

***Nikon***

# **Z 9 Reference Guide**

(Supplement for Firmware Version 3.00)

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# Changes with “C” Firmware Version 3.00

## Features Available with “C” Firmware Version 3.00

The *Z 9 Reference Guide* is for “C” firmware version 2.10. This chapter details the new features and changes introduced with camera “C” firmware version 3.00. The two documents are to be read together.

### “Firmware Version”

To view the camera firmware version or update the camera firmware, select [**Firmware version**] in the setup menu.

Updates can be performed using a computer or smart device.

- **Computer:** Check the Nikon Download Center for new versions of the camera firmware. Information on performing updates is available via the firmware download page.  
<https://downloadcenter.nikonimglib.com/>
- **Smart device:** If the smart device has been paired with the camera using the SnapBridge app, the app will automatically notify you when updates become available, and you can then download the update to the camera memory card via the smart device. For information on performing updates, see SnapBridge online help. Note that automatic notifications may not be displayed at exactly the same time as the updates are made available on the Nikon Download Center.

# Changes Made with “C” Firmware Version 3.00

The features added or updated with camera “C” firmware version 3.00 are summarized below. More information is available on the pages listed. For information on the menu items and defaults for “C” firmware version 3.00, see “Menu Items and Defaults for “C” Firmware Version 3.00” (□38).

## **Still Photography**

- New DX-Only Image Size Options (□7)
- New High-Speed Frame Capture Option: C60 (□8)
- New Menu Item: “High-Frequency Flicker Reduction” (□9)
- New “Focus Shift Shooting” Option: “Focus Position Auto Reset” (□10)

## **Video Recording**

- New Menu Item: “High-Frequency Flicker Reduction” (□9)
- New Video Recording Feature: Hi-Res Zoom (□11)
- New “Timecode” Option: “Reset Using Remote” (□13)

## **Displays**

- New Monitor Mode: “Prioritize Viewfinder (2)” (□14)
- New “Focus Point Display” Option: “3D-Tracking Focus Point Color” (□15)
- New View Mode Options for Flash Photography (□16)
- New Monitor Brightness Options (□18)

## **Playback**

- Tall-Orientation Playback (☞ 19)
- New Color Temperature Display for Pictures Taken with “Preset Manual” White Balance (☞ 20)
- Handling Bursts as Groups (☞ 21)
- New Playback Display Option: “File Info” (☞ 23)

## **Controls**

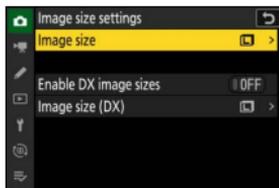
- New Release Timing Indicator Option: “Type A Auto Restore Delay” (☞ 24)
- New Display Option for Center-Weighted Metering (☞ 25)
- New Options for Custom Settings f2 “Custom Controls (Shooting)” and g2 “Custom Controls” (☞ 26)
- New Options for Custom Setting f3 “Custom Controls (Playback)” (☞ 29)
- New “Full Format” Option for CFexpress Memory Cards (☞ 30)

## **Networks**

- New FTP Connection Indicator (☞ 32)
- Support for FTPS (☞ 33)
- New “ATOMOS AirGlu BT Options” Item (☞ 35)

## New DX-Only Image Size Options

The **[Image size]** item in the photo shooting menu is now listed under **[Image size settings]** together with two new items: **[Enable DX image sizes]** and **[Image size (DX)]**. The size for pictures taken using the **[DX (24×16)]** image area can now be chosen independently of pictures taken using other image areas.

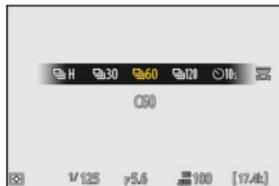


Item	Description
<b>[Image size]</b>	Choose the size, in pixels, of pictures recorded with the camera: <b>[Large]</b> , <b>[Medium]</b> , or <b>[Small]</b> .
<b>[Enable DX image sizes]</b>	When <b>[ON]</b> is selected for <b>[Enable DX image sizes]</b> , <b>[Image size (DX)]</b> can be used to choose the size of pictures taken with the <b>[DX (24×16)]</b> image area independently of the option chosen for <b>[Image size]</b> .
<b>[Image size (DX)]</b>	

## New High-Speed Frame Capture Option: C60

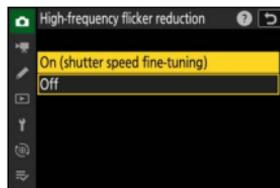
Use the new [C60] high-speed frame capture option to take pictures at 60 frames a second.

- With the release mode dial rotated to , hold the  button and rotate the main command dial to select [C60].
- The maximum length for bursts taken in this mode is approximately four seconds.
- Photos can be taken at the following settings:
  - **Shutter speed:**  $1/32000$ – $1/60$  S
  - **[Image area]:** [DX (24×16)] only
  - **[Image quality]:** [JPEG normal] only
  - **[Image size]:** [Large] only
- The release mode chosen if a DX lens is attached with [C120] selected is now [C60] rather than [C30]. Image area is fixed at [DX (24×16)].
- Pre-Release Capture is supported. Custom Setting d4 [C30/C120 options] has been renamed [Pre-Release Capture options].



## New Menu Item: “High-Frequency Flicker Reduction”

High-frequency flicker reduction, which can be assigned to camera controls using Custom Setting f2 [**Custom controls (shooting)**], can now also be accessed via [**High-frequency flicker reduction**] items in the photo shooting and video recording menus.



Selecting [**On (shutter speed fine-tuning)**]

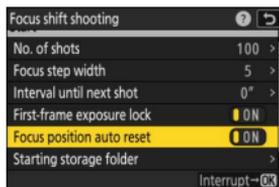
allows shutter speeds between  $1/8000$  and  $1/30$  s to be adjusted in smaller increments, letting speeds that keep flicker to a minimum be found by viewing the preview in the monitor.

- Exposure maintenance now applies during high-frequency flicker reduction when [**ISO sensitivity**] is selected for Custom Setting b7 [**Keep exp. when f/ changes**].

## New “Focus Shift Shooting” Option: “Focus Position Auto Reset”

A [**Focus position auto reset**] option has been added under [**Focus shift shooting**] in the photo shooting menu.

- When [**ON**] is selected, focus will return to the starting position once all the shots in the current sequence have been taken. This saves you having to refocus each time when photographing subjects at the same focus distance several times in succession.
- When [**OFF**] is selected, focus remains fixed at the position for the final shot in the sequence.



## New Video Recording Feature: Hi-Res Zoom

The camera now offers Hi-Res Zoom during video recording. Even if you don't have a zoom lens, you can still zoom in on your subject with no loss in resolution by selecting **[ON]** for the newly-added **[Hi-Res Zoom]** item in the video recording menu ("Hi-Res Zoom").

- Hi-Res Zoom is available when all the following conditions are met:
  - **[FX]** is selected for **[Image area]** > **[Choose image area]** in the video recording menu,
  - **[ProRes 422 HQ 10-bit (MOV)]**, **[H.265 10-bit (MOV)]**, **[H.265 8-bit (MOV)]**, or **[H.264 8-bit (MP4)]** is selected for **[Video file type]** in the video recording menu, and
  - a frame size and rate of from **[3840×2160; 30p]** to **[3840×2160; 24p]** or from **[1920×1080; 120p]** to **[1920×1080; 24p]** is selected for **[Frame size/frame rate]** in the video recording menu.
- To zoom in or out during filming, press  $\odot$  or  $\ominus$  or use buttons to which **[Hi-Res Zoom +]** and **[Hi-Res Zoom -]** have been assigned via Custom Setting g2 **[Custom controls]**. You can zoom in to a maximum of 2.0 $\times$ .
- A  icon appears in the display when Hi-Res Zoom is enabled. The zoom position is shown by a bar as you zoom in or out.

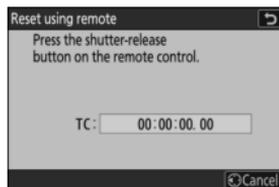


- Hi-Res Zoom can be assigned to the camera [**Fn1 button**] and [**Fn2 button**], to the lens Fn ring via [**Lens Fn ring (clockwise)**] and [**Lens Fn ring (counterclockwise)**], and via [**Lens control ring**] to the lens control ring.
  - When Hi-Res Zoom is assigned to the [**Fn1 button**], [**Fn2 button**], [**Lens Fn ring (clockwise)**], or [**Lens Fn ring (counterclockwise)**], zoom speed can be controlled using Custom Setting g8 [**Hi-Res Zoom speed**], which offers a choice of [**Slower**], [**Standard**], and [**Faster**].
  - When Hi-Res Zoom is assigned to [**Lens control ring**], the control ring response can be adjusted using Custom Setting f10 [**Control ring response**].
  - Instead of using the control ring, users of compatible lenses can employ the focus ring for Hi-Res Zoom by selecting [**ON**] for Custom Setting f11 [**Switch focus/control ring roles**].
- Restrictions apply to some camera features while Hi-Res Zoom is in effect; in particular, enabling Hi-Res Zoom:
  - fixes [**Electronic VR**] in the video recording menu at [**OFF**], and
  - fixes the AF-area mode at [**Wide-area AF (L)**] (the focus area is not displayed).

## New “Timecode” Option: “Reset Using Remote”

[**Reset using remote**] has been added to the options available for [**Timecode**] > [**Timecode origin**] in the video recording menu (*Reference Guide*, □ 605). This allows the time code to be reset by pressing the shutter-release button on an optional WR-T10 wireless remote controller paired with a WR-R11a or WR-R10 wireless remote controller attached to the camera.

- Selecting [**Reset using remote**] displays a time-code reset dialog. Press the shutter-release button on the WR-T10 to reset the time code.



- Pairing a single WR-T10 with multiple WR-R11a/WR-R10 wireless remote controllers allows the time codes for multiple cameras to be reset with a single press of the WR-T10's shutter-release button. The time codes for multiple cameras can thus be synchronized, making editing easier.

