

**DIGITAL CAMERA** 

# COOLPIX W100 Reference Manual







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

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You can return to this page by tapping or clicking \(\begin{align\*}\) in the lower right of any page.

## **Main Topics**

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## **Common Topics**



For Your Safety



Shockproof and Waterproof



What SnapBridge Can Do for You



Select Shooting Conditions and Effects



Exchange Messages



Picture Play



Troubleshooting



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## 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<sup>TM</sup> operating system. The app is available free from the website (http:// snapbridge.nikon.com), Apple App Store® and Google Play<sup>TM</sup>.







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



## 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 **○**1>∅>

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 (e.g. copyright, comments, text and logos) on pictures



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



• Receive camera's firmware updates



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## Introduction

## **Read This First**

Thank you for purchasing the Nikon COOLPIX W100 digital camera.

## **Symbols and Conventions Used in This Manual**

- Tap or click in the lower right of each page to display "Quick Topic Search" (D)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.
Щ	This icon marks other pages containing relevant information.

- SD, SDHC, and SDXC 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.

#### 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 COOLPIX cameras are designed to the highest standards and include complex electronic circuitry. Only Nikon brand electronic accessories (including battery chargers, batteries, Charging AC Adapters, AC adapters, 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 FLECTRONIC ACCESSORIES COULD DAMAGE THE CAMERA AND MAY VOID YOUR NIKON WARRANTY.

The use of third-party rechargeable Li-ion batteries not bearing the Nikon holographic seal could interfere with normal operation of the camera or result in the batteries overheating, igniting, rupturing, or leaking.

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

> Holographic seal: Identifies this device as an authentic Nikon product.



#### **Before Taking Important Pictures**

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

#### About the Manuals

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

### **Comply with Copyright Notices**

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

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

Please note that deleting images or formatting data storage devices such as memory cards or built-in camera memory 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 discarding a data storage device or transferring ownership to another person, make sure to reset all of the camera's settings in **Reset all** in the camera settings menu ( $\square$ 108). After resetting, erase all data in the device using commercial deletion software, or format the device in **Format memory** or **Format card** in the camera settings menu (QQ108), 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 memory cards.

#### **Conformity Marking**

Follow the procedure below to display some of the conformity markings that the camera complies with.

Enter shooting mode or playback mode  $\rightarrow$  flexible button 4 ( $\P$ )  $\rightarrow$  flexible button 4 (\$\bigup Camera settings) \$\rightarrow\$ press \$\bigat\$\$\neg \$\rightarrow\$\$ □ Conformity marking

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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.



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



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



#### WARNING

- Do not use while walking or operating a vehicle. Failure to observe this precaution 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.
- Should you notice any abnormalities such as the product producing smoke, heat, or unusual odors, immediately disconnect the battery or power source. Continued operation could result in fire, burns or other injury.
- Do not handle the plug 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
- Do not aim the flash at the operator of a motor vehicle. Failure to observe this precaution could result in accidents.

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- 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 entangle, wrap or twist the straps around your neck. Failure to observe this precaution could result in accidents.
- Do not use batteries, chargers, AC adapters, or USB cables not specifically designated for use with this product. When using batteries, chargers, 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.



- 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.
- Remove the battery and 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 fire the flash in contact with or in close proximity to the skin or objects. Failure to observe this precaution could result in burns or fire.
- 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.



- Do not mishandle batteries. Failure to observe the following precautions could result in the batteries leaking, overheating, rupturing, or catching fire:
  - Use only rechargeable batteries approved for use in this product.
  - 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 or the products in which they are inserted to powerful physical shocks.
- Recharge batteries using the specified method. 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 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.
- Discontinue use immediately should you notice any changes in the battery, such as discoloration or deformation. Cease charging if they do not charge in the specified period of time. Failure to observe these precautions could result in the battery leaking, overheating, rupturing, or catching fire.
- 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.





## <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 180 cm (5 ft 10 in.) 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.

\* 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 8 (IPX8) and JIS/IEC dustproof class 6 (IP6X) and can shoot images underwater at a depth of 10 m (33 ft) for up to 60 minutes.\*

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

## Precautions When Cleaning

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

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## 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 when using it underwater.
  - Do not subject the camera to water pressure by exposing it to rapids or waterfalls.
  - Do not expose to depths greater than 10 m (33 ft) underwater.
  - Make sure not to drop the camera underwater. This camera does not float in water.
- Do not continuously use the camera underwater for 60 minutes or more.
- Do not insert a wet memory card or battery in the camera.
  - Do not open the battery-chamber/memory card slot 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 battery-chamber/memory card slot cover underwater.
- If moisture such as water droplets adheres to the outside of the camera or inside of the battery-chamber/memory card slot 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 battery-chamber/memory card slot cover, immediately remove it with a blower or a soft cloth



- If a foreign substance adheres to the waterproof packing inside the batterychamber/memory card slot cover, remove it with the included brush. Do not use the included brush for anything other than cleaning the waterproof packing.
- 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.
  - When using the camera underwater, make sure the water temperature is from  $0^{\circ}$ C to  $40^{\circ}$ C (32°F to 104°F).
- Do not use the camera at hot springs.



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## **Before Using the Camera Underwater**

Check the items below before using the camera underwater.

- Make sure that there are no foreign substances inside the battery-chamber/ memory card slot cover.
- Make sure that the waterproof packing of the battery-chamber/memory card slot cover is not cracked or deformed.
  - Make sure that the waterproof packing is not detached from the camera.
- Make sure that the battery-chamber/memory card slot cover is firmly closed.
  - Make sure that the battery-chamber/memory card slot cover security lock is in the LOCK position.

## 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 and batteries 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 lens 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 battery-chamber/memory card slot cover is opened or closed in a highhumidity environment.

### Clearing the fogging

- Turn off the camera and open the battery-chamber/memory card slot 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 battery and memory card, and leave the batterychamber/memory card slot cover open to allow the camera to adjust to the ambient temperature.

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## **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 waterproof packing begins to deteriorate, consult your retailer or Nikonauthorized service representative. The waterproof performance of the waterproof 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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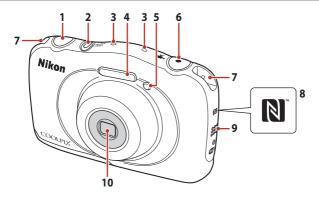


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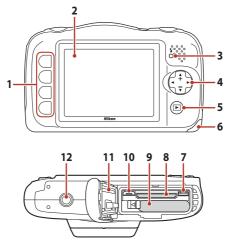
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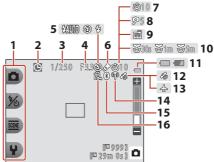
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## **The Monitor**

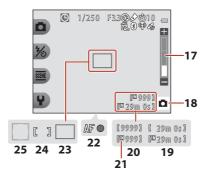
The information that is displayed on the shooting or playback screen changes depending on the camera's settings and state of use.

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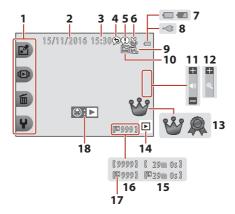
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### If Information Is Not Displayed During Shooting Mode and Playback Mode

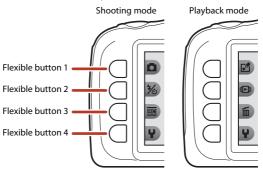
Apart from certain information, information is not displayed if no operations are performed for several seconds. Information is displayed again when either a flexible button or the multi selector is pressed.

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## **Using the Flexible Buttons**

If you press a flexible button while the shooting screen or playback screen is displayed, the menu for the current mode is displayed. Once the menu is displayed, you can change various settings.

In this document, the flexible buttons are referred to as "flexible button 1" through "flexible button 4", in order from top to bottom.



- Press a flexible button.
  - · The menu is displayed.



- Press a flexible button to select an item.
  - When s is displayed, press flexible button 1 (s) to return to the previous screen.
  - Certain menu options cannot be selected or displayed depending on the camera's settings.





## 3 Press a flexible button to select an item.

 When the menu content continues on another page, a guide indicating the page position is displayed.



Use the multi selector  $\blacktriangle \nabla$  to display other pages.

## 4 Press a flexible button to select a setting.

- Press the flexible button to confirm the selected setting.



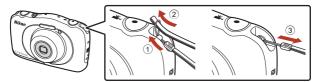
The current setting is displayed in white.

## **Getting Started**

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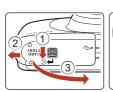
## **How to Attach the Camera Strap**

Pass the strap through either the left or right strap eyelet and attach the strap.

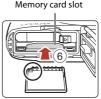


## **Inserting the Battery and Memory Card**

1 Open the battery-chamber/memory card slot cover, and then insert the battery and memory card.







- With the battery's positive and negative terminals oriented correctly, move the orange battery latch (4), and fully insert the battery (5).
- Slide the memory card in until it clicks into place (6).
- Be careful not to insert the battery or memory card upside-down or backward, as this could cause a malfunction.
- Close the battery-chamber/memory card slot cover.
  - Lay the cover completely flat in the direction indicated by the arrow (1), and fully slide it in (2).



Damage Caution
Sliding the cover while it is open may damage the camera.



## Opening and Closing the Battery-chamber/Memory Card Slot Cover

Do not open and close the battery-chamber/memory card slot 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.

- If foreign particles get inside the cover or camera, immediately remove them with a blower or brush.
- If liquid such as water gets inside the cover or camera, immediately wipe it off with a soft and dry cloth.

## 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 and select **Format card** in the camera settings menu (22108).

## **Removing the Battery or Memory Card**

Turn the camera off and make sure that the power-on lamp and screen have turned off, and then open the battery-chamber/memory card slot cover.

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

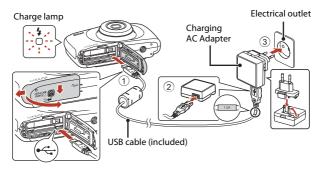
## **Memory Cards and Internal Memory**

Camera data, including images and movies, can be saved either on a memory card or in the camera's internal memory. To use the camera's internal memory, remove the memory card.

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## **Charging the Battery**



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

- \* The shape of the plug adapter varies according to the country or region in which the camera was purchased.
  - This step can be omitted if the plug adapter comes permanently bonded to the Charging AC Adapter.
- Charging starts when the camera is connected to an electrical outlet while the battery is inserted, as shown in the illustration. The charge lamp slowly flashes while the battery is charging.
- When charging is complete, the charge lamp turns off. Unplug the Charging AC Adapter from the electrical outlet, and disconnect the USB cable. Charging time is about 1 hour and 40 minutes for a fully exhausted battery.
- The battery cannot be charged when the charge lamp quickly flashes, possibly due to one of the reasons described below.
  - The ambient temperature is not suited to charging.
  - The USB cable or Charging AC Adapter is not properly connected.
  - The battery is damaged.

### Notes About the USB Cable

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

## Notes About Charging the Battery

- The camera can be operated while the battery is charging, but the charging time increases.
- If the battery level is extremely low, you may not be able to operate the camera while the battery is charging.
- Do not, under any circumstances, use another make or model of AC adapter other than 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.

## **Camera Setup**

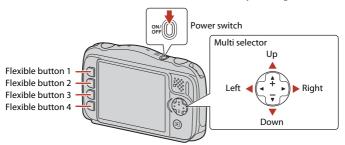
### Setup from a Smartphone or Tablet

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



#### Turn the camera on.

• Use the flexible buttons and multi selector to select and adjust settings.

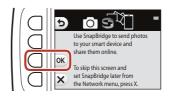


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- A language selection dialog will be displayed. Press ◀ or ▶ on the multi selector to highlight a language and press flexible button 4 (OK) to select.
- The language can be changed at any time using the Language option in the camera settings menu (QQ 108).



- Press flexible button 3 (**OK**) when the dialog at right is displayed.
  - If you do not wish to use a smart device to configure the camera, press flexible button 4 (★) (□19).



- Pair (i.e., establish a Bluetooth link between) the camera and the smart device.
  - Android Devices with NFC Support

After checking that NFC is enabled on the smart device, touch the camera (1) (N-Mark) to the NFC antenna on the smart device to launch the SnapBridge app.

 If the SnapBridge download site is displayed, download and install the app before repeating the above steps.



#### iOS Devices and Android Devices Without NFC Support

Press the camera flexible button 3 (**OK**). The camera will wait for a connection; launch the SnapBridge app on the smart device and follow the on-screen instructions to tap the name of the camera you want to pair with.





# Check the authentication code.

- · After confirming that the camera and smart device display the same six-digit authentication code, follow the steps below to complete pairing (note that the code may not be displayed in some versions of iOS, but you should follow the steps below even if the code is not displayed).
  - On the camera, press flexible button 4 (OK).
  - On the smart device, tap Pairing (the name of the button varies with the smart device).



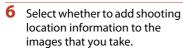
connected!

SnapBridge will send your photos to

our smart device as they are taken.

# 5 Press flexible button 4 (>) when the dialog at right is displayed.

- · When a constant connection between the camera and smart device is established, the dialog at right is displayed.
- If the camera displays Could not connect., press flexible button 3 (S Reconnect) to return to Step 3. To cancel pairing settings, press flexible button 4 (X Cancel).



 To record location data with photographs, select flexible button 3 (O Yes) when prompted and enable the location data features both in the SnapBridge app and on the smart

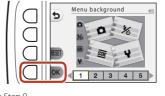


device itself (for more information, see the documentation provided with the smart device).



### 7 Select whether to automatically set the camera clock.

- You can also synchronize the camera clock to the time reported by the smart device by selecting flexible button 3 (O Yes) when prompted and enabling synchronization in the SnapBridge app.
- If you select flexible button 4 (X No), set the camera clock from the menus as described in Step 2 on page 19.
- 8 Use ◀ or ▶ to select the background design to be displayed when a menu or setting screen is displayed, and press flexible button 4 (OK).
  - The background selection screen may not be displayed depending on your country or region. In this case, proceed to Step 9.
  - To restore the default background design, press flexible button 3 (RESET).



Waterproofing precautions

3 4 5 6 7

O Yes

Sync clock with smart

# 9 Confirm the waterproofing-related message and press ▶.

- There are seven message screens.
- Waterproofing-related messages are displayed in the following situations.
  - When turning on and setting the camera for the first time
  - When setting the camera to **Shoot under** water (□37) or **Underwater** face framing (□38)
  - When turning the camera on after charging

# 10 Confirm the message on the screen shown at right and press flexible button 4 (OK).

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





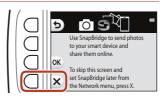
## **Setup from the Camera Menus**

The camera clock can be set manually.

- 1 Turn the camera on  $(\square 15)$ .
  - A language selection dialog will be displayed. Press ◀ or ▶ on the multi selector (□15) to highlight a language and press flexible button 4 (**OK**) to select.
  - The language can be changed at any time using the **Language** option in the camera settings menu (2108).



- Press flexible button 4 (X) when the dialog at right is displayed.
  - Select flexible button 3 (**O Yes**) when prompted to set the camera clock.



- **3** Use flexible button 2, 3, or 4 to choose a date format.
- 4 Enter the current date and time and press flexible button 4 (OK).
  - Press 

    or

    to highlight items and press

    or

    to change.
  - Press flexible button 4 (**OK**) to set the clock.
  - To turn daylight saving time on, press
    flexible button 3 (%); % will be displayed on the screen. Press flexible button 3 (%)
    again to turn daylight saving time off.



- When prompted, press flexible button 3 (**O Yes**).
- 6 Follow the on-screen instructions to complete the setup process.



# Resetting the Clock and Changing Menu Background

The **Date and time** option in the camera settings menu can be used to set the camera clock. The **Menu background** option in the camera settings menu can be used to change the background used on the menu screen.

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Daylight saving time can be turned on or off in the **Date and time** option.



