

Nikon

DIGITAL CAMERA

COOLPIX P6000

User's Manual



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- The SD logo is a trademark of the SD Card Association.
- PictBridge is a trademark.
- All other trade names mentioned in this manual or the other documentation provided with your Nikon product are trademarks or registered trademarks of their respective holders.

Introduction

First Steps



Basic Photography and Playback: Auto Mode

SCENE Shooting Suited for the Scene

Shoot pictures using P, S, A and M



Using the GPS



More on Playback



Movies



Voice Recordings

Connecting to Televisions, Computers and Printers



**Uploading Pictures to the my Picturetown Server
(Picture Bank)**

MENU

Shooting, Playback and Setup Menus

Technical Notes

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. The consequences that could result from failure to observe the precautions listed in this section are indicated by the following symbol:



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 AC adapter, unplug the 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 AC adapter could result in injury. Repairs should be performed only by qualified technicians. Should the camera or 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 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.

Do not look at the sun through the viewfinder

Viewing the sun or other strong light source through the viewfinder could cause permanent visual impairment.

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 or other small parts into their mouths.

 Observe the following precautions when handling the battery

The battery may leak 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 AC adapter, be sure it is unplugged.
- Use only a Rechargeable Li-ion Battery EN-EL5 (supplied). Charge the battery inserting it into the camera and connecting the AC Adapter EH-66 (supplied).
- 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 flames or to excessive heat.
- Do not immerse in or expose to water.
- Replace the terminal cover when transporting the battery. 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 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 power cable or go near the AC adapter during lightning storms. Failure to observe this precaution could result in electric shock.
- Do not damage, modify, forcibly tug or bend the power 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 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 result in overheating or fire.

 **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.

 **CD-ROMs**

The CD-ROMs supplied with this device should not be played back on audio CD equipment. Playing CD-ROMs on an audio CD player could cause hearing loss or damage the equipment.

 **Observe caution when using the flash**

Using the flash close to your subject's eyes could cause temporary visual impairment. Particular care should be observed if photographing infants, when the flash should be no less than 1 m (3 ft. 4 in.) from the subject.

 **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.

 **Turn the power off when using inside an airplane or the hospital**

Turn the power off while inside the airplane during take off or landing. Set Record GPS Data in the GPS mode to Off as well. Follow the instructions of the hospital when using while in a hospital. The electromagnetic waves given out by this camera may disrupt the electronic systems of the airplane or the instruments of the hospital.

Notices

Notice for Customers in the U.S.A.

Federal Communications Commission (FCC) Radio Frequency Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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



Nikon

COOLPIX P6000

CAUTIONS

Modifications

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

Interface Cables

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

Notice for customers in the State of California

WARNING

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

Wash hands after handling.

Nikon Inc.,

1300 Walt Whitman Road,
Melville, New York 11747-3064
USA

Tel: 631-547-4200

Notice for customers in Canada

CAUTION

This Class B digital apparatus complies with Canadian ICES-003.

ATTENTION

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Notice for customers in Europe

This symbol indicates that this product is to be collected separately.



The following apply only to users in European countries:

- This product is designated for separate collection at an appropriate collection point. Do not dispose of as household waste.
- For more information, contact the retailer or the local authorities in charge of waste management.

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About This Manual

Thank you for your purchase of a Nikon COOLPIX P6000 digital camera. This manual was written to help you enjoy shooting with your Nikon digital camera. Read this manual thoroughly before use, and keep it where all those who use the product will read it.

Symbols and Conventions

To make it easier to find the information you need, the following symbols and conventions are used:



This icon marks cautions, information that should be read before use, to prevent damage to the camera.



This icon marks tips, additional information that may be helpful when using the camera.



This icon marks notes, information that should be read before using the camera.



This icon indicates that more information is available elsewhere in this manual or in the *Quick Start Guide*.

Notations

- A Secure Digital (SD) memory card is referred to as a “memory card.”
- The setting at the time of purchase is referred to as the “default setting.”
- The names of menu items displayed in the camera monitor, and the names of buttons or messages displayed in the computer monitor are indicated in bold.

Screen Samples

In this manual, images are sometimes omitted from monitor display samples so that monitor indicators can be more clearly shown.

Illustrations and Screen Display

Illustrations and text displays shown in this manual may differ from actual display.

Internal Memory and Memory Cards

Pictures taken with this camera can be stored in the camera’s internal memory or on removable memory cards. If a memory card is inserted, all new pictures will be stored on the memory card and delete, playback and format operations will apply only to the pictures on the memory card. The memory card must be removed before the internal memory can be formatted or used to store, delete or view pictures.

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 sites:

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

Visit these sites 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. See the URL 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, AC adapters, and flash accessories) certified by Nikon specifically for use with this Nikon digital camera are engineered and proven to operate within the operational and safety requirements of this electronic circuitry.

