# Nikon

DIGITAL CAMERA

# KeyMission 80

# **Ouick Start Guide**





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En

- Read this manual thoroughly before using the camera.
- To ensure proper use of the camera, be sure to read the For Your Safety leaflet, "<Important> Notes About Shockproof, Waterproof, and Dustproof Performance and Condensation" (page ix), and "Notes About Wireless Communication Functions" (page 23).
- After reading this manual, keep it in a readily accessible place for future reference.





# Your images. The world. Connected

Welcome to SnapBridge — Nikon's new family of services to enrich your image experience. SnapBridge eliminates the barrier between your camera and compatible smart device, through a combination of *Bluetooth*® low energy (BLE) technology and a dedicated app. The stories you capture with your Nikon camera and lenses are automatically transferred to the device as they are taken. They can even be uploaded effortlessly to cloud storage services, inviting access across all your devices. You can share your excitement, when and where you want.

### Download the SnapBridge app to get started!

Take advantage of the wide-ranging convenience by downloading the SnapBridge app onto your smart device now. Through a few simple steps, this app connects your Nikon cameras with a compatible iPhone®, iPad® and/or iPod touch® or smart devices running on the Android™ operating system. The app is available free from the website (http://snapbridge.nikon.com), Apple App Store® and Google Play<sup>TM</sup>.







For the latest information on SnapBridge, visit the Nikon website for your area (\(\subseteq\)vii).

## The exciting image experience that SnapBridge offers...



Automatic picture transfer from camera to smart device thanks to the constant connection between the two devices — making online photo sharing easier than ever



Upload of photos and thumbnail images to the NIKON IMAGE SPACE cloud service

# A range of services that enriches your imaging life, including:

· Camera remote control



 Imprinting up to two pieces of credit information (shooting information, date and time, text, and logos) on pictures



 Automatic update of camera's date and time info and location info



• Receive camera's firmware updates



# Introduction

### **Read This First**

Thank you for purchasing the Nikon KeyMission 80 digital camera.

## Downloading the "Reference Manual"

The Reference Manual (PDF format) provides more details in various languages on how to use this camera. Use your smart device or computer to refer to it along with this manual. Download the Reference Manual from our Download Center at the URL below

 The Reference Manual can be viewed using Adobe PDF Reader, iBooks, or other software. Adobe PDF reader can be downloaded from the Adobe website.

### Downloading "ViewNX-i"

ViewNX-i is free software that enables you to transfer images and movies to your computer for viewing and editing. Download the software from our Download Center at the URL below.

### **Visit Our Download Center**

Visit the website below to download the Reference Manual and software for this camera.

http://downloadcenter.nikonimglib.com



Scan this image with your smart device's QR code reader.

### **Nikon User Support**

Should you need technical support, we offer a number of options.

### Internet

For customers in the United States: www.nikonusa.com For customers in Canada: www.nikon.ca (English), fr.nikon.ca (Français) For customers in Mexico: www.nikon.com.mx

For customers in Brazil: www.nikon.com.br

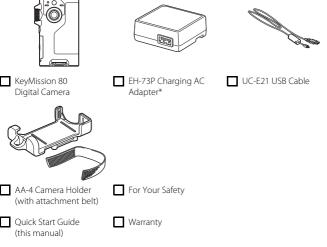
### Telephone

For customers in the United States: 1-800-NIKON-US (1-800-645-6687)

For customers in Canada: **1-877-534-9910**For customers in Mexico: **001-888-565-5452** 

For customers in Brazil: 0800-886-4566 (0800-88 NIKON)

## **Confirming the Package Contents**



- A rechargeable battery is built into this camera.
- Accessories are not waterproof.
- \* A plug adapter is included if the camera was purchased in a country or region that requires a plug adapter. The shape of the plug adapter varies with the country or region of purchase (CC)4).

**NOTE:** A memory card is not included with the camera. microSD, microSDHC, and microSDXC memory cards are referred to as "memory cards" in this manual.

## **Information and Precautions**

### **Life-Long Learning**

As part of Nikon's "Life-Long Learning" commitment to ongoing product support and education, continually updated information is available online at the following websites:

- For users in the U.S.A.: http://www.nikonusa.com/
- For users in Europe: http://www.europe-nikon.com/support/
- For users in Asia, Oceania, the Middle East, and Africa: http://www.nikon-asia.com/

Visit these websites to keep up-to-date with the latest product information, tips, answers to frequently asked questions (FAQs), and general advice on digital imaging and photography. Additional information may be available from the Nikon representative in your area. Visit the website below for contact information.

http://imaging.nikon.com/

### **Use Only Nikon Brand Electronic Accessories**

Nikon digital cameras are designed to the highest standards and include complex electronic circuitry. Only Nikon brand electronic accessories (including Charging AC Adapter and USB cables) certified by Nikon specifically for use with this Nikon digital camera are engineered and proven to operate within the operational and safety requirements of this electronic circuitry.

The use of non-Nikon electronic accessories could damage the camera and may void your Nikon warranty

For more information about Nikon brand accessories, contact a local authorized Nikon dealer

### **Before Taking Important Pictures**

Before taking pictures on important occasions (such as at weddings or before taking the camera on a trip), take a test shot to ensure that the camera is functioning normally. Nikon will not be held liable for damages or lost profits that may result from product malfunction.

### **About the Manuals**

- No part of the manuals included with this product may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language in any form, by any means, without Nikon's prior written permission.
- Illustrations and screen content shown in this manual may differ from the actual product.
- Nikon reserves the right to change the specifications of the hardware and software described in these manuals at any time and without prior notice.
- Nikon will not be held liable for any damages resulting from the use of this product.
- While every effort was made to ensure that the information in these manuals is accurate
  and complete, we would appreciate it were you to bring any errors or omissions to the
  attention of the Nikon representative in your area (address provided separately).

