

Nikon

NIKKOR

NIKKOR Z 600mm f/6.3 VR S

Reference Guide

- Read this document thoroughly before using the product.
- To ensure proper use of the product, be sure to read "For Your Safety" (page 4).
- After reading this document, keep it readily accessible for future reference.

NIKON CORPORATION

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Introduction

Before You Begin

Before using this product, please read these instructions carefully. You will also need to consult the documentation provided with the camera.

- This lens is intended exclusively for use with mirrorless cameras featuring a Nikon Z mount.
- Update the camera firmware to the latest version. With earlier versions, the camera may fail to detect the lens correctly and some features may not be available. The latest version of the camera firmware can be downloaded from the Nikon Download Center at the URL below.

<https://downloadcenter.nikonimglib.com/>

No reproduction in any form of this document, in whole or in part (except for brief quotation in critical articles or reviews), may be made without written authorization from NIKON CORPORATION.

For Your Safety

To prevent damage to property or injury to yourself or to others, read “For Your Safety” in its entirety before using this product.

After reading these safety instructions, keep them readily accessible for future reference.



WARNING: Failure to observe the precautions marked with this icon could result in death or severe injury.



CAUTION: Failure to observe the precautions marked with this icon could result in injury or property damage.



WARNING

Do not disassemble or modify this product. Do not touch internal parts that become exposed as the result of a fall or other accident.

Failure to observe these precautions could result in electric shock or other injury.

Should you notice any abnormalities such as the product producing smoke, heat, or unusual odors, immediately disconnect the camera power source.

Continued operation could result in fire, burns or other injury.

Keep dry. Do not handle with wet hands.

Failure to observe these precautions could result in fire or electric shock.

Do not use this product in the presence of flammable dust or gas such as propane, gasoline or aerosols.

Failure to observe this precaution could result in explosion or fire.



WARNING

Do not directly view the sun or other bright light source through the lens.

Failure to observe this precaution could result in visual impairment.

Keep this product out of reach of children.

Failure to observe this precaution could result in injury or product malfunction.

In addition, note that small parts constitute a choking hazard. Should a child swallow any part of this product, seek immediate medical attention.

Do not entangle, wrap or twist the straps around your neck.

Failure to observe this precaution could result in accidents.

Do not handle with bare hands in locations exposed to extremely high or low temperatures.

Failure to observe this precaution could result in burns or frostbite.



CAUTION

Do not leave the lens pointed at the sun or other strong light sources.

Light focused by the lens could cause fire or damage to product's internal parts. When shooting backlit subjects, keep the sun well out of the frame. Sunlight focused into the camera when the sun is close to the frame could cause fire.

Do not leave the product where it will be exposed to extremely high temperatures for an extended period, such as in an enclosed automobile or in direct sunlight.

Failure to observe this precaution could result in fire or product malfunction.

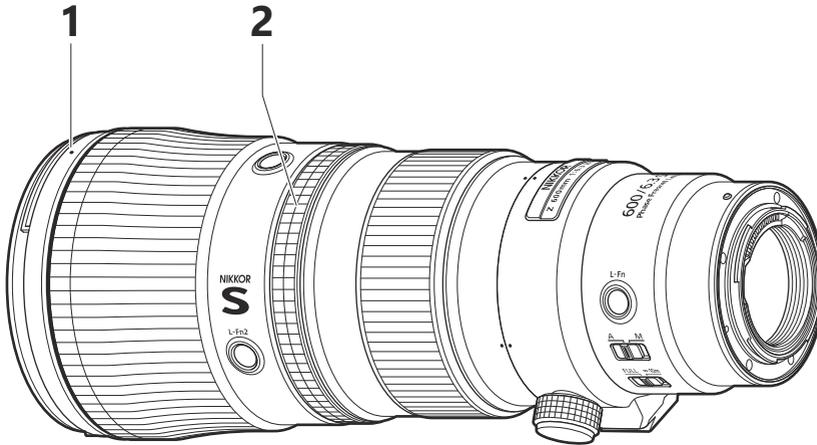
Do not transport cameras or lenses with tripods or similar accessories attached.

Failure to observe this precaution could result in injury or product malfunction.

Using the Lens

Parts of the Lens: Names and Functions

The parts of the lens are listed below.



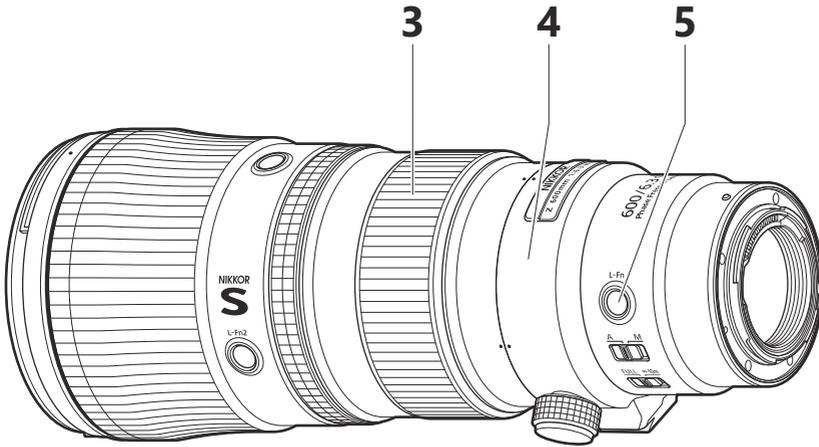
1 Lens hood mounting mark

Use when attaching the lens hood.