THE USE OF NON-NIKON ELECTRONIC ACCESSORIES COULD DAMAGE THE CAMERA AND MAY VOID YOUR NIKON WARRANTY.

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

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



Rechargeable Li-ion
Battery EN-EL5

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.
- 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).

Notice Concerning Prohibition of Copying or Reproduction

Note that simply being in possession of material that was digitally copied or reproduced by means of a scanner, digital camera or other device may be punishable by law.

• **Items prohibited by law from being copied or reproduced**

Do not copy or reproduce paper money, coins, securities, government bonds or local government bonds, even if such copies or reproductions are stamped "Sample." The copying or reproduction of paper money, coins, or securities which are circulated in a foreign country is prohibited. Unless the prior permission of the government was obtained, the copying or reproduction of unused postage stamps or post cards issued by the government is prohibited. The copying or reproduction of stamps issued by the government and of certified documents stipulated by law is prohibited.

• **Cautions on certain copies and reproductions**

The government has issued cautions on copies or reproductions of securities issued by private companies (shares, bills, checks, gift certificates, etc.), commuter passes or coupon tickets, except when a minimum of necessary copies are to be provided for business use by a company. Also, do not copy or reproduce passports issued by the government, licenses issued by public agencies and private groups, ID cards and tickets, such as passes and meal coupons.

• **Comply with copyright notices**

The copying or reproduction of copyrighted creative works such as books, music, paintings, woodcut prints, maps, drawings, movies and photographs is governed by national and international copyright laws. Do not use this product for the purpose of making illegal copies or to infringe copyright laws.

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, erase all data using commercial deletion software, or format the device and then completely refill it with images containing no private information (for example, pictures of empty sky). Be sure to also replace any pictures selected for the welcome screen (📷161). Care should be taken to avoid injury or damage to property when physically destroying data storage devices.

Reset the network setting stored in the camera (📷113).

Information and Precautions

Note the following important points before using this product's LAN features.

Personal Information Management and Disclaimer

- User information registered and configured with the product, including network connection settings and other personal information, is susceptible to alteration and loss resulting from operational error, static electricity, accident, malfunction, repair or other handling. Always keep separate copies of important information. Nikon is not responsible for any direct or indirect damages or lost profits resulting from alteration or loss of content that is not attributable to Nikon.
- Before discarding this product or transferring it to another owner, it is recommended that you apply the Reset option (Ⓜ113) in the camera's network setting menu, to delete all user information registered and configured with the product, including network connection settings and other personal information.
- Nikon is not responsible for any damages stemming from unauthorized use of e-mail addresses stored in the camera resulting from theft of the product.

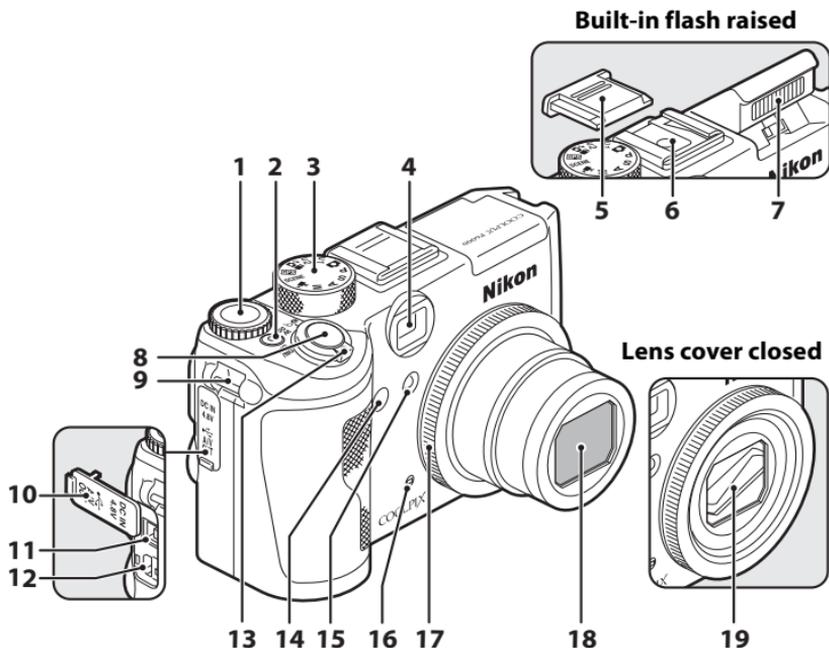
Precautions and Limitations when Using the LAN Features

