

Nikon

DIGITAL CAMERA

D7200

Menu Guide

This manual details menu options and provides information on accessories and connecting the camera to other devices. For information on basic camera operations, see the *User's Manual* supplied with the camera.

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Menu Guide

Defaults

The default settings for the options in the camera menus are listed below.

■ Playback Menu Defaults

Option	Default
Playback folder (☐☐ 18)	D7200
Image review (☐☐ 26)	Off
After delete (☐☐ 26)	Show next
Rotate tall (☐☐ 27)	On
Slide show (☐☐ 27)	
Image type	Still images and movies
Frame interval	2 s

■ Photo Shooting Menu Defaults¹

Option	Default
File naming (☐☐ 34)	DSC
Role played by card in Slot 2 (☐☐ 35)	Overflow
Image quality (☐☐ 36)	JPEG normal
Image size (☐☐ 37)	Large
Image area (☐☐ 37)	DX (24×16)
JPEG compression (☐☐ 38)	Size priority
NEF (RAW) recording (☐☐ 38)	
Type (☐☐ 38)	Lossless compressed
NEF (RAW) bit depth (☐☐ 38)	14-bit

Option	Default
White balance (☐ 39)	Auto > Normal
Fine-tuning	A-B: 0, G-M: 0
Choose color temp.	5000 K
Preset manual	d-1
Set Picture Control (☐ 40)	Standard
Color space (☐ 41)	sRGB
Active D-Lighting (☐ 42)	
P, S, A, M,           	Off
Other modes	Auto
HDR (high dynamic range) (☐ 42)	
HDR mode	Off
HDR strength	Auto
Vignette control (☐ 43)	Normal
Auto distortion control (☐ 44)	Off
Long exposure NR (☐ 45)	Off
High ISO NR (☐ 45)	Normal
ISO sensitivity settings (☐ 46)	
ISO sensitivity	
P, S, A, M	100
Other modes	Auto
Hi ISO command dial access	Off
Auto ISO sensitivity control	Off
Remote control mode (ML-L3) (☐ 47)	Off
Multiple exposure ² (☐ 48)	
Multiple exposure mode	Off
Number of shots	2
Auto gain	On

Option	Default
Interval timer shooting (☐ 49)	
Start options	Now
Interval	1 min.
No. of intervals×shots/interval	0001×1
Exposure smoothing	Off

- 1 Default settings restored with **Reset photo shooting menu** (☐ 31).
- 2 **Reset photo shooting menu** can not be selected while shooting is in progress.

■■ Movie Shooting Menu Defaults *

Option	Default
File naming (☐ 51)	DSC
Destination (☐ 51)	Slot 1
Frame size/frame rate (☐ 52)	1920×1080; 30p
Movie quality (☐ 53)	Normal
Microphone sensitivity (☐ 53)	Auto sensitivity
Frequency response (☐ 54)	Wide range
Wind noise reduction (☐ 54)	Off
Image area (☐ 54)	DX (24×16)
White balance (☐ 55)	Same as photo settings
Fine-tuning	A-B: 0, G-M: 0
Choose color temp.	5000 K
Preset manual	d-1
Set Picture Control (☐ 55)	Same as photo settings
High ISO NR (☐ 55)	Normal
Movie ISO sensitivity settings (☐ 56)	
ISO sensitivity (mode M)	100
Auto ISO control (mode M)	Off
Maximum sensitivity	25600

Option	Default
Time-lapse photography (□ 57)	
Interval	5 s
Shooting time	25 minutes
Exposure smoothing	On

* Default settings restored with **Reset movie shooting menu** (□ 51).

■ Custom Settings Menu Defaults *

	Option	Default
a1	AF-C priority selection (□ 62)	Release
a2	AF-S priority selection (□ 63)	Focus
a3	Focus tracking with lock-on (□ 64)	3 (Normal)
a4	AF activation (□ 65)	Shutter/AF-ON
a5	Focus point illumination (□ 65)	
	AF point illumination	Auto
	Manual focus mode	On
a6	Focus point wrap-around (□ 66)	No wrap
a7	Number of focus points (□ 66)	51 points
a8	Store points by orientation (□ 67)	No
a9	Built-in AF-assist illuminator (□ 68)	On
b1	ISO sensitivity step value (□ 69)	1/3 step
b2	EV steps for exposure cntrl (□ 69)	1/3 step
b3	Easy exposure compensation (□ 70)	Off
b4	Center-weighted area (□ 71)	ø 8 mm
b5	Fine-tune optimal exposure (□ 71)	
	Matrix metering	0
	Center-weighted metering	0
	Spot metering	0

	Option	Default
c1	Shutter-release button AE-L (☐ 72)	Off
c2	Standby timer (☐ 72)	6 s
c3	Self-timer (☐ 72)	
	Self-timer delay	10 s
	Number of shots	1
	Interval between shots	0.5 s
c4	Monitor off delay (☐ 73)	
	Playback	10 s
	Menus	1 min
	Information display	10 s
	Image review	4 s
	Live view	10 min
c5	Remote on duration (ML-L3) (☐ 73)	1 min
d1	Beep (☐ 74)	
	Volume	Off
	Pitch	Low
d2	Continuous low-speed (☐ 75)	3 fps
d3	Max. continuous release (☐ 75)	100
d4	Exposure delay mode (☐ 75)	Off
d5	Flash warning (☐ 75)	On
d6	File number sequence (☐ 76)	On
d7	Viewfinder grid display (☐ 77)	Off
d8	Easy ISO (☐ 77)	Off
d9	Information display (☐ 78)	Auto
d10	LCD illumination (☐ 78)	Off
d11	MB-D15 battery type (☐ 79)	LR6 (AA alkaline)
d12	Battery order (☐ 80)	Use MB-D15 batteries first

	Option	Default
e1	Flash sync speed (☐ 81)	1/250 s
e2	Flash shutter speed (☐ 82)	1/60 s
e3	Flash cntrl for built-in flash/Optional flash (☐ 83)	TTL
e4	Exposure comp. for flash (☐ 89)	Entire frame
e5	Modeling flash (☐ 89)	On
e6	Auto bracketing set (☐ 90)	AE & flash
e7	Bracketing order (☐ 90)	MTR > under > over
f1	OK button (☐ 91)	
	Shooting mode (☐ 91)	Select center focus point
	Playback mode (☐ 91)	Thumbnail on/off
	Live view (☐ 92)	Select center focus point
f2	Assign Fn button (☐ 92)	
	Press (☐ 92)	None
	Press + command dials (☐ 96)	Choose image area
f3	Assign preview button (☐ 97)	
	Press	Preview
	Press + command dials	None
f4	Assign AE-L/AF-L button (☐ 97)	
	Press (☐ 97)	AE/AF lock
	Press + command dials (☐ 98)	None
f5	Customize command dials (☐ 99)	
	Reverse rotation (☐ 99)	Exposure compensation: ☐ Shutter speed/aperture: ☐
	Change main/sub (☐ 99)	Exposure setting: Off Autofocus setting: Off
	Aperture setting (☐ 100)	Sub-command dial
	Menus and playback (☐ 100)	Off
	Sub-dial frame advance (☐ 100)	10 frames

	Option	Default
f6	Release button to use dial (☐ 101)	No
f7	Slot empty release lock (☐ 102)	Enable release
f8	Reverse indicators (☐ 102)	
f9	Assign movie record button (☐ 103)	
	Press + command dials	None
f10	Assign MB-D15  button (☐ 104)	AE/AF lock
f11	Assign remote (WR) Fn button (☐ 105)	None
g1	Assign Fn button (☐ 107)	
	Press	None
g2	Assign preview button (☐ 108)	
	Press	Index marking
g3	Assign AE-L/AF-L button (☐ 108)	
	Press	AE/AF lock
g4	Assign shutter button (☐ 109)	Take photos

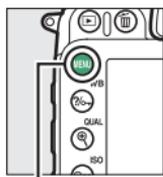
* Default settings restored with **Reset custom settings** (☐ 62).

■ Setup Menu Defaults

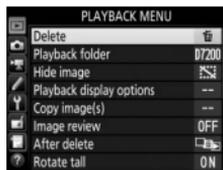
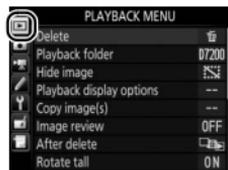
Option	Default
Save user settings (☐ 111)	
Save to U1	Shooting mode defaults to P
Save to U2	
Monitor brightness (☐ 114)	0
Monitor color balance (☐ 115)	A-B: 0, G-M: 0
Clean image sensor (☐ 116)	
Clean at startup/shutdown	Clean at startup & shutdown
Flicker reduction (☐ 119)	Auto
Time zone and date (☐ 120)	
Daylight saving time	Off
Auto image rotation (☐ 121)	On
HDMI (☐ 182)	
Output resolution (☐ 182)	Auto
Device control (☐ 182)	On
Advanced (☐ 183)	
Output range	Auto
Output display size	100%
Live view on-screen display	On
Dual monitor	On
Location data (☐ 132)	
Standby timer	Enable
Set clock from satellite	Yes
Wi-Fi (☐ 133)	
Network connection	Disable
NFC (☐ 134)	Enable
Eye-Fi upload (☐ 135)	Enable

▶ The Playback Menu: *Managing Images*

To display the playback menu, press MENU and select the  (playback menu) tab.



MENU button



Playback Menu Options

The playback menu contains the following options:

Option	
Delete	18
Playback folder	18
Hide image	19
Playback display options	21
Copy image(s)	21

Option	
Image review	26
After delete	26
Rotate tall	27
Slide show	27
DPOF print order	179

See Also

Menu defaults are listed on page 9.

Delete

MENU button →  playback menu

Delete multiple images.

Option	Description
 Selected	Delete selected pictures.
 Select date	Delete all pictures taken on a selected date.
ALL All	Delete all pictures in the folder currently selected for playback. If two cards are inserted, you can select the card from which pictures will be deleted.



Playback Folder

MENU button →  playback menu

Choose a folder for playback:

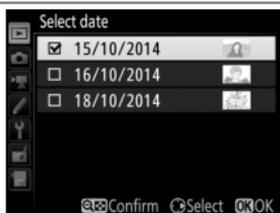
Option	Description
D7200	Pictures in all folders created with the D7200 will be visible during playback.
All	Pictures in all folders will be visible during playback.
Current	Only pictures in the current folder will be visible during playback.

Hide Image

MENU button →  playback menu

Hide or reveal pictures. Hidden pictures are visible only in the **Hide image** menu and can only be deleted by formatting the memory card.

Option	Description
Select/set	Hide or reveal selected pictures.
Select date	Selecting this option displays a list of dates. To hide all pictures taken on a date, highlight the date and press  . Selected dates are marked by a ✓; to reveal all pictures taken on a selected date, highlight it and press  . Press  to complete the operation.
Deselect all	Reveal all pictures.



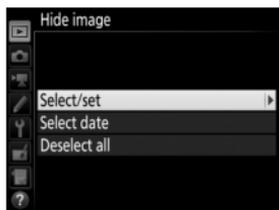
Protected and Hidden Images

Revealing a protected image will also remove protection from the image.

Follow the steps below to hide or reveal selected pictures.

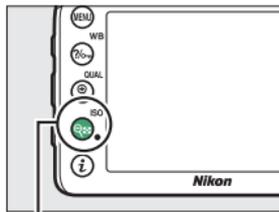
1 Choose **Select/set**.

Highlight **Select/set** and press .

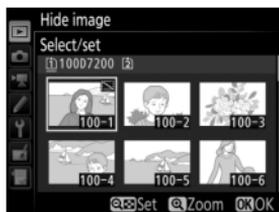


2 Select pictures.

Use the multi selector to scroll through the pictures on the memory card (to view the highlighted picture full screen, press and hold the ) and press  (**ISO**) to select the current picture. Selected pictures are marked by a  icon; to deselect a picture, highlight it and press  (**ISO**) again. Continue until all the desired pictures have been selected.



 (**ISO**) button



3 Press .

Press  to complete the operation.

Playback Display Options

MENU button →  playback menu

Choose the information available in the playback photo information display. Press  or  to highlight an option, then press  to select the option for the photo information display. A ✓ appears next to selected items; to deselect, highlight an item and press . To return to the playback menu, press .

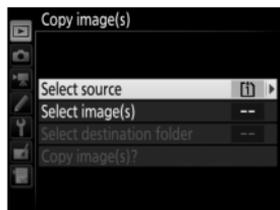
Copy Image(s)

MENU button →  playback menu

Copy pictures from one memory card to another. This option is only available when two memory cards are inserted in the camera.

Option	Description
Select source	Choose card from which pictures will be copied.
Select image(s)	Select pictures to be copied.
Select destination folder	Select destination folder on remaining card.
Copy image(s)?	Copy selected pictures to specified destination.

- 1 Choose Select source.**
Highlight **Select source** and press .



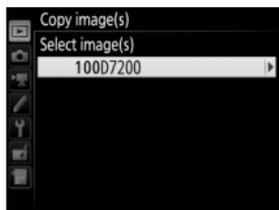
- 2 Select the source card.**
Highlight the slot for the card containing the images to be copied and press **OK**.



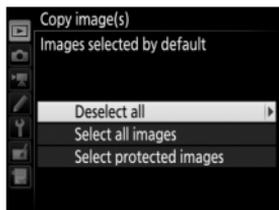
- 3 Choose Select image(s).**
Highlight **Select image(s)** and press **OK**.



- 4 Select the source folder.**
Highlight the folder containing the images to be copied and press **OK**.



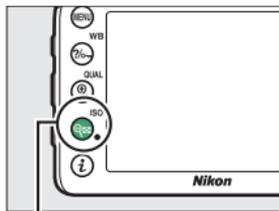
- 5 Make the initial selection.**
Before going on to select or deselect individual images, you can mark all or all protected images in the folder for copying by choosing **Select all images** or **Select protected images**. To mark only individually selected images for copying, choose **Deselect all** before proceeding.



6 Select additional images.

Highlight pictures and press  (ISO) to select or deselect (to view the highlighted picture full screen, press and hold the /QUAL button).

Selected images are marked with a ✓. Press  to proceed to Step 7 when your selection is complete.

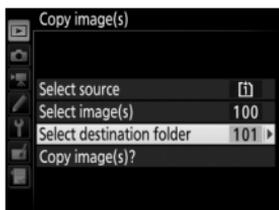


 (ISO) button



7 Choose Select destination folder.

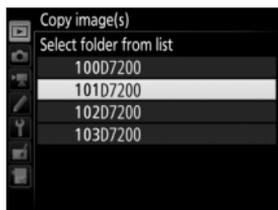
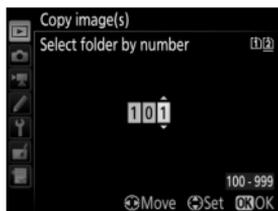
Highlight **Select destination folder** and press .



8 Select a destination folder.

To enter a folder number, choose **Select folder by number**, enter the number (📖 31), and press **OK**. If the folder with the selected number does not already exist, a new folder will be created.

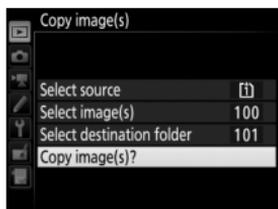
To choose from a list of existing folders, choose **Select folder from list**, highlight a folder, and press **OK**.



9 Copy the images.

Highlight **Copy image(s)?** and press **OK**.

A confirmation dialog will be displayed; highlight **Yes** and press **OK**. Press **OK** again to exit when copying is complete.



✔ Copying Images

Images will not be copied if there is insufficient space on the destination card. Be sure the battery is fully charged before copying movies.

If the destination folder contains an image with the same name as one of the images to be copied, a confirmation dialog will be displayed. Select **Replace existing image** to replace the image with the image to be copied, or select **Replace all** to replace all existing images with the same names without further prompting. To continue without replacing the image, select **Skip**, or select **Cancel** to exit without copying any further images. Hidden or protected files in the destination folder will not be replaced.



Protect status is copied with the images but print marking (📖 179) is not. Hidden images can not be copied.

Image Review

MENU button →  playback menu

Choose whether pictures are automatically displayed in the monitor immediately after shooting. If **Off** is selected, pictures can only be displayed by pressing the  button.

After Delete

MENU button →  playback menu

Choose the picture displayed after an image is deleted.

Option	Description
 Show next	Display following picture. If deleted picture was last frame, previous picture will be displayed.
 Show previous	Display previous picture. If deleted picture was first frame, following picture will be displayed.
 Continue as before	If user was scrolling through pictures in order recorded, following picture will be displayed as described for Show next . If user was scrolling through pictures in reverse order, previous picture will be displayed as described for Show previous .

Rotate Tall

MENU button →  playback menu

Choose whether to rotate “tall” (portrait-orientation) pictures for display during playback. Note that because the camera itself is already in the appropriate orientation during shooting, images are not rotated automatically during image review.

Option	Description
On	“Tall” (portrait-orientation) pictures are automatically rotated for display in the camera monitor. Pictures taken with Off selected for Auto image rotation ( 121) will be displayed in “wide” (landscape) orientation.
Off	“Tall” (portrait-orientation) pictures are displayed in “wide” (landscape) orientation.

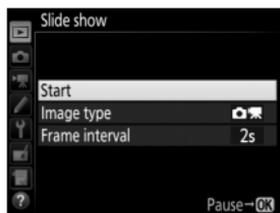
Slide Show

MENU button →  playback menu

Create a slide show of the pictures in the current playback folder ( 18). Hidden images ( 19) are not displayed.

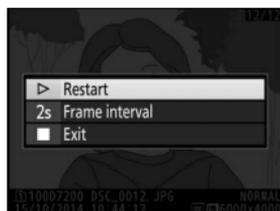
Option	Description
Start	Start slide show.
Image type	Choose type of image displayed from Still images and movies , Still images only , and Movies only .
Frame interval	Choose how long each picture will be displayed.

To start the slide show, highlight **Start** and press **OK**. The following operations can be performed while the slide show is in progress:



To	Press	Description
Skip back/skip ahead		Press to return to previous frame, to skip to next frame.
View additional photo info		Change or hide photo info displayed (still images only).
Pause	OK	Pause slide show. Select Restart to resume.
Raise/lower volume	QUAL / ISO	Press QUAL during movie playback to increase volume, ISO to decrease.
Exit to playback menu	MENU	End slide show and return to playback menu.
Exit to playback mode		End show and exit to playback mode.
Exit to shooting mode		Press shutter-release button halfway to return to shooting mode.

The dialog shown at right is displayed when the show ends. Select **Restart** to restart or **Exit** to return to the playback menu.



DPOF Print Order

MENU button →  playback menu

Select images for printing with a DPOF-compatible print service or printer, and choose the number of prints ( 179).

The Photo Shooting Menu: *Photo Shooting Options*

To display the photo shooting menu, press **MENU** and select the  (photo shooting menu) tab.



MENU button

Photo Shooting Menu Options

The photo shooting menu contains the following options:

Option		Option	
Reset photo shooting menu*	31	Color space	41
Storage folder*	31	Active D-Lighting	42
File naming	34	HDR (high dynamic range)	42
Role played by card in Slot 2	35	Vignette control	43
Image quality	36	Auto distortion control	44
Image size	37	Long exposure NR	45
Image area*	37	High ISO NR	45
JPEG compression	38	ISO sensitivity settings	46
NEF (RAW) recording	38	Remote control mode (ML-L3)*	47
White balance	39	Multiple exposure*	48
Set Picture Control	40	Interval timer shooting*	49
Manage Picture Control*	41		

* Not included in the settings saved to **U1** or **U2** ( 111).

Note: Depending on camera settings, some items may be grayed out and unavailable.

Reset Photo Shooting Menu

MENU button →  photo shooting menu

Select **Yes** to restore photo shooting menu options to their default values (📖 9).

Storage Folder

MENU button →  photo shooting menu

Select the folder in which subsequent images will be stored.

■ ■ *Selecting Folders by Folder Number*

1 Choose **Select folder by number**.

Highlight **Select folder by number** and press .

2 Choose a folder number.

Press  or  to highlight a digit, press  or  to change. If a folder with the selected number already exists, a , , or  icon will be displayed to the left of the folder number:

-  : Folder is empty.
-  : Folder is partially full.
-  : Folder contains 999 pictures or a picture numbered 9999. No further pictures can be stored in this folder.

The card on which the folder is stored is shown by the card slot icon in the top right corner of the “select folder by number” dialog. The card used for new folders depends on the option currently selected for **Role played by card in slot 2** (📖 35).

3 Save changes and exit.

Press **OK** to complete the operation and return to the main menu (to exit without choosing the storage folder, press the **MENU** button). If a folder with the specified number does not already exist, a new folder will be created. Subsequent photographs will be stored in the selected folder unless it is already full.

■ ■ *Selecting Folders from a List*

1 Choose **Select folder from list**.

Highlight **Select folder from list** and press **▶**.



2 Highlight a folder.

Press **▲** or **▼** to highlight a folder.

3 Select the highlighted folder.

Press **OK** to select the highlighted folder and return to the main menu. Subsequent photographs will be stored in the selected folder.

Folder and File Numbers

If the current folder is numbered 999 and contains 999 pictures or a picture numbered 9999, the shutter-release will be disabled and no further photographs can be taken. To continue shooting, create a folder with a number less than 999, or select an existing folder with a number less than 999 and less than 999 images.

Startup Time

Additional time may be required for camera startup if the memory card contains a very large number of files or folders.

File Naming

MENU button →  photo shooting menu

Photographs are saved using file names consisting of “DSC_” or, in the case of images that use the Adobe RGB color space, “_DSC”, followed by a four-digit number and a three-letter extension (e.g., “DSC_0001.JPG”). The **File naming** option is used to select three letters to replace the “DSC” portion of the file name.

Text Entry

The dialog at right is displayed when text entry is required. Use the multi selector to highlight the desired character in the keyboard area and press  to insert the highlighted character at the current cursor position (note that if a character is entered when the field is full, the last character in the field will be deleted). To delete the character under the cursor, press the  button. To move the cursor to a new position, hold the  (ISO) button and press  or . To complete entry and return to the previous menu, press  (QUAL). To exit without completing text entry, press MENU.



