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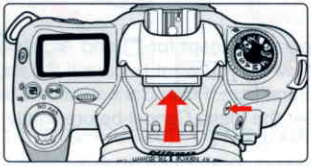
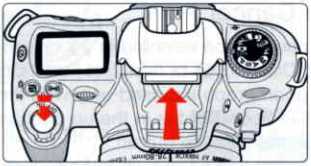
Using Built-In Speedlight

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

1 In P, S, A or M exposure mode, release the built-in Speedlight by pressing the ⚡ flash lock-release button. In AUTO or Vari-Program (except in or), when the subject is dark or backlit and the shutter release button is lightly pressed, the built-in Speedlight automatically pops up.



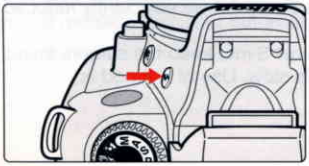
In **P**, **S**, **A** or **M** exposure mode

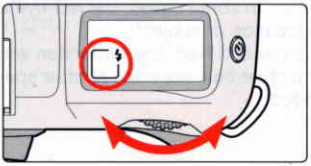


In AUTO or Vari-Program (except or)

- When the subject is dark or backlit and shutter release button is lightly pressed, the flash recommended indication ϟ blinks in the viewfinder in **P**, **S**, **A** or **M** exposure mode. To use built-in Speedlight, press the ⚡ flash lock-release button.
- In AUTO, or , **AUTO** ϟ is displayed in the LCD panel; in , **AUTO SLOW** ϟ is displayed.
- When the Speedlight is ready to fire, ϟ 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.





- If or is set when the built-in Speedlight is in the up position, flash is automatically canceled.
- **Matrix Balanced Fill-Flash** is selected in exposure modes other than **M** and **Standard TTL Flash** is selected for **M** exposure mode. See page 76 for details.
- See the table on pages 82, 83 and 84 for shutter speed and aperture, available sync mode in each exposure mode.
- In **P**, **S**, **A** or **M** 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 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.

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

In or **Vari-Program (except , or):**

In :

In P or A exposure mode:

In S or M exposure mode:

*cannot be set when the built-in Speedlight is up.

Using Built-In Speedlight—continued

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

- The shutter cannot be released unless ϟ appears without blinking in the viewfinder.
- ϟ 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 50 for details.

■ Available shutter speed and aperture in each exposure mode

Exposure mode	Available shutter speed	Available aperture	Page
AUTO	Automatically set to 1/90 sec.	Automatically set	28
			37
			38
	Automatically set to 1/90-1 sec.		39
P	Automatically set to 1/90 sec.*1		54
S	1/90-30 sec.*2		56
A	Automatically set to 1/90 sec.*1	Desired setting*3	58
M	1/90-30 sec.*2, - - (Time)		60

*1 *Shutter speed is prolonged up to 30 sec. with Slow 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.*

*3 *Flash shooting distance range depends on the ISO speed of the film in use and aperture setting. In A or M exposure mode, set the aperture according to the flash shooting distance range table on the next page.*

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	34/122	
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	0.7-3/2.3-9.8
	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 = approx. 4.2m or 40/2.8 = approx. 14 ft.

Using Built-In Speedlight—continued

■ Available flash sync mode combinations

Exposure mode	TTL Auto Flash	Front-Curtain Sync	Red-Eye Reduction	Red-Eye Reduction with Slow Sync	Slow Sync	Flash Cancel
AUTO	①	◎	○	—	—	○*1
	①	◎	○	—	—	○*1
	—	—	—	—	—	◎*2
	①	◎	○	—	—	○*1
	—	—	—	—	—	◎*2
	①	—	—	○	◎	○*1
P	①	○	○	○	○	—
S	①	○	○	—	—	—
A	①	○	○	○	○	—
M	②	○	○	—	—	—

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
*1 Selectable when built-in Speedlight is retracted.
*2 Flash is automatically canceled if or is selected when built-in Speedlight is up.

■ 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.

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.
- 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.

Vignetting occurs at the edges of the frame resulting in underexposure with the following lenses, which have limitations in usable focal length or shooting distance. Vignetting is reduced, however, with regular color print film compared to color slide film since the edges of the frame are cropped out in film processing with color print film.