📖 ["Attaching and Removing the Lens Hood" \(p.22\)](#)

2 Control ring

Rotate to adjust a setting such as [**Aperture**] or [**Exposure compensation**] assigned using the camera. For more information, see the description of [**Custom control assignment**], [**Custom controls**], or [**Custom controls (shooting)**] in the documentation provided with the camera.



3 Focus ring

Use for manual focus.

- When focusing using autofocus, you can adjust focus manually by rotating the ring while the shutter-release button is pressed halfway.

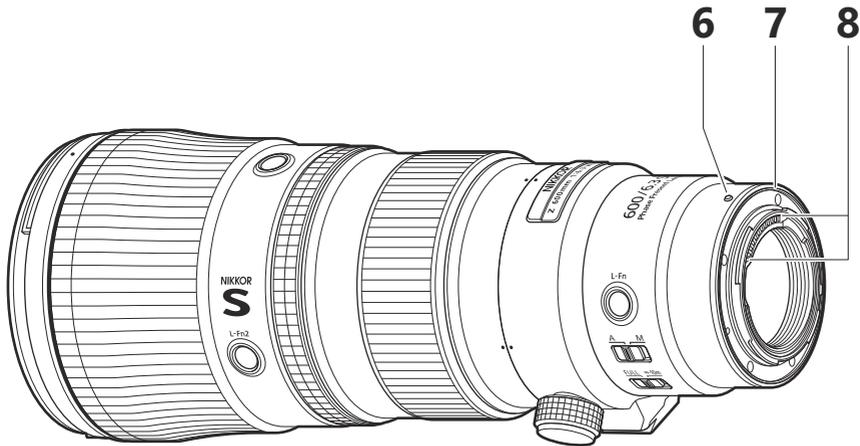
4 Tripod collar ring

The camera can be rotated between “wide” and “tall” orientations when a tripod is attached to the tripod collar.

 [“Using the Tripod Collar” \(p.27\)](#)

5 L-Fn button

Press to perform a function assigned using the camera. For more information, see the description of [**Custom control assignment**], [**Custom controls**], or [**Custom controls (shooting)**] in the documentation provided with the camera.



6 Lens mounting mark

Use when mounting the lens on the camera.

📖 ["Attachment and Removal" \(p.17\)](#)

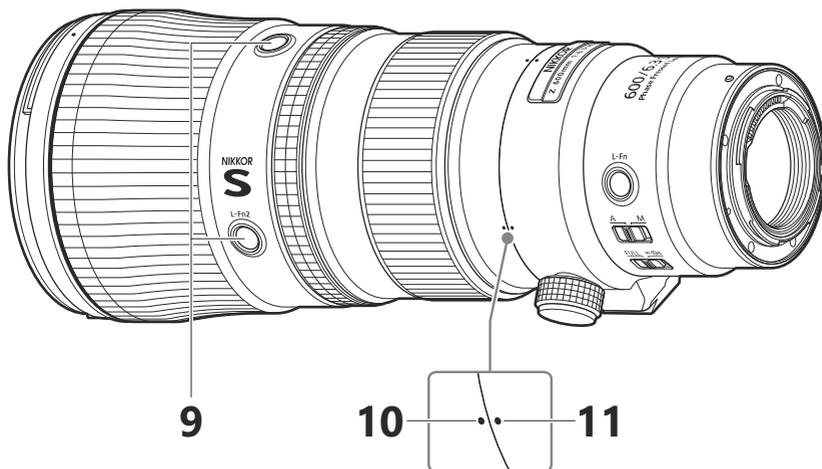
7 Rubber lens-mount gasket

Helps prevent the ingress of water droplets or dust along the surfaces where the lens and camera meet when the lens is mounted on the camera. *

* *There is no guarantee that the gasket is completely proof against the ingress of water droplets or dust in all circumstances.*

8 CPU contacts

Used to transfer data to and from the camera.



9 L-Fn2 buttons

Press to perform a function assigned using the camera. For more information, see the description of [**Custom control assignment**], [**Custom controls**], or [**Custom controls (shooting)**] in the documentation provided with the camera. There are four buttons positioned around the lens at 90° intervals.

10 Lens rotation indices

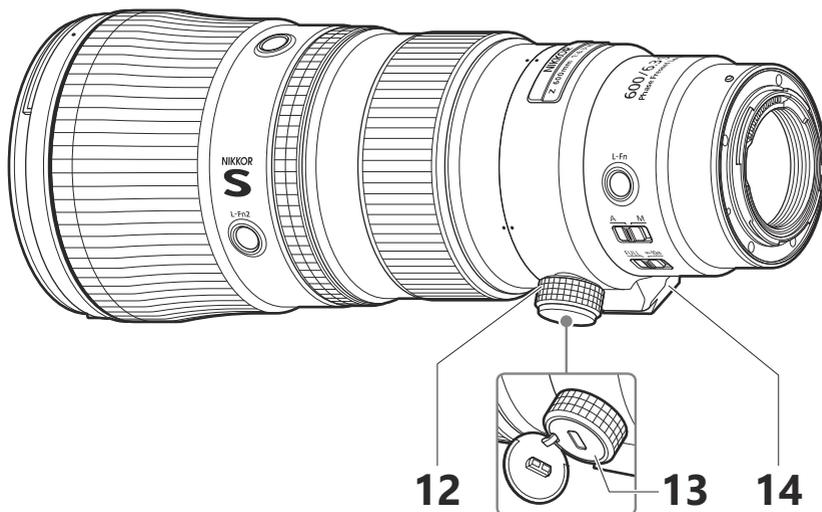
Use when rotating the camera to shoot in landscape (“wide”) or portrait (“tall”) orientation. There are four indices positioned around the lens at 90° intervals.

