Nikon

DIGITAL CAMERA

N1530
Reference Manual

Quick Topic Search

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

En

Quick Topic Search

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

Main Topics

For Smart Device Users iii

Introduction v

Table of Contents xvii

Parts of the Camera 1

Getting Started 8

Basic Shooting and Playback Operations 17

Shooting Features 24

Playback Features 48

Movies 81

Connecting the Camera to a TV, Printer, or Computer 86

General Camera Setup 97

Technical Notes 108

Common Topics

For Your Safety

What SnapBridge Can Do for You

####

####

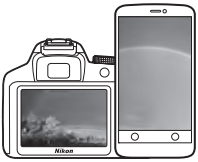
####

####

Troubleshooting

Index

SnapBridge



Your images. The world. Connected

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

Download the SnapBridge app to get started!

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

Nikon

Download on the App Store

ANDROID APP ON Google Play

The exciting image experience that SnapBridge offers…

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

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

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

- Camera remote control

- Imprinting up to two pieces of credit information (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

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" (ii).
- Symbols

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

- 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 ELECTRONIC 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 (📖98). 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 (📖98), 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 ➔ flexible button 4 (Y) ➔ flexible button 4 (Y Camera settings) ➔ press ▲▼ ➔ ☐ Conformity marking

For Your Safety

To prevent damage to your Nikon product or injury to yourself or to others, read the following safety precautions in their entirety before using this equipment. Keep these safety instructions where all those who use the product will read them.

This icon marks warnings, information that should be read before using this Nikon product, to prevent possible injury.

WARNINGS

Turn off in the event of malfunction

Should you notice smoke or an unusual smell coming from the camera or Charging AC Adapter, unplug the Charging AC Adapter and remove the battery immediately, taking care to avoid burns. Continued operation could result in injury. After removing or disconnecting the power source, take the equipment to a Nikon-authorized service representative for inspection.

Do not disassemble

Touching the internal parts of the camera or Charging AC Adapter could result in injury. Repairs should be performed only by qualified technicians. Should the camera or Charging AC Adapter break open as the result of a fall or other accident, take the product to a Nikon-authorized service representative for inspection, after unplugging the product and/or removing the battery.

Do not use the camera or Charging AC Adapter in the presence of flammable gas

Do not use electronic equipment in the presence of flammable gas, as this could result in explosion or fire.

Handle the camera strap with care

Never place the strap around the neck of an infant or child.

Keep out of reach of children

Particular care should be taken to prevent infants from putting the battery, brush, or other small parts into their mouths.

Do not remain in contact with the camera, Charging AC Adapter, or AC adapter for extended periods while the devices are on or in use

Parts of the devices become hot. Leaving the devices in direct contact with the skin for extended periods may result in low-temperature burns.

Do not leave the product where it will be exposed to extremely high temperatures, such as in an enclosed automobile or in direct sunlight

Failure to observe this precaution could cause damage or fire.

Observe caution when handling the battery

The battery may leak, overheat, or explode if improperly handled. Observe the following precautions when handling the battery for use in this product:

- Before replacing the battery, turn the product off. If you are using the Charging AC Adapter/AC adapter, be sure it is unplugged.
- Use only a EN-EL19 Rechargeable Li-ion Battery (included). Charge the battery by using a camera that supports battery charging or by using a MH-66 Battery Charger (available separately). To charge the battery with the camera, use either EH-73P/EH-73PCH Charging AC Adapter (included) or the **Charge by computer** function.
- When inserting the battery, do not attempt to insert it upside down or backwards.
- Do not short or disassemble the battery or attempt to remove or break the battery insulation or casing.
- Do not expose the battery to flame or to excessive heat.
- Do not immerse in or expose to water.
- Put the battery in a plastic bag, etc. in order to insulate it before transporting. Do not transport or store with metal objects such as necklaces or hairpins.
- The battery is prone to leakage when fully discharged. To avoid damage to the product, be sure to remove the battery when no charge remains.
- Discontinue use immediately should you notice any change in the battery, such as discoloration or deformation.
- If liquid from the damaged battery comes in contact with clothing or skin, rinse immediately with plenty of water.

Observe the following precautions when handling the Charging AC Adapter

- Keep dry. Failure to observe this precaution could result in fire or electric shock.
- Dust on or near the metal parts of the plug should be removed with a dry cloth. Continued use could result in fire.
- Do not handle the plug or go near the Charging AC Adapter during lightning storms. Failure to observe this precaution could result in electric shock.
- Do not damage, modify, forcibly tug or bend the USB cable, place it under heavy objects, or expose it to heat or flames. Should the insulation be damaged and the wires become exposed, take it to a Nikon-authorized service representative for inspection. Failure to observe these precautions could result in fire or electric shock.
- Do not handle the plug or Charging AC Adapter with wet hands. Failure to observe this precaution could result in electric shock.
- Do not use with travel converters or adapters designed to convert from one voltage to another or with DC-to-AC inverters. Failure to observe this precaution could damage the product or cause overheating or fire.

Use the appropriate power supply (battery, Charging AC adapter, AC adapter, USB cable)

Using a power supply other than those provided or sold by Nikon could result in damage or malfunction.

Use appropriate cables

When connecting cables to the input and output jacks, use only the cables provided or sold by Nikon for the purpose, to maintain compliance with product regulations.

Handle moving parts with care

Be careful that your fingers or other objects are not pinched by the lens cover or other moving parts.

Using the flash close to your subject's eyes could cause temporary visual impairment

The flash should be no less than 1 meter (3 ft 4 in.) from the subject.

Particular care should be observed when photographing infants.

Do not operate the flash with the flash window touching a person or object

Failure to observe this precaution could result in burns or fire.

Avoid contact with liquid crystal

Should the monitor break, care should be taken to avoid injury caused by broken glass and to prevent liquid crystal from the monitor touching the skin or entering the eyes or mouth.

Follow the instructions of airline and hospital personnel

<Important> Shockproof, Waterproof, Dustproof, Condensation

- Make sure to read the following instructions as well as the instructions provided in "Caring for the Product" (113).

Notes About Shockproof Performance

This camera has passed Nikon's in-house test (drop test from a height of 1.5 m (5 ft) on a 5 cm (2 in.) thick plywood panel) compliant with MIL-STD 810F Method 516.5-Shock*.

This test does not guarantee the waterproof performance of the camera or that the camera will be free from damage or trouble under all conditions.

Changes in appearance, such as paint peeling off and deformation of the drop shock portion are not subject to the 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 (48 in.) 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).

● Do not subject the camera to excessive shock, vibration or pressure by dropping or hitting it, or by placing heavy objects on it.

Deformation may damage the airtight seals and water may seep inside the camera, resulting in camera malfunction.

- Do not use the camera deeper than 10 m (33 ft) underwater.
- Do not subject the camera to water pressure by exposing it to high-pressure running water.
- Do not sit down with the camera in the pocket of your trousers.
  Do not forcibly stuff the camera into a bag.

