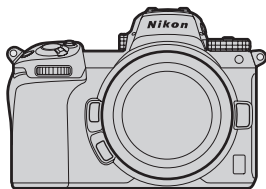


Nikon



Z 7 II / Z 6 II Professional Setting Guide — For Still Photography — Revision 1.0

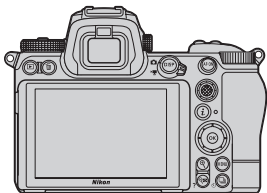







Table of Contents

Landscapes 5

Basic Settings for Landscape Photography 6

- Focus Mode: Choose “**Single AF**” (AF-S) and “**Single-Point AF**”! 7
- Vibration Reduction: Choose “**Normal**” for Hand-Held Photography! 7
- Silent Photography: Choose “**On**”! 9
- Low-Light AF: Choose “**On**”! 10
- Exposure Delay Mode: Choose “**1 s**”! 10
- Monitor Mode: Choose “**Monitor Only**”! 11





Custom Controls for Landscape Photography 12

-  Preview 13
-  Framing Grid Display 13
- RESET Select Center Focus Point 13
-  Live View Info Display Off 13
- Shooting Mode >  Zoom On/Off 14
- Playback Mode >  Zoom On/Off 14






Portraits 15

Basic Settings for Portrait Photography 16

- Set Picture Control: Choose “**Portrait**”! 16
- Focus Mode: Choose “**Continuous AF**” (AF-C)! 16
- AF-Area Mode: Choose “**Wide-Area AF (L-People)**”! 17
- Vibration Reduction: Choose “**Normal**”! 18
- Store Points by Orientation: Choose “**Yes**”! 19
- Monitor Mode: Choose “**Prioritize Viewfinder**”! 20

Custom Controls for Portrait Photography	21
•  Playback	21
• RESET Select Center Focus Point	21
•  Active D-Lighting.....	22
• Shooting Mode >  Zoom On/Off	22
• Playback Mode >  Zoom On/Off.....	22

Sports **23**

Basic Settings for Sports Photography	24
• Focus Mode: Choose “ Continuous AF ” (AF-C)!.....	24
• AF-Area Mode: Choose “ Dynamic-Area AF ”!.....	25
• Vibration Reduction: Choose “ Sport ”!.....	25
• Monitor Mode: Choose “ Prioritize Viewfinder ”!.....	26
Custom Controls for Sports Photography	27
•  Playback	27
•  Protect	27
• RESET Select Center Focus Point	28
• AF/  Focus Mode/AF-Area Mode	28
• Shooting Mode >  Zoom On/Off	28
• Playback Mode >  Zoom On/Off.....	28
Split-Second Shots	29
“ Continuous H ” Versus “ Continuous H (Extended) ”	32
• The Shooting Display.....	33
• Frame Advance Rate	34
AE with Constant Shutter Speed and Aperture	36

Tips and Tricks	39
Recalling Saved Settings via the Mode Dial	40
Using the Viewfinder Without Fatigue	41
Flicker Reduction	42
Subject-Tracking AF	44
Assigning Focus and Release to Separate Controls	46
Animal-Detection AF	47
• Basic Settings for Animal Portraits	47
• AF-Area Mode: Choose “ Wide-Area AF (L-Animals) ”!	47
Protecting and Rating Pictures	50
• Protecting Pictures	50
• Rating Pictures	52
Time-Lapse	55
How Time-Lapse Movies Are Made	56
• “Interval Timer Shooting” Versus “Time-Lapse Movie”	56
Time-Lapse Recording: Preparation and Basic Settings ...	58
• Advance Preparation	58
• Before Shooting	59
• Basic “Interval Timer Shooting” Settings	60
• Other Core Settings	65
Recommended Settings by Scene	66
• Sunsets	66
• Clouds	68
Final Pre-shooting Checklist	70

Landscapes

Learn basic techniques and helpful features for capturing landscapes more vividly and with greater ease.



Basic Settings for Landscape Photography

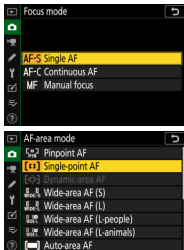
The following are the recommended settings for photographing landscapes:

Photo shooting menu	
Focus mode	Single AF
AF-area mode	Single-point AF
Diffraction compensation	On
Vibration reduction	<ul style="list-style-type: none">• Hand-held photography: Normal• Tripod photography: Off¹
Silent photography	On
Custom Settings menu	
a6 AF activation	Shutter/AF-ON
a10 Low-light AF	On
d4 Exposure delay mode	1 s ²
Other settings	
Release mode	Single frame
Monitor mode	Monitor only

1. Settings for lenses with on-board vibration reduction vary with the lens ([page 8](#)).
2. We recommend that, where available, an optional remote control be used in place of [**Exposure delay mode**].

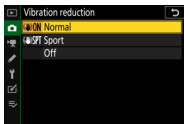
- **Focus Mode: Choose “Single AF” (AF-S) and “Single-Point AF”!**

Choose [Single AF] (AF-S) for [Focus mode] and select [Single-point AF] for [AF-area mode]. This is the standard combination of settings for landscapes and other static subjects: focus will lock once you have chosen a focus point and pressed the shutter-release button halfway.



- **Vibration Reduction: Choose “Normal” for Hand-Held Photography!**

Choose a vibration reduction option according to whether the camera is mounted on a tripod. [Normal], which offers a comparatively high level of vibration reduction, is recommended for hand-held shots of static subjects. Note that if an F mount lens with a vibration reduction switch is attached via an optional FTZ mount adapter, the [Vibration reduction] item in the camera menus will be grayed out and unavailable, and vibration reduction options will instead have to be selected using the switch.



Tripod Photography

The recommended settings for tripod photography vary with the lens:

- **Z mount lenses:** Choose [**Normal**] for lenses with on-board vibration reduction, [**Off**] for other lenses.
- **F mount lenses:** If you are using one of the lenses listed below, slide the lens vibration reduction switch to “NORMAL”. Users of other lenses should consult the lens manual.
 - ▶ AF-P DX NIKKOR 10–20mm f/4.5–5.6G VR
 - ▶ AF-P DX NIKKOR 18–55mm f/3.5–5.6G VR
 - ▶ AF-P DX NIKKOR 70–300mm f/4.5–6.3G ED VR
 - ▶ AF-P NIKKOR 70–300mm f/4.5–5.6E ED VR
 - ▶ AF-S DX NIKKOR 16–80mm f/2.8–4E ED VR
 - ▶ AF-S NIKKOR 24–70mm f/2.8E ED VR
 - ▶ AF-S NIKKOR 70–200mm f/2.8E FL ED VR
 - ▶ AF-S NIKKOR 120–300mm f/2.8E FL ED SR VR
 - ▶ AF-S NIKKOR 180–400mm f/4E TC1.4 FL ED VR
 - ▶ AF-S NIKKOR 200–500mm f/5.6E ED VR
 - ▶ AF-S NIKKOR 500mm f/4E FL ED VR
 - ▶ AF-S NIKKOR 500mm f/5.6E PF ED VR
 - ▶ AF-S NIKKOR 600mm f/4E FL ED VR

FTZ Mount Adapter Firmware

Support for the Z 7II/Z 6II is available from FTZ mount adapter firmware version 1.10. The current mount adapter firmware version can be viewed by selecting [**Firmware version**] in the camera setup menu when the adapter is attached. For more information, visit the Nikon website for your country or region.