 [“Using the Tripod Collar” \(p.27\)](#)

11 Tripod collar ring rotation indices

Use when rotating the camera to shoot in landscape (“wide”) or portrait (“tall”) orientation. There are three indices positioned around the lens at 90° intervals.

 [“Using the Tripod Collar” \(p.27\)](#)



12 Tripod collar ring attachment screw

Fix the tripod collar ring in place.

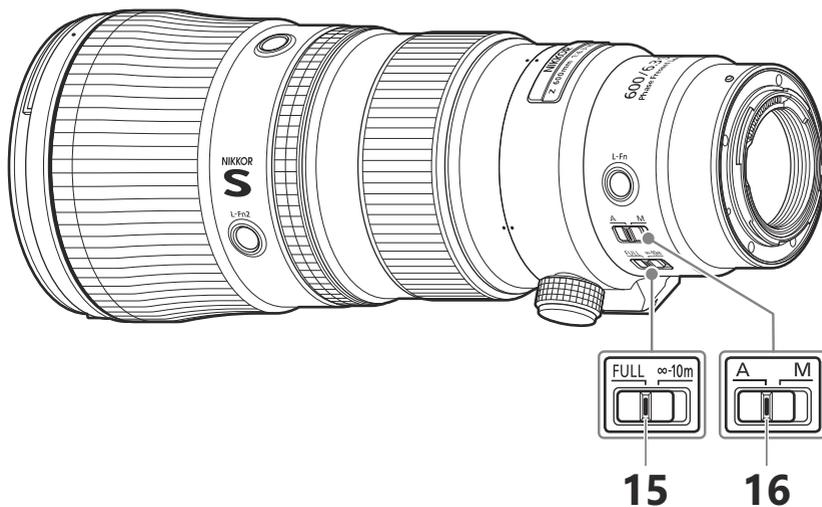
 ["Using the Tripod Collar" \(p.27\)](#)

13 Security slot (for anti-theft cable)

Attach a third-party anti-theft cable. For more information, see the documentation provided with the cable.

14 Tripod collar mounting foot

 ["Using the Tripod Collar" \(p.27\)](#)



15 Focus limit switch

Choose the autofocus range.

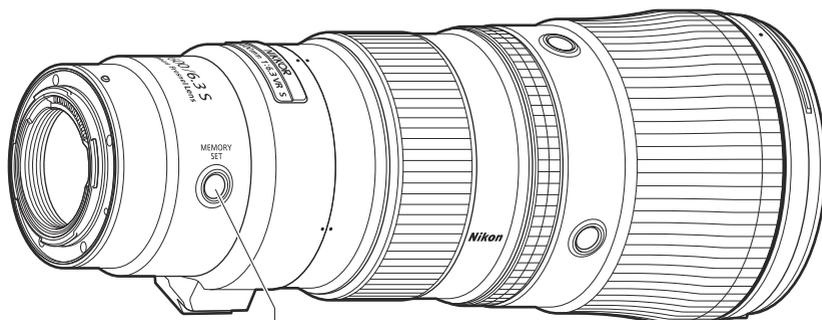
- **FULL**: Choose to focus on subjects at any distance between 4 m (13.13 ft) and ∞ .
- **∞ – 10 m**: Focus is limited to distances of 10 m (32.81 ft) and more. Select this option for faster focusing if your subject will always be at distance of at least 10 m (32.81 ft).

16 Focus-mode switch

Choose a focus mode.

- **A**: Autofocus
- **M**: Manual focus

Note that regardless of the setting chosen, focus must be adjusted manually when manual focus mode is selected using camera controls.

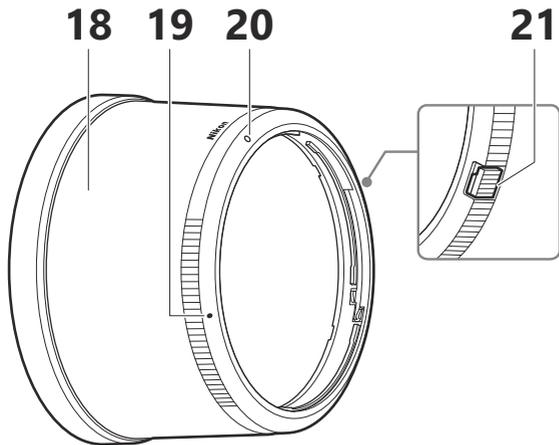


17

17 Memory set button

Save the current focus position.

📖 ["Memory Recall" \(p.25\)](#)



18 Lens hood

Lens hoods reduce stray light that would otherwise cause flare or ghosting. They also serve to protect the lens.