### **Comply with Copyright Notices**

Under copyright law, photographs or recordings of copyrighted works made with the camera can not be used without the permission of the copyright holder. Exceptions apply to personal use, but note that even personal use may be restricted in the case of photographs or recordings of exhibits or live performances.

### **Disposing of Data Storage Devices**

Please note that deleting images or formatting data storage devices such as memory cards does not completely erase the original image data. Deleted files can sometimes be recovered from discarded storage devices using commercially available software, potentially resulting in the malicious use of personal image data. Ensuring the privacy of such data is the user's responsibility.

Before disposal or transfer to another owner, be sure to reset all of the camera settings in **Camera settings**  $\rightarrow$  **Reset all** in the setup menu ( $\square$ 19). After resetting, erase all data using commercial deletion software, or format the device in **Camera settings**  $\rightarrow$  **Format card** in the setup menu ( $\square$ 19), and then completely refill it with images containing no private information (for example, images of empty sky).

Care should be taken to avoid injury or damage to property when physically destroying data storage devices.

# <Important> Notes About Shockproof, Waterproof, and Dustproof Performance and Condensation

- The shockproof, waterproof, and dustproof performance described here do not guarantee that the camera will remain completely waterproof or free from damage and trouble under all conditions.
- Do not subject the camera to excessive shock, vibration or pressure by dropping it, hitting it, or placing a heavy object on it. Failure to observe this precaution could deform the camera, cause water to seep inside, or damage the airtight seals, resulting in camera malfunction.
- Your Nikon warranty may not cover troubles caused by water seeping inside the camera due to improper handling of the camera.

### **Notes About Shockproof Performance**

This camera has passed Nikon's in-house test (drop test from a height of 150 cm (5 ft) on a 5 cm (2 in.) thick plywood panel) compliant with the MIL-STD 810F Method 516.5-Shock\* standard.

Changes in appearance, such as paint peeling off and deformation of the camera, are not measured in Nikon's in-house test.

Accessories are not shockproof.

\* U.S. Department of Defense test method standard.

This drop test drops 5 cameras in 26 directions (8 edges, 12 corners, and 6 faces) from a height of 122 cm (4 ft) to make sure that one to five cameras pass the test (if any defect is detected during the test, another five cameras are tested to make sure that the test criteria are satisfied for one to five cameras).

## **Notes About Waterproof and Dustproof Performance**

The camera is rated equivalent to JIS/IEC waterproof class 7 (IPX7) and JIS/IEC dustproof class 6 (IP6X). Waterproofing prevents water from entering the camera underwater up to 30 minutes at a depth of 1 m (3 ft 3 in.).\*

However, the camera cannot be used underwater.

Accessories are not waterproof.

- \* This rating indicates that the camera has been designed to withstand the specified water pressure for the specified period of time when the camera is used according to the methods defined by Nikon.
  - The waterproof performance of this camera was tested in fresh water (swimming pools, rivers, and lakes) and salt water only.
  - The inner portion of this camera is not waterproof. Water seeping inside the camera could cause the components to rust, resulting in high repair costs or irreparable damage.

## Precautions When Cleaning

- Do not puncture the microphone or speaker openings with a sharp implement. If the inside of the camera is damaged, the waterproof performance will deteriorate.
- Do not use soap, neutral detergents, or chemicals such as benzene for cleaning.

# Notes About Shockproof, Waterproof, and Dustproof Performance

- Do not drop the camera, strike it against a hard object such as a rock, or throw it
  against a water surface.
- Do not subject the camera to shock underwater.
  - Do not subject the camera to water pressure by exposing it to rapids or waterfalls.
  - Do not expose to depths greater than 1 m (3 ft 3 in.) underwater.
  - Make sure not to drop the camera underwater. This camera does not float in water.
- Do not continuously immerse the camera in water for 30 minutes or more.
- Do not insert a wet memory card in the camera.
  - Do not open the memory card slot/connector cover when the camera or your hands are wet. Doing so may cause water to seep inside the camera or result in camera malfunction.
- Do not open the memory card slot/connector cover underwater.
- If moisture such as water droplets adheres to the outside of the camera or inside of the memory card slot/connector cover, immediately wipe it off with a soft dry cloth.
  - If a foreign substance adheres to the outside of the camera or inside of the memory card slot/connector cover, immediately remove it with a blower or a soft cloth
- Do not leave the camera in cold conditions or in hot conditions of 40°C (104°F) or more for a long period of time.
  - Doing so could cause deterioration of the waterproof performance.
- Do not use the camera at hot springs.



# Notes About Operating Temperature, Humidity, and Condensation

The operation of this camera has been tested at temperatures from  $-10^{\circ}$ C to  $+40^{\circ}$ C ( $14^{\circ}$ F to  $104^{\circ}$ F).

When you use the camera in cold climate regions or at high altitudes, observe the following precautions.

- Battery performance deteriorates temporarily when cold. Keep the camera warm under your clothing before use.
- Camera performance may deteriorate temporarily if it is exposed to extreme cold for an extended period. For example, the monitor may appear darker than normal immediately after the camera is turned on, or residual images may be produced.

### Environmental conditions that are likely to cause condensation inside of the camera

Fogging (condensation) may occur on the inside of the monitor or lenses when there are sharp temperature changes or high humidity, such as in the environmental conditions described below. This is not a camera malfunction or defect.

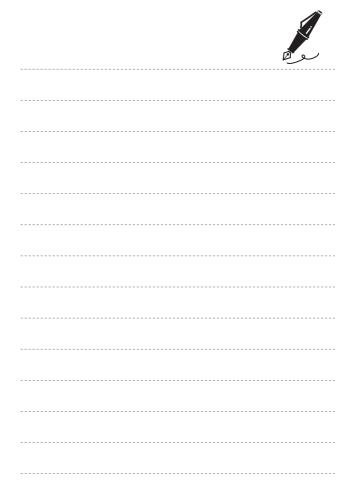
- The camera is suddenly immersed in cold water after being in a hot place on land.
- The camera is brought to a warm place such as inside a building after being in the cold outdoors.
- The memory card slot/connector cover is opened or closed in a high-humidity environment.