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### ✓ The Time-Code Reset Display

Pressing the camera shutter-release button all the way down while the time-code reset dialog is displayed resets the time code. No photograph will be taken.

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## New Monitor Mode: “Prioritize Viewfinder (2)”

The [**Prioritize viewfinder**] monitor mode (*Reference Guide*, □ 51) has been replaced by [**Prioritize viewfinder (1)**] and [**Prioritize viewfinder (2)**].

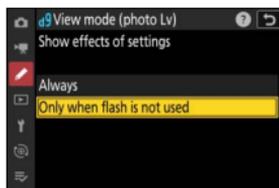
- In [**Prioritize viewfinder (1)**] mode, the viewfinder turns on only when you look through it. This behavior is identical to that for [**Prioritize viewfinder**] in camera “C” firmware version 1.xx.
- In [**Prioritize viewfinder (2)**] mode, the viewfinder will turn on both when you look through it and also for a few seconds after the camera is turned on, the shutter-release button is pressed halfway, or the **AF-ON** button is pressed. This behavior is identical to that for [**Prioritize viewfinder**] in camera “C” firmware version 2.xx.
- The [**Prioritize viewfinder**] option for [**Limit monitor mode selection**] in the setup menu has also been replaced by [**Prioritize viewfinder (1)**] and [**Prioritize viewfinder (2)**] options.

## New “Focus Point Display” Option: “3D-Tracking Focus Point Color”

[**3D-tracking focus point color**] has been added to the options available for Custom Setting a11 [**Focus point display**] (*Reference Guide*,  621). The color of the focus point displayed when [**3D-tracking**] is selected for AF-area mode can be chosen from [**White**] and [**Red**].

# New View Mode Options for Flash Photography

[Always] and [Only when flash is not used] have been added to the options available for Custom Setting d9 [View mode (photo Lv)] > [Show effects of settings].

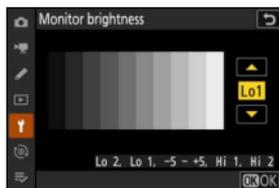


Item	Description
 [Show effects of settings]	<p>The effects of changes to settings such as white balance, Picture Controls, and exposure compensation are visible in the shooting display. Pressing  when [Show effects of settings] is highlighted displays [Always] and [Only when flash is not used] options.</p> <ul style="list-style-type: none"><li>• [Always]: The effects of settings are also visible when a flash unit is attached and ready to fire.<ul style="list-style-type: none"><li>- This setting is recommended when the display is used for adjustments to background exposure.</li><li>- The main subject may appear dark in the shooting display.</li></ul></li><li>• [Only when flash is not used]: Display brightness is adjusted for ease of viewing (as per [Adjust for ease of viewing]) when a flash unit is attached and ready to fire. The effects of settings on colors are visible regardless.</li><li>• A  icon will appear in the shooting display.</li></ul>

Item	Description
 <b>[Adjust for ease of viewing]</b>	<p>The effects of changes to settings such as white balance, Picture Controls, and exposure compensation are not visible in the shooting display. Pressing  when <b>[Adjust for ease of viewing]</b> is highlighted displays <b>[Auto]</b> and <b>[Custom]</b> options.</p> <ul style="list-style-type: none"> <li>• <b>[Auto]</b>: Color, brightness, and other settings are adjusted for ease of viewing during prolonged periods of use.</li> <li>• <b>[Custom]</b>: Press  to make individual adjustments to <b>[White balance]</b>, <b>[Set Picture Control]</b>, and <b>[Brighten shadows]</b>. <ul style="list-style-type: none"> <li>- <b>[White balance]</b>: Choose from <b>[Preview current setting]</b>, <b>[Auto]</b>, and <b>[Choose color temperature]</b>. Select <b>[Choose color temperature]</b> to choose the color temperature for the shooting display.</li> <li>- <b>[Set Picture Control]</b>: Choose from <b>[Preview current setting]</b> and <b>[Adjust for ease of viewing]</b>.</li> <li>- <b>[Brighten shadows]</b>: Choose whether or by how much the camera brightens shadows (dark areas) in the display; the available options are <b>[Off]</b>, <b>[+1]</b>, <b>[+2]</b>, and <b>[+3]</b>. The higher the value, the greater the effect.</li> </ul> </li> </ul> <p>• A  icon will appear in the shooting display.</p>

## New Monitor Brightness Options

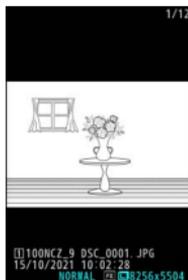
[Lo 1], [Lo 2], [Hi 1], and [Hi 2] have been added to the options available for [Monitor brightness] in the setup menu (*Reference Guide*, 740).



## Tall-Orientation Playback

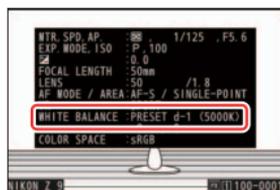
The [**Rotate tall**] item in the playback menu has been renamed [**Auto-rotate pictures**]. When [**ON**] is selected, the displays in the monitor and viewfinder will rotate to match camera orientation during playback.

- When [**ON**] is selected for [**Auto rotate info display**] in the setup menu, the icons in the playback display will also rotate to match camera orientation.



## New Color Temperature Display for Pictures Taken with “Preset Manual” White Balance

The photo info [**Basic shooting data**] page (*Reference Guide*,  245) now also shows the color temperature measured by the camera for pictures taken using [**Preset manual**] white balance. You can use this as a reference when selecting a value for  [**Choose color temperature**].



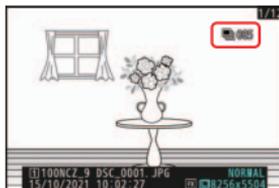
## Handling Bursts as Groups

Each series of shots taken during burst photography can be treated as a group. This cuts down on the amount of time spent scrolling back and forth to view pictures after shooting long bursts.

- The [**Frame advance**] > [**Skip to first shot in burst**] options for Custom Setting f3 [**Custom controls (playback)**] > [**Main command dial**] and [**Sub-command dial**] have been renamed [**Skip to first shot in series**].

### Identifying the First Shot in Each Burst

[**Mark first shot in series**] has been added to the options available for [**Playback display options**] > [**Add info**] in the playback menu. When this option is selected () , the first picture in each burst will be identified by a  icon and the figure giving the total number of shots in the burst.

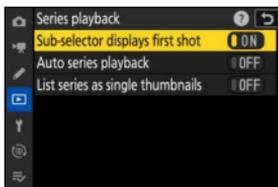


### Viewing the Shots in Each Burst

[**Start series playback**] has been added to the roles that can be assigned using Custom Setting f3 [**Custom controls (playback)**] (*Reference Guide*,  685). The pictures in a burst can be viewed in sequence by holding the control when any of the shots is displayed. Playback stops when the control is released.

## Burst Playback Options

A **[Series playback]** item has been added to the playback menu. It contains options for viewing bursts.



### ■ "Sub-selector Displays First Shot"

- Select **[ON]** to skip all but the first shot in each burst when scrolling through pictures by tilting the sub-selector left or right. Pictures that are not part of a burst will not be skipped. The individual shots in each burst can be viewed by tilting the sub-selector up or down.
- Tilting the sub-selector up, down, left, and right when **[OFF]** is selected performs the same functions as pressing , , , and  on the multi selector.

### ■ "Auto Series Playback"

If **[ON]** is selected, the remaining pictures will play back automatically after the first picture in the burst has been displayed full frame for a few seconds. Playback ends when the last picture in the burst is displayed.

### ■ "List Series as Single Thumbnails"

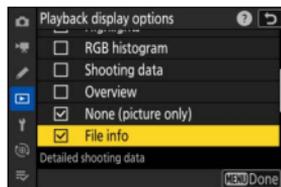
When **[ON]** is selected, only the first shot in each burst will appear in the thumbnail list. The first picture in each burst will be identified by a  icon and a figure giving the total number of shots in the burst.

- A **[Manage series]** item appears in the playback  menu when **[ON]** is selected for **[List series as single thumbnails]**. It can be used to protect, delete, or upload to a computer or FTP server all pictures in selected bursts.

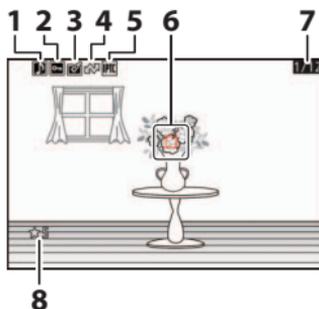


# New Playback Display Option: “File Info”

[**Playback display options**] (*Reference Guide*, 725) can now be used to add [**File info**] to the photo info pages available during full-frame playback.



- The [**File info**] page contains the following items:



1 Voice memo indicator

2 Protect status

3 Retouch indicator

4 Upload marking

5 IPTC preset indicator

6 Focus point \*

7 Frame number/total number of frames

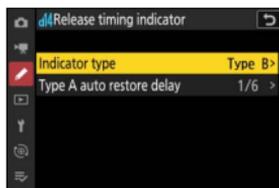
8 Rating

- \* Displayed only if [**Focus point**] is selected for [**Playback display options**] in the playback menu.

## New Release Timing Indicator Option: “Type A Auto Restore Delay”

[**Type A auto restore delay**] has been added to the options for Custom Setting d14

[**Release timing indicator**] and the menu has been reorganized.