📖 ["Attaching and Removing the Lens Hood" \(p.22\)](#)

19 Lens hood alignment mark

Use when attaching the lens hood.

📖 ["Attaching and Removing the Lens Hood" \(p.22\)](#)

20 Lens hood lock mark

Use when attaching the lens hood.

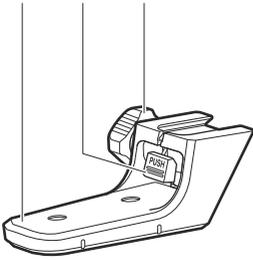
📖 ["Attaching and Removing the Lens Hood" \(p.22\)](#)

21 Lens hood lock release button

Use when removing the lens hood.

📖 ["Attaching and Removing the Lens Hood" \(p.22\)](#)

22 23 24



22 Tripod collar

Attach a tripod.

📖 ["Using the Tripod Collar" \(p.27\)](#)

23 Tripod collar lock release

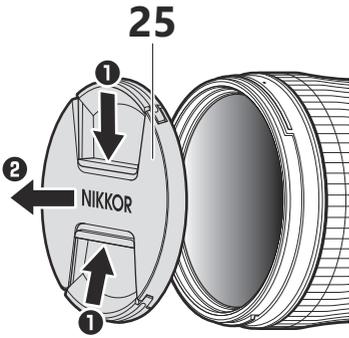
Use when removing the tripod collar from the tripod collar mounting foot.

📖 ["Using the Tripod Collar" \(p.27\)](#)

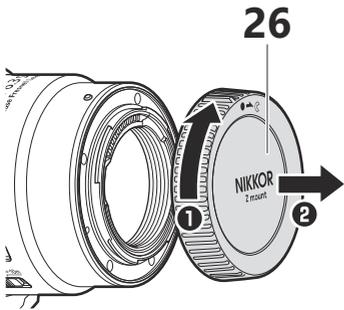
24 Tripod collar lock screw

Secure the tripod collar after attaching it to the tripod collar mounting foot.

📖 ["Using the Tripod Collar" \(p.27\)](#)