# What SnapBridge Can Do for You

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



#### **Auto Upload**

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

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

Option	Description	
Disabling auto upload	Auto upload can be disabled using the <b>Network menu</b> > <b>Send while shooting</b> > <b>Still images</b> option in the camera settings menu ( 108).	
Upload options	Use the Network menu > Send while shooting > Upload (photos) item in the camera settings menu to choose the types of pictures automatically uploaded.	
Selecting pictures for upload	You can use this option to automatically upload selected pictures that were not uploaded during shooting.  • Use the <b>Mark for upload</b> option in the camera playback menu (□58) 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. Comments and copyright information can be entered in advance from the camera settings menu. You can also imprint text entered in the SnapBridge app.	

# Notes About Auto Upload

Movies cannot be uploaded using the **Send while shooting** or **Mark for upload** option. To upload movies to a smart device, use the SnapBridge app.

#### **Wireless Networks**

Option	Description	
Pairing	To pair the camera with a smart device (for example, with a new device or if you did not opt to pair with a smart device during setup), select <b>Connect to smart device</b> in the camera network menu and follow the instructions on page 16, starting with Step 2.  The camera can be paired with up to five smart devices, but can connect to only one at a time.	
Uploading pictures via Wi-Fi	A Wi-Fi connection is recommended for large-volume uploads. Follow the on-screen instructions in the SnapBridge app to switch to a Wi-Fi connection.  The Network menu > Wi-Fi > Network settings item in the camera settings menu contains Auth./encryp. and Password options. The default option for Auth./encryp. is WPA2-PSK-AES.	

# Where the Use of Wireless Devices Is Prohibited

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

## Other Options for the SnapBridge App

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

• See SnapBridge app online help for more information.

# **Basic Shooting and Playback Operations**

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# **Shooting Images**

Point and shoot is used here as an example. In Point and shoot, the camera recognizes the shooting conditions when you frame a picture, and you can take pictures in accordance with the conditions.

### Press flexible button 1.

- Battery level indicator
  - : The battery level is high.
    :The battery level is low.
- Number of exposures remaining
   is is displayed when no memory card is inserted in the camera, and images are saved in the internal memory.

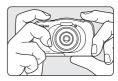
#### Battery level indicator



Number of exposures remaining

# 2 Hold the camera steady.

 Keep fingers and other objects away from the lens, flash, AF-assist illuminator, microphone, and speaker.





# **3** Frame the picture.

 Press the multi selector ▲▼ to change the zoom lens position.

#### Zoom in



Zoom out

# 4 Press the shutter-release button halfway.

- To press the shutter-release button "halfway" means to press and hold the button at the point where you feel a slight resistance.
- When the subject is in focus, the focus area or focus indicator is displayed in green.
- When you are using digital zoom, the camera focuses in the center of the frame and the focus area is not displayed.
- If the focus area or focus indicator flashes, the camera is unable to focus. Modify the composition and try pressing the shutter-release button halfway again.





Focus area

## Without lifting your finger, press the shutter-release button all the way down.



## Notes About Saving Images or Movies

The indicator showing the number of exposures remaining or the indicator showing the remaining recording time flashes while images or movies are being saved. **Do not open the battery-chamber/memory card slot cover or remove the battery or memory card** while an indicator is flashing. Doing this could result in loss of data, or in damage to the camera or the memory card.

#### **𝕖** The Auto Off Function

- When no operations are performed for about three minutes, the screen turns off, the camera enters standby mode, and then the power-on lamp flashes. The camera turns off after remaining in standby mode for about three minutes.
- To turn the screen back on while the camera is in standby mode, perform an operation such as pressing the power switch or shutter-release button.

# When Using a Tripod

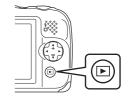
We recommend using a tripod to stabilize the camera in the following situations:

- When shooting in dim lighting with the flash mode (QQ33) set to **3 Flash off**
- · When the zoom is at a telephoto position

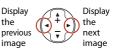
25

# **Playing Back Images**

- Press the (shooting/playback mode) button to enter playback mode.
  - If you press and hold down the button while the camera is turned off, the camera turns on in playback mode.



- Use the multi selector to select an image to display.
  - Press and hold down ◀▶ to scroll through the images quickly.
  - To play back a recorded movie, press lacktriangle.
  - To return to shooting mode, press the **b** button or shutter-release button.





 Press ▲ in full-frame playback mode to zoom in on an image.





 In full-frame playback mode, press ▼ to switch to thumbnail playback mode and display multiple images on the screen.





# **Deleting Images**

1 Press flexible button 3 (m) to delete the image currently displayed on the screen.



- 2 Use flexible button 2, 3, or 4 to select the desired deletion method.
  - To exit without deleting, press flexible button 1 (**5**).

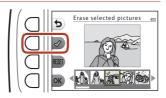


- 3 Press flexible button 3 (O Yes).
  - Deleted images cannot be recovered.



# **Selecting Which Images You Want to Delete**

- 1 Use the multi selector ◀▶ to select an image to be deleted, and then press flexible button 2 ( ).
  - The selected image is indicated by a check mark.
  - A check mark is displayed or removed every time you press flexible button 2 (4).
  - Press flexible button 3 (RESET) to remove all check marks.



- 2 Add check marks to all images that you want to delete and then press flexible button 4 (**OK**) to confirm the selection.
  - A confirmation dialog is displayed. Follow the on-screen instructions to complete operations.

## Restricting Image Deletion (Image Lock)

To prevent accidental deletion of images, you can lock image deletion ( $\square$ 27) and formatting ( $\square$ 117).

Press and hold down flexible buttons 1 and 4 at the same time while in shooting mode or playback mode.



- Press flexible button 3 (O Yes).
  - · Image lock is set.



When image lock is set, is displayed on the screen.



### **Removing Image Lock**

The procedure for removing image lock is the same as for setting image lock.

# **Shooting Features**

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# **Functions Available in Shooting Mode** (Shooting Menu)

Press a flexible button to display a menu. You can change the following settings.

Flexible button	Option	Description	
Point and shoot	-	Sets the shooting mode to Point and shoot. The camera recognizes the shooting conditions when you frame a picture, and you can take pictures in accordance with the conditions.	32
	Flash	Allows you to select a flash mode to match the shooting conditions.	
<b>%</b> Flash mode/ self-timer	Self-timer	The camera is equipped with a self-timer that releases the shutter 10 seconds or 5 seconds after you press the shutter-release button. You can also set the smile timer.	34, 35
More picture options	Choose a style	When a style (shooting conditions and effects) is selected, camera settings are automatically optimized for the selected condition.	
	Decorate	Allows you to add a frame around your images when taking pictures.	
	Change colors	Allows you to select Brighter/darker or More vivid/less vivid from the menu, or use Highlight colors to keep one specified color in the image, and change the other colors to black and white.	44
	Change sounds	Allows you to configure the shutter and button sounds.	45
<b>¥</b> Settings	Choose a size	Allows you to set the size of still images and movies.	47
	Camera settings	Allows you to change a number of general settings.	108

# **D** Point and Shoot

When this camera is used for the first time, the shooting mode is set to **D** Point and shoot. The camera recognizes the shooting conditions when you frame a picture, and you can take pictures in accordance with the conditions.

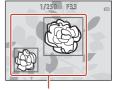
Point and shoot is the default shooting mode for this camera.

- When the camera detects the main subject, it focuses on that subject (target finding AF).
- · The flash may fire when shooting in low light.
- When shooting in low light, the use of a tripod is recommended.
- When the digital zoom is in effect, the camera does not recognize the shooting conditions.

# **Using Target Finding AF**

The camera focuses in the manner described below when you press the shutter-release button halfway.

 The camera detects the main subject and focuses on it. When the subject is in focus, the focus area is displayed in green. If a human face is detected, the camera automatically sets focus priority on it.



Focus areas

 If no main subject is detected, the camera focuses on the area in the center of the frame.



## Notes About Target Finding AF

• Depending on shooting conditions, the subject that the camera determines to be the main subject may vary.

32

- The camera may not detect the main subject appropriately in the following situations:
  - When the subject is very dark or bright
  - When the main subject lacks clearly defined colors
  - When the shot is framed so that the main subject is at the edge of the screen
  - When the main subject is composed of a repeating pattern



## Flash Mode

You can select a flash mode to match the shooting conditions.

Enter shooting mode → flexible button 2 (%) → flexible button 2 (**\$** Flash)

#### **Available Flash Modes**

#### **\$AUTO** Auto flash

The flash fires when necessary, such as in dim lighting.

#### S Flash off

The flash does not fire.

• We recommend using a tripod to stabilize the camera when shooting in dark surroundings.

#### Always fire flash

The flash fires whenever a picture is taken. Use to "fill-in" (illuminate) shadows and backlit subjects.

# Use flexible button 2, 3, or 4 to select the flash mode.

• To cancel, press flexible button 1 (5).



# Notes About Shooting with the Flash

When using the flash at the wide-angle zoom position, the area around the image may be dark depending on the distance to the subject.

This may be improved if you move the zoom control slightly toward the telephoto position.

## The Flash Lamp

- The status of the flash can be confirmed by pressing the shutterrelease button halfway.
  - On: The flash fires when you press the shutter-release button all the way down.
  - the way down.
     Flashing: The flash is charging. The camera cannot shoot images.
- Off: The flash does not fire when a picture is taken.
  If the battery level is low, the screen turns off while the flash is charging.



## The Flash Mode Setting

- The setting may not be changed when using some shooting modes or settings.
- The setting applied in Point and shoot is saved in the camera's memory even after the camera is turned off.

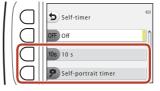


## Self-timer

The camera is equipped with a self-timer that releases the shutter 10 seconds or 5 seconds after you press the shutter-release button.

Enter shooting mode → flexible button 2 (%) → flexible button 3 (♦ Self-timer)

- Press flexible button 3 (10s 10s) or flexible button 4 ( Selfportrait timer).
  - 10s 10 s (10 seconds): Use on important occasions, such as weddings.
  - **9** Self-portrait timer (5 seconds): Use for shooting with a selfie stick. Proceed to step 3, press the shutter-release
    - button all the way, and then frame the picture.



- 🗗 Smile timer (□□35)
- **2** Frame the picture and press the shutter-release button halfway.
- Press the shutter-release button all the way down.
  - · Countdown starts. The self-timer lamp flashes and then glows steadily about one second before the shutter is released.
  - · When the shutter is released, the selftimer is set to OFF Off.
  - To stop the countdown, press the shutter-release button again.
  - · To cancel the setting before shooting begins, press flexible button 2 (%) > flexible button 3 ( Self-timer) > flexible button 2 (OFF Off).







# Focus and Exposure When Using Self-timer

The timing when focus and exposure are set varies depending on the settings.

- 10s 10 s: The focus and exposure are set when you press the shutter-release button halfway in step 2.
- **9** Self-portrait timer: The focus and exposure are set immediately before the shutter is released.





## **Smile Timer**

When the camera detects a smiling face, you can take a picture automatically without pressing the shutter-release button. The skin softening function makes the skin tones of human faces smoother.

Enter shooting mode  $\Rightarrow$  flexible button 2 (%)  $\Rightarrow$  flexible button 3 ( $\circlearrowleft$  Self-timer)  $\Rightarrow$  press  $\blacktriangledown$ 

1 Press flexible button 2 (**☑** Smile timer).



- **2** Frame the picture.
  - Point the camera at a human face.
- 3 Without pressing the shutter-release button, wait for the subject to smile.
  - If the camera detects that the face framed by the double border is smiling, the shutter is automatically released.
  - Whenever the camera detects a smiling face, it automatically releases the shutter.
- 4 End automatic shooting.
  - Press flexible button 2 (%) > flexible button 3 (S Self-timer) > flexible button 2 (OFF Off).
- Notes About Smile Timer

Under some shooting conditions, the camera may be unable to detect faces or smiles (\$\sumsymbol{\Pi}\$50). The shutter-release button can also be used for shooting.

When the Self-timer Lamp Flashes

When using **Smile timer**, the self-timer lamp flashes when the camera detects a face and flashes quickly immediately after the shutter is released.

# Choose a Style (Shooting with Selected Shooting Conditions and Effects)

When a style (shooting condition and effect) is selected, camera settings are automatically optimized for the selected condition. The expected effect may not be achieved depending on the subject.

Enter shooting mode  $\Rightarrow$  flexible button 3 ( $\overline{\infty}$ )  $\Rightarrow$  flexible button 2 ( $\overline{\infty}$  Choose a style)

Use the multi selector ◀▶ to select the desired style (shooting condition and effect) and press flexible button 4 (**OK**).

To cancel, press flexible button 1 (5).



<b></b>	Shoot night scenes <sup>1</sup> (□□37) (default setting)	Mirror <sup>2</sup> (QQ40)
	Shoot close-ups <sup>2</sup> (CCC)37)	Add a bubble effect <sup>2</sup> (QQ40)
ΨŤ	Photograph food <sup>2</sup> (CC) 37)	★ Add a neon effect <sup>2</sup> (□□40)
ä	Shoot under water <sup>2</sup> (CC)37)	Add a cartoon effect <sup>2</sup> (CC)40)
8	Underwater face framing (CC) 38)	○ Take soft pictures <sup>2</sup> (□ 41)
*	Shoot at intervals <sup>3</sup> (CCC)38)	<b>☼</b> Create a diorama effect <sup>2</sup> (ДД41)
	Take a series of pictures (🎞 39)	Shoot a movie miniature <sup>2, 3</sup> (QQ41)
*	Photograph fireworks 1,4 (CC 39)	Add light trails <sup>4, 6</sup> (QQ42)
₹9	Shoot backlit scenes <sup>5</sup> (CD39)	

<sup>1</sup> The camera focuses at infinity.



The camera focuses on the area in the center of the frame. When the zoom is set to a position where the zoom indicator turns green, the camera can focus on subjects as close as about 20 cm (7.9 in.) from the front of the protective glass, or about 5 cm (2 in.) at the maximum wide-angle position.

<sup>&</sup>lt;sup>3</sup> Use of a tripod is recommended.

<sup>&</sup>lt;sup>4</sup> Use of a tripod is recommended, because the shutter speed is slow.

<sup>&</sup>lt;sup>5</sup> The camera focuses on the area in the center of the frame.

When using **Night scenes**, the camera focuses on the area in the center of the frame. When using **Night sky**, the camera focuses at infinity.

### **Tips and Notes**

#### Shoot night scenes

- When the shutter-release button is pressed all the way, the camera captures a series of images which are combined into a single image and saved.
- Once the shutter-release button is pressed all the way, 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.
- The flash setting is fixed at **3** Flash off ( 33).
- **P** Self-portrait timer (□34) and □ Smile timer (□35) are not available.

#### \$\ Shoot close-ups

- The camera automatically zooms to the closest position at which it can focus.
- The flash is set to ③ Flash off, but the setting can be changed (QQ33).
- **Smile timer** is not available (QQ35).

#### **Ψ**¶ Photograph food

- The camera automatically zooms to the closest position at which it can focus.
- Use the multi selector to adjust the hue setting and press flexible button 4 (OK).
   The hue setting is saved in the camera's memory even after the camera is turned off.
- The flash setting is fixed at ③ Flash off (CC) 33).
- **☑ Smile timer** is not available (**□**35).

#### Shoot under water

- When **Shoot under water** is set, the waterproofing-related messages are displayed.
   Confirm each message and press the multi selector ► to display the next message.
   Press flexible button 4 (**OK**) to skip the messages and change to the shooting screen.
- See "<Important> Notes About Shockproof, Waterproof, and Dustproof Performance and Condensation" (\(\sum xi-xiv\)) for more information about using the camera underwater.
- The flash is set to ③ Flash off, but the setting can be changed (QQ33).
- **Smile timer** is not available (QQ 35).