● Silent Photography: Choose “On”!

Choosing [**On**] for [**Silent photography**] in the photo shooting menu enables the electronic shutter, helping prevent blur caused by vibrations from the mechanical shutter.



Silent Photography

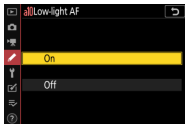
Select [**Off**] for [**Silent photography**]:

- during flash photography,
- when using long-exposure noise reduction or flicker reduction,
- to shoot at high ISO sensitivities (Hi 0.3–Hi 2.0), or
- if you notice distortion in photos of moving subjects.

In these cases, we recommend that you select [**Auto**] for Custom Setting d5 [**Shutter type**]. The camera will automatically switch between the front-curtain and electronic front-curtain shutters according to shutter speed, helping prevent blur caused by camera motion.

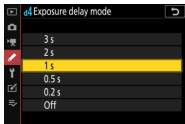
● **Low-Light AF: Choose “On”!**

When photographing sunsets, night scenes, and other dimly-lit subjects with **AF-S** selected for focus mode, choose [On] for Custom Setting a10 [Low-light AF] to help the camera focus.



● **Exposure Delay Mode: Choose “1 s”!**

Custom Setting d4 [Exposure delay mode] is used to delay release of the shutter for a set time after the shutter-release button is pressed. A delay of a second or more helps reduce blur caused by the camera moving when you press the shutter-release button. **DLY** appears in the display when an option other than [Off] is selected.




● **Monitor Mode: Choose “Monitor Only”!**

To prevent the monitor turning off should you accidentally trigger the eye sensor with your face or hands while composing photographs, use the monitor mode button to select “monitor only” mode.
















“Prioritize Viewfinder”

When “prioritize viewfinder” is selected for monitor mode, the camera behaves much like a traditional digital SLR: in photo mode, putting your eye to the viewfinder turns it on and displays the view through the lens, but the shooting display does not appear in the monitor when you take your eye away. Menus and pictures can still be displayed in the monitor using the **MENU** and  buttons. “Prioritize viewfinder” mode is recommended for current or former users of digital SLR cameras who prefer to frame hand-held shots in the viewfinder.

Custom Controls for Landscape Photography

The following custom control settings are recommended for landscape photography:

 Fn1 button	 Preview
 Fn2 button	 Framing grid display
 AF-ON button	 AF-ON
 Sub-selector center	RESET Select center focus point
 Movie record button	 Live view info display off
 button	Shooting mode  Zoom on/off; zoom ratio 1:1 (100%)
	Playback mode  Zoom on/off; zoom ratio 1:1 (100%)

Roles can be assigned to the  button via Custom Setting f3 [**OK button**] and to other controls via Custom Setting f2 [**Custom controls**].



-  **Preview**

Hold the selected control to preview color, exposure, and depth of field while shooting landscapes.

-  **Framing Grid Display**

Use the selected control to quickly view the framing grid for landscape shots that keep verticals vertical and horizontals horizontal.

- **RESET Select Center Focus Point**



If you typically use the sub-selector for focus-point selection, assigning this role to the center of the control lets you use it to quickly choose the center focus point.

-  **Live View Info Display Off**



Use the selected control to hide icons and shooting information so that you can see everything in the frame.



● **Shooting Mode >  Zoom On/Off**

Use the  button to quickly zoom the display in on the area around the current focus point and check focus before shooting. You'll find this particularly useful for improved focus when using manual focus in situations in which the camera has difficulty focusing using autofocus. To choose the zoom ratio, select Custom Setting f3 [**OK button**] > [**Shooting mode**], highlight [**Zoom on/off**], and press .

● **Playback Mode >  Zoom On/Off**

Use the  button to quickly zoom in on the active focus point during playback and check whether your photos are in focus. To choose the zoom ratio, select Custom Setting f3 [**OK button**] > [**Playback mode**], highlight [**Zoom on/off**], and press .

Portraits

Learn basic techniques and helpful features that free you to concentrate on your subject during portrait photography.



Basic Settings for Portrait Photography

The following settings are recommended for portrait photography:

Photo shooting menu	
Set Picture Control	Portrait
Focus mode	Continuous AF
AF-area mode	Wide-area AF (L-people)
Vibration reduction	Normal
Silent photography	Off
Custom Settings menu	
a5 Store points by orientation	Yes
d5 Shutter type	Auto
Other settings	
Monitor mode	Prioritize viewfinder

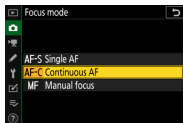
- **Set Picture Control: Choose “Portrait”!**

Choose this option for portraits in which your subject’s complexion looks smooth and natural.



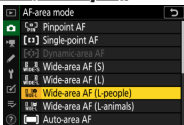
- **Focus Mode: Choose “Continuous AF” (AF-C)!**

Choose **AF-C** for shots of mobile subjects. The camera adjusts focus continuously while the shutter-release button is pressed halfway or the **AF-ON** button is pressed.



● AF-Area Mode: Choose “**Wide-Area AF (L-People)**”!

When this option is selected, the camera detects and focuses on the faces or eyes of human portrait subjects in the active focus area (face/eye-detection AF), making this a good choice when you want to focus on a particular human portrait subject. On detecting a human portrait subject, the camera will automatically keep the focus point (indicated by a yellow border) positioned over the subject’s face, or if the eyes are detected, over one or the other of their eyes, letting you concentrate on composition and your subject’s expression even when your subject is in motion.



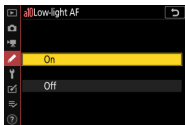
Auto-Area AF (People)

Face/eye-detection is also available with human portrait subjects when [**Auto-area AF (people)**] is selected. If more than one human face or eye is detected, ◀ and ▶ icons will appear on the focus point, which can then be positioned over a different face or eye by pressing ⬅ or ➡.