Notes About Waterproof and Dustproof Performances

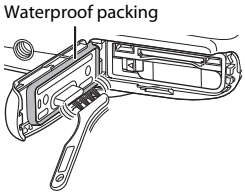
The camera is equivalent to IEC/JIS waterproof grade 8 (IPX8) and IEC/JIS dustproof grade 6 (IP6X) and enables shooting pictures underwater at a depth of 10 m (33 ft) for up to 60 minutes.*

This rating does not guarantee the waterproof performance of the camera or that the camera will be free from damage or trouble under all conditions.

* 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.

● If the camera is subjected to excessive shock, vibration or pressure by dropping or hitting it, or by placing heavy objects on it, the waterproof performance is not guaranteed.

- If the camera is exposed to shocks, it is recommended to consult your retailer or Nikon-authorized service representative to confirm the waterproof performance (charged service).
  - Do not drop the camera, strike it against a hard object such as a rock, or throw it at a water surface.
  - Do not use the camera deeper than 10 m (33 ft) underwater.
  - Do not subject the camera to water pressure by exposing it to rapid flowing water or waterfalls.
  - Your Nikon warrantee may not cover troubles caused by water seeping inside the camera due to improper handling of the camera.
- If water seeps inside the camera, immediately stop using the camera. Wipe off moisture from the camera, and at once take the camera to your Nikon-authorized service representative.
- The waterproof performance of this camera is designed to work for fresh water and seawater only.
- The inner portion of this camera is not waterproof. If water seeps inside the camera, this could cause the components to rust and result in a high repair charge or the camera may not be repairable.
- Accessories are not waterproof.
- If liquids or water droplets come into contact with the outside of the camera or the inside of the battery-chamber/memory card slot cover, immediately wipe the liquids off with a soft dry cloth. Do not insert wet memory cards or the battery.
  If the battery-chamber/memory card slot cover is opened or closed under wet conditions near a waterfront or underwater, this could cause water to seep inside the camera or result in camera malfunction.
  Do not open or close the cover with wet hands. This could cause water to seep inside the camera or result in camera malfunction.
- If a foreign substance adheres to the outside of the camera or the inside of the battery-chamber/memory card slot cover (such as the hinge, memory card slot, and connectors), remove it immediately with a blower. If a foreign substance adheres to the waterproof packing inside the battery-chamber/memory card slot cover, remove it with the included brush. Do not use the included brush for anything other than cleaning the waterproof packing.



- If a foreign substance such as suntan oil, sunscreen lotion, hot spring water, bath mix powder, detergent, soap, organic solvent, oil, or alcohol adheres to the camera, immediately wipe it off. Failure to do so may cause the camera exterior to deteriorate.

- Do not leave the camera in high-temperature conditions of 40°C (104°F) or more (in particular, a place exposed to direct sunlight, inside the cabin of a car, on a boat, on the beach, or near a heating device) for a long period of time. This could cause deterioration of the waterproof performance.

Before Using the Camera Underwater

1. **Make sure that there are no foreign substances inside the battery-chamber/memory card slot cover.**
   - Any foreign substances such as sand, dust or hair inside the battery-chamber/memory card slot cover should be removed with a blower.
   - Any liquid such as water droplets inside the battery-chamber/memory card slot cover should be wiped off with a soft dry cloth.
2. **Make sure that the waterproof packing (📖3) of the battery-chamber/memory card slot cover is not cracked or deformed.**
   - The waterproof performance of waterproof packing may start to deteriorate after one year. If the waterproof packing begins to deteriorate, consult your retailer or Nikon-authorized service representative.
   - Also make sure that the waterproof packing does not come off.
3. **Make sure that the battery-chamber/memory card slot cover is firmly closed.**
   - Slide the cover until it clicks into place.

Notes About Using the Camera Underwater

Observe the following precautions to prevent water from seeping inside the camera.

- Do not dive into water deeper than 10 m (33 ft) with the camera.
- Do not continuously use the camera underwater for 60 minutes or more.
- Use the camera in the water temperature range 0°C–40°C (32°F–104°F) when using it underwater.
  Do not use the camera at hot springs.
- Do not open or close the battery-chamber/memory card slot cover underwater.
- Do not subject the camera to shock when using it underwater.
  Do not jump into water with the camera or subject it to high water pressure conditions such as rapids or waterfalls.
- This camera does not float in water. Make sure not to drop the camera underwater.

Cleaning After Using the Camera Underwater

After using the camera underwater or at the beach or other sandy or dusty environment, wipe off any sand, dust, or salt with a dry cloth lightly dampened with fresh water and dry thoroughly within 60 minutes.

If you leave the camera in wet conditions where salt particles or other foreign substances adhere to it, this could cause damage, discoloration, corrosion, a bad smell or deterioration of waterproof performance.

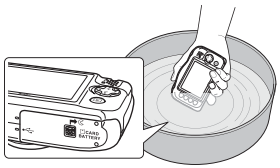
To ensure long operational use, washing the camera by using the following procedure is recommended.

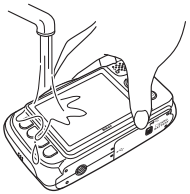
- Before cleaning the camera, thoroughly remove water droplets, sand, salt particles, or other foreign substances from your hands, body, and hair.
- It is recommended to clean the camera indoors to avoid a place where it could be exposed to water spray or sand.
- Do not open the battery-chamber/memory card slot cover until all foreign substances are washed off with water and all moisture is wiped off.

1. **Keep the battery-chamber/memory card slot cover closed and wash off the camera with fresh water.**

   Lightly rinse the camera with tap water, or immerse the camera in a shallow basin filled with freshwater for about 10 minutes.

   - If the buttons or switches do not operate properly, foreign substances may have adhered to the camera.
     Foreign substances can cause the camera to malfunction; wash the camera thoroughly.





2. **Wipe off water droplets with a soft cloth and dry the camera in the well-ventilated and shady place.**

   - Place the camera on a dry cloth to dry it.
     Water will flow out from openings in the microphone or speakers.
   - Do not dry the camera with hot air from a hair dryer or clothes dryer.
   - Do not use chemicals (such as benzine, thinner, alcohol, or cleanser), soap, or neutral detergents.
     If the waterproof packing or body of the camera becomes deformed, the waterproof performance will deteriorate.

3. **After making sure that there are no water droplets on the camera, open the battery-chamber/memory card slot cover, gently wipe off any water remaining inside the camera with a dry soft cloth, and use the blower to remove any foreign substances.**
   - If you open the cover before the camera is thoroughly dried, water droplets may fall on the memory card or battery.
     The water droplets may also seep inside the battery-chamber/memory card slot cover (in locations such as waterproof packing, hinges, memory card slot, or terminals).
     If that happens, wipe the water off with a dry soft cloth.
   - If the cover is closed when the inside is wet, this could cause condensation or malfunction.
   - If the microphone or speaker openings are clogged with water droplets, the sound may deteriorate or become distorted.
     - Wipe the water off with a dry soft cloth.
     - 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.

