Nikon

DIGITAL CAMERA

KeyMission 80

Reference Manual

SnapBridge

Quick Topic Search

- Read this manual thoroughly before using the camera.
- To ensure proper use of the camera, be sure to read "For Your Safety" (page viii), "<Important> Notes About Shockproof, Waterproof, and Dustproof Performance and Condensation" (page xi), and "Notes About Wireless Communication Functions" (page 62).
- After reading this manual, keep it in a readily accessible place for future reference.

En

🏠 Quick Topic Search

You can return to this page by tapping or clicking 🏠 in the lower right of any page.

Main Topics

Common Topics

For Your Safety

Shockproof and Waterproof

What SnapBridge Can Do for You

Route Shooting

Easy Panorama

Time-lapse Movie

Troubleshooting

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SnapBridge

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™.

Download on the **App Store**

ANDROID APP ON **Google Play**

For the latest information on SnapBridge, visit the Nikon website for your area (📖vi).

For Smart Device Users

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

NIKON IMAGE SPACE

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

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Hawaii

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

- Receive camera's firmware updates

See from page 11 onwards for information on setting or using SnapBridge.

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Introduction

Read This First

Thank you for purchasing the Nikon KeyMission 80 digital camera.

Symbols and Conventions Used in This Manual

- Tap or click 🏠 in the lower right of each page to display "Quick Topic Search" (□ii).
- Symbols

Symbol	Description
✔	This icon marks cautions and information that should be read before using the camera.
✐	This icon marks notes and information that should be read before using the camera.
□	This icon marks other pages containing relevant information.

- microSD, microSDHC, and microSDXC memory cards are referred to as "memory cards" in this manual.
- The setting at the time of purchase is referred to as the "default setting."
- The names of menu items displayed on the camera screen, and the names of buttons or messages displayed on a computer screen appear in bold.
- In this manual, images are sometimes omitted from screen display samples so that screen indicators can be more clearly shown.

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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.

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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 → Reset all** in the setup menu (□32). After resetting, erase all data using commercial deletion software, or format the device in **Camera settings → Format card** in the setup menu (□32), 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.

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For Your Safety

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

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

⚠ DANGER

- **Do not attach directly to your head.** Failure to observe this precaution could result in accidents or other injury.

- **Do not attempt to recharge using power sources not specifically designated for this purpose.** Failure to observe this precaution could result in the batteries leaking, overheating, rupturing, or catching fire.

- **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.

⚠ WARNING

- **Do not use while walking or operating a vehicle. Do not wear this product where it will come into contact with other people or objects.** Failure to observe these precautions could result in accidents or other injury.

- **Do not disassemble or modify this product. Do not touch internal parts that become exposed as the result of a fall or other accident.** Failure to observe these precautions could result in electric shock or other injury.

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- **Should you notice any abnormalities such as the product producing smoke, heat, or unusual odors, immediately disconnect the power source.** Continued operation could result in fire, burns or other injury.

- **Do not handle the plug and the external rechargeable battery with wet hands.** Failure to observe this precaution could result in fire or electric shock.

- **Do not let your skin remain in prolonged contact with this product while it is on or plugged in.** Failure to observe this precaution could result in low-temperature burns.

- **Do not use this product in the presence of flammable dust or gas such as propane, gasoline or aerosols.** Failure to observe this precaution could result in explosion or fire.

- **Keep this product out of reach of children.** Failure to observe this precaution could result in injury or product malfunction. In addition, note that small parts constitute a choking hazard. Should a child swallow any part of this product, seek immediate medical attention.

- **Do not point and flash the LED light at drivers and vehicle operators. Do not entangle, wrap or twist the straps around your neck.** Failure to observe these precautions could result in accidents.

- **Do not use AC adapters or USB cables not specifically designated for use with this product. When using AC adapters and USB cables designated for use with this product, do not:**
  - **Damage, modify, forcibly tug or bend the cords or cables, place them under heavy objects, or expose them to heat or flame.**
  - **Use travel converters or adapters designed to convert from one voltage to another or with DC-to-AC inverters.**

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

- **Do not handle the plug when charging the product or using the AC adapter during thunderstorms.** Failure to observe this precaution could result in electric shock.

- **Do not handle with bare hands in locations exposed to extremely high or low temperatures.** Failure to observe this precaution could result in burns or frostbite.

- **Be sure the product has been properly secured. Pay attention to your surroundings.** Failure to observe these precautions could result in accidents or other injury.

- **Do not use this product if you have a pacemaker or similar medical equipment.** The product could damage medical devices or cause them to malfunction.

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⚠️ CAUTION

- **Do not leave the lens pointed at the sun or other strong light sources.** Light focused by the lens could cause fire or damage to product's internal parts. When shooting backlit subjects, keep the sun well out of the frame.

- **Turn this product off when its use is prohibited. Disable wireless features when the use of wireless equipment is prohibited.** The radio-frequency emissions produced by this product could interfere with equipment onboard aircraft or in hospitals or other medical facilities.

- **Disconnect the AC adapter if this product will not be used for an extended period.** Failure to observe this precaution could result in fire or product malfunction.

- **Do not leave the product where it will be exposed to extremely high temperatures, for an extended period such as in an enclosed automobile or in direct sunlight.** Failure to observe this precaution could result in fire or product malfunction.

- **Check that the equipment is mounted correctly and inspect it for wear and damage at regular intervals.** Failure to observe this precaution could result in accidents or other injury.

- **Do not rapidly or excessively shake your body while the product is attached.** Failure to observe this precaution could result in the product coming loose, causing accidents or other injury.

- **Do not place the product on, or attach it to, unstable surfaces.** Failure to observe this precaution could result in the product coming loose or falling over, causing accidents or other injury.

- **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.

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<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.

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⚠ 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.

Waterproofing packing

🔙 Introduction

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

Notes About Operating Temperature, Humidity, and Condensation

The operation of this camera has been tested at temperatures from –10°C to +40°C (14°F to 104°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 Nikon-authorized 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.

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- To turn on the camera, press the shutter-release button or the **MENU** (menu) button.
- To turn off the camera, switch to the photo menu or movie menu by pressing the **MENU** button, and then tap ① (turn off) (□33).
- Press and hold down the **MENU** button to turn the LED light on or off (□22).

2

The Status Lamp

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

Status	Color	Description
On	Green	• Turns on for a few seconds immediately after the camera is turned on. • The camera is connected to a computer with a USB cable. • The camera is off, but images are being uploaded via Wi-Fi, etc. (does not turn on when uploading via *Bluetooth*® low energy).
	Red	• A movie is being recorded. • The camera is being operated for remote photography from a smart device.
Flashing	Green	• The battery is charging. Turns off when charging is complete. • Flashes for a few seconds when the camera is set into the Camera Holder during route shooting. • Flashes for a few seconds every time the shutter is released during route shooting.
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.

3

Operating the Touchscreen

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

Tap	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.
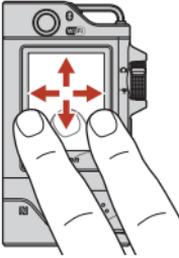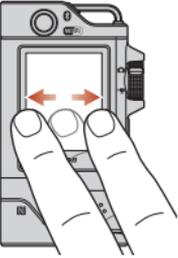
✔ Notes About the Touchscreen

- This camera's touchscreen is a capacitive type. It may not respond when you tap with your fingernails or with gloves on.
- Do not press with hard, sharp-pointed objects.
- Do not strongly press or rub the touchscreen.
- If you attach a commercially available protective film, the touchscreen may not respond.

✔ Notes About Operating the Touchscreen

- If your finger or the touchscreen is wet, the touchscreen may not operate properly.
- If your finger stays in contact with the touchscreen when tapping, the touchscreen may not operate properly.
- If you perform the following operations when dragging, the touchscreen may not operate properly.
  - Bounce your finger off the touchscreen
  - Drag your finger over a very short distance
  - Stroke the touchscreen too lightly
  - Move your finger too quickly
- If something touches other parts of the touchscreen when you are tapping, the touchscreen may not operate properly.

4

The Monitor

The information that is displayed on the screen changes depending on the camera's settings and state of use.

For Shooting
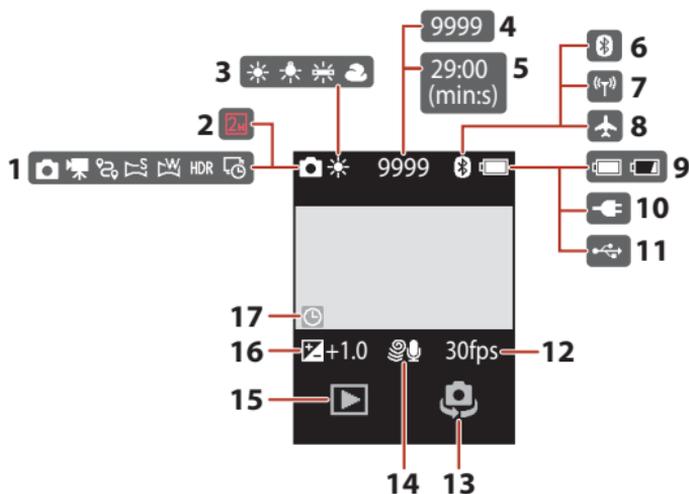
1	Shooting mode 20, 28, 34, 36, 38, 39	**9**	Battery level indicator 20
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10	Battery level indicator	20
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12	USB connection indicator	
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For Menus

Turn off
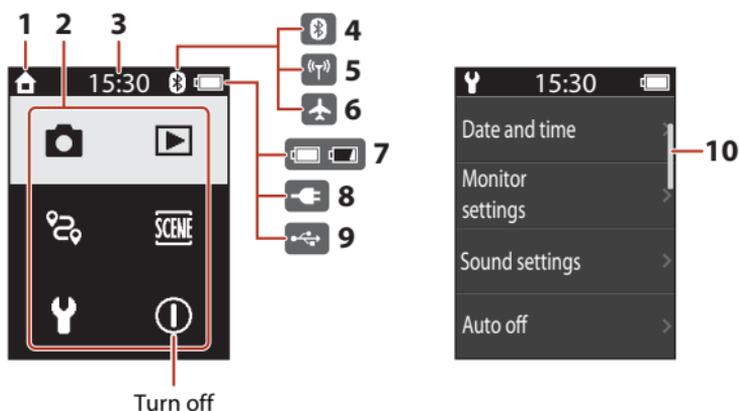
1	Home	**7**	Battery level indicator 20
2	Menu icons	**8**	Charging AC Adapter connection indicator
3	Time	**9**	USB connection indicator
4	Bluetooth communication indicator 17, 52	**10**	Scrollbar 33
5	Wi-Fi communication indicator 17, 52		
6	Airplane mode 17, 52		

7

Getting Started

Inserting the Memory Card

Memory card slot

- 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 (□32).