### Clearing the fogging

- Turn off the camera and open the memory card slot/connector cover while in a place where the ambient temperature is stable (avoid places with high temperature, high humidity, sand, or dust).
  - To clear the fogging, remove the memory card, and leave the memory card slot/ connector cover open to allow the camera to adjust to the ambient temperature.

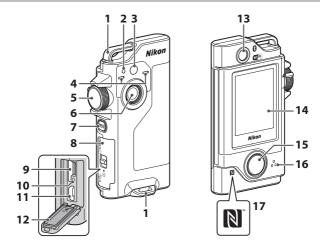
## **Inspection and Repair**

- If the camera is exposed to shock, it is recommended to consult your retailer or Nikon-authorized service representative to confirm the waterproof performance (charged service).
- If the waterproofing packing begins to deteriorate, consult your retailer or Nikonauthorized service representative. The waterproof performance of the waterproofing packing may start to deteriorate after one year.
- If water seeps inside the camera, immediately stop using it and take it to your Nikon-authorized service representative.



# Parts of the Camera

# **The Camera Body**



- 1 Eyelet for strap
- 2 Status lamp
- 3 LED light
- 4 Microphone (stereo)
- 5 Mode dial
- 6 Lens (camera 1)
- 7 MENU (menu) button\*
- 8 Memory card slot/connector cover

- 9 Memory card slot
- 10 Reset button
- 11 Micro-USB connector
- 12 Waterproofing packing
- 13 Lens for selfies (camera 2)
- 14 Monitor
- 15 Shutter-release button
- 16 Speaker
- 17 N-Mark (NFC antenna)

<sup>\*</sup> Press and hold down the **MENU** button to turn the LED light on or off ( $\square$ 14).

# **The Status Lamp**

You can check the status of the camera by looking at the status lamp.

Status	Color	Description
On	Green	<ul> <li>Turns on for a few seconds immediately after the camera is turned on.</li> <li>The camera is connected to a computer with a USB cable.</li> <li>The camera is off, but images are being uploaded via Wi-Fi, etc. (does not turn on when uploading via <i>Bluetooth</i>® low energy).</li> </ul>
	Red	A movie is being recorded.     The camera is being operated for remote photography from a smart device.
Flashing	Green	<ul> <li>The battery is charging. Turns off when charging is complete.</li> <li>Flashes for a few seconds when the camera is set into the Camera Holder during route shooting.</li> <li>Flashes for a few seconds every time the shutter is released during route shooting.</li> </ul>
Quick flashing	Green	The battery cannot be charged (error).
	Red	A memory card is not inserted.     The inside of the camera has become hot. The camera will automatically turn off. Leave the camera off until it has cooled.

# **Operating the Touchscreen**

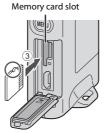
You can operate this camera's monitor by touching it with your fingers.

Тар	Drag	Flick
Touch and release the touchscreen.	Move while touching the touchscreen, and then release.	Make a sweeping motion on the touchscreen with your finger.

# **Getting Started**

# **Inserting the Memory Card**







- Slide the memory card in until it clicks into place (3).
- Be careful not to insert the memory card upside-down or backward, as this could cause a malfunction.

# Formatting a Memory Card

The first time you insert a memory card that has been used in another device into this camera, make sure to format it with this camera.

- Note that formatting a memory card permanently deletes all images and other data on the memory card. Be sure to make copies of any images you wish to keep before formatting the memory card.
- Insert the memory card into the camera, press the MENU button when the shooting screen is displayed, and select Camera settings → Format card in the setup menu (□19).

# Opening/Closing the Memory Card Slot/Connector Cover

Do not open and close the memory card slot/connector cover in a sandy or dusty environment or with wet hands. If the cover is closed without removing foreign particles, water may seep inside the camera or the camera may become damaged (\(\Omega\)x).

# Inserting or Removing a Memory Card

Be careful not to quickly release your finger when pushing in a memory card because it may pop out. Do not point the memory card slot toward your face.

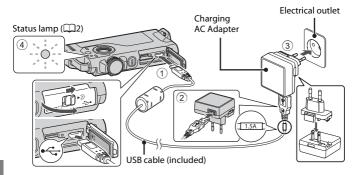
Be careful not to lose the removed memory card.

## **Removing the Memory Card**

Make sure that the screen, status lamp, and camera are off, and then open the memory card slot/connector cover.

- Gently push the memory card into the camera to partially eject the memory card.
- Be careful when handling the camera and memory card immediately after using the camera, as they may be hot.

# **Charging the Battery**



If a plug adapter\* is included with your camera, securely connect it to the Charging AC Adapter. Once the two are connected, attempting to forcibly remove the plug adapter could damage the product.

- \* The shape of the plug adapter varies according to the country or region in which the camera was purchased. This step can be omitted if the plug adapter comes permanently bonded to the Charging AC Adapter.
- Charging starts when the camera is connected to an electrical outlet as shown in the illustration. The status lamp (\(\sigma 2\)) slowly flashes green while the battery is charging.
- When charging is complete, the status lamp turns off. Unplug the Charging AC Adapter from the electrical outlet, and disconnect the USB cable. Charging time is about 2 hours 30 minutes for a fully exhausted battery.
- The battery cannot be charged (error) when the status lamp is quickly flashing green, possibly due to one of the reasons described below.
  - The ambient temperature is not suited to charging. Charge the battery indoors with an ambient temperature of 5°C to 35°C (41°F to 95°F).
  - The USB cable or Charging AC Adapter is not properly connected.
  - The battery is damaged.