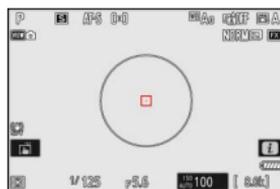
Item	Description
[ <b>Indicator type</b> ]	<p>Choose how the display responds when the shutter is released.</p> <ul style="list-style-type: none"><li>• [<b>Type A</b>]: The display goes dark when the shutter is released. This makes it easier to track the subject during panning shots.</li><li>• [<b>Type B</b>]: Borders appear at the top, bottom, and sides of the frame when the shutter is released.</li><li>• [<b>Type C</b>]: Borders appear at the sides of the frame when the shutter is released.</li><li>• [<b>Off</b>]: A release timing indicator is not displayed when the shutter is released.</li></ul>
[ <b>Type A auto restore delay</b> ]	<p>Choose the shutter speed at which the camera switches to [<b>Type A</b>] when an option other than [<b>Type A</b>] is selected for [<b>Indicator type</b>].</p> <ul style="list-style-type: none"><li>• This option takes effect in modes <b>S</b> and <b>M</b>.</li><li>• When pictures are taken at shutter speeds at or below the value chosen for [<b>Type A auto restore delay</b>], the display will go dark to indicate that the shutter has been released.</li><li>• The [<b>Type A</b>] display makes it easier to track the subject during panning shots.</li></ul>

## New Display Option for Center-Weighted Metering

[**Center-weighted area**] has been added to the shooting display options available via Custom Settings d18 [**Custom monitor shooting display**] and d19 [**Custom viewfinder shooting display**].



- Enabling (☑) this option adds an 8 or 12 mm circle to the center of the shooting display whenever [**Center-weighted metering**] is selected for [**Metering**] in the photo shooting or video recording menu.



- The size of the circle varies with the option selected for Custom Setting b5 [**Center-weighted area**]. The circle is not displayed when [**Average**] is selected.

## New Options for Custom Settings f2 “Custom Controls (Shooting)” and g2 “Custom Controls”

Additions have been made to the roles available for Custom Setting f2 [**Custom controls (shooting)**] (*Reference Guide*, □ 663) or g2 [**Custom controls**] (*Reference Guide*, □ 700) and the controls to which they can be assigned.

### Newly Customizable Controls

The following controls can now be customized.

-  [**Vertical ISO sensitivity button**]
-  [**DISP button**]
-  [**Video record button**]
-  [**Exposure compensation button**]
-  [**ISO sensitivity button**]

## New Roles Available via Custom Setting f2 “Custom Controls (Shooting)”

	Item	Description
	[Switch FX/DX]	Press the control to switch to [DX (24×16)] when [FX (36×24)] is chosen for image area. Pressing the control when an option other than [FX (36×24)] is chosen for image area selects [FX (36×24)].
FLICKER	[Photo flicker reduction]	Press the control to switch the option selected for [Photo flicker reduction] in the photo shooting menu from [ON] to [OFF] or vice versa.
	[Override other cameras]	Press the control to have the camera function as a master camera for synchronized release. <ul style="list-style-type: none"> <li>• This option takes effect when multiple cameras have been designated as masters using [Connect to other cameras] in the network menu.</li> <li>• You can switch masters remotely at the touch of a button from other cameras functioning in the master role.</li> </ul>
DISP	[Cycle live view info display]	Press the control to cycle the shooting display. The type and content of the displays available can be chosen using Custom Settings d18 [Custom monitor shooting display] and d19 [Custom viewfinder shooting display].
	[View mode (photo Lv)]	Press the control to switch the option selected for Custom Setting d9 [View mode (photo Lv)] from [Show effects of settings] to [Adjust for ease of viewing] or vice versa.
	[Filtered playback (select criteria)]	Press the control to jump to [Filtered playback criteria] in the playback menu.

## New Roles Available via Custom Setting g2 “Custom Controls”

	Item	Description
	[Switch FX/DX]	Press the control to switch between [FX] and [DX] image areas.
	[View assist]	Press the control to switch Custom Setting g11 [View assist] from [ON] to [OFF] or vice versa.
DISP	[Cycle live view info display]	Press the control to cycle the shooting display. The type and content of the displays available can be chosen using Custom Settings g16 [Custom monitor shooting display] and g17 [Custom viewfinder shooting display].
	[Filtered playback (select criteria)]	Press the control to jump to [Filtered playback criteria] in the playback menu.
	[Hi-Res Zoom +]	<ul style="list-style-type: none"> <li>• Zoom in using Hi-Res Zoom (□□11); the zoom ratio increases while the control is pressed. This option is enabled automatically when [Hi-Res Zoom –] is selected for [Fn2 button].</li> <li>• Rotate the lens Fn ring clockwise to zoom in using Hi-Res Zoom. This option is enabled automatically when [Hi-Res Zoom –] is selected for [Lens Fn ring (counterclockwise)].</li> </ul>
	[Hi-Res Zoom –]	<ul style="list-style-type: none"> <li>• Zoom out using Hi-Res Zoom (□□11); the zoom ratio decreases while the control is pressed. This option is enabled automatically when [Hi-Res Zoom +] is selected for [Fn1 button].</li> <li>• Rotate the lens Fn ring counterclockwise to zoom out using Hi-Res Zoom. This option is enabled automatically when [Hi-Res Zoom +] is selected for [Lens Fn ring (clockwise)].</li> </ul>
	[Hi-Res Zoom]	Rotate the lens control ring to zoom in or out using Hi-Res Zoom (□□11).

## New Options for Custom Setting f3 “Custom Controls (Playback)”

Additions have been made to the roles available for Custom Setting f3 [**Custom controls (playback)**] (*Reference Guide*, □ 685) and the controls to which they can be assigned.

### Newly Customizable Controls

[**DISP button**] has been added to the list of customizable controls.

### New Roles

	Item	Description
	[ <b>Filtered playback (select criteria)</b> ]	Press the control to jump to [ <b>Filtered playback criteria</b> ] in the playback menu.
	[ <b>Start series playback</b> ]	Pressing the control when a picture from a burst is displayed full frame starts automated playback of the remaining pictures. Playback stops when the control is released (□21).
DISP	[ <b>Cycle info display</b> ]	Press the control to cycle the photo information display during full-frame playback. The pages available can be chosen using [ <b>Playback display options</b> ] in the playback menu.
	[ <b>Resume shooting</b> ]	Press the control to end playback and return to shooting mode.

## New “Full Format” Option for CFexpress Memory Cards

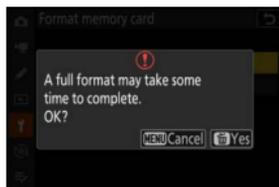
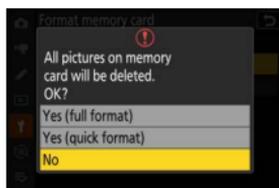
You now have the option of performing a full format on compatible CFexpress memory cards using [**Format memory card**] in the setup menu (*Reference Guide*, □ 739).

- Performing a full format deletes data from all areas of the card.  
Perform a full format to ensure that all data are deleted or if you notice a drop in the speed at which data are read from or written to the card.

### Performing a Full Format

Selecting a slot containing a compatible memory card for formatting using [**Format memory card**] in the setup menu displays a dialog prompting you to choose a format type.

- Select [**Yes (full format)**] and then choose [**Yes**] when prompted to fully format the CFexpress memory card.



- To format the card using the existing format method, select **[Yes (quick format)]**.
- You will also be presented with full and quick format options after pressing the  (FORMAT) and **ISO** (FORMAT) buttons for two seconds.

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### **Cautions: Full Format**

- A full format takes longer than a quick format.
- Do not turn the camera off or remove the CFexpress memory card until the message **[Formatting memory card.]** clears from the display.

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### **“Quick Format” Versus “Full Format”**

A quick format overwrites only the file system information, leaving the actual file data intact. In contrast, performing a full format on a CFexpress memory card deletes all data. We recommend fully-formatting CFexpress memory cards prior to transfer of ownership or disposal.

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## New FTP Connection Indicator

An “FTP” indicator now appears in the shooting display while the camera is connected to an FTP server.

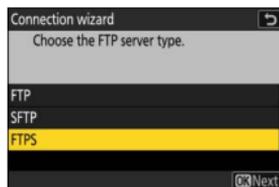
- In the event of an FTP connection error, the indicator will turn red and a  icon will be displayed.



## Support for FTPS

The camera now supports the FTPS file transfer protocol for secure connection to FTP servers.

- To use FTPS, select [**FTPS**] as the server type when creating host profiles using [**Connect to FTP server**] in the network menu.



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### ✔ Firewall Settings

FTPS (selected by choosing [**FTPS**] as the server type) uses TCP port 990. File transfer may be blocked if the server firewall is not configured to allow access to this port.

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## FTPS Root Certificates

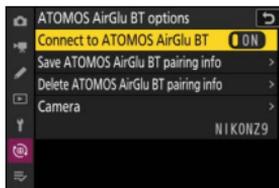
Before connecting to a server via FTPS, you will need to load a root certificate onto the camera. Root certificates can be managed using the **[Manage root certificate]** option newly added to **[Connect to FTP server] > [Options]** in the network menu.

- Contact the network administrator for the FTPS server in question for information on acquiring root certificates.

Item	Description
<b>[Import root certificate]</b>	<p>Import a root certificate to the camera from a memory card.</p> <ul style="list-style-type: none"><li>• The certificate must be in the card's root (top) directory.</li><li>• The camera can import root certificate files named "ROOT.CER", "ROOT.CRT", or "ROOT.PEM".</li><li>• Only one root certificate can be stored on the camera at a time. The existing certificate is overwritten when a new certificate is imported.</li><li>• Connections established using self-signed root certificates may not be trustworthy.</li></ul>
<b>[Delete root certificate]</b>	Delete the current root certificate from the camera.
<b>[View root certificate]</b>	View the camera's current root certificate.
<b>[Connect if authentication fails]</b>	Select <b>[ON]</b> to ignore certain authentication errors.

## New “ATOMOS AirGlu BT Options” Item

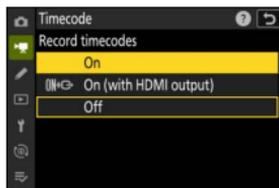
An [ATOMOS AirGlu BT options] item has been added to the network menu. Use it for wireless Bluetooth connections between the camera and Atomos UltraSync BLUE AirGlu accessories.



- The UltraSync BLUE can be used for wireless connections to up to six compatible cameras or audio recorders. Time codes are transmitted to the connected devices from the UltraSync BLUE, synchronizing time codes even across devices from a mix of manufacturers.