⚠️ 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 (□xii).

⚠️ 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.

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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

Status lamp (□3)

Charging AC Adapter

Electrical outlet

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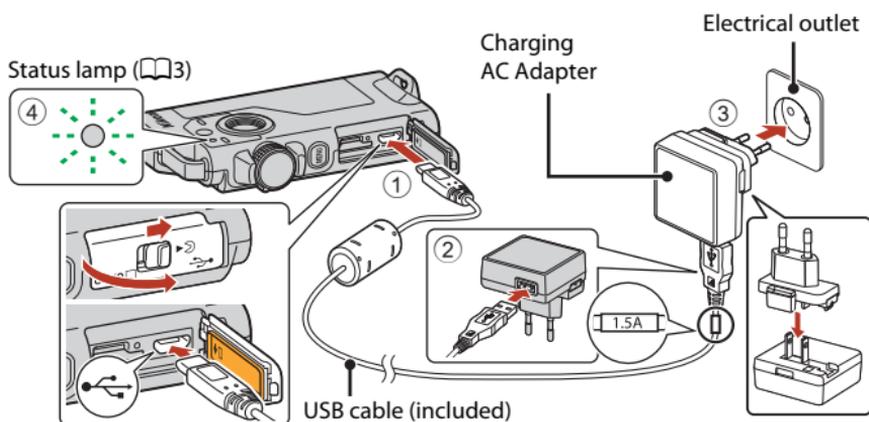
If a plug adapter* is included with your camera, securely connect it to the Charging AC Adapter. Once the two are connected, attempting to forcibly remove the plug adapter could damage the product.

* 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 (□3) slowly flashes green while the battery is charging.
- The camera cannot be charged when it is set in the included Camera Holder.
- 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.

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❚ **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/EH-73PCH 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.

⌀ **External Rechargeable Battery**

- You can also charge the camera using an external rechargeable battery specified by Nikon (□84).

- The camera cannot be operated while it is charging from the external rechargeable battery.

Camera Setup

Setup from a Smartphone or Tablet

Here, pairing refers to the setting used to connect the camera and smartphone or tablet (below, "smart device") through Bluetooth.

Before Pairing

Camera
- Insert a microSD memory car with sufficient free space into the camera.
- Check that the battery is sufficiently charged so that the camera does not turn off during the procedure.
  The camera cannot be charged when it is set in the included Camera Holder.
- To turn off the camera, press the **MENU** (menu) button and tap ① (turn off).

Smart device
- Two types of apps are available: "**SnapBridge**" and "SnapBridge 360/170". Use "**SnapBridge**" when pairing with this camera.
- **Do not pair from the Bluetooth setting screen of the smart device.**

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Pairing Procedure

1 Check that the camera is off (the screen is off).

2 Enable Bluetooth and Wi-Fi on the smart device.
- Do not pair from the Bluetooth setting screen of the smart device.
- If you are using NFC: Enable the NFC setting on the smart device.

3 Install the SnapBridge app.
- If you are using NFC: After installing the SnapBridge app, close all apps that use NFC (including the SnapBridge app). Pairing may fail if apps that use NFC are running.

4 Press the shutter-release button or the MENU (menu) button to turn on the camera.
- On the language selection dialog, select a language by tapping.

MENU button

Language
Deutsch
English
Español

Shutter-release button
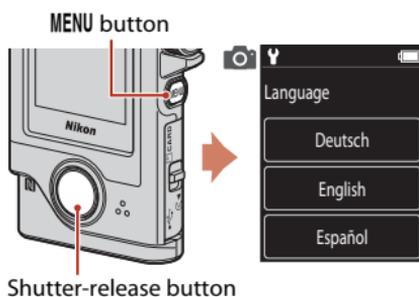
5 Scroll through the screen on the camera, and then tap **Set**.
- The camera enters pairing standby mode.
- If you do not wish to use a smart device to configure the camera, tap **Later** (□15).

and set SnapBridge
later from
the Network menu,
select Later.

Set

Later

12
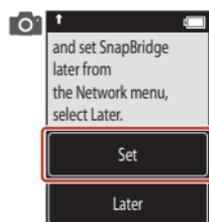
6 If you are not using NFC, scroll through the screen on the camera, and then tap **Next**.

the camera to
the smart device.
Non-NFC enabled
devices: select Next.

Next

Cancel

- If you are using NFC:
Touch the NFC antenna of the smart device to the **N** (N-Mark) on the camera. The SnapBridge app on the smart device launches, and when **Camera name acquired. Connect?** is displayed on the screen, select **OK**. Proceed to Step 9.
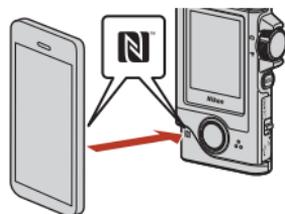
7 Scroll through the screen on the camera and when the screen shown on the right is displayed, launch the SnapBridge app on the smart device.

SnapBridge app.

App
SnapBridge
Camera
KeyMission 80_xxxxxxxx

Cancel
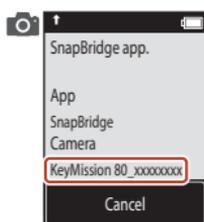
8 When the screen shown on the right is displayed on the smart device, tap the camera name.

Connect to Camera

Camera name
KeyMission 80_xxxxxxxx

- If you are using iOS:
If after you tap the camera name the accessory selection screen is displayed, tap the camera name after the **Ⓑ** Bluetooth icon in top right corner of the smart device screen changes from white to grey. It may take a while before the camera name is displayed.

Connect Connection options
Select camera...
KeyMission 80_XXXXXXX

Select An Accessory

KeyMission 80_XXXXXXXX

13

9 Check the authentication code.

- Confirm that the camera and smart device display the same authentication code.
- Perform the following operations on the camera and smart device at the same time.
  - On the camera, tap **OK**.
  - On the smart device, tap **Pairing** (the name of the button varies with the smart device and the OS version).

10 Follow the on-screen instructions to complete the pairing process.

- Camera: If pairing is successful, the screen shown on the right is displayed. Tap **Next**.
  If the camera displays **Could not connect.**, tap **Reconnect** to return to Step 6. To cancel pairing settings, tap **Cancel**.
- Smart device: Follow the on-screen instructions.

11 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 15.
- Setup is complete when the camera returns to the shooting display.
- See page 16 for more information on using SnapBridge.

14

Camera Setup

Setup from the Camera Menus

The camera clock can be set manually.

1 Press the shutter-release button or the **MENU** (menu) button to turn on the camera.

- On the language selection dialog, select a language by tapping.

MENU button

Shutter-release button

Language

Deutsch

English

Español
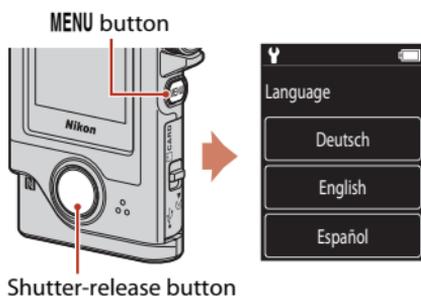
2 Scroll through the screen, and then tap **Later**.

- Select **Yes** when prompted to set the camera clock.

and set SnapBridge later from the Network menu, select Later.

Set

Later
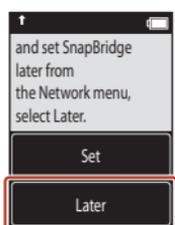
3 Tap to choose a date format.

4 Enter the current date, month, and year, and then tap **Confirm**.

- Tap the field that you want to change, and then tap ⊞⊟ to set the date, month, and year.
- Set the time by using the same procedure as setting the date.

01 / 01

2016

− +

Confirm

5 When prompted, tap **Yes**.

- The camera exits to the shooting display when setup is complete.

C Resetting the Language or the Clock

Set the camera clock in **Camera settings → Date and time**, or the language in **Camera settings → Language** in the setup menu.

15

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.

See SnapBridge app online help for more information about using the app.

http://nikonimglib.com/snbr/onlinehelp/en/index.html

You can also display it by tapping **Other ➔ Info/settings ➔ Instructions** in the SnapBridge app.

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 (🖽32).
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 (🖽32) 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 ✍ (upload reservation) options.

• To upload movies to a smart device, use the SnapBridge app and switch to a Wi-Fi connection. You cannot upload movies on a Bluetooth connection.

16

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 12, starting with Step 5. 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**. • The default password is "NikonKeyMission". The "N", "K", and "M" are capitalized. We recommend that you change the password to protect your privacy.