### Notes About the USB Cable

- Do not use a USB cable other than the UC-E21. Using a USB cable other than the UC-E21 could result in overheating, fire or electric shock.
- Check the shape and direction of the plugs and do not insert or remove the plugs at an angle.

## Notes About Charging the Battery

- The camera can be operated while the battery is charging, but the charging time increases.
- Do not, under any circumstances, use another make or model of AC adapter other than
  the EH-73P Charging AC Adapter, and do not use a commercially available USB-AC
  adapter or a battery charger for a mobile phone. Failure to observe this precaution could
  result in overheating or in damage to the camera.

# **Camera Setup**

## **Setup from a Smartphone or Tablet**

- Before proceeding, install the SnapBridge app (\(\sigma\) ii) and enable Bluetooth and Wi-Fi on your smartphone or tablet (below, "smart device").
- The camera and smart device screens shown in this manual may differ from those of the actual products.



1 Press and hold down the shutter-release button or the MENU button.



Shutter-release button

- A language selection dialog will be displayed. Tap a language to select.
- The language can be changed at any time using the Camera settings → Language option in the setup menu (□19).





- 2 Tap **Set** when the dialog at right is displayed.
  - If you do not wish to use a smart device to configure the camera, tap Later (\subseteq 8).



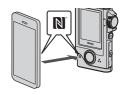
# **3** Pair (i.e., establish a Bluetooth link between) the camera and the smart device.

### · Android Devices with NFC Support

After checking that NFC is enabled on the smart device, touch the camera N (N-Mark) to the NFC antenna on the smart device to launch the SnapBridge app.

- If the SnapBridge download site is displayed, download and install the app before repeating the above steps.
- iOS Devices and Android Devices Without NFC Support

Tap **Next** on the camera screen. The camera will wait for a connection; launch the SnapBridge app on the smart device and follow the on-screen instructions to tap the name of the camera you want to pair with.







### 4 Check the authentication code.

- After confirming that the camera and smart device display the same six-digit authentication code, follow the steps below to complete pairing (note that the code may not be displayed in some versions of iOS, but you should follow the steps below even if the code is not displayed).
  - On the camera, tap OK.
  - On the smart device, tap Pairing (the name of the button varies with the smart device).



Camera

# **5** Tap **Next** when the dialog at right is displayed.

- When a constant connection between the camera and smart device is established, the dialog at right is displayed.
- If the camera displays Could not connect, tap Reconnect to return to Step 3. To cancel pairing settings, tap Cancel.



# **6** Follow the on-screen instructions to complete the setup process.

- To record location data with photographs, select Yes when prompted and enable the location data features both in the SnapBridge app and on the smart device itself (for more information, see the documentation provided with the smart device).
- You can also synchronize the camera clock to the time reported by the smart device
  by selecting Yes when prompted and enabling synchronization in the SnapBridge
  app. If you select No, set the camera clock from the menus as described in Step 2 on
  page 9.
- Setup is complete when the camera returns to the shooting display.
- See page 10 for more information on using SnapBridge.

## **Setup from the Camera Menus**

The camera clock can be set manually.

**1** Press and hold down the shutter-release button or the MENU button.



- A language selection dialog will be displayed. Tap a language to select.
- The language can be changed at any time using the Camera settings → Language option in the setup menu (□19).





- **2** Tap **Later** when the dialog at right is displayed.
  - Select Yes when prompted to set the camera clock.



- **3** Tap to choose a date format.
- 4 Enter the current month, date, and year, and then tap **Confirm**.
  - Tap the field that you want to change, and then tap + to set the month, date, and year.



- **5** Enter the current time, and then tap **Confirm**.
  - Tap the field that you want to change, and then tap +- to set the time.
- **6** When prompted, tap **Yes**.
  - The camera exits to the shooting display when setup is complete.
- Resetting the Clock

The **Camera settings** → **Date and time** option in the setup menu can be used to set the camera clock

## What SnapBridge Can Do for You

The SnapBridge app can be used for a variety of tasks once the camera has been paired with your smart device.



### **Auto Upload**

At default settings, pictures will automatically be uploaded to the smart device as they are taken.

Place the smart device close to the camera and launch the SnapBridge app.

Option	Description
Disabling auto upload	Auto upload can be disabled using Camera settings → Network menu → Send pictures while shooting → Still images in the camera setup menu (□19).
Selecting pictures for upload	You can use this option to automatically upload selected pictures that were not uploaded during shooting.  • Use the (upload reservation) option in the camera playback menu (□19) to select pictures.  • The constant connection ensures that upload will continue even when the camera is off.
Resizing pictures for upload	Use the SnapBridge app to choose the size at which pictures are copied to the smart device. The default size is 2 megapixels.
Embedding photo info	Use the SnapBridge app to choose the information imprinted on photographs copied to the smart device. You can also imprint text entered in the SnapBridge app.

# Notes About Auto Upload

Movies cannot be uploaded using the **Send pictures while shooting** or **W** (upload reservation) options. To upload movies to a smart device, use the SnapBridge app.

### **Wireless Networks**

Option	Description
Pairing	To pair the camera with a smart device (for example, with a new device or if you did not opt to pair with a smart device during setup), select Camera settings → Network menu → Connect to smart device in the camera setup menu and follow the instructions on page 6, starting with Step 2.  The camera can be paired with up to five smart devices, but can connect to only one at a time.
Uploading pictures via Wi-Fi	A Wi-Fi connection is recommended for large-volume uploads. Follow the on-screen instructions in the SnapBridge app to switch to a Wi-Fi connection.  • The Camera settings → Network menu → Wi-Fi → Network settings item in the camera setup menu contains Authentication/encryption and Password options. The default option for Authentication/encryption is WPA2-PSK-AES.