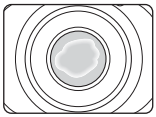
Notes About Operating Temperature and Humidity and Condensation

The operation of this camera has been tested at temperatures –10°C – +40°C (14°F–104°F).

When you use the camera in cold climate regions, observe the following precautions. Keep the camera and spare batteries in a warm place before use.

- The performance of the batteries (number of pictures shot and shooting time) will drop temporarily.
- If the camera is in a very cold state, the performance may drop temporarily, for example, the screen may be darker than normal immediately after the camera is turned on or residual images may be produced.
- When snow or water droplets adhere to the exterior of the camera, immediately wipe them off.
  - If the buttons or switches are frozen, they may not operate smoothly.
  - If the microphone or speaker openings are clogged with water droplets, the sound may deteriorate or become distorted.

● Operating environmental conditions such as temperature and humidity may cause fogging (condensation) on the inside of the monitor, lens, or flash window.
This is not a camera malfunction or defect.



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

Fogging (condensation) may occur on the inside of the monitor, lens, or flash window in the following environmental conditions where there are sharp temperature changes or high humidity.

- The camera is suddenly immersed in low temperature underwater from high temperature on land such as the beach or places under direct sunlight.
- The camera is moved from a cold place to a warm place, such as inside a building.
- The battery-chamber/memory card slot cover is open or closed in a high-humidity environment.

● Clearing the fogging

- Open the battery-chamber/memory card slot cover after turning off the camera in a place where the ambient temperature is stable (avoid any place that has high temperature/high humidity, sand or dust).
- To clear the fogging, remove the battery and memory card, and leave the camera with the battery-chamber/memory card slot cover open to allow the camera to adjust to the ambient temperature.
- If the fogging does not clear, consult your retailer or Nikon-authorized service representative.

Table of Contents

Quick Topic Search ii
Main Topics ii
Common Topics ii

For Smart Device Users iii

Introduction v
Read This First v
Symbols and Conventions Used in This Manual v
Information and Precautions vi
For Your Safety viii
WARNINGS viii
<Important> Shockproof, Waterproof, Dustproof, Condensation xi
Notes About Shockproof Performance xi
Notes About Waterproof and Dustproof Performances xi
Before Using the Camera Underwater xiii
Notes About Using the Camera Underwater xiii
Cleaning After Using the Camera Underwater xiv
Notes About Operating Temperature and Humidity and Condensation xvi

Parts of the Camera 1
The Camera Body 2
The Monitor 4
For Shooting 4
For Playback 5
Using the Flexible Buttons 6

Getting Started 8
How to Attach the Camera Strap 9
Insert the Battery and Memory Card 10
Removing the Battery or Memory Card 11
Memory Cards and Internal Memory 11
Charge the Battery 12
Camera Setup 14

Basic Shooting and Playback Operations 17
Shooting Images 18
Play Back Images 20
Delete Images 21
Selecting Which Images You Want to Delete 22
Restrict Image Deletion (Image Lock) 23

Shooting Features 24
Functions Available in Shooting Mode (Shooting Menu) 25
Point and Shoot 26
Using Target Finding AF 26
Flash Mode 27
Self-timer 28
Smile Timer 29
Choose a Style (Shooting with Selected Shooting Conditions and Effects) 30
Tips and Notes 31
Decorate 36
Change Colors 37
Change Sounds 38
Choose a Size 40
Choose a Photo Size 40
Choose a Movie Frame Size 41
Using the Zoom 42
Focusing 43
The Shutter-release Button 43
Using Face Detection 43
Using Skin Softening 44
Subjects Not Suitable for Autofocus 44
Focus Lock 45
Functions That Cannot Be Used Simultaneously When Shooting 46

Playback Features 48
Playback Zoom 49
Thumbnail Playback 50
Functions Available in Playback Mode (Playback Menu) 51
Exchange Messages 52
Leave a Message 52
Leave a Reply 53
Play Recordings 54
Erase Recordings 54

Picture Play 55
Before Editing Images 55
Add Makeup 56
Make Photo Albums 57
Add a Fisheye Effect 59
Toy Camera 59
Soften Pictures 60
Add Starbursts 60
Add a Diorama Effect 61
Change Colors 61
Highlight Colors 62
Decorate 63
Grading 64
Grade Pictures 64
View Graded Pictures 66
Remove All Grades 67
Favorites 68
Add to Favorites 68
View Favorites 70
Remove From Favorites 71
View by Date 72
Slide Show 73
Choose Pictures 73
Choose a Theme 76
Retouch 77
Copy 77
Rotate Pictures 79
Small Picture 80

Movies 81
Recording and Playing Back Movies 82
Operations During Movie Playback 85

Connecting the Camera to a TV, Printer, or Computer 86
Utilizing Images 87
Viewing Images on a TV 89
Printing Images Without a Computer 90
Connecting the Camera to a Printer 90
Printing Images One at a Time 91
Printing Multiple Images 92

Transferring Images to a Computer (ViewNX-i) 94
Installing ViewNX-i 94
Transferring Images to a Computer 94

General Camera Setup 97
Camera Settings Menu 98
Camera Settings 99
Welcome Screen 99
Date and Time 99
Variety Menu 100
Brightness 101
Date Stamp 101
Electronic VR 102
AF Assist 103
Format Card/Format Memory 104
Language 105
Menu Background 105
Charge by Computer 106
Reset All 107
Conformity Marking 107
Firmware Version 107

Technical Notes 108
Notices 109
Notes About Wireless Communication Functions 111
Caring for the Product 113
The Camera 113
The Battery 114
The Charging AC Adapter 115
Memory Cards 116
Cleaning and Storage 117
Cleaning 117
Storage 117
Error Messages 118
Troubleshooting 121
File Names 128
Optional Accessories 129
Specifications 130
Memory Cards That Can Be Used 134
Index 136