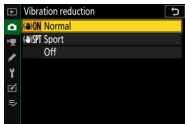
When Lighting Is Poor

When photographing dimly-lit subjects with **AF-S** selected for focus mode, choose **[On]** for Custom Setting a10 **[Low-light AF]** to help the camera focus.



● **Vibration Reduction: Choose “Normal”!**

Choose **[Normal]** for a comparatively high level of vibration reduction. As a consequence of how lens shift vibration reduction operates in **[Normal]** mode, the image in the display may jiggle after the shutter is released, but this is expected and does not indicate a malfunction. If you find the motion distracting, choosing **[Sport]** will stabilize the image in the viewfinder and free you to concentrate on composition.



Note that if an F mount lens with a vibration reduction switch is attached via an optional FTZ mount adapter, the **[Vibration reduction]** item in the camera menus will be grayed out and unavailable, and vibration reduction options will instead have to be selected using the switch.

● Store Points by Orientation: Choose “Yes”!

Selecting [Yes] for Custom Setting a5 [Store points by orientation] lets you choose separate focus points for “wide” (landscape) orientation, for “tall” (portrait) orientation with the camera rotated 90° clockwise, and for “tall” orientation with the camera rotated 90° counterclockwise.



*Camera rotated
90° counter-clockwise*



*Landscape (wide)
orientation*




*Camera rotated
90° clockwise*

● **Monitor Mode: Choose “Prioritize Viewfinder”!**

Recommended for users familiar with traditional digital SLRs, “prioritize viewfinder” mode lets you frame pictures in the viewfinder during hand-held photography. In photo



mode, putting your eye to the viewfinder turns it on and displays the view through the lens, but the shooting display does not appear in the monitor when you take your eye away. Menus and pictures can still be displayed in the monitor using the MENU and  buttons.

● **☑ Active D-Lighting**

Active D-Lighting can be adjusted by holding the button and rotating a command dial, easing the task of photographing subjects in high-contrast settings, as for example when framing a sunlit subject through a window from inside a darkened room or photographing subjects on a beach in direct sunlight.

● **Shooting Mode > 🔍 Zoom On/Off**

Use the **OK** button to quickly zoom the display in on the area around the current focus point and check focus before shooting. You'll find this particularly useful for improved focus when using manual focus in situations in which the camera has difficulty focusing using autofocus. To choose the zoom ratio, select Custom Setting f3 [**OK button**] > [**Shooting mode**], highlight [**Zoom on/off**], and press **▶**.

● **Playback Mode > 🔍 Zoom On/Off**

Use the **OK** button to quickly zoom in on the active focus point during playback and check whether your photos are in focus. To choose the zoom ratio, select Custom Setting f3 [**OK button**] > [**Playback mode**], highlight [**Zoom on/off**], and press **▶**.

Sports

Learn basic techniques and helpful features for photographing sporting events and other scenes that feature motion.



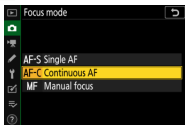
Basic Settings for Sports Photography

The following are the recommended settings for shots of sporting events and other scenes that feature motion:

Photo shooting menu	
Focus mode	Continuous AF
AF-area mode	Dynamic-area AF
Vibration reduction	Sport
Silent photography	Off
Custom Settings menu	
a3 Focus tracking with lock-on	3
d5 Shutter type	Auto
Other settings	
Release mode	Continuous H or Continuous H (extended)
Shutter speed	High shutter speeds of $\frac{1}{500}$ s or faster
Monitor mode	Prioritize viewfinder

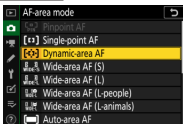
● Focus Mode: Choose “**Continuous AF**” (AF-C)!

Choose **AF-C** for shots of mobile subjects. The camera adjusts focus continuously while the shutter-release button is pressed halfway or the **AF-ON** button is pressed.



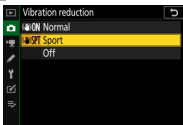
● **AF-Area Mode: Choose “*Dynamic-Area AF*”!**

The camera focuses on a point of your choosing but will use information from surrounding focus points if the subject wanders briefly from the chosen point. This option is only available when **AF-C** is selected for focus mode. If the subject is moving quickly or is otherwise hard to track, try using [**Wide-area AF (S)**] or [**Wide-area AF (L-people)**] to allow autofocus to choose subjects from a wider area.



● **Vibration Reduction: Choose “*Sport*”!**

Choosing [**Sport**] when photographing subjects that are moving quickly or unpredictably stabilizes the image in the viewfinder, letting you concentrate on composition.




Subject motion appears more natural than in [**Normal**] mode, making it easier to track subjects during high-speed burst photography. If you still find the motion in the display distracting, choose [**Off**].

[**Sport**] is not available with some lenses. If an F mount lens with a vibration reduction switch is attached via an optional FTZ mount adapter, the [**Vibration reduction**] item in the camera menu will itself be grayed out and unavailable, and vibration reduction options will instead have to be selected using the switch.

● **Monitor Mode: Choose “Prioritize Viewfinder”!**












Recommended for users familiar with traditional digital SLRs, “prioritize viewfinder” mode lets you frame pictures in the viewfinder during hand-held photography. In photo




mode, putting your eye to the viewfinder turns it on and displays the view through the lens, but the shooting display does not appear in the monitor when you take your eye away. Menus and pictures can still be displayed in the monitor using the **MENU** and  buttons.

Custom Controls for Sports Photography

The following custom control settings are recommended for sports photography:

 Fn1 button	 Playback
 Fn2 button	 Protect
 AF-ON button	 AF-ON
 Sub-selector center	RESET Select center focus point
 Movie record button	AF/[+] Focus mode/AF-area mode
 OK button	Shooting mode  Zoom on/off; zoom ratio 1:1 (100%)
	Playback mode  Zoom on/off; zoom ratio 1:1 (100%)

Roles can be assigned to the  button via Custom Setting f3 [**OK button**] and to other controls via Custom Setting f2 [**Custom controls**].



Playback

Assigning this role to the **Fn1** button lets you start playback with your right hand while supporting the lens with your left, letting you view pictures without taking your eye from the viewfinder.

Protect

Assigning this role to an **Fn** button lets you protect pictures during playback at the touch of a button, saving you the time you would otherwise spend accessing the [**Protect**] option in the **i** menu.



● **RESET Select Center Focus Point**

If you typically use the sub-selector for focus-point selection, assigning this role to the center of the control lets you use it to quickly choose the center focus point.



● **AF/[+] Focus Mode/AF-Area Mode**

Focus and AF-area modes can be selected by holding the control and rotating the main and sub-command dials. This role is normally assigned to the **Fn2** button and we recommend you give it to another control when the **Fn2** button is reassigned.