#### **S** Underwater face framing

- You can take pictures of human faces underwater automatically without submerging your face.
- When **Underwater face framing** is set, the waterproofing-related messages are displayed.
  - Confirm each message and press the multi selector ▶ to display the next message. Press flexible button 4 (**OK**) to skip the messages and change to the shooting screen.
- See "<Important> Notes About Shockproof, Waterproof, and Dustproof Performance and Condensation" (\(\infty\)xiv) for more information about using the camera underwater.
- When the shutter-release button is pressed all the way while the shooting screen is
  displayed, automatic shooting begins. Submerge the camera into the water, and point
  it at a human face underwater. When the camera detects a human face, the power-on
  lamp and self-timer lamp flash, and the shutter is automatically released. When the
  shutter is released, the lamps flash quickly.
- Press the shutter-release button all the way again to stop shooting. When four images
  are captured or the camera remains in automatic shooting mode for about 30 seconds,
  shooting ends automatically.
- When shooting ends, the captured images are displayed on the screen. Press flexible button 4 (OK) to return to the shooting screen.
- The zoom position is fixed at wide-angle position.
- The flash is set to ③ Flash off, but the setting can be changed (□33).
- The self-timer is not available (QQ34).
- The camera may not be able to detect faces depending on the clarity of the water or the shape of the goggles used.

#### ★ Shoot at intervals

- Press flexible button 2 (30s Shoot every 30 seconds), flexible button 3 (1m Shoot once a minute), or flexible button 4 (5m Shoot every 5 minutes) to set the shooting interval.
- The maximum number of images that can be captured depends on the selected interval.
   Shoot every 30 seconds: Approx. 280 images
  - Shoot once a minute: Approx. 140 images
  - Shoot once a minute: Approx. 140 images
     Shoot every 5 minutes: Approx. 30 images
- Use a sufficiently charged battery to prevent the camera from turning off during shooting.
- Press the shutter-release button all the way down to capture the first image. In between each shot, the screen turns off and the power-on lamp flashes. The screen automatically turns on again just before the next image is captured.
- Press the shutter-release button halfway to stop shooting.
- The flash is set to **\$AUTO Auto flash**, but the setting can be changed (\$\square\$33).



#### Take a series of pictures

- While the shutter-release button is held all the way down, the camera shoots images continuously.
- The camera shoots up to 11 images continuously at a rate of about 4.7 frames per second (fps) (when Choose a size > Photo size is set to Large (13 megapixels)).
- The frame rate for continuous shooting may vary depending on the current photo size setting, the memory card used, or shooting condition.
- Focus, exposure, and hue for the second and subsequent images are fixed at the values determined with the first image.
- The flash setting is fixed at **3** Flash off (QQ33).
- The self-timer is not available (\$\implies\$34).

#### Photograph fireworks

- The shutter speed is fixed at four seconds.
- The flash setting is fixed at ③ Flash off (QQ33).
- The self-timer is not available (\$\square\$34).

#### Shoot backlit scenes

- When taking pictures with very bright and dark areas in the same frame, such as backlit scenes, the high dynamic range (HDR) compositing is applied and loss of details in highlights or shadows is minimized.
- When the shutter-release button is pressed all the way, the camera shoots images
  continuously and saves the following two images.
  - A non-HDR 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 all the way, 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.
- The flash setting is fixed at **③ Flash off** ( 33).
- 🗗 Smile timer is not available (QQ 35).



#### Mirror

- You can take pictures that are vertically or horizontally symmetrical over the center of the frame.
- Press flexible button 2 (→ Top → bottom) or flexible button 3 (→ Left → right) to set the flip direction.
  - When  $\stackrel{\longrightarrow}{=}$  **Top**  $\rightarrow$  **bottom** is selected, the top half of the screen is flipped over the bottom half, and the image is composited and displayed. When f Left  $\rightarrow$  right is selected, the left half of the screen is flipped over the right half.
- The flash is set to **\$AUTO Auto flash**, but the setting can be changed (\$\square\$33).
- **☑ Smile timer** is not available (**☐** 35).

#### Add a bubble effect

- This effect makes the image appear to be projected on a bubble.
- A guide is displayed on the screen. Compose the shot so that the main subject is contained within the guide.
- The flash is set to **\$AUTO** Auto flash, but the setting can be changed (\$\square\$33).
- ₱ Smile timer is not available (□ 35).

#### 图 Add a neon effect

- This effect makes the outlines of the image appear to glow with neon tubing.
- Use the multi selector ◆► to select the outline color and press flexible button 4 (OK).
   The color setting is saved in the camera's memory even after the camera is turned off.
- After taking a picture, do not turn the camera off before the screen switches to the shooting screen.
- The flash is set to **\$AUTO Auto flash**, but the setting can be changed (\$\subset\$33).
- **Smile timer** is not available (QQ35).

#### Add a cartoon effect

- Performs tone compensation and makes the image appear like a cartoon.
- After taking a picture, do not turn the camera off before the screen switches to the shooting screen.
- The flash is set to ♣AUTO Auto flash, but the setting can be changed (□33).
- **☑ Smile timer** is not available (**☐** 35).

#### O Take soft pictures

- Softens the image by adding a slight blur to areas outside of the guide displayed on the screen.
- A guide is displayed on the screen. Compose the shot so that the main subject is contained within the guide.
- The flash is set to \$AUTO Auto flash, but the setting can be changed (\$\square\$33).
- F Smile timer is not available (□ 35).

#### Create a diorama effect

- This effect is well-suited for images captured from a high vantage point with the main subject in the center of the image.
- A guide is displayed on the screen. Compose the shot so that the main subject is contained within the guide.
- The flash is set to ③ Flash off, but the setting can be changed (□33).
- **☑** Smile timer is not available (ДД35).

#### Shoot a movie miniature

- Captures miniature-like still images every two seconds and joins the still images to create a movie with a maximum length of 10 seconds.
- This effect is well-suited for images captured from a high vantage point with the main subject in the center of the image.
- You cannot shoot when a memory card is not inserted. Do not replace the memory card until shooting ends.
- Use a sufficiently charged battery to prevent the camera from turning off during shooting.
- Compose the shot so that the main subject is contained in the guide displayed on the screen.
- Press the shutter-release button to capture the first image. Focus, exposure, and hue
  are fixed at the values determined with the first image.
- The camera releases the shutter automatically after the first image.
- · The screen may turn off in between each shot.
- To end shooting, press flexible button 1 (5). When 300 images are captured, shooting ends automatically.
- · Sound and still images are not recorded.
- The movie frame size is fixed at Large (1080p).
- The flash setting is fixed at **③ Flash off** (QQ33).
- **☑** Smile timer is not available (ДД35).

#### Add light trails

- The camera automatically captures moving subjects at regular intervals, compares each image and composites only their bright areas, and then saves them as one image. Light trails such as the flow of car lights or motion of stars are captured.
- Press flexible button 2 ( Night scenes), or flexible button 3 ( Night sky).

Option	ption Description		
☑ Night scenes	Use to capture the flow of car lights against a night landscape background.  • Shots are taken at a shutter speed of 4 seconds every 4 seconds. When 50 shots are taken, the camera automatically stops shooting.  • For every 10 shots taken, one composite image with trails overlapped from the start of shooting is automatically saved.  • The size of still images is fixed at 1280 × 960 pixels.		
🔀 Night sky	Use to capture the motion of stars.  Shots are taken at a shutter speed of 25 seconds every 30 seconds. When 300 shots are taken, the camera automatically stops shooting. For every 30 shots taken, one composite image with trails overlapped from the start of shooting is automatically saved. The size of still images is fixed at 2048 × 1536 pixels.		

- The screen may turn off during the shooting interval. The power-on lamp lights while the screen is off.
- To end shooting before it automatically ends, press flexible button 1 (2).
- When you have obtained the desired trails, end shooting. If you continue shooting, details in the composited areas may be lost.
- The camera cannot capture images when a memory card is not inserted.
- Do not insert a new memory card until shooting ends.
- Use batteries with a sufficient amount of charge remaining to prevent the camera from turning off during shooting.
- The flash setting is fixed at **3** Flash off (QQ33).
- The self-timer is set to two seconds, but the setting can be changed (234). 2 Selfportrait timer (\$\sum34\$) and \$\overline{\sum}\$ Smile timer (\$\sum\_35\$) are not available.
- · You can check the time remaining until shooting automatically ends on the screen.





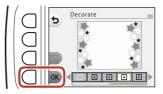
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## **Decorate**

You can add a frame around your images when taking pictures.

Enter shooting mode → flexible button 3 () → flexible button 3 ( Decorate)

- The Choose a size > Photo size setting is fixed at Small (2 megapixels) (□47).
- 1 Use the multi selector ◀► to select the desired frame and press flexible button 4 (OK).
  - To cancel, press flexible button 1 (**5**).
  - You can press flexible button 3 (\(\mathbb{\infty}\)) to remove the frame.



2 Frame the subject and take a picture.

## Notes About Decorate

- The area that is captured becomes smaller depending on the design of the frame.
- When using borderless printing to print images that you have added frames to, the frames may not be printed.

# **Change Colors**

You can adjust brightness (exposure compensation) and vividness when taking pictures. You can also select one color to keep in your images and turn the rest of the colors to shades of black and white.

Enter shooting mode → flexible button 3 () → flexible button 4 ( Change colors)

- 1 Use flexible button 2, 3, or 4 to select the setting.
  - Select Brighter/darker, ◆ More vivid/less vivid, or Highlight colors.



5 Brighter/darker

- 2 Use the multi selector ◀► to change colors and press flexible button 4 (OK).
  - **Brighter/darker** (exposure compensation):

Adjust the overall image brightness.

- More vivid/less vivid (saturation): Adjust the overall image vividness.
- Highlight colors:

Select the color you want to highlight. Colors not selected are changed to black and white.

- Press flexible button 3 (RESET) to turn the effect off.
- To cancel, press flexible button 1 (5).
- **3** Frame the subject and take a picture.

# Change Colors

- The setting is saved in the camera's memory even after the camera is turned off.
- Images adjusted with Change colors are indicated by .



# **Change Sounds**

You can configure the shutter and button sounds.

Enter shooting mode  $\Rightarrow$  flexible button 4 ( $\P$ )  $\Rightarrow$  flexible button 2 ( $\clubsuit$  Change sounds)

#### Pick a shutter sound

Allows you to select the sound heard when the shutter is released and when the focus has been locked.

When recording movies, the shutter sound is not heard.

#### È Pick a button sound

Allows you to select the beep heard when the camera switches between shooting and playback modes, when using the menus, etc.

 Regardless of this setting, sounds that are heard when an error occurs and when the camera is turned on do not change.

#### Turn sounds on or off

Turn all sounds on or off.

- Press flexible button 2 or flexible button 3.
  - Pick a shutter sound: Set the shutter sound.
  - " Pick a button sound: Set the button sound.



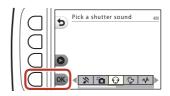
- 2 Use the multi selector ◀▶ to select the type of sound.
  - 'a: Set the standard sounds.
  - Sounds are not heard.
  - Press flexible button 3 ( ) to play the selected sound.
  - To cancel, press flexible button 1 (**5**).





# **3** Press flexible button 4 (**OK**).

• The sound is set.



# Muting All Sounds

On the screen displayed in step 1, press flexible button 4 ( Turn sounds on or off) 
flexible button 3 ( Turn sounds off), in that order, to mute all sounds.

To cancel the mute, press flexible button 4 ( **▶ Turn sounds on or off**) → flexible button 2 ( **▶ Turn sounds on**), in that order.

## **Choose a Size**

Set the size of still images and movies.

## **Choose a Photo Size**

Select the combination of image size and compression ratio to be used when saving images. The larger the image size, the larger the size at which it can be printed, and the lower the compression ratio, the higher the quality of the images, but the number of images that can be saved is reduced.

Enter shooting mode\*  $\rightarrow$  flexible button 4 ( $\P$ )  $\rightarrow$  flexible button 3 ( $\blacksquare$  Choose a size)  $\rightarrow$  flexible button 2 ( $\blacksquare$  Photo size)

\* The changed setting is also applied to **Choose a style** and **Change colors**.

Option*	Size* (pixels)	Compression ratio	Aspect ratio (horizontal to vertical)
Large (13 megapixels) (default setting)	4160 × 3120	Approx. 1:4	4:3
■ Medium (4 megapixels)	2272 × 1704	Approx. 1:8	4:3
■ Small (2 megapixels)	1600 × 1200	Approx. 1:8	4:3

<sup>\*</sup> The numerical values indicate the number of pixels that are captured.

Example: Large (13 megapixels) = approx. 13 megapixels, 4160 × 3120 pixels

## Notes About Photo Size

This function may not be available to use in combination with other functions ( $\square$ 53).

# Number of Images That Can Be Saved

- The approximate number of images that can be saved can be checked on the screen when shooting (\$\sum24\$).
- 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 photo size setting. In addition, the number of images that can be
  saved may vary depending on the make of the memory card.
- If the number of exposures remaining is 10,000 or more, the number of exposures remaining display shows "9999".



#### **Choose a Movie Frame Size**

Select the desired movie option to record.

Enter shooting mode  $\Rightarrow$  flexible button 4 ( $\P$ )  $\Rightarrow$  flexible button 3 ( $\P$  Choose a size)  $\Rightarrow$  flexible button 3 ( $\P$  Movie frame size)

Option	Image size	Aspect ratio (horizontal to vertical)	Frame rate
Large (1080p) (default setting <sup>1</sup> )	1920 × 1080	16:9	Approx. 30 fps
☐ Small (640)	640 × 480	4:3	Approx. 30 fps
<b>₹</b> Small (old-fashioned) <sup>2</sup>	640 × 480	4:3	Approx. 15 fps

When using the camera's internal memory, you can select 
Small (640) or 
Small (old-fashioned).

Allows you to record movies with an atmosphere and hue similar to movies shot on old 8mm film.

# **Using the Zoom**

When you press the multi selector  $\blacktriangle \nabla$ , the zoom lens position changes.

- To zoom in: Press ▲.
- To zoom out: Press ▼.

When you turn the camera on, the zoom moves to the maximum wide-angle position.

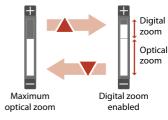
 A zoom indicator is displayed on the shooting screen when the multi selector ▲▼ is pressed.





Zoom indicator

 Digital zoom, which allows you to further magnify the subject up to approximately 4x the maximum optical zoom ratio, can be activated by pressing when the camera is zoomed in to the maximum optical zoom position.



## Digital Zoom

The zoom indicator changes to blue when the digital zoom is activated, and it changes to yellow when the zoom magnification is increased further.

- Zoom indicator is blue: Image quality is not noticeably reduced by using the Dynamic Fine Zoom.
- Zoom indicator is yellow: There may be cases in which image quality is noticeably reduced.
- The indicator remains blue across a wider area when the image size is smaller.

# **Focusing**

## The Shutter-release Button

Press halfway



To press the shutter-release button "halfway" means to press and hold the button at the point where you feel a slight resistance.

- Focus and exposure (shutter speed and f-number) are set when you press the shutter-release button halfway. Focus and exposure remain locked while the button is pressed halfway.
- The focus area varies depending on the shooting mode and settings.

Press all the way



To press the shutter-release button "all the way" means to press the button down completely.

- The shutter is released when the shutter-release button is pressed all the way.
- Do not use force when pressing the shutter-release button, as this may result in camera shake and blurred images. Press the button gently.

# **Using Face Detection**

In the following settings, the camera uses face detection to automatically focus on human faces.

- Point and shoot (□32)
- Underwater face framing (□38), Shoot at intervals (□38), and Take a series of pictures (□39) when using Choose a style
- **Smile timer** (□□35)

If the camera detects more than one face, a double

border is displayed around the face that the camera focuses on, and single borders are displayed around the other faces.

If no faces are detected when the shutter-release button is pressed halfway:

- When Point and shoot is selected, the focus area changes depending on the shooting conditions that the camera recognizes.
- In Shoot at intervals, Take a series of pictures, or Smile timer, the camera
  focuses in the center of the frame.

### Notes About Face Detection

- 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

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# Using Skin Softening

In the following settings, if human faces are detected, the camera processes the image to soften facial skin tones before saving the image (up to three faces).

Smile timer (☐ 35).

Make skin prettier can also be applied to saved images by using Add makeup in playback mode (\$\square\$63).

## Notes About Skin Softening

- It may take more time than usual to save images after shooting.
- Under some shooting conditions, the desired skin softening results may not be achieved, and skin softening may be applied to areas of the image where there are no faces.