With standard color print film

Lens	Limitations
AF 24-85mm f/2.8-4	35mm or longer focal length; and at 35mm, 1.5m (4.9 ft.) or longer shooting distance; at 50mm, 1m (3.3 ft.) or longer shooting distance
AF-S 24-85mm f/3.5-4.5G ED	28mm or longer focal length; and at 28mm, 1m (3.3 ft.) or longer shooting distance
AF 24-120mm f/3.5-5.6	35mm or longer focal length; and at 35mm, 1m (3.3 ft.) or longer shooting distance
AF 28mm f/1.4	1.5m (4.9 ft.) or longer shooting distance
AF-S 28-70mm f/2.8 ED	70mm focal length
AF 28-80mm f/3.5-5.6	At 28mm, 1m (3.3 ft.) or longer shooting distance
AF 28-100mm f/3.5-5.6G	At 28mm, 2.5m (8.2 ft.) or longer shooting distance
AF 28-105mm f/3.5-4.5	At 28mm, 1m (3.3 ft.) or longer shooting distance
AF 28-200mm f/3.5-5.6	35mm or longer focal length, and at 35mm, 2m (6.6 ft.) or longer shooting distance
AF 35-70mm f/2.8	At 35mm, 2.5m (8.2 ft.) or longer shooting distance
AF Micro 70-180mm f/4.5-5.6 ED	At 70-85mm, 1m (3.3 ft.) or longer shooting distance
AF-S 80-200mm f/2.8 ED	105mm or longer focal length

With color slide film

Lens	Limitations
AF 24-50mm f/3.3-4.5	35mm or longer focal length
AF 24-85mm f/2.8-4	35mm or longer focal length; and at 35mm, 2.5m (8.2 ft.) or longer shooting distance; at 50mm, 1m (3.3 ft.) or longer shooting distance
AF-S 24-85mm f/3.5-4.5G ED	28mm or longer focal length; and at 28mm, 1m (3.3 ft.) or longer shooting distance
AF 24-120mm f/3.5-5.6	35mm or longer focal length; and at 35mm, 1.5m (4.9 ft.) or longer shooting distance
AF 28mm f/1.4	2m (6.6 ft.) or longer shooting distance
AF-S 28-70mm f/2.8 ED	70mm focal length
AF 28-70mm f/3.5-4.5	At 28mm, 1m (3.3 ft.) or longer shooting distance
AF 28-80mm f/3.3-5.6G	
AF 28-80mm f/3.5-5.6	At 28mm, 1.5m (4.9 ft.) or longer shooting distance
AF 28-100mm f/3.5-5.6G	35mm or longer focal length; and at 35mm, 1m (3.3 ft.) or longer shooting distance
AF 28-105mm f/3.5-4.5	At 28mm, 1.5m (4.9 ft.) or longer shooting distance
AF 28-200mm f/3.5-5.6	35mm or longer focal length; and at 35mm, 2.5m (8.2 ft.) or longer shooting distance
AF 35-70mm f/2.8	50mm or longer focal length
AF Micro 70-180mm f/4.5-5.6 ED	At 70mm, 1.5m (4.9 ft.) or longer shooting distance; at 85-105mm, 1m (3.3 ft.) or longer shooting distance
AF-S 80-200mm f/2.8 ED	105mm or longer focal length

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.

Large aperture f/2.8

Small aperture f/32

MISCELLANEOUS

This section explains miscellaneous information.

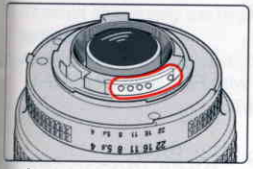
- Lens compatibility
- Usable optional Speedlights
- Optional accessories
- Camera care
- Notes on batteries
- Troubleshooting
- Glossary
- Specifications
- Index

Lens Compatibility

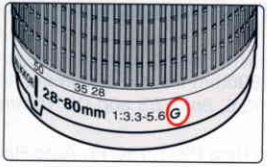
Use a CPU Nikkor lens (except IX-Nikkor) with this camera. G- or D-type AF lenses give you access to all available functions. (This camera is not compatible with the Vibration Reduction function of the VR Nikkor lens and autofocus function of the AF-S and AF-I lens.)