● **Shooting Mode >  Zoom On/Off**

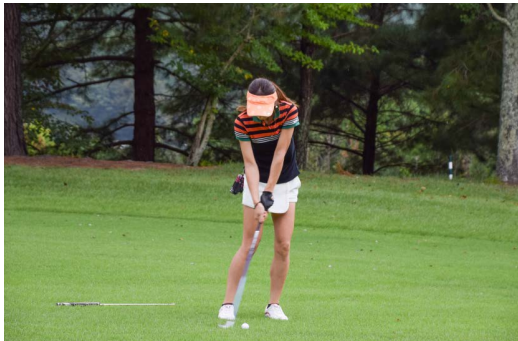
Use the  button to quickly zoom the display in on the area around the current focus point and check focus before shooting. To choose the zoom ratio, select Custom Setting f3 [OK button] > [Shooting mode], highlight [Zoom on/off], and press .


● **Playback Mode >  Zoom On/Off**

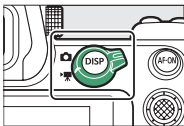
Use the  button to quickly zoom in on the active focus point during playback and check whether your photos are in focus. To choose the zoom ratio, select Custom Setting f3 [OK button] > [Playback mode], highlight [Zoom on/off], and press .

Split-Second Shots

Ordinary burst photography may fail to capture the decisive moment of a golf swing or other fast-moving event. For split-second shots the like of which you've never taken before, try switching to movie mode, where the camera can record photos at up to 120 fps while the shutter-release button is pressed.

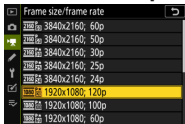




- 1 Select movie mode.**
Rotate the photo/movie selector to .




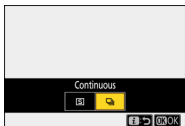
2 Set the frame size and rate to **[1920 × 1080; 120p]**.

The number of shots the camera takes per second is equivalent to the frame rate chosen for **[Frame size/frame rate]** in the movie shooting menu or for **[Frame size and rate/image quality]** in the movie-mode **i** menu. For a frame rate of 120 fps, choose **[1920 × 1080; 120p]**. The photos will be the same dimensions as the movie frame and have an aspect ratio of 16:9.



3 Press the  () button and choose **[Continuous]** release mode.

Highlight **[Continuous]** using the multi selector and press .

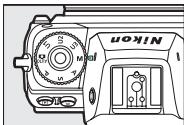


4 Choose the focus and AF-area modes.

Set the focus mode to **AF-C** and the AF-area mode to **[Wide-area AF (S)]**.

5 Rotate the mode dial to “M”.

Exposure cannot be adjusted manually in modes **P** and **S** when movie mode is selected. Choose mode **M** to make your own adjustments to aperture, ISO sensitivity, and other exposure settings.

**6 Adjust exposure.**

Adjust shutter speed, aperture, and ISO sensitivity. To reduce blur caused by subject motion, choose a shutter speed at least as fast as $\frac{1}{1000}$ s.

**7 Focus.**

Press the shutter-release button halfway or press the **AF-ON** button to focus.

8 Take pictures.

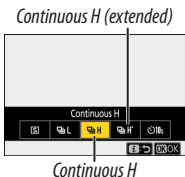
Press the shutter-release button the rest of the way down and keep it pressed to shoot a burst of up to three (Z 7II) or two (Z 6II) seconds. Pictures will be taken even if the camera fails to focus.

Taking Photos in Movie Mode

Photos are recorded in [**JPEG fine★**] format. Flicker reduction is disabled.

“Continuous H” Versus “Continuous H (Extended)”

The differences between the [Continuous H] and [Continuous H (extended)] release modes for the Z 7II and Z 6II are summarized below. Choose a mode according to the subject and situation.

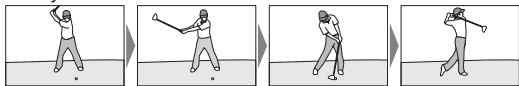


	Continuous H	Continuous H (extended)
Frame advance rate	Approx. 5.5 fps	Z 7II: Up to 10 fps Z 6II: Up to 14 fps
AE	Continuous	
AF	Continuous	
Flicker reduction	Available	Disabled
Display during burst	Goes dark during metering	Image review (lags subject motion)
Recommended for	<ul style="list-style-type: none"> • Lighting that causes flicker • Amateur sports 	<ul style="list-style-type: none"> • Bracketing • Portraits • Railway photography

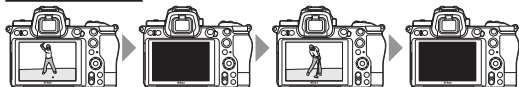
● The Shooting Display

The image displayed in the monitor or viewfinder during shooting differs according to the release mode.

■ Subject motion



"Continuous H"



Apart from momentarily going dark when the shutter is released, the display for [Continuous H] mode shows subject motion more or less in real time.

"Continuous H (Extended)"



The display for [Continuous H (extended)] never goes dark but lags subject motion by a fraction of a second.

● Frame Advance Rate

Frame advance rates for burst photography vary with the camera model and settings. The approximate maximum rates for [Continuous H] and [Continuous H (extended)] release modes are shown below.

Z 7II

Image quality	Bit depth	Silent photography	Continuous H	Continuous H (extended)	
JPEG	—	Off	5.5 fps	10 fps ¹	
NEF (RAW)/NEF (RAW) + JPEG	12 14			On	4 fps
JPEG	—		3.5 fps		6.5 fps

Z 6II

Image quality	Bit depth	Silent photography	Continuous H	Continuous H (extended)	
JPEG	—	Off	5.5 fps	14 fps ¹	
NEF (RAW)/NEF (RAW) + JPEG	12 14			On	4.5 fps
JPEG	—		4 fps		8 fps

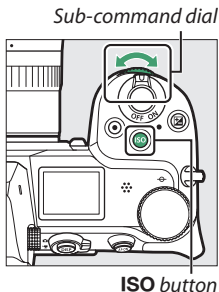
“Continuous H” Versus “Continuous H (Extended)”

1. Maximum rate in focus mode **MF** or **AF-S**, or with [**Single-point AF**] selected for AF-area mode in focus mode **AF-C**. Maximum rate in all other cases is approximately 9 fps (Z 7II) or 12 fps (Z 6II).
2. Maximum rate in focus mode **MF** or **AF-S**, or with [**Single-point AF**] selected for AF-area mode in focus mode **AF-C**. Maximum rate in all other cases is approximately 8 fps (Z 7II) or 9 fps (Z 6II).