# Where the Use of Wireless Devices Is Prohibited

Where the use of wireless devices is prohibited, disable wireless features in the camera setup menu by selecting **On** for **Camera settings > Network menu > Airplane mode**. This will temporarily interrupt the constant connection with the smart device, but the connection is automatically re-established when airplane mode is turned off.

### Other Options for the SnapBridge App

Option	Description
Remote photography	Use the smart device to release the camera shutter. Before performing remote photography, turn the camera on.
Viewing the pictures on the camera	Use the smart device to view and download the pictures on the camera. This option is available even when the camera is off.

• See SnapBridge app online help for more information.

# Basic Shooting and Playback Operations

# **Turning On the Camera**

Press the shutter-release button or the **MENU** button to turn on the camera automatically.

- By default, if the camera is not operated for about five seconds, it turns off automatically (auto off).
- When using a Camera Holder, see "Using the Camera Holder" (\(\sum 17\)).
- You can also turn off the camera by switching to the photo menu or movie menu, and then tapping ① (turn off) (□19).



# **Shooting Images**

**1** Rotate the mode dial to select still image mode or movie mode.



Battery level indicator
 The battery level is high.
 The battery level is low.

Number of exposures remaining/ Remaining movie recording time (min:s)



Battery level indicator

# **2** Hold the camera steady and frame the picture.

 Keep fingers and other objects away from the lenses, LED light, microphone, and speaker.





# **3** Press the shutter-release button to take a picture.

- The camera focuses on the subject in the center of the frame.
- In movie mode, the camera starts recording. To end movie recording, press the shutter-release button again.



# Notes About Saving Images or Movies

The message **Please wait for the camera to finish recording.** is displayed while images or movies are being saved. **Do not open the memory card slot/connector cover or remove the memory card.** Doing this could result in loss of data, or in damage to the camera or the memory card.

# Touch Shooting

When **Camera settings**  $\rightarrow$  **Touch shooting** in the  $\checkmark$  setup menu ( $\bigcirc$ 19) is set to **On**, tapping the shooting screen also releases the shutter.

When **Touch shooting** is set to **Off** (default setting), tapping the shooting screen locks the brightness (exposure).



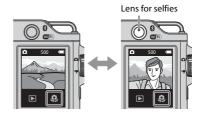
## Number of Images That Can Be Saved

- The approximate number of images that can be saved can be checked on the screen when shooting (\(\sum\_{1}2\)).
- Note that due to JPEG compression, the number of images that can be saved may vary
  greatly depending on the image content, even when using memory cards with the same
  capacity and the same aspect ratio. In addition, the number of images that can be saved
  may vary depending on the make of the memory card.

## Taking a Selfie

Tap 🔑 or 🕏 on the normal shooting screen to switch to the lens for selfies screen.

- Press the shutter-release button to take a selfie.
- To return to normal shooting, tap 🚨 or 👼 again.





### Face Detection

- The lens for selfies uses face detection to automatically adjust the brightness (exposure) according to human faces.
- The camera's ability to detect faces depends on a variety of factors, including the direction in which the faces are looking.
- The camera cannot detect faces in the following situations:
  - When faces are partially hidden by sunglasses or otherwise obstructed
  - When faces take up too much or too little of the frame

## Using the LED Light

Press and hold down the MENU button for about two seconds when the camera is on to turn on an LED light that assists shooting in dark places, etc.

To turn it off, press and hold down the **MENU** button.



# **Playing Back Images**

1 Tap **t** to enter playback mode.



- **2** Flick the images to select an image to display.
  - To play back a recorded movie, tap .
  - To return to shooting mode, press the shutter-release button





- In full-frame playback mode, tap to switch to thumbnail playback mode and display multiple images on the screen.
  - Drag the screen vertically to scroll through it.
  - In thumbnail playback mode, tap an image to display it in full-frame playback mode.



- In full-frame playback mode, tap **Q** to zoom in on an image.
  - To adjust the magnification rate, tap ዺ/ዺ.
  - To move the display area, drag the screen.



# **Deleting Images**

1 Tap into delete the image currently displayed on the screen.



- 2 Tap Yes.
  - Deleted images cannot be recovered.



# **Using the Camera Holder**

You can use the Camera Holder to secure the camera to the shoulder strap of a backpack, etc.

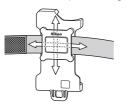


↑ A magnet is built into the Camera Holder.



### 1 Tightly attach the Camera Holder to a backpack, etc.

• Pass the attachment belt through the belt slot on the back of the Camera Holder. The belt can be passed through either vertically or horizontally.







### 2 Set the camera.

 Insert the camera fully and firmly into the Camera Holder. If you subject it to strong vibration or shock, the camera may detach from the Camera Holder.



### **3** Remove the camera and shoot.

· When you remove the camera, it automatically turns on.

### 4 When you are finished shooting, return the camera to the Camera Holder.

· When you return the camera, it automatically turns off.

# Route Shooting

Route shooting ( $\square$ 19) is performed while the camera is set in the Camera Holder. The camera automatically captures still images or records movies within a specified shooting time. Use to capture changes in the scenery.

# **Using the Tripod Adapter (Optional)**

Setting the camera into an optional Tripod Adapter allows you to use mounting accessories, such as tripod or Base Adapter.

 Insert the camera fully and firmly into the Tripod Adapter. If you subject it to strong vibration or shock, the camera may detach from the Tripod Adapter.



# **Using the Menu**

# **Menu Operations**

You can set the menus listed below by pressing the MENU (menu) button.