	Mode / Lens/accessories	Focus mode			Exposure mode		Metering system		
		Autofocus	Manual with electronic rangefinder	Manual	Any mode other than M	M	Matrix		Center Partial*1
							3D 5-segment	5-segment	
CPU Nikkor*2	G-type AF Nikkor, D-type AF Nikkor*3	○	○	○	○	○	○	—	○
	AF-S, AF-I Nikkor	—	○	○	○	○	○	—	○
	PC Micro-Nikkor 85mm f/2.8D*4	—	○*5	○	—	○	—	—	○
	AF-S/AF-I Teleconverter*6	—	○*7	○	○	○	—	○	○
	Non-G or D-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	—	—	—

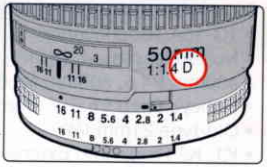
*1 Metering system automatically switches to Center Partial Metering when the exposure mode is set to Manual.
*2 IX-Nikkor lenses cannot be attached.
*3 This camera is not compatible with the Vibration Reduction function of the VR Nikkor lens.
*4 The camera's exposure metering and flash control system 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, AF-S 24-85mm f/3.5-4.5G 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.



CPU contacts of CPU Nikkor lens



G-type Nikkor lens



D-type Nikkor lens

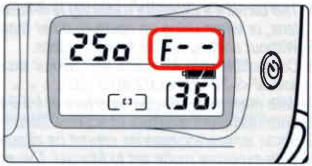
G-type Nikkor and other CPU Nikkor lens (page 19)

- The G-type Nikkor lens has no aperture ring; aperture should be selected from the camera body. Unlike other CPU Nikkor lenses, aperture does not need to be set to minimum (largest f-number).
- 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, FEE blinks in the LCD panel and viewfinder and the shutter cannot be released.

Lens Compatibility—continued

When a non-CPU lens is attached

Set exposure mode to M 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 N55

The following non-CPU Nikkor lenses/accessories cannot be attached to the N55 (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, 7.5mm 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.

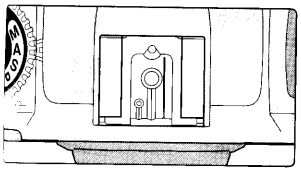
Speedlight \ Flash mode	Non-TTL Auto Flash	Manual Flash
SB-80DX, SB-30, SB-28, SB-27, SB-26, SB-25, SB-24, SB-22, SB-22s, SB-20, SB-16B, SB-15, SB-14, SB-11, SB-140*1	○	○
SB-29s/29*2, SB-21B*2	—	○

- *Standby mode of optional Speedlight cannot be used. Make sure to cancel standby mode.*
- *TTL Auto Flash cannot be used. Set the Speedlight to A (non-TTL Auto Flash) or M (Manual Flash).*
- *SB-28DX, SB-50DX and SB-23 cannot be used.*

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

2 Autofocus is only available with AF Micro lens (60mm, 105mm, 200mm or 70-180mm).

■ Accessory shoe



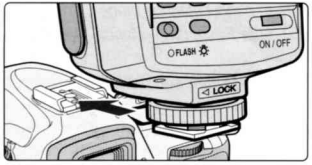
- An optional Speedlight, i.e. SB-80DX, SB-30, SB-28, SB-27 or SB-22s can be attached directly to the accessory shoe of the N55 without a cord. This accessory shoe is equipped with a safety lock which prevents accidental drop when a Speedlight with a safety-lock pin (SB-80DX, SB-30, SB-28, SB-27, SB-26, SB-25 or SB-22s) is attached.

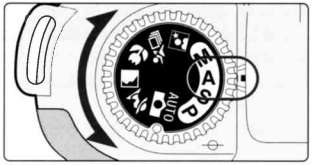
Usable Optional Speedlights—continued

Flash photography can be performed using an optional Speedlight attached to the accessory shoe of this camera (Non-TTL Auto Flash using the optional Speedlight's light sensor). It is useful in situations such as when the camera's built-in Speedlight does not reach the subject. See your Speedlight manual for details on operation.