Text display area

Extensions

The following extensions are used: “.NEF” for NEF (RAW) images, “.JPG” for JPEG images, “.MOV” for movies, and “.NDF” for dust off reference data. In each pair of photographs recorded at image-quality settings of NEF (RAW)+JPEG, the NEF and JPEG images have the same file names but different extensions.

Role Played by Card in Slot 2

MENU button →  photo shooting menu

Choose the role played by the card in Slot 2 when two memory cards are inserted in the camera.

Choose from **Overflow** (the card in Slot 2 is used only when the card in Slot 1 is full), **Backup** (each picture is recorded twice, once to the card in Slot 1 and again to the card in Slot 2), and **RAW Slot 1 - JPEG Slot 2** (as for **Backup**, except that the NEF/RAW copies of photos recorded at settings of NEF/RAW + JPEG are recorded only to the card in Slot 1 and the JPEG copies only to the card in Slot 2).

Image Quality

MENU button →  photo shooting menu

Choose a file format and compression ratio (image quality).

Option	File type	Description
NEF (RAW)	NEF	Raw data from the image sensor are saved without additional processing. Settings such as white balance and contrast can be adjusted after shooting.
JPEG fine	JPEG	Record JPEG images at a compression ratio of roughly 1 : 4 (fine quality).*
JPEG normal		Record JPEG images at a compression ratio of roughly 1 : 8 (normal quality).*
JPEG basic		Record JPEG images at a compression ratio of roughly 1 : 16 (basic quality).*
NEF (RAW)+ JPEG fine	NEF/ JPEG	Two images are recorded, one NEF (RAW) image and one fine-quality JPEG image.
NEF (RAW)+ JPEG normal		Two images are recorded, one NEF (RAW) image and one normal-quality JPEG image.
NEF (RAW)+ JPEG basic		Two images are recorded, one NEF (RAW) image and one basic-quality JPEG image.

* **Size priority** selected for **JPEG compression**.

Image Size

MENU button →  photo shooting menu

Image size is measured in pixels. Choose from  Large,  Medium, or  Small (note that image size varies depending on the option selected for **Image area**):

Image area	Option	Size (pixels)	Print size (cm/in.)*
DX (24×16)	Large	6000 × 4000	50.8 × 33.9/20.0 × 13.3
	Medium	4496 × 3000	38.1 × 25.4/15.0 × 10.0
	Small	2992 × 2000	25.3 × 16.9/10.0 × 6.7
1.3× (18×12)	Large	4800 × 3200	40.6 × 27.1/16.0 × 10.7
	Medium	3600 × 2400	30.5 × 20.3/12.0 × 8.0
	Small	2400 × 1600	20.3 × 13.5/ 8.0 × 5.3

* Approximate size when printed at 300 dpi. Print size in inches equals image size in pixels divided by printer resolution in dots per inch (dpi; 1 inch = approximately 2.54 cm).

Image Area

MENU button →  photo shooting menu

Choose an image area from **DX (24×16)** and **1.3× (18×12)**.

Option	Description
 DX (24×16)	Pictures are recorded using a 23.5 × 15.6 mm image area (DX format).
 1.3× (18×12)	Pictures are recorded using a 18.8 × 12.5 mm image area, producing a telephoto effect without the need to change lenses. The camera can also record more images per second during continuous shooting.

JPEG Compression

MENU button →  photo shooting menu

Choose a compression type for JPEG images.

Option	Description
 Size priority	Images are compressed to produce relatively uniform file size.
 Optimal quality	Optimal image quality. File size varies with scene recorded.

NEF (RAW) Recording

MENU button →  photo shooting menu

Choose the type of compression and the bit depth for NEF (RAW) images.

■ ■ Type

Option	Description
ON  Lossless compressed	NEF images are compressed using a reversible algorithm, reducing file size by about 20–40% with no effect on image quality.
ON  Compressed	NEF images are compressed using a non-reversible algorithm, reducing file size by about 35–55% with almost no effect on image quality.

■ ■ NEF (RAW) Bit Depth

Option	Description
12-bit 12-bit	NEF (RAW) images are recorded at a bit-depth of 12 bits.
14-bit 14-bit	NEF (RAW) images are recorded at a bit depth of 14 bits, producing files larger than those with a bit depth of 12 bits but increasing the color data recorded.

White Balance

MENU button →  photo shooting menu

Match white balance to the light source.

Option	Description
AUTO Auto Normal Keep warm lighting colors	White balance is adjusted automatically. For best results, use type G or D lens. If built-in or optional flash fires, results are adjusted for flash.
 Incandescent	Use under incandescent lighting.
 Fluorescent Sodium-vapor lamps Warm-white fluorescent White fluorescent Cool-white fluorescent Day white fluorescent Daylight fluorescent High temp. mercury-vapor	Use with: <ul style="list-style-type: none">• Sodium-vapor lighting (found in sports venues).• Warm-white fluorescent lights.• White fluorescent lights.• Cool-white fluorescent lights.• Daylight white fluorescent lights.• Daylight fluorescent lights.• High color temperature light sources (e.g. mercury-vapor lamps).
 Direct sunlight	Use with subjects lit by direct sunlight.
 Flash	Use with built-in or optional flash.
 Cloudy	Use in daylight under overcast skies.
 Shade	Use in daylight with subjects in the shade.
 Choose color temp.	Choose color temperature from list of values.
PRE Preset manual	Use subject, light source, or existing photograph as reference for white balance.

Set Picture Control

MENU button →  photo shooting menu

Choose how new photos will be processed. Select according to the type of scene or your creative intent.

Option	Description
 SD Standard	Standard processing for balanced results. Recommended for most situations.
 NL Neutral	Minimal processing for natural results. Choose for photographs that will later be processed or retouched.
 VI Vivid	Pictures are enhanced for a vivid, photoprint effect. Choose for photographs that emphasize primary colors.
 MC Monochrome	Take monochrome photographs.
 PT Portrait	Process portraits for skin with natural texture and a rounded feel.
 LS Landscape	Produces vibrant landscapes and cityscapes.
 FL Flat	Details are preserved over a wide tone range, from highlights to shadows. Choose for photographs that will later be extensively processed or retouched.

Manage Picture Control

MENU button →  photo shooting menu

Create custom Picture Controls.

Option	Description
Save/edit	Create a new custom Picture Control based on an existing preset or custom Picture Control, or edit existing custom Picture Controls.
Rename	Rename a selected Picture Control.
Delete	Delete a selected Picture Control.
Load/save	Copy Picture Controls from a memory card to the camera, or copy existing Picture Controls from the camera to the card.

Color Space

MENU button →  photo shooting menu

The color space determines the gamut of colors available for color reproduction. **sRGB** is recommended for general-purpose printing and display; **Adobe RGB**, with its broader gamut of colors, for professional publication and commercial printing.

Adobe RGB

For accurate color reproduction, Adobe RGB images require applications, displays, and printers that support color management.

Color Space

ViewNX-i and Capture NX-D (📖 169) automatically select the correct color space when opening photographs created with this camera. Results can not be guaranteed with third-party software.

Active D-Lighting

MENU button →  photo shooting menu

Preserve details in highlights and shadows, creating photographs with natural contrast.

Option	Description
Auto	The camera automatically adjusts Active D-Lighting according to shooting conditions.
Extra high	Choose the Active D-Lighting level.
High	
Normal	
Low	
Off	Active D-Lighting off.

HDR (High Dynamic Range)

MENU button →  photo shooting menu

Used with high contrast subjects, High Dynamic Range (HDR) preserves details in highlights and shadows by combining two shots taken at different exposures.

Option	Description
HDR mode	<ul style="list-style-type: none">•  On (series): Take a series of HDR photographs. Select Off to resume normal shooting.• On (single photo): Take one HDR photograph.• Off: Exit without taking additional HDR photographs.
HDR strength	Choose the HDR strength. If Auto is selected, the camera will automatically adjust HDR strength to suit the scene.

Vignette Control

MENU button →  photo shooting menu

“Vignetting” is a drop in brightness at the edges of a photograph. **Vignette control** reduces vignetting for type G, E, and D lenses (PC lenses excluded). Its effects vary from lens to lens and are most noticeable at maximum aperture. Choose from **High**, **Normal**, **Low**, and **Off**.

Vignette Control

Depending on the scene, shooting conditions, and type of lens, JPEG images may exhibit noise (fog) or variations in peripheral brightness, while custom Picture Controls and preset Picture Controls that have been modified from default settings may not produce the desired effect. Take test shots and view the results in the monitor. Vignette control does not apply to movies, multiple exposures (📖 48), or pictures taken with lenses that support FX format.

Auto Distortion Control

MENU button →  photo shooting menu

Select **On** to reduce barrel distortion when shooting with wide-angle lenses and to reduce pin-cushion distortion when shooting with long lenses (note that the edges of the area visible in the viewfinder may be cropped out of the final photograph, and that the time needed to process photographs before recording begins may increase). This option does not apply to movies and is available only with type G, E, and D lenses (PC, fisheye, and certain other lenses excluded); results are not guaranteed with other lenses.

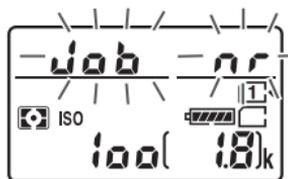
Retouch: Distortion Control

For information on creating copies of existing photographs with reduced barrel and pin-cushion distortion, see page 154.

Long Exposure NR (*Long Exposure Noise Reduction*)

MENU button →  photo shooting menu

If **On** is selected, photographs taken at shutter speeds slower than 1 s will be processed to reduce noise (bright spots or fog). The time required for processing roughly doubles; during processing, “**uob nr**” will flash in the shutter speed/aperture displays and pictures can not be taken (if the camera is turned off before processing is complete, the picture will be saved but noise reduction will not be performed). In continuous release mode, frame rates will slow and while photographs are being processed, the capacity of the memory buffer will drop.



High ISO NR

MENU button →  photo shooting menu

Photographs taken at high ISO sensitivities can be processed to reduce “noise.”

Option	Description
High	Reduce noise (randomly-spaced bright pixels), particularly in pictures taken at high ISO sensitivities. Choose the amount of noise reduction performed from High , Normal , and Low .
Normal	
Low	
Off	Noise reduction is performed only as required and never at an amount higher than when Low is selected.

ISO Sensitivity Settings

MENU button →  photo shooting menu

Adjust ISO sensitivity settings for photographs.

Option	Description
ISO sensitivity	Adjust ISO sensitivity. Choose Auto for automatic sensitivity adjustment or select from values between ISO 100 and 25600. Settings of Hi BW1 (equivalent to ISO 51200) and Hi BW2 (equivalent to ISO 102400) are also available in modes P , S , A , and M , but note that pictures taken with either setting are recorded in monochrome using the options selected for Set Picture Control > Monochrome in the photo shooting menu.
Hi ISO command dial access	Choosing On extends the range of settings that can be selected using the  (ISO) button and main command dial to include Hi BW1 and Hi BW2. Note that Hi BW1 and Hi BW2 are available in P , S , A , and M modes only.
Auto ISO sensitivity control	If On is selected, the camera will automatically adjust ISO sensitivity when optimal exposure can not be achieved at the value selected for ISO sensitivity (auto ISO sensitivity control also applies when the flash is used). You can choose the maximum sensitivity to prevent ISO sensitivity being raised too high and the shutter speed below which auto ISO sensitivity control will kick in to prevent under exposure in modes P and A (the minimum shutter speed; choose from values between $\frac{1}{4000}$ s and 30 s).

Remote Control Mode (ML-L3)

MENU button →  photo shooting menu

Choose how the camera behaves when used with an ML-L3 remote control (📖 187).

Option	Description
 2s Delayed remote	Shutter is released 2 s after ML-L3 shutter-release button is pressed.
 Quick-response remote	Shutter is released when ML-L3 shutter-release button is pressed.
 Remote mirror-up	Press ML-L3 shutter-release button once to raise mirror, again to release shutter and take photograph. Prevents blur caused by camera moving when mirror is raised.
 Off	The shutter can not be released using the ML-L3.

Multiple Exposure

MENU button →  photo shooting menu

Record two or three NEF (RAW) exposures as a single photograph.

Option	Description
Multiple exposure mode	<ul style="list-style-type: none">• ON  On (series): Take a series of multiple exposures. Select Off to resume normal shooting.• On (single photo): Take one multiple exposure.• Off: Exit without creating additional multiple exposures.
Number of shots	Choose the number of exposures that will be combined to form a single photograph.
Auto gain	If On is selected, gain will be adjusted according to number of exposures actually recorded (gain for each exposure is set to $\frac{1}{2}$ for 2 exposures, $\frac{1}{3}$ for 3 exposures). Choose Off to disable auto gain.

Interval Timer Shooting

MENU button →  photo shooting menu

Take photographs at the selected interval until the specified number of shots has been recorded. Select a release mode other than self-timer (☺) and **MUP** when using the interval timer.

Option	Description
Start	Start interval timer shooting, either after 3 s (Now selected for Start options) or at a selected date and time (Choose start day and start time). Shooting will continue at the selected interval until all shots have been taken.
Start options	Choose a start option. To start shooting immediately, select Now . To start shooting at a chosen date and time, select Choose start day and start time .
Interval	Choose the interval (hours, minutes, and seconds) between shots.
No. of intervals × shots/interval	Choose the number of intervals and the number of shots per interval.
Exposure smoothing	Selecting On allows the camera to adjust exposure to match previous shot in modes other than M (note that exposure smoothing only takes effect in mode M if auto ISO sensitivity control is on).

🎬 The Movie Shooting Menu: Movie Shooting Options

To display the movie shooting menu, press **MENU** and select the 🎬 (movie shooting menu) tab.



Movie Shooting Menu Options

The movie shooting menu contains the following options:

Option		Option	
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File naming	51	White balance	55
Destination	51	Set Picture Control	55
Frame size/frame rate	52	Manage Picture Control*	55
Movie quality	53	High ISO NR	55
Microphone sensitivity	53	Movie ISO sensitivity settings	56
Frequency response	54	Time-lapse photography*	57
Wind noise reduction	54		

* Not included in the settings saved to **U1** or **U2** (☐ 111).

Note: Depending on camera settings, some items may be grayed out and unavailable.

Reset Movie Shooting Menu

MENU button →  movie shooting menu

Select **Yes** to restore movie shooting menu options to their default values (📖 11).

File Naming

MENU button →  movie shooting menu

Choose the three-letter prefix used in naming the image files in which movies are stored. The default prefix is "DSC" (📖 34).

Destination

MENU button →  movie shooting menu

Choose the slot to which movies are recorded. The menu shows the time available on each card; recording ends automatically when no time remains.



Frame Size/Frame Rate

MENU button →  movie shooting menu

Select **Frame size/frame rate** to choose the frame size (in pixels) and frame rate. A star (“★”) will be displayed when a high quality option is selected for **Movie quality** (□ 53).

Option	Frame size (pixels)	Frame rate *
$\frac{1080 \text{ P}^{\star}}{60} / \frac{1080 \text{ P}}{60}$	1920 × 1080	60p
$\frac{1080 \text{ P}^{\star}}{50} / \frac{1080 \text{ P}}{50}$	1920 × 1080	50p
$\frac{1080 \text{ P}^{\star}}{30} / \frac{1080 \text{ P}}{30}$	1920 × 1080	30p
$\frac{1080 \text{ P}^{\star}}{25} / \frac{1080 \text{ P}}{25}$	1920 × 1080	25p
$\frac{1080 \text{ P}^{\star}}{24} / \frac{1080 \text{ P}}{24}$	1920 × 1080	24p
$\frac{720 \text{ P}^{\star}}{60} / \frac{720 \text{ P}}{60}$	1280 × 720	60p
$\frac{720 \text{ P}^{\star}}{50} / \frac{720 \text{ P}}{50}$	1280 × 720	50p

* Listed values. Actual frame rates for 60p, 50p, 30p, 25p, and 24p are 59.94, 50, 29.97, 25, and 23.976 fps respectively.

Frame Size and Rate

Settings of **1920×1080; 60p** and **1920×1080; 50p** are not available for **Frame size/frame rate** when **DX (24×16)** is selected for **Image area** in the movie shooting menu (□ 54). These settings can be accessed by setting **Image area** to **1.3× (18×12)**. Choosing **DX (24×16)** for **Image area** when either of these options is in effect resets **Frame size/frame rate** to **1920×1080; 30p** (if **1920×1080; 60p** is selected) or to **1920×1080; 25p** (if **1920×1080; 50p** is selected).

Frame size and rate affect the distribution and amount of noise (randomly-spaced bright pixels, fog, or bright spots). In addition, movies recorded at the same frame size but with different image areas may not have the same resolution.

Movie Quality

MENU button →  movie shooting menu

Choose from **High quality** and **Normal**.

Microphone Sensitivity

MENU button →  movie shooting menu

Turn the built-in or optional stereo microphones ( 188) on or off or adjust microphone sensitivity. Choose **Auto sensitivity** to adjust sensitivity automatically, **Microphone off** to turn sound recording off; to select microphone sensitivity manually, select **Manual sensitivity** and choose a sensitivity.

The Icon

 is displayed during playback if the movie was recorded without sound.



Frequency Response

MENU button →  movie shooting menu

If  **Wide range** is selected, the built-in and optional stereo microphones (📖 188) will respond to a wide range of frequencies, from music to the bustling hum of a city street. Choose  **Vocal range** to bring out human voices.

Wind Noise Reduction

MENU button →  movie shooting menu

Select **On** to enable the low-cut filter for the built-in microphone (optional stereo microphones are unaffected), reducing noise produced by wind blowing over the microphone (note that other sounds may also be affected). Wind-noise reduction for optional stereo microphones can be enabled or disabled using microphone controls.

Image Area

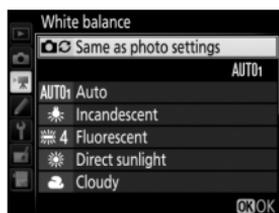
MENU button →  movie shooting menu

Choose the image area (📖 37).

White Balance

MENU button →  movie shooting menu

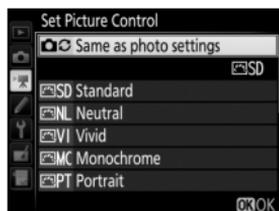
Choose the white balance for movies (📖 39). Select **Same as photo settings** to use the option currently selected for photos.



Set Picture Control

MENU button →  movie shooting menu

Choose a Picture Control for movies (📖 40). Select **Same as photo settings** to use the option currently selected for photos.



Manage Picture Control

MENU button →  movie shooting menu

Create custom Picture Controls (📖 41).

High ISO NR

MENU button →  movie shooting menu

Reduce “noise” (randomly-spaced bright pixels) in movies recorded at high ISO sensitivities (📖 45).

Movie ISO Sensitivity Settings

MENU button →  movie shooting menu

Adjust the following ISO sensitivity settings:

- **ISO sensitivity (mode M):** Choose the ISO sensitivity for mode **M** from values between ISO 100 and 25600. Auto ISO sensitivity control is used in other shooting modes.
- **Auto ISO control (mode M):** Select **On** for auto ISO sensitivity control in mode **M**, **Off** to use the value selected for **ISO sensitivity (mode M)**.
- **Maximum sensitivity:** Choose the upper limit for auto ISO sensitivity control from values between ISO 200 and 25600. Auto ISO sensitivity control is used in modes **P**, **S**, and **A** and when **On** is selected for **Auto ISO control (mode M)** in exposure mode **M**.

Auto ISO Sensitivity Control

At high ISO sensitivities, the camera may have difficulty focusing and noise (randomly-spaced bright pixels, fog, or lines) may increase. This can be prevented by choosing a lower value for **Movie ISO sensitivity settings** > **Maximum sensitivity**.

Time-Lapse Photography

MENU button →  movie shooting menu

The camera automatically takes photos at selected intervals to create a silent time-lapse movie with the frame size, frame rate, and image area currently selected in the movie shooting menu.

Option	Description
Start	Start time-lapse photography. Shooting starts after 3 s and continues at the selected interval for the selected shooting time.
Interval	Choose the interval between shots in minutes and seconds.
Shooting time	Choose the shooting time (hours and minutes) .
Exposure smoothing	Selecting On smooths abrupt changes in exposure in modes other than M (note that exposure smoothing only takes effect in mode M if auto ISO sensitivity control is on).

Custom Settings: Fine-Tuning Camera Settings

To display the Custom Settings menu, press **MENU** and select the  (Custom Settings menu) tab.

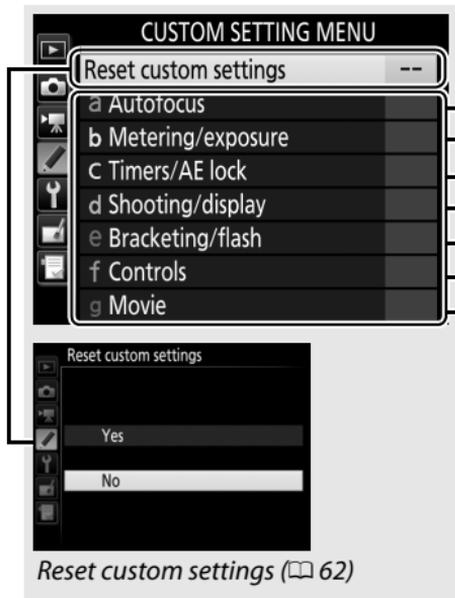


MENU button

Custom Settings are used to customize camera settings to suit individual preferences.

Custom Setting groups

Main menu



Reset custom settings (62)



Custom Settings

The following Custom Settings are available:

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Reset custom settings		62
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Note: Depending on camera settings, some items may be grayed out and unavailable. If settings have been modified from default values ( 12), an asterisk will be displayed adjacent to the altered settings in the second level of the Custom Settings menu.

Reset Custom Settings

MENU button →  Custom Settings menu

Select **Yes** to restore Custom Settings to their default values (📖 12).

a: Autofocus

a1: AF-C Priority Selection

MENU button →  Custom Settings menu

When **AF-C** is selected for viewfinder photography, this option controls whether photographs can be taken whenever the shutter-release button is pressed (*release priority*) or only when the camera is in focus (*focus priority*).