- Connection to a network for the services (hereinafter referred to as Services) using the camera's LAN features is not guaranteed or supported outside the United States, Hong Kong, Singapore, Korea, Taiwan, Germany, France, and Sweden. Nikon is not responsible for any direct or indirect damages or lost profits resulting from any connection made at your own risk.
- Nikon makes no guarantees whatsoever concerning the ability of these Services to store or safeguard images. Be sure to maintain separate back-up copies of all important images. Nikon is not responsible for any direct or indirect damages or lost profits resulting from alteration or loss of content that is not attributable to Nikon.
- Your use of the Services is completely at your own risk and Nikon accepts no responsibility on your behalf.
- By using the Services, you agree not to upload, post, e-mail or otherwise transmit or communicate any material through the Services that is obscene, pornographic, unlawful, threatening, an invasion of any privacy or publicity rights of any party, defamatory, libelous, illegal or otherwise objectionable, or infringes on any copyright, trademark or other intellectual property or contractual right of any party.
- You hereby irrevocably and unconditionally waive, discharge and release Nikon, its affiliates and subsidiaries, and their respective officers, directors, employees, agents, legal representatives, and successors ("Nikon Parties") from and against any and all claims by or against you related to any material you post, e-mail or otherwise transmit or communicate through the Services.
- Furthermore, you agree to indemnify, defend, and hold harmless the Nikon Parties from and against any claims, damages, liabilities, costs and expenses (including reasonable attorney' and professionals' fees and litigation costs) related to any material you post, e-mail or otherwise transmit or communicate through the Services.

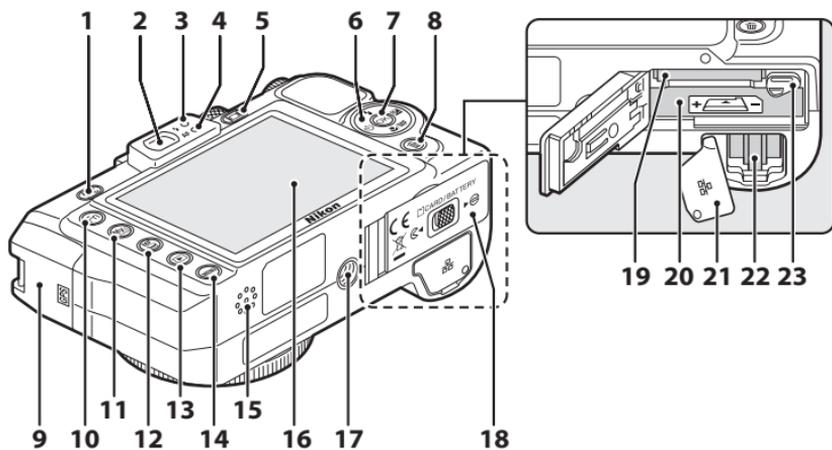
- You understand that (i) your right to use the Services may be terminated by Nikon and/or (ii) the materials you post, e-mail or otherwise transmit or communicate through the Services may be deleted or removed by Nikon in the event you breach the foregoing, or any other terms and conditions that Nikon may require in connection with your use of the Services.
- These Services are subject to change, suspension, or termination without notice.
- Be sure to read Nikon's "Privacy Management Policy" located at the following URL: <http://www.nikon.co.jp/main/eng/privacy/index.htm>
- If you are in Europe, click on your country of residence at the following URL and follow the link <privacy policy>: <http://www.europe-nikon.com/support/>
- You can visit the my Picturetown Website at the following URL: <http://mypicturetown.com/>

Parts of the Camera

The Camera Body



1	Command dial	11	12	Cable connector.....	90, 92, 96
2	Power switch/Power-on lamp... 17, 169			Zoom control.....	27
3	Mode dial.....	10		W : Wide	27
4	Viewfinder.....	26		T : Tele.....	27
5	Accessory Shoe Cover BS-1.....	180	13	: Thumbnail playback.....	65
6	Accessory shoe	180		: Playback zoom.....	66
7	Built-in flash	32		: Help	15
8	Shutter-release button.....	28	14	Infrared receiver.....	36
9	Eyelet for camera strap (x2).....	15	15	Self-timer lamp.....	35
10	Connector cover	18, 90, 92, 96		AF-assist illuminator	168
11	DC input connector.....	18, 117	16	Microphone	74, 79, 85
			17	Lens ring.....	179
			18	Lens.....	183, 197
			19	Lens cover	



1	(flash pop-up) button.....	33
2	Viewfinder.....	26
3	Flash lamp.....	34
4	Autofocus (AF) lamp.....	28, 85
5	(monitor) button	14
6	Multi Selector.....	12
7	(apply selection) button	12
8	(delete) button.....	30, 31, 74, 84, 88
9	GPS Antenna	60
10	F_n (FUNC) button.....	11, 172
11	(My Menu) button	15
12	(manual focus) button.....	39