■ Non-TTL Auto Flash using optional Speedlight

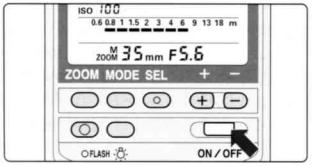
1 **Attach the optional Speedlight to the accessory shoe of the camera. Turn the camera power switch on and set the exposure mode dial to A or M.**

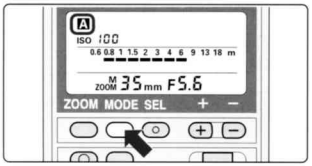




- Programmed Auto Flash is performed when the exposure mode dial is set to AUTO, Vari-Program, P or S. See page 95 for details.

2 **Turn the optional Speedlight on and set the flash mode to A (Non-TTL Auto Flash).**





- In A exposure mode, the shutter speed is automatically set to 1/90 sec. In M exposure mode, the shutter speed is automatically set to 1/90 sec. when a shutter speed faster than 1/90 sec. is selected.
- ϟ appears in the viewfinder when the optional Speedlight is fully charged (when the camera meter is on).

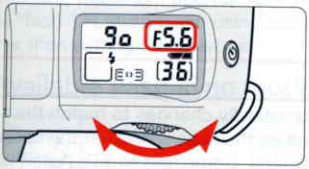
NOTE: Standby function of optional Speedlight

Make sure to cancel the standby mode of the optional Speedlight.

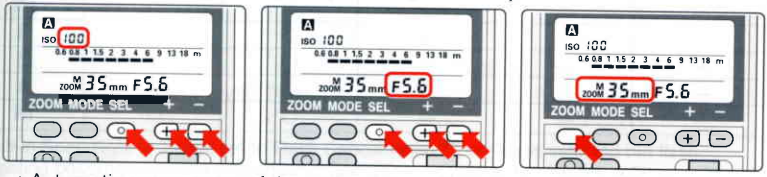
NOTE: Flash mode with optional Speedlight

Only A (Non-TTL Auto Flash) and M (Manual Flash) modes are available with the optional Speedlight. Proper flash operation cannot be performed when the flash mode is set to TTL Auto Flash. When the optional Speedlight is set to TTL Auto Flash and the shutter release button is lightly pressed, ϟ blinks in the viewfinder to warn that flash synchronization is not being performed and the optional Speedlight will fire at full output. See your Speedlight manual for details on Manual Flash.

3 Compose picture and set aperture so that the subject is located within the flash shooting distance.



4 Set ISO film speed, aperture and zoom-head position of the optional Speedlight according to camera's ISO film speed, aperture and focal length (zoom position).



- Automatic power zoom of the optional Speedlight does not function. Always set the zoom-head position manually.

Usable Optional Speedlights—continued

5 Confirm ϟ appears in the viewfinder, focus and fully depress the shutter release button to shoot.

- ϟ 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 camera's AF-Assist Illuminator automatically turns on to guide autofocus (the Speedlight's AF-Assist Illuminator does not turn on). See page 50 for details.

Non-TTL Auto Flash

In Non-TTL Auto Flash shooting, light output automatically changes to match the flash-to-subject distance, but the light is measured by the light sensor on the optional Speedlight instead of being measured through the lens. Compared to TTL Auto Flash of the built-in Speedlight, where the light is measured through the lens, the control of the flash output level is somewhat less accurate.

Programmed Flash mode

When the optional Speedlight is attached with the flash mode set to A (Non-TTL Auto Flash) and the exposure mode dial is set to AUTO, Vari-Program, P or S, Programmed Flash is performed (camera aperture is automatically controlled according to the film speed).

- When an optional Speedlight is attached and the camera power switch is turned on, the camera automatically selects the aperture according to the film speed. Set the aperture on the Speedlight according to the aperture indicated on the camera.

ISO film speed	25	50	100	200	400	800
Aperture	2	2.8	4	5.6	8	11

* One EV change in the film speed changes aperture by one EV. If the film speed of the film in use is an intermediate value of the film speed indicated in the table, the aperture changes accordingly. If the controlled aperture is darker than maximum aperture, maximum aperture of the attached lens is selected.

- See "Non-TTL Auto Flash using optional Speedlight" on page 92 for the operation other than setting the aperture.