25 Lens cap (front cap)

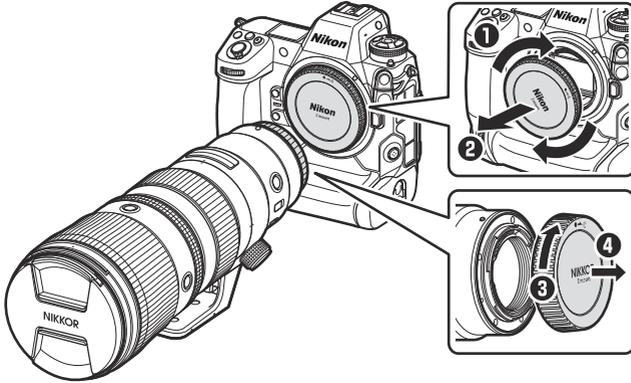


26 Lens cap (rear cap)

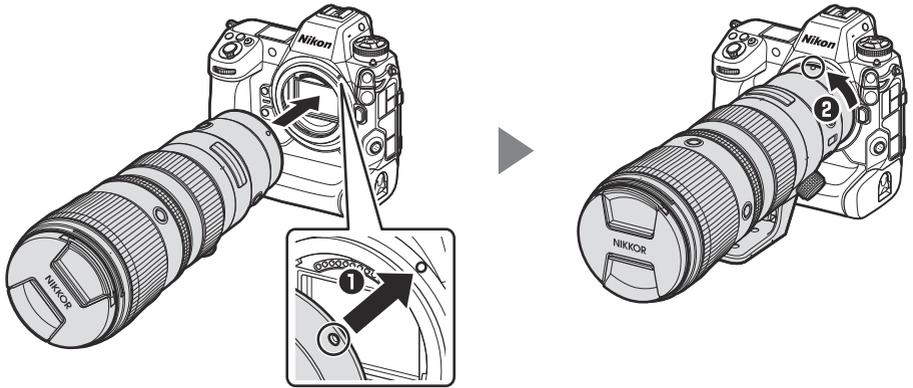
Attachment and Removal

Attaching the Lens

1. Turn the camera body off, remove the camera body cap, and detach the rear lens cap.

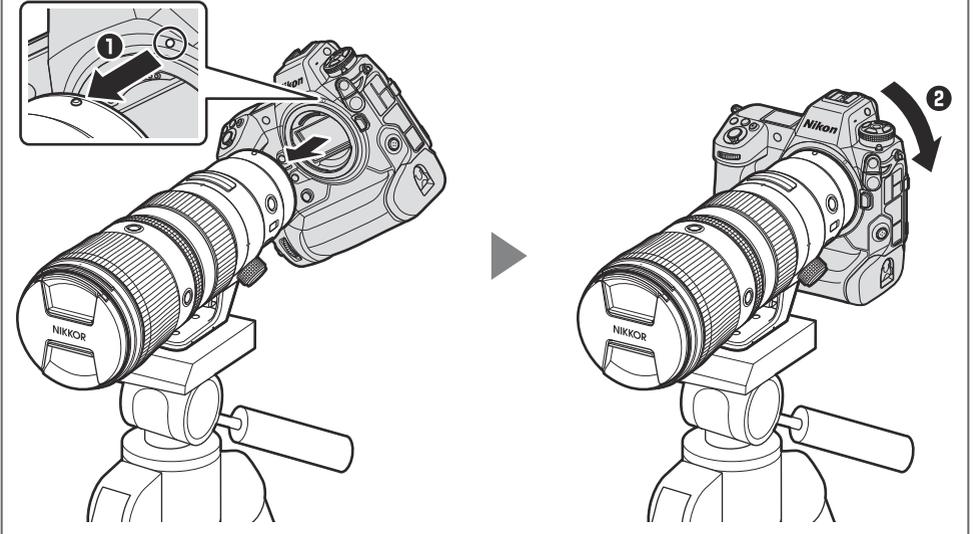


2. Position the lens on the camera body, keeping the mounting mark on the lens aligned with the mounting mark on the camera body (❶), and then rotate the lens in the direction shown (❷) until it clicks into place.



✓ When the Lens Is Mounted on a Tripod: Attaching the Camera Body

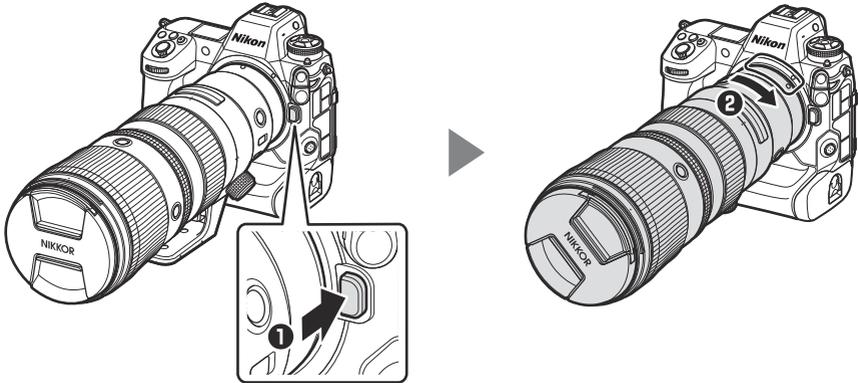
Position the camera body on the lens, keeping the mounting mark on the lens aligned with the mounting mark on the camera body (❶), and then rotate the camera body in the direction shown (❷) until the lens clicks into place.



Removing the Lens

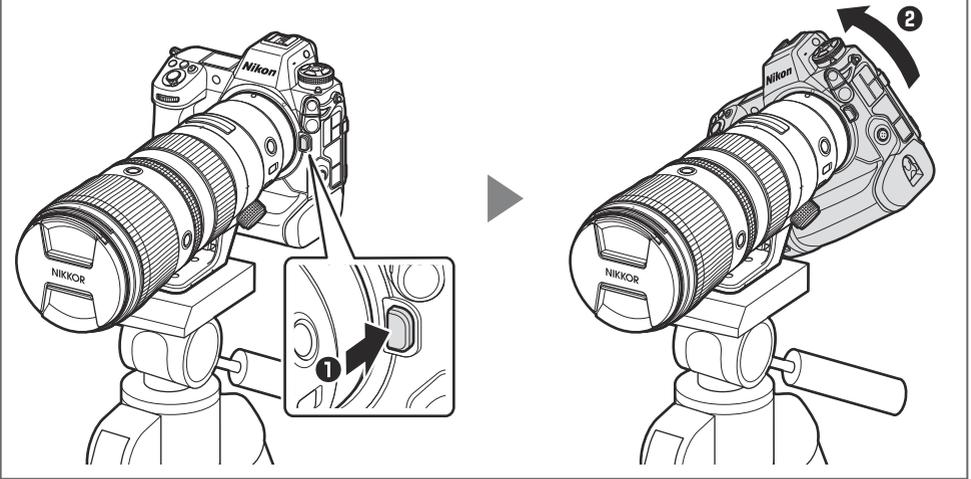
1. Turn the camera body off.

2. Press and hold the lens release button (❶) while turning the lens in the direction shown (❷).



✓ When the Lens Is Mounted on a Tripod: Removing the Camera Body

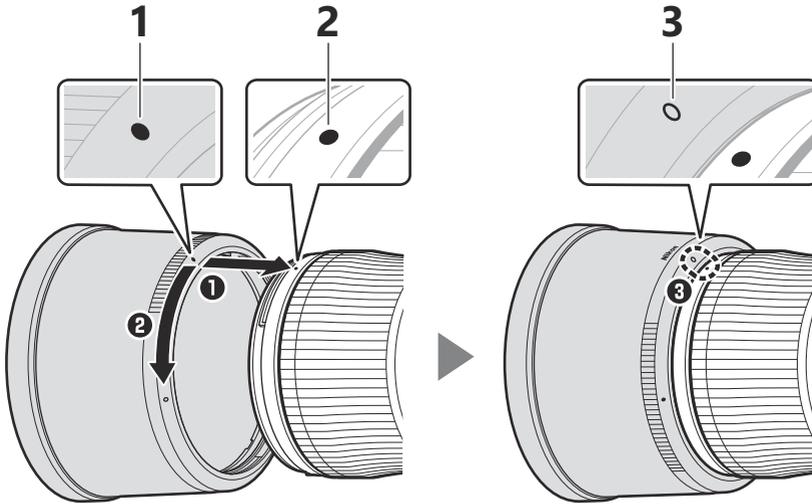
Press and hold the lens release button (❶) while turning the camera body in the direction shown (❷).