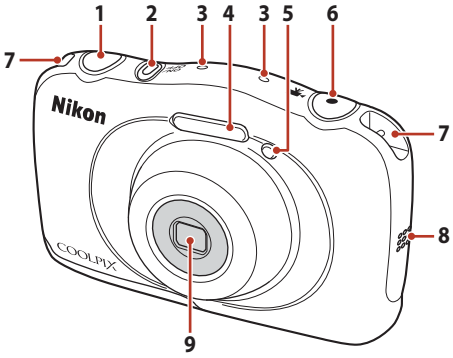
Parts of the Camera

The Camera Body 2

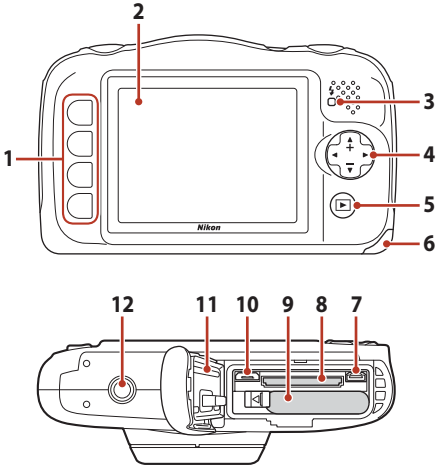
The Monitor 4

Using the Flexible Buttons 6

The Camera Body



1	Shutter-release button 19	**6**	● (movie-record) button 82
2	Power switch/power-on lamp 14	**7**	Eyelet for camera strap 9
3	Microphone (stereo)	**8**	Speaker
4	Flash 27	**9**	Lens (with protective glass)
5	Self-timer lamp ..... 28 AF-assist illuminator		

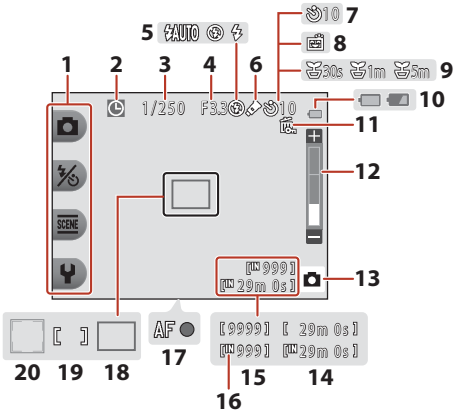


1	Flexible buttons 6, 25, 51	**7**	HDMI micro connector (Type D) 88
2	Monitor 4	**8**	Memory card slot 10
3	Charge lamp ..... 12 Flash lamp 27	**9**	Battery chamber 10
4	Multi selector ▲: Telephoto ..... 42 ▼: Wide-angle 42	**10**	Micro-USB connector 88
5	▶ (shooting/playback mode) button 20	**11**	Waterproof packing ..... xi, xiii
6	Battery-chamber/memory card slot cover 10	**12**	Tripod socket 132

The Monitor

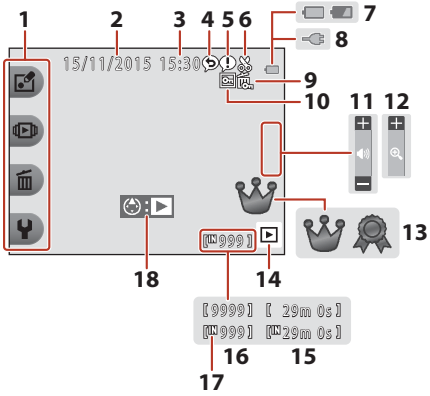
The information that is displayed on the shooting or playback screen changes depending on the camera's settings and state of use.

For Shooting



1	Flexible icons	6	
2	"Date not set" indicator	122	
3	Shutter speed	43	
4	F-number	43	
5	Flash mode	27	
6	**Change colors** icon	37	
7	Self-timer indicator	28	
8	Smile timer	29	
9	**Shoot at intervals** icon	32	
10	Battery level indicator	16	
11	Image lock icon	23	
12	Zoom indicator	42	
13	Shooting mode	26, 30	
14	Remaining movie recording time	82	
15	Number of exposures remaining (still images)	16, 40	
16	Internal memory indicator	16	
17	Focus indicator	19	
18	Focus area (target finding AF)	26	
19	Focus area (center)	19	
20	Focus area (face detection)	43	

For Playback



1	Flexible icons 6	**11**	Volume indicator 85
2	Date of recording	**12**	Switch to full-frame 50
3	Time of recording	**13**	Grade mark (when **Variety menu** is set to **On**) 64
4	Message (reply) 53	**14**	Playback mode 20
5	Message 52	**15**	Movie/message recording time
6	Crop icon 49	**16**	Current image number
7	Battery level indicator 16	**17**	Internal memory indicator
8	Charging AC Adapter connection indicator	**18**	Movie playback guide 82
9	Image lock icon 23		
10	Favorites (when **Variety menu** is set to **Off**) 68		

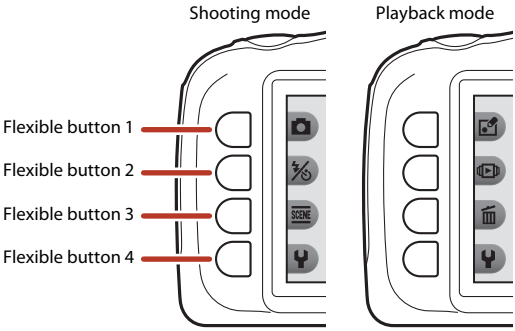
If Information Is Not Displayed During Shooting Mode and Playback Mode

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.

Using the Flexible Buttons

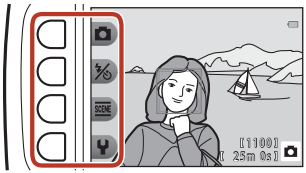
If you press a flexible button while the shooting screen or playback screen is displayed, the menu for the current mode is displayed. Once the menu is displayed, you can change various settings.

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



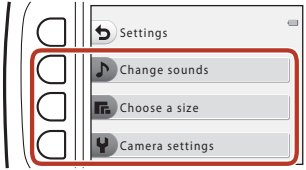
1 Press a flexible button.

- The menu is displayed.



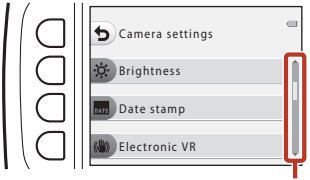
2 Press a flexible button to select an item.

- When ↩ is displayed, press flexible button 1 (↩) 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.

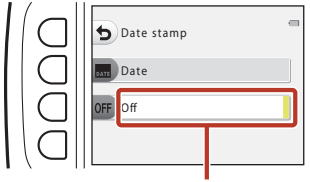
- When the menu content continues on another page, a guide indicating the page position is displayed.



Use the multi selector ▲▼ to display other pages.

4 Press a flexible button to select a setting.

- Press the flexible button to confirm the selected setting.
- When a menu is displayed, you can switch to shooting mode by pressing the ▶ button, shutter-release button, or ● (🎥) button.



The current setting is displayed in white.