Available flash sync mode with optional Speedlight

Exposure mode	Front-Curtain Sync	Red-Eye Reduction	Red-Eye Reduction with Slow Sync	Slow Sync	Flash Cancel
AUTO	○	○	—	—	—
	○	○	—	—	—
*	○	○	—	—	—
	○	○	—	—	—
*	○	○	—	—	—
	○	○	—	—	—
P	○	○	—	—	—
S	○	○	—	—	—
A	○	○	○	○	—
M	○	○	—	—	—

* Built-in Speedlight is always set to Flash Cancel when or is selected but flash shooting becomes possible with optional Speedlight. However, turning the optional Speedlight power off activates Flash Cancel mode.

Usable Optional Speedlights—continued

■ Notes on using optional Speedlights

- See your Speedlight manual for details.
- Make sure to cancel the standby mode of the optional Speedlight.
- Flash sync speed is 1/90 sec. or slower when using an optional Speedlight.
- When Red-Eye Reduction or Red-Eye Reduction with Slow Sync is set on a camera attached with an optional Speedlight, the Red-Eye Reduction lamp of the camera body lights up.
- Even when an optional Speedlight with AF-Assist Illuminator is attached, the AF-Assist Illuminator of the camera body 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.
- Selecting Flash Cancel mode on the camera does not override the operation of the optional Speedlight.
- Flash exposure compensation is not performed with the optional Speedlight.
- With the SB-26, 25 or 24, 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  , Slow Sync Flash is not performed and the shutter speed is automatically set to 1/90 sec.
- 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 or Vari-Program (except or), vignetting or uneven illumination may result since the Speedlight may not pop up all the way.

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 or Vari-Program (except or), vignetting or uneven illumination may result.

Optional Accessories

A variety of optional accessories, including lens and Speedlight is available for the N55.

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^{-1} (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^{-1} that can be adjusted using the N55's diopter adjustment lever.
  The rubber eyecup cannot be used together with the eyepiece correction lenses.

Lenses

- A wide variety of AF lenses—wideangle, telephoto, zoom, Micro or DC (Defocus image Control)—is available for the N55.

Filters

- Nikon filters can be divided into three types: screw-in, drop-in and rear-interchange. With the N55, 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.
- Use circular-polarising filter C-PL instead of polarising filter Polar. The linear polarising filter cannot be used with the N55.
- 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. Non-TTL Auto Flash is compatible with the SB-28/SB-27.

Soft case (CF-62)

- Camera case CF-62 is available for this camera. The camera body fits inside the case with AF 28-80mm f/3.3-5.6G 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

• 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.

• 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.

• 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

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

• 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 ⊕ 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 rolls 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.

Troubleshooting

LCD panel	Viewfinder	Cause	Remedy	Page
FEE blinks	FEE blinks	• CPU Nikkor lens other than G-type is not set to its minimum aperture.	• Set lens to minimum aperture.	19
appears	—	• Batteries are nearing exhaustion.	• Have fresh ones ready.	17
blinks	—	• Batteries are just about exhausted.	• Turn the power off and replace batteries with new ones.	17
o--, and frame counter blink	—	• Batteries are exhausted during film rewind.	• Turn the power off, replace batteries with new ones 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.	72
F-- blinks	F-- blinks	• Non-CPU lens is attached or lens is not attached.	• Attach CPU lens. With a non-CPU lens, set the exposure mode to M and set the aperture with lens' aperture ring.	19, 89, 90
E appears	—	• Film is not correctly installed.	• Reload film.	20
Err and E blink	Err blinks	• Film is not correctly advanced.	• Reload film.	20
E blinks when exposure meter is turned on	—	• Film remains in the camera after film rewind is complete.	• Remove the film cartridge.	33

Troubleshooting—continued

LCD panel	Viewfinder	Cause	Remedy	Page
—	● blinks	• Autofocus is not possible.	• Focus manually.	47
H ! appears	H ! appears	• Overexposure warning (subject is too bright).	• **P** mode, use ND filter. • In **S** mode, select faster shutter speed. • In **A** mode, select smaller aperture (larger f-number). (If the warning indication remains after performing above remedies in **S** or **A** mode, use ND filter as well.)	54 56 58
Lo appears	Lo appears	• Underexposure warning (subject is too dark).	• In **P** mode, use flash. • In **S** mode, select slower shutter speed. • In **A** mode, select larger aperture (smaller f-number). (If the warning indication remains after performing above remedies in **S** or **A** mode, use flash as well.)	54 56 58
—	◀ or ▶ blinks (in M exposure mode)	• 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.	61
-- blinks	-- blinks	• Shutter speed is set to -- (Time) in **S** mode. • Auto Exposure Bracketing is set during Long Time exposure.	• Cancel the -- by selecting 30 sec. or faster shutter speed, or select **M** mode to perform Long Time Exposure. • Select shutter speed other than -- to cancel Long Time exposure, or cancel Auto Exposure Bracketing.	56, 62 62, 66