Attaching and Removing the Lens Hood

Attaching the Lens Hood

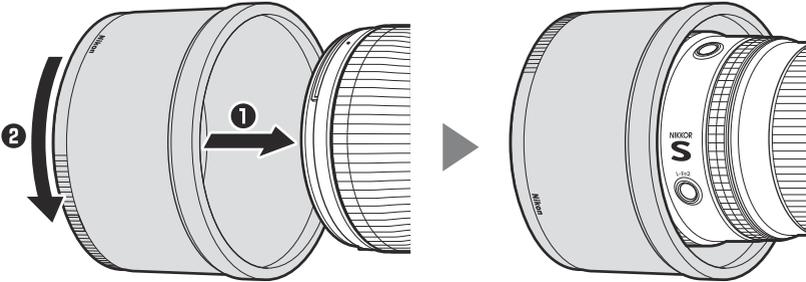
- Align the lens hood alignment mark with the lens hood mounting mark (❶) and then rotate the lens hood in the direction shown (❷) until the mounting mark is aligned with the lens hood lock mark (❸).



- 1** Lens hood alignment mark
- 2** Lens hood mounting mark
- 3** Lens hood lock mark

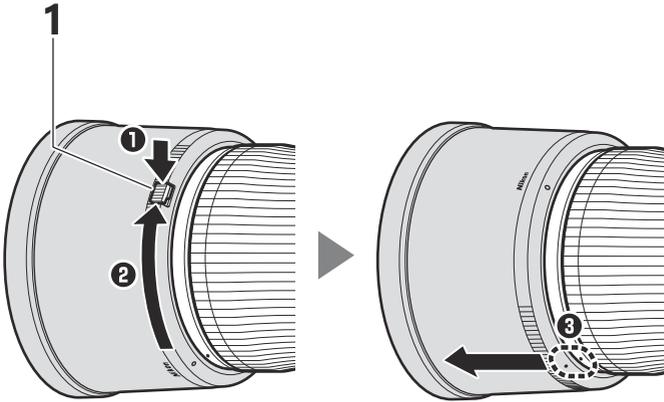
- Gripping the front too tightly makes the lens hood difficult to attach or remove. When rotating the lens hood, hold it near the lens hood alignment mark (●).

- The lens hood can be reversed and mounted on the lens when not in use.



Removing the Lens Hood

- Keeping the lens hood lock release button pressed (❶), rotate the lens hood in the direction shown (❷) and remove it from the lens (❸).



1 *Lens hood lock release button*

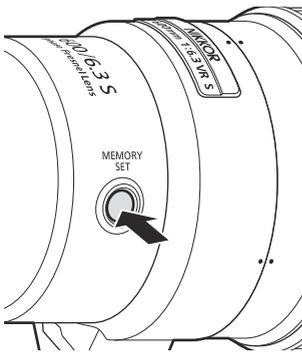
- The same procedure can be used when the lens hood is reversed.

Memory Recall

Save a frequently-used focus position to the lens. The saved position can then be quickly recalled.

Saving Focus Positions

- Focus on a subject at the desired distance and then press and hold the memory set button. An icon will be displayed in the camera monitor if the operation is successful.



- The operation can be performed in any focus mode.
- The stored distance is not reset when the camera is turned off.
- The stored distance is however reset when the lens is detached.

Using Stored Focus Positions

The saved focus position will be restored while the control to which [**Recall focus position**] has been assigned via [**Custom controls**] or [**Custom controls (shooting)**] is pressed. To take a picture at the saved focus position, release the shutter without lifting your finger from the control. Release the control to resume normal auto or manual focus.

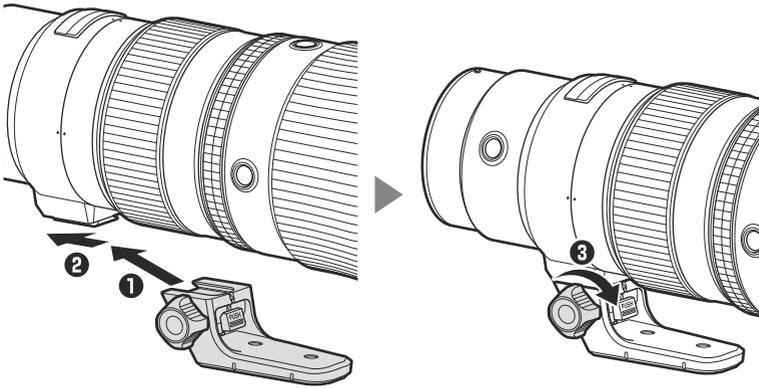
Using the Tripod Collar

Attach tripods to the tripod collar, not to the camera.

Be sure to securely tighten the tripod collar lock screw. Failure to observe this precaution may result in the lens unexpectedly separating from the tripod, causing injury.