## **Subjects Not Suitable for Autofocus**

The camera may not focus as expected in the following situations. In rare cases, the subject may not be in focus despite the fact that the focus area or the focus indicator is displayed in green:

- Subject is very dark
- Objects of sharply differing brightness are included in the scene (e.g. the sun behind the subject makes that subject appear very dark)
- No contrast between the subject and surroundings (e.g. a portrait subject wearing a white shirt is standing in front of a white wall)
- Several objects are at different distances from the camera (e.g. the subject is inside a cage)
- Subjects with repeating patterns (window blinds, buildings with multiple rows of similarly shaped windows, etc.)
- · Subject is moving rapidly

In the situations noted above, try pressing the shutter-release button halfway to refocus several times, or focus on another subject positioned at the same distance from the camera as the actual desired subject, and use focus lock ( $\square$ 52).

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#### **Focus Lock**

Focus lock shooting is recommended when the camera does not activate the focus area that contains the desired subject. The following explains how to use focus lock when the focus area is displayed in the center of the frame.

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1 Position the subject in the center of the frame and press the shutter-release button halfway.



- The camera focuses on the subject and the focus area is displayed in green.
- · Exposure is also locked.
- 2 Without lifting your finger, recompose the picture.
  - · Make sure to maintain the same distance between the camera and the subject.



Press the shutter-release button all the way down to take the picture.



# Functions That Cannot Be Used Simultaneously When Shooting

Some functions cannot be used with other menu options.

Restricted function	Option	Description
Flash	Choose a style (□36)	When Shoot night scenes, Photograph food, Take a series of pictures, Photograph fireworks, Shoot backlit scenes, Shoot a movie miniature, or Add light trails is selected, the flash cannot be used.
Self-timer	Choose a style (□36)	When Underwater face framing, Shoot at intervals, Take a series of pictures, or Photograph fireworks is selected, the self- timer cannot be used.  When Shoot night scenes or Add light trails is selected, Self-portrait timer cannot be used.
Smile timer	Choose a style (◯◯36)	When any option in <b>Choose a style</b> is enabled, <b>Smile timer</b> cannot be used.
	Highlight colors (QQ44)	When <b>Highlight colors</b> is enabled, <b>Smile timer</b> cannot be used.
Decorate	Smile timer (◯◯35)	When <b>Smile timer</b> is selected, <b>Decorate</b> cannot be used.
	Choose a style (◯◯36)	When any option in <b>Choose a style</b> is enabled, <b>Decorate</b> cannot be used.
Change colors -	Smile timer (QQ35)	When <b>Smile timer</b> is selected, <b>Change colors</b> cannot be used.
	Choose a style (C) 36)	When any option in <b>Choose a style</b> is enabled, <b>Change colors</b> cannot be used.
Choose a size	Choose a style (QQ36)	When <b>Shoot a movie miniature</b> or <b>Add light trails</b> is selected, <b>Choose a size</b> cannot be used.
Photo size	Decorate (QQ43)	When <b>Decorate</b> is selected, the <b>Photo size</b> setting is fixed at <b>Small (2 megapixels)</b> .
Date stamp	Choose a style (◯◯36)	When Take a series of pictures, Shoot a movie miniature, or Add light trails is selected, the date cannot be stamped on images.

Restricted function	Option	Description
Electronic VR	Choose a style (D36)	When Shoot night scenes, Shoot at intervals, Take a series of pictures, Photograph fireworks, Shoot backlit scenes, or Add light trails is selected, electronic VR is disabled.
Digital zoom	Smile timer (◯◯35)	When <b>Smile timer</b> is selected, digital zoom cannot be used.
	Choose a style (C)36)	When Shoot night scenes, Shoot under water, Underwater face framing, Shoot backlit scenes, Take soft pictures, Create a diorama effect, or Shoot a movie miniature is selected, digital zoom cannot be used.

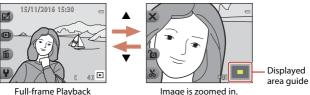
## **Playback Features**

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## **Playback Zoom**

Pressing the multi selector ▲ in full-frame playback mode (□26) zooms in on the image.





- You can change the magnification rate by pressing ▲▼.
- To view a different area of the image, press flexible button 3 (a) to lock the magnification rate and press  $\triangle \nabla \triangleleft \triangleright$ . If you want to change the magnification rate, press flexible button 3 (a) and then change the magnification rate as desired.
- When a zoomed image is displayed, press flexible button 1 (X) to return to fullframe playback mode.

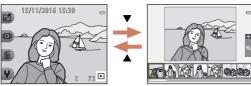
#### X Crop: Creating a Cropped Copy

When using playback zoom, you can crop the image and save the displayed area of the image as a separate file by pressing flexible button 4 (%).

## **Thumbnail Playback**

Pressing the multi selector ▼ in full-frame playback mode (□26) displays images in contact sheets of thumbnail images.





Full-frame Playback

Thumbnail Playback

• While using thumbnail playback mode, press  $\P$  to select an image, and the selected image is magnified and displayed at the center of the screen. Select an image and press **A**, and the selected image is displayed in the full-frame playback mode

# Functions Available in Playback Mode (Playback Menu)

When viewing images in full-frame playback mode, you can select one of the flexible buttons ( $\square$ 7) and display the corresponding menu.

Flexible button	Option	Description	
년 Have fun with pictures	Exchange messages <sup>1</sup>	Allows you to add voice messages to your images.	59
	Picture play <sup>1</sup>	Allows you to edit your images using a variety of functions.	62
	Grading <sup>2</sup>	Allows you to add grade marks to your images. You can play back only the images that have grade marks. Protects selected images from accidental deletion.	74
	Favorites <sup>3</sup>	Allows you to play back only the images added to favorites. Protects selected images from accidental deletion.	78
<b>₽</b> View	View by date	Allows you to play back images by selecting the shooting date from the calendar.	82
	Slide show	Allows you to view images in an automated slide show.	83
តែ Erase	Erase this picture only	Allows you to delete only the image currently displayed.	27
	Erase selected pictures	Allows you to select multiple images and delete them.	28
	Erase all pictures	Allows you to delete all images.	27
<b>♀</b> Settings	Mark for upload	Allows you to select images in the camera that you want to transfer to a smart device.	87
	Retouch	Allows you to copy or rotate images or create a small copy of the current image.	88
	Camera settings	Allows you to change a number of general settings.	108

Available when a still image is displayed.

<sup>&</sup>lt;sup>2</sup> This function is displayed when **Variety menu** ( $\square$ 113) is set to **On**.

<sup>&</sup>lt;sup>3</sup> This function is displayed when **Variety menu** (Q113) is set to **Off**.

## **P** Exchange Messages

Voice messages can be recorded and attached to images.

· You can attach up to two messages to each image.

Enter playback mode  $\Rightarrow$  select an image  $\Rightarrow$  flexible button 1 ( $\underline{\mathscr{C}}$ )  $\Rightarrow$  flexible button 2 ( $\mathscr{C}$  Exchange messages)

#### Leave a Message

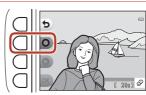
1 Press flexible button 2 (O Record).



- Press flexible button 2 (① Leave a message).
  - You cannot select this option if the image already has a message attached to it. → "Leave a Reply" (□60)



- 3 Press flexible button 2 (O).
  - Recording starts. You can record for up to about 20 seconds.
  - Do not touch the microphone.
  - Press flexible button 2 (**O**) again to stop recording.
  - If battery power runs out, recording stops automatically.
  - The message is saved when you press flexible button 4 (OK) in step 4. You can rerecord the message as long as you do not press flexible button 4.
  - Press flexible button 3 ( ) to play back the message.
  - Press flexible button 1 (**5**) before or after recording a message to return to step 2.





- 4 Press flexible button 4 (**OK**).
  - Message recorded. is displayed and the message is attached to the image.
  - · Delete the current message before recording a new message ( $\square$ 61).



## Leave a Reply

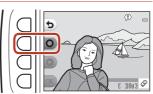
Press flexible button 2 (O Record).



- Press flexible button 3 ( Leave a reply).
  - · You cannot select this option if the image does not have a message attached to it. → "Leave a Message"  $(\Box \Box 59)$



- 3 Press flexible button 2 (**O**).
  - Once recording starts, the operations are the same as explained in "Leave a Message" (QQ59).





#### **Play Recordings**

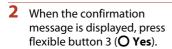
#### Press flexible button 3 ( Play recordings).

- The camera plays the message. If two messages have been recorded, they are played back to back.
- Press flexible button 1 (5) to stop playback.
- Use the multi selector ▲▼ during playback to adjust playback volume.
- If battery power runs out, playback stops automatically.

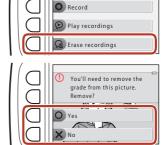


## **Erase Recordings**

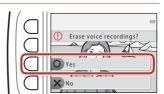
- Press flexible button 4 ( Fig. Erase recordings).
  - If you select an image that has a grade mark (\(\(\Delta\)74) or an image that is added to favorites (\(\Delta\)78), a confirmation message is displayed.
    - O Yes: Removes the grade or removes the image from favorites and displays the screen displayed in step 2.
    - X No: Returns to step 1.



 Only the recording is deleted. If both a message and a reply have been recorded, they are both deleted.



**5** Exchange messages





## **Picture Play**

#### **Before Editing Images**

You can easily edit images on this camera. Edited copies are saved as separate files (except for Rotate pictures).

Edited copies are saved with the same shooting date and time as the original.

## Restrictions on Image Editing

- An image can be edited up to 10 times (there is no restriction on the number of times Rotate pictures can be applied).
- You may not be able to edit images of a certain size or with certain editing functions.

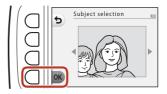




## Add Makeup

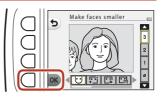
Enter playback mode  $\rightarrow$  select an image  $\rightarrow$  flexible button 1 ( $\stackrel{\square}{\cong}$ )  $\rightarrow$  flexible button 3 ( $\stackrel{\square}{\cong}$  Picture play)  $\rightarrow$  use  $\blacktriangleleft$  to select  $\stackrel{\square}{\cong}$   $\rightarrow$  flexible button 4 ( $\stackrel{\square}{OK}$ )

- Use the multi selector ▲▼◀▶ to select the face that you want to retouch and press flexible button 4 (OK).
  - When only one face is detected, proceed to step 2.



- Use ◀▶ to select the effect, use ▲▼ to select the effect level, and press flexible button 4 (**OK**).
  - You can simultaneously apply multiple effects.

Adjust or check the settings for all effects before pressing flexible button 4 (**OK**).



U Make faces smaller, ☑ Make skin prettier, ☑ Color faces, ☒ Make skin less shiny, U Hide eye bags, U Make eyes bigger, U Whiten eyes, U Add eye shadow, U Add mascara, W Whiten teeth, U Color lips, U Redden cheeks

- Press flexible button 1 (5) to return to the screen for selecting a person.
- **3** Preview the result and press flexible button 4 (**OK**).
  - To change the settings, press flexible button 1 (**5**) to return to step 2.





#### Notes About Add Makeup

- One face can be edited at a time. To add makeup to another face, edit the edited image again.
- Depending on the direction in which faces are looking, or the brightness of faces, the camera may be unable to accurately detect faces, or the function may not perform as expected.
- If no faces are detected, a warning is displayed and the screen returns to the playback menu
- Only images captured at an image size of 640 × 480 or larger can be edited.

#### Make Photo Albums

Enter playback mode  $\Rightarrow$  flexible button 1 (E)  $\Rightarrow$  flexible button 3 (E Picture play) → use ◀▶ to select 🖪 → flexible button 4 (**OK**)

Display images similarly to a photo album. Select one of five different photo album designs. The created album is saved as a separate image of Small (2 megapixels)  $(1600 \times 1200)$  in size.

Use the multi selector ◀▶ to select an image.



- 2 Press flexible button 2 (�).
  - · A check mark is displayed.
  - · A check mark is displayed or removed every time you press flexible button 2 (**⊘**).
  - Press flexible button 3 (RESET) to remove all check marks.
  - · Images are arranged in an album in the order the check marks were added.
  - Up to 20 images can be selected.



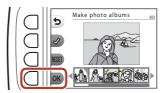




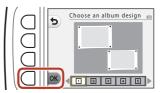




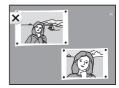
**3** Press flexible button 4 (**OK**).



4 Use ◀▶ to select the desired photo album design and press flexible button 4 (OK).



- Photo albums are displayed one page at a time. After all pages have been displayed, the camera returns to Have fun with pictures menu.
- To cancel before the photo album has been created, press flexible button 1 (X).



#### Notes About Make Photo Albums

- Movies cannot be selected.
- This camera is unable to select images captured with other cameras.

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**6** Playback Features



## Add a Fisheye Effect

Enter playback mode → select an image → flexible button 1 (🗗) → flexible button 3 ( $\square$  Picture play)  $\rightarrow$  use  $\blacktriangleleft$  to select  $\square$   $\rightarrow$  flexible button 4 ( $\bigcirc$ K)

Make an image look as if it were captured with a fisheve lens. This effect is well-suited for images captured using **Shoot close-ups** in the shooting menu.

#### Confirm the effect and press flexible button 4 (OK).

To cancel, press flexible button 1 (5).



## Day Camera

Enter playback mode  $\rightarrow$  select an image  $\rightarrow$  flexible button 1 ( $\square$ )  $\rightarrow$  flexible button 3 ( ☐ Picture play) → use ◆ to select 🛱 → flexible button 4 (OK)

Make an image look as if it were shot with a toy camera. This effect is well-suited for landscapes.

#### Confirm the effect and press flexible button 4 (OK).

• To cancel, press flexible button 1 (**5**).





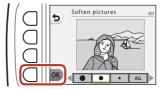
#### Soften Pictures

Enter playback mode → select an image → flexible button 1 (🗗) → flexible button 3 ( $\square$  Picture play)  $\rightarrow$  use  $\blacktriangleleft$  to select  $\bigcirc$   $\rightarrow$  flexible button 4 ( $\bigcirc$ K)

Soften the image by adding a slight blur around the center of the image. Four blur regions are available.

Use the multi selector ◀▶ to select the area to be blurred and press flexible button 4 (OK).

- To add a slight blur to the entire image. press **ALL**.
- To cancel, press flexible button 1 (5).



#### \* Add Starbursts

Enter playback mode → select an image → flexible button 1 (🗗) → flexible button 3 ( $\square$  Picture play)  $\rightarrow$  use  $\blacktriangleleft$  to select \*  $\rightarrow$  flexible button 4 (**OK**)

Produce star-like rays of light that radiate outward from bright objects such as sunlight reflections or street lights. This effect is suitable for night scenes.

#### Confirm the effect and press flexible button 4 (OK).

• To cancel, press flexible button 1 (5).





#### Add a Diorama Effect

Enter playback mode  $\Rightarrow$  select an image  $\Rightarrow$  flexible button 1 ( $\stackrel{\square}{\cong}$ )  $\Rightarrow$  flexible button 3 ( $\stackrel{\square}{\cong}$  Picture play)  $\Rightarrow$  use  $\blacktriangleleft$  to select  $\stackrel{\square}{\cong}$   $\Rightarrow$  flexible button 4 ( $\stackrel{\square}{OK}$ )

Make an image look like a miniature scene captured in macro mode. This effect is well-suited for images captured from a high vantage point with the main subject at the center of the image.

## Confirm the effect and press flexible button 4 (**OK**).

To cancel, press flexible button 1 (5).



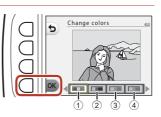
## Change Colors

Enter playback mode  $\Rightarrow$  select an image  $\Rightarrow$  flexible button 1 ( $\stackrel{\square}{\cong}$ )  $\Rightarrow$  flexible button 3 ( $\stackrel{\square}{\cong}$  Picture play)  $\Rightarrow$  use  $\blacktriangleleft$  to select  $\stackrel{\triangleleft}{\Rightarrow}$  flexible button 4 ( $\stackrel{\square}{OK}$ )

Adjust image colors.