- Photo menu<sup>1</sup>
  - (route shooting), (scene)
- Movie menu<sup>2</sup>
  - (time-lapse movie), & (route shooting)
- Y Setup menu<sup>1, 2</sup>
  - Shooting options, Still images, Movie, Camera settings
- Playback menu<sup>3</sup>
  - On (protect), (upload reservation)
- <sup>1</sup> Press the **MENU** button when the shooting screen is displayed in still image mode.
- <sup>2</sup> Press the **MENU** button when the shooting screen is displayed in movie mode.
- <sup>3</sup> Press the MENU button when images are displayed in full-frame playback mode or when images are zoomed in.
- 1 Press the MENU (menu) button.
  - The menu home screen is displayed.



- **2** Tap the menu icon.
  - **△**/ \*\#: Display the shooting screen.
  - Display the playback screen.
  - ①: Turn off the camera.



# **3** Tap a menu item.

- If there are menu items that are not displayed, a scrollbar is displayed and you can drag the screen vertically to scroll the screen.
- Certain menu items cannot be set depending on the settings or the state of the camera.



# **4** Tap a setting.

- The setting you selected is applied.
- When you are finished using the menu, press the **MENU** button.
- When a menu is displayed, you can switch to shooting mode by pressing the shutter-release button.



# **Technical Notes**

### **Notices**

### Notices for Customers in the U.S.A.

IMPORTANT SAFETY INSTRUCTIONS - SAVE THESE INSTRUCTIONS.

# DANGER - TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, CAREFULLY FOLLOW THESE INSTRUCTIONS

For connection to a supply not in the U.S.A., use an attachment plug adapter of the proper configuration for the power outlet if needed.

The power supply unit is intended to be correctly orientated in a vertical or floor mount position.

# Federal Communications Commission (FCC) Radio Frequency Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful



interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

### CAUTIONS

### Modifications

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

### **Interface Cables**

Use the interface cables sold or provided by Nikon for your equipment. Using other interface cables may exceed the limits of Class B Part 15 of the FCC rules.

### Notice for Customers in the State of California

### WARNING

Handling the cord on this product will expose you to lead, a chemical known to the State of California to cause birth defects or other reproductive harm.

### Wash hands after handling.

Nikon Inc.,

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

### **Notice for Customers in Canada**

CAN ICES-3 B / NMB-3 B

# Notes About Wireless Communication Functions

### **Restrictions on Wireless Devices**

The wireless transceiver included in this product conforms to wireless regulations in the country of sale and is not for use in other countries (products purchased in the EU or EFTA can be used anywhere within the EU and EFTA). Nikon does not accept liability for use in other countries. Users who are unsure as to the original country of sale should consult with their local Nikon service center or Nikon-authorized service representative. This restriction applies to wireless operation only and not to any other use of the product.

### Security

Although one of the benefits of this product is that it allows others to freely connect for the wireless exchange of data anywhere within its range, the following may occur if security is not enabled:

- Data theft: Malicious third-parties may intercept wireless transmissions to steal user IDs. passwords, and other personal information.
- Unauthorized access: Unauthorized users may gain access to the network and alter data or perform other malicious actions. Note that due to the design of wireless networks, specialized attacks may allow unauthorized access even when security is enabled. Nikon is not responsible for data or information leaks that may occur during data transfer.
- Do not access networks that you are not permitted to use, even if they are displayed on your smartphone or tablet. Doing so may be regarded as unauthorized access. Only access networks that you are permitted to use.

### **Personal Information Management and Disclaimer**

- User information registered and configured on the product, including wireless LAN
  connection settings and other personal information, is susceptible to alteration
  and loss resulting from operational error, static electricity, accident, malfunction,
  repair or other handling. Always keep separate copies of important information.
  Nikon is not responsible for any direct or indirect damages or lost profits resulting
  from alteration or loss of content that is not attributable to Nikon.
- Before discarding this product or transferring it to another owner, perform Camera settings → Reset all in the setup menu (□19) to delete all user information registered and configured with the product, including wireless LAN connection settings and other personal information.
- Nikon is not responsible for any damages resulting from unauthorized use of this
  product by third parties in the event that the product is stolen or lost.

### **Precautions when Exporting or Carrying This Product Abroad**

This product is controlled by the United States Export Administration Regulations (EAR). The permission of the United States government is not required for export to countries other than the following, which as of this writing are subject to embargo or special controls: Cuba, Iran, North Korea, Sudan, and Syria (list subject to change).

### Notice for Customers in the U.S.A. and Canada

### Federal Communications Commission (FCC) and Industry of Canada (IC)

### **Declaration of Conformity**

This device complies with Part 15 of FCC Rules and Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of this device.

### **FCC/IC RF Exposure Statement**

This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

The available scientific evidence does not show that any health problems are associated with using low power wireless devices. There is no proof, however, that these low power wireless devices are absolutely safe. Low power wireless devices emit low levels of radio frequency energy (RF) in the microwave range while being used. Whereas high levels of RF can produce health effects (by heating tissue), exposure of low-level RF that does not produce heating effects causes no known adverse health effects. Many studies of low-level RF exposures have not found any biological effects. Some studies have suggested that some biological effects might occur, but such findings have not been confirmed by additional research.

KeyMission 80, which is equipped with a LBEE5ZZIGV-893 (FCC ID:2AAD3JAOM0PO/ IC ID: 4634A-6152EC) Wireless LAN Module, has been tested and found to comply with FCC/IC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines in Supplement C to OET65 and RSS-102 of the IC radio frequency (RF) Exposure rules. Please refer to the SAR test report that was uploaded to FCC website.

# **Caring for the Product**

Observe the precautions described below in addition to the warnings in the For Your Safety leaflet, "<Important> Notes About Shockproof, Waterproof, and Dustproof Performance and Condensation" (\(\subseteq\)ix), and "Notes About Wireless Communication Functions" (\(\subseteq\)23) when using or storing the device.