⚠ 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.

When You Cannot Pair

Perform the following and then pair again by proceeding to "Pairing Procedure" (□12).

- Press the **MENU** (menu) button on the camera, and then tap ① (turn off) to turn off the camera.
- Close the SnapBridge app.
- For iOS, remove the Bluetooth device (registered as the camera name) in the Bluetooth setting screen of the smart device.


18

Basic Shooting and Playback Operations

Turning the Camera On or Off

- To turn on the camera, press the shutter-release button or the **MENU** (menu) button.
- To turn off the camera, switch to the photo menu or movie menu by pressing the **MENU** button, and then tap ① (turn off) ([]33).
- The camera turns off if it is not operated for about one minute in the shooting mode or playback mode.

Turn off

- After shooting, the camera turns off after about five seconds (default setting). You can change the amount of time that elapses until the camera turns off after shooting in **Camera settings → Auto off** in the ♥ setup menu.
- You can also turn the camera on or off by removing it from the included Camera Holder or setting it into the Camera Holder ([]25).
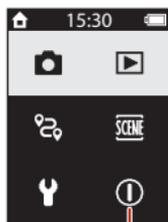
Shooting Images

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

■ Still image mode

'☰ Movie mode

- Battery level indicator
 ▰: The battery level is high.
  ▱: The battery level is low.
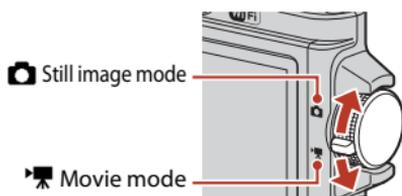
Number of exposures remaining/Remaining movie recording time (min:s)

Battery level indicator

20

2 Hold the camera steady and frame the picture.

- Keep fingers and other objects away from the lenses, LED light, microphone, and speaker.
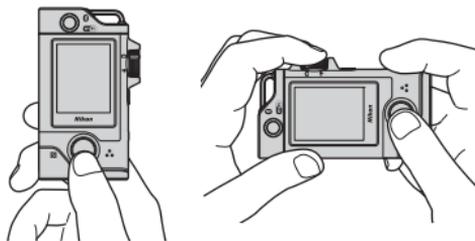
3 Press the shutter-release button to take a picture.

- 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.
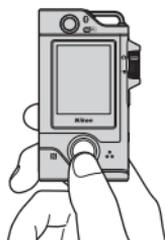
❌ **Notes About Saving Images or Movies**

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 → Touch shooting** in the ♥ setup menu (□32) 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 (□20).
- 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.

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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.
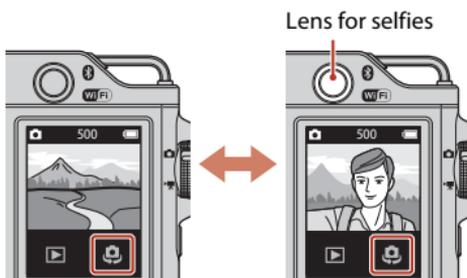
Lens for selfies

📝 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.

22
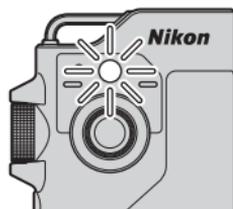
Playing Back Images

1 Tap ▶ to enter playback mode.
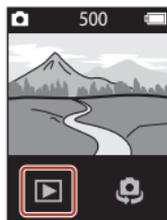
2 Flick the images to select an image to display.

- To play back a recorded movie, tap ⊙.
- To return to shooting mode, press the shutter-release button.
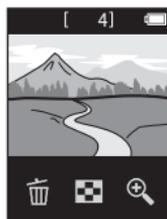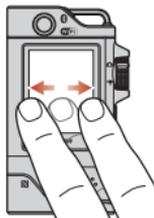
- In full-frame playback mode, tap ▥ to switch to thumbnail playback mode and display multiple images on the screen.
  - Drag the screen vertically to scroll through it.
  - In thumbnail playback mode, tap an image to display it in full-frame playback mode.

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

23
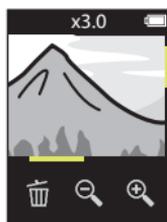
Deleting Images

1 Tap 🗑 to delete the image currently displayed on the screen.

2 Tap **Yes**.

- Deleted images cannot be recovered.

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Using the Camera Holder (Included)

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

⚠ A magnet is built into the Camera Holder.

⚠ The camera cannot be charged when it is set in the Camera Holder.
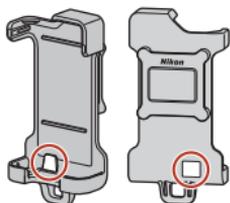
1 Tightly attach the Camera Holder to a backpack, etc.

- 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.
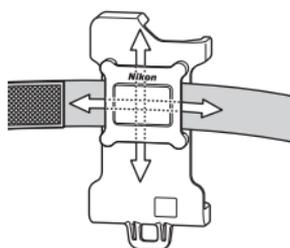
2 Set the camera.

- 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.

25
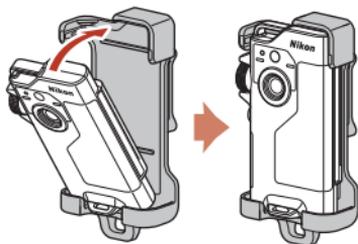
3 Remove the camera and shoot.

- 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 (□32) 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.

Tripod socket
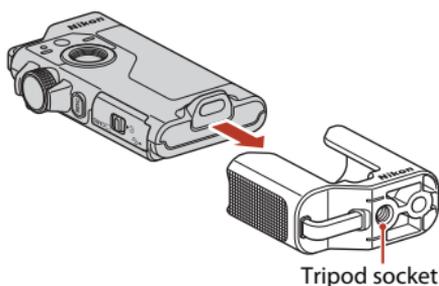
Movies

Movies

Basic Operations of Movie Recording and Movie Playback

1 Rotate the mode dial to ▶�.

- Check the remaining amount of movie recording time on the shooting screen.
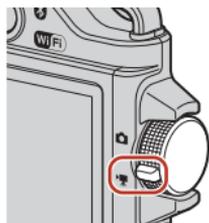
Remaining movie recording time (min:s)
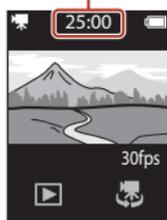
2 Press the shutter-release button to start movie recording.

- The camera focuses on the subject in the center of the frame.
- The status lamp lights in red while recording movies.
- The movie image size is 1920 × 1080 pixels.

3 Press the shutter-release button to end recording.

4 Select a movie in full-frame playback mode and tap ⊙ to play it back.

- Tap the volume indicator icon to adjust the volume.

Volume indicator

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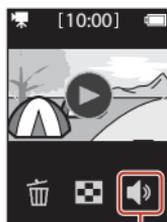
Maximum Movie Recording Time

Individual movie files cannot exceed 4 GB in size or 29 minutes in length, even when there is sufficient free space on the memory card for longer recording.

- The remaining recording time for a single movie is displayed on the shooting screen.
- Recording may end before either limit is reached if camera temperature becomes elevated.
- The actual remaining recording time may vary depending on the movie content, subject movement, or type of memory card.
- Memory cards with an SD Speed Class rating of 6 or faster are recommended when recording movies (□84). Movie recording may stop unexpectedly when a memory card with a lower Speed Class rating is used.

✔ Camera Temperature

- The camera may become hot when recording movies for an extended period of time or when the camera is used in a hot area.
- If the inside of the camera becomes extremely hot when recording movies, the camera will automatically stop recording.
  After the camera stops recording, it turns itself off.
  Leave the camera off until the inside of the camera has cooled.

Notes About Movie Recording

✔ 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.

✔ Notes About Recorded Movies

- The following phenomena may be seen on the screen while recording movies. These phenomena are saved in the recorded movies.
  - Banding may occur in images under fluorescent, mercury-vapor, or sodium-vapor lighting.
  - Subjects that move quickly from one side of the frame to the other, such as a moving train or car, may appear skewed.
  - The entire movie image may be skewed when the camera is panned.
  - Lighting or other bright areas may leave residual images when the camera is moved.
- Depending on the distance to the subject, colored stripes may appear on subjects with repeating patterns (fabrics, lattice windows, etc.) during movie recording and playback. This occurs when the pattern in the subject and the layout of the image sensor interfere with each other; it is not a malfunction.

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Operations During Movie Playback

The operations listed below can be performed during movie playback.
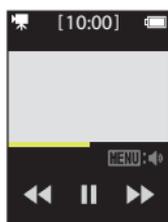
For playback
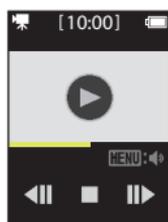
When paused

Function	Description		
Volume	Press the **MENU** button during playback or when the movie is paused, and then select the volume.		
Rewind	Tap and hold down ◀◀ to rewind.		
Fast-forward	Tap and hold down ▶▶ to fast-forward.		
Pause	Tap an image during playback to pause. The operations listed below can be performed while paused.		
	Resume playback	Tap ▶ to resume playback.
	Frame rewind	Tap ◀❙❙ to rewind the movie one frame. Tap and hold down for continuous rewinding.
	Frame advance	Tap ❙❙▶ to advance the movie one frame. Tap and hold down for continuous advancing.
	End	Tap ■ to return to full-frame playback mode.