LCD panel	Viewfinder	Cause	Remedy	Page
90 appears (when shutter speed faster than 90 sec. is selected)	90 appears	• Shutter speed faster than sync speed is selected in **S** or **M** mode.	• Simply release the shutter to take a flash picture. (Shutter speed automatically shifts to 1/90 sec.)	79, 82
—	ϟ blinks	• Subject is too dark and flash is recommended in **P**, **S**, **A** or **M** mode.	• Use Speedlight.	55, 57, 59, 61, 76, 80
—	ϟ blinks for 3 sec. after flash	• Flash has fired at full output and underexposure may have occurred.	• Shoot again after confirming focus distance, aperture or flash shooting distance range.	77, 82, 83
—	ϟ blinks	• Optional Speedlight is set to TTL Auto Flash	• Set the optional Speedlight to A (Non-TTL Auto Flash) or M (Manual flash).	93
Err blinks	Err blinks	• Malfunction detected.	• Turn the power off once and then on again. If the warning indication remains, or this warning appears frequently, contact authorized Nikon dealer or service center.	

In certain cases, due to static electricity, the N55'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 G- and D-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 N55, the exposure metering range is from EV1 to EV20 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 N55.
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 N55.

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 sync speed
Shutter speed at which the entire film frame is exposed when the flash is fired in flash shooting. The N55'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. With some zoom lenses, aperture varies depending on the focal length setting.

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.

Glossary—continued

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.

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 N55 operates with the flash sync mode at Normal Sync.

Guide number
The guide number indicates the power of a flash in relation to ISO film speed. The guide number of the built-in Speedlight of the N55 is 12 (ISO 100, m). Guide numbers are quoted in either meters or feet. Guide numbers are used to calculate the f/stop for correct exposure as follows:

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

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

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

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.

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.

The N55'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 Portrait 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: AUTO mode Vari-Program (: Portrait, : Landscape, : Close-Up, : Sports Continuous, : Night Portrait mode) **P**: Auto-Multi Program (Flexible Program possible) **S**: Shutter-Priority Auto **A**: Aperture-Priority Auto **M**: 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 88.*
Viewfinder	Fixed-eyelevel penta-Dach-mirror type, built-in diopter adjustment (–1.5 to +0.8m^{-1})
Eyepoint	17mm (at –1.0m^{-1})
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^{-1})
Viewfinder information (with illuminator)	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 Three sets of focus brackets (area)
Reflex mirror	Automatic, instant-return type
Lens aperture	Instant-return type

Autofocus	TTL phase detection, Nikon Multi-CAM530 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	**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. • 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 **M**: Manual focus
Focus area	One of three focus areas can be selected
Focus Area mode	• Dynamic AF Mode with Closest-Subject Priority • Dynamic AF Mode • Single Area with **M** focus mode
Metering system	TTL full-aperture exposure metering system Three metering systems selectable (limitations with lens used) • 3D five-segment Matrix Metering: with G- or D-type AF Nikkor • Five-segment Matrix Metering: with AF Nikkor other than G- or D-type (except AF Nikkor for F3AF and IX-Nikkor), AI-P Nikkor • Center Partial Metering: automatically selected with Manual exposure mode
Metering range	3D Matrix Metering: EV 1-20 Center Partial Metering: EV 1-20 (at normal temperature, ISO 100, f/1.4 lens)
Exposure meter coupling	CPU
Exposure Compensation	Exposure compensated in ±2 EV range, in 1/2 steps (except in **M**, AUTO or Programmed Flash)
Auto Exposure Bracketing	Bracketing range: ±2 EV; number of shots: three; bracketing steps: 0.5, 1, 1.5 or 2 EV (except in AUTO 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

