type: none"><li>•  for sufficient power</li><li>•  indicates batteries are nearing exhaustion</li><li>• Blinking  indicates batteries are just about exhausted</li></ul>		
Usable number of 36-exposure (24-exposure) film rolls per set of two fresh 3V lithium batteries		At 20°C/68°F	At -10°C/14°F
	Without flash	Approx. 50 (75)	Approx. 25 (37)
	With flash and AF-Assist Illuminator for half of all exposures	Approx. 10 (15)	Approx. 7 (10)
<i>Autofocus operation using an AF Zoom-Nikkor 28-80mm f/3.5-5.6D lens, covering the full range from infinity (∞) to the closest distance and back to infinity (∞) before each shot, with a shutter speed of 1/90 sec. or faster.</i>			
Tripod socket	1/4 (diameter, JIS standard)		
Dimensions (W x H x D)	N65:     Approx. 139.5 x 92.5 x 65.5mm (5.5 x 3.6 x 2.6 in.) N65QD:  Approx. 139.5 x 92.5 x 68mm (5.5 x 3.6 x 2.7 in.)		
Weight (without batteries)	N65:     Approx. 395g (13.9 oz.) N65QD:  Approx. 400g (14.1 oz.)		
Optional exclusive accessories	Battery Pack MB-17, Soft case CF-61, Remote control unit ML-L3		

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

Specifications and design are subject to change without notice.

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