# Use the multi selector ◀▶ to select the desired setting and press flexible button 4 (**OK**).

- The following image color settings are available.
  - 1 Vivid color (default setting): Use to achieve a vivid, photoprint effect.
  - 2 Black-and-white: Save images in black-and-white.
  - Sepia: Save images in sepia tones.
  - 4 Cyanotype: Save images in cyan-blue monochrome.
- To cancel, press flexible button 1 (5).







## Highlight Colors

Enter playback mode  $\Rightarrow$  select an image  $\Rightarrow$  flexible button 1 ( $\underline{\mathbb{C}}$ )  $\Rightarrow$  flexible button 3 ( $\underline{\mathbb{C}}$  Picture play)  $\Rightarrow$  use  $\blacktriangleleft$  $\triangleright$  to select  $\mathscr{E} \Rightarrow$  flexible button 4 ( $\mathbf{OK}$ )

Create a black and white image in which only the specified color remains.

Use the multi selector ◀▶ to select a color and press flexible button 4 (**OK**).

• To cancel, press flexible button 1 (5).





#### Decorate

Enter playback mode → select an image → flexible button 1 (🗗) → flexible button 3 (☐ Picture play) → use ◀▶ to select 🔳 → flexible button 4 (OK)

Add a frame around your images. The image size of the edited copy varies depending on the size of the original image, as described below.

- When the original image is **Small (2 megapixels)** (1600  $\times$  1200) or larger, the copy is saved at **Small (2 megapixels)** ( $1600 \times 1200$ ).
- When the original image is smaller than **Small (2 megapixels)** (1600  $\times$  1200), the copy is saved at the same size as the original.

#### Use the multi selector ◀▶ to select the desired frame and press flexible button 4 (OK).

- The frame is added to the image and saved as a new copy.
- To cancel, press flexible button 1 (5).
- Press flexible button 3 (
  ) to remove the frame.



#### Notes About Decorate

- The frame is placed on top of the image, therefore a large area of the image is covered depending on the design of the frame.
- When using borderless printing to print images that you have added frames to, the frames may not be printed.



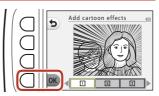


## **Add Cartoon Effects**

Enter playback mode  $\Rightarrow$  select an image  $\Rightarrow$  flexible button 1 ( $\underline{\mathbb{C}}$ )  $\Rightarrow$  flexible button 3 ( $\underline{\mathbb{C}}$  Picture play)  $\Rightarrow$  use  $\blacktriangleleft \triangleright$  to select  $\frac{1}{3}$   $\Rightarrow$  flexible button 4 ( $\mathbf{OK}$ )

Make a captured image look like a panel from a comic by drawing lines. Three effects are available.

- 1 Use the multi selector ◀► to select the subject to which the effect will be applied and press flexible button 4 (OK).
  - When one subject is detected, proceed to step 2.
- Choose a subject
- 2 Use **◄** to select an effect and press flexible button 4 (**OK**).



- 3 Confirm the effect and press flexible button 4 (**OK**).
  - To change the settings, press flexible button 1 (5) to return to step 2.



#### Notes About Add Cartoon Effects

If no faces or main subjects are detected, a warning is displayed and the screen returns to the playback menu.

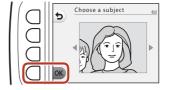


## **品 Stamp**

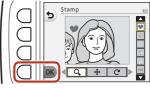
Enter playback mode  $\Rightarrow$  select an image  $\Rightarrow$  flexible button 1 ( $\underline{\mathbb{C}}$ )  $\Rightarrow$  flexible button 3 ( $\underline{\mathbb{C}}$  Picture play)  $\Rightarrow$  use  $\blacktriangleleft \triangleright$  to select  $\underline{\mathbb{C}}$   $\Rightarrow$  flexible button 4 ( $\mathbf{OK}$ )

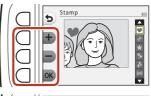
Add stamps to an image. You can enlarge or shrink, move, and rotate the stamps.

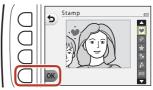
- 1 Use the multi selector ◀▶ to select the subject to which the stamp will be applied and press flexible button 4 (OK).
  - When one subject is detected, proceed to step 2.



- 2 Use ▲▼ to select a stamp type, use ◀▶ to adjust the stamp, and press flexible button 4 (**OK**).
  - Q (enlarge or shrink), ⊕ (move), and
     C (rotate) are available for adjustment.
  - In Q (enlarge or shrink), press flexible button 2 (+) or flexible button 3 (-) to adjust the size of the stamp, and then press flexible button 4 (OK).
  - In ♣ (move), use ▲▼◀► to move the stamp, and press flexible button 4 (OK).

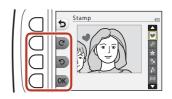




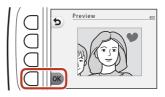




In C (rotate), press flexible button 2
 (C) or flexible button 3 (D) to adjust the direction of the stamp, and press flexible button 4 (OK).



- **3** Confirm the effect and press flexible button 4 (**OK**).
  - To change the settings, press flexible button 1 (**5**) to return to step 2.





## **W** Grading

This function is displayed when **Variety menu** ( $\square$ 113) is set to **On**. Grade images by using **\(\vec{\psi}\) Excellent** or **\(\mathbb{Q}\) Good**. You can use **View graded pictures** to play back only the images that have grade marks.

Enter playback mode → flexible button 1 (🖆) → flexible button 4 (😈 Grading)

#### **Grade Pictures**

1 Press flexible button 2 (**W** Grade pictures).



2 Use the multi selector ◀▶ to select an image and press flexible button 2 (¥) or flexible button 3 (♣).



- Graded images are indicated with grade marks (\mathscr{O}\)
  or \( \mathscr{Q} \)) on the playback screen, and are protected.
- You cannot add two grade marks to a single image.



## Notes About Graded Images

Formatting the memory card or the camera's internal memory ( $\square$ 117) permanently deletes all data, including graded images.

## Grading

- Graded images are also added to Favorites (\$\sum 78\$). Removing the grade also removes
  the image from favorites.
- Grade mark <sup>6</sup> can be added to up to a total of 200 images that includes the images added to favorites. Grade mark <sup>6</sup> can be added to up to a total of 200 images.



#### **Changing or Removing Grades from Individual Images**

In step 2 (QQ74) of "Grade Pictures", select the image with the grade you want to change or remove.

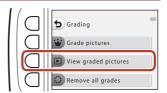


- Change or remove the grade.
  - Press flexible button 2 (₩) or flexible button 3 (2) to change the current grade to the selected grade.
  - Press flexible button 2 (\*) or flexible button 3 (3) to remove the grade of the selected image.

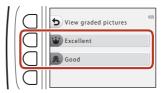


#### **View Graded Pictures**

Press flexible button 3
( View graded pictures).



- Press flexible button 2
  (\*\*Excellent) or flexible button 3 (\*\*Good).
  - Only images with the grade mark you selected are displayed.



- 3 Use the multi selector **◆** to view images.
  - Press **A** to magnify the image.
  - Press ▼ to switch to thumbnail playback mode.
  - Press flexible button 1 (5) to return to the screen displayed in step 2.
  - Press flexible button 4 (X) to return to full-frame playback mode (□26).



#### Notes About View Graded Pictures

Images cannot be edited, including changing or removing grades, when they are played back using **View graded pictures**.

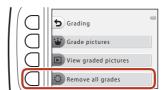
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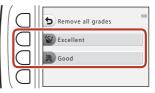
#### **Remove All Grades**

Press flexible button 4 (Remove all grades).

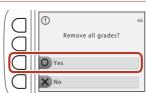


Press flexible button 2

( Excellent) or flexible button 3 ( Good).



- 3 Press flexible button 3 (**O Yes**).
  - The selected grade mark is removed from all images.





## **⊡** Favorites

This function is displayed when **Variety menu** ( $\square$ 113) is set to **Off**. You can use **View favorites** to play back only the images added to favorites.

Enter playback mode → flexible button 1 (🗗 ) → flexible button 4 (📼 Favorites)

#### **Add to Favorites**

Press flexible button 2 ( Add to favorites).



2 Use the multi selector ◀► to select a favorite image and press flexible button 2 (►).



 Images added to favorites are displayed with a on the playback screen, and are protected.



## Notes About Images Added to Favorites

Formatting the memory card or the camera's internal memory ( $\square$ 117) permanently deletes all data, including graded images.

#### Favorites

- Grade mark & (\$\sup\$) is added to images that are added to favorites. Removing the image from favorites also removes the grade.
- Up to a total of 200 images can be added to favorites, which includes graded images.



#### **Removing Favorites from Individual Images**

1 In step 2 (QQ78) of "Add to Favorites", select the image that you want to remove from favorites.

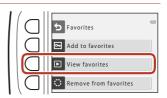


- Press flexible button 2 ( ).
  - The selected image is removed from favorites.



#### View Favorites

1 Press flexible button 3 ( View favorites).



- 2 Use the multi selector **◄** to view images.
  - Press **\( \Delta \)** to magnify the image.
  - Press ▼ to switch to thumbnail playback mode.
  - Press flexible button 1 (5) to return to the screen displayed in step 1.
  - Press flexible button 4 (X) to return to full-frame playback mode (QQ26).



#### Notes About View Favorites

Images cannot be edited, including removing from favorites, when they are played back using View favorites.

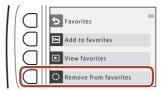






#### **Remove From Favorites**

Press flexible button 4
(:Remove from favorites).



- Press flexible button 3 (**O Yes**).
  - All images added to favorites are removed.



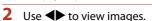


## **Wiew by Date**

Play back images by selecting the shooting date from the calendar.

Enter playback mode  $\Rightarrow$  flexible button 2 ( $\P$ )  $\Rightarrow$  flexible button 2 ( $\P$  View by date)

- Use the multi selector ▲▼◀► to select the desired date and press flexible button 4 (**OK**).
  - Images are selected based on the selected date. The first image captured on that date is displayed.
  - A white background of a date indicates that images were recorded on that date.
  - Press flexible button 2 (▶) to display the next month. Press flexible button 3 (◄) to display the previous month.



- Press ▲ to magnify the image.
- Press ▼ to switch to thumbnail playback mode.
- Press flexible button 1 (5) to return to the screen displayed in step 1.
- Press flexible button 4 (X) to return to full-frame playback mode (□26).



## Notes About View by Date

- $\bullet\,$  The 9000 most recent images can be displayed.
- Images captured when the camera's date is not set are treated as images captured on January 1, 2016.
- When movie files are played back, only the first frame of each movie is displayed.
- Images cannot be edited when they are played back using View by date.

## **□** Slide Show

Play back images one by one in an automated "slide show." When movie files are played back in the slide show, only the first frame of each movie is displayed. Background music is played during playback. Background music varies depending on the theme selected under  $\triangle$  Choose a theme ( $\square$ 86).

Enter playback mode → flexible button 2 ( here) → flexible button 3 ( Slide show)

#### **Choose Pictures**

- Press flexible button 3 ( Choose pictures).
  - To play back all images → step 3.



- Use flexible button 2, 3, or 4 to select the images you want to play back.
  - W View graded pictures/ View favorites: Only graded images or images added to favorites are played back. Proceed to step 3.





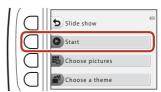






#### Press flexible button 2 ( Start).

· The slide show begins.



- · To pause playback, press flexible button 4 (10). To exit, press flexible button 1 (15).
- While the slide show is in progress, press the multi selector ▶ to display the next image or ◀ to display the previous image. Press and hold ▶ or ◀ to fast forward or rewind.
- Press ▲▼ during playback to adjust the volume of the background music.



## 4 End or restart the slide show.

- The screen shown on the right is displayed when the slide show is paused.
  - X: Returns to the screen displayed in step 1.
  - D: Displays the next image.
  - ①: Displays the previous image.
  - : Resumes playback.





#### **Pick a Series**

- Press flexible button 2 ( Choose pictures).
  - The first image in the folder where images captured using Shoot at intervals are saved is displayed.



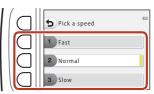
2 Use flexible button 2 (▶ Next series) or flexible button 3 (◀ Previous series) to select the folder and press flexible button 4 (OK).



3 Press flexible button 3 ( Pick a speed).



- 4 Use flexible button 2, 3, or 4 to select a desired speed.
  - Select 1 Fast, 2 Normal (default setting), or 3 Slow.

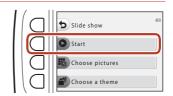


5 Press flexible button 4 (**OK**).





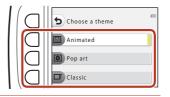
- 6 Press flexible button 2 ( Start).
  - The slide show begins.



#### **Choose a Theme**

- 1 Press flexible button 4 ( Choose a theme).
- Start
  Choose a theme
- 2 Use flexible button 2, 3, or 4 to select a playback theme.
  - Select ☑ Animated (default setting),

    ☑ Pop art, or ☐ Classic.



- Press flexible button 2 ( Start).
  - The slide show begins.



#### Notes About Slide Show

The maximum playback time is up to about 30 minutes.



## Mark for Upload

Select images in the camera that you want to transfer to a smart device in advance before transferring them.

- Movies cannot be selected. To upload movies to a smart device, use the SnapBridge app.
- Note that when you select the **Reset all** (□122) or **Network menu** > **Restore default settings** ( $\square$ 110) option in the camera settings menu, the Mark for upload settings that you made are canceled.

Enter playback mode → flexible button 4 ( ) → flexible button 2 ( Mark for upload)

- Use the multi selector  $\blacktriangleleft \triangleright$  to select an image to upload and press flexible button 2 (4).
  - The selected image is indicated by a check mark.
  - A check mark is displayed or removed every time you press flexible button 2 (**4**).

Mark for upload

- Press flexible button 3 (RESET) to remove all check marks.
- 2 Add check marks to all images that you want to upload and then press flexible button 4 (**OK**) to confirm the selection.



## **I** Retouch

Copy or rotate images or create a small copy of the current image.

Enter playback mode → flexible button 4 (🖞) → flexible button 3 (🗹 Retouch)

## Copy

Images can be copied between a memory card and the internal memory.

- When a memory card that contains no images is inserted and the camera is switched to playback mode, Memory contains no images. is displayed. In that case, press a flexible button and select flexible button 3 ( Retouch) to select Copv.
- 1 Press flexible button 2 (**ℍ** Copy).



2 Use flexible button 2 ( Camera to card) or flexible button 3 ( Card to camera) to select the copy source and destination.



- 3 Use flexible button 2 (間 Selected images) or flexible button 3 ( All images) to select the copy method.
  - When All images is selected, proceed to step 6.



- 4 Use the multi selector **◆** to select an image and press flexible button 2 ( ).
  - The selected image is indicated by a check mark.
  - A check mark is displayed or removed each time you press flexible button 2 (**4**).
  - Press flexible button 3 (RESET) to remove all check marks.
  - · Repeat step 4 to select additional images.
- Press flexible button 4 (**OK**) to apply image selection.

Selected images

- A confirmation dialog is displayed.
- 6 Press flexible button 3 (O Yes).
  - · Images are copied.

## Notes About Copy

- Only files in formats that this camera can record can be copied.
- Operation is not guaranteed with images captured with another make of camera or that have been modified on a computer.
- The Grade pictures (\$\infty\$74) and Add to favorites (\$\infty\$78) settings configured for images are not copied.



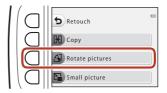




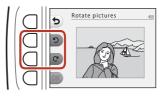
# **A** Rotate Pictures

Specify the orientation in which saved images are displayed during playback.
Still images can be rotated 90 degrees clockwise or 90 degrees counterclockwise.

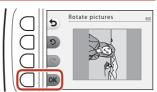
1 Press flexible button 3 (A Rotate pictures).



- Press flexible button 2 (**5**) or flexible button 3 (**C**).
  - The image is rotated 90 degrees.



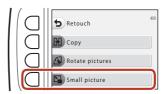
- **3** Press flexible button 4 (**OK**).
  - The displayed orientation is applied, and the orientation information is saved with the image.



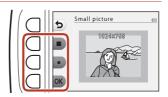
# Small Picture

Create a small copy of images.