Getting Started

How to Attach the Camera Strap 9

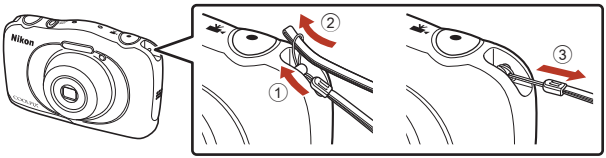
Insert the Battery and Memory Card 10

Charge the Battery 12

Camera Setup 14

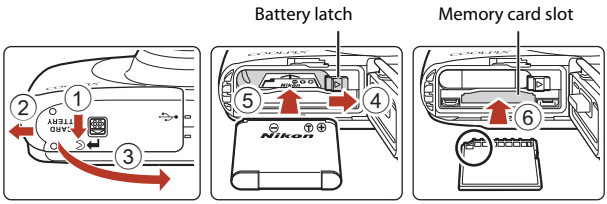
How to Attach the Camera Strap

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



Insert the Battery and Memory Card

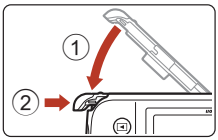
1 Open the battery-chamber/memory card slot cover, and then insert the battery and memory card.



- 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.

2 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. Insert the memory card into the camera and select **Format card** in the camera settings menu (📖104).

Removing the Battery or Memory Card

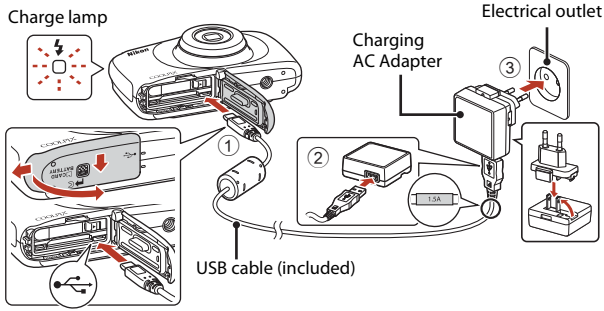
Turn the camera off and make sure that the power-on lamp and screen have turned off, and then open the battery-chamber/memory card slot cover.

- 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.

Charge 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

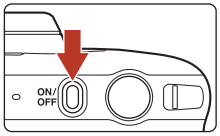
- The camera can be operated while the battery is charging, but the charging time increases.
- If the battery level is extremely low, you may not be able to operate the camera while the battery is charging.
- Do not, under any circumstances, use another make or model of AC adapter other than EH-73P/EH-73PCH 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

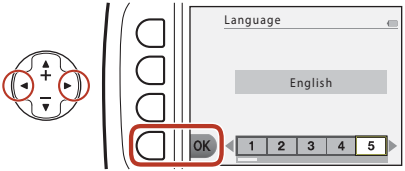
When the camera is turned on for the first time, the language-selection screen, and the date and time setting screen for the camera clock are displayed.

1 Press the power switch to turn on the camera.

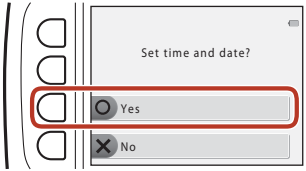
- The screen turns on.
- To turn the camera off, press the power switch again.



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

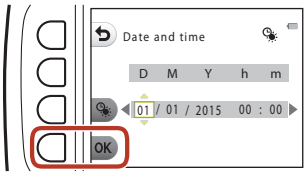


3 Press flexible button 3 (**Yes**).



4 Use flexible button 2, 3, or 4 to select the date format.

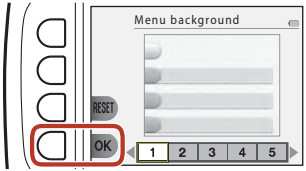
5 Set the date and time, and press flexible button 4 (OK).



- Use ◀▶ to select a field and then use ▲▼ to set the date and time.
- Select the minute field and press the flexible button 4 (OK) to confirm the setting.
- Press flexible button 3 (🌍) to display 🌍 on the screen and enable daylight saving time. To disable daylight saving time, press flexible button 3 (🌍) again.

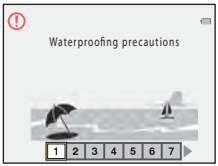
6 When the confirmation dialog is displayed, press flexible button 3 (○ Yes).

7 Use ◀▶ to select the background image to be displayed when a menu or setting screen is displayed, and press flexible button 4 (OK).



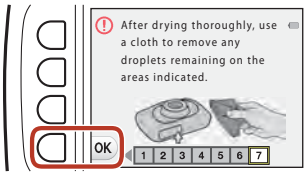
- The background selection screen may not be displayed depending on your country or region. In this case, proceed to step 8.
- To restore the default background image, press flexible button 3 (RESET).

8 Confirm the waterproofing-related message and press ▶.

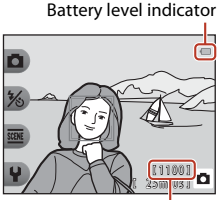


- There are seven message screens.
- Waterproofing-related messages are displayed in the following situations.
  - When turning on and setting the camera for the first time
  - When setting the camera to **Shoot under water** (📖31) or **Underwater face framing** (📖32)
  - When turning the camera on after charging

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



- The shooting screen is displayed, and you can take pictures in Point and shoot.
- Battery level indicator
  : The battery level is high.
  : The battery level is low.
- Number of exposures remaining
  IN is displayed when no memory card is inserted in the camera, and images are saved in the internal memory.



Changing the Language, the Date and Time, or the Menu Background Setting

- You can change the **Language**, **Date and time**, and **Menu background** settings in the camera settings menu (98).
- You can enable or disable daylight saving time in the camera settings menu by selecting **Date and time**. When enabled, the clock moves forward one hour; when disabled, the clock moves back one hour.

Basic Shooting and Playback Operations

Shooting Images....18

Play Back Images....20

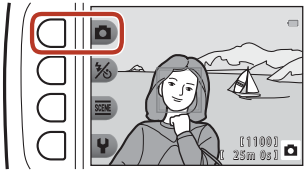
Delete Images....21

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.

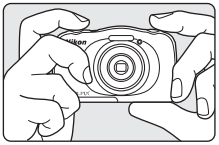
1 Press flexible button 1.

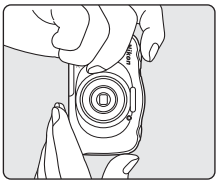
- If you are continuing use of the camera from "Camera Setup" (14), it is set to Point and shoot.



2 Hold the camera steady.

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



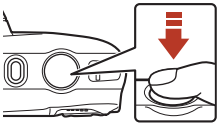


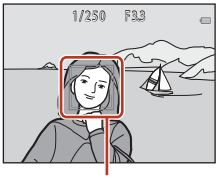
3 Frame the picture.

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

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

5 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.

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

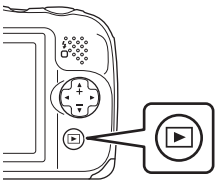
We recommend using a tripod to stabilize the camera in the following situations:

- When shooting in dim lighting with the flash mode (📖27) set to **Flash off**
- When the zoom is at a telephoto position

Play Back Images

1 Press the ▶ (shooting/playback mode) button to enter playback mode.

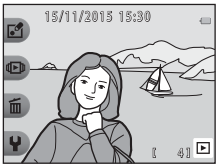
- If you press and hold down the ▶ button while the camera is turned off, the camera turns on in playback mode.