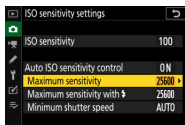
AE with Constant Shutter Speed and Aperture

If ISO sensitivity is fixed, you may find it difficult to achieve the desired exposure without varying shutter speed or aperture, particularly in settings with a mix of sun and shade, such as a soccer stadium or baseball diamond during a day game. Enabling auto ISO sensitivity control allows the camera to adjust ISO sensitivity for optimal exposure.

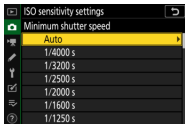
Auto ISO sensitivity control can be turned on or off by holding the **ISO** button and rotating the sub-command dial. **ISO AUTO** is displayed when auto ISO sensitivity control is on and **ISO** when it is off.



To prevent ISO sensitivity going too high, you can choose an upper limit using [ISO sensitivity settings] > [Maximum sensitivity] in the photo shooting menu. Choose from values of from ISO 100 (Z 7II) or 200 (Z 6II) to Hi 2.0.



[ISO sensitivity settings] > [Minimum shutter speed] is used to choose the shutter speed below which auto ISO sensitivity control will kick in to prevent underexposure in modes **P** and **A**. Choose from speeds of $\frac{1}{4000}$ to 30 s, or select [**Auto**] to have the camera choose the minimum shutter speed based on the focal length of the lens.



Simplifying Exposure for Sports Photography

We recommend that you make the following additions to the settings listed in [“Basic Settings for Sports Photography” \(page 24\)](#) if you plan on moving back and forth between indoor and outdoor settings or other locations that vary markedly in brightness.

- **Mode: A** (aperture-priority auto)
- **Auto ISO sensitivity control:** On
- **Minimum shutter speed:** $\frac{1}{500}$ s

In mode **A**, the camera automatically adjusts shutter speed for optimal exposure. The camera automatically raises ISO sensitivity if it determines that shutter speed will fall below the minimum, ensuring that shutter speed is never slower than $\frac{1}{500}$ s and allowing the camera to adapt to changes in lighting while minimizing blur due to subject motion. Note that pictures taken at higher ISO sensitivities are prone to “noise” in the form of randomly-spaced bright pixels, fog, or lines.

Tips and Tricks

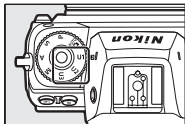
Learn about useful features that can be used with any subject.



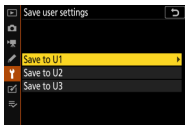
Recalling Saved Settings via the Mode Dial

Frequently-used settings can be assigned to mode-dial positions **U1**, **U2**, and **U3**. For example, you can assign landscape settings to **U1**, portrait settings to **U2**, and settings for sports photography to **U3** and instantly switch combinations just by rotating the mode dial. The settings stored include:

- photo shooting menu options,
- movie shooting menu options,
- Custom Settings, and
- shooting mode, shutter speed (modes **S** and **M**), aperture (modes **A** and **M**), flexible program (mode **P**), and exposure and flash compensation.



To save current settings to a position on the mode dial, select [**Save user settings**] in the setup menu, highlight [**Save to U1**], [**Save to U2**], or [**Save to U3**], press \odot , and then highlight [**Save settings**] and press OK when prompted.



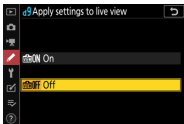
User Settings

Some settings, including the options selected for [**Manage Picture Control**] and [**Multiple exposure**], are not saved.

Settings for selected user settings modes can be restored to default values using [**Reset user settings**] in the setup menu.

Using the Viewfinder Without Fatigue

If you find your eyes get tired after using the viewfinder for prolonged periods, select [Off] for Custom Setting d9 [Apply settings to live view]. Viewfinder brightness and hue will be adjusted for ease of viewing rather than to reflect changes to white balance, Picture Controls, exposure compensation, and the like.



[On]



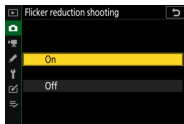
[Off]

Because pictures taken with [Off] selected may not match the preview in the viewfinder, we recommend that you check the results after shooting. Note that in movie mode, the effects of changes to camera settings will always be visible in the display, regardless of the option selected for Custom Setting d9 [Apply settings to live view].

Flicker Reduction

When powered by alternating current, fluorescent lamps and certain other types of artificial lighting flicker at a rate determined by the frequency of the power supply, which depending on the timing of the shutter release may produce areas of uneven color or exposure. Flicker reduction helps prevent this by matching the timing of the shutter release to the flicker rate.

To enable flicker reduction, select **[On]** for **[Flicker reduction shooting]** in the photo shooting menu.



[On]



[Off]



A **Flicker** icon is displayed when **[On]** is selected. Note, however, that flicker reduction may sometimes not function as expected and the icon may not always be displayed ([page 43](#)).

Flicker Reduction Shooting

Flicker reduction can detect flicker at 100 and 120 Hz (associated respectively with AC power supplies of 50 and 60 Hz). Flicker may not be detected or the desired results may not be achieved with dark backgrounds, bright light sources, or decorative lighting displays and other non-standard lighting. Depending on the light source, there may be a slight delay before the shutter is released. In addition, the desired results may not be achieved if the frequency of the power supply changes during shooting.

The Photo Shooting Menu “Flicker Reduction Shooting” Option

Flicker detection will not take effect when [**Continuous H (extended)**] is selected for release mode, when HDR or exposure delay mode is enabled, or if silent photography is currently enabled by selecting [**On**] either for [**Silent photography**] in the photo shooting menu or for [**Silent photography**] in any of the interval-timer, focus-shift, and time-lapse movie sub-menus.

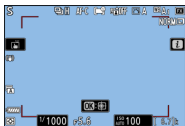
The Movie Shooting Menu “Flicker Reduction” Option

The [**Flicker reduction**] option in the movie shooting menu can be used to adjust flicker reduction settings for movie mode. In most circumstances we would recommend that you choose [**Auto**] to allow the camera to automatically choose a frequency matching that of the local power supply.

Subject-Tracking AF

For subject-tracking AF, we recommend that you choose a focus mode of **AF-C** and an AF-area mode of [**Auto-area AF**], [**Auto-area AF (people)**], or [**Auto-area AF (animals)**]. Once tracking starts, focus will follow the subject through the frame while the **AF-ON** button is pressed or the shutter-release button is pressed halfway.

*To start subject-tracking AF, press **OK**.*



Position the focus point as desired.



Wait until the chosen focus point is over your subject and then either press the shutter-release button halfway or press the **AF-ON** button: the focus point will turn

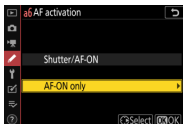
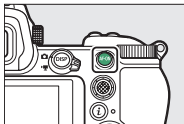


yellow and the camera will track the subject until the chosen button is released. Subject tracking can also be started by pressing **OK** or tapping your subject in the display.