Option	Description
 Release	Photos can be taken whenever the shutter-release button is pressed.
 Focus	Photos can only be taken when the in-focus indicator (●) is displayed.

Regardless of the option selected, focus will not lock when **AF-C** is selected for autofocus mode. The camera will continue to adjust focus until the shutter is released.

a2: AF-S Priority Selection

MENU button →  Custom Settings menu

When **AF-S** is selected for viewfinder photography, this option controls whether photographs can be taken only when the camera is in focus (*focus priority*) or whenever the shutter-release button is pressed (*release priority*).

Option	Description
 Release	Photos can be taken whenever the shutter-release button is pressed.
 Focus	Photos can only be taken when the in-focus indicator (●) is displayed.

Regardless of the option selected, if the in-focus indicator (●) is displayed when **AF-S** is selected for autofocus mode, focus will lock while the shutter-release button is pressed halfway. Focus lock continues until the shutter is released.

a3: Focus Tracking with Lock-On

MENU button →  Custom Settings menu

This option controls how autofocus adjusts to sudden large changes in the distance to the subject when **AF-C** is selected or continuous-servo autofocus is selected when the camera is in **AF-A** mode for viewfinder photography.

Option	Description
AF  5 (Long)	When the distance to the subject changes abruptly, the camera waits for the specified period before adjusting the distance to the subject. This prevents the camera from refocusing when the subject is briefly obscured by objects passing through the frame. Note that 2 , 1 (Short) , and Off are equivalent to 3 (Normal) when 3D-tracking or auto-area AF is selected for AF-area mode.
AF  4	
AF  3 (Normal)	
AF  2	
AF  1 (Short)	
Off	The camera immediately adjusts focus when the distance to the subject changes. Use when photographing a series of subjects at varying distances in quick succession.

a4: AF Activation

MENU button →  Custom Settings menu

Choose whether the camera focuses when the shutter-release button is pressed halfway. If **AF-ON only** is selected, the camera will not focus when the shutter-release button is pressed halfway; focus using a button that has been assigned the AF-ON role in the Custom Settings menu (📖 92, 97, 104, 107).

a5: Focus Point Illumination

MENU button →  Custom Settings menu

Choose from the following focus point display options.

Option	Description
AF point illumination	<p>Choose whether the active focus point is highlighted in red in the viewfinder.</p> <ul style="list-style-type: none">• Auto: The selected focus point is automatically highlighted as needed to establish contrast with the background.• On: The selected focus point is always highlighted, regardless of the brightness of the background. Depending on the brightness of the background, the selected focus point may be difficult to see.• Off: The selected focus point is not highlighted.
Manual focus mode	<p>Choose On to display the active focus point in manual focus mode, Off to display the focus point only during focus point selection.</p>

a6: Focus Point Wrap-Around

MENU button →  Custom Settings menu

Choose whether focus-point selection “wraps around” from one edge of the viewfinder to another.

Option	Description
Wrap	Focus-point selection “wraps around” from top to bottom, bottom to top, right to left, and left to right, so that, for example, pressing  when a focus point at the right edge of the display is highlighted (①) selects the corresponding focus point at the left edge of the display (②). 
No wrap	The focus-point display is bounded by the outermost focus points so that, for example, pressing  when a focus point at the right edge of the display is selected has no effect.

a7: Number of Focus Points

MENU button →  Custom Settings menu

Choose the number of focus points available for manual focus-point selection.

Option	Description
AF51 51 points	Choose from the 51 focus points shown at right. 
AF11 11 points	Choose from the 11 focus points shown at right. Use for quick focus-point selection. 

a8: Store Points by Orientation

MENU button →  Custom Settings menu

Choose whether separate focus points can be selected for “wide” (landscape) orientation, for “tall” (portrait) orientation with the camera rotated 90° clockwise, and for “tall” orientation with the camera rotated 90° counterclockwise.

Select **No** to use the same focus point regardless of camera orientation.



Camera rotated 90°
counter-clockwise



Landscape (wide)
orientation



Camera rotated 90°
clockwise

Choose **Yes** to enable separate focus-point selection.



Camera rotated 90°
counter-clockwise



Landscape (wide)
orientation

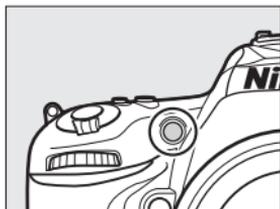


Camera rotated 90°
clockwise

a9: Built-in AF-assist Illuminator

MENU button →  Custom Settings menu

Choose whether the built-in AF-assist illuminator lights to assist the focus operation when lighting is poor.



Option	Description
On	The AF-assist illuminator lights when lighting is poor (viewfinder photography only). AF-assist illumination is only available when both of the following conditions are met: <ol style="list-style-type: none">1. AF-S is selected for autofocus mode or single-servo autofocus is selected when the camera is in AF-A mode.2. Auto-area AF is chosen for AF-area mode, or an option other than auto-area AF is chosen and the center focus point is selected.
Off	The AF-assist illuminator does not light to assist the focus operation. The camera may not be able to focus using autofocus when lighting is poor.

The AF-Assist Illuminator

The AF-assist illuminator has a range of about 0.5–3.0 m (1 ft 8 in.–9 ft 10 in.); when using the illuminator, remove the lens hood.

b: Metering/Exposure

b1: ISO Sensitivity Step Value

MENU button →  Custom Settings menu

Select the increments used when making adjustments to ISO sensitivity. If possible, the current ISO sensitivity setting is maintained when the step value is changed. If the current setting is not available at the new step value, ISO sensitivity will be rounded to the nearest available setting.

b2: EV Steps for Exposure Cntrl

MENU button →  Custom Settings menu

Select the increments used when making adjustments to shutter speed, aperture, exposure and flash compensation, and bracketing.

b3: Easy Exposure Compensation

MENU button →  Custom Settings menu

This option controls whether the  button is needed to set exposure compensation. If **On (Auto reset)** or **On** is selected, the 0 at the center of the exposure display will flash even when exposure compensation is set to ± 0 .

Option	Description
On (Auto reset)	Exposure compensation is set by rotating one of the command dials (see note below). The setting selected using the command dial is reset when the camera turns off or the standby timer expires (exposure compensation settings selected using the  button are not reset).
On	As above, except that the exposure compensation value selected using the command dial is not reset when the camera turns off or the standby timer expires.
Off	Exposure compensation is set by pressing the  button and rotating the main command dial.

Change Main/Sub

The dial used to set exposure compensation when **On (Auto reset)** or **On** is selected for Custom Setting b3 (**Easy exposure compensation**) depends on the option selected for Custom Setting f5 (**Customize command dials**) > **Change main/sub** (📖 99).

		Customize command dials > Change main/sub	
		Off	On
Mode	P	Sub-command dial	Sub-command dial
	S	Sub-command dial	Main command dial
	A	Main command dial	Sub-command dial
	M	N/A	

Easy ISO

Custom Setting b3 (**Easy exposure compensation**) can not be used with Custom Setting d8 (**Easy ISO**,  77). Adjustments to either of these items reset the remaining item; a message is displayed when the item is reset.

b4: Center-Weighted Area

MENU button →  *Custom Settings menu*

Choose the size of the area given the most weight in center-weighted metering. If a non-CPU lens is attached, the size of the area is fixed at 8 mm.

b5: Fine-tune Optimal Exposure

MENU button →  *Custom Settings menu*

Use this option to fine-tune the exposure value selected by the camera. Exposure can be fine-tuned separately for each metering method by from +1 to -1 EV in steps of $\frac{1}{3}$ EV.

Fine-Tuning Exposure

Exposure fine-tuning is not affected by two-button resets. Note that as the exposure compensation () icon is not displayed, the only way to determine how much exposure has been altered is to view the amount in the fine-tuning menu.

c: Timers/AE Lock

c1: Shutter-Release Button AE-L

MENU button →  Custom Settings menu

If **On** is selected, exposure will lock when the shutter-release button is pressed halfway.

c2: Standby timer

MENU button →  Custom Settings menu

Choose how long the camera continues to meter exposure when no operations are performed. The shutter-speed and aperture displays in the control panel and viewfinder turn off automatically when the standby timer expires.

Choose a shorter standby timer delay for longer battery life.

c3: Self-Timer

MENU button →  Custom Settings menu

Choose the length of the shutter release delay, the number of shots taken, and the interval between shots in self-timer mode.

- **Self-timer delay:** Choose the length of the shutter-release delay.
- **Number of shots:** Press  and  to choose the number of shots taken each time the shutter-release button is pressed.
- **Interval between shots:** Choose the interval between shots when the **Number of shots** is more than 1.

c4: Monitor off Delay

MENU button →  Custom Settings menu

Choose how long the monitor remains on when no operations are performed during playback (**Playback**; defaults to 10 s) and image review (**Image review**; defaults to 4 s), when menus (**Menus**; defaults to 1 minute) or information (**Information display**; defaults to 10 s) are displayed, or during live view (**Live view**; defaults to 10 minutes). Choose a shorter monitor-off delay for longer battery life.

c5: Remote on Duration (ML-L3)

MENU button →  Custom Settings menu

Choose how long the camera will remain on stand-by in remote release mode (📖 47). If no operations are performed for the selected period, remote shooting will end and **Off** will automatically be selected for **Remote control mode (ML-L3)** in the photo shooting menu. Choose shorter times for longer battery life.

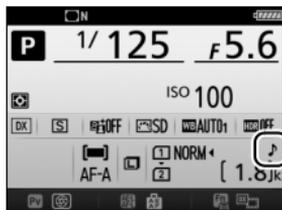
d: Shooting/Display

d1: Beep

MENU button →  Custom Settings menu

Choose the pitch and volume of the beep that sounds when the camera focuses using single-servo AF (**AF-S** or when single-servo AF is selected for **AF-A**), when focus locks during photo live view, while the release timer is counting down in self-timer and delayed remote release modes (📖 47), when a photograph is taken in quick-response remote or remote mirror-up mode (📖 47), when time-lapse photography ends (📖 57), or if you attempt to take a photograph when the memory card is locked.

- **Volume:** Choose **3** (high), **2** (medium), **1** (low) or **Off** (mute). When an option other than **Off** is selected,  appears in the information display.
- **Pitch:** Choose **High** or **Low**.



Beep

Note that regardless of the option selected, a beep will not sound when the camera focuses if:

- The camera is in quiet shutter release mode (mode **Q**), or
- The live view selector rotated to  in live view.

d2: Continuous Low-Speed

MENU button →  Custom Settings menu

Choose the maximum frame advance rate in **CL** (continuous low speed) mode. Note that the frame rate in live view will not exceed 3.7 fps even when values of 4 fps or faster are selected.

d3: Max. Continuous Release

MENU button →  Custom Settings menu

The maximum number of shots that can be taken in a single burst in continuous mode can be set to any value between 1 and 100. Note that this setting has no effect at shutter speeds of 4 s or slower.

The Memory Buffer

Regardless of the option selected for Custom Setting d3, shooting will slow when the memory buffer fills (). The number of shots that can be stored in the buffer varies with image quality and other factors.

d4: Exposure Delay Mode

MENU button →  Custom Settings menu

In situations where the slightest camera movement can blur pictures, select **1 s**, **2 s**, or **3 s** to delay shutter release until approximately one, two, or three seconds after the mirror is raised.

d5: Flash Warning

MENU button →  Custom Settings menu

If **On** is selected, the flash-ready indicator () will blink if the flash is required to ensure optimal exposure.

d6: File Number Sequence

MENU button →  Custom Settings menu

When a photograph is taken, the camera names the file by adding one to the last file number used. This option controls whether file numbering continues from the last number used when a new folder is created, the memory card is formatted, or a new memory card is inserted in the camera.

Option	Description
On	When a new folder is created, the memory card formatted, or a new memory card inserted in the camera, file numbering continues from the last number used or from the largest file number in the current folder, whichever is higher. If a photograph is taken when the current folder contains a photograph numbered 9999, a new folder will be created automatically and file numbering will begin again from 0001.
Off	File numbering is reset to 0001 when a new folder is created, the memory card is formatted, or a new memory card is inserted in the camera. Note that a new folder is created automatically if a photograph is taken when the current folder contains 999 photographs.
Reset	As for On , except that the next photograph taken is assigned a file number by adding one to the largest file number in the current folder. If the folder is empty, file numbering is reset to 0001.

File Number Sequence

If the current folder is numbered 999 and contains either 999 photographs or a photograph numbered 9999, the shutter-release button will be disabled and no further photographs can be taken. Choose **Reset** for Custom Setting d6 (**File number sequence**) and then either format the current memory card or insert a new memory card.

d7: Viewfinder Grid Display

MENU button →  Custom Settings menu

Choose **On** to display on-demand grid lines in the viewfinder for reference when composing photographs using the DX-format image area ( 37).

d8: Easy ISO

MENU button →  Custom Settings menu

If **On** is selected, ISO sensitivity can be set in modes **P** and **S** by rotating the sub-command dial or in mode **A** by rotating the main command dial. Select **Off** to set ISO sensitivity by pressing the  (**ISO**) button and rotating the main command dial.

d9: Information Display

MENU button →  Custom Settings menu

If **Auto** (AUTO) is selected, the color of the lettering in the information display will automatically change from black to white or white to black to maintain contrast with the background. To always use the same color lettering, select **Manual** and choose **Dark on light** (B; black lettering) or **Light on dark** (W; white lettering).



Dark on light



Light on dark

d10: LCD Illumination

MENU button →  Custom Settings menu

If **Off** is selected, the control panel backlight (LCD illuminator) will only light while the power switch is rotated toward . If **On** is selected, the control panel will be illuminated whenever the standby timer is active (72). Select **Off** for increased battery life.

d11: MB-D15 Battery Type

MENU button →  Custom Settings menu

To ensure that the camera functions as expected when the optional MB-D15 battery pack is used with AA batteries, match the option selected in this menu to the type of batteries inserted in the battery pack. There is no need to adjust this option when using EN-EL15 batteries.

Option	Description
 LR6 (AA alkaline)	Select when using LR6 alkaline AA batteries.
 Ni-MH HR6 (AA Ni-MH)	Select when using HR6 Ni-MH AA batteries.
 FR6 (AA lithium)	Select when using FR6 lithium AA batteries.

Using AA Batteries

The capacity of AA batteries drops sharply at temperatures below 20 °C (68 °F) and varies with make and storage conditions; in some cases, batteries may cease to function before their expiry date. Some AA batteries can not be used; due to their performance characteristics and limited capacity, alkaline batteries have less capacity than some other types and should only be used if no alternative is available and then only at warmer temperatures. The camera shows the level of AA batteries as follows:

Control panel	Viewfinder	Description
	—	Batteries fully charged.
		Low battery. Ready fresh batteries.
 (flashes)	 (flashes)	Shutter release disabled. Change batteries.

d12: Battery Order

MENU button →  Custom Settings menu

Choose whether the battery in the camera or the batteries in the battery pack are used first when an optional MB-D15 battery pack is attached. Note that if the MB-D15 is powered by an optional AC adapter and power connector, the AC adapter will be used regardless of the option selected.

The MB-D15 Battery Pack

The MB-D15 takes one EN-EL15 rechargeable Li-ion battery or six AA alkaline, Ni-MH, or lithium batteries (an EN-EL15 is supplied with the camera; AA batteries are available separately).

The information display shows the type of battery inserted in the MB-D15 as follows:

MB-D15 battery type display	Battery type
EL15 	EN-EL15 rechargeable Li-ion battery
LR6/AA 	LR6 alkaline AA batteries
Ni-MH/AA 	HR6 Ni-MH AA batteries
FR6/AA 	FR6 lithium AA batteries



e: Bracketing/Flash

e1: Flash Sync Speed

MENU button →  Custom Settings menu

This option controls flash sync speed.

Option	Description
1/320 s (Auto FP)	Auto FP high-speed sync is used when a compatible flash unit is attached. If the built-in flash or other flash units are used, shutter speed is set to $\frac{1}{320}$ s. When the camera shows a shutter speed of $\frac{1}{320}$ s in mode P or A , auto FP high-speed sync will be activated if the actual shutter speed is faster than $\frac{1}{320}$ s.
1/250 s (Auto FP)	Auto FP high-speed sync is used when a compatible flash unit is attached. If the built-in flash or other flash units are used, shutter speed is set to $\frac{1}{250}$ s. When the camera shows a shutter speed of $\frac{1}{250}$ s in mode P or A , auto FP high-speed sync will be activated if the actual shutter speed is faster than $\frac{1}{250}$ s.
1/250 s–1/60 s	Flash sync speed set to selected value.

Fixing Shutter Speed at the Flash Sync Speed Limit

To fix shutter speed at the sync speed limit in mode **S** or **M**, select the next shutter speed after the slowest possible shutter speed (30 s or - -). An X (flash sync indicator) will be displayed in the viewfinder and control panel together with the flash sync speed.

Auto FP High-Speed Sync

Allows the flash to be used at the highest shutter speed supported by the camera, making it possible to choose the maximum aperture for reduced depth of field even when the subject is backlit in bright sunlight. The information display flash mode indicator shows “FP” when auto FP high-speed sync is active.

■ Auto FP High-Speed Sync

When **1/320 s (Auto FP)** or **1/250 s (Auto FP)** is selected for Custom Setting e1 (**Flash sync speed**,  81), the built-in flash can be used at shutter speeds as fast as $\frac{1}{320}$ s or $\frac{1}{250}$ s, while compatible optional flash units can be used at any shutter speed (Auto FP High-Speed Sync).

Flash sync speed \ Shutter speed	1/320 s (Auto FP)		1/250 s (Auto FP)		1/250 s	
	Built-in flash	Optional flash unit	Built-in flash	Optional flash unit	Built-in flash	Optional flash unit
From $\frac{1}{8000}$ to but not including $\frac{1}{320}$ s	—	Auto FP	—	Auto FP	—	—
From $\frac{1}{320}$ to but not including $\frac{1}{250}$ s	Flash sync*		—	Auto FP	—	—
$\frac{1}{250}$ –30 s	Flash sync					

* Flash range drops as shutter speed increases. Flash range will nevertheless be greater than that obtained at the same speeds with Auto FP.

e2: Flash Shutter Speed

MENU button →  Custom Settings menu

This option determines the slowest shutter speed available when using front- or rear-curtain sync or red-eye reduction in mode **P** or **A** (regardless of the setting chosen, shutter speeds can be as slow as 30 s in **S** and **M** modes or at flash settings of slow sync, slow rear-curtain sync, or red-eye reduction with slow sync).

e3: Flash Cntrl for Built-in Flash

MENU button →  Custom Settings menu

Choose the flash mode for the built-in flash.

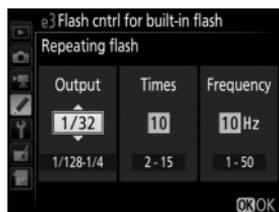
Option	Description
TTL  TTL	Flash output is adjusted automatically in response to shooting conditions.
M  Manual	Choose the flash level. The camera does not emit monitor pre-flashes.
RPT  Repeating flash	The flash fires repeatedly while the shutter is open, producing a strobe-light effect.
CMD  Commander mode	Use the built-in flash as a master flash controlling remote optional flash units in one or more groups ( 84).

Manual

Choose a flash level. Flash level is stated in fractions of full power: at full power, the built-in flash has a Guide Number of 12/39 (m/ft, ISO 100, 20°C/68°F).

Repeating Flash

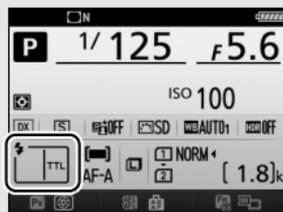
The flash fires repeatedly while the shutter is open, producing a strobe-light effect. Press  or  to highlight the following options,  or  to change.



Option	Description
Output	Choose flash output (expressed as a fraction of full power).
Times	Choose the number of times the flash fires at the selected output. Note that depending on shutter speed and the option selected for Frequency , the actual number of flashes may be less than selected.
Frequency	Choose how often the flash fires per second.

Flash Control Mode

The flash control mode for the built-in flash is shown in the information display.



The SB-500, SB-400, and SB-300

When an optional SB-500, SB-400, or SB-300 flash unit is attached and turned on, Custom Setting e3 changes to **Optional flash**, allowing the flash control mode for the optional flash unit to be selected from **TTL** and **Manual** (the SB-500 also offers a **Commander mode** option).

"Times"

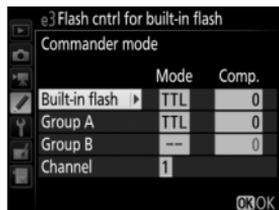
The options available for **Repeating Flash > Times** are determined by flash output.

Output	Options available for "Times"	Output	Options available for "Times"
1/4	2	1/32	2–10, 15
1/8	2–5	1/64	2–10, 15, 20, 25
1/16	2–10	1/128	2–10, 15, 20, 25, 30, 35

Commander Mode

Use the built-in flash as a master flash controlling one or more remote optional flash units in up to two groups (A and B) using advanced wireless lighting.

Selecting this option displays the menu shown at right. Press \leftarrow or \rightarrow to highlight the following options, \uparrow or \downarrow to change.

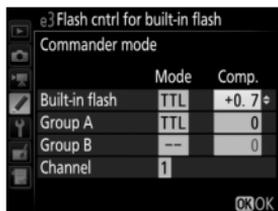


Option	Description
Built-in flash	Choose a flash mode for the built-in flash (commander flash). When an optional SB-500 flash unit is attached, this option changes to Optional flash and is used to choose a flash mode for the SB-500. Otherwise this option is identical to Built-in flash .
TTL	i-TTL mode. Choose flash compensation from values between +3.0 and -3.0 EV in increments of 1/3 EV.
M	Choose the flash level.
--	The built-in flash does not fire, although remote flash units do. The built-in flash must be raised so that it can emit monitor pre-flashes.
Group A	Choose a flash mode for all flash units in group A.
TTL	i-TTL mode. Choose flash compensation from values between +3.0 and -3.0 EV in increments of 1/3 EV.
AA	Auto aperture (available only with compatible flash units). Choose flash compensation from values between +3.0 and -3.0 EV in increments of 1/3 EV.
M	Choose the flash level.
--	The flash units in this group do not fire.
Group B	Choose a flash mode for all flash units in group B. The options available are the same as those listed for Group A , above.
Channel	Choose from channels 1-4. All flash units in both groups must be set to the same channel.