Item	Description
[Connect to ATOMOS AirGlu BT]	Establish a wireless Bluetooth connection to a previously-paired UltraSync BLUE.
[Save ATOMOS AirGlu BT pairing info]	Pair the camera with the UltraSync BLUE. <ul style="list-style-type: none"><li>• The camera name will be displayed in the camera monitor.</li><li>• Use the controls on the UltraSync BLUE to pair it with the camera. For more information, see the documentation for the UltraSync BLUE.</li></ul>
[Delete ATOMOS AirGlu BT pairing info]	End the wireless connection between the camera and the UltraSync BLUE.
[Camera]	Choose the name under which the camera is listed on the UltraSync BLUE.

- After establishing a wireless connection to the UltraSync BLUE, select **[On]** or **[On (with HDMI output)]** for **[Timecode] > [Record timecodes]** in the video recording menu to start receiving time codes. The camera shooting display will show the same time code values as the UltraSync BLUE.



- If no time code is received, the shooting display will show "--:--:--:--" (or "00:00:00:00" when an external device is connected via HDMI). No time codes will be recorded if filming is begun at this stage.

### ✓ **Cautions: Using the UltraSync BLUE**

- Time codes will not be recorded if **[H.264 8-bit (MP4)]** is selected for **[Video file type]** in the video recording menu.
- The UltraSync BLUE allows users to choose the frame rate. If the value is not a match for that chosen with the camera, time codes will not be recorded or output via HDMI. Match the frame rate for the UltraSync BLUE to the video recording frame rate as follows:

Video recording frame rate	UltraSync BLUE frame rate
120p, 60p, 30p	29.97 fps, 29.97 fps DF
100p, 50p, 25p	25 fps
24p	23.98 fps

- Select 29.97 fps DF for drop-frame recording.
- See the documentation for the UltraSync BLUE for information on choosing a frame rate.

- The options selected for [Timecode] > [Count-up method], [Timecode origin], and [Drop frame] in the video recording menu cannot be changed while the camera has a wireless connection to the UltraSync BLUE.
  - If the camera loses the wireless connection to the UltraSync BLUE while filming is in progress, it will continue to record time codes until the end of the current shot, although the time code shown in the shooting display will switch to “--:--:--” about 60 seconds after the connection is lost. The time code will reappear when the wireless connection to the UltraSync BLUE is re-established.
  - The wireless connection to the UltraSync BLUE will end when the camera is turned off or the standby timer expires. We recommend choosing [No limit] for Custom Setting c3 [Power off delay] > [Standby timer].
-

# Menu Items and Defaults for “C” Firmware Version 3.00

The menu items and defaults after the firmware has been upgraded to “C” firmware version 3.00 are listed below.

## Photo Shooting Menu

Photo shooting menu option	Default
[Shooting menu bank]	A
[Extended menu banks]	OFF
[Storage folder]	
[Rename]	NCZ_9
[Select folder by number]	100
[Select folder from list]	—
[File naming]	DSC
[Role played by card in Slot 2]	Overflow
[Image area]	
[Choose image area]	FX (36×24)
[DX crop alert]	OFF
[Image quality]	JPEG normal
[Image size settings]	
[Image size]	Large
[Enable DX image sizes]	OFF
[Image size (DX)]	Large
[RAW recording]	High efficiency★

Photo shooting menu option	Default
<b>[ISO sensitivity settings]</b>	
[ISO sensitivity]	100
[Auto ISO sensitivity control]	ON
[Maximum sensitivity]	25600
[Maximum sensitivity with $\frac{1}{2}$ ]	Same as without flash
[Minimum shutter speed]	Auto
[White balance]	Auto: Keep white (reduce warm colors)
[Set Picture Control]	Auto
[Manage Picture Control]	—
[Color space]	sRGB
[Active D-Lighting]	Off
[Long exposure NR]	OFF
[High ISO NR]	Normal
[Vignette control]	Normal
[Diffraction compensation]	ON
[Auto distortion control]	ON
[Photo flicker reduction]	OFF
[High-frequency flicker reduction]	Off
[Metering]	Matrix metering

Photo shooting menu option	Default
<b>[Flash control]</b>	
[Flash control mode]	TTL
[Wireless flash options]	Off
[Remote flash control]	Group flash
<b>[Focus mode]</b>	Single AF
<b>[AF-area mode]</b>	Single-point AF
<b>[AF subject detection options]</b>	Auto
<b>[Vibration reduction]</b>	Sport
<b>[Auto bracketing]</b>	
[Auto bracketing set]	AE & flash bracketing
[Number of shots]	0
[Increment]	1.0
<b>[Multiple exposure]</b>	
[Multiple exposure mode]	Off
[Number of shots]	2
[Overlay mode]	Average
[Save individual pictures (RAW)]	ON
[Overlay shooting]	ON
[Select first exposure (RAW)]	—
<b>[HDR overlay]</b>	
[HDR mode]	Off
[HDR strength]	Auto
[Save individual pictures (RAW)]	OFF

Photo shooting menu option	Default
<b>[Interval timer shooting]</b>	
[Choose start day/time]	Now
[Interval]	1 min.
[Intervals×shots/interval]	0001×1
[Exposure smoothing]	ON
[Interval priority]	OFF
[Focus before each shot]	OFF
[Options]	Off
<b>[Starting storage folder]</b>	
[New folder]	<input type="checkbox"/>
[Reset file numbering]	<input type="checkbox"/>
<b>[Time-lapse video]</b>	
[Interval]	5 s
[Shooting time]	25 min.
[Exposure smoothing]	ON
[Choose image area]	FX
[Video file type]	H.265 8-bit (MOV)
[Frame size/frame rate]	3840×2160; 30p
[Interval priority]	OFF
[Focus before each shot]	OFF
[Destination]	Slot 1

Photo shooting menu option	Default
<b>[Focus shift shooting]</b>	
[No. of shots]	100
[Focus step width]	5
[Interval until next shot]	0
[First-frame exposure lock]	ON
[Focus position auto reset]	OFF
<b>[Starting storage folder]</b>	
[New folder]	<input type="checkbox"/>
[Reset file numbering]	<input type="checkbox"/>

## **Video Recording Menu**

Video recording menu option	Default
[Shooting menu bank]	A
[Extended menu banks]	OFF
<b>[Storage folder]</b>	
[Rename]	NCZ_9
[Select folder by number]	100
[Select folder from list]	—
[File naming]	DSC
[Destination]	Slot 1
[Video file type]	H.265 8-bit (MOV)
[Frame size/frame rate]	3840×2160; 30p
[Video quality (N-RAW)]	High quality
<b>[Image area]</b>	
[Choose image area]	FX
[DX crop alert]	OFF
[Extended oversampling]	OFF

<b>Video recording menu option</b>	<b>Default</b>
<b>[ISO sensitivity settings]</b>	
[Maximum sensitivity]	25600
[Auto ISO control (mode M)]	ON
[ISO sensitivity (mode M)]	100
[White balance]	Same as photo settings
[Set Picture Control]	Same as photo settings
[Manage Picture Control]	—
<b>[HLG quality]</b>	
[Quick sharp]	0
[Contrast]	0
[Saturation]	0
[Hue]	0
[Active D-Lighting]	Off
[High ISO NR]	Normal
[Vignette control]	Normal
[Diffraction compensation]	ON
[Auto distortion control]	ON
[Video flicker reduction]	Auto
[High-frequency flicker reduction]	Off
[Metering]	Matrix metering
[Focus mode]	Full-time AF
[AF-area mode]	Single-point AF

<b>Video recording menu option</b>	<b>Default</b>
<b>[AF subject detection options]</b>	
[Subject detection]	Auto
[AF when subject not detected]	ON
[Vibration reduction]	Same as photo settings
[Electronic VR]	OFF
[Microphone sensitivity]	Auto
[Attenuator]	OFF
[Frequency response]	Wide range
[Wind noise reduction]	OFF
[Mic jack plug-in power]	ON
[Headphone volume]	15
<b>[Timecode]</b>	
[Record timecodes]	Off
[Count-up method]	Record run
[Timecode origin]	—
[Drop frame]	ON
[External rec. cntrl (HDMI)]	OFF
[Hi-Res Zoom]	OFF

## Custom Settings Menu

Custom Settings menu option		Default
[Custom Settings bank]		A
a1	[AF-C priority selection]	Release
a2	[AF-S priority selection]	Focus
a3	[Focus tracking with lock-on]	
	[Blocked shot AF response]	3
	[Subject motion]	Steady
a4	[Focus points used]	All points
a5	[Store points by orientation]	Off
a6	[AF activation]	Shutter/AF-ON
a7	[Focus point persistence]	Auto
a8	[Limit AF-area mode selection]	
	[Pinpoint AF]	<input checked="" type="checkbox"/>
	[Single-point AF]	✓ (cannot be deselected)
	[Dynamic-area AF (S)]	<input checked="" type="checkbox"/>
	[Dynamic-area AF (M)]	<input checked="" type="checkbox"/>
	[Dynamic-area AF (L)]	<input checked="" type="checkbox"/>
	[Wide-area AF (S)]	<input checked="" type="checkbox"/>
	[Wide-area AF (L)]	<input checked="" type="checkbox"/>
	[Wide-area AF (C1)]	<input checked="" type="checkbox"/>
	[Wide-area AF (C2)]	<input checked="" type="checkbox"/>
	[3D-tracking]	<input checked="" type="checkbox"/>
	[Auto-area AF]	<input checked="" type="checkbox"/>