Assigning Focus and Release to Separate Controls

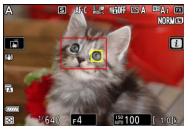
If [AF-ON only] is selected for Custom Setting a6 [AF activation], the camera will focus only when the **AF-ON** button is pressed, freeing you to concentrate on the shutter-release button during portrait or sports photography and in other situations where you focus using **AF-C**.



The camera focuses while the **AF-ON** button is pressed and pauses when the button is released. If you press the shutter-release button while focus is paused, the camera will not focus again but will only release the shutter. If you use the sub-selector for focus-point selection and the **AF-ON** button to focus, you can quickly compose shots using only small motions of your right thumb.

Animal-Detection AF

To focus on the faces or eyes of dogs and cats (animal-detection AF), select [Wide-area AF (L-animals)] or [Auto-area AF (animals)] for AF-area mode.



Basic Settings for Animal Portraits

The following are the recommended settings for portraits of dogs and cats:

Photo shooting menu

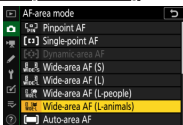
Focus mode	Continuous AF
AF-area mode	Wide-area AF (L-animals)
Silent photography	Off

Custom Settings menu

a11 Built-in AF-assist illuminator	Off
d5 Shutter type	Auto

AF-Area Mode: Choose “Wide-Area AF (L-Animals)”!

When this option is selected, the camera detects and focuses on the faces or eyes of dogs and cats in the active focus area (animal-detection AF), making this a good choice when you want to focus on a particular animal portrait subject.



Auto-Area AF (Animals)

Face/eye-detection is also available with animal portrait subjects when [**Auto-area AF (animals)**] is selected. If more than one animal face or eye is detected, ◀ and ▶ icons will appear on the focus point, which can then be positioned over a different face or eye by pressing ⌚ or ⌚.



Assigning Animal Portrait Settings to the Mode Dial

The combination of settings listed above can be assigned to any of the mode-dial positions **U1**, **U2**, and **U3** and instantly recalled just by rotating the dial. For more information, see [“Recalling Saved Settings via the Mode Dial”](#) (page 40).

Notes on Animal-Detection AF

Depending on shooting conditions, the camera may fail to detect the faces or eyes of some breeds or may display a border around subjects that are not the faces or eyes of dogs or cats. Animal face- and eye-detection may also not perform as expected if:

- the subject's face is too large or small relative to the frame,
- the subject's face is too brightly or dimly lit,
- the subject's face or eyes are obscured by fur or the like,
- the subject's face and eyes are of similar colors, or
- the subject moves excessively during shooting.

The eyes of some animals may be adversely affected by the light of the AF-assist illuminator. Choose [Off] for Custom Setting a11 [**Built-in AF-assist illuminator**].

Simplifying Exposure for Active Dogs or Cats

We recommend that you make the following additions to the settings listed on [page 47](#) when photographing active dogs or cats:

- **Mode: A** (aperture-priority auto)
- **Auto ISO sensitivity control:** On
- **Minimum shutter speed:** $\frac{1}{500}$ s

In mode **A**, the camera automatically adjusts shutter speed for optimal exposure. The camera automatically raises ISO sensitivity if it determines that shutter speed will fall below the minimum, ensuring that shutter speed is never slower than $\frac{1}{500}$ s and allowing the camera to adapt to changes in lighting while minimizing blur due to subject motion. Note that pictures taken at higher ISO sensitivities are prone to “noise” in the form of randomly-spaced bright pixels, fog, or lines.

Protecting and Rating Pictures

Pictures can be protected and rated during playback. These settings remain in effect when the pictures are opened in Capture NX-D or ViewNX-i.


● Protecting Pictures

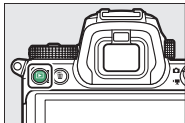
Pictures can be protected to prevent accidental deletion. Note that this does NOT prevent the pictures being deleted when the memory card is formatted.

From the *i* Menu

The *i* menu can be used to protect pictures during playback.

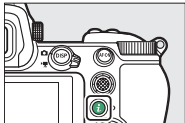
1 Play the picture back.

Start playback by pressing the  button and select a picture you want to protect.




2 Press the *i* button.

The playback *i* menu will be displayed.



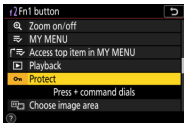
3 Select [Protect].

Highlight [Protect] and press **OK**. Protected pictures are marked with a  icon; to remove protection, select the picture and choose [Protect] again.




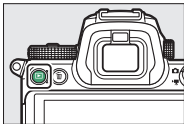
Using Function Buttons

You can assign [Protect] to either of the **Fn1** and **Fn2** buttons using Custom Setting f2 [Custom controls] and thereafter add or remove protection simply by pressing the chosen control.




1 Play the picture back.

Start playback by pressing the  button and select a picture you want to protect.



2 Press the chosen control.

Press the button to which [Protect] is assigned. Protected pictures are marked with a  icon; to remove protection, select the picture and press the button again.




● Rating Pictures

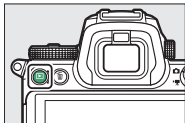
Selected pictures can be rated or marked as candidates for later deletion. Ratings can also be viewed in Capture NX-D and ViewNX-i. Protected pictures cannot be rated; remove protection before rating pictures.

From the *i* Menu

The *i* menu can be used to rate pictures during playback.

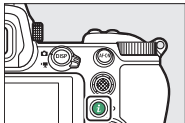
1 Play the picture back.

Start playback by pressing the  button and select a picture you want to rate.



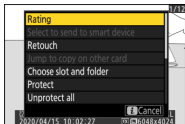
2 Press the *i* button.

The playback *i* menu will be displayed.





3 Select [Rating].

Highlight [Rating] and press .



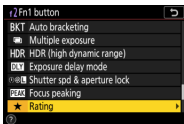
4 Choose a rating.

Rotate the main command dial to choose a rating of from zero to five stars, or select  to mark the picture as a candidate for later deletion. Press  to apply the selected rating.




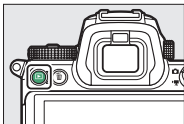
Using Function Buttons

You can assign [Rating] to either of the **Fn1** and **Fn2** buttons using Custom Setting f2 [Custom controls] and thereafter rate pictures simply by holding the chosen control and rotating the main command dial.




1 Play the picture back.

Start playback by pressing the  button and select a picture you want to rate.