Follow the steps below to take photographs in commander mode.

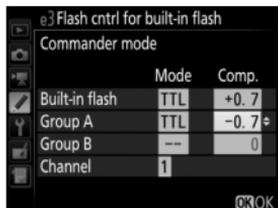
1 Adjust settings for the built-in flash.

Choose the flash control mode and output level for the built-in flash. Note that output level can not be adjusted in -- mode.



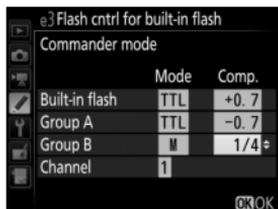
2 Adjust settings for group A.

Choose the flash control mode and output level for the flash units in group A.



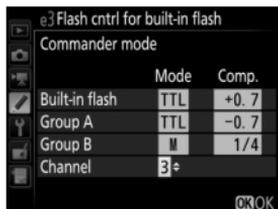
3 Adjust settings for group B.

Choose the flash control mode and output level for the flash units in group B.



4 Select the channel.

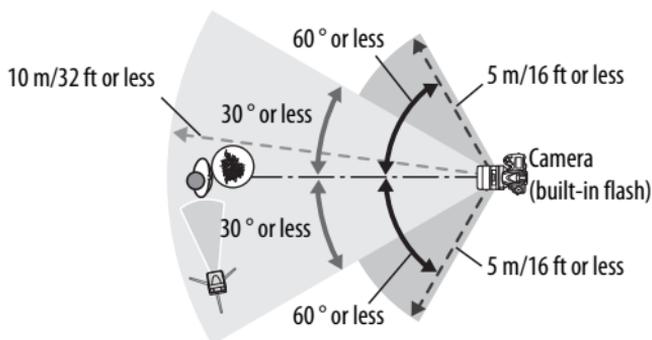
If the remote flash units include an SB-500, select channel 3.



5 Press **OK**.

6 Compose the shot.

Compose the shot and arrange the flash units as shown below. Note that the maximum distance at which the remote flash units can be placed may vary with shooting conditions.



Wireless remote sensors on flash units should face camera.

7 Configure the remote flash units.

Turn all the remote flash units on, adjust group settings as desired, and set them to the channel selected in Step 4. See the flash unit instruction manuals for details.

8 Raise the built-in flash.

Press the  button to raise the built-in flash. Note that even if -- is selected for **Built-in flash > Mode**, the built-in flash must be raised so that monitor preflashes will be emitted.

9 Frame the photograph, focus, and shoot.

After confirming that the camera flash-ready light and the flash-ready lights for all other flash units are lit, frame the photograph, focus, and shoot. FV lock can be used if desired.

The Flash Sync Mode Display

 does not appear in the information display when -- is selected for **Built-in flash > Mode**.

Flash Compensation

The flash compensation value selected with the  () button and sub-command dial is added to the flash compensation values selected for the built-in flash, group A, and group B in the **Commander mode** menu. A  icon is displayed in the control panel and viewfinder when a flash compensation value other than ± 0 is selected for the built-in flash or remote flash units in TTL or AA mode. The  icon flashes when the built-in flash is in mode **M**.

Commander Mode

Position the sensor windows on the remote flash units to pick up the light from the built-in flash (particular care is required if the camera is not mounted on a tripod). Be sure that direct light or strong reflections from the remote flash units do not enter the camera lens (in TTL mode) or the photocells on the remote flash units (AA mode), as this may interfere with exposure. To prevent timing flashes emitted by the built-in flash from appearing in photographs taken at short range, choose low ISO sensitivities or small apertures (high f-numbers) or use an optional SG-3IR infrared panel for the built-in flash. An SG-3IR is required for best results with rear-curtain sync, which produces brighter timing flashes. After positioning the remote flash units, take a test shot and view the results in the camera monitor.

Although there is no limit on the number of remote flash units that may be used, the practical maximum is three. With more than this number, the light emitted by the remote flash units will interfere with performance.

e4: Exposure Comp. for Flash

MENU button →  Custom Settings menu

Choose how the camera adjusts flash level when exposure compensation is used.

Option	Description
 Entire frame	Both flash level and exposure compensation are adjusted to modify exposure over the entire frame.
 Background only	Exposure compensation applies to background only.

e5: Modeling Flash

MENU button →  Custom Settings menu

If **On** is selected when the camera is being used with the built-in flash or an optional flash unit that supports the Nikon Creative Lighting system, a modeling flash will be emitted when the camera **Pv** button is pressed during viewfinder photography. No modeling flash is emitted if **Off** is selected.

e6: Auto Bracketing Set

MENU button →  Custom Settings menu

Choose the setting or settings bracketed when auto bracketing is in effect. Choose **AE & flash** (AE \updownarrow) to perform both exposure and flash-level bracketing, **AE only** (AE) to bracket only exposure, **Flash only** (\updownarrow) to perform only flash-level bracketing, **WB bracketing** (WB) to perform white-balance bracketing, or **ADL bracketing** (ADL) to perform bracketing using Active D-Lighting. Note that white balance bracketing is not available at image quality settings of NEF (RAW) or NEF (RAW) + JPEG.

e7: Bracketing Order

MENU button →  Custom Settings menu

At the default setting of **MTR > under > over** (N), exposure, flash, and white balance bracketing are performed in the following order: the unmodified shot is taken first, followed by the shot with the lowest value, followed by the shot with the highest value. If **Under > MTR > over** (- \rightarrow +) is selected, shooting will proceed in order from the lowest to the highest value. This setting has no effect on ADL bracketing.

f: Controls

f1: OK Button

MENU button →  Custom Settings menu

This option determines the role assigned to the  button during viewfinder photography, playback, and live view (regardless of the option selected, pressing  when a movie is displayed full frame starts movie playback).

■■ Shooting Mode

Option	Role assigned to  button
 Select center focus point	Select the center focus point.
 Highlight active focus point	Highlight the active focus point.
None	Pressing the  button has no effect in viewfinder photography.

■■ Playback Mode

Option	Role assigned to  button
 Thumbnail on/off	Toggle between full-frame and thumbnail playback.
 View histograms	In both full-frame and thumbnail playback, a histogram is displayed while the  button is pressed.
 Zoom on/off	Toggle between full-frame or thumbnail playback and playback zoom. Choose the initial zoom setting from Low magnification (50%) , 1 : 1 (100%) , and High magnification (200%) .
 Choose slot and folder	Choose the slot and folder from which images will be played back.

Live View

Option	Role assigned to  button
 Select center focus point	Pressing the  button in live view selects the center focus point.
 Zoom on/off	Press the  button to toggle zoom on and off. Choose the initial zoom setting from Low magnification (50%) , 1 : 1 (100%) , and High magnification (200%) . The zoom display will center on the active focus point.
None	Pressing the  button has no effect in live view.

f2: Assign Fn Button

MENU button →  Custom Settings menu

Choose the role played by the **Fn** button, either by itself (**Press**) or when used in combination with the command dials (**Press + command dials**).

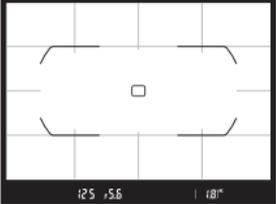


Press

Selecting **Press** displays the following options:

Option	Description
 Preview	During viewfinder photography, you can preview depth of field while the Fn button is pressed.
 FV lock	Press the Fn button to lock flash value (built-in flash and compatible optional flash units only). Press again to cancel FV lock.
 AE/AF lock	Focus and exposure lock while the Fn button is pressed.

Option	Description
 AE lock only	Exposure locks while the Fn button is pressed.
 AE lock (Hold)	Exposure locks when the Fn button is pressed, and remains locked until the button is pressed a second time or the standby timer expires.
 AF lock only	Focus locks while the Fn button is pressed.
 AF-ON	Pressing the Fn button initiates autofocus.
 Flash off	The flash will not fire in photos taken while the Fn button is pressed.
 Bracketing burst	If the Fn button is pressed while exposure, flash, or ADL bracketing is active in single frame or quiet shutter-release mode, all shots in the current bracketing program will be taken each time the shutter-release button is pressed. If white balance bracketing is active or a continuous release mode (mode CH or CL) is selected, the camera will repeat the bracketing burst while the shutter-release button is held down.
 + NEF (RAW)	If image quality is set to JPEG fine , JPEG normal , or JPEG basic , an NEF (RAW) copy will be recorded with the next picture taken after the Fn button is pressed (the original image quality setting will be restored when you remove your finger from the shutter-release button). To exit without recording an NEF (RAW) copy, press the Fn button again.

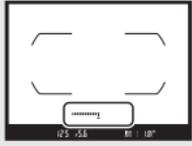
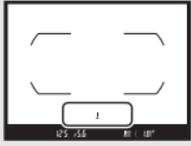
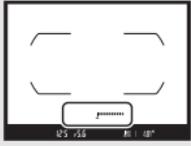
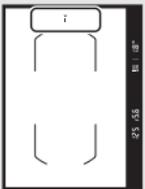
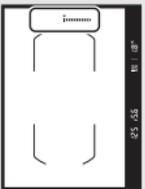
Option	Description
 Matrix metering	Matrix metering is activated while the Fn button is pressed.
 Center-weighted metering	Center-weighted metering is activated while the Fn button is pressed.
 Spot metering	Spot metering is activated while the Fn button is pressed.
 Viewfinder grid display	<p>If DX (24x16) is selected for Image area (□ 37), the Fn button can be used to display or hide the framing grid in the viewfinder.</p> 
 Viewfinder virtual horizon	Press the Fn button to view a virtual horizon display in the viewfinder (□ 95).
 MY MENU	Pressing the Fn button displays “MY MENU” (□ 164).
 Access top item in MY MENU	Press the Fn button to jump to the top item in “MY MENU.” Select this option for quick access to a frequently-used menu item.
 Playback	Fn button performs same function as  button. Select when using a telephoto lens or in other circumstances in which it is difficult to operate the  button with your left hand.
None	Pressing the button has no effect.

Incompatible Options

If the option selected for **Press** can not be used in combination with the option selected for **Press + command dials**, a message will be displayed and whichever of **Press** or **Press + command dials** was selected first will be set to **None**.

Viewfinder Virtual Horizon

When **Viewfinder virtual horizon** is selected for Custom Setting f2 (**Assign Fn button**) > **Press**, pressing the **Fn** button displays a roll indicator in the viewfinder. Press the button a second time to return to clear the indicators from display.

	Camera tilted right	Camera level	Camera tilted left
Viewfinder (camera in landscape orientation) 			
Viewfinder (camera in portrait orientation) 			

Note that the display may not be accurate when the camera is tilted at a sharp angle forward or back. To display a virtual horizon in the monitor, use the **Virtual horizon** option in the setup menu ( 128).

■ Press + Command Dials

Selecting **Press + command dials** displays the following options:

Option	Description
 Choose image area	Keeping the Fn button pressed, rotate a command dial to choose an image area (□ 37).
 1 step spd/aperture	If the Fn button is pressed when the command dials are rotated, changes to shutter speed (modes S and M) and aperture (modes A and M) are made in increments of 1 EV, regardless of the option selected for Custom Setting b2 (EV steps for exposure cntrl , □ 69).
Non-CPU Choose non-CPU lens number	Press the Fn button and rotate a command dial to choose a lens number specified using the Non-CPU lens data option (□ 129).
 Active D-Lighting	Press the Fn button and rotate a command dial to adjust Active D-Lighting (□ 42).
HDR HDR (high dynamic range)	Keeping the Fn button pressed, rotate the main command dial to choose an HDR mode , the sub-command dial to choose HDR strength (□ 42).
 Exposure delay mode	Press the Fn button and rotate a command dial to choose an exposure delay mode (□ 75).
None	No operation is performed when the command dials are rotated while the Fn button is pressed.

f3: Assign Preview Button

MENU button →  Custom Settings menu

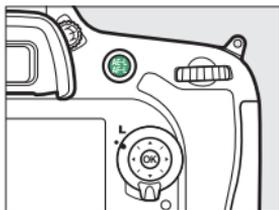
Choose the role played by the **Pv** button, either by itself (**Press**) or when used in combination with the command dials (**Press + command dials**). The options available are the same as for **Assign Fn button** (📖 92). The default options for **Press** and **Press + command dials** are **Preview** and **None**, respectively.



f4: Assign AE-L/AF-L Button

MENU button →  Custom Settings menu

Choose the role played by the **AE-L/AF-L** button, either by itself (**Press**) or when used in combination with the command dials (**Press + command dials**).



Press

Selecting **Press** displays the following options:

Option	Description
 AE/AF lock	Focus and exposure lock while the AE-L/AF-L button is pressed.
 AE lock only	Exposure locks while the AE-L/AF-L button is pressed.
 AE lock (Hold)	Exposure locks when the AE-L/AF-L button is pressed, and remains locked until the button is pressed a second time or the standby timer expires.

Option	Description
 AF lock only	Focus locks while the ^{AE-L} / _{AF-L} AE-L/AF-L button is pressed.
 AF-ON	The ^{AE-L} / _{AF-L} AE-L/AF-L button initiates autofocus.
 FV lock	Press the ^{AE-L} / _{AF-L} AE-L/AF-L button to lock flash value (built-in flash and compatible optional flash units only). Press again to cancel FV lock.
None	Pressing the button has no effect.

■ ■ *Press + Command Dials*

Selecting **Press + command dials** displays the following options:

Option	Description
 Choose image area	Keeping the ^{AE-L} / _{AF-L} AE-L/AF-L button pressed, rotate a command dial to choose an image area (□ 37).
Non-CPU Choose non-CPU lens number	Press the ^{AE-L} / _{AF-L} AE-L/AF-L button and rotate a command dial to choose a lens number specified using the Non-CPU lens data option (□ 129).
None	No operation is performed when the command dials are rotated while the ^{AE-L} / _{AF-L} AE-L/AF-L button is pressed.

f5: Customize Command Dials

MENU button →  Custom Settings menu

This option controls the operation of the main and sub-command dials.

Option	Description
Reverse rotation	<p>Reverse the direction of rotation of the command dials when they are used to make adjustments to Exposure compensation and/or Shutter speed/aperture. Highlight options and press  to select or deselect, then press .</p> <p>This setting also applies to the command dials for optional MB-D15 multi-power battery packs.</p> 
Change main/sub	<p>Exposure setting: If Off is selected, the main command dial controls shutter speed and the sub-command dial controls aperture. If On is selected, the main command dial will control aperture and the sub-command dial shutter speed. If On (Mode A) is selected, the main command dial will be used to set aperture in shooting mode A only.</p> <p>Autofocus setting: If On is selected, autofocus mode can be selected by keeping the AF-mode button pressed and rotating the sub-command dial, AF-area mode by keeping the AF-mode button pressed and rotating the main command dial.</p> <p>These settings also apply to the command dials for the MB-D15.</p>

Option	Description
Aperture setting	If Sub-command dial is selected, aperture can only be adjusted with the sub-command dial (or with the main command dial if On is selected for Change main/sub > Exposure setting). If Aperture ring is selected, aperture can only be adjusted with the lens aperture ring and the camera aperture display will show aperture in increments of 1 EV (aperture for type G and E lenses is still set using the sub-command dial). Note that regardless of the setting chosen, the aperture ring must be used to adjust aperture when a non-CPU lens is attached.
Menus and playback	If Off is selected, the multi selector is used to choose the picture displayed during full-frame playback, highlight thumbnails, and navigate menus. If On or On (image review excluded) is selected, the main command dial can be used to choose the picture displayed during full-frame playback, move the cursor left or right during thumbnail playback, and move the menu highlight bar up or down. The sub-command dial is used in full-frame playback to skip forward or back according to the option selected for Sub-dial frame advance and in thumbnail playback to page up or down. While menus are displayed, rotating the sub-command dial right displays the sub-menu for the selected option, while rotating it left displays the previous menu. To make a selection, press  or  . Select On (image review excluded) to prevent the command dials from being used for playback during image review.
Sub-dial frame advance	When On or On (image review excluded) is selected for Menus and playback , the sub-command dial can be rotated during full-frame playback to select a folder or to skip forward or back 10 or 50 frames at a time.

f6: Release Button to Use Dial

MENU button →  Custom Settings menu

Selecting **Yes** allows adjustments that are normally made by holding a button and rotating a command dial to be made by rotating the command dial after the button is released. Setting ends when the button is pressed again, the shutter-release button is pressed halfway, or the standby timer expires. This option is available with the following buttons:

Button	Button
	 (WB)
 (AF-ON)	AF mode
 (ISO)	 (PRIORITY)
 (QUAL)	BKT

f7: Slot Empty Release Lock

MENU button →  Custom Settings menu

Selecting **Enable release** allows the shutter to be released when no memory card is inserted, although no pictures will be recorded (they will however be displayed in the monitor in demo mode). If **Release locked** is selected, the shutter-release button is only enabled when a memory card is inserted in the camera.

f8: Reverse Indicators

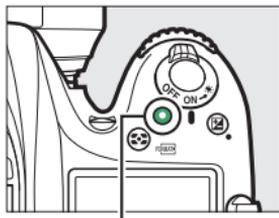
MENU button →  Custom Settings menu

If  (- \circ +) is selected, the exposure indicators in the control panel, viewfinder, and information display are displayed with negative values on the left and positive values on the right. Select  (+ \circ -) to display positive values on the left and negative values on the right.

f9: Assign Movie Record Button

MENU button →  Custom Settings menu

Choose the role played by the movie-record button during viewfinder photography and when the live view selector is rotated to  in live view.



Movie-record button

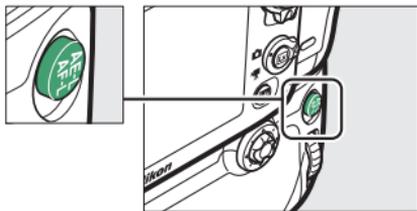
■ ■ Press + Command Dials

Option	Description
WB White balance	Press the button and rotate a command dial to choose a white balance option (□ 39).
ISO ISO sensitivity	Press the button and rotate a command dial to choose an ISO sensitivity (□ 46).
 Choose image area	Press the button and rotate a command dial to choose an image area (□ 37).
None	No operation is performed if the command dials are rotated while the button is pressed.

f10: Assign MB-D15 Button

MENU button →  Custom Settings menu

Choose the function assigned to the  **AE-L/AF-L** button on the optional MB-D15 battery pack.



Option	Description
 AE/AF lock	Focus and exposure lock while the MB-D15  AE-L/AF-L button is pressed.
 AE lock only	Exposure locks while the MB-D15  AE-L/AF-L button is pressed.
 AE lock (Hold)	Exposure locks when the MB-D15  AE-L/AF-L button is pressed, and remains locked until the button is pressed a second time or the standby timer expires.
 AF lock only	Focus locks while the MB-D15  AE-L/AF-L button is pressed.
 AF-ON	Pressing the MB-D15  AE-L/AF-L button initiates autofocus.
 FV lock	Press the MB-D15  AE-L/AF-L button to lock flash value (built-in flash and compatible optional flash units only). Press again to cancel FV lock.
 Same as camera Fn button	The MB-D15  AE-L/AF-L button performs the same function as the camera Fn button ( 92).

f11: Assign Remote (WR) Fn Button

MENU button →  Custom Settings menu

Choose the role played by the **Fn** button on the wireless remote controller.



Option	Description
 Preview	During viewfinder photography, you can preview depth of field while the Fn button is pressed.
 FV lock	Press the Fn button to lock flash value (built-in flash and compatible optional flash units only). Press again to cancel FV lock.
 AE/AF lock	Focus and exposure lock while the Fn button is pressed.
 AE lock only	Exposure locks while the Fn button is pressed.
 AE lock (Hold)	Exposure locks when the Fn button is pressed, and remains locked until the button is pressed a second time or the standby timer expires.
 AF lock only	Focus locks while the Fn button is pressed.
 Flash off	The flash will not fire in photos taken while the Fn button is pressed.

Option	Description
+  + NEF (RAW)	If image quality is set to JPEG fine , JPEG normal , or JPEG basic , an NEF (RAW) copy will be recorded with the next picture taken after the Fn button is pressed (the original image quality setting will be restored when you remove your finger from the shutter-release button). To exit without recording an NEF (RAW) copy, press the Fn button again.
 Live view	Pressing the Fn button starts and ends live view.
=  Same as camera Fn button	The wireless remote controller Fn button performs the same function as the camera Fn button (□ 92).
=  Same as camera Pv button	The wireless remote controller Fn button performs the same function as the camera Pv button (□ 97).
=  Same as camera AE-L/AF-L button	The wireless remote controller Fn button performs the same function as the camera AE-L/AF-L button (□ 97).
None	Pressing the button has no effect.

g: Movie

g1: Assign Fn Button

MENU button →  Custom Settings menu

Choose the role played by the **Fn** button in live view when the live view selector is rotated to  (the default option is **None**).