	<b>Custom Settings menu option</b>	<b>Default</b>
a9	[Focus mode restrictions]	No restrictions
a10	[Focus point wrap-around]	OFF
a11	[Focus point display]	
	[Manual focus mode]	ON
	[Dynamic-area AF assist]	ON
	[AF-C in-focus display]	OFF
	[3D-tracking focus point color]	White
a12	[Built-in AF-assist illuminator]	ON
a13	[Focus peaking]	
	[Focus peaking display]	OFF
	[Focus peaking sensitivity]	2 (standard)
	[Focus peaking highlight color]	Red
a14	[Focus point selection speed]	Normal
a15	[Manual focus ring in AF mode]	ON
b1	[ISO sensitivity step value]	1/3 step
b2	[EV steps for exposure cntrl]	1/3 EV steps (comp. 1/3 EV)
b3	[Easy exposure compensation]	Off
b4	[Matrix metering face detection]	ON
b5	[Center-weighted area]	Standard
b6	[Fine-tune optimal exposure]	
	[Matrix metering]	0
	[Center-weighted metering]	0
	[Spot metering]	0
	[Highlight-weighted metering]	0
b7	[Keep exp. when f/ changes]	Exposure maintenance off

	<b>Custom Settings menu option</b>	<b>Default</b>
c1	[Shutter-release button AE-L]	Off
c2	[Self-timer]	
	[Self-timer delay]	10 s
	[Number of shots]	1
	[Interval between shots]	0.5 s
c3	[Power off delay]	
	[Playback]	10 s
	[Menus]	1 min
	[Picture review]	4 s
	[Standby timer]	30 s
d1	[Continuous shooting speed]	
	[Continuous high-speed]	20 fps
	[Continuous low-speed]	5 fps
d2	[Maximum shots per burst]	∞
d3	[Limit release mode selection]	
	[Single frame]	✓ (cannot be deselected)
	[Continuous L]	<input checked="" type="checkbox"/>
	[Continuous H]	<input checked="" type="checkbox"/>
	[C30]	<input checked="" type="checkbox"/>
	[C60]	<input checked="" type="checkbox"/>
	[C120]	<input checked="" type="checkbox"/>
	[Self-timer]	<input checked="" type="checkbox"/>
d4	[Pre-Release Capture options]	
	[Pre-release burst]	None
	[Post-release burst]	Max.
d5	[Sync. release mode options]	Sync
d6	[Extended shutter speeds (M)]	OFF

	<b>Custom Settings menu option</b>	<b>Default</b>
d7	<b>[Limit selectable image area]</b>	
	[FX (36×24)]	✓ (cannot be deselected)
	[DX (24×16)]	<input checked="" type="checkbox"/>
	[1:1 (24×24)]	<input checked="" type="checkbox"/>
	[16:9 (36×20)]	<input checked="" type="checkbox"/>
d8	<b>[File number sequence]</b>	On
d9	<b>[View mode (photo Lv)]</b>	Show effects of settings
	[Show effects of settings]	Only when flash is not used
	[Adjust for ease of viewing]	Auto
d10	<b>[Starlight view (photo Lv)]</b>	OFF
d11	<b>[Warm display colors]</b>	
	[Warm display color options]	Off
	[Warm color display brightness]	0
d12	<b>[LCD illumination]</b>	OFF
d13	<b>[View all in continuous mode]</b>	ON
d14	<b>[Release timing indicator]</b>	
	[Indicator type]	Type B
	[Type A auto restore delay]	1/6 s
d15	<b>[Image frame]</b>	ON
d16	<b>[Grid type]</b>	3×3
d17	<b>[Virtual horizon type]</b>	Type A
d18	<b>[Custom monitor shooting display]</b>	
	[Display 1]	✓ (cannot be deselected)
	[Display 2]	<input checked="" type="checkbox"/>
	[Display 3]	<input checked="" type="checkbox"/>
	[Display 4]	<input checked="" type="checkbox"/>
	[Display 5]	<input checked="" type="checkbox"/>

	<b>Custom Settings menu option</b>	<b>Default</b>
d19	<b>[Custom viewfinder shooting display]</b>	
	<b>[Display 1]</b>	✓ (cannot be deselected)
	<b>[Display 2]</b>	<input checked="" type="checkbox"/>
	<b>[Display 3]</b>	<input checked="" type="checkbox"/>
	<b>[Display 4]</b>	<input checked="" type="checkbox"/>
d20	<b>[High fps viewfinder display]</b>	OFF
e1	<b>[Flash sync speed]</b>	1/200 s
e2	<b>[Flash shutter speed]</b>	1/60 s
e3	<b>[Exposure comp. for flash]</b>	Entire frame
e4	<b>[Auto <math>\frac{1}{2}</math> ISO sensitivity control]</b>	Subject and background
e5	<b>[Modeling flash]</b>	ON
e6	<b>[Auto bracketing (mode M)]</b>	Flash/speed
e7	<b>[Bracketing order]</b>	MTR > under > over
e8	<b>[Flash burst priority]</b>	Prioritize precise flash control
f1	<b>[Customize  menu]</b>	Set Picture Control, White balance, Image quality, Image size, AF-area mode/subj. detection, Focus mode, Metering, Vibration reduction, Shooting menu bank, Custom controls (shooting), Airplane mode, View memory card info

Custom Settings menu option		Default
f2	<b>[Custom controls (shooting)]</b>	
	<b>[Fn1 button]</b>	Shooting menu bank
	<b>[Fn2 button]</b>	Choose image area
	<b>[Fn3 button]</b>	Live view info display off
	<b>[Fn button for vertical shooting]</b>	Exposure compensation
	<b>[Vertical ISO sensitivity button]</b>	ISO sensitivity
	<b>[AF-ON button]</b>	AF-ON
	<b>[Protect/Fn4 button]</b>	Set Picture Control
	<b>[DISP button]</b>	Cycle live view info display
	<b>[Sub-selector center]</b>	AE/AF lock
	<b>[OK button]</b>	Select center focus point
	<b>[Audio button]</b>	None
	<b>[QUAL button]</b>	Image quality/size
	<b>[Vertical multi selector center]</b>	AE/AF lock
	<b>[AF-ON button for vertical shooting]</b>	Same as AF-ON button
	<b>[Video record button]</b>	None
	<b>[Exposure compensation button]</b>	Exposure compensation
	<b>[ISO sensitivity button]</b>	ISO sensitivity
	<b>[Command dials]</b>	
	<b>[Exposure setting]</b>	<b>P:</b>  -- /  P* <b>S:</b>  -- /  Tv <b>A:</b>  Av /  -- <b>M:</b>  Av /  Tv
	<b>[Focus/AF-area mode selection]</b>	 [+]/  AF/MF
	<b>[Sub-command dial zoom role]</b>	Exposure setting

Custom Settings menu option		Default
f2	<b>[Custom controls (shooting)]</b>	
	[Lens Fn button]	AE/AF lock
	[Lens Fn2 button]	AF-ON
	[Lens Fn ring (counterclockwise)]	Recall focus position
	[Lens Fn ring (clockwise)]	Recall focus position
	[Lens memory set button]	Save focus position
	[Lens control ring]	(Varies with lens)
f3	<b>[Custom controls (playback)]</b>	
	[Fn1 button]	None
	[Fn2 button]	None
	[Fn3 button]	None
	[Fn button for vertical shooting]	None
	[Protect/Fn4 button]	Protect
	[DISP button]	Cycle info display
	[Audio button]	Voice memo
	[OK button]	Zoom on/off
	[WB button]	Select for upload to computer
	[QUAL button]	Rating
	<b>[Main command dial]</b>	
	[Frame advance]	1 frame
	[Video playback]	10 frames
	[Vertical shooting multi selector]	Unswitch
	[Video record button]	None
	<b>[Sub-command dial]</b>	
	[Frame advance]	1 frame
	[Video playback]	10 s

	<b>Custom Settings menu option</b>	<b>Default</b>
f4	<b>[Control lock]</b>	
	<b>[Shutter speed lock]</b>	OFF
	<b>[Aperture lock]</b>	OFF
	<b>[Focus-point lock]</b>	OFF
f5	<b>[Reverse dial rotation]</b>	
	<b>[Exposure compensation]</b>	<input type="checkbox"/>
	<b>[Shutter speed/aperture]</b>	<input type="checkbox"/>
f6	<b>[Release button to use dial]</b>	OFF
f7	<b>[Reverse indicators]</b>	
f8	<b>[Reverse ring for focus]</b>	OFF
f9	<b>[Focus ring rotation range]</b>	Non-linear
f10	<b>[Control ring response]</b>	High
f11	<b>[Switch focus/control ring roles]</b>	OFF
f12	<b>[Full-frame playback flicks]</b>	
	<b>[Flick up]</b>	None
	<b>[Flick down]</b>	None
	<b>[Flick advance direction]</b>	Left→Right
f13	<b>[Prefer sub-selector center]</b>	ON

<b>Custom Settings menu option</b>		<b>Default</b>
g1	<b>[Customize  menu]</b>	Set Picture Control, White balance, Frame size/frame rate, Microphone sensitivity, AF-area mode/subj. detection, Focus mode, Electronic VR, Vibration reduction, Shooting menu bank, Custom controls, Airplane mode, Destination
g2	<b>[Custom controls]</b>	
	<b>[Fn1 button]</b>	Shooting menu bank
	<b>[Fn2 button]</b>	Choose image area
	<b>[Fn3 button]</b>	Live view info display off
	<b>[Fn button for vertical shooting]</b>	Exposure compensation
	<b>[Vertical ISO sensitivity button]</b>	ISO sensitivity
	<b>[Focus mode button]</b>	Focus mode/AF-area mode
	<b>[Protect/Fn4 button]</b>	Set Picture Control
	<b>[AF-ON button]</b>	AF-ON
	<b>[Sub-selector center]</b>	AE/AF lock
	<b>[DISP button]</b>	Cycle live view info display
	<b>[Audio button]</b>	Microphone sensitivity
	<b>[OK button]</b>	Select center focus point