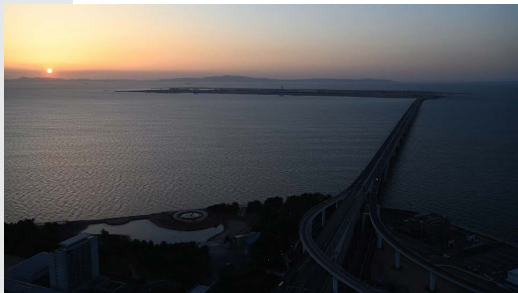
2 Choose a rating.

Hold the chosen button and rotate the main command dial to choose a rating of from zero to five stars or  (candidate for deletion). The rating is applied when the button is released.



Time-Lapse

Learn basic techniques and helpful features for creating time-lapse movies from a series of photos.



How Time-Lapse Movies Are Made

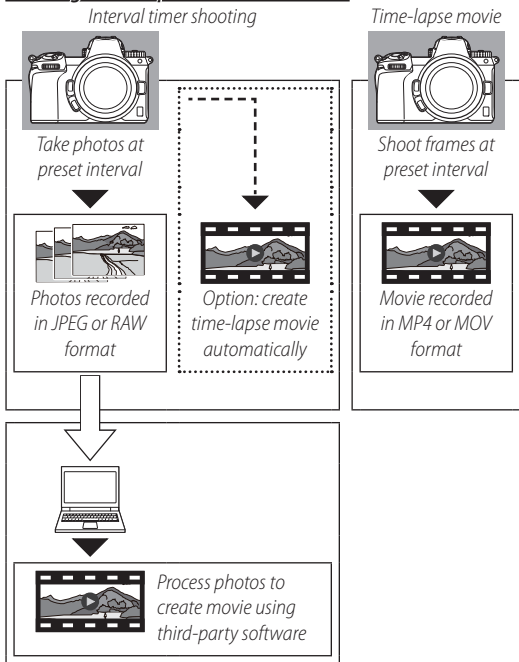
Time-lapse movies are made up of frames created from photos taken automatically at a preset interval. On this camera, the photos can be taken using either [Interval timer shooting] or [Time-lapse movie] in the photo shooting menu.

● “Interval Timer Shooting” Versus “Time-Lapse Movie”

	Interval timer shooting	Time-lapse movie
Difficulty	High	Low
Workflow	<ol style="list-style-type: none">1. Take photos using [Interval timer shooting].*2. Copy photos to computer.3. Create movie using third-party software.	<ol style="list-style-type: none">1. Shoot frames using [Time-lapse movie]. <p>Time-lapse movie is created automatically by joining frames in-camera.</p>
Format/ no. of files	Hundreds to thousands of NEF (RAW) or JPEG photos	One movie file
Editing	<ul style="list-style-type: none">• Movie must be created from photos.• High-resolution photos can be cropped.• NEF (RAW) photos can be processed to adjust white balance and other settings.	Because editing can be performed on final movie only, flexibility is less than for interval-timer photography.

* Option available for creating time-lapse movie automatically.

Creating Time-Lapse Movies: Workflow



Time-Lapse Recording: Preparation and Basic Settings

This section focuses on [Interval timer shooting]. The settings for [Time-lapse movie] are essentially the same.

● Advance Preparation

Ready a Power Source

- Ready a fully-charged battery.
- Where AC power is available, we recommend using an EH-7P charging AC adapter (available separately for the Z 6II, supplied with the Z 7II) or an optional EP-5B power connector and EH-5d, EH-5c, or EH-5b AC adapter.
- We also recommend the optional MB-N11 power battery pack or MB-N10 battery pack, which when used with two batteries can supply power longer than the camera alone. With spare batteries, you can take advantage of the MB-N11 and MB-N10's "hot swap" feature to replace batteries while shooting is in progress, ensuring a continuous supply of power for even longer periods.
- The camera can also be powered via USB by an Anker PowerCore+ 26800 PD 45W power bank (recommended).

Ready Memory Cards

Ready memory cards with sufficient capacity after picking an image size, image quality (JPEG, NEF/RAW, or JPEG + NEF/RAW), total shooting time, and interval and taking a test shot to help you get an idea of the file size.

Set the Clock

Check that the camera clock is set correctly before proceeding.

Ready a Tripod

Use a tripod for time-lapse recording. Be sure to choose one that won't tip or blow over.

● **Before Shooting**

Position the Camera

Choose a location, position the tripod, and secure the camera. Check that the camera is steady, the power cable unobstructed, and the power source within reach.

Check Framing and Focus

- Take a test shot and check framing and focus.
- Time-lapse footage shot with [FX (36 × 24)] selected for [Choose image area] in the photo shooting menu will be recorded at an aspect ratio of 16:9. We recommend that you switch briefly to [16:9 (36 × 20)] when framing shots.

Quick Image-Area Selection

Assigning [Choose image area] to the **Fn1** or **Fn2** button using Custom Setting f2 [Custom controls] lets you quickly switch image areas by holding the button and rotating a command dial.

Dealing with Condensation

We recommend using a third-party lens heater in settings where condensation is likely.

- **Basic “Interval Timer Shooting” Settings**

We recommend the following [Interval timer shooting] settings when taking photos for time-lapse movies.

Interval	Varies by subject (page 66)
Intervals×shots/interval	
Exposure smoothing	On
Silent photography	On
Interval priority	On
Focus before each shot	Off
Options	Time-lapse movie
Starting storage folder	New folder: <input checked="" type="checkbox"/>
	Reset file numbering: <input checked="" type="checkbox"/>

Interval

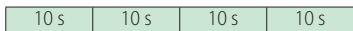
The recommended value varies by subject. See [“Recommended Settings by Scene”](#) (page 66) for more information.

Interval Length

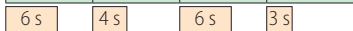
Some cameras from other manufacturers define interval length as the time between the end of one exposure and the beginning of the next. The result is that the time between one shot and the next varies according to exposure time. Nikon cameras, in contrast, define the interval length as the time from the start of one shot to the beginning of the next, ensuring that photos are taken at regular intervals.

■ **Nikon Cameras**

Selected interval



Exposure time



Time between shots

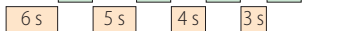


■ **Other Cameras**

Selected interval



Exposure time



Time between shots



Intervals×shots/interval

The recommended value varies by subject. See [“Recommended Settings by Scene” \(page 66\)](#) for more information.

- Only one shot can be taken per interval when [On] is selected for [Interval priority].

Exposure Smoothing

If [On] is selected, exposure will automatically be adjusted to minimize variations in brightness between one shot and the next.