Press flexible button 4 (☐ Small picture).



- 2 Use flexible button 2 (■) or flexible button 3 (■) to select the desired copy size and press flexible button 4 (**OK**).
  - A new, edited copy is saved as a separate image with a compression ratio of about 1:8.
  - To cancel, press flexible button 1 (5).



## Notes About Small Picture

Images with an image size of  $640 \times 480$  or smaller cannot be edited using **Small picture**.



# **Movies**

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# **Recording and Playing Back Movies**

- When using the camera's internal memory, the movie frame size ( $\square$ 48) can be set to II Small (640) or P Small (old-fashioned).
- Display the shooting screen.
  - Check the remaining amount of movie recording time.



Remaining movie recording time

- 2 Press the (► movie-record) button to start movie recording.
  - The camera focuses in the center of the frame.





Press the ● ( T) button again to end recording.

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- 4 Select a movie in full-frame playback mode and press the multi selector  $\triangle$ .
  - An image with a playback time displayed is a movie.



Playback time

#### **Area Captured in Movies**

- The area that is captured in a movie varies depending on **Movie frame size**  $(\Box 148).$
- When recording movies while **Electronic VR** ( 115) in the camera settings is set to **Auto**, the angle of view (i.e., the area visible in the frame) is narrow compared to that of still images.

#### **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.
- 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 (QQ150). Movie recording may stop unexpectedly when memory cards with a lower Speed Class rating are used.

# Notes About Camera Temperature

- The camera may become hot when shooting 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.

The amount of time remaining until the camera stops recording ( 10s) is displayed. After the camera stops recording, it turns itself off.

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Leave the camera off until the inside of the camera has cooled



### **Notes About Movie Recording**

# Notes About Saving Images or Movies

The indicator showing the number of exposures remaining or the indicator showing the remaining recording time flashes while images or movies are being saved. Do not open the battery-chamber/memory card slot cover or remove the battery or memory card while an indicator is flashing. Doing this could result in loss of data, or in damage to the camera or the memory card.

## Notes About Recorded Movies

- The optical zoom ratio cannot be changed once recording starts.
- There may be some degradation in image quality when digital zoom is used.
- The sounds of multi selector operation, autofocus lens drive movement, and aperture operation when brightness changes may be recorded.
- 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 or the amount of zoom applied, 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.

# Notes About Autofocus for Movie Recording

Autofocus may not perform as expected (QQ51). Should this occur, try the following: Frame another subject (positioned at the same distance from the camera as the intended subject) in the center of the frame, press the (\*\overline{\pi}\) movie-record) button to start recording, and then modify the composition.

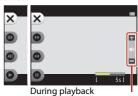
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# **Operations During Movie Playback**

To adjust the volume, press the multi selector **▲** ▼ while a movie is playing.

You can use the flexible buttons to perform the following operations.





Volume indicator

Function	lcon	Description		
Advance	0	Hold (	Hold down the button to advance the movie.	
Rewind	0	Hold	Hold down the button to rewind the movie.	
Pause	Φ	Pause pause	playback. The operations listed below can be performed while id.	
		•	Advance the movie one frame. Hold down the button for continuous advancing.	
		•	Rewind the movie one frame. Hold down the button for continuous rewinding.	
		0	Resume playback.	
End	×	Return to full-frame playback mode.		

# Connecting the Camera to a TV, **Printer, or Computer**

Utilizing Images	98
Viewing Images on a TV	99
Printing Images Without a Computer	100
Transferring Images to a Computer (ViewNX-i)	104

# **Utilizing Images**

In addition to using the SnapBridge app (QQiii) to enjoy the captured images, you can also utilize the images in various ways by connecting the camera to the devices described below.

#### Viewing Images on a TV



Images and movies captured with the camera can be viewed on a TV. Connection method: Connect a commercially available HDMI cable to the TV's HDMI input iack.

#### **Printing Images Without a Computer**



If you connect the camera to a PictBridge-compatible printer, you can print images without using a computer.

Connection method: Connect the camera directly to the printer's USB port with the USB cable.

#### Transferring Images to a Computer (ViewNX-i)

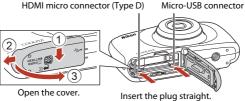


You can transfer images and movies to a computer for viewing and editina.

Connection method: Connect the camera to the computer's USB port with the USB cable.

• Before connecting to a computer, install ViewNX-i on the computer.

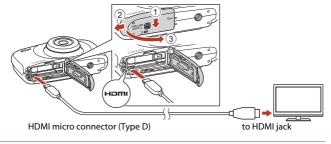
## Notes About Connecting Cables to the Camera



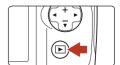
- Make sure to turn the camera off before openning the cover. Check there are no water
- droplets. If there are water droplets, wipe the camera with a soft dry cloth. • Make sure to turn the camera off before connecting or disconnecting cables. Check the shape and direction of the plugs and do not insert or remove the plugs at an angle.
- Make sure that the camera battery is sufficiently charged. If the EH-62G AC Adapter (available separately) is used, this camera can be powered from an electrical outlet. Do not use any other make or model of AC adapter as it may cause the camera to heat up or malfunction.
- For information about the connection methods and subsequent operations, refer to the documentation included with the device in addition to this document.

# **Viewing Images on a TV**

- 1 Turn off the camera and connect it to the TV.
  - Check the shape and direction of the plugs and do not insert or remove the plugs at an angle.



- 2 Set the TV's input to external input.
  - See the documentation provided with your TV for details.
- Press and hold down the ► (shooting/ playback mode) button to turn on the camera.
  - Images are displayed on the TV.
  - The camera screen does not turn on.



Connecting the Camera to a TV, Printer, or Computer

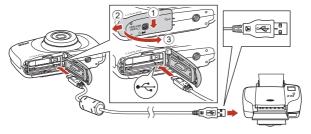


# **Printing Images Without a Computer**

Users of PictBridge-compatible printers can connect the camera directly to the printer and print images without using a computer.

### **Connecting the Camera to a Printer**

- Turn on the printer.
- Turn off the camera and connect it to the printer using the USB cable.
  - Check the shape and direction of the plugs and do not insert or remove the plugs at an angle.



- 3 The camera is automatically turned on.
  - The PictBridge startup screen (1) is displayed in the camera screen, followed by the Print selection screen (2).

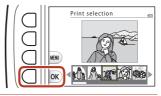


# If the PictBridge Startup Screen Is Not Displayed

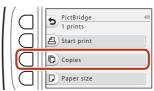
When **Auto** is selected for **Charge by computer** ( $\square$ 121), it may be impossible to print images with direct connection of the camera to some printers. If the PictBridge startup screen is not displayed after the camera is turned on, turn the camera off and disconnect the USB cable. Set **Charge by computer** to **Off** and reconnect the camera to the printer.

## **Printing Images One at a Time**

1 Use the multi selector ◀▶ to select the desired image and press flexible button 4 (OK).



- Press flexible button 3 (© Copies).
  - Use ▲▼ to set the desired number of copies (up to 9) and press flexible button 4 (**OK**).



PictBridge

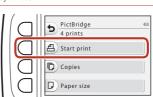
4 prints

Start print

Copies

Paper size

- Press flexible button 4 (D Paper size).
  - Use ◀▶ to select the paper size and press flexible button 4 (OK).
  - To print with the paper size setting configured on the printer, select **Default**.
  - The paper size options available on the camera vary depending on the printer that you use.
- 4 Press flexible button 2 (**台 Start print**).
  - · Printing starts.



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# **Printing Multiple Images**

1 When the Print selection screen is displayed, press flexible button 3 (MFNU).



Print menu

Print selection

ALL) Print all images

Paper size

- 2 Press flexible button 4 ( Paper size).
  - Use ◀▶ to select the paper size and press flexible button 4 (**OK**).
  - · To print with the paper size setting configured on the printer, select Default.
  - The paper size options available on the camera vary depending on the printer that you use.
  - To exit the print menu, press flexible button 1 (1).
- 3 Press flexible button 2 or 3 to select the print method.
  - Select Print selection or ALL Print all images.



#### Print selection

Select images (up to 99) and the number of copies (up to 9) of each.

- Use the multi selector ◀▶ to select images, and use flexible button 2 (+) or flexible button 3 (-) to specify the number of
- · Images selected for printing are indicated by a check mark and the number of copies to be printed. To
- Press flexible button 4 (**OK**) when setting is complete. When the screen for confirming the number of print copies is displayed, press flexible button 2 (A Start print) to start printing.



Print selection

#### Print all images

One copy each of all images saved in the internal memory, or on the memory card, is printed.

• When the screen for confirming the number of print copies is displayed, press flexible button 2 ( Start print) to start printing.

# 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.nikonimalib.com

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

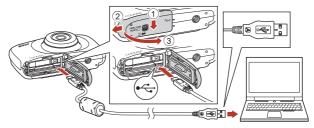
## **Transferring Images to a Computer**

### 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.

To transfer images that are saved in the camera's internal memory, remove the memory card from the camera before connecting it to the computer.



# Notes About Connecting the Camera to a Computer

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.

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

#### When using Windows 7

If the dialog shown at 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.

# **General Camera Setup**

Camera Settings Menu	108
♥ Camera Settings	110

# **Camera Settings Menu**

Enter shooting mode or playback mode  $\rightarrow$  flexible button 4 ( $\checkmark$ )  $\rightarrow$  flexible button 4 (♥ Camera settings)

The settings of the menu options listed below can be configured.

Option	Description	Φ
Network menu	Allows you to configure the wireless network settings to connect the camera and a smart device.	110
Welcome screen	Allows you to select whether or not the welcome screen is displayed when the camera is turned on.	111
Date and time	Allows you to set the camera clock.	112
Variety menu	Allows you to set whether to use all of the camera's functions.	113
Brightness	Allows you to adjust the brightness of the screen.	114
Date stamp	Allows you to imprint the shooting date on images.	114
Electronic VR	Allows you to choose whether to use electronic VR (vibration reduction) when shooting.	115
AF assist	Allows you to enable or disable the AF-assist illuminator.	116
Format card/ Format memory	Allows you to format the memory card or the internal memory.	117
Language	Allows you to change the camera's display language.	118
Image comment	Allows you to attach a comment that was previously registered to images that will be captured.	118
Copyright information	Allows you to attach the copyright information that was previously registered to images that will be captured.	119
Location data	Allows you to set whether or not to add shooting location information to the images that you take.	120
Menu background	Allows you to change the background used on the menu screen.	120
Charge by computer	Allows you to set whether or not the battery in the camera is charged when the camera is connected to a computer.	121
Reset all	Allows you to reset the camera's settings to their default values.	122

Option	Description	
Conformity marking	View some of the conformity markings that this camera has obtained.	122
Firmware version	View the current camera firmware version.	122

# **Y** Camera Settings

#### **Network Menu**

Enter shooting mode or playback mode  $\Rightarrow$  flexible button 4 ( $\P$ )  $\Rightarrow$  flexible button 4 ( $\P$  Camera settings)  $\Rightarrow$  press  $\triangle \nabla \Rightarrow {}^{(}\eta )$  Network menu

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

Option		Description
<b>★</b> Airplane mode		Select <b>On</b> 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 2 (□16) in "Setup from a Smartphone or Tablet" for more information.
Send whi	le shooting	Set the conditions for automatically sending images to a smart device.
	<b>¥</b> Network settings	<b>SSID*</b> : Change the SSID. Set a 1- to 32-character alphanumeric SSID.
<sup>((</sup> T <sup>3)</sup> Wi-Fi		<b>Auth./encryp</b> : Select whether or not to encrypt the communications between the camera and the connected smart device.  Communications are not encrypted when <b>Open</b> is selected.
•		Password*: Set the password. Set an 8- to 36-character alphanumeric password.
		<b>Channel</b> : Select the channel used for wireless connections.
	<b>€</b> Current settings	Display the current settings.
	Connection	Select <b>Disable</b> to turn off Bluetooth communication.
8 Bluetooth	Paired devices	Change the smart device to connect with, or delete the pairing with the smart device.
Diactootii	Send while off	Set whether or not to allow the camera to communicate with the smart device when the camera is off or in standby mode (CL)25).
• Restore default settings		Restore all network menu settings to their default values. This setting cannot be selected while a wireless connection is established.

<sup>\*</sup> See "Operating the Text Input Keyboard" (111) for information on how to enter alphanumeric characters.



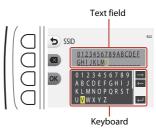






#### **Operating the Text Input Keyboard**

- Use the multi selector ▲▼◀▶ to select alphanumeric characters. Press flexible button 3 (OK) to enter the selected character in the text field and move the cursor to the next space.
- To move the cursor in the text field, select  $\leftarrow$  or  $\rightarrow$  on the keyboard, and press flexible button 3 (OK).
- To delete one character, press flexible button 2 ( $\times$ ).
- To apply the setting, select ← on the keyboard and press flexible button 3 (OK).



#### Welcome Screen

Enter shooting mode or playback mode → flexible button 4 (🖞) → flexible button 4 (♥ Camera settings) → press ▲▼ → Stati Welcome screen

Select whether or not the welcome screen is displayed when you turn on the camera.

Option	Description
○ Off	Does not display the welcome screen.
ত্যে On (default setting)	Displays an animated welcome screen. The characters and background that are displayed change according to how often you use the camera, how many images you have taken with the camera, etc.





#### **Date and Time**

Enter shooting mode or playback mode  $\rightarrow$  flexible button 4 ( $\P$ )  $\rightarrow$  flexible button 4 (♥ Camera settings) → press ▲▼ → ⑤ 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.	
9	Date format	Select Year/Month/Day, Month/Day/Year, or Day/Month/Year.	
<b>©</b>	Date and time	Set the date and time if <b>Sync with smart device</b> is set to <b>Off</b> .  • Select a field: Press the multi selector ◀▶.  • Edit the date and time: Press ★▼.  • Apply the setting: Select the minute setting and press flexible button 4 ( <b>OK</b> ).  • Set daylight saving time: Press flexible button 3 (%) to display % on the screen and enable daylight saving time. To disable daylight saving time, press flexible button 3 (%) again.	

## Variety Menu

Set whether or not to use all of the camera's functions.

Option	Description
<b>♡</b> On	Enables use of all functions.
<b>OFF</b> Off	Some functions are restricted as follows.

The following functions are disabled.

- Shooting functions
  - ■ → Choose a style → Add a bubble effect (□40), Add a neon effect (□40), Add a cartoon effect (□40)
  - ¥ → Change sounds → Turn sounds on or off (□45)
  - Y → Choose a size → Movie frame size → Small (old-fashioned) (□48)
- · Playback functions
  - **☑** → Picture play → Make photo albums (□ 64)
  - ID → Slide show → Choose a theme (□86)
- · Camera settings
  - ¥ → Camera settings → Welcome screen (□111)
  - ¥ → Camera settings → Menu background (□120)

The following functions change.

- Fewer types of frames are available in Decorate (□ 43)
- You will not be able to select sounds by using 

  → Change sounds (

  45) →

  Pick a shutter sound and Pick a button sound
- 🗹 → Grading (□74) changes to Favorites (□78)
- ♀ → Camera settings → Menu background (□120) design is fixed at 5.



### **Brightness**

Enter shooting mode or playback mode  $\rightarrow$  flexible button 4 ( $\checkmark$ )  $\rightarrow$  flexible button 4 (♥ Camera settings) → press ▲▼ → 🌣 Brightness

Adjust the brightness. The default setting is 3.

• Use the multi selector  $\blacktriangleleft$  to select the desired brightness and press flexible button 4 (OK)

#### **Date Stamp**

Enter shooting mode or playback mode  $\rightarrow$  flexible button 4 ( $\checkmark$ )  $\rightarrow$  flexible 

The shooting date can be stamped on images when shooting.



Option	Description
Date Date	Date is stamped on images.
<b>OFF</b> Off (default setting)	Date is not stamped on images.