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Using the Menu

Menu Operations

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

- **Photo menu**[1]
  ℃ (route shooting), 🎬 (scene)
- **Movie menu**[2]
  🎥 (time-lapse movie), ℃ (route shooting)
- **Y Setup menu**[1, 2]
  - **Shooting options**:
    White balance, **Color options**, **Exposure comp.**
  - **Still images**:
    Aspect ratio
  - **Movie**:
    NTSC/PAL, **Movie VR**, **Wind noise reduction**
  - **Camera settings**:
    Date and time, **Monitor settings**, **Sound settings**, **Auto off**,
    Format card, **Touch shooting**, **Charge by computer**, **Language**,
    Location data, **Reset all**, **Conformity marking**, **Firmware version**,
    Network menu
- **Playback menu**[3]
  🔒 (protect), ⬆ (upload reservation)

[1] Press the **MENU** button when the shooting screen is displayed in still image mode.
[2] Press the **MENU** button when the shooting screen is displayed in movie mode.
[3] 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.
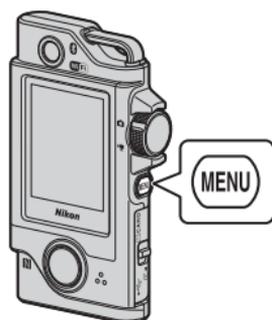
2 Tap the menu icon.

- **⚪/🎥**: Display the shooting screen.
- **▶**: Display the playback screen.
- **①**: Turn off the camera.
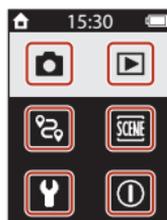
3 Tap a menu item.

- You can drag the screen vertically to display menu items that are not displayed.
- Certain menu items cannot be set depending on the settings or the state of the camera.

♥ 15:30	♥ 15:30
< Back	Auto off
Date and time	Format card
Monitor settings	Touch shooting
Sound settings	Charge by computer
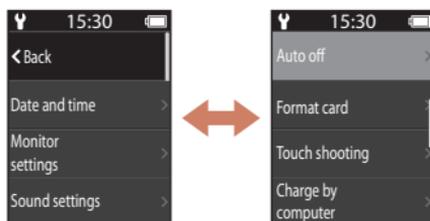
4 Tap a setting.

- The setting you selected is applied.
- To close the menu, press the MENU button or shutter-release button.

♥ 15:30
2 s
5 s
30 s
1 min

33

🔒 Using the Menu

Menu Operations
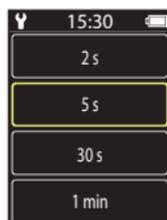
The Photo Menu

<img> Route Shooting

Rotate the mode dial to <img> ➔ Press the MENU button ➔ Tap <img>

The camera automatically captures still images or records movies within a specified shooting time. Use to capture changes in the scenery.

### 1 Tap to select **Still images** or **Movie**.

- **Still images**: Automatically captures 100 still images within a specified shooting time.
  - Vibration reduction is disabled.
  - Autofocus is disabled. The camera shoots at a fixed focus.
  - The image size is 2 megapixels (1920 × 1440 pixels in **4:3**, 1920 × 1080 pixels in **16:9**, or 1440 × 1440 pixels in **1:1**).
- **Movie**: Automatically records 10 three-second movies within a specified shooting time, and then creates a movie that is approximately 30 seconds long.

15:30

< Back
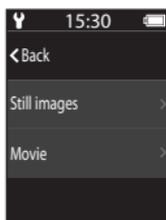
Still images

Movie

2 Set the total shooting time, and then tap **Confirm**.

- Tap the field that you want to change, and then tap + - to set the time.
- When set to 1 hour (3600 seconds)
  - **Still images**: Captures a still image approximately every 36 seconds.
  - **Movie**: Records a movie approximately every six minutes.

15:30

Shooting time

1 : 00

— +

Confirm
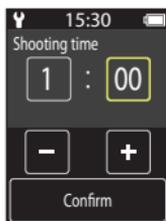
3 Set the camera into the Camera Holder (☐25).

- When the camera is set, the status lamp flashes green for a few seconds, and shooting begins.
- The status lamp flashes green for a few seconds every time the shutter is released during route shooting.
- When the specified shooting time elapses, shooting automatically ends, and the camera turns off.
- Remove the camera from the Camera Holder and select <img> in the menu screen to end shooting before the shooting time elapses and create a movie.

Operation During Route Shooting

- You can pause route shooting and return to normal shooting by removing the camera from the Camera Holder.
- The image size of still images is 2 megapixels (1920 × 1440 pixels in **4:3**, 1920 × 1080 pixels in **16:9**, or 1440 × 1440 pixels in **1:1**).
- You can check the time until route shooting automatically ends on the screen.
- To resume route shooting, return the camera to the Camera Holder.

❚ Notes About Route Shooting

- The lens for selfies cannot be used for route shooting.
- To prevent the camera from turning off unexpectedly during shooting, make sure that the battery is sufficiently charged.

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🎬 Scene

Easy Panorama

Rotate the mode dial to 🔴 ➔ Press the MENU button ➔ Tap 🎬 ➔ Easy panorama

You can capture panorama images just by selecting the desired shooting range and then moving the camera.

1 Select and tap **Normal** or **Wide** as the shooting range.
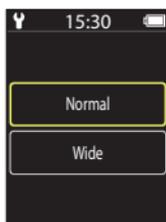
2 Frame the first edge of the panorama scene, press the shutter-release button, and then release the shutter-release button.

- ↑↓←→ are displayed to indicate the direction of camera movement.
- The camera focuses in the center of the frame.

3 Move the camera in one of the four directions until the guide indicator reaches the end.

- When the camera detects which direction it is moving in, shooting begins.
- Shooting ends when the camera captures the specified shooting range.
- Focus and exposure are locked until shooting ends.

Guide

🔙 Using the Menu

The Photo Menu

Example of Camera Movement

- Using your body as the axis of rotation, move the camera slowly in an arc, in the direction of the marking ($\uparrow\downarrow\leftrightarrow$).
- Shooting stops if the guide does not reach the edge within about 15 seconds (when **Normal** is selected) or within about 30 seconds (when **Wide** is selected) after shooting starts.

❎ Notes About Easy Panorama

- The lens for selfies cannot be used for shooting with easy panorama.
- The range of the image seen in the saved image is narrower than that seen on the screen at the time of shooting.
- If the camera is moved too quickly or shaken too much, or if the subject is too uniform (e.g. walls or darkness), an error may occur.
- If shooting is stopped before the camera reaches the half-way point in the panorama range, a panorama image is not saved.
- This camera may not be able to zoom in on easy panorama images captured with another make or model of digital camera.

🖉 Image Size of Easy Panorama

- There are four different image sizes (in pixels), as described below.

When Normal is set

5408

1088

1600

When Wide is set

10816

1088

1600
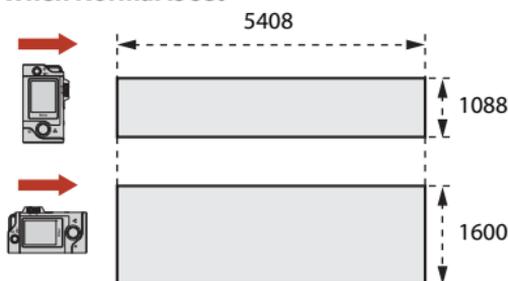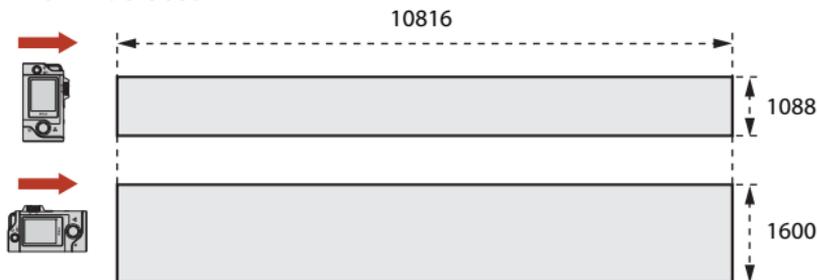
- If more than half of the panorama range is captured but shooting ends before reaching the edge of the range, the image size becomes smaller.

HDR

Rotate the mode dial to ☐ ➔ Press the MENU button ➔ Tap ☒ ➔ HDR

Use when taking pictures with very bright and dark areas in the same frame.
- The camera focuses on the subject in the center of the frame.
- When the shutter-release button is pressed, the camera shoots images continuously and saves the following two images.
  - A non-HDR (high dynamic range) composite image
  - An HDR composite image in which the loss of details in highlights or shadows is minimized
- If there is only enough memory to save one image, an image processed at the time of shooting, in which dark areas of the image are corrected, is the only image saved.
- Once the shutter-release button is pressed, hold the camera still until a still image is displayed. After taking a picture, do not turn the camera off before the screen switches to the shooting screen.
- The angle of view (i.e., the area visible in the frame) seen in the saved image is narrower than that seen on the shooting screen.
- Under some shooting conditions, dark shadows may appear around bright subjects or bright areas may appear around dark subjects.

✔ Notes About HDR
The lens for selfies cannot be used for shooting with HDR.

The Movie Menu

🕑 Time-lapse Movie

Rotate the mode dial to 🎬 ➔ Press the MENU button ➔ Tap 🕑

The camera can automatically capture still images at a specified interval to create time-lapse movies that are approximately 10 seconds long.
- When **Movie ➔ NTSC/PAL** in the setup menu is set to **NTSC**, 300 images are captured. When set to **PAL**, 250 images are captured.

Type	Interval time	Time required for shooting	
		NTSC	PAL
2 s[1] (default setting)	2 s	10 min	8 min 20 s
5 s[1]	5 s	25 min	20 min 50 s
10 s[1]	10 s	50 min	41 min 40 s
30 s[1]	30 s	2 h 30 min	2 h 5 min
Night sky[2]	30 s	2 h 30 min	2 h 5 min

[1] The camera focuses on the subject in the center of the frame.
[2] Suited for recording the movement of stars.