Press

Option	Description
 Index marking	Press the button during movie recording to add an index at the current position. Indices can be used when viewing and editing movies.
 View photo shooting info	Press the button to display information on shutter speed, aperture, and other photo settings in place of movie recording information. Press again to return to the movie recording display.
 AE/AF lock	Focus and exposure lock while the button is pressed.
 AE lock only	Exposure locks while the button is pressed.
 AE lock (Hold)	Exposure locks when the button is pressed, and remains locked until the button is pressed a second time.
 AF lock only	Focus locks while the button is pressed.
 AF-ON	Pressing the button initiates autofocus.
None	Pressing the button has no effect.

g2: Assign Preview Button

MENU button →  Custom Settings menu

■ ■ Press

Choose the role played by the **Pv** button in live view when the live view selector is rotated to . The options available are the same as for **Assign Fn button** ( 107) and the default setting is **Index marking**.

g3: Assign AE-L/AF-L Button

MENU button →  Custom Settings menu

■ ■ Press

Choose the role played by the  **AE-L/AF-L** button in live view when the live view selector is rotated to . The options available are the same as for **Assign Fn button** ( 107) and the default setting is **AE/AF lock**.

g4: Assign Shutter Button

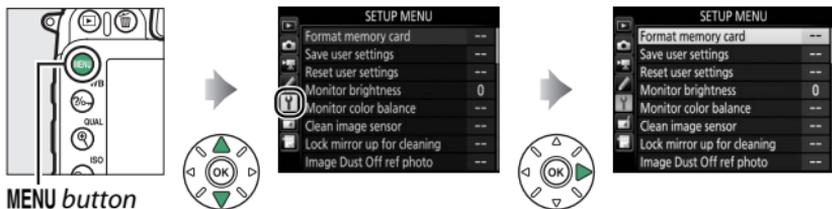
MENU button →  Custom Settings menu

Choose the role played by the shutter-release button when  is selected with the live view selector.

Option	Description
 Take photos	Press the shutter-release button all the way down to end movie recording and take a photograph with an aspect ratio of 16 : 9.
 Record movies	Press the shutter-release button halfway to start live view. You can then press the shutter-release button halfway to focus (autofocus mode only) and press it all the way down to start or end movie recording. The shutter-release button can not be used for other purposes while the live view selector is rotated to  . To end live view, press the  button. The shutter-release button on an optional wireless remote controller or remote cord ( 187) functions in the same way as the camera shutter-release button; the optional ML-L3 remote control, however, can not be used to record movies; the shutter-release button on the ML-L3 has no effect.

Y The Setup Menu: Camera Setup

To display the setup menu, press **MENU** and select the **Y** (setup menu) tab.



MENU button

Setup Menu Options

The setup menu contains the following options:

Option	
Format memory card	111
Save user settings	111
Reset user settings	113
Monitor brightness	114
Monitor color balance	115
Clean image sensor	116
Lock mirror up for cleaning ¹	116
Image Dust Off ref photo	117
Flicker reduction	119
Time zone and date	120
Language	120
Auto image rotation	121
Battery info	122
Image comment	123

Option	
Copyright information	124
Save/load settings	125
Virtual horizon	128
Non-CPU lens data	129
AF fine-tune	130
HDMI	132
Location data	132
Wi-Fi	133
NFC	134
Network	134
Eye-Fi upload ²	135
Conformity marking	137
Firmware version	137

1 Not available when battery is low.

2 Only displayed when compatible Eye-Fi memory card is inserted.

See Also

Menu defaults are listed on page 16.

Format Memory Card

MENU button →  setup menu

To begin formatting, choose a memory card slot and select **Yes**. *Note that formatting permanently deletes all pictures and other data on the card.* Before formatting, be sure to make backup copies as required ( 170).

During Formatting

Do not turn the camera off or remove memory cards during formatting.

Save User Settings

MENU button →  setup menu

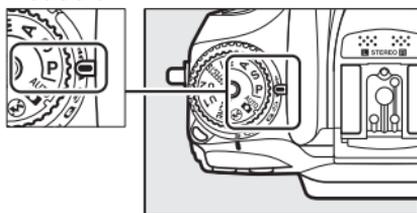
Assign frequently-used settings to the **U1** and **U2** positions on the mode dial.

Saving User Settings

1 Select a mode.

Rotate the mode dial to the desired mode.

Mode dial

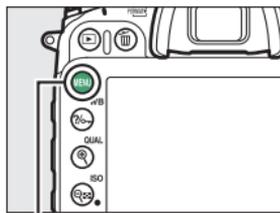


2 Adjust settings.

Make the desired adjustments to flexible program (mode **P**), shutter speed (modes **S** and **M**), aperture (modes **A** and **M**), exposure and flash compensation, flash mode, focus point, metering, autofocus and AF-area modes, bracketing, and settings in the shooting and Custom Settings menus (30, 50, 58).

3 Select **Save user settings**.

Press the **MENU** button to display the menus. Highlight **Save user settings** in the setup menu and press .

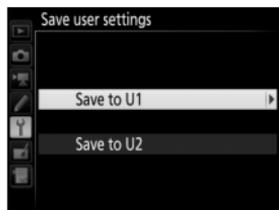


MENU button



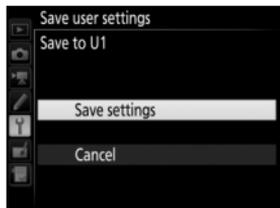
4 Select **Save to U1** or **Save to U2**.

Highlight **Save to U1** or **Save to U2** and press .



5 Save user settings.

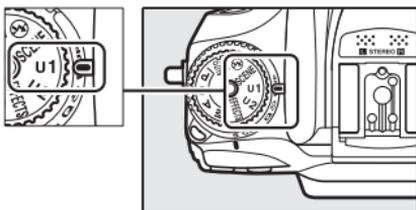
Highlight **Save settings** and press **OK** to assign the settings selected in Steps 1 and 2 to the mode dial position selected in Step 4.



Recalling User Settings

Simply rotate the mode dial to **U1** to recall the settings assigned to **Save to U1**, or to **U2** to recall the settings assigned to **Save to U2**.

Mode dial



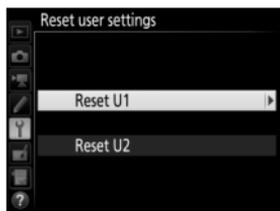
Reset User Settings

MENU button → **Y** setup menu

To reset settings for **U1** or **U2** to default values.

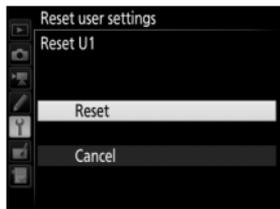
1 Select Reset U1 or Reset U2.

Highlight **Reset U1** or **Reset U2** and press **Y**.



2 Reset user settings.

Highlight **Reset** and press **OK**.



Monitor Brightness

MENU button →  setup menu

Press  or  to choose monitor brightness for playback, menus, and the information display. Choose higher values for increased brightness, lower values for reduced brightness.

Monitor Brightness

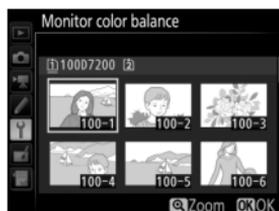
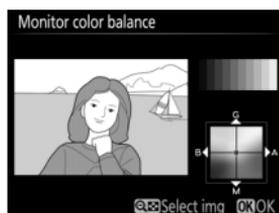
Values of **+4** or higher make the monitor easier to read in bright light but also result in yellow colors taking on a greenish cast. Choose lower values for accurate color reproduction. The option selected for **Monitor brightness** in the setup menu has no effect on the brightness of the display during live view, which is instead adjusted using the **Monitor brightness** option in the -button menu.

Monitor Color Balance

MENU button → setup menu

Use the multi selector as shown below to adjust monitor color balance with reference to a sample image. The sample image is the last photograph taken or, in playback mode, the last photograph displayed; to choose a different image, press the (ISO) button and select an image from a thumbnail list (to view the highlighted image full frame, press and hold). If the memory card contains no photographs, an empty frame with a gray border will be displayed in place of the sample image.

Press to exit when adjustments are complete. Monitor color balance applies only to menus, playback, and the view through the lens displayed during live view; pictures taken with the camera are not affected.



Clean Image Sensor

MENU button →  setup menu

Vibrate the image sensor to remove dust.

Option	Description
Clean now	Perform image sensor cleaning immediately.
Clean at startup/ shutdown	<ul style="list-style-type: none">•  Clean at startup: The image sensor is automatically cleaned each time the camera is turned on.•  Clean at shutdown: The image sensor is automatically cleaned during shutdown each time the camera is turned off.•  Clean at startup & shutdown: The image sensor is cleaned automatically at startup and at shutdown.• Cleaning off: Automatic image sensor cleaning off.

Lock Mirror up for Cleaning

MENU button →  setup menu

Use this option to lock the mirror up so that dust that can not be removed using **Clean image sensor** can be removed manually as described in the section on manual cleaning in the *User's Manual*. Note, however, that because the image sensor is easily damaged, we recommend that manual cleaning be performed only by a Nikon-authorized service representative.

Image Dust Off Ref Photo

MENU button → Y setup menu

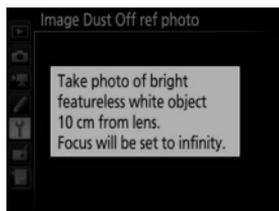
Acquire reference data for the Image Dust Off option in Capture NX-D (☞ 169; for more information, refer to Capture NX-D on-line help).

Image Dust Off ref photo is available only when a CPU lens is mounted on the camera. A lens with a focal length of at least 50 mm is recommended. When using a zoom lens, zoom all the way in.

1 Choose a start option.

Highlight one of the following options and press **OK**. To exit without acquiring image dust off data, press **MENU**.

- **Start:** The message shown at right will be displayed and “rEF” will appear in the viewfinder and control panel displays.
- **Clean sensor and then start:** Select this option to clean the image sensor before starting. The message shown at right will be displayed and “rEF” will appear in the viewfinder and control panel displays when cleaning is complete.



2 Frame a featureless white object in the viewfinder.

With the lens about ten centimeters (four inches) from a well-lit, featureless white object, frame the object so that it fills the viewfinder and then press the shutter-release button halfway.

In autofocus mode, focus will automatically be set to infinity; in manual focus mode, set focus to infinity manually.

3 Acquire dust off reference data.

Press the shutter-release button the rest of the way down to acquire Image Dust Off reference data. The monitor turns off when the shutter-release button is pressed.

If the reference object is too bright or too dark, the camera may be unable to acquire Image Dust Off reference data and the message shown at right will be displayed. Choose another reference object and repeat the process from step 1.

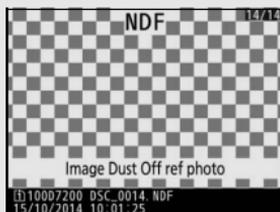


✔ Image Sensor Cleaning

Dust off reference data recorded before image sensor cleaning is performed can not be used with photographs taken after image sensor cleaning is performed. Select **Clean sensor and then start** only if the dust off reference data will not be used with existing photographs.

✔ Image Dust Off Reference Data

The same reference data can be used for photographs taken with different lenses or at different apertures. Reference images can not be viewed using computer imaging software. A grid pattern is displayed when reference images are viewed on the camera.



Flicker Reduction

MENU button →  setup menu

Reduce flicker and banding when shooting under fluorescent or mercury-vapor lighting during live view. Choose **Auto** to allow the camera to automatically choose the correct frequency, or manually match the frequency to that of the local AC power supply.

✔ Flicker Reduction

If **Auto** fails to produce the desired results and you are unsure as to the frequency of the local power supply, test both the 50 and 60 Hz options and choose the one that produces the best results. Flicker reduction may not produce the desired results if the subject is very bright, in which case you should try choosing a smaller aperture (higher f-number).

Time Zone and Date

MENU button →  setup menu

Change time zones, set the camera clock, choose the date display order, and turn daylight saving time on or off.

Option	Description
Time zone	Choose a time zone. The camera clock is automatically set to the time in the new time zone.
Date and time	Set the camera clock. If the clock is reset, a flashing  icon will appear in the information display.
Date format	Choose the order in which the day, month, and year are displayed.
Daylight saving time	Turn daylight saving time on or off. The camera clock will automatically be advanced or set back one hour. The default setting is Off .

Language

MENU button →  setup menu

Choose a language for camera menus and messages.

Auto Image Rotation

MENU button →  setup menu

Photographs taken while **On** is selected contain information on camera orientation, allowing them to be rotated automatically during playback or when viewed in ViewNX-i or in Capture NX-D (📖 169). The following orientations are recorded:



*Landscape (wide)
orientation*



*Camera rotated 90°
clockwise*



*Camera rotated 90°
counter-clockwise*

Camera orientation is not recorded when **Off** is selected. Choose this option when panning or taking photographs with the lens pointing up or down.

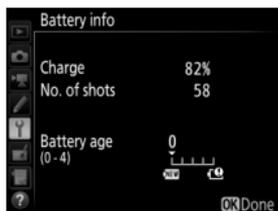
Rotate Tall

To automatically rotate “tall” (portrait-orientation) photographs for display during playback, select **On** for the **Rotate tall** option in the playback menu (📖 27).

Battery Info

MENU button →  setup menu

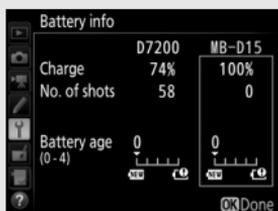
View information on the battery currently inserted in the camera.



Item	Description
Charge	The current battery level expressed as a percentage.
No. of shots	The number of times the shutter has been released with the current battery since the battery was last charged. Note that the camera may sometimes release the shutter without recording a photograph, for example when measuring preset manual white balance.
Battery age	A five-level display showing battery age. 0 () indicates that battery performance is unimpaired, 4 () that the battery has reached the end of its charging life and should be replaced. Note that fresh batteries charged at temperatures under about 5 °C (41 °F) may show a temporary drop in charging life; the battery age display will however return to normal once the battery has been recharged at a temperature of about 20 °C (68 °F) or higher.

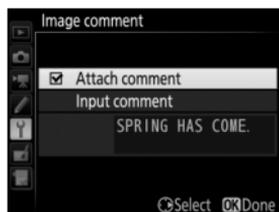
The MB-D15 Battery Pack

The display for the MB-D15 battery pack is shown at right. If AA batteries are used, the battery level will be shown by a battery level icon; other items will not be displayed.



Add a comment to new photographs as they are taken. Comments can be viewed as metadata in ViewNX-i or Capture NX-D (📖 169). The comment is also visible on the shooting data page in the photo information display. The following options are available:

- **Input comment:** Input a comment as described on page 34. Comments can be up to 36 characters long.
- **Attach comment:** Select this option to attach the comment to all subsequent photographs. **Attach comment** can be turned on and off by highlighting it and pressing . After choosing the desired setting, press  to exit.



Add copyright information to new photographs as they are taken. Copyright information is included in the shooting data shown in the photo information display and can be viewed as metadata in ViewNX-i or in Capture NX-D (☞ 169). The following options are available:

- **Artist:** Enter a photographer name as described on page 34. Photographer names can be up to 36 characters long.
- **Copyright:** Enter the name of the copyright holder as described on page 34. Copyright holder names can be up to 54 characters long.
- **Attach copyright information:** Select this option to attach copyright information to all subsequent photographs. **Attach copyright information** can be turned on and off by highlighting it and pressing . After choosing the desired setting, press  to exit.



Copyright Information

To prevent unauthorized use of the artist or copyright holder names, make sure that **Attach copyright information** is not selected and that the **Artist** and **Copyright** fields are blank before lending or transferring the camera to another person. Nikon does not accept liability for any damages or disputes arising from the use of the **Copyright information** option.

Save/Load Settings

MENU button →  setup menu

Select **Save settings** to save the following settings to the memory card in Slot 1 (if the card is full, an error will be displayed). Use this option to share settings among D7200 cameras.

Menu	Option
Playback	Playback display options
	Image review
	After delete
	Rotate tall
Photo shooting	File naming
	Role played by card in Slot 2
	Image quality
	Image size
	Image area
	JPEG compression
	NEF (RAW) recording
	White balance (with fine-tuning and presets d-1–d-6)
	Set Picture Control (Custom Picture Controls are saved as Standard)
	Color space
	Active D-Lighting
	Vignette control
	Auto distortion control
	Long exposure NR
	High ISO NR
ISO sensitivity settings	
Remote control mode (ML-L3)	

Menu	Option
Movie shooting	Destination
	Frame size/frame rate
	Movie quality
	Microphone sensitivity
	Frequency response
	Wind noise reduction
	Image area
	White balance (with fine-tuning and presets d-1–d-6)
	Set Picture Control (Custom Picture Controls are saved as Standard)
	High ISO NR
	Movie ISO sensitivity settings
Custom settings	All Custom Settings except Reset custom settings
Setup	Clean image sensor
	Flicker reduction
	Time zone and date (excepting date and time)
	Language
	Auto image rotation
	Image comment
	Copyright information
	Non-CPU lens data
	HDMI
	Location data
	NFC
Eye-Fi upload	

Menu	Option
My Menu/ Recent Settings	All My Menu items
	All recent settings
	Choose tab

Settings saved using this model of camera can be restored by selecting **Load settings**. Note that **Save/load settings** is only available when a memory card is inserted in the camera, and that the **Load settings** option is only available if the card contains saved settings.

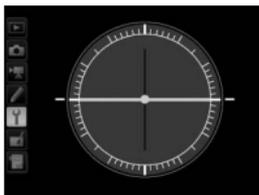
Saved Settings

Settings are saved in a file named NCSETUPH. The camera will not be able to load settings if the file name is changed.

Virtual Horizon

MENU button →  setup menu

Display a virtual horizon based on information from the camera tilt sensor (the virtual horizon can also be displayed by pressing the  button in live view). If the camera is tilted neither left nor right, the roll reference line will turn green. Each division is equivalent to about 5°.



Camera level



Camera tilted left or right

Tilting the Camera

The virtual horizon display is not accurate when the camera is tilted at a sharp angle forward or back. If the camera is unable to measure tilt, the amount of tilt will not be displayed.

See Also

For information on viewing a virtual horizon in the viewfinder, see Custom Setting f2 (**Assign Fn button > Press**;  92, 95).

Non-CPU Lens Data

MENU button →  setup menu

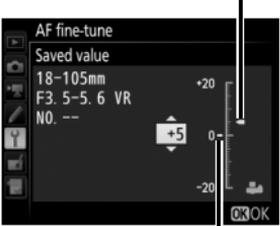
Record the focal length and maximum aperture of non-CPU lenses, allowing them to be used with functions normally reserved for CPU lenses.

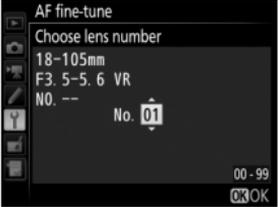
Option	Description
Lens number	Choose a number to identify the lens.
Focal length (mm)	Enter the focal length.
Maximum aperture	Enter the maximum aperture.

AF Fine-Tune

MENU button →  setup menu

Fine-tune focus for up to 12 lens types. AF tuning is not recommended in most situations and may interfere with normal focus; use only when required.

Option	Description
AF fine-tune (On/Off)	<ul style="list-style-type: none">• On: Turn AF tuning on.• Off: Turn AF tuning off.
Saved value	<p>Tune AF for the current lens (CPU lenses only). Press  or  to choose a value between +20 and -20. Values for up to 12 lens types can be stored. Only one value can be stored for each type of lens.</p> <p><i>Move focal point away from camera.</i></p> <p><i>Current value</i></p> 
Default	<p>Choose the AF tuning value used when no previously saved value exists for the current lens (CPU lenses only).</p> <p><i>Move focal point toward camera.</i></p> <p><i>Previous value</i></p>

Option	Description
<p>List saved values</p>	<p>List previously saved AF tuning values. To delete a lens from the list, highlight the desired lens and press (FORMAT). To change a lens identifier (for example, to choose an identifier that is the same as the last two digits of the lens serial number to distinguish it from other lenses of the same type in light of the fact that Saved value can be used with only one lens of each type), highlight the desired lens and press .</p> <p>The menu shown at right will be displayed; press or to choose an identifier and press to save changes and exit.</p> 

AF Tuning

The camera may be unable to focus at minimum range or at infinity when AF tuning is applied.

Live View

Tuning is not applied to autofocus during in live view.

Saved Value

Only one value can be stored for each type of lens. If a teleconverter is used, separate values can be stored for each combination of lens and teleconverter.

HDMI

MENU button →  setup menu

Choose an output resolution or enable the camera for remote control from devices that support HDMI-CEC (📖 182).

Location Data

MENU button →  setup menu

Adjust settings for optional GP-1 and GP-1A GPS units (📖 188).

Option	Description
Standby timer	Choose whether the standby timer remains active while a GP-1/GP-1A GPS unit is connected. If Enable is selected, the exposure meters will turn off automatically if no operations are performed for the period specified in Custom Setting c2 (Standby timer , 📖 72). Select Disable to disable the standby timer when a GPS unit is connected.
Position	This item is only available if the GP-1/GP-1A is connected, when it displays the current latitude, longitude, altitude, and Coordinated Universal Time (UTC) as reported by the GP-1/GP-1A.
Set clock from satellite	Select Yes to synchronize the camera clock with the time reported by the GPS device.

Coordinated Universal Time (UTC)

UTC data is provided by the GPS device and is independent of the camera clock.

Adjust Wi-Fi (wireless LAN) settings for connection to an Android or iOS smart device, or select pictures for upload to a smart device.

Option	Description
Network connection	Enable or disable the camera's built-in Wi-Fi.
Network settings	Choose the Wi-Fi connection type. <ul style="list-style-type: none"> • Push-button WPS (Android only): This method can be used to connect to any smart device that supports push-button WPS (i.e., has a WPS button connection option in its Wi-Fi settings menu). • PIN-entry WPS (Android only): If the smart device supports WPS, you can use the camera to establish a connection by entering the PIN displayed by the smart device. • View SSID: If the smart device does not support WPS, you can connect by selecting the camera SSID on the smart device. • Reset network settings: Restore default network settings.
Select to send to smart device	Select pictures for later upload to a smart device.

NFC

MENU button →  setup menu

If **Enable** is selected, wireless connections can be established during viewfinder photography simply by touching the camera  (N-Mark) logo to the smart device NFC antenna while the camera standby timer is on. Select **Disable** to disable NFC connections.

Network

MENU button →  setup menu

Adjust ftp and network settings for Ethernet and wireless LANs when an optional UT-1 communications unit ( 173, 188) is connected.

This option is displayed only when an Eye-Fi memory card (available separately from third-party suppliers) is inserted in the camera. Choose **Enable** to upload photographs to a preselected destination. Note that pictures will not be uploaded if signal strength is insufficient.