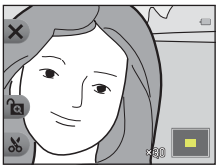
2 Use the multi selector to select an image to display.

- Press and hold down ◀▶ to scroll through the images quickly.
- To play back a recorded movie, press ▲.

- To return to shooting mode, press the ▶ button or shutter-release button.



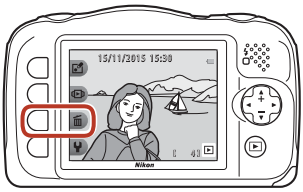
- Press ▲ in full-frame playback mode to zoom in on an image.



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

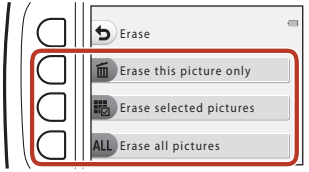
Delete Images

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



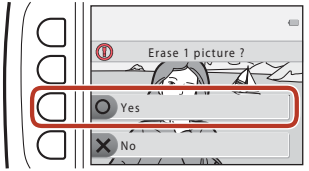
2 Use flexible button 2, 3, or 4 to select the desired deletion method.

- To exit without deleting, press flexible button 1 (↩).



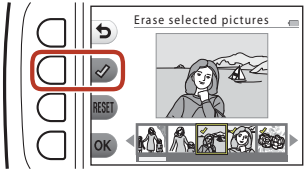
3 Press flexible button 3 (○ **Yes**).

- 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 (✓).
- Press flexible button 3 (**RESET**) to remove all check marks.

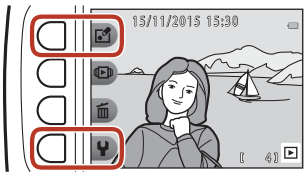
2 Add check marks to all images that you want to delete and then press flexible button 4 (**OK**) to confirm the selection.

- A confirmation dialog is displayed. Follow the on-screen instructions to complete operations.

Restrict Image Deletion (Image Lock)

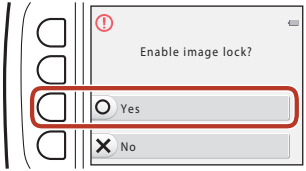
To prevent accidental deletion of images, you can lock image deletion (21) and formatting (104).

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

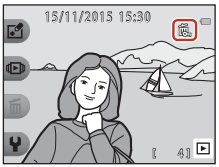


2 Press flexible button 3 (**Yes**).

- 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

Functions Available in Shooting Mode (Shooting Menu) 25

Point and Shoot 26

Flash Mode 27

Self-timer 28

Smile Timer 29

Choose a Style (Shooting with Selected Shooting Conditions and Effects) ... 30

Decorate 36

Change Colors 37

Change Sounds 38

Choose a Size 40

Using the Zoom 42

Focusing 43

Functions That Cannot Be Used Simultaneously When Shooting 46

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.	26
Flash mode/ self-timer	Flash	You can select a flash mode to match the shooting conditions.	27
	Self-timer	The camera is equipped with a self-timer that releases the shutter 10 seconds after you press the shutter-release button. You can also set the smile timer.	28, 29
More picture options	Choose a style	When a style (shooting conditions and effects) is selected, camera settings are automatically optimized for the selected condition.	30
	Decorate	Allows you to add a frame around your images when taking pictures.	36
	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.	37
Settings	Change sounds	Allows you to configure the shutter and button sounds.	38
	Choose a size	Allows you to set the size of still images and movies.	40
	Camera settings	Allows you to change a number of general settings.	98

Point and Shoot

When this camera is used for the first time, the shooting mode is set 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.

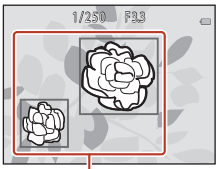
Point and shoot is the default shooting mode for this camera.

- 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.
- The camera does not detect the scene when the digital zoom is being used.

Using Target Finding AF

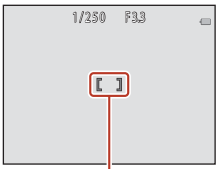
The camera focuses in the manner described below when you press the shutter-release button halfway.

- 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.



Focus area

Notes About Target Finding AF

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

Flash off

The flash does not fire.

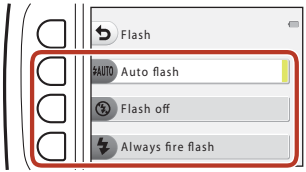
- We recommend using a tripod to stabilize the camera when shooting in dark surroundings.

⚡ 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.

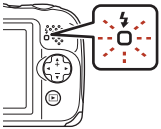
- To cancel, press flexible button 1 (↩).



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 shutter-release button halfway.
  - On: The flash fires when you press the shutter-release button all 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.

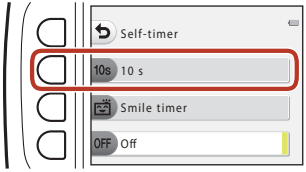
Self-timer

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

Enter shooting mode ➔ flexible button 2 (⚡) ➔ flexible button 3 (Self-timer)

1 Press flexible button 2 (**10s 10 s**).

- When **Smile timer** is selected, the camera uses face detection to detect a human face, and then automatically releases the shutter when a smile is detected (📖29).

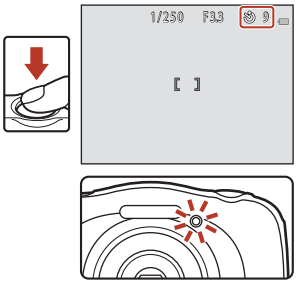


2 Frame the picture and press the shutter-release button halfway.

- Focus and exposure are set.

3 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 self-timer is set to **OFF Off**.
- To stop the countdown, press the shutter-release button again.



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 ➔ flexible button 2 (⚡) ➔ flexible button 3 (Self-timer)

1 Press flexible button 3 (**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.

- To end automatic shooting, set the self-timer to **OFF Off**.

Notes About Smile Timer

Under some shooting conditions, the camera may be unable to detect faces or smiles (📖43). 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.

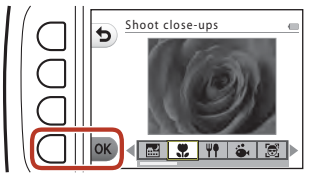
Choose a Style (Shooting with Selected Shooting Conditions and Effects)

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 ➔ flexible button 3 (SCENE) ➔ flexible button 2 (SCENE 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 (↩).