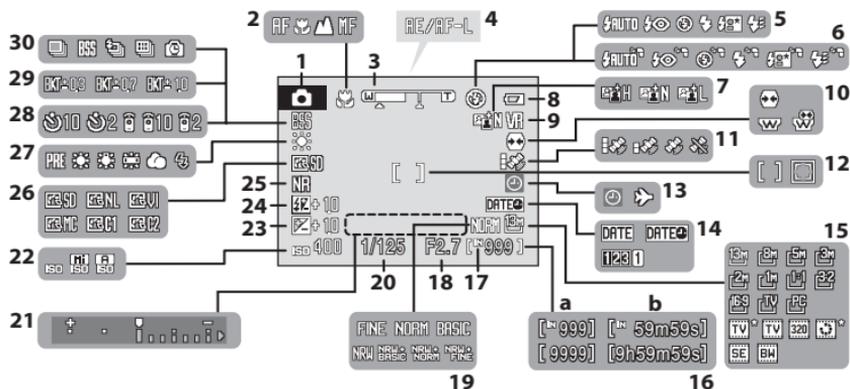
13	(playback) button	30
14	MENU button.....	13, 41, 80, 123, 153
15	Speaker	74, 84, 87
16	Monitor	8, 14, 25
17	Tripod socket	
18	Battery-chamber/ memory card slot cover	16, 22
19	Memory card slot	22
20	Battery chamber.....	16
21	LAN connector cover	117
22	LAN connector	117
23	Battery latch.....	16, 17

The Monitor

The following indicators may appear in the monitor during shooting and playback (actual display varies with current camera settings).

See page 14 for details on changing the monitor display.

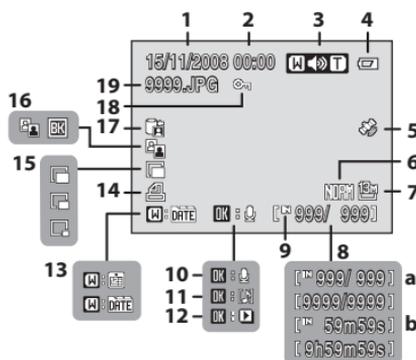
With Shooting



1	Shooting mode*	24, 41, 50, 79	16	(a) Number of exposures remaining	24
2	Focus mode.....	37	16	(b) Movie length	79
3	Zoom indicator	27	17	Internal memory indicator	25
4	AE/AF-L indicator.....	49	18	Aperture.....	51
5	Flash mode	32	19	Image quality.....	124
6	Speedlights.....	180	20	Shutter speed.....	51
7	Active D-Lighting.....	57	21	Values in EVs.....	55
8	Battery level indicator	24	22	ISO sensitivity	34, 138
9	Vibration reduction icon	25, 167	23	Exposure compensation	40
10	Distortion control	148	24	Flash exposure compensation.....	147
	Wide-angle convertor.....	149	25	Noise reduction.....	148
11	GPS connection indicator.....	60	26	COOLPIX Picture Control.....	129
12	Focus area.....	28, 144	27	White balance	136
	Focus area (Face Priority).....	144	28	Self-timer/Remote Control.....	35
13	"Date not set" indicator.....	185	29	Bracketing.....	143
14	Time zone indicator	162	30	Continuous shooting mode.....	140
14	Date imprint/date counter	165			
15	Image size.....	126			
	Movie options.....	80			

* Differs according to the current shooting mode.

With Playback



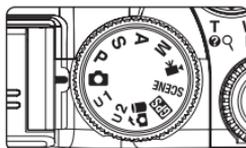
1	Date of recording.....	20	11	Voice memo playback guide	74
2	Time of recording	20	12	Movie playback guide	84
3	Volume indicator	74, 84	13	Calendar guide/ list by date guide	75, 76
4	Battery level indicator	24	14	Print-order icon	101
5	GPS data recording indicator.....	60	15	Small picture indicator.....	69, 70
6	Image quality *	124	16	D-Lighting icon	68
7	Image size *	126	16	Black border indicator	71
	Movie options *	80	17	Picture Bank picture icon	119
8	(a) Current frame number/ total number of frames.....	30	18	Protect icon.....	156
	(b) Movie length	84	19	File number and type	181
9	Internal memory indicator	30			
10	Voice memo recording guide	74			

* Differs according to the selected option during shooting.

Basic Operations

The Mode dial

Align the mode icon with the mark next to the mode dial.



Auto (24)

Choose this simple mode, an automatic, "point-and-shoot" mode recommended for first-time users of digital cameras.

U1, U2 User setting (58)

Register the settings made in shooting modes **P, S, A** and **M**. Once the settings are registered, you can shoot with the settings that are used more frequently by just switching to this mode.

Picture Bank (103)

Use the LAN feature to send pictures taken from the camera to my Picturetown on the Internet.