1 Tap to select a type.

> 15:30
> 2 s
> 5 s
> 10 s
> 30 s
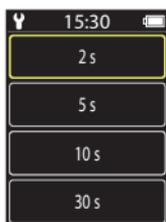
2 Tap to select whether or not to fix exposure (brightness) (except **Night sky**).
- When **AE-L on** is selected, the automatic exposure function is locked for the first image and is used for all images. When you want to record a movie in which the brightness changes drastically like at dusk, **AE-L off** is recommended.

> 15:30
> AE-L on
> AE-L off

3 Stabilize the camera by using a tool such as a tripod.

4 Press the shutter-release button to capture the first image.

- Set exposure compensation (□42) before releasing the shutter for the first image. Exposure compensation cannot be changed after the first image is captured. Focus and hue are fixed when the first image is captured.
- The shutter is automatically released for the second and subsequent images.
- The screen may turn off while the camera is not capturing images.
- Shooting ends automatically when 300 or 250 images are captured.
- Press the shutter-release button and select **Yes** on the displayed screen to end shooting before the required shooting time elapses and create a time-lapse movie.
- Sound and still images cannot be saved.
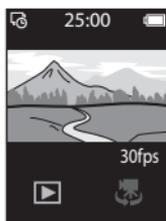
❎ Notes About Time-lapse Movie

- The lens for selfies cannot be used to record time-lapse movies.
- Do not exchange the memory card until shooting is complete.
- To prevent the camera from turning off unexpectedly during shooting, make sure that the battery is sufficiently charged.
- Do not rotate the mode dial to a different setting until shooting is complete.

⚑ Route Shooting

Rotate the mode dial to ▶️☰ ➜ Press the MENU button ➜ Tap ⚑

See "⚑ Route Shooting" (□34) for more information.

The Setup Menu

White Balance (Adjusting Hue)

Enter shooting mode ➔ Press the MENU button ➔ Tap ✈ ➔ Shooting options ➔ White balance

Adjust white balance to suit the light source or weather conditions in order to make the colors in images match what you see with your eyes.

• Use ⟨⟩ to select a setting, and tap the confirm icon to apply the setting.

Confirm icon

Option	Description
▧A (default setting)	White balance is automatically adjusted.
☀	Use under direct sunlight.
⚡	Use under incandescent lighting.
⚟	Use under cool-white fluorescent lighting.
☁	Use under overcast skies.

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Color Options

Enter shooting mode ➜ Press the MENU button ➜ Tap Y ➜ Shooting options ➜ Color options

Change the color tone of images that will be saved.

Option	Description
Standard (default setting)	Use for images exhibiting natural color.
Vivid	Use to achieve a vivid, "photoprint" effect.
Monochrome	Save images in black-and-white.

Exposure Comp. (Adjusting Brightness)

Enter shooting mode ➜ Press the MENU button ➜ Tap Y ➜ Shooting options ➜ Exposure comp.

You can adjust overall image brightness.
- Use ⊕⊖ to select a compensation value and tap OK to apply the setting.
- To brighten or darken the image, set a positive (+) or negative (-) value respectively.
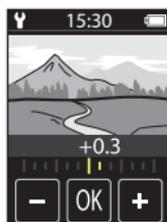
Aspect Ratio

Rotate the mode dial to $\bigcirc$ ➔ Press the MENU button ➔ Tap $\mathbf{Y}$ ➔ Still images ➔ Aspect ratio

Set the aspect ratio of still images to be saved (except **Easy panorama**).
The larger the image size, the less the number of images that can be saved.

Aspect ratio (horizontal to vertical)	Image size	Compression ratio
4:3 (12M) (default setting)	3968 × 2976	Approx. 1/8
16:9 (9M)	3968 × 2232	Approx. 1/8
1:1 (9M)	2976 × 2976	Approx. 1/8

❗ Notes About Aspect Ratio
- The image size of **Still images** in route shooting is fixed at 2 megapixels (1920 × 1440 pixels in **4:3**, 1920 × 1080 pixels in **16:9**, or 1440 × 1440 pixels in **1:1**), and the compression ratio is fixed at approx. 1/8.
- The aspect ratio of the lens for selfies (camera 2) is fixed at 4:3, the image size is fixed at 2528 × 1896 pixels, and the compression ratio is fixed at approx. 1/8.

NTSC/PAL

Rotate the mode dial to $\overset{\blacktriangledown}{\blacksquare}$ ➔ Press the MENU button ➔ Tap $\mathbf{Y}$ ➔ Movie ➔ NTSC/PAL

Select the frame rate used when recording movies.

Option	Description
NTSC	Movies are recorded at a frame rate of 30 fps. Suited for playback on a TV using the NTSC standard.
PAL	Movies are recorded at a frame rate of 25 fps. Suited for playback on a TV using the PAL standard.

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Movie VR

Rotate the mode dial to ▶▶ ➜ Press the MENU button ➜ Tap ✿ ➜ Movie ➜ Movie VR

Select the vibration reduction setting used when recording movies.

Option	Description
On (hybrid) (default setting)	Performs optical compensation for camera shake using lens shift VR and simultaneously performs electronic VR using image processing. The angle of view (i.e., the area seen in the frame) becomes narrower.
On	Performs compensation for camera shake using lens shift VR.

❚ Notes About Movie VR

Vibration reduction may be unable to completely eliminate the effects of camera shake in some situations.

Wind Noise Reduction

Rotate the mode dial to ▶▶ ➜ Press the MENU button ➜ Tap ✿ ➜ Movie ➜ Wind noise reduction

Option	Description
On	Reduces the sound that is produced when wind passes over the microphone during movie recording. Other sounds may become difficult to hear during playback.
Off (default setting)	Wind noise reduction is disabled.

Date and Time

Enter shooting mode ➔ Press the MENU button ➔ Tap ✿ ➔ Camera settings ➔ Date and time

Set the camera clock.

Option	Description
Sync with smart device	Set whether or not to synchronize the date and time setting with a smart device.
Date and time	Set the date and time if **Sync with smart device** is set to **Off**. • Select a field: Tap the field that you want to change. • Edit the date: Tap ⊞⊟. • Apply the setting: Tap **Confirm**. • When the date is set, the screen for setting the time is displayed. Set by using the same procedure as setting the date.
Date format	Select **Y/M/D**, **M/D/Y**, or **D/M/Y**.

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Monitor Settings

Enter shooting mode ➔ Press the MENU button ➔ Tap ♀ ➔ Camera settings ➔ Monitor settings

Option	Description
Image review	Set whether or not to display the captured image immediately after shooting. • Default setting: **On**
Brightness	Adjust the brightness. • Default setting: **3**
Photo info	Set whether or not to display information on the screen • Default setting: **Show info** **Hide info** **Show info**
Menu background	Set the background color of the menu screen. • Default setting: **Black**
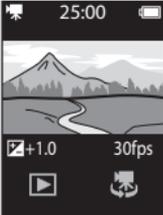
Sound Settings

Enter shooting mode ➔ Press the MENU button ➔ Tap ♀ ➔ Camera settings ➔ Sound settings

Set the volume of the sounds produced during operation, when the shutter is released, etc.
You can select **High**, **Normal** (default setting), **Low**, or **Off**.

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Auto Off

Enter shooting mode ➔ Press the MENU button ➔ Tap ❖ ➔ Camera settings ➔ Auto off

You can set the amount of time that elapses until the camera turns off after shooting.
- You can select **2 s**, **5 s** (default setting), **30 s**, **1 min**, or **5 min**.

🖉 Automatic Power Off

The camera turns off if it is not operated (the amount of time cannot be changed).
- In the shooting screen (from turning on the camera until shooting)/playback screen: 1 minute
- When a menu is displayed: 3 minutes
- When waiting to connect using **Connect to smart device**: 30 minutes

Format Card

Enter shooting mode ➔ Press the MENU button ➔ Tap ❖ ➔ Camera settings ➔ Format card

Use this option to format a memory card.
Formatting the memory cards permanently deletes all data. Data that has been deleted cannot be recovered. Make sure to save important images to a computer before formatting.

To start formatting, tap **Format** on the screen that is displayed.
- Do not turn the camera off or open the memory card slot/connector cover during formatting.
- This setting cannot be selected while a wireless connection is established.

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Touch Shooting

Enter shooting mode ➔ Press the MENU button ➔ Tap Y ➔ Camera settings ➔ Touch shooting

Option	Description
On	Tapping the shooting screen releases the shutter. The shutter-release button can also be used to release the shutter.
Off (default setting)	Touch shooting is disabled. Tapping the shooting screen locks the brightness (exposure).

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Charge by Computer

Enter shooting mode ➔ Press the MENU button ➔ Tap ⚙ ➔ Camera settings ➔ Charge by computer

Option	Description
Auto (default setting)	When the camera is connected to a computer that is running (□56), the battery inserted into the camera is automatically charged using power supplied by the computer. • The status lamp (□3) slowly flashes green while the battery is charging. When charging is finished, the status lamp turns off.
Off	The battery inserted into the camera is not charged when the camera is connected to a computer.

❎ Notes About Charging with a Computer

- When connected to a computer, the camera turns on and starts charging.
- About three hours are required to charge a fully exhausted battery. Charging time increases when images are transferred while the battery is charging.
- The camera turns off automatically if there is no communication with the computer for 30 minutes after the battery has finished charging.

❎ When the Status Lamp Quickly Flashes Green

The battery cannot be charged (error), 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 is not connected correctly.
- The battery is damaged.
- The computer is in sleep mode and is not supplying power. Wake up the computer.
- The battery cannot be charged because the computer cannot supply power to the camera due to the computer's settings or its specifications.