Shoot night scenes[1] (📖31) (default setting)	Shoot backlit scenes[5] (📖33)
Shoot close-ups[2] (📖31)	Mirror[2] (📖34)
Photograph food[2] (📖31)	Add a bubble effect[2] (📖34)
Shoot under water[2] (📖31)	Add a neon effect[2] (📖34)
Underwater face framing (📖32)	Add a cartoon effect[2] (📖34)
Shoot at intervals[3] (📖32)	Take soft pictures[2] (📖35)
Take a series of pictures (📖33)	Create a diorama effect[2] (📖35)
Photograph fireworks[1, 4] (📖33)	Shoot a movie miniature[2, 3] (📖35)

1 The camera focuses at infinity.
2 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 (8 in.) from the front of the protective glass, or about 5 cm (2 in.) at the maximum wide-angle position.
3 Use of a tripod is recommended.
4 Use of a tripod is recommended, because the shutter speed is slow.
5 The camera focuses on the area in the center of the frame.

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 **Flash off** (27).
- **Smile timer** is not available (29).

Shoot close-ups

- The camera automatically zooms to the closest position at which it can focus.
- The flash is set to **Flash off**, but the setting can be changed (27).
- **Smile timer** is not available (29).

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 **Flash off** (27).
- **Smile timer** is not available (29).

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> Shockproof, Waterproof, Dustproof, Condensation" (xi-xvi) for more information about using the camera underwater.
- The flash is set to **Flash off**, but the setting can be changed (27).
- **Smile timer** is not available (29).

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> Shockproof, Waterproof, Dustproof, Condensation" (📖xi-xvi) 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 **Flash off**, but the setting can be changed (📖27).
- The self-timer is not available (📖28).
- 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

- The camera can automatically capture still images at pre-determined intervals. Images captured in one shooting are saved in one folder and can be viewed in a slide show (📖73).
- 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 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 (📖27).
- The self-timer is not available (📖28).

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 **Flash off** (📖27).
- The self-timer is not available (📖28).

Photograph fireworks

- The shutter speed is fixed at four seconds.
- The flash setting is fixed at **Flash off** (📖27).
- The self-timer is not available (📖28).

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 **Flash off** (📖27).
- **Smile timer** is not available (📖29).

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 **Top → bottom** is selected, the top half of the screen is flipped over the bottom half, and the image is composited and displayed. When **Left → right** is selected, the left half of the screen is flipped over the right half.
- The flash is set to **Auto flash**, but the setting can be changed (📖27).
- **Smile timer** is not available (📖29).

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 flash**, but the setting can be changed (📖27).
- **Smile timer** is not available (📖29).

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 flash**, but the setting can be changed (📖27).
- **Smile timer** is not available (📖29).

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 flash**, but the setting can be changed (📖27).
- **Smile timer** is not available (📖29).

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 flash**, but the setting can be changed (27).
- **Smile timer** is not available (29).

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 **Flash off**, but the setting can be changed (27).
- **Smile timer** is not available (29).

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 (↩). 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 **Flash off** (27).
- **Smile timer** is not available (29).

Decorate

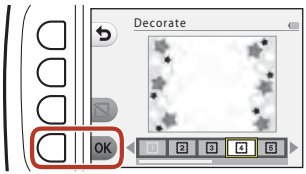
You can add a frame around your images when taking pictures. Nine different frames are available.

Enter shooting mode ➔ flexible button 3 (SCENE) ➔ flexible button 3 (Decorate)

- The **Choose a size** > **Photo size** setting is fixed at **Small (2 megapixels)** (40).

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

- To cancel, press flexible button 1 (↩).
- You can press flexible button 3 (🗑) to remove the frame.



2 Frame the subject and take a picture.

Notes About Decorate

- The area that is captured becomes smaller when a thicker frame is selected.
- When using borderless printing to print images that you have added frames to, the frames may not be printed.

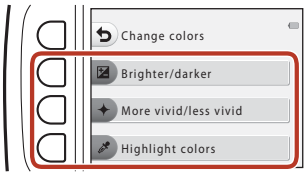
Change Colors

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.

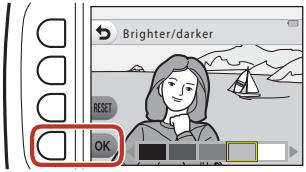
Enter shooting mode ➔ flexible button 3 (SCENE) ➔ flexible button 4 (Change colors)

1 Use flexible button 2, 3, or 4 to select the setting.

- Select **Brighter/darker**, **More vivid/less vivid**, or **Highlight colors**.



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 (↩).

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

Allows you to configure the shutter and button sounds. You can select one of eight different sounds, or turn sounds off.

Enter shooting mode ➔ flexible button 4 (Y) ➔ flexible button 2 (♪ 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 using **Take a series of pictures** (📖33) or when recording movies, the shutter sound is not heard.

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.

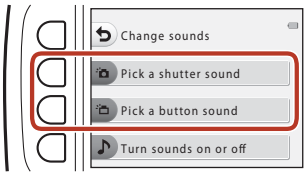
- Regardless of this setting, sounds that are heard when an error occurs and when the camera is turned on do not change.

Turn sounds on or off

Turn all sounds on or off.

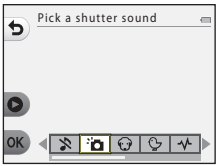
1 Press flexible button 2 or flexible button 3.

- **Pick a shutter sound**: Set the shutter sound.
- **Pick a button sound**: Set the button sound.



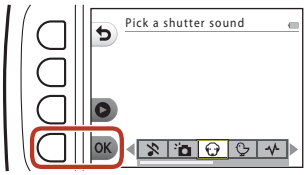
2 Use the multi selector ◀▶ to select the type of sound.

- : Set the standard sounds.
- : Sounds are not heard.
- Press flexible button 3 (▶) to play the selected sound.
- To cancel, press flexible button 1 (↩).



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* ➔ flexible button 4 (Y) ➔ flexible button 3 (Choose a size) ➔ flexible button 2 (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

* 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 (📖46).

Number of Images That Can Be Saved

- The approximate number of images that can be saved can be checked on the screen when shooting (📖16).
- 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 ➔ flexible button 4 ( ) ➔ flexible button 3 (Choose a size) ➔ flexible button 3 (Movie frame size)

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

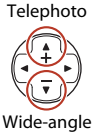
[1] When using the camera's internal memory, you can select **Small (640)** or **Small (old-fashioned)**.

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

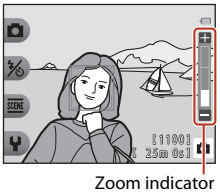
Using the Zoom

When you press the multi selector ▲▼, the zoom lens position changes.

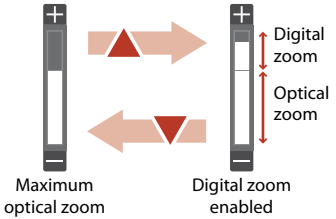
- To zoom in: Press ▲.
- To zoom out: Press ▼.
  When you turn the camera on, the zoom moves to the maximum wide-angle position.



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



- Digital zoom, which allows you to further magnify the subject up to approximately 4× 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.