Custom Settings menu option		Default
g2	<b>[Custom controls]</b>	
	<b>[Vertical multi selector center]</b>	AE/AF lock
	<b>[QUAL button]</b>	None
	<b>[Video record button]</b>	Record videos
	<b>[AF-ON button for vertical shooting]</b>	Same as AF-ON button
	<b>[ISO sensitivity button]</b>	ISO sensitivity
	<b>[Exposure compensation button]</b>	Exposure compensation
	<b>[Shutter-release button]</b>	None
	<b>[Command dials]</b>	
	<b>[Exposure setting]</b>	<b>A:</b>  Av/  Tv <b>M:</b>  Av/  Tv
	<b>[Focus/AF-area mode selection]</b>	 [+]/  AF/MF
	<b>[Sub-command dial zoom role]</b>	Exposure setting
	<b>[Lens Fn button]</b>	AE/AF lock
	<b>[Lens Fn2 button]</b>	AF-ON
	<b>[Lens Fn ring (counterclockwise)]</b>	Recall focus position
	<b>[Lens Fn ring (clockwise)]</b>	Recall focus position
	<b>[Lens memory set button]</b>	Save focus position
	<b>[Lens control ring]</b>	(Varies with lens)

	<b>Custom Settings menu option</b>	<b>Default</b>
g3	<b>[Control lock]</b>	
	[Shutter speed lock]	OFF
	[Aperture lock]	OFF
	[Focus-point lock]	OFF
g4	<b>[Limit AF-area mode selection]</b>	
	[Single-point AF]	✓ (cannot be deselected)
	[Wide-area AF (S)]	<input checked="" type="checkbox"/>
	[Wide-area AF (L)]	<input checked="" type="checkbox"/>
	[Wide-area AF (C1)]	<input checked="" type="checkbox"/>
	[Wide-area AF (C2)]	<input checked="" type="checkbox"/>
	[Subject-tracking AF]	<input checked="" type="checkbox"/>
[Auto-area AF]	<input checked="" type="checkbox"/>	
g5	<b>[Focus mode restrictions]</b>	No restrictions
g6	<b>[AF speed]</b>	0
	[When to apply]	Always
g7	<b>[AF tracking sensitivity]</b>	4
g8	<b>[Hi-Res Zoom speed]</b>	Standard
g9	<b>[Fine ISO control (mode M)]</b>	Off
g10	<b>[Extended shutter speeds (mode M)]</b>	OFF
g11	<b>[View assist]</b>	OFF
g12	<b>[Zebra pattern]</b>	
	[Pattern tone range]	Zebra pattern off
	[Pattern]	Pattern 1
	[Highlight threshold]	250
	[Mid-tone range]	Value: 160; range: ±10

	<b>Custom Settings menu option</b>	<b>Default</b>
g13	[Limit zebra pattern tone range]	No restrictions
g14	[Grid type]	3×3
g15	[Brightness information display]	Histogram
g16	[Custom monitor shooting display]	
	[Display 1]	✓ (cannot be deselected)
	[Display 2]	<input checked="" type="checkbox"/>
	[Display 3]	<input checked="" type="checkbox"/>
	[Display 4]	<input checked="" type="checkbox"/>
g17	[Custom viewfinder shooting display]	
	[Display 1]	✓ (cannot be deselected)
	[Display 2]	<input checked="" type="checkbox"/>
	[Display 3]	<input checked="" type="checkbox"/>
g18	[Red REC frame indicator]	ON

## Playback Menu

Playback menu option	Default
[Delete]	—
[Playback folder]	All
<b>[Playback display options]</b>	
[Focus point]	<input type="checkbox"/>
[Mark first shot in series]	<input type="checkbox"/>
[Exposure info]	<input type="checkbox"/>
[Highlights]	<input type="checkbox"/>
[RGB histogram]	<input type="checkbox"/>
[Shooting data]	<input type="checkbox"/>
[Overview]	<input type="checkbox"/>
[None (picture only)]	<input checked="" type="checkbox"/>
[File info]	<input type="checkbox"/>
[Basic shooting data]	<input checked="" type="checkbox"/>
[Flash data]	<input checked="" type="checkbox"/>
[Picture Control/HLG data]	<input checked="" type="checkbox"/>
[Other shooting data]	<input checked="" type="checkbox"/>
[Copyright info]	<input checked="" type="checkbox"/>
[Location data]	<input checked="" type="checkbox"/>
[IPTC data]	<input checked="" type="checkbox"/>
[Delete pictures from both slots]	Yes (confirmation required)
[Dual-format recording PB slot]	Slot 1

<b>Playback menu option</b>	<b>Default</b>
<b>[Filtered playback criteria]</b>	
[Protect]	<input type="checkbox"/>
[Picture type]	<input type="checkbox"/>
[Rating]	<input type="checkbox"/>
[Select for upload to computer]	<input type="checkbox"/>
[Select for upload (FTP)]	<input type="checkbox"/>
[Voice memo]	<input type="checkbox"/>
[Retouched pictures]	<input type="checkbox"/>
<b>[Series playback]</b>	
[Sub-selector displays first shot]	ON
[Auto series playback]	OFF
[List series as single thumbnails]	OFF
[Picture review]	Off
[After delete]	Show next
[After burst, show]	Last picture in burst
[Auto-rotate pictures]	ON
[Copy image(s)]	—

## Setup Menu

Setup menu option	Default
[Format memory card]	—
[Language]	(Default varies with country of purchase)
<b>[Time zone and date]</b>	
[Time zone]	(Default varies with country of purchase)
[Date and time]	—
[Date format]	(Default varies with country of purchase)
[Daylight saving time]	OFF
[Monitor brightness]	0
[Monitor color balance]	A-B: 0, G-M: 0
[Viewfinder brightness]	Auto
[Viewfinder color balance]	A-B: 0, G-M: 0
[Finder display size (photo Lv)]	Standard
<b>[Limit monitor mode selection]</b>	
[Automatic display switch]	<input checked="" type="checkbox"/>
[Viewfinder only]	<input checked="" type="checkbox"/>
[Monitor only]	<input checked="" type="checkbox"/>
[Prioritize viewfinder (1)]	<input checked="" type="checkbox"/>
[Prioritize viewfinder (2)]	<input checked="" type="checkbox"/>
[Auto rotate info display]	ON

Setup menu option	Default
<b>[AF fine-tuning options]</b>	
[AF fine-tune]	OFF
[Fine-tune and save lens]	—
[Default]	—
[List saved values]	—
[Choose value for current lens]	—
<b>[Non-CPU lens data]</b>	
[Lens number]	1
[Focal length (mm)]	--
[Maximum aperture]	--
[Save focus position]	OFF
[Auto temperature cutout]	Standard
[Sensor shield behavior at power off]	Sensor shield stays open
<b>[Clean image sensor]</b>	
[Automatic cleaning]	Clean at shutdown
[Image Dust Off ref photo]	—
[Pixel mapping]	—
<b>[Image comment]</b>	
[Attach comment]	OFF
<b>[Copyright information]</b>	
[Attach copyright information]	OFF

Setup menu option	Default
<b>[IPTC]</b>	
[Edit/save]	—
[Delete]	—
[Auto embed during shooting]	Off
[Load/save]	—
<b>[Voice memo options]</b>	
[Voice memo control]	Press and hold
[Audio output (playback)]	Speaker/headphones
<b>[Camera sounds]</b>	
[Shutter sound]	ON
[Beep on/off]	Off
[Volume]	2
[Pitch]	Low
[Silent mode]	OFF
<b>[Touch controls]</b>	
[Enable/disable touch controls]	Enable
[Glove mode]	OFF
<b>[HDMI]</b>	
[Output resolution]	Auto
[Output range]	Auto
[Output shooting info]	ON
[Mirror camera info display]	ON

<b>Setup menu option</b>	<b>Default</b>
[USB connection priority]	Upload
<b>[Location data (built-in)]</b>	
[Record location data]	OFF
[Standby timer]	ON
[Set clock from satellite]	OFF
[Create log]	—
[Log list]	—
[Position]	—
<b>[Wireless remote (WR) options]</b>	
[LED lamp]	ON
[Link mode]	Pairing
[Assign remote (WR) Fn button]	None
[Conformity marking]	—
[Battery info]	—
[USB power delivery]	ON
[Energy saving (photo mode)]	OFF
[Slot empty release lock]	Enable release
[Save/load menu settings]	—
[Reset all settings]	—
[Firmware version]	—

## **Network Menu**

<b>Network menu option</b>	<b>Default</b>
[Airplane mode]	OFF
[Wired LAN]	OFF
<b>[Connect to smart device]</b>	
<b>[Pairing (Bluetooth)]</b>	
[Bluetooth connection]	OFF
<b>[Select pictures for upload]</b>	
[Auto select for upload]	ON
[Wi-Fi connection]	—
[Upload while off]	ON
[Location data (smart device)]	—
<b>[Connect to computer]</b>	
[Network settings]	—
[Connection type]	Picture transfer
<b>[Options]</b>	
[Auto upload]	OFF
[Delete after upload]	OFF
[Upload RAW + JPEG as]	RAW + JPEG
[JPEG+JPEG slot selection]	Slot 1
[Upload RAW video as]	RAW video + MP4
[Upload folder]	—
[Deselect all?]	—

Network menu option	Default
<b>[Connect to FTP server]</b>	
[Network settings]	—
<b>[Options]</b>	
[Auto upload]	OFF
[Delete after upload]	OFF
[Upload RAW + JPEG as]	RAW + JPEG
[JPEG+JPEG slot selection]	Slot 1
[Upload RAW video as]	RAW video + MP4
[Overwrite if same name]	OFF
[Protect if marked for upload]	OFF
[Upload marking]	OFF
[Upload folder]	—
[Deselect all?]	—
[Manage root certificate]	—
<b>[Connect to other cameras]</b>	
[Synchronized release]	ON
[Network settings]	—
[Group name]	—
[Master/remote]	Master camera
[Remote camera list]	—
[Synchronize date and time]	—

Network menu option	Default
<b>[ATOMOS AirGlu BT options]</b>	
[Connect to ATOMOS AirGlu BT]	OFF
[Save ATOMOS AirGlu BT pairing info]	—
[Delete ATOMOS AirGlu BT pairing info]	—
[Camera]	GGGG
[USB]	MTP/PTP
[Start via LAN]	OFF
[Router frequency band]	(Default varies with country of purchase)
[MAC address]	—

## **My Menu/Recent Settings**

My Menu option	Default
[Add items]	—
[Remove items]	—
[Rank items]	—
[Choose tab]	MY MENU

## Post-Upgrade Specifications for “C” Firmware Version 3.00

Product specifications following upgrade to “C” firmware version 3.00 are listed below.