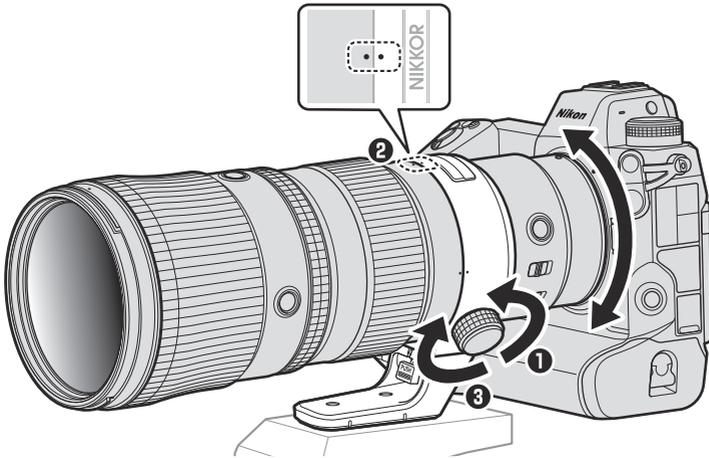
Attaching the Tripod Collar

Align the slot on the tripod collar with the tripod collar mounting foot (❶) and then slide the collar onto the foot, not stopping until the foot is at the back of the slot (❷). Fully tighten the tripod collar lock screw once the collar is in position (❸).



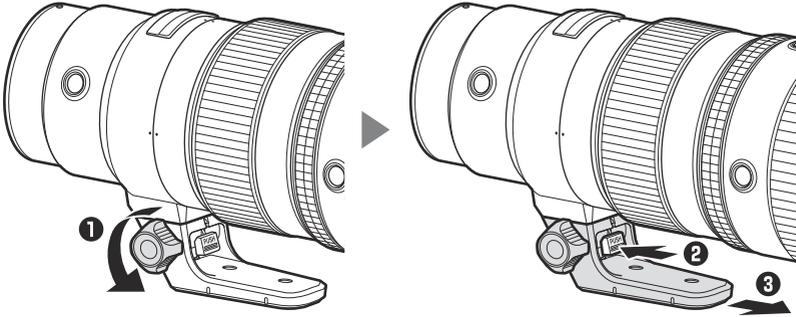
Rotating the Camera

After slightly loosening the tripod collar ring attachment screw (❶), rotate the camera (❷) to align the lens rotation index with the tripod collar ring rotation index that matches the desired orientation (landscape or portrait) and then tighten the screw (❸).



Removing the Tripod Collar

After fully loosening the tripod collar lock screw (❶), keep the tripod collar lock release pressed (❷) while sliding the collar from the mounting foot (❸).



Vibration Reduction (VR)

The lens supports vibration reduction. Vibration reduction settings can be adjusted from the camera. See the documentation provided with the camera for details.

Vibration reduction allows shutter speeds slower than would otherwise be the case, expanding the range of shutter speeds available.

Vibration Reduction

- Due to the design of the vibration reduction system, the lens may rattle when shaken. This does not indicate a malfunction.
- To reduce blur caused by tripod shake, select **[Normal]** or **[Sport]** for the on-camera vibration reduction option when the camera is mounted on a tripod. Note, however, that depending on the type of tripod and shooting conditions, there may be cases in which **[Off]** is the preferred option.
- **[Normal]** or **[Sport]** is recommended when the camera is mounted on a monopod.

Precautions for Use

- Be sure to support the lens when holding the camera. Failure to observe this precaution could damage the lens and camera mounts.
- Do not pick up or hold the lens or camera using only the lens caps or lens hood.
- Keep the CPU contacts clean.
- Should the rubber lens-mount gasket be damaged, cease use immediately and take the lens to a Nikon-authorized service center for repair.
- Reattach the lens caps when the lens is not in use.
- Do not leave the lens in humid locations or in locations in which it may be exposed to moisture. Rusting of the internal mechanism can cause irreparable damage.

- Do not leave the lens next to open flames or in other extremely hot locations. Extreme heat could damage or warp the lens.
- Taking the lens from a warm to a cold environment or *vice versa* may cause damaging condensation inside and outside the lens. Place the lens in a sealed bag or plastic case before taking it across a temperature boundary. The lens can be taken from the bag or case once it has had time to adjust to the new temperature.
- We recommend that you place the lens in its case to protect it from scratches during transport.
- Nikon will not be held liable in the event that the lens is stolen or damaged while a third-party anti-theft cable is attached to the security slot.
- Keep credit cards and other such magnetic storage devices away from the camera and lens. Data stored on the device could be corrupted.

Lens Maintenance

- Removing dust is normally sufficient to clean the glass surfaces of the lens.
- When cleaning the fluorine-coated front lens element:
 - Smudges, fingerprints, and other oily stains can be removed using a soft, clean cotton cloth or third-party lens cleaning tissue; clean from the center outwards using a circular motion.
 - To remove stubborn stains, wipe gently using a soft cloth lightly dampened with a small amount of distilled water, ethanol, or third-party lens cleaner.
 - Drop-shaped marks may form on fluorine-coated surfaces, which are highly water- and oil-repellent. Such marks can be removed with a dry cloth.
- When cleaning the rear lens element, which is not fluorine-coated:
 - Smudges, fingerprints, and other oily stains can be removed using a soft, clean cotton cloth or third-party lens cleaning tissue lightly dampened with a small amount of ethanol or third-party lens cleaner; clean from the center outwards in a circular motion. Be sure to clean evenly and thoroughly without leaving smears.
- Never use organic solvents such as paint thinner or benzene to clean the lens.
- Neutral Color (NC) filters (available separately) and the like can be used to protect the front lens element.
- Do not store the lens in direct sunlight or with naphtha or camphor moth balls. If the lens will not be used for an extended period, store it in a cool, dry location to prevent mold and rust.