## Notes About Date Stamp

- Stamped dates form a permanent part of image data and cannot be deleted. The date cannot be stamped on images after they have been captured.
- The date cannot be stamped in the following situations:
  - When using Take a series of pictures
  - Shoot a movie miniature
  - Add light trails
  - When shooting movies

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#### **Electronic VR**

Enter shooting mode or playback mode  $\Rightarrow$  flexible button 4 ( $\P$ )  $\Rightarrow$  flexible button 4 ( $\P$  Camera settings)  $\Rightarrow$  press  $\blacktriangle \nabla \Rightarrow$  ( $\P$ ) Electronic VR

Select the electronic VR (vibration reduction) setting used when shooting.

Option	Description
( <b>W</b> ) Auto	In the following conditions, the effects of camera shake are reduced when shooting.  • When the flash mode is set to ③ Flash off  • When the shutter speed is slow  • When the subject is dark Vibration reduction is always applied during movie recording.
<b>OFF</b> Off (default setting)	Electronic VR is disabled.

## Notes About Electronic VR

- Electronic VR is disabled while the flash is used.
- If the exposure period exceeds a certain period of time, electronic VR will not function.
- Electronic VR cannot be used when using the following styles.
  - Shoot night scenes (QQ 37)
  - Shoot at intervals (2238)
  - Take a series of pictures (QQ39)
  - Photograph fireworks (QQ39)
  - Shoot backlit scenes (QQ39)
  - Add light trails (QQ42)
- Even when electronic VR is set to **Auto**, depending on the shooting conditions (□32) automatically selected by the camera when using □ Point and shoot mode, the electronic VR may not function.
- The effectiveness of electronic VR decreases as camera shake increases.
- · Images may contain noise.



#### **AF Assist**

Enter shooting mode or playback mode  $\rightarrow$  flexible button 4 ( $\P$ )  $\rightarrow$  flexible button 4 (♥ Camera settings) → press ▲▼ → ≡ AF assist

Option	Description
AUTO Auto (default setting)	The AF-assist illuminator automatically lights up when you press the shutter-release button under dim lighting. The illuminator has a range of about 1.9 m (6 ft 2 in.) at the maximum wide-angle position and about 1.7 m (5 ft 6 in.) at the maximum telephoto position.  Note that for some settings, the AF-assist illuminator may not light.
<b>OFF</b> Off	The AF-assist illuminator does not light.

#### **Format Card/Format Memory**

Enter shooting mode or playback mode  $\rightarrow$  flexible button 4 ( $\P$ )  $\rightarrow$  flexible button 4 ( $\P$  Camera settings)  $\rightarrow$  press  $\blacktriangle \nabla \rightarrow \blacksquare$  Format card/ $\blacksquare$  Format memory

Use this option to format a memory card or the internal memory.

Formatting the memory cards or internal memory permanently deletes all data. Data that has been deleted cannot be recovered. Make sure to save important images to a computer before formatting.

#### **Formatting a Memory Card**

- Insert a memory card into the camera.
- Select Format card in the camera settings menu.

#### **Formatting the Internal Memory**

- · Remove the memory card from the camera.
- Select **Format memory** in the camera settings menu.

To start formatting, press flexible button 3 (**O Format**) on the screen that is displayed.

- Do not turn the camera off or open the battery-chamber/memory card slot cover during formatting.
- This setting cannot be selected while a wireless connection is established.

# Notes About Format card/Format memory

You cannot format while image lock (QQ29) is set. Remove image lock.



### Language

Enter shooting mode or playback mode  $\rightarrow$  flexible button 4 ( $\P$ )  $\rightarrow$  flexible button 4 ( $\P$  Camera settings)  $\rightarrow$  press  $\blacktriangle \nabla \rightarrow \blacksquare$  Language

Select a language for display of camera menus and messages.

## **Image Comment**

Enter shooting mode or playback mode  $\Rightarrow$  flexible button 4 ( $\P$ )  $\Rightarrow$  flexible button 4 ( $\P$  Camera settings)  $\Rightarrow$  press  $\blacktriangle \nabla \Rightarrow \bigcirc$  Image comment

Attach a comment that was previously registered to images that will be captured. You can imprint the attached comment to images that will be sent to a smart device using an application ( $\square$ 21).

You can also check with ViewNX-i metadata.

Option	Description
⊕ Attach comment	A comment registered with <b>Input comment</b> is attached to images.  • When you press flexible button 2 ( <b>© On</b> ), the setting is enabled, and the comment will be attached to the images captured afterwards.
	You can register a comment of up to 36 alphanumeric characters.  • See "Operating the Text Input Keyboard" (Д111) for information about the input method.

# Image Comments Display

Image comments are not displayed even if images are played back on the camera.







## **Copyright Information**

Enter shooting mode or playback mode  $\Rightarrow$  flexible button 4 ( $\P$ )  $\Rightarrow$  flexible button 4 ( $\P$  Camera settings)  $\Rightarrow$  press  $\blacktriangle \nabla \Rightarrow \textcircled{o}$  Copyright information

Attach the copyright information that was previously registered to images that will be captured.

You can imprint the attached copyright information to images that will be sent to a smart device using an application ( $\square$ 21).

You can also check with ViewNX-i metadata.

Option	Description
© Attach copyright info	Copyright information registered with <b>Artist</b> and <b>Copyright</b> is attached to images.  • When you press flexible button 2 ( <b>© On</b> ), the setting is enabled, and the copyright information will be attached to the images captured afterwards.
<b>2</b> Artist	You can register an artist name of up to 36 alphanumeric characters.  • See "Operating the Text Input Keyboard" (□111) for information about the input method.
<b>ℰ</b> Copyright	You can register a copyright owner name of up to 54 alphanumeric characters.  • See "Operating the Text Input Keyboard" (□111) for information about the input method.

# Notes About Copyright Information

- To prevent illegal use of artist names and copyright owner names when lending or transferring ownership of the camera, make sure to disable the **Attach copyright info** setting. Also, make sure that the artist name and copyright owner name are blank.
- Nikon is not responsible for any kind of trouble or damage resulting from the use of Copyright information.

## Copyright Information Display

Copyright information is not displayed even if images are played back on the camera.

#### **Location Data**

Enter shooting mode or playback mode  $\Rightarrow$  flexible button 4 ( $\P$ )  $\Rightarrow$  flexible button 4 ( $\P$  Camera settings)  $\Rightarrow$  press  $\blacktriangle \P \Rightarrow \P$  Location data

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

Option	Description
1 Download from device	Select flexible button 2 ( <b>© On</b> ) 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 <b>Position</b> again.

## Menu Background

Enter shooting mode or playback mode  $\rightarrow$  flexible button 4 ( $\P$ )  $\rightarrow$  flexible button 4 ( $\P$  Camera settings)  $\rightarrow$  press  $\blacktriangle \P \rightarrow \blacksquare$  Menu background

Select one of five different background designs to be used for a menu screen or thumbnail playback mode.

- Use the multi selector ◆► to select the desired design and press flexible button 4 (OK).
- To restore the default background designs, press flexible button 3 (RESET).



# **Charge by Computer**

Enter shooting mode or playback mode  $\rightarrow$  flexible button 4 ( $\checkmark$ )  $\rightarrow$  flexible button 4 (♥ Camera settings) → press ▲▼ → 😤 Charge by computer

Option	Description
AUTO Auto (default setting)	When the camera is connected to a computer that is running (\( \Pi \) 98), the battery inserted into the camera is automatically charged using power supplied by the computer.
<b>OFF</b> 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. If the camera is turned off, charging stops.
- About 2 hours and 30 minutes 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 Charge Lamp Quickly Flashes

Charging cannot be performed, 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, or the battery is faulty. Make sure the USB cable is connected correctly or replace the battery if necessary.
- 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.









#### Reset All

Enter shooting mode or playback mode  $\Rightarrow$  flexible button 4 ( $\P$ )  $\Rightarrow$  flexible button 4 ( $\P$  Camera settings)  $\Rightarrow$  press  $\blacktriangle \nabla \Rightarrow \bigcirc$  Reset all

When flexible button 3 (**O Reset**) 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.

# Resetting File Numbering

To reset file numbering to "0001", delete all images saved on the memory card or in the internal memory (\(\sigma 27\)) before selecting **Reset all**.

## **Conformity Marking**

Enter shooting mode or playback mode  $\rightarrow$  flexible button 4 ( $\P$ )  $\rightarrow$  flexible button 4 ( $\P$  Camera settings)  $\rightarrow$  press  $\blacktriangle \nabla \rightarrow \Box$  Conformity marking

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

#### **Firmware Version**

Enter shooting mode or playback mode  $\Rightarrow$  flexible button 4 ( $\P$ )  $\Rightarrow$  flexible button 4 ( $\P$  Camera settings)  $\Rightarrow$  press  $\blacktriangle \nabla \Rightarrow$  Ver. Firmware version

View the current camera firmware version.

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

# **Technical Notes**

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#### **Notices**

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

#### IMPORTANT SAFETY INSTRUCTIONS -SAVE THESE INSTRUCTIONS.

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

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

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

#### Federal Communications Commission (FCC) Radio Frequency Interference Statement

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



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

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

#### **CAUTIONS**

#### Modifications

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

#### Interface Cables

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







#### Notice for Customers in the State of California

#### WARNING

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

### Wash hands after handling.

Nikon Inc.,

1300 Walt Whitman Road, Melville, New York 11747-3064, U.S.A.

Tel: 631-547-4200

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

CAN ICES-3 B / NMB-3 B

### **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.





# **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 **Reset** all in the camera settings menu (108) to delete all user information registered and configured with the product, including wireless LAN connection settings and other personal information.
- Nikon is not responsible for any damages resulting from unauthorized use of this product by third parties in the event that the product is stolen or lost.

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

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

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

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

### **Declaration of Conformity**

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

#### FCC/IC RF Exposure Statement

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

The available scientific evidence does not show that any health problems are associated with using low power wireless devices. There is no proof, however, that these low power wireless devices are absolutely safe. Low power wireless devices emit low levels of radio frequency energy (RF) in the microwave range while being used. Whereas high levels of RF can produce health effects (by heating tissue), exposure of low-level RF that does not produce heating effects causes no known adverse health effects. Many studies of low-level RF exposures have not found any biological effects. Some studies have suggested that some biological effects might occur, but such findings have not been confirmed by additional research. COOLPIX W100, 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 COOLPIX W100 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\_W100.pdf.



# **Caring for the Product**

Observe the precautions described below in addition to the warnings in "For Your Safety" (\( \Quiv \text{iii} \times \)) and "<Important> Notes About Shockproof, Waterproof, and Dustproof Performance and Condensation" (\( \Quiv \text{ii} \text{viv} \)) 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.

### **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. To prevent condensation, place the device in a carrying case or a plastic bag before exposing it to sudden changes in temperature.

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

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

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

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

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

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

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

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



# **The Battery**

#### Precautions for Use

- Note that the battery may become hot after use.
- Do not use the battery at ambient temperatures below 0°C (32°F) or above 40°C (104°F) as this could cause damage or malfunction.
- If you notice any abnormalities such as excessive heat, smoke, or an unusual smell coming from the battery, immediately discontinue use and consult your retailer or Nikonauthorized service representative.
- After removing the battery from the camera or optional battery charger, put the battery in a plastic bag, etc. in order to insulate it.

### **Charging the Battery**

Check the battery level before using the camera and replace or charge the battery if necessary.

- Charge the battery indoors with an ambient temperature of 5°C to 35°C (41°F to 95°F) before use.
- A high battery temperature may prevent the battery from charging properly or completely, and may reduce battery performance. Note that the battery may become hot after use; wait for the battery to cool before charging.
  - When charging the battery inserted into this camera using the Charging AC Adapter or a computer, the battery is not charged at battery temperatures below 5°C (41°F) or above 55°C (131°F).
- When the battery temperature is between 45°C-55°C (113°F-131°F), the chargeable capacity may decrease.
- Do not continue charging once the battery is fully charged as this will result in reduced battery performance.
- The battery temperature may increase during charging. However, this is not a malfunction.

### **Carrying Spare Batteries**

Whenever possible, carry fully charged spare batteries when taking pictures on important occasions.

### Using the Battery When Cold

On cold days, the capacity of batteries tends to decrease. If an exhausted battery is used at a low temperature, the camera may not turn on. Keep spare batteries in a warm place and exchange as necessary. Once warmed, a cold battery may recover some of its charge.

## **Battery Terminals**

Dirt on the battery terminals may prevent the camera from functioning. Should the battery terminals become dirty, wipe them off with a clean, dry cloth before use.

### Charging an Exhausted Battery

Turning the camera on or off while an exhausted battery is inserted in the camera may result in reduced battery life. Charge the exhausted battery before use.

### Storing the Battery

- Always remove the battery from the camera or optional battery charger when it is not being used. Minute amounts of current are drawn from the battery while it is in the camera, even when not in use. This may result in excessive battery drain and complete loss of function.
- Recharge the battery at least once every six months and completely exhaust it before returning it to storage.
- Put the battery in a plastic bag, etc. in order to insulate it and store it in a cool place. The battery should be stored in a dry location with an ambient temperature of 15°C to 25°C (59°F to 77°F). Do not store the battery in hot or extremely cold locations.

### **Battery Life**

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. Purchase a new battery.

### **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.

# 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 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 Secure Digital memory cards (QQ 150).
- 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, press flexible button 4 (X No). Copy the necessary data to a computer, etc. To start formatting, press flexible button 3 (O Yes).
- 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 battery-chamber/memory card slot cover to remove/insert the battery or memory card.
  - Turn off the camera.
  - Disconnect the AC adapter.

# **Cleaning and Storage**

# Cleaning After Using the Camera Underwater

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

1. Keep the battery-chamber/memory card slot 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 wellventilated and shady place.
  - Place the camera on a dry cloth to dry it.
  - Do not dry the camera with hot air from a hair dryer or clothes dryer.
- 3. After making sure that there are no water droplets on the camera, open the battery-chamber/memory card slot cover and use a soft dry cloth to gently wipe off any water or sand remaining on the waterproof packing or inside the camera.
  - If the cover is closed when the inside is wet, this could cause condensation or a malfunction.

# Cleaning After Using the Camera in Conditions Other than Underwater

Use a blower to remove any dust or lint that adheres to the lens, 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.

## Storage

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

- Places that are poorly ventilated or subject to humidity of over 60%
- Places exposed to temperatures above 50°C (122°F) or below -10°C (14°F)
- Places 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. Completely exhaust the battery before storing it, and recharge it at least once every six months. Also, place the battery in a container such as plastic bag in order to insulate it, and store it in a cool place.

# **Error Messages**

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

Display	Cause/Solution	Image: control of the
Battery temperature is elevated. The camera will turn off.	The camera turns off automatically. Wait until the camera or battery temperature has cooled before	_
The camera will turn off to prevent overheating.	resuming use.	
Memory card is write protected.	The write-protect switch is in the "lock" position. Slide the write-protect switch to the "write" position.	_
This card cannot be used.	An error occurred while accessing the memory card.  • Use an approved memory card.	11, 150
This card cannot be read.	Check that the terminals are clean.     Confirm that the memory card is correctly inserted.	11,130
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, make sure to press flexible button 4 ( <b>X</b> No) and save the copies to a computer or other medium before formatting the memory card. Press flexible button 3 ( <b>O</b> Yes) to format the memory card.	131
Out of memory.	Delete images or insert a new memory card.	11, 27
	An error occurred while saving the image. Insert a new memory card or format the memory card or internal memory.	117
Image cannot be saved.	The camera has run out of file numbers. Insert a new memory card or format the memory card or internal memory.	117
	There is insufficient space to save the copy. Delete images from the destination.	27
No further pictures can be graded.	200 images have already been graded or added to favorites.	75, 77,
Album is full. No further pictures can be added.	Remove some grades or remove some images from favorites.	79, 81

Display	Cause/Solution	
Image cannot be modified.	Check that the images can be edited.	62, 142
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.	94, 150
Memory contains no images.	There are no images in the internal memory or on the memory card.  Remove the memory card to play back images in the internal memory.  To copy the images saved in the camera's internal memory to the memory card, select <b>Copy</b> in the retouch menu.	12 88
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.	-
All images are hidden.	There are no images available for a slide show, etc.	83
Turn the camera off and then on again.	If the error persists, contact your retailer or Nikon- authorized service representative.	137
Communications error	An error occurred while communicating with the printer. Turn the camera off and reconnect the USB cable.	100
System error	An error occurred in the camera's internal circuitry. Turn the camera off, remove and reinsert the battery, and turn the camera on. If the error persists, contact your retailer or Nikon-authorized service representative.	137
Printer error: check printer status.	After solving the problem, press flexible button 3 ( <b>O Resume</b> ) to resume printing.*	
Printer error: check paper.	Load the specified size of paper and press flexible button 3 ( <b>O Resume</b> ) to resume printing.*	-
Printer error: paper jam.	Remove the jammed paper and press flexible button 3 ( <b>O Resume</b> ) to resume printing.*	-
Printer error: out of paper.	Load the specified size of paper and press flexible button 3 ( <b>O Resume</b> ) to resume printing.*	-
Printer error: check ink.	There is a problem with the printer's ink. Check the ink and press flexible button 3 ( <b>O Resume</b> ) to resume printing.*	-

Display	Cause/Solution	Щ
Printer error: out of ink.	Replace the ink cartridge and press flexible button 3 ( <b>O Resume</b> ) to resume printing.*	-
Printer error: file corrupt.	There is a problem with the image file to be printed. Press flexible button 4 ( <b>X Cancel</b> ) to cancel printing.	-

<sup>\*</sup> See the documentation provided with your printer for further guidance and information.