P, S, A, M (50)

Choose these modes for greater control over shutter speed and aperture.

Movie (79)

Choose this mode to shoot movies.

SCENE Scene (41)

Choose this mode for automatic adjustment of settings to suit the selected subject type, or use the voice recording option to record sound only.

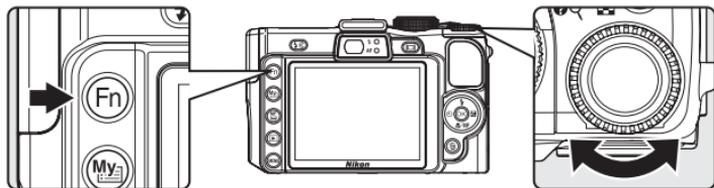
GPS (60)

Check the settings and status of the GPS function. Use the GPS feature to record the orientation for the picture.



The Command Dial and Fn (FUNC) Button

Rotate the command dial, and use the dial with the **Fn** button, to select mode or menu quickly and change settings.



With Shooting

Mode	Use	Description	
Programmed auto (mode dial set to P)		Change the flexible program.	52
Shutter-priority auto (mode dial set to S)		Adjust shutter speed.	53
Aperture-priority auto (mode dial set to A)		Adjust aperture.	54
Manual (mode dial set to M)		Adjust shutter speed or aperture. (Press the multi selector to switch between the different options.)	55
Mode dial set to P, S, A, M, U1 or U2	Fn +	Adjust the setting assigned to FUNC button . (At the default setting, the ISO sensitivity setting can be adjusted.)	172
Mode dial set to SCENE	Fn +	Choose a scene mode.	41
Mode dial set to	Fn +	Choose a movie option.	80

With Playback

Mode	Use	Description	
Playback mode	Fn +	Switch to calendar mode or list by date mode.	75, 76
Full-frame playback or Thumbnail playback		Choose a picture.	30, 65
Playback zoom		Change zoom rate.	66
Movie/Audio playback		Fast-forward or Rewind.	84, 88

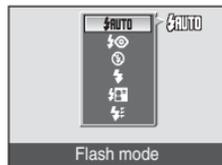
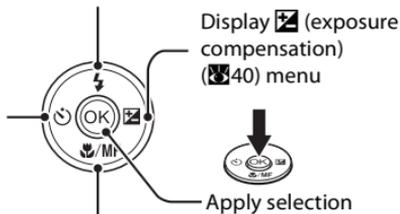
The Multi Selector

This section describes standard uses of the multi selector to select modes, select menu options and to apply selection.

With Shooting

Display  (flash mode) (32) menu or move cursor up

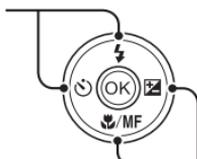
Display  (self-timer/remote control) (35) menu



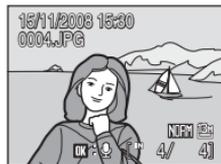
Display /MF (focus mode) (37) menu or move cursor down

With Playback

Choose the previous picture



Choose the next picture



With Menu Screens

Move cursor up

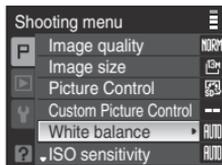
Return to the previous menu



Move to the next menu or apply selection



Apply selection (move to the next menu)



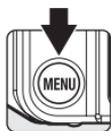
Notes on the Multi Selector

In this manual, up, down, left, and right presses of the multi selector may be indicated with , , , and .

The MENU Button

Press the **MENU** button to display the menu for the selected mode.

- Use the multi selector to navigate the menus (▶ 12).
- Menu options can also be selected by rotating the command dial.
- Choose the tab on the left to display each menu item.
- Press the **MENU** button again to exit the menu.



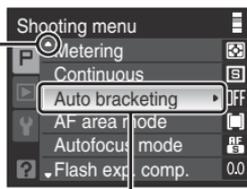
- **Top tab:**
Display the usable menus in the modes selected by the mode dial
- **Middle tab:**
Display the playback menu
- **Bottom tab:**
Display the setup menu
Displayed when there are one or more menu items to follow

Displayed when the menu contains two or more pages

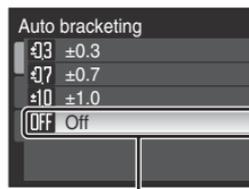


The selected option

Displayed when there are more previous menu items

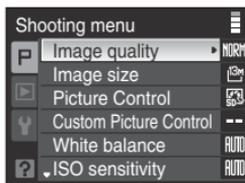


Press the **OK** button or the multi selector ▶ to proceed to the next set of options.



Press the **OK** button or the multi selector ▶ to apply selection.