Observe all local laws concerning wireless devices and choose **Disable** where wireless devices are prohibited.

Eye-Fi Cards

Eye-Fi cards may emit wireless signals when **Disable** is selected.

A  icon displayed when **Disable** is selected indicates that the camera is unable to control the Eye-Fi card ( 136); turn the camera off and remove the card.

Set Custom Setting c2 (**Standby timer**,  72) to 30 s or more when using an Eye-Fi card.

See the manual provided with the Eye-Fi card, and direct any inquiries to the manufacturer. The camera can be used to turn Eye-Fi cards on and off, but may not support other Eye-Fi functions.

When an Eye-Fi card is inserted, its status is indicated by an icon in the information display:

- : Eye-Fi upload disabled.
- : Eye-Fi upload enabled but no pictures available for upload.
-  (static): Eye-Fi upload enabled; waiting to begin upload.
-  (animated): Eye-Fi upload enabled; uploading data.
- : Error — camera can not control Eye-Fi card. If a flashing  appears in the control panel or viewfinder, check that the Eye-Fi card firmware is up-to-date; if the error persists after the card firmware has been updated, insert a different card or format the card in the camera after copying any pictures it contains to a computer or other storage device. If the  indicator is not flashing, pictures can be taken normally but you may be unable to change Eye-Fi settings.



Supported Eye-Fi Cards

Some cards may not be available in some countries or regions; consult the manufacturer for more information. Eye-Fi cards are for use only in the country of purchase. Be sure the Eye-Fi card firmware has been updated to the latest version. Note that using Eye-Fi cards in both slots is not recommended, as it may result in an unreliable network connection.

Conformity Marking

MENU button →  setup menu

View a selection of the standards with which the camera complies.

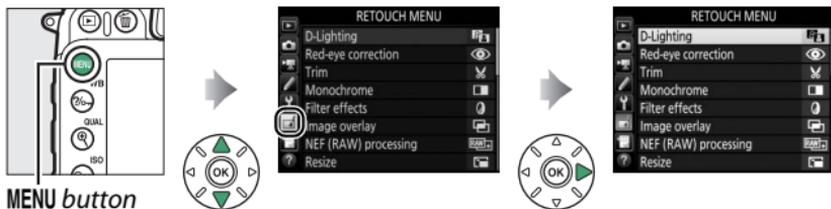
Firmware Version

MENU button →  setup menu

View the current camera firmware version.

The Retouch Menu: Creating Retouched Copies

To display the retouch menu, press **MENU** and select the  (retouch menu) tab.



Retouch Menu Options

The options in the retouch menu are used to create trimmed or retouched copies of existing pictures. The retouch menu is only displayed when a memory card containing photographs is inserted in the camera.

Option		Option	
 D-Lighting	141	 Distortion control	154
 Red-eye correction	141	 Fisheye	155
 Trim	142	 Color outline	155
 Monochrome	143	 Color sketch	156
 Filter effects	144	 Perspective control	157
 Image overlay ¹	145	 Miniature effect	158
 NEF (RAW) processing	148	 Selective color	159
 Resize	150	 Edit movie	161
 Quick retouch	153	 Side-by-side comparison ²	162
 Straighten	153		

1 Can only be selected by pressing **MENU** and selecting  tab.

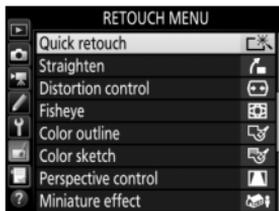
2 Available only if retouch menu is displayed by pressing  and selecting **Retouch** in full-frame playback when a retouched image or original is displayed.

Creating Retouched Copies

To create a retouched copy:

1 Select an item in the retouch menu.

Press or to highlight an item, to select.



2 Select a picture.

Highlight a picture and press . To view the highlighted picture full screen, press and hold the (QUAL) button.



Retouch

In the case of images recorded at image quality settings of NEF + JPEG, only the NEF (RAW) image will be retouched. The camera may not be able to display or retouch images created with other devices.

3 Select retouch options.

For more information, see the section for the selected item. To exit without creating a retouched copy, press **MENU**.

Monitor off Delay

The monitor will turn off and the operation will be cancelled if no actions are performed for a brief period. Any unsaved changes will be lost. To increase the time the monitor remains on, choose a longer menu display time for Custom Setting c4 (**Monitor off delay**; 73).

4 Create a retouched copy.

Press **OK** to create a retouched copy. Retouched copies are indicated by a  icon.



Creating Retouched Copies During Playback

To create a retouched copy of the picture currently displayed in full-frame playback, press **i**, then highlight **Retouch** and press **OK** and select a retouch option.

Retouching Copies

Most options can be applied to copies created using other retouch options, although with the exceptions of **Image overlay** and **Edit movie > Choose start/end point** each option can be applied only once (note that multiple edits may result in loss of detail). Options that can not be applied to the current image are grayed out and unavailable.

Image Quality and Size

Except in the case of copies created with **Trim** and **Resize**, copies created from JPEG images are the same size as the original, while copies created from NEF (RAW) photos are saved as large fine-quality JPEG images. Size-priority compression is used when copies are saved in JPEG format.

D-Lighting

MENU button →  retouch menu

D-Lighting brightens shadows, making it ideal for dark or backlit photographs.



Before



After

Press  or  to choose the amount of correction performed. The effect can be previewed in the edit display. Press  to save the retouched copy.



Red-Eye Correction

MENU button →  retouch menu

This option is used to correct “red-eye” caused by the flash, and is available only with photographs taken using the flash. The photograph selected for red-eye correction can be previewed in the edit display. Confirm the effects of red-eye correction and press  to create a copy. Note that red-eye correction may not always produce the expected results and may in very rare circumstances be applied to portions of the image that are not affected by red-eye; check the preview thoroughly before proceeding.

Trim

MENU button →  retouch menu

Create a cropped copy of the selected photograph. The selected photograph is displayed with the selected crop shown in yellow; create a cropped copy as described in the following table.

To	Use	Description
Reduce size of crop	 (ISO)	Press  (ISO) to reduce the size of the crop.
Increase size of crop	 (QUAL)	Press  (QUAL) to increase the size of the crop.
Change crop aspect ratio		Rotate the main command dial to choose the aspect ratio.
Position crop		Use multi selector to position the crop. Press and hold to move the crop rapidly to the desired position.
Create copy		Save the current crop as a separate file.

Trim: Image Quality and Size

Copies created from NEF (RAW) or NEF (RAW) + JPEG photos have an image quality ( 36) of JPEG fine; cropped copies created from JPEG photos have the same image quality as the original. The size of the copy varies with crop size and aspect ratio and appears at upper left in the crop display.



Viewing Cropped Copies

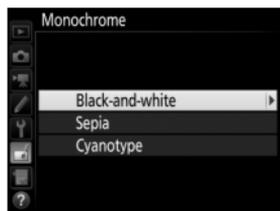
Playback zoom may not be available when cropped copies are displayed.

Monochrome

MENU button →  retouch menu

Copy photographs in **Black-and-white**, **Sepia**, or **Cyanotype** (blue and white monochrome).

Selecting **Sepia** or **Cyanotype** displays a preview of the selected image; press  to increase color saturation,  to decrease. Press  to create a monochrome copy.



Increase saturation



Decrease saturation



Filter Effects

MENU button →  retouch menu

Choose from the following filter effects. After adjusting filter effects as described below, press **OK** to save the retouched copy.

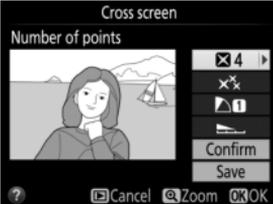
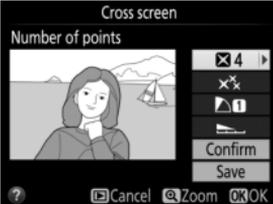
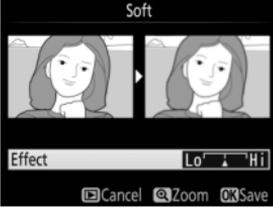
Option	Description
Skylight	Creates the effect of a skylight filter, making the picture less blue. The effect can be previewed in the monitor as shown at right. 
Warm filter	Creates a copy with warm tone filter effects, giving the copy a "warm" red cast. The effect can be previewed in the monitor. 
Cross screen	Add starburst effects to light sources. <ul style="list-style-type: none"> • Number of points: Choose from four, six, or eight. • Filter amount: Choose the brightness of the light sources affected. • Filter angle: Choose the angle of the points. • Length of points: Choose the length of points. • Confirm: Preview the effects of the filter. Press QUAL to preview the copy full frame. • Save: Create a retouched copy. 
Soft	Add a soft filter effect. Press ← or → to choose the filter strength. 

Image Overlay

MENU button →  retouch menu

Image overlay combines two existing NEF (RAW) photographs to create a single picture that is saved separately from the originals; the results, which make use of RAW data from the camera image sensor, are noticeably better than overlays created in an imaging application. The new picture is saved at current image quality and size settings; before creating an overlay, set image quality and size ( 36, 37; all options are available). To create a NEF (RAW) copy, choose an image quality of **NEF (RAW)**.



1 Select Image overlay.

Highlight **Image overlay** in the retouch menu and press . The dialog shown at right will be displayed, with **Image 1** highlighted; press  to display a picture selection dialog listing only NEF (RAW) images created with this camera.



2 Select the first image.

Use the multi selector to highlight the first photograph in the overlay. To view the highlighted photograph full frame, press and hold the **Q** (**QUAL**) button. Press **OK** to select the highlighted photograph and return to the preview display.



3 Select the second image.

The selected image will appear as **Image 1**. Highlight **Image 2** and press **Q**, then select the second photo as described in Step 2.

4 Adjust gain.

Highlight **Image 1** or **Image 2** and optimize exposure for the overlay by pressing **▲** or **▼** to select gain from values between 0.1 and 2.0. Repeat for the second image. The default value is 1.0; select 0.5 to halve gain or 2.0 to double it. The effects are visible in the **Preview** column.



5 Preview the overlay.

To preview the composition as shown at right, press  or  to place the cursor in the **Preview** column, then press  or  to highlight **Overlay** and press  (note that colors and brightness in the preview may differ from the final image). To save the overlay without displaying a preview, select **Save**. To return to Step 4 and select new photos or adjust gain, press  (**ISO**).



6 Save the overlay.

Press  while the preview is displayed to save the overlay. After an overlay is created, the resulting image will be displayed full-frame in the monitor.



Image Overlay

Only NEF (RAW) photographs with the same image area and bit depth can be combined.

The overlay has the same photo info (including date of recording, metering, shutter speed, aperture, shooting mode, exposure compensation, focal length, and image orientation), and values for white balance and Picture Control as the photograph selected for **Image 1**. The current image comment is appended to the overlay when it is saved; copyright information, however, is not copied. Overlays saved in NEF (RAW) format use the compression selected for **Type** in the **NEF (RAW) recording** menu and have the same bit depth as the original images; JPEG overlays are saved using size-priority compression.

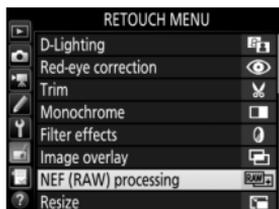
NEF (RAW) Processing

MENU button →  retouch menu

Create JPEG copies of NEF (RAW) photographs.

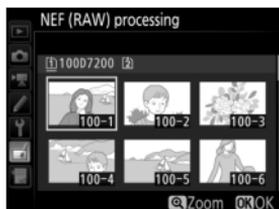
1 Select NEF (RAW) processing.

Highlight **NEF (RAW) processing** in the retouch menu and press  to display a picture selection dialog listing only NEF (RAW) images created with this camera.



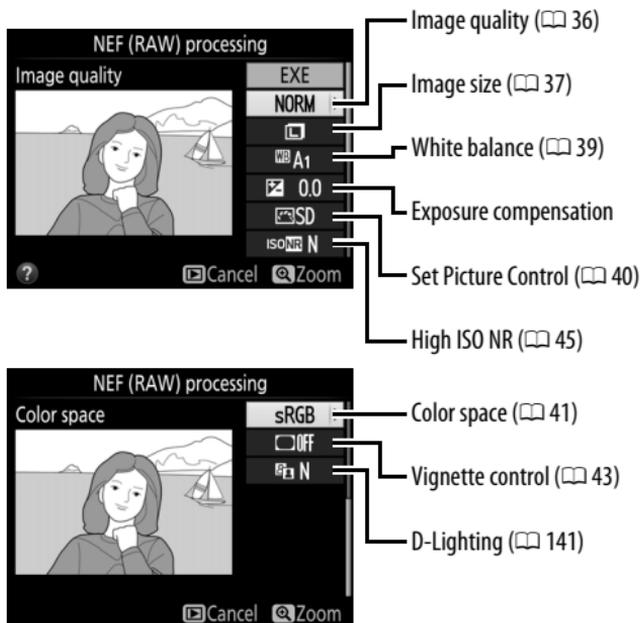
2 Select a photograph.

Use the multi selector to highlight a photograph (to view the highlighted photograph full frame, press and hold the  button). Press  to select the highlighted photograph and proceed to the next step.



3 Choose settings for the JPEG copy.

Adjust the settings listed below. Note that white balance and vignette control are not available with multiple exposures or pictures created with image overlay and that exposure compensation can only be set to values between -2 and $+2$ EV.



4 Copy the photograph.

Highlight **EXE** and press **OK** to create a JPEG copy of the selected photograph (to exit without copying the photograph, press the **MENU** button).



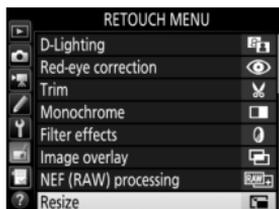
Resize

MENU button →  retouch menu

Create small copies of selected photographs.

1 Select Resize.

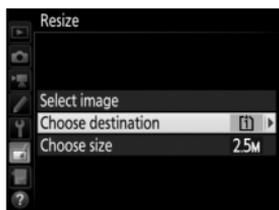
To resize selected images, highlight **Resize** in the retouch menu and press .



2 Choose a destination.

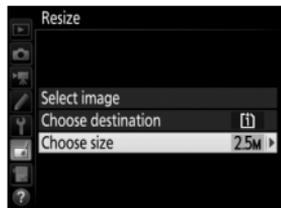
If two memory cards are inserted, you can choose a destination for the resized copies by highlighting **Choose destination** and pressing  (if only one card is inserted, proceed to Step 3).

The menu shown at right will be displayed; highlight a card slot and press .



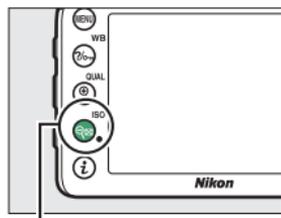
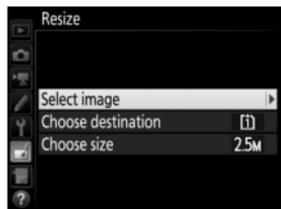
- 3 Choose a size.**
Highlight **Choose size** and press **OK**.

The options shown at right will be displayed; highlight an option and press **OK**.



- 4 Choose pictures.**
Highlight **Select image** and press **OK**.

Highlight pictures using the multi selector and press the **ISO** button to select or deselect (to view the highlighted picture full screen, press and hold the **QUAL** button). Selected pictures are marked by a **ISO** icon. Press **OK** when the selection is complete.



ISO button



5 Save the resized copies.

A confirmation dialog will be displayed. Highlight **Yes** and press **OK** to save the resized copies.



Viewing Resized Copies

Playback zoom may not be available when resized copies are displayed.

Image Quality

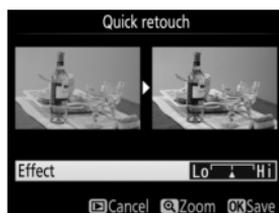
Copies created from NEF (RAW) or NEF (RAW) + JPEG photos have an image quality (📖 36) of JPEG fine; copies created from JPEG photos have the same image quality as the original.

Quick Retouch

MENU button →  retouch menu

Create copies with enhanced saturation and contrast. D-Lighting is applied as required to brighten dark or backlit subjects.

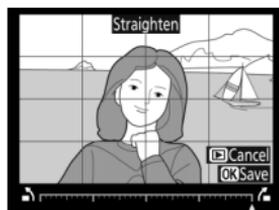
Press  or  to choose the amount of enhancement. The effect can be previewed in the edit display. Press  to save the retouched copy.



Straighten

MENU button →  retouch menu

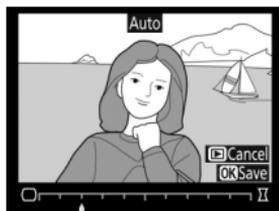
Create a straightened copy of the selected image. Press  to rotate the image clockwise by up to five degrees in increments of approximately 0.25 degrees,  to rotate it counterclockwise (the effect can be previewed in the edit display; note that edges of the image will be trimmed to create a square copy). Press  to save the retouched copy.



Distortion Control

MENU button →  retouch menu

Create copies with reduced peripheral distortion. Select **Auto** to let the camera correct distortion automatically and then make fine adjustments using the multi-selector, or select **Manual** to reduce distortion manually (note that **Auto** is not available with photos taken using auto distortion control; see page 44).



Press  to reduce barrel distortion,  to reduce pin-cushion distortion (the effect can be previewed in the edit display; note that greater amounts of distortion control result in more of the edges being cropped out). Press  to save the retouched copy.

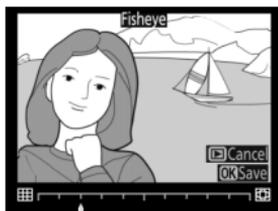
Auto

Auto is for use only with pictures taken with type G, E, and D lenses (PC, fisheye, and certain other lenses excluded). Results are not guaranteed with other lenses.

Fisheye

MENU button →  retouch menu

Create copies that appear to have been taken with a fisheye lens. Press  to increase the effect (this also increases the amount of that will be cropped out at the edges of the image),  to reduce it. The effect can be previewed in the edit display. Press  to save the retouched copy.



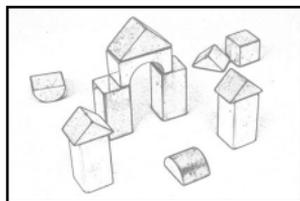
Color Outline

MENU button →  retouch menu

Create an outline copy of a photograph to use as a base for painting. The effect can be previewed in the edit display. Press  to save the retouched copy.



Before

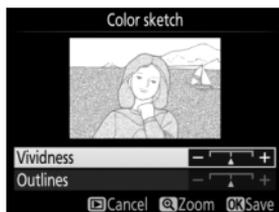


After

Color Sketch

MENU button →  retouch menu

Create a copy of a photograph that resembles a sketch made with colored pencils. Press  or  to highlight **Vividness** or **Outlines** and press  or  to change. Vividness can be increased to make colors more saturated, or decreased for a washed-out, monochromatic effect, while outlines can be made thicker or thinner. Thicker outlines makes colors more saturated. The results can be previewed in the edit display. Press  to save the retouched copy.



Perspective Control

MENU button →  retouch menu

Create copies that reduce the effects of perspective taken from the base of a tall object. Use the multi selector to adjust perspective (note that greater amounts of perspective control result in more of the edges being cropped out). The results can be previewed in the edit display. Press  to save the retouched copy.



Before



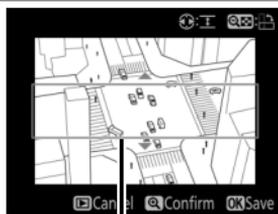
After

Miniature Effect

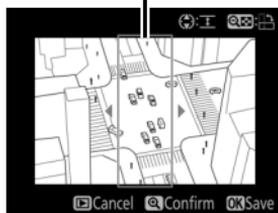
MENU button →  retouch menu

Create a copy that appears to be a photo of a diorama. Works best with photos taken from a high vantage point. The area that will be in focus in the copy is indicated by a yellow frame.

To	Press	Description
Choose orientation	 (ISO)	Press  (ISO) to choose orientation of area that is in focus.
Choose position		If area of effect is in wide orientation, press  or  to position frame showing area of copy that will be in focus.
		If area of effect is in tall orientation, press  or  to position frame showing area of copy that will be in focus.
Choose size		If area of effect is in wide orientation, press  or  to choose height.
		If area of effect is in tall orientation, press  or  to choose width.
Preview copy	 (QUAL)	Preview copy.
Create copy		Create copy.



Area in focus



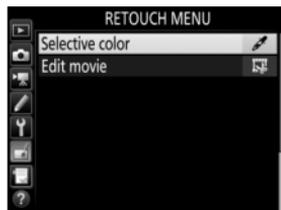
Selective Color

MENU button →  retouch menu

Create a copy in which only selected hues appear in color.

1 Select Selective color.

Highlight **Selective color** in the retouch menu and press  to display a picture selection dialog.



2 Select a photograph.

Use the multi selector to highlight a photograph (to view the highlighted photograph full frame, press and hold the /QUAL button). Press  to select the highlighted photograph and proceed to the next step.

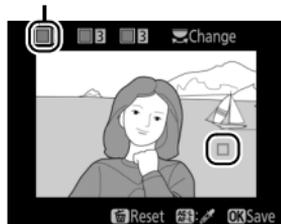


3 Select a color.

Use the multi selector to position the cursor over an object and press the  **AE-L/AF-L** button to select the color of the object as one that will remain in the final copy (the camera may have difficulty detecting unsaturated colors; choose a saturated color). To zoom in on the picture for precise color selection, press  (**QUAL**). Press  (**ISO**) to zoom out.



Selected color



4 Highlight the color range.

Rotate the main command dial to highlight the color range for the selected color.



Color range



5 Choose the color range.

Press \odot or \ominus to increase or decrease the range of similar hues that will be included in the final photograph. Choose from values between 1 and 7; note that higher values may include hues from other colors. The effect can be previewed in the edit display.



6 Select additional colors.

To select additional colors, rotate the main command dial to highlight another of the three color boxes at the top of the display and repeat Steps 3–5 to select another color. Repeat for a third color if desired. To deselect the highlighted color, press FORMAT ; to remove all colors, press and hold FORMAT . A confirmation dialog will be displayed; select **Yes**.