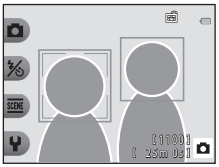
- Zoom indicator is blue: Image quality is not noticeably reduced by using the Dynamic Fine Zoom.
- Zoom indicator is yellow: There may be cases in which image quality is noticeably reduced.
- The indicator remains blue across a wider area when the image size is smaller.

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 (26)
- **Underwater face framing** (32), **Shoot at intervals** (32), and **Take a series of pictures** (33) when using **Choose a style**
- **Smile timer** (29)

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

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** (📖29)

Make skin prettier can also be applied to saved images by using **Add makeup** in playback mode (📖56).

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:

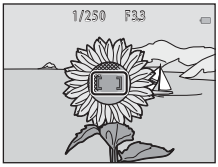
- Subject is very dark
- Objects of sharply differing brightness are included in the scene (e.g. the sun behind the subject makes that subject appear very dark)
- No contrast between the subject and surroundings (e.g. a portrait subject wearing a white shirt is standing in front of a white wall)
- Several 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 (📖45).

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.

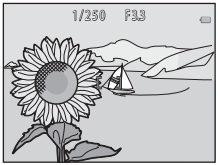
1 Position the subject in the center of the frame and press the shutter-release button halfway.



- 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.



3 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 (📖30)	When **Shoot night scenes**, **Photograph food**, **Take a series of pictures**, **Photograph fireworks**, **Shoot backlit scenes**, or **Shoot a movie miniature** is selected, the flash cannot be used.
Self-timer	Choose a style (📖30)	When **Underwater face framing**, **Shoot at intervals**, **Take a series of pictures**, or **Photograph fireworks** is selected, the self-timer cannot be used.
Smile timer	Choose a style (📖30)	When any option in **Choose a style** is enabled, **Smile timer** cannot be used.
	Highlight colors (📖37)	When **Highlight colors** is enabled, **Smile timer** cannot be used.
Decorate	Smile timer (📖29)	When **Smile timer** is selected, **Decorate** cannot be used.
	Choose a style (📖30)	When any option in **Choose a style** is enabled, **Decorate** cannot be used.
Change colors	Smile timer (📖29)	When **Smile timer** is selected, **Change colors** cannot be used.
	Choose a style (📖30)	When any option in **Choose a style** is enabled, **Change colors** cannot be used.
Pick a shutter sound	Take a series of pictures (📖33)	When **Take a series of pictures** is selected, the shutter sound is disabled.
Choose a size	Choose a style (📖30)	When **Shoot a movie miniature** is selected, **Choose a size** cannot be used.
Photo size	Decorate (📖36)	When **Decorate** is selected, the **Photo size** setting is fixed at ■ **Small (2 megapixels)**.
Date stamp	Take a series of pictures (📖33)	When **Take a series of pictures** or **Shoot a movie miniature** is selected, the date cannot be stamped on images.

Restricted function	Option	Description
Electronic VR	Choose a style (📖30)	When **Shoot night scenes**, **Shoot at intervals**, **Take a series of pictures**, **Photograph fireworks**, or **Shoot backlit scenes** is selected, electronic VR is disabled.
Digital zoom	Smile timer (📖29)	When **Smile timer** is selected, digital zoom cannot be used.
	Choose a style (📖30)	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

Playback Zoom 49

Thumbnail Playback 50

Functions Available in Playback Mode (Playback Menu) 51

Exchange Messages 52

Picture Play 55

Grading 64

Favorites 68

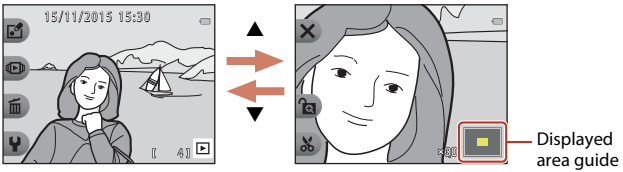
View by Date 72

Slide Show 73

Retouch 77

Playback Zoom

Pressing the multi selector ▲ in full-frame playback mode (20) zooms in on the image.



Full-frame Playback　　Image is zoomed in.

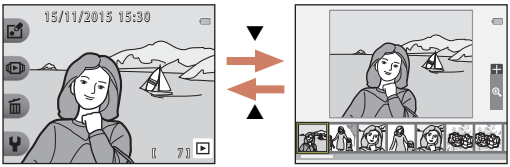
- You can change the magnification rate by pressing ▲▼.
- To view a different area of the image, press flexible button 3 (🔒) to lock the magnification rate and press ▲▼◀▶.
  If you want to change the magnification rate, press flexible button 3 (🔓) and then change the magnification rate as desired.
- When a zoomed image is displayed, press flexible button 1 (✕) to return to full-frame playback mode.

✂ 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

Press the multi selector ▼ in full-frame playback mode (📖20) to display images in contact sheets of thumbnail images.



Full-frame Playback　　Thumbnail Playback

- While using thumbnail playback mode, press ◀▶ to select an image, and the selected image is magnified and displayed at the center of the screen. Select an image and press ▲, 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 (📖6) and display the corresponding menu.

Flexible button	Option	Description	📖
Have fun with pictures	Exchange messages[1]	Allows you to add voice messages to your images.	52
	Picture play[1]	Allows you to edit your images using a variety of functions.	55
	Grading[2]	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.	64
	Favorites[3]	Allows you to play back only the images added to favorites. Protects selected images from accidental deletion.	68
View	View by date	Allows you to play back images by selecting the shooting date from the calendar.	72
	Slide show	Allows you to view images in an automated slide show.	73
Erase	Erase this picture only	Allows you to delete only the image currently displayed.	21
	Erase selected pictures	Allows you to select multiple images and delete them.	22
	Erase all pictures	Allows you to delete all images.	21
Settings	Retouch	Allows you to copy or rotate images or create a small copy of the current image.	77
	Camera settings	Allows you to change a number of general settings.	98

[1] Available when a still image is displayed.
[2] This function is displayed when **Variety menu** (📖100) is set to **On**.
[3] This function is displayed when **Variety menu** (📖100) is set to **Off**.

Exchange Messages

Voice messages can be recorded and attached to images.

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

Enter playback mode ➔ select an image ➔ flexible button 1 (✎) ➔ flexible button 2 (Exchange messages)

Leave a Message

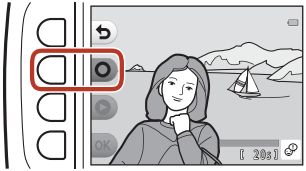
1 Press flexible button 2 (**Record**).

2 Press flexible button 2 (**Leave a message**).

- You cannot select this option if the image already has a message attached to it. → "Leave a Reply" (53)

3 Press flexible button 2 (**Record**).

- Recording starts. You can record for up to about 20 seconds.
- Do not touch the microphone.
- Press flexible button 2 (**Record**) 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 re-record 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 (↩) before or after recording a message to return to step 2.