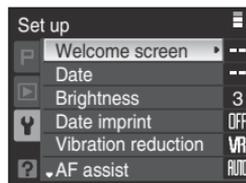
Switching Between Tabs



Press the multi selector ◀ to highlight the tab.



Press the multi selector ▲ or ▼ to select the tab, and press either the **OK** button or ▶.



The chosen menu is displayed.

The (Monitor) Button

To hide or show monitor indicators during shooting and playback, press the  button.

With Shooting

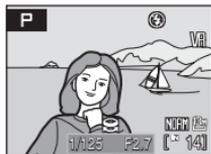
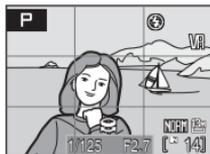


Photo information displayed
Display the image taken and shooting information.



Framing guides¹
Display a boxed guide for framing.



Photo information hidden
Display only the image taken.



Monitor off^{1,2}
Turn off the monitor.



With Playback

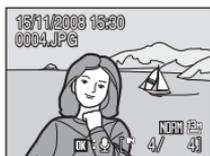
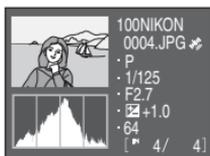


Photo information displayed
Display current image and its information.



Shooting data displayed
(except for movies)
Display highlight³, histogram⁴ and shooting data⁵.

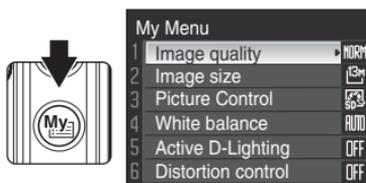


Photo information hidden
Display image only.

- 1 Available when mode dial is set to **P, S, A, M, U1** or **U2**
 - 2 Shutter will not click when focus is not locked and the AF lamp does not light up.
 - 3 The brightest portions of the image (highlight) blink. Use highlights as a guide when setting exposure.
 - 4 A graph showing tone distribution. The horizontal axis corresponds to pixel brightness, with dark tones to the left and bright tones to the right; the vertical axis shows number of pixels of each brightness in image.
 - 5 Shows the folder name, file name, GPS data recording indicator, shooting mode **P, S, A** or **M**, shutter speed, aperture, exposure compensation, ISO sensitivity, and file number/total number of exposures.
- P** is displayed when shooting mode is set to  **SCENE**, or **P**.

The **My** (My Menu) button

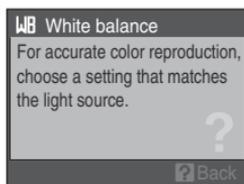
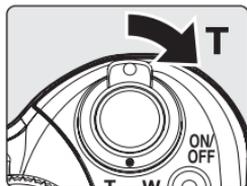
Press the **My** button to display the menu items that are used frequently during shooting (only when shooting mode is set to **P**, **S**, **A**, **M**, **U1** or **U2**). Press the **My** button again to stop displaying My Menu. Options that are displayed in My Menu can be changed in **Customize My Menu** (173) of setup menu (159).



Help Displays

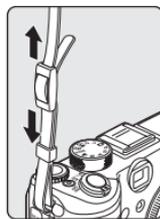
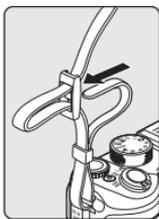
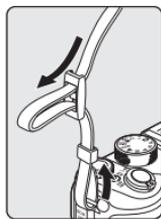
Rotate the zoom control to **T** (?) when ? is displayed at the lower of the menu screen to view a description of the currently selected menu option.

To return to the original menu, rotate the zoom control to **T** (?) again.



Attaching the Camera Strap

Attach the camera strap to the eyelet as shown below (2 eyelets available).

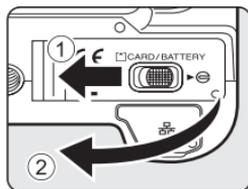


Inserting the Battery

Insert a Rechargeable Li-ion Battery EN-EL5 (supplied) into the camera.

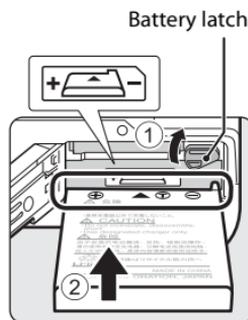
- Charge the battery before first use or when the battery is running low (18).

- 1 Open the battery-chamber/memory card slot cover.



- 2 Insert the battery.

- Confirm that the positive (+) and negative (-) terminals are oriented correctly, as described on the label at the entrance of the battery chamber, and insert the battery.
- Use the battery to push the orange battery latch up (1) as the battery is inserted (2). The latch raises back into place when the battery is fully inserted.