### The Camera

### Do Not Apply Strong Impact to the Camera

The product may malfunction if subjected to strong shock or vibration. In addition, do not touch or apply force to the lens.

### **Keep Dry**

Water seeping inside the camera could cause the components to rust, resulting in high repair costs or irreparable damage.

### **Avoid Sudden Changes in Temperature**

Sudden changes in temperature, such as when entering or leaving a heated building on a cold day, can cause condensation to form inside the device and result in malfunction. To prevent condensation, place the device in a carrying case or a plastic bag before exposing it to sudden changes in temperature.

### **Keep Away from Strong Magnetic Fields**

Do not use or store this device in the vicinity of equipment that generates strong electromagnetic radiation or magnetic fields. Doing so could result in loss of data or camera malfunction.

### Do Not Point the Lens at Strong Light Sources for Extended Periods

Avoid pointing the lens at the sun or other strong light sources for extended periods when using or storing the camera. Intense light may cause the image sensor to deteriorate or produce a white blur effect in photographs.

## Turn the Product Off Before Removing or Disconnecting the Power Source or Memory Card

Do not remove the battery while the product is on, or while images are being saved or deleted. Forcibly cutting power in these circumstances could result in loss of data or in damage to the memory card or internal circuitry.

#### **Notes About the Monitor**

- Monitors (including electronic viewfinders) are constructed with extremely high precision; at least 99.99% of pixels are effective, with no more than 0.01% being missing or defective. Hence while these displays may contain pixels that are always lit (white, red, blue, or green) or always off (black), this is not a malfunction and has no effect on images recorded with the device.
- Images in the monitor may be difficult to see under bright lighting.
- Do not apply pressure to the monitor, as this could cause damage or malfunction. Should
  the monitor break, care should be taken to avoid injury caused by broken glass and to
  prevent the liquid crystal from the display touching the skin or entering the eyes or
  mouth.

# The Built-in Rechargeable Battery

#### **Precautions for Use**

- Do not use the battery at ambient temperatures below –10°C (14°F) or above +40°C (104°F) as this could cause damage or malfunction.
- If you notice any abnormalities such as excessive heat, smoke, or an unusual smell coming from the battery, immediately discontinue use and consult your retailer or Nikonauthorized service representative.

### **Charging the Battery**

A rechargeable lithium-ion battery is built into this camera. Charge the battery with the Charging AC Adapter before using the camera because the battery is not fully charged at the time of purchase  $(\square 4)$ .

- Charge the battery indoors with an ambient temperature of 5°C to 35°C (41°F to 95°F) before use
- A high camera temperature may prevent the battery from charging properly or completely, and may reduce battery performance.
- Note that the camera may become hot after use; wait for the camera to cool before charging.
- The battery is not charged at built-in battery temperatures below 0°C (32°F) or above 60°C (140°F).
- If the built-in battery temperature is in the range of 45°C (113°F) to 60°C (140°F), the rechargeable capacity may decrease.
- Do not continue charging once the battery is fully charged as this will result in reduced battery performance.
- The camera temperature may increase during charging. However, this is not a malfunction

### **Sufficiently Charge the Battery When Cold**

On cold days, the capacity of batteries tends to decrease. Do not cool the camera at low temperatures. A camera whose battery is exhausted at low temperature may not turn on. Keep the camera in a warm place. Once warmed, a cold battery may recover some of its charge.

### Charging a Camera That Has an Exhausted Battery

Turning on or off a camera that has an exhausted battery may result in reduced built-in battery life. Charge the camera that has an exhausted battery before use.

### Storing the Battery

- Recharge the camera at least once every six months and completely exhaust it before returning it to storage.
- Store the camera in a cool place. The battery should be stored in a dry location with an
  ambient temperature of 15°C to 25°C (59°F to 77°F). Do not store the battery in hot or
  extremely cold locations.

### **Rechargeable Battery Life and Replacement**

A marked drop in the time a fully charged battery retains its charge, when used at room temperature, indicates that the battery needs to be replaced. For replacement (charges apply) with a new rechargeable battery, consult your Nikon-authorized service representative. You cannot replace the rechargeable battery.

### Recycling

See "Recycling Used Batteries" ( $\square$ 32) for more information.

# The Charging AC Adapter

- The EH-73P Charging AC Adapter is for use only with compatible devices. Do not use with another make or model of device.
- Do not use any USB cable other than the UC-E21. Using a USB cable other than the UC-E21 could result in overheating, fire or electric shock.
- Do not, under any circumstances, use another make or model of AC adapter other than
  the EH-73P Charging AC Adapter, and do not use a commercially available USB-AC
  adapter or a battery charger for a mobile phone. Failure to observe this precaution could
  result in overheating or in damage to the camera.
- The EH-73P is compatible with AC 100–240 V, 50/60 Hz electrical outlets. When using in other countries, use a plug adapter (commercially available) as necessary. For more information about plug adapters, consult your travel agency.
- The symbols on this product represent the following:
   AC, == DC, Class II equipment (The construction of the product is double-insulated.)

# **Cleaning and Storage**

# **Cleaning After Using the Camera**

Use a blower to remove any dust or lint that adheres to the lenses, monitor, or camera body. To remove fingerprints or other stains that cannot be removed with a blower, gently wipe the parts with a soft dry cloth. If you wipe with too much pressure or with a rough cloth, it may damage the camera or cause a malfunction.

# Cleaning After Using the Camera at the Beach or When It Is Very Dirty

Follow the procedure below to rinse the camera with fresh water within 60 minutes after using it at the beach or when the camera is very dirty.

Keep the memory card slot/connector cover closed and wash off the camera with fresh water.

Immerse the camera in a shallow basin filled with fresh water for 10 minutes.