7 Save the edited copy.

Press **OK** to save the retouched copy.



Edit Movie

MENU button →  retouch menu

Trim footage to create edited copies of movies or save selected frames as JPEG stills.

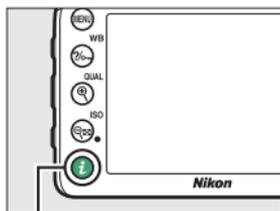
Option	Description
 Choose start/end point	Create a copy from which unwanted footage has been removed.
 Save selected frame	Save a selected frame as a JPEG still.

Side-by-side Comparison

Compare retouched copies to the original photographs. This option is only available if the retouch menu is displayed by pressing the **i** button and selecting **Retouch** when a copy or original is played back full frame.

1 Select a picture.

Select a retouched copy (shown by a ) or a photograph that has been retouched in full-frame playback. Press **i**, then highlight **Retouch** and press **OK**.



i button

2 Select Side-by-side comparison.

Highlight **Side-by-side comparison** and press **OK**.

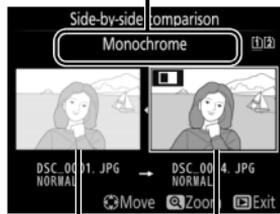


3 Compare the copy with the original.

The source image is displayed on the left, the retouched copy on the right, with the options used to create the copy listed at the top of the display. Press  or  to switch between the source image and the retouched copy. To view the highlighted picture full frame, press and hold the  (**QUAL**) button. If the copy was created from two source images using **Image**

overlay, or if the source has been copied multiple times, press  or  to view the other source images or copies. To exit to playback mode, press the  button, or press  to exit to playback with the highlighted image selected.

Options used to create copy



Source image

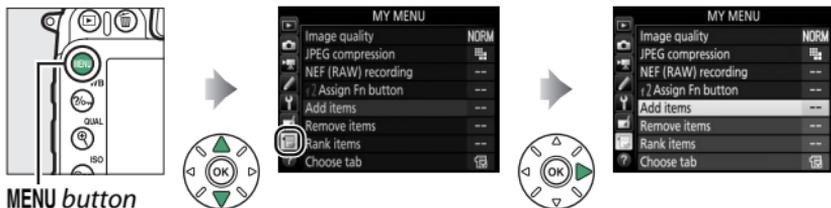
Retouched copy

Side-by-side Comparisons

The source image will not be displayed if the copy was created from a photograph that was protected, has since been deleted or hidden ( 19), or is on a card in a different slot from that used when the image was created.

My Menu / Recent Settings

To display My Menu, press **MENU** and select the  (My Menu) tab.



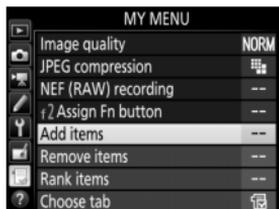
The **MY MENU** option can be used to create and edit a customized list of options from the playback, photo shooting, movie shooting, Custom Settings, setup, and retouch menus for quick access (up to 20 items). If desired, recent settings can be displayed in place of My Menu ( 168).

Options can be added, deleted, and reordered as described below.

■ Adding Options to My Menu

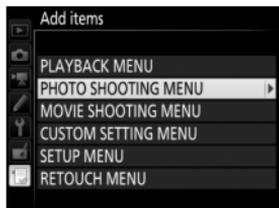
1 Select Add items.

In My Menu () , highlight **Add items** and press .



2 Select a menu.

Highlight the name of the menu containing the option you wish to add and press .



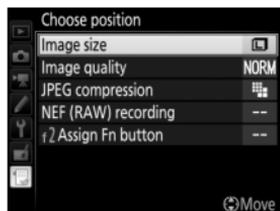
3 Select an item.

Highlight the desired menu item and press **OK**.



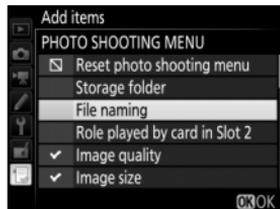
4 Position the new item.

Press **▲** or **▼** to move the new item up or down in My Menu. Press **OK** to add the new item.



5 Add more items.

The items currently displayed in My Menu are indicated by a check mark. Items indicated by a  icon can not be selected. Repeat steps 1–4 to select additional items.



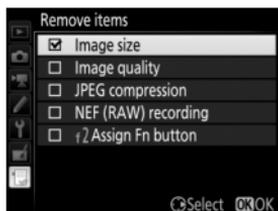
■ Deleting Options from My Menu

1 Select Remove items.

In My Menu (MENU), highlight **Remove items** and press .

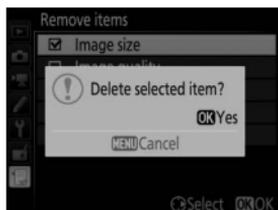
2 Select items.

Highlight items and press  to select or deselect. Selected items are indicated by a check mark.



3 Delete the selected items.

Press . A confirmation dialog will be displayed; press  again to delete the selected items.



Deleting Items in My Menu

To delete the item currently highlighted in My Menu, press the  (FORMAT) button. A confirmation dialog will be displayed; press  (FORMAT) again to remove the selected item from My Menu.

■ Reordering Options in My Menu

1 Select Rank items.

In My Menu (☰), highlight **Rank items** and press **↩**.

2 Select an item.

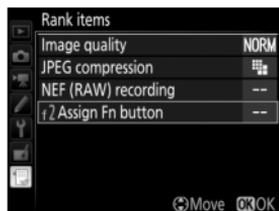
Highlight the item you wish to move and press **OK**.



3 Position the item.

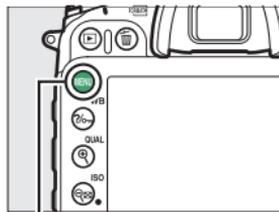
Press **↶** or **↷** to move the item up or down in My Menu and press **OK**.

Repeat Steps 2–3 to reposition additional items.

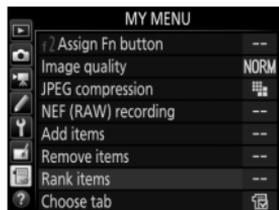


4 Exit to My Menu.

Press the **MENU** button to return to My Menu.



MENU button

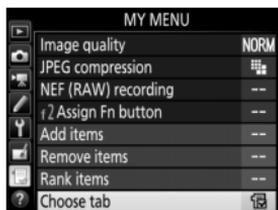


Recent Settings

To display the twenty most recently used settings, select **RECENT SETTINGS** for **MY MENU > Choose tab**.

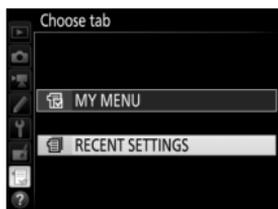
1 Select Choose tab.

In My Menu (☰), highlight **Choose tab** and press **OK**.



2 Select **RECENT SETTINGS**.

Highlight **RECENT SETTINGS** and press **OK**. The name of the menu will change from "MY MENU" to "RECENT SETTINGS."



Menu items will be added to the top of the recent settings menu as they are used. To view My Menu again, select **MY MENU** for **RECENT SETTINGS > Choose tab**.

Removing Items from the Recent Settings Menu

To remove an item from the recent settings menu, highlight it and press the **DELETE (FORMAT)** button. A confirmation dialog will be displayed; press **DELETE (FORMAT)** again to delete the selected item.

Technical Notes

Read this chapter for information on connecting to other devices and on compatible accessories.

Connections

Installing ViewNX-i

To upload and view pictures, download the latest version of the ViewNX-i installer from the following website and follow the on-screen instructions to complete installation. An Internet connection is required. For system requirements and other information, see the Nikon website for your region.

<http://nikonimglib.com/nvnxi/>

Capture NX-D

Use Nikon's Capture NX-D software to fine-tune photos or to change settings for NEF (RAW) pictures and save them in other formats. Capture NX-D also offers an Image Dust Off feature that processes NEF (RAW) images to remove image artifacts caused by dust inside the camera. Capture NX-D is available for download from:

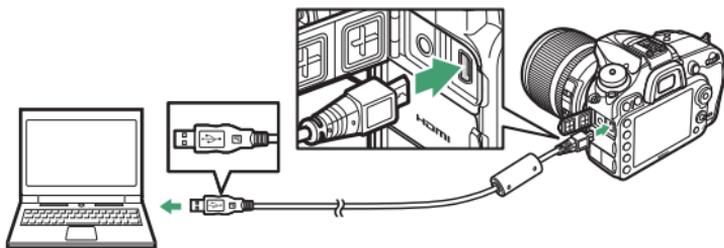
<http://nikonimglib.com/ncnxd/>

Copying Pictures to the Computer

Before proceeding, be sure you have installed ViewNX-i (📖 169).

1 Connect the USB cable.

After turning the camera off and ensuring that a memory card is inserted, connect the supplied USB cable as shown and then turn the camera on.



✔ Use a Reliable Power Source

To ensure that data transfer is not interrupted, be sure the camera battery is fully charged.

✔ Connecting Cables

Be sure the camera is off when connecting or disconnecting interface cables. Do not use force or attempt to insert the connectors at an angle.

✔ During Transfer

Do not turn the camera off or disconnect the USB cable while transfer is in progress.

✔ USB Hubs

Connect the camera directly to the computer; do not connect the cable via a USB hub or keyboard.

2 Start Nikon Transfer 2 component of ViewNX-i.

If a message is displayed prompting you to choose a program, select Nikon Transfer 2.

Windows 7

If the following dialog is displayed, select Nikon Transfer 2 as described below.

- 1 Under **Import pictures and videos**, click **Change program**. A program selection dialog will be displayed; select **Import File using Nikon Transfer 2** and click **OK**.

- 2 Double-click **Import File**.



Windows 8.1

Windows 8.1 may display an AutoPlay prompt when the camera is connected. Tap or click the dialog and then tap or click **Import File/Nikon Transfer 2** to select Nikon Transfer 2.



3 Click **Start Transfer**.

At default settings, pictures on the memory card will be copied to the computer.



Start Transfer

4 Terminate the connection.

When transfer is complete, turn the camera off and disconnect the USB cable.

For More Information

Consult online help for more information on using ViewNX-i.

Ethernet and Wireless Networks

The optional UT-1 communication unit (□ 188) can be used to upload photographs to a computer or ftp server. The camera connects to the UT-1 using the USB cable supplied with the camera, while the UT-1 in turn connects to the network via an Ethernet cable or an optional WT-5 wireless transmitter (□ 188). The optional communication units and wireless transmitters support the following modes:

Mode	Function
FTP upload	Upload existing photos and movies to a computer or ftp server, or upload new photos as they are taken.
Image transfer	
Camera control	Control the camera using optional Camera Control Pro 2 software and save new photos and movies directly to the computer.
HTTP server	View and take pictures remotely using a browser equipped computer or iPhone.

For information on using optional communication units or wireless transmitters, refer to the manuals provided with the device. Be sure to update to the latest versions of the device firmware and related software.

✔ Image Upload

Once a connection has been established to the UT-1, the **i** button functions during playback to select pictures for upload in ftp and image transfer modes (upload only takes place when the UT-1 is connected). Other playback operations that use the **i** button, such as **Side-by-side comparison** (☞ 162), can not be performed. To restore normal operation, delete the network profile as described in the UT-1 manual.

✔ During Transfer

Movies can not be recorded or played back when the UT-1 is connected and there are either images remaining to be sent or images currently being transferred via an Ethernet or wireless network.

✔ Movies

Movies can be uploaded over Ethernet and wireless networks in transfer mode. Note, however, that movies can not be uploaded using the **Auto send** or **Send folder** features in the **Options** menu.

✔ HTTP Server Mode

The camera can not be used to record or view movies in HTTP server mode.

✔ WT-5 Wireless Transmitters

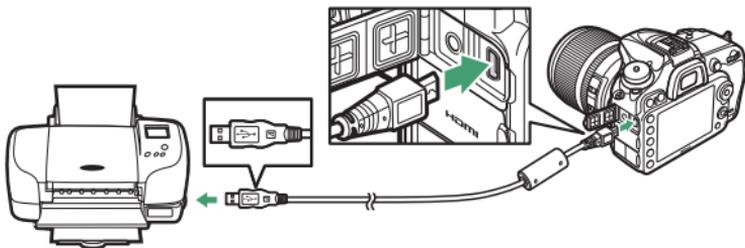
The principal differences between the WT-5 and WT-5A/B/C/D/E is in the number of channels supported; unless otherwise stated, all references to the the WT-5 also apply to the WT-5A/B/C/D/E.

Printing Photographs

Selected JPEG images can be printed on a PictBridge printer connected directly to the camera.

■ ■ **Connecting the Printer**

Connect the camera using the supplied USB cable. Do not use force or attempt to insert the connectors at an angle.



When the camera and printer are turned on, a welcome screen will be displayed in the monitor, followed by a PictBridge playback display.

✓ **USB Hubs**

Connect the camera directly to the printer; do not connect the cable via a USB hub.

✓ **Selecting Photographs for Printing**

NEF (RAW) photographs (☐ 36) can not be selected for printing. JPEG copies of NEF (RAW) images can be created using the **NEF (RAW) processing** option in the retouch menu (☐ 148).

✓ **Printing Via Direct USB Connection**

Be sure the battery is fully charged or use an optional AC adapter and power connector. When taking photographs to be printed via direct USB connection, set **Color space** to **sRGB** (☐ 41).

■ Printing Pictures One at a Time

1 Display the desired picture.

Press \leftarrow or \rightarrow to view additional pictures. Press the QUAL button to zoom in on the current frame (press \square to exit zoom). To view thumbnails, press the ISO button. Use the multi selector to highlight pictures, or press QUAL to display the highlighted picture full frame.

2 Adjust printing options.

Press OK to display the following items, then press \uparrow or \downarrow to highlight an item and press \rightarrow to view options (only options supported by the current printer are listed; to use the default option, select **Printer default**). After selecting an option, press OK to return to the printer settings menu.

Option	Description
Page size	Choose a page size.
No. of copies	This option is listed only when pictures are printed one at a time. Press \uparrow or \downarrow to choose number of copies (maximum 99).
Border	Choose whether to frame photos in white borders.
Print date	Choose whether to print the times and dates of recordings on photos.
Cropping	This option is listed only when pictures are printed one at a time. To exit without cropping, highlight No cropping and press OK . To crop the current picture, highlight Crop and press \rightarrow . A crop selection dialog will be displayed; press QUAL to increase the size of the crop, ISO to decrease, and use the multi selector to position the crop. Note that print quality may drop if small crops are printed at large sizes.

3 Start printing.

Select **Start printing** and press  to start printing. To cancel before all copies have been printed, press .

See Also

See the *User's Manual* for information on what to do if an error occurs during printing.

■ Printing Multiple Pictures

1 Display the PictBridge menu.

Press the MENU button in the PictBridge playback display.

2 Choose an option.

Highlight one of the following options and press .

- **Print select:** Select pictures for printing. Use the multi selector to highlight pictures (to display the current picture full screen, press and hold the /QUAL button) and, keeping the  (ISO) button pressed, press  or  to choose the number of prints (maximum 99). To deselect a picture, set the number of prints to zero.
- **Select date:** Print one copy of all the pictures taken on selected dates. Press  or  to highlight dates and press  to select or deselect. To view the pictures taken on the selected date, press  (ISO). Use the multi selector to scroll through the pictures, or press and hold  (QUAL) to view the current picture full screen. Press  (ISO) again to return to the date selection dialog.
- **Print (DPOF):** Print the current DPOF print order ( 179). The order can be viewed and modified before printing as described in the description for **Print select**, above.
- **Index print:** To create an index print of all JPEG pictures on the memory card, proceed to Step 3. Note that if the memory card contains more than 256 pictures, only the first 256 images will be printed. A warning will be displayed if the page size selected in Step 3 is too small for an index print.

3 Adjust printing options.

Adjust printer settings as described in Step 2 on page 176.

4 Start printing.

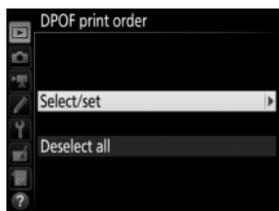
Select **Start printing** and press **OK** to start printing. To cancel before all copies have been printed, press **OK**.

■ Creating a DPOF Print Order: Print Set

The **DPOF print order** option in the playback menu is used to create digital “print orders” for PictBridge-compatible printers and devices that support DPOF.

1 Choose DPOF print order > Select/set.

Select **DPOF print order** in the playback menu, then highlight **Select/set** and press **OK** (to remove all photographs from the print order, select **Deselect all**).



2 Select pictures.

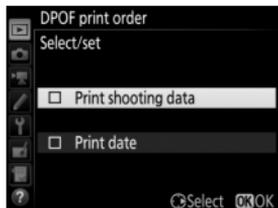
Use the multi selector to scroll through the pictures on (to display the current picture full screen, press and hold the **QUAL** button) and keeping the **ISO** button pressed, press **+** or **-** to choose the number of prints (maximum 99). To deselect a picture, set the number of prints to zero. Press **OK** when all the desired pictures have been selected.



3 Select imprint options.

Highlight the following options and press  to toggle the highlighted option on or off.

- **Print shooting data:** Print shutter speed and aperture on all pictures in print order.
- **Print date:** Print date of recording on all pictures in print order.



4 Complete the print order.

Press  to complete the print order.

DPOF Print Order

To print the current print order when the camera is connected to a PictBridge printer, select **Print (DPOF)** in the PictBridge menu and follow the steps in "Printing Multiple Pictures" to modify and print the current order (📖 178). DPOF print date and shooting data options are not supported when printing via direct USB connection; to print the date of recording on photographs in the current print order, use the PictBridge **Print date** option.

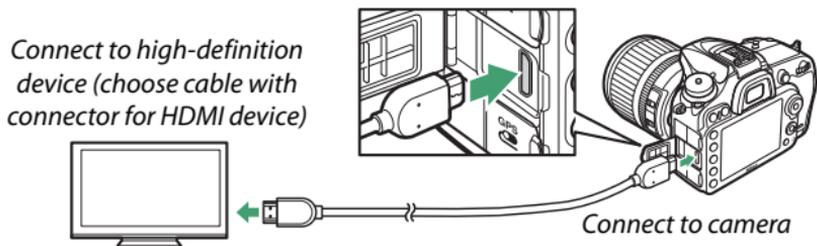
The **DPOF print order** option can not be used if there is not enough space on the memory card to store the print order.

NEF (RAW) photographs (📖 36) can not be selected using this option. JPEG copies of NEF (RAW) images can be created using the **NEF (RAW) processing** option in the retouch menu (📖 148).

Print orders may not print correctly if images are deleted using a computer or other device after the print order is created.

Viewing Photographs on TV

The optional High-Definition Multimedia Interface (HDMI) cable (📄 188) or a type C HDMI cable (available separately from third-party suppliers) can be used to connect the camera to high-definition video devices. Always turn the camera off before connecting or disconnecting an HDMI cable.



Tune the device to the HDMI channel, then turn the camera on and press the **▶** button. During playback, images will be displayed on the television screen. Volume can be adjusted using television controls; the camera controls can not be used.

✔ Television Playback

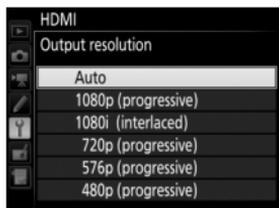
Use of an AC adapter and power connector (available separately) is recommended for extended playback. If the edges of photographs are not visible in the television display, select **95%** for **HDMI > Advanced > Output display size** (📄 183).

■ HDMI Options

The **HDMI** option in the setup menu (📖 110) controls output resolution and other advanced HDMI options, and can also be used to enable the camera for remote control from devices that support HDMI-CEC (**H**igh-**D**efinition **M**ultimedia **I**nterface–**C**onsumer **E**lectronics **C**ontrol, a standard that allows HDMI devices to be used to control peripherals to which they are connected).

Output Resolution

Choose the format for images output to the HDMI device. If **Auto** is selected, the camera will automatically select the appropriate format.



Device Control

If **On** is selected for **HDMI > Device control** when the camera is connected to a television that supports HDMI-CEC and both the camera and television are on, the television remote can be used in place of the camera multi selector and **OK** button during full-frame playback and slide shows. If **Off** is selected, the television remote can not be used to control the camera.

Advanced

Option	Description
Output range	<p>Auto is recommended in most situations. If the camera is unable to determine the correct RGB video signal output range for the HDMI device, you can choose from the following options:</p> <ul style="list-style-type: none">• Limited range: For devices with an RGB video signal input range of 16 to 235. Choose this option if you notice loss of detail in shadows.• Full range: For devices with an RGB video signal input range of 0 to 255. Choose this option if shadows are “washed out” or too bright.
Output display size	Choose horizontal and vertical frame coverage for HDMI output from 95% or 100%.
Live view on-screen display	If Off is selected when the camera is connected to an HDMI device, shooting information will not be displayed in the monitor during live view.
Dual monitor	Choose On to mirror the HDMI display on the camera monitor, Off to turn the camera monitor off to save power. Dual monitor turns on automatically when Live view on-screen display is Off .

HDMI and Live View

When the camera is connected via an HDMI cable, HDMI displays can be used for live view and movie recording. Note that if **1920 × 1080; 60p** is selected for the **Frame size/frame rate** in the movie shooting menu (☞ 52), the selected setting will only be reflected in the HDMI output during movie recording if all the following conditions are met: **Auto** or **1080p (progressive)** is selected for **HDMI > Output resolution**, **100%** is selected for **HDMI > Advanced > Output display size**, and **Off** is selected for **HDMI > Advanced > Live view on-screen display** (☞ 183). At other settings, the output resolution, display size, or frame rate may differ from that selected in the camera menus.

HDMI-CEC Devices

When the camera is connected to an HDMI-CEC device, **Ⓕ Ⓕ Ⓕ** will appear in the control panel in place of the number of exposures remaining.

Device Control

See the television manual for details.

Other Accessories

At the time of writing, the following accessories were available for the D7200.