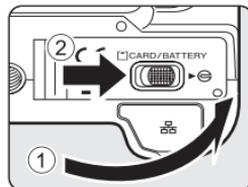
✓ Inserting the Battery

Inserting the battery upside down or backwards could damage the camera. Make sure that the Battery is correctly oriented.



- 3 Close the battery-chamber/memory card slot cover.

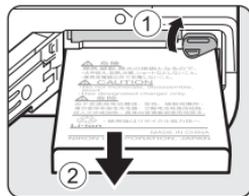
- Close the battery-chamber/memory card slot cover (1), and slide the cover latch to the $\blacktriangleright \ominus$ position (2).



Removing the Battery

Before removing the battery, turn the camera off and confirm that the power-on lamp and monitor are off. To eject the battery, open the battery-chamber/memory card slot cover and slide the battery latch in the direction shown ①. The battery can then be removed by hand ②.

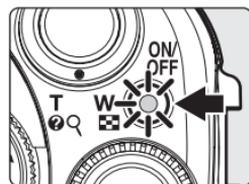
- Note that the battery may become hot during use; observe due caution when removing the battery.



Turning On and Off the Camera

Press the power switch to turn on the camera. The power-on lamp (green) will flicker and the monitor will turn on. To turn off the camera, press the power switch again. When the camera turns off, both the power-on lamp and the monitor will turn off.

- When the camera is off, holding down the  button will turn the camera on in playback mode.



Notes on the Battery

- Be sure to read and follow the warnings and cautions of “For Your Safety” (ⓘiii), before using the rechargeable battery.
- Be sure to read and follow the warnings for “The Battery” (ⓘ183) of the section “Caring for the Camera”, before using the battery.
- If the battery is not used for long periods of time, make sure to charge the battery once every half a year, and keep the battery after it has been exhausted.

Auto Power Off in Shooting Mode (Standby Mode)

The monitor will dim to reduce the drain on the battery if no operations are performed for about five seconds. The monitor will brighten when camera controls are used.

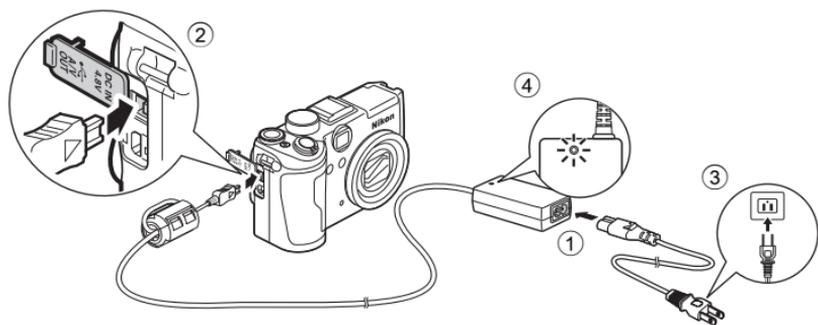
At default settings, the monitor will turn off altogether if no operations are performed for about a minute during shooting and playback. The camera will turn off automatically if no operations are performed for another three minutes (auto power off function).

To turn on the monitor when it's turned off, press the shutter-release button halfway or the  button.

- The time taken until the monitor turns off completely can be changed in **Auto off** (ⓘ169) in the setup menu (ⓘ159).

Charging the Battery

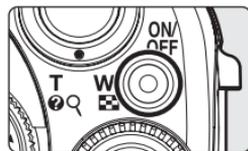
Insert a Rechargeable Li-ion Battery EN-EL5 (supplied) into the camera and charge the battery by connecting the AC Adapter EH-66 (supplied).



1 Connect the power cable and AC adapter ①.

2 Confirm that the power-on lamp and the monitor are off.

- Do not turn on the camera. **You cannot charge the battery while the camera is turned on.**



3 Connect the AC adapter to the camera's DC input connector ②.

- The DC input connector should be fully inserted.

4 Plug the power cable into an outlet ③.

- The AC adapter power-on lamp will light ④.

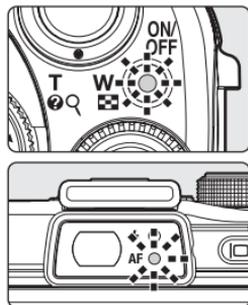
Charging the Battery After Setting the Camera's Clock

When the camera's built-in clock has not been set, the battery begins charging when the AC adapter is connected. Once the clock is set, Picture Bank (📷 117) will start when the AC adapter is connected.

- Press the **OK** button to cancel Picture Bank and start charging the battery immediately.
- Picture Bank can be set so that it does not start automatically (📷 117).

5 The battery begins charging.

- The power-on lamp and AF lamp will blink, and the battery will start charging.
- The power-on lamp and AF lamp will stop blinking when charging is complete.
- A fully-exhausted battery will charge in about three hours.



The following chart explains camera status while the AC adapter is connected to the camera.