Technical Notes

Cameras with AF-Assist Illuminators

The lens or lens hood may block the light from the camera AF-assist illuminator.

- For the information on using the lens with cameras that have built-in AF-assist illuminators, visit the site below.

<https://downloadcenter.nikonimglib.com/>

Using the Lens on Cameras with a Built-in Flash

Shadows will be visible in photos where light from the built-in flash is obscured by the lens or lens hood. Remove the lens hood before shooting. Note, however, that depending on the distance to the subject and lens focal length, shadows may appear even when the lens hood is removed.

- For information on the subject distances and focal lengths at which shadows will not appear in photos taken with a built-in flash, visit the site below.

<https://downloadcenter.nikonimglib.com/>

Accessories

Supplied Accessories

- LC-95B Lens Cap (front cap)
- LF-N1 Lens Cap (rear cap)
- HB-105A Lens Hood
- CL-C6 Lens Case

✓ Using the Lens Case

- The case is intended to protect the lens from scratches, not from falls or other physical shocks.
- The case is not water resistant.
- The material used in the case may fade, bleed, stretch, shrink, or change color when rubbed or wet.
- Remove dust with a soft brush.
- Water and stains can be removed from the surface with a soft, dry cloth. Do not use alcohol, benzene, thinner, or other volatile chemicals.
- Do not store in locations exposed to direct sunlight or to high temperatures or humidity.
- Do not use the case to clean the monitor or lens elements.
- Be careful that the lens does not fall from the case during transport.

Material: Polyester

Other Compatible Accessories

- 95 mm filters
- Z TELECONVERTER TC-1.4×/TC-2.0×

✓ Filters

- Use only one filter at a time.
- Remove the lens hood before attaching filters. You will also need to remove the lens hood before rotating circular polarizing filters.

✓ Teleconverters

Depending on the subject, ambient lighting conditions, and the focus point selected, the camera may be unable to focus using autofocus or the focus indicator for electronic rangefinding may flicker while a teleconverter is attached.

Specifications

Mount	Nikon Z mount
Focal length	600 mm
Maximum aperture	f/6.3
Lens construction	21 elements in 14 groups (including 2 ED elements, 1 SR element, 1 PF element, elements with a Nano Crystal coat, and a fluorine-coated front lens element)
Angle of view	FX format: 4° 10'
	DX format: 2° 40'
Focusing system	Internal focusing system
Vibration reduction	Lens shift using voice coil motors (VCMs)
Minimum focus distance (measured from focal plane)	4 m (13.13 ft)
Maximum reproduction ratio	0.15×
Diaphragm blades	9 (rounded diaphragm opening)
Aperture range	f/6.3 – 32
Focus limit switch	Two positions: FULL (∞ – 4 m) and ∞ – 10 m
Filter-attachment size	95 mm (P = 1.0 mm)

Dimensions (maximum diameter × distance to end of lens from camera lens mount flange)	Approx. 106.5 mm × 278 mm (4.2 in. × 11 in.)
Weight (with tripod collar)	Approx. 1470 g (3 lb 3.9 oz)
Weight (without tripod collar)	Approx. 1390 g (3 lb 1.1 oz)

- Throughout this document, “FX format” and “FX” are used in reference to an angle of view equivalent to that of a 35 mm format (“full frame”) camera and “DX format” and “DX” to an angle of view equivalent to that of an APS-C camera.
- Nikon reserves the right to change the appearance, specifications, and performance of this product at any time and without prior notice.

Phase Fresnel (PF) Lenses

This lens features a Phase Fresnel (PF) element. The PF element uses a diffraction technique* to reduce chromatic aberration. When used with standard glass elements, PF elements greatly reduce chromatic aberration, allowing lenses much smaller and lighter than their ordinary refraction-based equivalents, but are prone to colored ring flare (PF flare) when a bright light source is in or near the frame.

- Colored ring flare in photographs can be reduced using the [**PF Flare Control**] option in NX Studio. See NX Studio’s online help for more information.
- [**PF Flare Control**] can be used only with photographs. It is not available with videos.
- NX Studio is available for download from the Nikon Download Center. Be sure to always use the latest version.

<https://downloadcenter.nikonimglib.com/>

* *Diffraction: Light has the properties of a wave. It bends around obstacles in its path in a phenomenon known as diffraction. This causes a pattern of chromatic dispersion opposite to that caused by refraction.*

Notices

Notices for Customers in the U.S.A.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Federal Communications Commission (FCC) Radio Frequency Interference Statement

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

CAUTIONS

• Modifications

The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved by Nikon Corporation may void the user's authority to operate the equipment.

Nikon Inc., 1300 Walt Whitman Road, Melville, New York 11747-3064, U.S.A.
Tel.: 631-547-4200

Notices for Customers in Canada

CAN ICES-003 (B) / NMB-003 (B)

Notices for Customers in Europe

This symbol indicates that electrical and electronic equipment is to be collected separately.



The following apply only to users in European countries:

- This product is designated for separate collection at an appropriate collection point. Do not dispose of as household waste.
- Separate collection and recycling helps conserve natural resources and prevent negative consequences for human health and the environment that might result from incorrect disposal.
- For more information, contact the retailer or the local authorities in charge of waste management.