Language

Enter shooting mode ➔ Press the MENU button ➔ Tap ⚙ ➔ Camera settings ➔ Language

Select a language for display of camera menus and messages.

Location Data

Enter shooting mode ➔ Press the MENU button ➔ Tap ❌ ➔ Camera settings ➔ Location data

Set whether or not to add shooting location information to the images that you take.

Option	Description
Download from smart device	Select **On** to add location information from a smart device to the images that you take. Enable the location information function of the SnapBridge app.
Position	Display the obtained location information. • The information is not updated while it is being displayed. To update it, perform **Position** again.

Reset All

Enter shooting mode ➔ Press the MENU button ➔ Tap ❌ ➔ Camera settings ➔ Reset all

When **Yes** is selected, the camera's settings are restored to their default values.
- The **Network menu** settings are also restored to their default values.
- Some settings, such as **Date and time** or **Language**, are not reset.
- This setting cannot be selected while a wireless connection is established.

C Resetting File Numbering
To reset file numbering to "0001", delete all images saved on the memory card before selecting **Reset all**.

Conformity Marking

Enter shooting mode ➔ Press the MENU button ➔ Tap 🍴 ➔ Camera settings ➔ Conformity Marking

View some of the conformity markings that the camera complies with.

Firmware Version

Enter shooting mode ➔ Press the MENU button ➔ Tap 🍴 ➔ Camera settings ➔ Firmware version

View the current camera firmware version.

• This setting cannot be selected while a wireless connection is established.

Network Menu

Enter shooting mode ➔ Press the MENU button ➔ Tap ✿ ➔ Camera settings ➔ Network menu

Configure the wireless network settings to connect the camera and a smart device.

Option		Description
Airplane mode		Select **On** to turn off all wireless connections.
Connect to smart device		Select when pairing a smart device with the camera. This setting cannot be selected while a wireless connection is established. See step 5 in "Setup from a Smartphone or Tablet" (□12) for more information.
Send pictures while shooting		Set whether to automatically send images to a smart device.
Wi-Fi	Network settings	**SSID***: Change the SSID. Set a 1- to 32-character alphanumeric SSID.
		Authentication/encryption: Select whether or not to encrypt the communications between the camera and the connected smart device. Communications are not encrypted when **Open** is selected.
		Password*: Set the password. Set an 8- to 36-character alphanumeric password.
		Channel: Select the channel used for wireless connections.
	Current settings	Display the current settings.
Bluetooth	Connection	Select **Disable** to turn off Bluetooth communication.
	Paired devices	Change the smart device to connect with, or delete the pairing with the smart device.
	Send while off	Set whether or not to allow the camera to communicate with the smart device when the camera is off.
Restore default settings		Restore all **Network menu** settings to their default values. This setting cannot be selected while a wireless connection is established.

* See "Operating the Text Input Keyboard" (□53) for information on how to enter alphanumeric characters.

Operating the Text Input Keyboard

- Tap ➕➖ to select characters to enter.
- To move the cursor, tap ◁▷.
- To delete one character, tap 🗑.
- To apply the setting, tap ↵.

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The Playback Menu

d Protect

Enter the playback screen ➔ Select an image ➔ Press the MENU button ➔ Tap d

The camera protects selected images from accidental deletion.
To disable protection, display a protected image, press the MENU button, tap d, and select **Yes** on the displayed screen.
Note that formatting the memory card permanently deletes all data including protected files (A47).

X Upload Reservation

Enter the playback screen ➔ Select an image ➔ Press the MENU button ➔ Tap X

Select images in the camera that you want to transfer to a smart device in advance before transferring them.
Select **Yes** on the screen that is displayed to add the image to the upload reservation list.
- Movies cannot be selected. To upload movies to a smart device, use the SnapBridge app.
- Note that when you select **Camera settings ➔ Reset all** (A50) or **Camera settings ➔ Network menu ➔ Restore default settings** (A52) in the setup menu, the upload reservations that you made are canceled.

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Transferring Images to a Computer (ViewNX-i)

Transferring Images to a Computer (ViewNX-i)

Installing ViewNX-i

ViewNX-i is free software that enables you to transfer images and movies to your computer for viewing and editing.

To install ViewNX-i, download the latest version of the ViewNX-i installer from the following website and follow the on-screen instructions to complete installation.

ViewNX-i: http://downloadcenter.nikonimglib.com

For system requirements and other information, see the Nikon website for your region.

Transferring Images to a Computer

1 Prepare a memory card that contains images.

You can use any of the methods below to transfer images from the memory card to a computer.

- **SD memory card slot/card reader**: Insert the memory card into the card slot of your computer or the card reader (commercially available) that is connected to the computer.
- **Direct USB connection**: Turn the camera off and ensure that the memory card is inserted in the camera. Connect the camera to the computer using the USB cable. The camera automatically turns on.
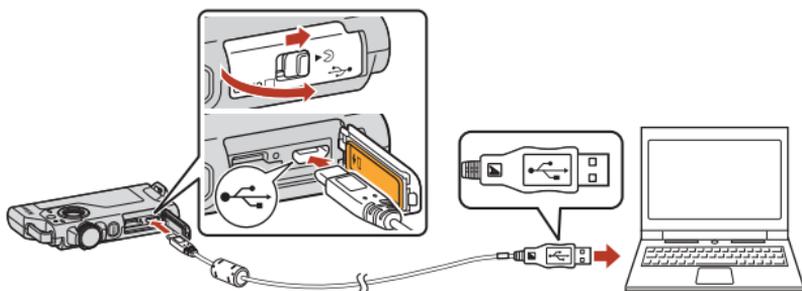
❚ Notes About Connecting the Camera to a Computer

- Make sure to turn the camera off before connecting or disconnecting cables. Check the shape and direction of the plugs and do not insert or remove the plugs at an angle.
- Make sure that the camera battery is sufficiently charged.
- For information about the connection methods and subsequent operations, refer to the documentation included with the computer in addition to this document.
- Disconnect all other USB-powered devices from the computer. Connecting the camera and other USB-powered devices to the same computer simultaneously may cause a camera malfunction or excessive power supply from the computer, which could damage the camera or memory card.

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

- **When using Windows 7**
  If the dialog shown on the right is
  displayed, follow the steps below to
  select Nikon Transfer 2.

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

  2 Double-click the Nikon Transfer 2 icon.
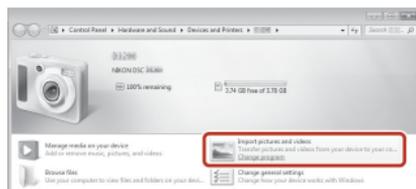
- **When using Windows 10 or Windows 8.1**
  If the dialog shown on the right is displayed, click
  the dialog and then click **Import File/Nikon
  Transfer 2**.
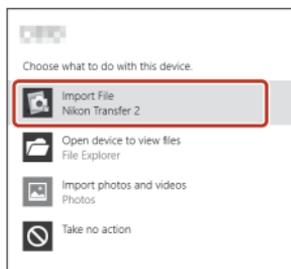
- **When using Mac OS X**
  If Nikon Transfer 2 does not automatically start, launch the **Image Capture**
  application that comes bundled with Mac while the camera and your computer are
  connected, and select Nikon Transfer 2 as the default application to open when the
  camera is connected to your computer.

If the memory card contains a large number of images, it may take a while for Nikon
Transfer 2 to start. Wait until Nikon Transfer 2 starts.

❎ **Notes About Connecting the USB Cable**

Operation is not guaranteed if the camera is connected to the computer via a USB hub.

✐ **Using ViewNX-i**

Consult online help for more information.

2 After Nikon Transfer 2 starts, click **Start Transfer**.
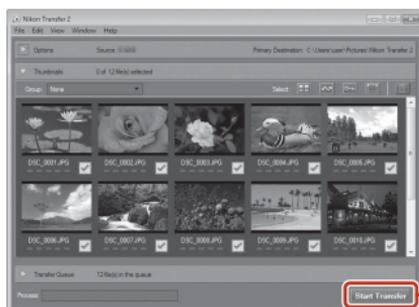
Start Transfer

- Image transfer begins. When image transfer is complete, ViewNX-i starts and the transferred images are displayed.

3 Terminate the connection.

- If you are using a card reader or card slot, choose the appropriate option in the computer operating system to eject the removable disk corresponding to the memory card and then remove the memory card from the card reader or card slot.
- If the camera is connected to the computer, turn the camera off and disconnect the USB cable.

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

FC   **Nikon**
KeyMission 80

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.

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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

Notices for Customers in Europe

CAUTIONS

RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE.

DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

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

The following apply only to users in European countries:

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

This symbol on the battery indicates that the battery is to be collected separately.

The following apply only to users in European countries:

- All batteries, whether marked with this symbol or not, are designated for separate collection at an appropriate collection point. Do not dispose of as household waste.
- For more information, contact the retailer or the local authorities in charge of waste management.

Technical Notes

Notices

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 ($\square$32) 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.

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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 LBEE5ZZ1GV-893 (FCC ID:2AAD3JA0M0P0/ 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.

Notice for Customers in Europe

Declaration of Conformity (Europe)

Hereby, Nikon Corporation, declares that KeyMission 80 is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. The declaration of conformity may be consulted at http://imaging.nikon.com/support/pdf/DoC_KeyMission_80.pdf.

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Caring for the Product

Observe the precautions described below in addition to the warnings in "For Your Safety" (□viii-x), "<Important> Notes About Shockproof, Waterproof, and Dustproof Performance and Condensation" (□xi), and "Notes About Wireless Communication Functions" (□62) 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.