- The effects of exposure smoothing may not be visible if subject brightness varies markedly between shots. We recommend choosing shorter intervals for subjects prone to sharp changes in brightness.

Silent Photography

Select [On] to take pictures without sound or vibration from the shutter.

- Selecting [On] does not completely silence the camera. Camera sounds may still be audible, for example during autofocus or aperture adjustment.

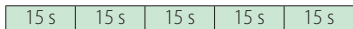
Interval Priority

Selecting **[Off]** for **[Interval priority]** assigns priority to ensuring that each shot is correctly exposed, even if this means that intervals must sometimes be skipped.

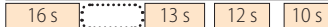
If **[On]** is selected, the camera will automatically adjust shutter speed as needed to ensure that each exposure is completed in the time available and no intervals are skipped. This option takes effect only in modes **P** and **A**. Pictures may be underexposed if time required for optimal exposure is longer than the interval.

■ Interval Priority Off

Selected interval



Exposure time



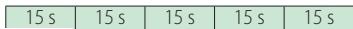
Interval skipped

Time between shots

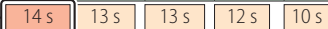


■ Interval Priority On

Selected interval



Exposure time



Time between shots



Underexposed (16 s required for optimal exposure)

Focus Before Each Shot

Selecting [Off] prevents unexpected changes in focus while still ensuring you won't have to focus manually.

Options

If [Time-lapse movie] is selected, the photos will be used to create a time-lapse movie with an aspect ratio of 16:9. This lets you view the results on the camera immediately after shooting so that you can retake the time-lapse movie if required.

To perform exposure bracketing during shooting, enable [AE bracketing]. [Intervals×shots/interval] will automatically be adjusted to reflect the number of shots in the bracketing sequence. This feature can be helpful where brightness varies unpredictably. Shots taken at different exposures can also be combined in third-party software for use in HDR movies.

Starting Storage Folder

Select [New folder] to save each sequence of photos to a new folder created automatically when shooting starts. Each sequence of photos is saved to its own folder, making file management easier.

● Other Core Settings

Photo shooting menu	
Image quality*	NEF (RAW) or JPEG fine★
Image size	Large
ISO sensitivity settings	
White balance	Varies by subject (page 66)
Set Picture Control	
Metering	Matrix metering
Vibration reduction	Off

* [NEF (RAW)] gives you greater freedom to adjust settings to your liking while editing movies. The large size of the resulting files however makes [JPEG fine★] the preferred choice when such adjustments are not required.

Monitoring Results During Shooting

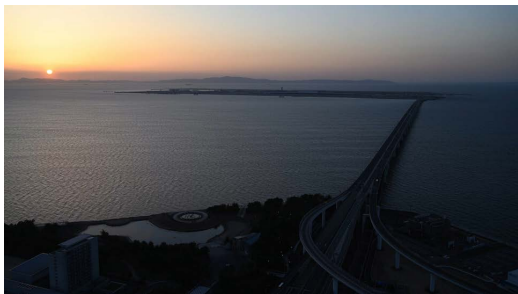
If [On] is selected for [Image review] in the playback menu, each picture will automatically be displayed in the monitor or viewfinder immediately after it is taken. This helps you monitor exposure and focus. Note, however, that:

- the interval between shots must be at least four seconds and
- the drain on the battery will increase.

Recommended Settings by Scene

The settings recommended for different subjects are listed below.

● Sunsets



A sample time-lapse movie can be found at:

https://nps.nikonimaging.com/technical_solutions/z7_2_z6_2_tips/recommended_settings/

The sample movie was filmed using:

Lens	NIKKOR Z 24–70mm f/4 S
Focal length	30 mm
Shooting mode	A (aperture-priority auto)
Aperture	f/5.6
ISO sensitivity	100
Auto ISO sensitivity control	On
Maximum sensitivity	6400
Minimum shutter speed	3 s
Set Picture Control	Auto
White balance	Auto (WB A1: Keep overall atmosphere)
Interval	4 s
Intervals×shots/interval	2000 × 1

The sample movie was created from about 1140 of the 2000 shots taken. At the selected frame rate of 30 fps, this works out to about 38 seconds of footage.

- The length of the movie can be calculated by dividing the number of shots (frames) by the frame rate (fps).

E.g.: $1140 \text{ frames} \div 30 \text{ frames/second} = 38 \text{ seconds}$

● Clouds



A sample time-lapse movie can be found at:

https://nps.nikonimaging.com/technical_solutions/z7_2_z6_2_tips/recommended_settings/

The sample movie was filmed using:

Lens	NIKKOR Z 14–24mm f/2.8 S
Focal length	18.5 mm
Shooting mode	A (aperture-priority auto)
Aperture	f/8
ISO sensitivity	100
Auto ISO sensitivity control	Off
Maximum sensitivity	—
Minimum shutter speed	—
Set Picture Control	Landscape
White balance	Natural light auto
Interval	1 s
Intervals×shots/interval	1200 × 1

The sample movie was created from about 1080 of the 1200 shots taken. At the selected frame rate of 30 fps, this works out to about 36 seconds of footage.

- The length of the movie can be calculated by dividing the number of shots (frames) by the frame rate (fps).
E.g.: 1080 frames ÷ 30 frames/second = 36 seconds

Final Pre-shooting Checklist

Weather

- Am I ready for rain?*

We recommend attaching camera rain covers or lens hoods when rain is in the forecast.

- Am I ready for strong winds?*

- Choose a tripod that won't blow over.
- Secure the camera strap (for example by tying it to the tripod) to keep it out of the frame during shooting.

- Am I ready for condensation?*

We recommend using a third-party lens heater in settings where condensation is likely.

Location

- Am I out of people's way?*

Before setting up the camera, confirm that you are not trespassing and that shooting will not be affected by foot or vehicle traffic. If possible, choose a time when traffic is at a minimum.

- Am I ready to be out after dark?*

Bring a flashlight or lantern if you plan to continue shooting after dark. Avoid unsafe locations, including heights or sites with poor footing.

Memory Cards

- Is there enough space on the memory cards?*

- Do I have enough spare memory cards?*

Power

- Are the batteries charged?*
- Do I have enough spare batteries?*
- Is the camera connected to an external power source?*

Framing and Focus

- Is the scene framed at 16:9?*

Time-lapse footage shot with [FX (36 × 24)] selected for [Choose image area] will be recorded at an aspect ratio of 16:9. We recommend that you switch briefly to [16:9 (36 × 20)] when framing shots.
- Is the camera level?*

Display the virtual horizon by repeatedly pressing the **DISP** button and then use it as a reference to level the camera.
- Is the subject in focus?*

Take a test shot and check framing and focus.

Nikon