Type	
Type	Digital camera with support for interchangeable lenses
Lens mount	Nikon Z mount
Lens	
Compatible lenses	<ul style="list-style-type: none"><li>• Z mount NIKKOR lenses</li><li>• F mount NIKKOR lenses (mount adapter required; restrictions may apply)</li></ul>
Effective pixels	
Effective pixels	45.7 million
Image sensor	
Type	35.9 × 23.9 mm CMOS sensor (Nikon FX format)
Total pixels	52.37 million
Dust-reduction system	Image sensor cleaning, Image Dust Off reference data (requires NX Studio)

## Storage

<b>Image size (pixels)</b>	<ul style="list-style-type: none"><li>• <b>[FX (36 × 24)] selected for image area:</b><ul style="list-style-type: none"><li>- 8256 × 5504 (Large: 45.4 M)</li><li>- 6192 × 4128 (Medium: 25.6 M)</li><li>- 4128 × 2752 (Small: 11.4 M)</li></ul></li><li>• <b>[DX (24 × 16)] selected for image area:</b><ul style="list-style-type: none"><li>- 5392 × 3592 (Large: 19.4 M)</li><li>- 4032 × 2688 (Medium: 10.8 M)</li><li>- 2688 × 1792 (Small: 4.8 M)</li></ul></li><li>• <b>[1:1 (24 × 24)] selected for image area:</b><ul style="list-style-type: none"><li>- 5504 × 5504 (Large: 30.3 M)</li><li>- 4128 × 4128 (Medium: 17.0 M)</li><li>- 2752 × 2752 (Small: 7.6 M)</li></ul></li><li>• <b>[16:9 (36 × 20)] selected for image area:</b><ul style="list-style-type: none"><li>- 8256 × 4640 (Large: 38.3 M)</li><li>- 6192 × 3480 (Medium: 21.5 M)</li><li>- 4128 × 2320 (Small: 9.6 M)</li></ul></li></ul>
<b>File format (image quality)</b>	<ul style="list-style-type: none"><li>• <b>NEF (RAW):</b> 14 bit; choose from lossless compression, high efficiency★, and high efficiency options</li><li>• <b>JPEG:</b> JPEG-Baseline compliant with fine (approx. 1:4), normal (approx. 1:8), or basic (approx. 1:16) compression; size-priority and optimal-quality compression available</li><li>• <b>NEF (RAW)+JPEG:</b> Single photograph recorded in both NEF (RAW) and JPEG formats</li></ul>

Storage	
<b>Picture Control System</b>	Auto, Standard, Neutral, Vivid, Monochrome, Portrait, Landscape, Flat, Creative Picture Controls (Dream, Morning, Pop, Sunday, Somber, Dramatic, Silence, Bleached, Melancholic, Pure, Denim, Toy, Sepia, Blue, Red, Pink, Charcoal, Graphite, Binary, Carbon); selected Picture Control can be modified; storage for custom Picture Controls
<b>Media</b>	CFexpress (Type B) and XQD memory cards
<b>Dual card slots</b>	The card in Slot 2 can be used for overflow or backup storage, for separate storage of NEF (RAW) and JPEG pictures, or for storage of duplicate JPEG pictures at different sizes and image qualities; pictures can be copied between cards.
<b>File system</b>	DCF 2.0, Exif 2.32
Viewfinder	
<b>Viewfinder</b>	1.27-cm/0.5-in. approx. 3690k-dot (Quad VGA) OLED electronic viewfinder with color balance and auto and 18-level manual brightness controls; high frame-rate display available
<b>Frame coverage</b>	Approx. 100% horizontal and 100% vertical
<b>Magnification</b>	Approx. 0.8× (50 mm lens at infinity, $-1.0 \text{ m}^{-1}$ )
<b>Eyepoint</b>	23 mm ( $-1.0 \text{ m}^{-1}$ ; from rearmost surface of viewfinder eyepiece lens)
<b>Diopter adjustment</b>	$-4 - +3 \text{ m}^{-1}$
<b>Eye sensor</b>	Automatically switches between monitor and viewfinder displays
Monitor	
<b>Monitor</b>	8-cm/3.2-in., approx. 2100k-dot vertically and horizontally tilting TFT touch-sensitive LCD with 170° viewing angle, approximately 100% frame coverage, and color balance and 15-level manual brightness controls

Shutter	
<b>Type</b>	Electronic shutter with shutter sound and sensor shield
<b>Speed</b>	$\frac{1}{32000}$ –30 s (choose from step sizes of $\frac{1}{3}$ , $\frac{1}{2}$ , and 1 EV, extendable to 900 s in mode <b>M</b> ), bulb, time
<b>Flash sync speed</b>	Flash synchronizes with shutter at speeds of $\frac{1}{250}$ or $\frac{1}{200}$ s or slower (but note that the guide number drops at speeds of $\frac{1}{200}$ to $\frac{1}{250}$ s); sync speeds as fast as $\frac{1}{8000}$ s are supported with auto FP high-speed sync
Release	
<b>Release mode</b>	Single frame, continuous low-speed, continuous high-speed, high-speed frame capture (with Pre-Release Capture), self-timer
<b>Approximate frame advance rate</b>	<ul style="list-style-type: none"> <li>• <b>Continuous low-speed:</b> Approx. 1–10 fps</li> <li>• <b>Continuous high-speed:</b> Approx. 10–20 fps</li> <li>• <b>High-speed frame capture (C30):</b> Approx. 30 fps</li> <li>• <b>High-speed frame capture (C60):</b> Approx. 60 fps</li> <li>• <b>High-speed frame capture (C120):</b> Approx. 120 fps</li> </ul> <p>* Maximum frame advance rate as measured by in-house tests.</p>
<b>Self-timer</b>	2 s, 5 s, 10 s, 20 s; 1–9 exposures at intervals of 0.5, 1, 2, or 3 s
Exposure	
<b>Metering system</b>	TTL metering using camera image sensor
<b>Metering mode</b>	<ul style="list-style-type: none"> <li>• <b>Matrix metering</b></li> <li>• <b>Center-weighted metering:</b> Weight of 75% given to 12 or 8 mm circle in center of frame or weighting can be based on average of entire frame</li> <li>• <b>Spot metering:</b> Meters circle with a diameter of approximately 4 mm centered on selected focus point</li> <li>• <b>Highlight-weighted metering</b></li> </ul>

Exposure	
<b>Range</b>	–3–+17 EV * Figures are for ISO 100 and f/2.0 lens at 20 °C/68 °F
<b>Mode</b>	<b>P</b> : programmed auto with flexible program, <b>S</b> : shutter-priority auto, <b>A</b> : aperture-priority auto, <b>M</b> : manual
<b>Exposure compensation</b>	–5–+5 EV (choose from step sizes of 1/3 and 1/2 EV)
<b>Exposure lock</b>	Luminosity locked at detected value
<b>ISO sensitivity (Recommended Exposure Index)</b>	ISO 64–25600 (choose from step sizes of 1/3 and 1 EV); can also be set to approx. 0.3, 0.7, or 1 EV (ISO 32 equivalent) below ISO 64 or to approx. 0.3, 0.7, 1, or 2 EV (ISO 102400 equivalent) above ISO 25600; auto ISO sensitivity control available
<b>Active D-Lighting</b>	Auto, Extra high 2, Extra high 1, High, Normal, Low, and Off
<b>Multiple exposure</b>	Add, average, lighten, darken
<b>Other options</b>	HDR overlay, photo mode flicker reduction, high-frequency flicker reduction
Autofocus	
<b>Type</b>	Hybrid phase-detection/contrast AF with AF assist
<b>Detection range</b>	–7–+19 EV (–9–+19 EV with starlight view) * Measured in photo mode at ISO 100 and a temperature of 20 °C/68 °F using single-servo AF ( <b>AF-S</b> ) and a lens with a maximum aperture of f/1.2
<b>Lens servo</b>	<ul style="list-style-type: none"> <li>• <b>Autofocus (AF)</b>: Single-servo AF (<b>AF-S</b>); continuous-servo AF (<b>AF-C</b>); full-time AF (<b>AF-F</b>; available only in video mode); predictive focus tracking</li> <li>• <b>Manual focus (M)</b>: Electronic rangefinder can be used</li> </ul>
<b>Focus points</b>	493 focus points * Number of focus points available in photo mode with single-point AF selected for AF-area mode and FX selected for image area

<b>Autofocus</b>	
<b>AF-area mode</b>	Pinpoint (available in photo mode only), single-point, dynamic-area (S, M, and L; available in photo mode only), wide-area (S, L, C1, and C2), and auto-area AF; 3D-tracking (available in photo mode only); subject-tracking AF (available in video mode only)
<b>Focus lock</b>	Focus can be locked by pressing shutter-release button halfway (single-servo AF/ <b>AF-S</b> ) or by pressing the center of the sub-selector

<b>Vibration reduction (VR)</b>	
<b>Camera on-board VR</b>	5-axis image sensor shift
<b>Lens on-board VR</b>	Lens shift (available with VR lenses)

<b>Flash</b>	
<b>Flash control</b>	<b>TTL:</b> i-TTL flash control; i-TTL balanced fill-flash is used with matrix, center-weighted, and highlight-weighted metering, standard i-TTL fill-flash with spot metering
<b>Flash mode</b>	Front-curtain sync, slow sync, rear-curtain sync, red-eye reduction, red-eye reduction with slow sync, off
<b>Flash compensation</b>	-3 – +1 EV (choose from step sizes of $\frac{1}{3}$ and $\frac{1}{2}$ EV)
<b>Flash-ready indicator</b>	Lights when optional flash unit is fully charged; flashes as underexposure warning after flash is fired at full output
<b>Accessory shoe</b>	ISO 518 hot-shoe with sync and data contacts and safety lock