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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℃ (14°F) or above +40℃ (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 Nikon-authorized 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$10).

- Charge the battery indoors with an ambient temperature of 5℃ to 35℃ (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℃ (32°F) or above 60℃ (140°F).
- If the built-in battery temperature is in the range of 45℃ (113°F) to 60℃ (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.

<div align="center">

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</div>

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. 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" (□71) for more information.

Technical Notes

Caring for the Product

The Charging AC Adapter

- The EH-73P/EH-73PCH 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/EH-73PCH 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/EH-73PCH 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.

Memory Cards

Precautions for Use

- Use only microSD/microSDHC/microSDXC memory cards (□84).
- Be sure to follow the precautions described in the documentation included with the memory card.
- Do not put labels or stickers on memory cards.

Formatting

- Do not format the memory card using a computer.
- The first time you insert a memory card that has been used in another device into this camera, be sure to format it with this camera. We recommend formatting new memory cards with this camera before using them 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.
- If the message **Card is not formatted. Format card?** is displayed when the camera is turned on, the memory card must be formatted. If there is data that you do not want to delete, tap **No**. Copy the necessary data to a computer, etc. If you want to format the memory card, tap **Yes**. The confirmation dialog will be displayed. Follow the on-screen instructions to complete the operation.
- Do not perform the following during formatting, while data is being written to or deleted from the memory card, or during data transfer to a computer. Failure to observe this precaution could result in the loss of data or in damage to the camera or memory card:
  - Open the memory card slot/connector cover to remove/insert the memory card.
  - Turn off the camera.
  - Disconnect the AC adapter.

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.

1. 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.
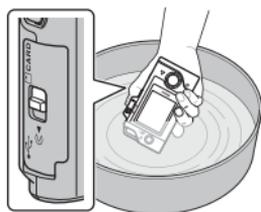
2. Wipe off water droplets with a soft cloth and dry the camera in a well-ventilated and shady place.
   - Place the camera on a dry cloth to dry it.
   - Do not dry the camera with hot air from a hair dryer or clothes dryer.

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%
- Exposed to temperatures above 45℃ (113℉) or below –10℃ (14℉)
- 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" (□66) 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" (□vii), delete the data in data storage devices, and then follow the procedures in "Removing the Battery (When Disposing of the Camera)" (□71) to remove the rechargeable battery.

⚠ 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.

⚠ WARNING for Batteries

- **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 (When Disposing of the Camera)

1. Turn off the camera.
- If a USB cable is connected, remove it.
- If a memory card is inserted, remove it.

2. Remove four screws with a Phillips screwdriver, and then open the memory card slot/connector cover.
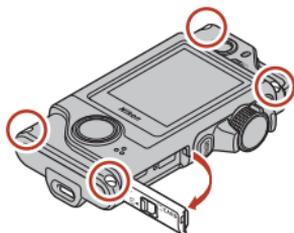
3. Use your fingers as shown in the illustration to remove the cover.
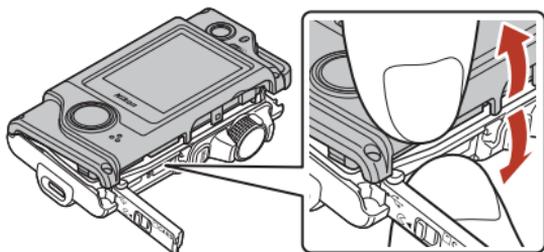
4. Take out the battery, and then hold the connector and pull it upward.
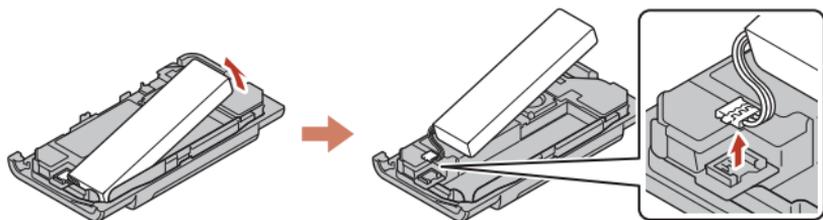
Recycling Used Batteries

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.

Error Messages

Refer to the table below if an error message is displayed.

Display	Cause/Solution	□
Battery temperature is elevated. The camera will turn off.	The camera turns off automatically. Wait until the camera or battery temperature has cooled before resuming use.	–
The camera will turn off to prevent overheating.		
This card cannot be used.	An error occurred while accessing the memory card. • Use an approved memory card. • Check that the terminals are clean. • Confirm that the memory card is correctly inserted.	9, 84
This card cannot be read.		
Card is not formatted. Format card?	The memory card has not been formatted for use in the camera. Formatting deletes all data saved on the memory card. If you need to keep copies of any images, tap **No** and then save the copies to a computer or other medium. Tap **Yes** and follow the on-screen instructions to format the memory card.	9, 67
Out of memory.	Delete images or insert a new memory card.	9, 24
Image cannot be saved.	An error occurred while saving the image. Insert a new memory card or format the memory card.	9, 47
	The camera has run out of file numbers. Insert a new memory card or format the memory card.	9, 47
Cannot record movie.	A time-out error occurred while saving the movie on the memory card. Select a memory card with a faster write speed.	84
Save previously recorded data as a time-lapse movie?	The camera turned off during route shooting or while recording time-lapse movie. • Select **Yes** to create a movie with the recorded data. • Select **No** to delete the incomplete data.	–
Memory contains no images.	Insert a memory card that contains images.	9

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Display	Cause/Solution	📖
File contains no image data.	The file was not created or edited with this camera. The file cannot be viewed on this camera. View the file using a computer or the device used to create or edit this file.	–
This image cannot be deleted.	The image is protected. Disable protection.	54
Turn the camera off and then on again.	Turn the camera off and then on again. If the problem is not fixed, press the reset button (📖2) with a sharp-pointed object. If the error persists, contact your retailer or Nikon-authorized service representative.	74
System error	An error occurred in the camera's internal circuitry. Turn the camera off and then on again. If the problem is not fixed, press the reset button (📖2) with a sharp-pointed object. If the error persists, contact your retailer or Nikon-authorized service representative.	74

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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.

Power, Display, Settings Issues

Problem	Cause/Solution	📖
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 (📖2) 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 cannot be turned on.	The battery is exhausted.	10, 65
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.	20 65 –
The monitor is blank.	• The camera is off. • The battery is exhausted. • The camera is connected to a computer. • Time-lapse movie shooting is in progress.	20 20 – –
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.	–

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Problem	Cause/Solution	▢

The battery inserted in the camera cannot be charged.	• Confirm all connections.
	• When connected to a computer, the camera may not charge for any of the reasons described below.
	  - **Off** is selected for **Camera settings ➜ Charge by computer** in the setup menu.
	  - Battery charging stops if the camera is turned off.
	  - Battery charging is not possible if the camera's display language and date and time have not been set, or the date and time were reset after the built-in rechargeable battery was exhausted. Use the Charging AC Adapter to charge the battery.
	  - Battery charging may stop when the computer enters sleep mode.
	  - Depending on the computer specifications, settings, and status, battery charging may not be possible.
		10
		
		32, 49
		
		–
		11
		
		–
		
		–

The monitor is hard to see.	• The surrounding area is too bright. - Move to a darker place. • Adjust the screen brightness. • Change the background color of the screen.	– 46 46
⏱ flashes on the screen. Date and time of recording are not correct.	• If the camera clock has not been set, ⏱ flashes on the shooting screen, and images and movies saved before the clock is set are dated "00/00/0000 00:00" and "01/01/2016 00:00" respectively. Set the correct time and date for **Camera settings ➜ Date and time** in the setup menu. • The camera clock is not as accurate as ordinary watches or clocks. Periodically compare the time of the camera clock with that of a more accurate timepiece and reset as required.	5, 45
No information displayed on the screen.	**Camera settings ➜ Monitor settings ➜ Photo info** in the setup menu is set to **Hide info**.	46
Screen for setting date and time is displayed when the camera is turned on. The camera settings reset.	The built-in rechargeable battery is exhausted; all settings were restored to their default values. Configure the camera settings again.	–

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🔗 Technical Notes

Troubleshooting

Shooting Issues

Problem	Cause/Solution	📖
Cannot switch to shooting mode.	Disconnect the USB cable.	56
Cannot take pictures or record movies.	• When the camera is in playback mode, press the shutter-release button. • When menus are displayed, press the **MENU** button. • The battery is exhausted. • Insert a memory card with sufficient free space.	2, 23 33 10 9
The camera cannot focus.	• The subject is too close. • Turn the camera off and then on again.	–
Colored stripes appear on the screen when shooting.	Colored stripes may appear when shooting subjects with repeating patterns (such as window blinds); this is not a malfunction. The colored stripes will not appear in captured images or recorded movies.	–
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.	44 – –
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 **4:3 (2M)**, **16:9 (2M)**, or **1:1 (2M)** will reduce the effect.	43
Images appear smeared.	The lenses are dirty. Clean the lenses.	68
Colors are unnatural.	White balance is not adjusted properly.	41
Randomly spaced bright pixels ("noise") appear in image.	The subject is dark and the shutter speed is too slow or ISO sensitivity is too high.	–
Images are too dark.	• Adjust exposure compensation. • The subject is backlit. Try using **HDR**.	42 38
Images are too bright.	• Adjust exposure compensation. • Try using **HDR**.	42 38

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Problem	Cause/Solution	◻
Saving images takes time.	It may take more time to save images in the following situations: • When the noise reduction function is in operation • When capturing images using the following functions. - 🥾 (route shooting) - **Easy panorama** - **HDR** - ⏱ (time-lapse movie)	– – 34 36 38 39
A ring-shaped belt or rainbow-colored stripe appears on the screen or images.	When shooting with backlighting or when a very strong light source (such as sunlight) is in the frame, a ring-shaped belt or rainbow-colored stripe (ghosting) may occur. Change the position of the light source, or frame the picture so that the light source does not enter the frame, and try again.	–
Cannot select a setting/Selected setting is disabled.	• Certain menu items are unavailable depending on the settings. Menu items that cannot be selected are displayed in gray. • A function that restricts the selected function is enabled.	–

Playback Issues

Problem	Cause/Solution	◻
File cannot be played back.	• This camera may not be able to play back images saved with another make or model of digital camera. • This camera cannot play back movies saved with another make or model of digital camera. • This camera may not be able to play back data edited on a computer.	–
Cannot zoom in on image.	• Playback zoom cannot be used with movies. • This camera may not be able to zoom in on images captured with another make or model of digital camera. • When zooming in on a small-sized image, the magnification rate shown on the screen may differ from the actual magnification rate of the image.	–
Nikon Transfer 2 does not start when the camera is connected to a computer.	• The camera is off. • The battery is exhausted. • The USB cable is not correctly connected. • The camera is not recognized by the computer. • The computer is not set to start Nikon Transfer 2 automatically. For more information about Nikon Transfer 2, refer to help information contained in ViewNX-i.	– 49, 56 56 – –

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File Names

Images or movies are assigned file names as follows.