Power sources

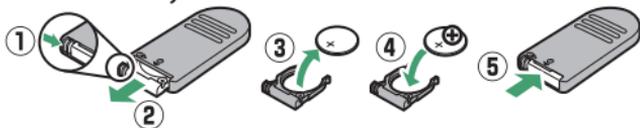
- **Rechargeable Li-ion Battery EN-EL15:** Additional EN-EL15 batteries are available from local retailers and Nikon-authorized service representatives.
- **Battery Charger MH-25a:** The MH-25a can be used to recharge EN-EL15 batteries. MH-25 battery chargers can also be used.
- **Multi-Power Battery Pack MB-D15:** The MB-D15 is equipped with a shutter-release button, AE/AF lock button, multi selector, and main- and sub-command dials for improved operation when taking photographs in portrait (tall) orientation. When attaching the MB-D15, remove the camera MB-D15 contact cover.
- **Power Connector EP-5B, AC Adapter EH-5b:** These accessories can be used to power the camera for extended periods (EH-5a and EH-5 AC adapters can also be used). The EP-5B is required to connect the camera to the EH-5b; see page 190 for details. Note that when the camera is used with an MB-D15, the EP-5B must be inserted into the MB-D15, not the camera. Do not attempt to use the camera with power connectors inserted into both the camera and MB-D15.

**Viewfinder
eyepiece
accessories**

- **DK-20C Eyepiece Correction Lenses:** Lenses are available with diopters of -5 , -4 , -3 , -2 , 0 , $+0.5$, $+1$, $+2$, and $+3 \text{ m}^{-1}$ when the camera diopter adjustment control is in the neutral position (-1 m^{-1}). Use eyepiece correction lenses only if the desired focus can not be achieved with the built in diopter adjustment control (-2 to $+1 \text{ m}^{-1}$). Test eyepiece correction lenses before purchase to ensure that the desired focus can be achieved. The rubber eyecup can not be used with eyepiece correction lenses.
- **Magnifying Eyepiece DK-21M:** The DK-21M magnifies the view through the viewfinder by approximately $1.17\times$ (50 mm f/1.4 lens at infinity; -1.0 m^{-1}) for greater precision when framing.
- **Magnifier DG-2:** The DG-2 magnifies the scene displayed in the center of the viewfinder for greater precision during focusing. Eyepiece adapter required (available separately).
- **Eyepiece Adapter DK-22:** The DK-22 is used when attaching the DG-2 magnifier.
- **Right-Angle Viewing Attachment DR-6:** The DR-6 attaches at a right angle to the viewfinder eyepiece, allowing the image in the viewfinder to be viewed at right angles to the lens (for example, from directly above when the camera is horizontal).

**Remote controls/
wireless remote controller/
remote cords**

- **Wireless Remote Control ML-L3:** The ML-L3 uses a 3 V CR2025 battery.

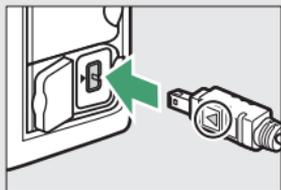


Pressing the battery-chamber latch to the right (①), insert a fingernail into the gap and open the battery chamber (②). Ensure that the battery is inserted in the correct orientation (④).

- **Wireless Remote Controller WR-R10/WR-T10:** When a WR-R10 wireless remote controller is attached, the camera can be controlled wirelessly using a WR-T10 wireless remote controller.
- **Wireless Remote Controller WR-1:** The WR-1 can function as either a transmitter or a receiver and is used in combination either with another WR-1 or a WR-R10 or WR-T10 wireless remote controller. For example, a WR-1 can be connected to the accessory terminal for use as a receiver, allowing camera settings to be changed or the shutter to be released remotely by another WR-1 acting as a transmitter.
- **Remote Cord MC-DC2:** Attach this 1 m (3 ft 3 in.) cord to the camera accessory terminal to release the shutter remotely.

 **Using the Accessory Terminal**

Connect accessories as shown, with the ◀ mark on the connector aligned with the ▶ next to the accessory terminal. To prevent malfunction caused by foreign matter on the terminal, close the camera connector cover when the terminal is not in use.



GPS units	GPS Unit GP-1/GP-1A: Connect to the camera accessory terminal to record the current latitude, longitude, altitude, and UTC (Coordinated Universal Time) with pictures taken with the camera (📖 132).
LAN adapters (📖 173)	<ul style="list-style-type: none"> • Communication Unit UT-1: Use a USB cable to connect the UT-1 to the camera and an Ethernet cable to connect the UT-1 to an Ethernet network. Once connected, you can upload photos and movies to a computer or ftp server, control the camera remotely using optional Camera Control Pro 2 software, or browse pictures or control the camera remotely from an iPhone or computer web browser. • Wireless Transmitter WT-5: Attach the WT-5 to the UT-1 to access wireless networks. <p>Note: Use of LAN adapters requires an Ethernet or wireless network and some basic network knowledge. Be sure to upgrade any related software to the latest version.</p>
HDMI cables (📖 181)	HDMI Cable HC-E1: An HDMI cable with a type C connector for connection to the camera and a type A connector for connection to HDMI devices.
Microphones (📖 53)	Stereo Microphone ME-1
Accessory shoe covers	Accessory Shoe Cover BS-1: A cover protecting the accessory shoe. The accessory shoe is used for optional flash units.
Body cap	Body Cap BF-1B/Body Cap BF-1A: The body cap keeps the mirror, viewfinder screen, and image sensor free of dust when a lens is not in place.

Filters	<ul style="list-style-type: none"> • Filters intended for special-effects photography may interfere with autofocus or the electronic rangefinder. • The D7200 can not be used with linear polarizing filters. Use C-PL or C-PL II circular polarizing filters instead. • Use NC filters to protect the lens. • To prevent ghosting, use of a filter is not recommended when the subject is framed against a bright light, or when a bright light source is in the frame. • Center-weighted metering is recommended with filters with exposure factors (filter factors) over $1 \times$ (Y44, Y48, Y52, O56, R60, X0, X1, C-PL, ND2S, ND4, ND4S, ND8, ND8S, ND400, A2, A12, B2, B8, B12). See the filter manual for details.
Software	<p>Camera Control Pro 2: Control the camera remotely from a computer to record movies and photographs and save photographs directly to the computer hard disk. When Camera Control Pro 2 is used to capture photographs directly to the computer, the PC connection indicator (P C) will appear in the control panel.</p> <p>Note: Use the latest versions of Nikon software; see the Nikon website for your region for the latest information on supported operating systems. At default settings, Nikon Message Center 2 will periodically check for updates to Nikon software and firmware while you are logged in to an account on the computer and the computer is connected to the Internet. A message is automatically displayed when an update is found.</p>

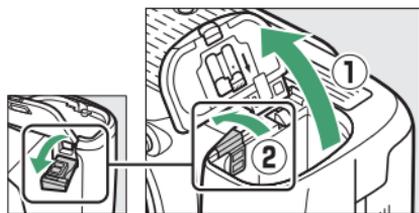
Availability may vary with country or region. See our website or brochures for the latest information.

Attaching a Power Connector and AC Adapter

Turn the camera off before attaching an optional power connector and AC adapter.

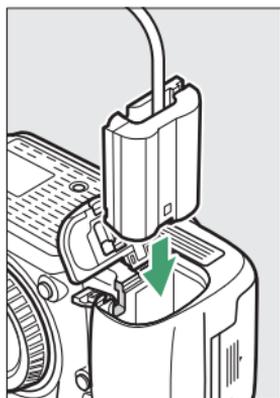
1 Ready the camera.

Open the battery-chamber (①) and power connector (②) covers.



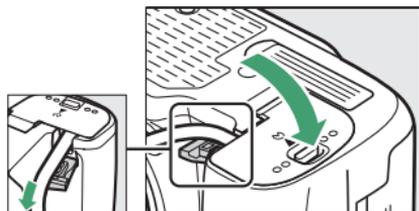
2 Insert the EP-5B power connector.

Be sure to insert the connector in the orientation shown, using the connector to keep the orange battery latch pressed to one side. The latch locks the connector in place when the connector is fully inserted.



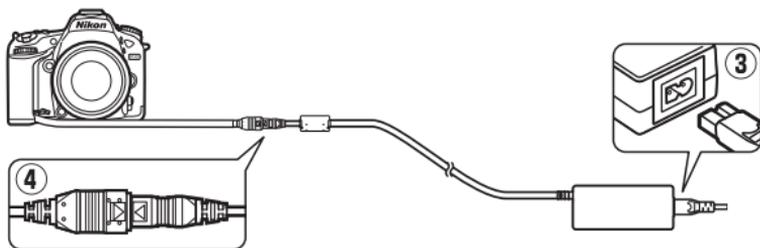
3 Close the battery-chamber cover.

Position the power connector cable so that it passes through the power connector slot and close the battery-chamber cover.



4 Connect the EH-5b AC adapter.

Connect the AC adapter power cable to the AC socket on AC adapter (3) and the power cable to the DC socket (4). A  icon is displayed in the monitor when the camera is powered by the AC adapter and power connector.



Available Settings

The following table lists the settings that can be adjusted in each mode. Note that some settings may be unavailable depending on the options selected.

			P, S, A, M							
Shooting menus	White balance	—	—	✓	—	—	—	—	—	—
	Set Picture Control	—	—	✓	—	—	—	—	—	—
	Active D-Lighting	— ¹	— ¹	✓	— ¹	— ¹	—	—	—	—
	HDR (high dynamic range)	—	—	✓	—	—	—	—	—	—
	Long exposure NR	✓	✓	✓	✓	✓	—	✓	✓	✓
	High ISO NR	✓	✓	✓	✓	✓	—	✓	✓	✓
	ISO sensitivity settings	✓ ²	✓ ²	✓	✓ ²	✓ ²	—	✓ ²	✓ ²	✓ ²
	Multiple exposure	—	—	✓	—	—	—	—	—	—
	Movie ISO sensitivity settings	—	—	✓	—	—	—	—	—	—
	Time-lapse photography	✓	✓	✓	✓	✓	—	—	—	—

			P, S, A, M									
Other settings	Metering	—	✓	—	—	—	—	—	—	—	—	—
	Exposure compensation	—	✓	✓	✓	✓	✓	—	—	—	—	—
	Bracketing	—	—	✓	—	—	—	—	—	—	—	—
	Flash mode	✓	—	✓	✓	—	—	✓	—	—	—	—
	Flash compensation	—	—	✓	✓	—	—	—	—	—	—	—
	FV lock	✓	—	✓	✓	—	—	✓	—	—	—	—
	Autofocus mode (viewfinder)	✓	✓	✓	✓	✓	✓	—	—	—	—	✓
	AF-area mode (viewfinder)	✓	✓	✓	✓	✓	—	✓	—	✓	✓	✓
	AF mode (Live view)	✓	✓	✓	✓	✓	✓	—	—	✓	✓	✓
	AF-area mode (Live view)	✓	✓	✓	✓	✓	✓ ³	✓ ³	—	✓ ³	✓	✓

Custom Settings	a9: Built-in AF-assist illuminator	✓	✓	✓	✓ ⁴	✓ ⁵	✓	✓	—	✓	✓
	b3: Easy exposure compensation	—	—	✓	—	—	—	—	—	—	—
	b4: Center-weighted area	—	—	✓	—	—	—	—	—	—	—
	d5: Flash warning	—	—	✓	—	—	—	—	—	—	—
	e2: Flash shutter speed	—	—	✓	—	—	—	—	—	—	—
	e3: Flash cntrl for built-in flash/Optional flash	—	—	✓	—	—	—	—	—	—	—
	e4: Exposure comp. for flash	—	—	✓	—	—	—	—	—	—	—
	e5: Modeling flash	—	—	✓	—	—	—	—	—	—	—
	e6: Auto bracketing set	—	—	✓	—	—	—	—	—	—	—
	e7: Bracketing order	—	—	✓	—	—	—	—	—	—	—

1 Fixed at **Auto**.

2 **Hi BW1**, **Hi BW2**, and **Auto ISO sensitivity control** are not available.

3 Subject-tracking AF is not available.

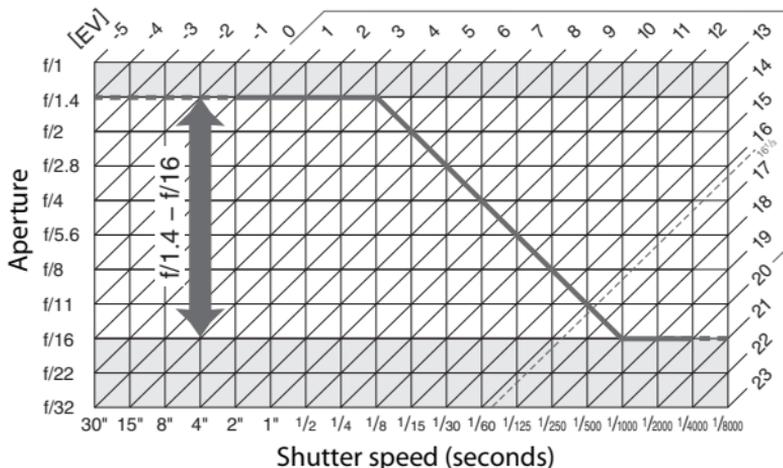
4 Not available in mode.

5 Available only in , , and modes.

Exposure Program (Mode P)

The exposure program for mode **P** (viewfinder photography) is shown in the following graph:

— ISO 100; lens with maximum aperture of $f/1.4$ and minimum aperture of $f/16$ (e.g., AF-S NIKKOR 50mm $f/1.4G$)



The maximum and minimum values for EV vary with ISO sensitivity; the above graph assumes an ISO sensitivity of ISO 100 equivalent. When matrix metering is used, values over $16\frac{1}{3}$ EV are reduced to $16\frac{1}{3}$ EV.

Lenses That May Block the Built-in Flash and AF-Assist Illuminator

The lenses listed in this section may block the built-in flash or AF-assist illuminator under some conditions.

■ *AF-Assist Illumination*

The AF-assist illuminator has a range of about 0.5–3.0 m (1 ft 8 in.–9 ft 10 in.); when using the illuminator, use a lens with a focal length of 18–200 mm. Some lenses may block the illuminator at certain focus distances. Remove lens hoods when using the illuminator.

AF-assist illumination is not available with the following lenses:

- AF-S NIKKOR 14–24mm f/2.8G ED
- AF-S NIKKOR 200mm f/2G ED VR II
- AF-S VR Nikkor 200mm f/2G IF-ED
- AF-S VR Zoom-Nikkor 200–400mm f/4G IF-ED
- AF-S NIKKOR 200–400mm f/4G ED VR II

At ranges under 0.7 m (2 ft 4 in.), the following lenses may block the AF-assist illuminator and interfere with autofocus when lighting is poor:

- AF-S Zoom-Nikkor 17–35mm f/2.8D IF-ED
- AF-S DX Zoom-Nikkor 17–55mm f/2.8G IF-ED
- AF-S DX NIKKOR 18–140mm f/3.5–5.6G ED VR
- AF-S DX NIKKOR 18–300mm f/3.5–6.3G ED VR
- AF Zoom-Nikkor 20–35mm f/2.8D IF
- AF Zoom-Nikkor 24–85mm f/2.8–4D IF
- AF-S NIKKOR 24–85mm f/3.5–4.5G ED VR
- AF-S VR Zoom-Nikkor 24–120mm f/3.5–5.6G IF-ED
- AF-S NIKKOR 35mm f/1.4G
- AF Micro-Nikkor 200mm f/4D IF-ED

At ranges under 1.0 m (3 ft 3 in.), the following lenses may block the AF-assist illuminator and interfere with autofocus when lighting is poor:

- AF-S DX VR Zoom-Nikkor 18–200mm f/3.5–5.6G IF-ED
- AF-S NIKKOR 24–70mm f/2.8G ED
- AF Zoom-Nikkor 24–120mm f/3.5–5.6D IF
- AF-S Zoom-Nikkor 28–70mm f/2.8D IF-ED
- AF Zoom Micro Nikkor ED 70–180mm f/4.5–5.6D
- AF-S VR Micro-Nikkor 105mm f/2.8G IF-ED

At ranges under 1.5 m (4 ft 11 in.), the following lenses may block the AF-assist illuminator and interfere with autofocus when lighting is poor:

- AF-S DX NIKKOR 18–300mm f/3.5–5.6G ED VR
- AF-S NIKKOR 24–120mm f/4G ED VR
- AF-S NIKKOR 28–300mm f/3.5–5.6G ED VR
- AF-S DX NIKKOR 55–300mm f/4.5–5.6G ED VR
- AF-S NIKKOR 70–200mm f/2.8G ED VR II
- AF Zoom-Nikkor 80–200mm f/2.8D ED

At ranges under 2.0 m (6 ft 7 in.), the following lenses may block the AF-assist illuminator and interfere with autofocus when lighting is poor:

- AF-S VR Zoom-Nikkor ED 70–200mm f/2.8G (IF)
- AF-S NIKKOR 70–200mm f/4G ED VR
- AF-S Zoom Nikkor ED 80–200mm f/2.8D (IF)

■ The Built-in Flash

The built-in flash has a minimum range of 0.6 m (2 ft) and can not be used in the macro range of macro zoom lenses. It can be used with CPU lenses with focal lengths of 16–300 mm, although in some cases the flash may be unable to entirely light the subject at some ranges or focal lengths due to shadows cast by the lens, while lenses that block the subject's view of the red-eye reduction lamp may interfere with red-eye reduction. The following illustrations show the effect of vignetting caused by shadows cast by the lens when the flash is used.



Remove lens hoods to prevent shadows. When **DX (24×16)** is selected for **Image area**, the flash may be unable to light the entire subject with the following lenses at ranges less than those given below:

Lens	Zoom position	Minimum distance without vignetting
AF-S DX NIKKOR 10–24mm f/3.5–4.5G ED	18 mm	1.0 m/3 ft 3 in.
	20 mm	1.0 m/3 ft 3 in.
	24 mm	No vignetting
AF-S DX Zoom-Nikkor 12–24mm f/4G IF-ED	18 mm	1.5 m/4 ft 11 in.
	20 mm	1.0 m/3 ft 3 in.
	24 mm	No vignetting

Lens	Zoom position	Minimum distance without vignetting
AF-S DX Zoom-Nikkor 17–55mm f/2.8G IF-ED	24 mm	1.0 m/3 ft 3 in.
	28–55 mm	No vignetting
AF-S DX NIKKOR 18–140mm f/3.5–5.6G ED VR	18 mm	1.0 m/3 ft 3 in.
	24–140 mm	No vignetting
AF-S DX VR Zoom-Nikkor 18–200mm f/3.5–5.6G IF-ED AF-S DX NIKKOR 18–200mm f/3.5–5.6G ED VR II	18 mm	1.0 m/3 ft 3 in.
	24–200 mm	No vignetting
AF-S DX NIKKOR 18–300mm f/3.5–5.6G ED VR	28 mm	1.5 m/4 ft 11 in.
	50–300 mm	No vignetting
AF-S DX NIKKOR 18–300mm f/3.5–6.3G ED VR	35 mm	No vignetting
AF-S NIKKOR 16–35mm f/4G ED VR	24 mm	1.5 m/4 ft 11 in.
	28 mm	1.0 m/3 ft 3 in.
	35 mm	No vignetting
AF-S Zoom-Nikkor 17–35mm f/2.8D IF-ED	20 mm	3.0 m/9 ft 10 in.
	24 mm	1.0 m/3 ft 3 in.
	28–35 mm	No vignetting
AF Zoom-Nikkor 18–35mm f/3.5–4.5D IF-ED	18 mm	1.5 m/4 ft 11 in.
	24–35 mm	No vignetting
AF-S NIKKOR 24–70mm f/2.8G ED	28 mm	1.5 m/4 ft 11 in.
	35 mm	1.0 m/3 ft 3 in.
	50–70 mm	No vignetting
AF-S Zoom-Nikkor 28–70mm f/2.8D IF-ED	28 mm	1.5 m/4 ft 11 in.
	35–70 mm	No vignetting
AF-S NIKKOR 14–24mm f/2.8G ED	When DX (24×16) is selected for Image area , the flash will be unable to light the entire subject at all ranges.	

When **1.3× (18×12)** is selected for **Image area**, the flash may be unable to light the entire subject with the following lenses at ranges less than those given below.

Lens	Zoom position	Minimum distance without vignetting
AF-S DX NIKKOR 10–24mm f/3.5–4.5G ED	15–24 mm	No vignetting
AF-S DX Zoom-Nikkor 12–24mm f/4G IF-ED	15 mm	1.0 m/3 ft 3 in.
	18–24 mm	No vignetting
AF-S DX Zoom-Nikkor 17–55mm f/2.8G IF-ED	20 mm	1.0 m/3 ft 3 in.
	24–55 mm	No vignetting
AF-S DX NIKKOR 18–300mm f/3.5–5.6G ED VR	28 mm	1.0 m/3 ft 3 in.
	50–300 mm	No vignetting
AF-S NIKKOR 14–24mm f/2.8G ED	24 mm	3.0 m/9 ft 10 in.
	20 mm	1.5 m/4 ft 11 in.
	24 mm	1.0 m/3 ft 3 in.
AF-S NIKKOR 16–35mm f/4G ED VR	28–35 mm	No vignetting
	17 mm	1.5 m/4 ft 11 in.
	20 mm	1.0 m/3 ft 3 in.
AF-S Zoom-Nikkor 17–35mm f/2.8D IF-ED	24–35 mm	No vignetting
	24 mm	1.5 m/4 ft 11 in.
	28 mm	1.0 m/3 ft 3 in.
AF-S NIKKOR 24–70mm f/2.8G ED	35–70 mm	No vignetting
	28 mm	1.0 m/3 ft 3 in.

The built-in flash can also be used with the following non-CPU lenses: Nikon Series E and 16–300 mm NIKKOR (AI-S, AI-, and AI-modified). AI 50–300mm f/4.5, modified AI 50–300mm f/4.5, AI-S 50–300mm f/4.5 ED, and AI 50–300mm f/4.5 ED lenses must be used at a zoom position of 70 mm or above.

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