Specifications—continued

Shutter	Electronically controlled vertical-travel focal-plane shutter
Shutter speeds	• In AUTO, , , , , , **P**, **A**: Automatically set between 30 and 1/2000 sec. • In **S**: 30 to 1/2000 sec. (in 1/2 steps) • In **M**: 30 to 1/2000 sec. (in 1/2 steps), Time
Sync contact	X-contact only; flash synchronization up to 1/90 sec.
Built-in Speedlight	• In AUTO, Vari-Program (except in or ,) Automatically activated • In **P**, **S**, **A**, **M**: Activated by pressing flash lock-release button Guide number: 12/40 (at ISO 100, m/ft.); flash coverage: 28mm or longer lens; film speed range: ISO 25 to ISO 800
Flash control	Controlled by TTL Sensor • Matrix Balanced Fill-Flash: built-in Speedlight and CPU Nikkor lens (except in Manual exposure mode) • Standard TTL: in Manual exposure mode • Programmed Flash (Non-TTL Auto Flash): optional Speedlight and CPU Nikkor lens (except in A or M exposure mode) • Film speed range in TTL auto flash: ISO 25 to 800
Flash sync mode	Front-Curtain Sync (normal sync), Slow Sync, Red-Eye Reduction, Red-Eye Reduction with Slow Sync, Flash Cancel
Ready-light	• Flash fully charged: ready-light lights • Full output warning: ready-light blinks
Flash recommended indication	Blinks when the subject is dark or backlit and Speedlight is recommended in **P**, **S**, **A** and **M**
Accessory shoe	Standard ISO-type hot-shoe contact (sync contact, ready-light contact, GND), safety lock provided
Self-timer	Electronically controlled; timer duration: 10 sec.

Film loading	Easy loading, automatic prewind with built-in motor; film automatically advances to first frame (frame of the maximum number of available exposure) when camera back is closed
Film advance	• Automatic advance with built-in motor • Continuous shooting possible in Sports Continuous mode • Film advance speed: approx. 1.5 fps (fresh batteries)
Film rewind	• Automatic rewind with built-in motor • Mid-roll rewind available
Multiple Exposure	Selectable in **P**, **S**, **A**, **M**
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
Date/time imprint function (QD model only)	Built-in clock: 24-hour type with timing accuracy within ±90 seconds a month; leap year adjustment until December 31, 2049 Usable film: ISO 32 to 3200 DX-coded film Display mode: Year/Month/Day, Day/Hour/Minute, No Imprint, Month/Day/Year and Day/Month/Year Power source: one 3V CR2025 lithium battery, battery life; approx. three years (depending upon use of data imprint function and other operating conditions)
Camera back	Hinged back with film confirmation window QD model: data imprint LCD panel/buttons
Power source	Two 3V CR2 lithium 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

<table>
<tr><td>Battery power confirmation</td><td>In LCD panel, with exposure meter on
• for sufficient power
• indicates batteries are nearing exhaustion
• Blinking—indicates batteries are just about exhausted</td></tr>
<tr><td>Usable number of 36-exposure (24-exposure) film rolls per set of two fresh 3V lithium batteries</td><td>
<table>
<tr><td></td><td>At 20°C/68°F</td><td>At –10°C/14°F</td></tr>
<tr><td>Without flash</td><td>Approx. 45 (67)</td><td>Approx. 27 (40)</td></tr>
<tr><td>With flash and AF-Assist Illuminator for half of all exposures</td><td>Approx. 11 (16)</td><td>Approx. 7 (10)</td></tr>
</table>
Autofocus operation using an AF Zoom-Nikkor 28-80mm f/3.3-5.6G 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.
</td></tr>
<tr><td>Tripod socket</td><td>1/4 (ISO1222)</td></tr>
<tr><td>Dimensions (W x H x D)</td><td>Approx. 129 x 92 x 65mm or 5.1 x 3.6 x 2.6 in.
QD model: Approx. 129 x 92 x 67.5mm or 5.1 x 3.6 x 2.7 in.</td></tr>
<tr><td>Weight (without batteries)</td><td>Approx. 350g or 12.3 oz.
QD model: Approx. 360g or 12.7 oz.</td></tr>
<tr><td>Optional exclusive accessories</td><td>Soft case CF-62</td></tr>
</table>

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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