File name: **DSCN0001.JPG**
           (1)   (2)   (3)

(1) Identifier	DSCN: still images, movies
(2) File number	Assigned in ascending order, starting with "0001" and ending with "9999."
(3) Extension	Indicates file format. • .JPG: still images • .MP4: movies

Accessories
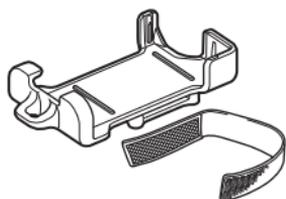
KeyMission 80

AA-4 Camera Holder (□25)
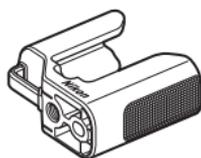
ET-AA1 Tripod Adapter (□26)
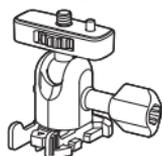
AA-1A Base Adapter

AA-10 Backpack Mount Clip

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

Specifications

Nikon KeyMission 80 Digital Camera

Type	Compact digital camera
Number of effective pixels	Camera 1 (main camera): 12.4 million Camera 2 (camera for selfies): 4.9 million
Image sensor	Camera 1: 1/2.3-in. type CMOS; approx. 12.71 million total pixels Camera 2: 1/5-in. type CMOS; approx. 5.65 million total pixels
Lens	NIKKOR lens
Focal length (angle of view in 35mm [135] format)	Camera 1: 4.5 mm (equivalent to that of 25 mm lens) Camera 2: 1.8 mm (equivalent to that of 22 mm lens)
f/-number	Camera 1: f/2 Camera 2: f/2.2
Construction	Camera 1: 6 elements in 6 groups Camera 2: 4 elements in 4 groups
Vibration reduction	Camera 1: Lens shift (still images)[1] Combination of lens shift and electronic VR (movies) Camera 2: Electronic VR (movies)
Focus	Camera 1: Contrast-detect AF[2] Camera 2: Fixed focus
Focus range	Camera 1: Approx. 10 cm (4 in.)-∞ Camera 2: Approx. 35 cm (1 ft 2 in.)-∞ (All distances measured from center of front surface of the lens)
Focus-area selection	Camera 1: Center Camera 2: –
Monitor	4.4 cm (1.7-in.), approx. 230k-dot, TFT LCD (touchscreen) with 5-level brightness adjustment
Frame coverage (shooting mode)	Approx. 100% horizontal and vertical (compared to actual picture)
Frame coverage (playback mode)	Approx. 100% horizontal and vertical (compared to actual picture)
Storage	
Media	microSD/microSDHC/microSDXC memory card
File system	DCF and Exif 2.3 compliant
File formats	Still images: JPEG Movies: MP4 (Video: H.264/MPEG-4 AVC, Audio: AAC stereo)

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Image size		
	Still images (aspect ratio)	Camera 1: • **4:3 (12 M)** (3968 × 2976) • **4:3 (2 M)** (1920 × 1440)[3] • **16:9 (9 M)** (3968 × 2232) • **16:9 (2 M)** (1920 × 1080)[3] • **1:1 (9 M)** (2976 × 2976) • **1:1 (2 M)** (1440 × 1440)[3] Camera 2: • **4:3 (5 M)** (2528 × 1896)
	Movies (resolution/frame rate)	Camera 1, Camera 2: 1080/30p (NTSC), 1080/25p (PAL)
ISO sensitivity (Standard output sensitivity)		Camera 1: ISO 64–1600 Camera 2: ISO 64–800
Exposure		
	Metering mode	Matrix
	Exposure control	Programmed auto exposure, exposure compensation (–2.0 – +2.0 EV in steps of 1/3 EV)
Shutter		CMOS electronic shutter
	Speed	Camera 1: 1/6400–1 s Camera 2: 1/6400–1/30 s
Interface		
	USB connector	Micro-USB connector (Do not use any USB cable other than the included UC-E21 USB Cable.), Hi-Speed USB
Wi-Fi (Wireless LAN)		
	Standards	IEEE 802.11b/g (standard wireless LAN protocol)
	Operating frequency	2412–2462 MHz (1–11 channels)
	Authentication	Open system, WPA2-PSK
Bluetooth		
	Communication protocols	Bluetooth Specification Version 4.1
Supported languages		Chinese (Simplified and Traditional), Dutch, English, French, German, Italian, Japanese, Korean, Russian, Spanish
Power sources		Rechargeable lithium-ion battery (built-in)
Charging time		Approx. 2 h 30 min (when using EH-73P/EH-73PCH Charging AC Adapter and when no charge remains)

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Battery life[4]	
Still images	Approx. 220 shots when using the built-in rechargeable battery
Movie recording (actual battery life for recording)[5]	Approx. 40 min when using the built-in rechargeable battery
LED light	Built-in
Tripod socket	1/4 (ISO 1222) (when the optional ET-AA1 Tripod Adapter is attached)
Dimensions (W × H × D)	Approx. 44.8 × 86.5 × 15.0 mm (1.8 × 3.5 × 0.6 in.) (excluding projections)
Weight	Approx. 74 g (2.7 oz) (including built-in rechargeable battery and memory card)
Operating environment	
Temperature	−10°C– +40°C (14°F–104°F)
Humidity	85% or less (no condensation)
Waterproof	JIS/IEC protection class 7 (IPX7) equivalent (under our testing conditions) Prevents water from entering the camera underwater up to 30 minutes at a depth of 1 m (3 ft 3 in.)
Dustproof	JIS/IEC protection class 6 (IP6X) equivalent (under our testing conditions)
Shockproof	Cleared our testing conditions[6] compliant with MIL-STD 810F Method 516.5-Shock

- All measurements are performed in conformity with Camera and Imaging Products Association (CIPA) standards or guidelines.

[1] Vibration reduction is disabled when using **Still images** in route shooting.
[2] The camera shoots at a fixed focus when using **Still images** in route shooting.
[3] When using **Still images** in route shooting.
[4] Battery life does not reflect the use of SnapBridge and may vary with the conditions of use, including temperature, the interval between shots, and the length of time that menus and images are displayed.
[5] Individual movie files cannot exceed 4 GB in size or 29 minutes in length. Recording may end before this limit is reached if camera temperature becomes elevated.
[6] Dropped from a height of 150 cm (5 ft) onto a surface of 5 cm (2 in.) thick plywood (changes in appearance, such as paint peeling off and deformation of the drop shock portion and waterproof performance are not subject to the test). These tests do not guarantee that the camera will be free from damage or trouble under all conditions.

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EH-73P/EH-73PCH Charging AC Adapter

Rated input	AC 100–240 V, 50/60 Hz, MAX 0.14 A
Rated output	DC 5.0 V, 1.0 A
Operating temperature	0°C–40°C (32°F–104°F)
Dimensions (W × H × D)	Approx. 55 × 22 × 54 mm (2.2 × 0.9 × 2.2 in.) (excluding plug adapter) For Argentina: Approx. 55 × 63 × 59 mm (2.2 × 2.5 × 2.4 in.) For India: Approx. 55 × 63.5 × 59 mm For Korea: Approx. 55 × 67 × 59 mm
Weight	Approx. 51 g (1.8 oz) (excluding plug adapter) For Argentina: Approx. 76 g (2.7 oz) For India: Approx. 76 g For Korea: Approx. 73 g

The symbols on this product represent the following:

$\sim$ AC, $=$ DC, ⧈ Class II equipment (The construction of the product is double-insulated.)

AA-4 Camera Holder

Dimensions (W × H × D)	Approx. 53.2 × 107.2 × 31.1 mm (2.1 × 4.3 × 1.3 in.)
Weight	Approx. 29 g (1.1 oz)

- Nikon will not be held liable for any errors this manual may contain.
- The appearance of this product and its specifications are subject to change without notice.

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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.

Specified External Rechargeable Batteries

You can also charge the camera using an external rechargeable battery specified by Nikon.
The following external rechargeable batteries have been tested.

| SONY | Portable Charger CP-S5 Series/CP-V5A Series/CP-V10A Series |

- See the manufacturer's website (http://www.sony.net/SonyInfo/Support/) for details about external rechargeable batteries.
- Refer to the documentation provided with the external rechargeable battery for more information.

Trademark Information

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