# **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	Щ
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, remove and reinsert the battery or batteries or, if you are using an AC adapter, disconnect and reconnect the AC adapter. 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.	11, 13, 129
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.	25 129 –
The monitor is blank.	The camera is off. The camera automatically turns off to save power (auto off function). The flash lamp flashes while the flash is charging. Wait until charging is complete. The camera is connected to a TV or computer. The camera is shooting while Choose a style is set to Add light trails.	15 25 - -
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.	-

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 Charge by computer in the camera settings 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 camera's clock 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.	13 121 - 15
The monitor is hard to see.	The surroundings are too bright. Move to a darker place. Adjust the monitor brightness.	114
flashes on the screen.	If the camera clock has not been set, fill flashes on the shooting screen, and images and movies saved	
Date and time of recording are not correct.	before the clock is set are dated "00/00/0000 00:00" and "01/01/2016 00:00" respectively. The shooting date and time of still images is not displayed during playback. Set the correct time and date for <b>Date and time</b> in the camera settings 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.	4,112
<b>Date stamp</b> not available.	<b>Date and time</b> has not been set in the camera settings menu.	112
Date not stamped on images even when <b>Date stamp</b> is enabled.	The current shooting mode does not support Date stamp. The date cannot be stamped on movies.	114

Problem	Cause/Solution	
Screen for setting time and date is displayed when the camera is turned on.	The clock battery is exhausted; all settings were restored to their default values. Configure the camera settings again.  • The internal clock battery is used to power the	
The camera settings reset.	camera clock and to retain certain settings. Charging time of the clock battery takes about 10 hours when you insert the battery into the camera or connect the AC adapter (available separately) to the camera, and the clock battery operates for several days even after the camera battery is removed.	_
Cannot select Format card or Format memory.	You cannot format while image lock is set. Remove image lock.	29
Some menu options are not displayed.	Some options are not displayed depending on the <b>Variety menu</b> settings. Change the settings.	113
The camera makes sound.	Depending on the settings, the camera may produce an audible focusing sound.	_

# **Shooting Issues**

Problem	Cause/Solution	Щ
Cannot switch to shooting mode.	Disconnect the HDMI cable or USB cable.	98
Cannot take pictures or record movies.	When the camera is in playback mode, press the	2, 26 2 33 11, 13, 129
The camera cannot focus.	The subject is too close. Try shooting using Shoot close-ups in Choose a style. The subject is hard to focus on. Set AF assist in the camera settings menu to Auto. Turn the camera off and then on again.	37 51 116 -

Problem	Cause/Solution	m m
Images are blurred.	Use the flash. Enable electronic VR. Use a tripod to stabilize the camera (using the self-timer at the same time is more effective).	33 115 34
Bright specks appear in images captured with flash.	The flash is reflecting off particles in the air. Set the flash mode setting to <b>③ Flash off</b> .	33
Flash does not fire.	The flash mode is set to ③ Flash off. Choose a style is set to a function that disables the flash.	33 37
Digital zoom cannot be used.	Digital zoom cannot be used when using certain settings in other functions.	54
No sound when the shutter is released.	Turn sounds on or off in Change sounds is set to Turn sounds off, or Pick a shutter sound is set to      in the shooting menu.     Do not block the speaker.	45 2
AF-assist illuminator does not light.	Off is selected for AF assist in the camera settings menu. AF-assist illuminator may not light depending on the current settings, even when <b>Auto</b> is selected.	116
Images appear smeared.	The lens is dirty. Clean the lens.	132
Colors are unnatural.	Hue is not adjusted properly.	37, 44
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. Noise can be reduced by using the flash.	33
Images are too dark (underexposed).	The flash mode is set to <b>Flash off</b> . The flash window is blocked. The subject is beyond the range of the flash. Adjust exposure compensation. The subject is backlit. Use the flash or <b>Shoot backlit scenes</b> in <b>Choose a style</b> .	33 24 147 44 33, 39
Images are too bright (overexposed).	Adjust exposure compensation.	44

Problem	Cause/Solution	
Skin tones are not softened.	In some shooting conditions, facial skin tones may not be softened. For images containing four or more faces, try using Make skin prettier in Add makeup in the playback menu.	51 63
Saving images takes time.	It may take more time to save images in the following situations:  • When the noise reduction function is in operation, such as when shooting in a dark environment  • When Choose a style is set to Shoot night scenes, Take a series of pictures, Shoot backlit scenes, Add a neon effect, or Add a cartoon effect  • When the skin softening function is applied while shooting	- 37, 39, 40
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.	-

# **Playback Issues**

Problem	Cause/Solution	Щ
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 recorded 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, and images with an image size of 160 × 120 or smaller.  When viewing small images, the playback zoom ratio that is displayed may not match the actual image zoom ratio.  This camera may not be able to zoom in on images captured with another make or model of digital camera.	-



Problem	Cause/Solution	
Cannot record messages.	Messages cannot be attached to movies.     Delete the message for an image before recording a new one.     Messages cannot be attached to images captured	- 61 -
	with other cameras.	
	Some images cannot be edited. Images that have already been edited may not be edited again.	62, 76, 80, 82, 91
Cannot edit images.	There is not enough free space on the memory card or in the internal memory.  This camera is unable to edit images captured with	_
	other cameras.     Editing functions used for images are not available for movies.	_
Cannot rotate image.	This camera cannot rotate images captured with another make or model of digital camera.	-
	Images cannot be deleted while image lock is set. Remove image lock.	29
Cannot delete image.	Graded images and images added to favorites are protected. Remove the grades or remove the images from favorites.	75, 77, 79, 81
Images are not displayed on TV.	A computer or printer is connected to the camera.     The memory card contains no images.     Remove the memory card to play back images in the internal memory.	-  -  12
Nikon Transfer 2 does not start when the camera is connected.	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.	98, 121 98, 104 -
The PictBridge startup screen is not displayed when the camera is connected to a printer.	With some PictBridge-compatible printers, the PictBridge startup screen may not be displayed and it may be impossible to print images when <b>Auto</b> is selected for <b>Charge by computer</b> in the camera settings menu.  Set <b>Charge by computer</b> to <b>Off</b> and reconnect the camera to the printer.	121

Problem	Cause/Solution	
Images to be printed are not displayed.	The memory card contains no images. Remove the memory card to print images in the internal memory.	12
Cannot select paper size with the camera.	The camera cannot be used to select the paper size in the following situations, even when printing from a PictBridge-compatible printer. Use the printer to select the paper size.  The printer does not support the paper sizes specified by the camera.  The printer automatically selects the paper size.	-

# **File Names**

Images, movies, or messages are assigned file names as follows.

## File name: DSCN 0001 JPG

(1) (2) (3)

(1) Identifier	Not shown on the screen of the camera.  DSCN: Original still images, movies  DSCA: Message  DSCB: Message (reply)  SSCN: Small picture copies  FSCN: Cropped copies  FSCN: Images created by an image editing function other than crop and small picture, photo albums
(2) File number	Assigned in ascending order, starting with "0001" and ending with "9999."  • A new folder is created each time a series of images are captured using <b>Shoot at intervals</b> , and the images are saved in that folder with file numbers starting with "0001."
(3) Extension	Indicates file format.  • JPG: Still images  • .MP4: Movies  • .WAV: Messages (File number is the same as the image to which the message is attached.)

# **Optional Accessories**

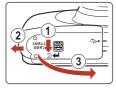
### Battery charger

#### MH-66 Battery Charger

It takes about 1 hour and 50 minutes to charge a fully exhausted battery.

#### EH-62G AC Adapter

(connect as shown)





## AC adapter

Make sure that the power connector cable is fully inserted in the power connector slot before inserting the AC adapter into the battery chamber.

• While using the AC adapter, the battery-chamber/memory card slot cover cannot be closed. Do not pull the power connector

If the cable is pulled, the connection between the camera and power source is interrupted, and the camera turns off.

Accessories are not waterproof.

Availability may vary with country or region.

See our website or brochures for the latest information.

# **Specifications**

## Nikon COOLPIX W100 Digital Camera

Туре		Compact digital camera	
Number of effective pixels		13.2 million (Image processing may reduce the number of effective pixels.)	
Image sensor		1/3.1-in. type CMOS; approx. 14.17 million total pixels	
Lens		NIKKOR lens with 3× optical zoom	
	Focal length	4.1–12.3 mm (angle of view equivalent to that of 30–90 mm lens in 35mm [135] format)	
	f/-number	f/3.3-5.9	
	Construction	6 elements in 5 groups	
Digital zoom magnification		Up to 4× (angle of view equivalent to that of approx. 360 mm lens in 35mm [135] format)	
Vibration reduction		Electronic VR (movies)	
Motion blur reduction		Electronic VR (still images)	
Autofocus (AF)		Contrast-detect AF	
	Focus range	[W]: Approx. 5 cm (2 in.)—∞,     [T]: Approx. 50 cm (1 ft 8 in.)—∞     Shoot close-ups, Photograph food, Shoot under water, Mirror, Add a bubble effect, Add a neon effect, Add a cartoon effect, Take soft pictures, Create a diorama effect, Shoot a movie miniature, Highlight colors: Approx. 5 cm (2 in.) (wide-angle position)—∞  (All distances measured from center of front surface of the protective glass)	
	Focus-area selection	Center, face detection, target finding AF	
Monitor		6.7 cm (2.7-in.), approx. 230k-dot, TFT LCD with anti- reflection coating and 5-level brightness adjustment	
	Frame coverage (shooting mode)	Approx. 96% horizontal and vertical (compared to actual picture)	
	Frame coverage (playback mode)	Approx. 100% horizontal and vertical (compared to actual picture)	

St	orage	
	Media	Internal memory (approx. 22 MB), SD/SDHC/SDXC memory card
	File system	DCF and Exif 2.3 compliant
	File formats	Still images: JPEG Voice messages: WAV Movies: MP4 (Video: H.264/MPEG-4 AVC, Audio: AAC stereo)
Image size (photo size)		<ul> <li>13 megapixels [4160 x 3120]</li> <li>4 megapixels [2272 x 1704]</li> <li>2 megapixels [1600 x 1200]</li> </ul>
ISO sensitivity (Standard output sensitivity)		ISO 125–1600
E	rposure	
	Metering mode	Matrix, center-weighted (digital zoom less than 2x), spot (digital zoom $2x$ or more)
	Exposure control	Programmed auto exposure and exposure compensation $(-2.0 - +2.0 \text{ EV})$ in steps of 1 EV)
Shutter		Mechanical and CMOS electronic shutter
	Speed	<ul> <li>1/2000-1 s</li> <li>25 s (Add light trails in Choose a style is set to Night sky)</li> </ul>
Aperture		Electronically-controlled ND filter (–2 AV) selection
	Range	2 steps (f/3.3 and f/6.6 [W])
Self-timer		<ul><li>10 s, smile timer</li><li>5 s (self-portrait timer)</li></ul>
FI	ash	
Range (approx.) (ISO sensitivity: Auto)		[W]: 0.3–3.1 m (1 ft–10 ft) [T]: 0.6–1.7 m (2 ft–5 ft 6 in.)
	Flash control	TTL auto flash with monitor preflashes
Interface		
	USB connector	Micro-USB connector (do not use any USB cable other than the UC-E21), Hi-Speed USB • Supports Direct Print (PictBridge)
	HDMI output connector	HDMI micro connector (Type D)
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	Arabic, Bengali, Bulgarian, Chinese (Simplified and Traditional), Czech, Danish, Dutch, English, Finnish, French, German, Greek, Hindi, Hungarian, Indonesian, Italian, Japanese, Korean, Marathi, Norwegian, Persian, Polish, Portuguese (European and Brazilian), Romanian, Russian, Serbian, Spanish, Swedish, Tamil, Telugu, Thai, Turkish, Ukrainian, Vietnamese	
Power sources	One EN-EL19 Rechargeable Li-ion Battery (included)     EH-62G AC Adapter (available separately)	
Charging time	Approx. 1 h 40 min (when using EH-73P/EH-73PCH Charging AC Adapter and when no charge remains)	
Battery life <sup>1</sup>		
Still images	Approx. 220 shots when using EN-EL19	
Movies (actual battery life for recording) <sup>2</sup>	Approx. 1 h 30 min when using EN-EL19	
Tripod socket	1/4 (ISO 1222)	
Dimensions (W $\times$ H $\times$ D)	Approx. $109.5 \times 67.0 \times 38.0$ mm ( $4.4 \times 2.7 \times 1.5$ in.) (excluding projections)	
Weight	Approx. 177 g (6.3 oz) (including battery and memory card)	
Operating environment		
Temperature	$-10^{\circ}$ C $- +40^{\circ}$ C ( $14^{\circ}$ F $- 104^{\circ}$ F) (for land use) $0^{\circ}$ C $- 40^{\circ}$ C ( $32^{\circ}$ F $- 104^{\circ}$ F) (for underwater use)	
Humidity	85% or less (no condensation)	
Waterproof	JIS/IEC protection class 8 (IPX8) equivalent (under our testing conditions) Capacity to shoot pictures underwater up to a depth of 10 m (33 ft) and for 60 minutes	
Dustproof	JIS/IEC protection class 6 (IP6X) equivalent (under our testing conditions)	
Shockproof	Cleared our testing conditions <sup>3</sup> 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.

810F Method 516.5-Shock

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.

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.







<sup>3</sup> Dropped from a height of 1.8 m (5 ft 10 in.) 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.

## **EN-EL19 Rechargeable Li-ion Battery**

Туре	Rechargeable lithium-ion battery
Rated capacity	DC 3.7 V, 700 mAh
Operating temperature	0°C-40°C (32°F-104°F)
Dimensions (W $\times$ H $\times$ D)	Approx. $31.5 \times 39.5 \times 6 \text{ mm} (1.3 \times 1.6 \times 0.3 \text{ in.})$
Weight	Approx. 14.5 g (0.5 oz)

### 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 $\times$ H $\times$ D)	Approx. $55 \times 22 \times 54$ mm (2.2 × 0.9 × 2.2 in.) (excluding plug adapter) For Argentina: Approx. $55 \times 63 \times 59$ mm (2.2 × 2.5 × 2.4 in.) For Brazil: Approx. $55 \times 67 \times 59$ mm For Korea: Approx. $55 \times 67 \times 59$ mm For India: Approx. $55 \times 63.5 \times 59$ mm		
Weight	Approx. 51 g (1.8 oz) (excluding plug adapter) For Argentina: Approx. 76 g (2.7 oz) For Brazil: Approx. 73 g For Korea: Approx. 73 g For India: Approx. 76 g		

The symbols on this product represent the following:

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

- 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.

## **Memory Cards That Can Be Used**

The camera supports SD, SDHC, and SDXC memory cards.

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

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