Flash	
<b>Nikon Creative Lighting System (CLS)</b>	i-TTL flash control, radio-controlled Advanced Wireless Lighting, optical Advanced Wireless Lighting, modeling illumination, FV lock, Color Information Communication, auto FP high-speed sync, unified flash control
<b>Sync terminal</b>	ISO 519 sync terminal with locking thread
White balance	
<b>White balance</b>	Auto (3 types), natural light auto, direct sunlight, cloudy, shade, incandescent, fluorescent (3 types), flash, choose color temperature (2500–10,000 K), preset manual (up to 6 values can be stored), all with fine-tuning
Bracketing	
<b>Bracketing</b>	Exposure and/or flash, white balance, and ADL
Video	
<b>Metering system</b>	TTL metering using camera image sensor
<b>Metering mode</b>	Matrix, center-weighted, or highlight-weighted
<b>Frame size (pixels) and frame rate</b>	<ul style="list-style-type: none"> <li>• 7680 × 4320 (8K UHD): 30p (progressive)/25p/24p</li> <li>• 3840 × 2160 (4K UHD): 120p/100p/60p/50p/30p/25p/24p</li> <li>• 1920 × 1080: 120p/100p/60p/50p/30p/25p/24p</li> </ul> <p>* Actual frame rates for 120p, 100p, 60p, 50p, 30p, 25p, and 24p are 119.88, 100, 59.94, 50, 29.97, 25, and 23.976 fps respectively</p>
<b>Frame size (pixels) and frame rate (RAW video)</b>	<ul style="list-style-type: none"> <li>• 8256 × 4644: 60p/50p/30p/25p/24p</li> <li>• 5392 × 3032: 60p/50p/30p/25p/24p</li> <li>• 4128 × 2322: 120p/100p/60p/50p/30p/25p/24p</li> <li>• 3840 × 2160: 120p/100p/60p/50p</li> </ul> <p>* Actual frame rates for 120p, 100p, 60p, 50p, 30p, 25p, and 24p are 119.88, 100, 59.94, 50, 29.97, 25, and 23.976 fps respectively</p>

Video	
<b>File format</b>	NEV, MOV, MP4
<b>Video compression</b>	N-RAW (12 bit), Apple ProRes RAW HQ (12 bit), Apple ProRes 422 HQ (10 bit), H.265/HEVC (8 bit/10 bit), H.264/AVC (8 bit)
<b>Audio recording format</b>	Linear PCM (48 KHz, 24 bit, for videos recorded in NEV or MOV format) or AAC (48 KHz, 16 bit, for videos recorded in MP4 format)
<b>Audio recording device</b>	Built-in stereo or external microphone with attenuator option; sensitivity adjustable
<b>Exposure compensation</b>	-3 – +3 EV (choose from step sizes of $\frac{1}{3}$ and $\frac{1}{2}$ EV)
<b>ISO sensitivity (Recommended Exposure Index)</b>	<ul style="list-style-type: none"> <li>• <b>Mode M:</b> Manual selection (ISO 64–25600; choose from step sizes of <math>\frac{1}{6}</math>, <math>\frac{1}{3}</math>, and 1 EV); with additional options available equivalent to approximately 0.3, 0.7, 1, or 2 EV (ISO 102400 equivalent) above ISO 25600; auto ISO sensitivity control (ISO 64–Hi 2.0) available with selectable upper limit</li> <li>• <b>Modes P, S, A:</b> Auto ISO sensitivity control (ISO 64–Hi 2.0) with selectable upper limit</li> </ul>
<b>Active D-Lighting</b>	Extra high, High, Normal, Low, and Off
<b>Other options</b>	Time-lapse video recording, electronic vibration reduction, time codes, N-Log and HDR (HLG) video, wave-form display, red REC frame indicator, video recording display zoom (50%, 100%, and 200%), extended shutter speeds (mode <b>M</b> ), and dual-format (proxy-video) recording for RAW video; extended oversampling available; option to view video recording info available via <b>i</b> menu; Hi-Res Zoom

<b>Playback</b>	
<b>Playback</b>	Full-frame and thumbnail (up to 4, 9, or 72 pictures) playback with playback zoom, playback zoom cropping, video playback, slide shows, histogram display, highlights, photo information, location data display, auto picture rotation, picture rating, voice memo recording and playback, IPTC information embedding and display, filtered playback, skip to first shot in series, series playback, save consecutive frames, and motion blend
<b>Interface</b>	
<b>USB</b>	Type C USB connector (SuperSpeed USB); connection to built-in USB port is recommended
<b>HDMI output</b>	Type A HDMI connector
<b>Audio input</b>	Stereo mini-pin jack (3.5 mm diameter; plug-in power supported)
<b>Audio output</b>	Stereo mini-pin jack (3.5 mm diameter)
<b>Ten-pin remote terminal</b>	Built-in (can be used with MC-30A/MC-36A remote cords and other optional accessories)
<b>Ethernet</b>	<p>RJ-45 connector</p> <ul style="list-style-type: none"> <li>• <b>Standards:</b> IEEE 802.3ab (1000BASE-T), IEEE 802.3u (100BASE-TX), IEEE 802.3 (10BASE-T)</li> <li>• <b>Data rates</b> *: 1000/100/10 Mbps with auto detect</li> <li>• <b>Port:</b> 1000BASE-T/100BASE-TX/10BASE-T (AUTO-MDIX)</li> </ul> <p>* Maximum logical data rates according to IEEE standard; actual rates may differ.</p>

## Wi-Fi/Bluetooth

<b>Wi-Fi</b>	<ul style="list-style-type: none"><li>• <b>Standards:</b><ul style="list-style-type: none"><li>- IEEE 802.11b/g/n (Africa, Asia, and Oceania)</li><li>- IEEE 802.11b/g/n/a/ac (Europe, U.S.A., Canada, Mexico)</li><li>- IEEE 802.11b/g/n/a (other countries in the Americas)</li></ul></li><li>• <b>Operating frequency:</b><ul style="list-style-type: none"><li>- 2412–2462 MHz (channel 11; Africa, Asia, and Oceania)</li><li>- 2412–2462 MHz (channel 11) and 5180–5825 MHz (U.S.A., Canada, Mexico)</li><li>- 2412–2462 MHz (channel 11) and 5180–5805 MHz (other countries in the Americas)</li><li>- 2412–2462 MHz (channel 11) and 5745–5805 MHz (Georgia)</li><li>- 2412–2462 MHz (channel 11) and 5180–5320 MHz (other European countries)</li></ul></li><li>• <b>Maximum output power (EIRP):</b><ul style="list-style-type: none"><li>- 2.4 GHz band: 8.4 dBm</li><li>- 5 GHz band: 6.0 dBm (Georgia)</li><li>- 5 GHz band: 9.0 dBm (other countries)</li></ul></li><li>• <b>Authentication:</b> Open system, WPA2-PSK, WPA3-SAE</li></ul>
<b>Bluetooth</b>	<ul style="list-style-type: none"><li>• <b>Communication protocols:</b> Bluetooth Specification version 5.0</li><li>• <b>Operating frequency:</b><ul style="list-style-type: none"><li>- Bluetooth: 2402–2480 MHz</li><li>- Bluetooth Low Energy: 2402–2480 MHz</li></ul></li><li>• <b>Maximum output power (EIRP):</b><ul style="list-style-type: none"><li>- Bluetooth: 2.9 dBm</li><li>- Bluetooth Low Energy: 1.4 dBm</li></ul></li></ul>
<b>Range (line of sight)</b>	Approximately 10 m (32 ft) * * Without interference. Range may vary with signal strength and presence or absence of obstacles.

<b>Location Data</b>	
<b>Supported GNS systems</b>	GPS (USA), GLONASS (Russia), QZSS (Japan)
<b>Data acquired</b>	Latitude, longitude, altitude, UTC (Universal Coordinated Time)
<b>Clock synchronization</b>	Camera clock can be set to time acquired via GNSS
<b>Track logs</b>	NMEA-compliant
<b>Log interval</b>	15 s, 30 s, 1 min., 2 min., 5 min.
<b>Maximum log recording time</b>	6, 12, or 24 hours
<b>Log deletion</b>	Supported
<b>Power source</b>	
<b>Battery</b>	One EN-EL18d rechargeable Li-ion battery * * EN-EL18c, EN-EL18b, EN-EL18a, and EN-EL18 batteries can also be used. Note, however, that fewer pictures can be taken on a single charge than with the EN-EL18d. The EH-7P charging AC adapter can be used to charge EN-EL18d, EN-EL18c, and EN-EL18b batteries only.
<b>Charging AC adapter</b>	EH-7P charging AC adapter
<b>AC adapter</b>	EH-6d; requires EP-6a power connector (available separately)
<b>Tripod socket</b>	
<b>Tripod socket</b>	0.635 cm (1/4 in., ISO 1222)

**Dimensions/weight**

<b>Dimensions (W × H × D)</b>	Approx. 149 × 149.5 × 90.5 mm/5.9 × 5.9 × 3.6 in.
<b>Weight</b>	Approx. 1340 g (2 lb. 15.3 oz.) with battery and memory card but without body cap and accessory shoe cover; approx. 1160 g/2 lb. 9 oz. (camera body only)

**Operating environment**

<b>Temperature</b>	−10 °C−40 °C (+14 °F−104 °F)
<b>Humidity</b>	85% or less (no condensation)

- Unless otherwise stated, all measurements are performed in conformity with Camera and Imaging Products Association (CIPA) standards or guidelines.
- All figures are for a camera with a fully-charged battery.
- The sample images displayed on the camera and the images and illustrations in this document are for expository purposes only.
- Nikon reserves the right to change the appearance and specifications of the hardware and software described in this document at any time and without prior notice. Nikon will not be held liable for damages that may result from any mistakes that this document may contain.

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