- Immerse the camera in fresh water and shake it sufficiently in the water to remove any foreign substances from the camera.
- When the camera is immersed in the water, a few air bubbles may come out from the water drain holes of the camera such as openings in the microphone or speakers. This is not a malfunction.
- Wipe off water droplets with a soft cloth and dry the camera in a wellventilated and shady place.
  - Place the camera on a dry cloth to dry it.
  - Do not dry the camera with hot air from a hair dryer or clothes dryer.
- 3. After making sure that there are no water droplets on the camera, open the memory card slot/connector cover and use a soft dry cloth to gently wipe off any water or sand remaining on the waterproofing packing or inside the camera.
  - If the cover is closed when the inside is wet, this could cause condensation or a malfunction.



### Storage

If you do not intend to use the camera for an extended period, avoid storing the camera in any of the following types of locations:

- Places that are poorly ventilated or subject to humidity of over 60%
- Next to equipment that produces strong electromagnetic fields, such as televisions or radios

To prevent mold or mildew, take the camera out of storage at least once a month, and turn it on and release the shutter a few times before putting it away again.

Refer to "Storing the Battery" (M27) under "The Built-in Rechargeable Battery" in "Caring for the Product" and follow the precautions.

# **Notes About Disposing of the Camera**

When disposing of a camera with a built-in rechargeable battery, read "Disposing of Data Storage Devices" (\(\superscript{

To prevent damage to property or injury to yourself or to others, read the For Your Safety leaflet in its entirety in addition to the warnings described below before removing the built-in rechargeable battery.

Keep these safety instructions where all those who use this product will read them.



### **DANGER**

Failure to observe the precautions marked with this icon carries a high risk of death or severe injury.



# **WARNING**

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



# **DANGER for Batteries**

· Do not mishandle batteries.

Failure to observe the following precautions could result in the batteries leaking, overheating, rupturing, or catching fire:

- Do not expose batteries to flame or excessive heat.
- Do not disassemble.
- Do not short-circuit the terminals by touching them to necklaces, hairpins, or other metal objects.
- Do not expose batteries to powerful physical shocks.
- If battery liquid comes into contact with the eyes, rinse with plenty of clean water and seek immediate medical attention. Delaying action could result in eye injuries.



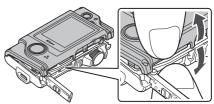
- Keep batteries out of reach of children. Should a child swallow a battery, seek immediate medical attention.
- Do not immerse this product in water or expose to rain. Failure to observe
  this precaution could result in fire or product malfunction. Immediately dry the
  product with a towel or similar object should it become wet.
- Prior to disposal, insulate battery terminals with tape. Overheating, rupture, or fire may result should metal objects come into contact with the terminals.
   Recycle or dispose of batteries in accord with local regulations.
- If battery liquid comes into contact with a person's skin or clothing, immediately rinse the affected area with plenty of clean water. Failure to observe this precaution could result in skin irritation.

### **Removing the Battery**

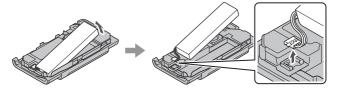
- 1. Turn off the camera.
  - If a USB cable is connected, remove it.
  - If a memory card is inserted, remove it.
- Remove four screws with a Phillips screwdriver, and then open the memory card slot/connector cover.



3. Use your fingers as shown in the illustration to remove the cover.



4. Take out the battery, and then hold the connector and pull it upward.



### **Recycling Used Batteries**

Replace the battery when it no longer holds a charge. Used batteries are a valuable resource. Please recycle used batteries in accordance with local regulations.

# **Troubleshooting**

If the camera fails to function as expected, check the list of common problems below before consulting your retailer or Nikon-authorized service representative.

Also, refer to the Reference Manual (PDF format) for further details on how to use this camera ( $\square$ iv).

Problem	Cause/Solution	TI I
The camera is on but does not respond.	Wait for recording to end.     If the problem persists, turn the camera off.     If the camera does not turn off, press the reset button     (◯1) with a sharp-pointed object.     Note that although any data currently being recorded will be lost, data that have already been recorded will not be affected by removing or disconnecting the power source.	-
The camera turns off without warning.	The camera automatically turns off to save power (auto off function). The camera and battery may not work properly at low temperatures. The inside of the camera has become hot. Leave the camera off until the inside of the camera has cooled, and then try turning it on again.	12 26 –
The monitor is blank.	The camera is connected to a computer. Time-lapse movie shooting is in progress.	-
The camera becomes hot.	The camera may become hot when used for an extended period of time such as to shoot movies, or when used in a hot environment; this is not a malfunction.	-
Images are blurred or out of focus.	If Movie VR is set to On when recording movies, change it to On (hybrid). Vibration reduction or autofocus may not work properly, due to unexpected vibration from wind or the surroundings, even when the camera is stabilized using a tripod, etc. Vibration reduction or autofocus may not work properly if the direction of the camera is significantly changed during panning shots, etc.	-
Images of moving subjects or images captured while moving are skewed or partially distorted.	This is the rolling shutter effect that may occur when a CMOS electronic shutter is used for shooting. Shooting using <b>4:3</b> (2M), 16:9 (2M), or 1:1 (2M) will reduce the effect.	-

# **Memory Cards That Can Be Used**

The camera supports micro Secure Digital (microSD), micro Secure Digital High Capacity (microSDHC), and micro Secure Digital eXtended Capacity (microSDXC) memory cards.

- Memory cards with an SD Speed Class rating of 6 or faster are recommended for recording movies. When using a memory card with a lower Speed Class rating, movie recording may stop unexpectedly.
- If you use a card reader, make sure that it is compatible with your memory card.
- Contact the manufacturer for information on features, operation, and limitations on use.

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"Made for iPod," "Made for iPhone," and "Made for iPad" mean that an electronic accessory has been designed to connect specifically to iPod, iPhone, or iPad, respectively, and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPod, iPhone, or iPad may affect wireless performance.

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