Camera Status	Description
The power-on lamp and AF lamp will blink	Battery charging.
The power-on lamp and AF lamp will turn off	Battery fully charged.
The power-on lamp or the monitor will turn on.	The camera is on. Power is supplied to the camera by the AC adapter.
The flash lamp will flickers	<ul style="list-style-type: none"> • The temperature is not suitable for usage. Use the charger in a room with a surrounding temperature range of 5 to 35 °C (41 to 95 °F) to charge the battery. • If the lamp flickers rapidly, the AC adapter is not correctly inserted or the battery is faulty. Reinsert the AC adapter or replace the battery.

6 Disconnect the camera and AC adapter when charging is complete.

- Turn off the camera.
- Pull out the AC adapter from the camera, and the power cable from the power outlet.

Note on the AC Adapter

- Be sure to read and follow the warnings and cautions of “For Your Safety” (ⓘiii), before using the AC adapter.
- Be sure to read and follow the warnings for “The Battery” (ⓘ183) of the section “Caring for the Camera”, before using the battery.
- Do not, under any circumstances, use another make or model of AC adapter. Failure to observe this precaution could result in overheating or in damage to the camera.
- Only use the power cable for the AC Adapter EH-66 (supplied).

Charging the Battery with the Battery Charger

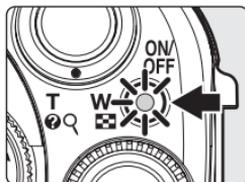
The Battery Charger MH-61 (ⓘ177), for EN-EL5 is available separately.

Setting Display Language, Date and Time

A language-selection and date setting screen for the internal clock is displayed the first time the camera is turned on.

1 Press the power switch to turn on the camera.

- The power-on lamp will flicker and the monitor will turn on.



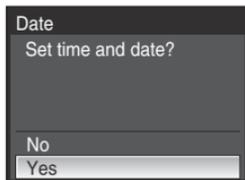
2 Use the multi selector to choose the desired language and press the **OK** button.

- For information on using the multi selector → 12



3 Choose **Yes** and press the **OK** button.

- If **No** is selected, the date and time will not be set.



4 Press **◀** or **▶** to select your home time zone (**164**) and press the **OK** button.



Daylight Saving Time

If daylight saving time is in effect, press **▲** to turn on Daylight saving in the Time zone menu in step 4 to set the date. The  mark will be displayed on the top of the screen when set to On. Press **▼** to set to Off.



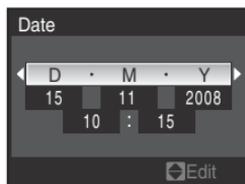
5 Edit the date.

- Press ▲ or ▼, to edit the highlighted item.
- Press ► to highlight **D** (day) → **M** (month) → **Y** (year) → hour → minute → **DMY** (the order in which the day, month and year are displayed).
- Press ◀ to highlight items in reverse order (order may differ in some regions).



6 Choose the order in which the day, month and year are displayed and press the **OK** button or the multi selector ►.

- The setting is enabled and screen changes to shooting screen.



Changing the Date and Time

- To change the current date and time, go into **Date** (F162) in the setup menu (F159), choose **Date** and follow the instructions above, starting from step 5.
- To change the time zone and daylight saving settings, go into **Date** in the setup menu, choose **Time zone**, and change the settings (F159, 162).

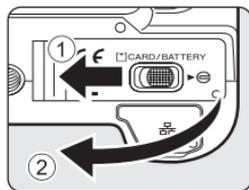
Insert the Memory Card

Pictures are stored in the camera's internal memory (approx. 48 MB) or on removable Secure Digital (SD) memory cards (available separately) (📷178).

If a memory card is inserted in the camera, data are automatically stored on the memory card and all data will be played back, deleted or transferred from the memory card. Remove the memory card to store, playback, delete or transfer data from the internal memory.

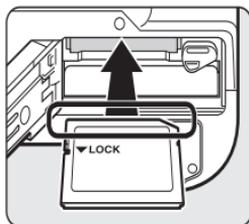
- 1 Confirm that the power-on lamp and the monitor are off and open the battery-chamber/memory card slot cover.

- Make sure that the camera is off before inserting or removing the memory card.



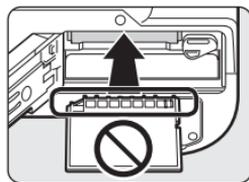
- 2 Insert the memory card.

- Slide the memory card in correctly until it clicks into place.
- Close the battery-chamber/memory card slot cover after inserting the memory card.



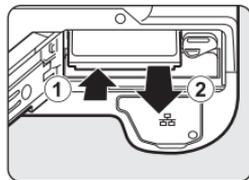
❑ Inserting the Memory Card

Inserting the memory card upside down or backwards could damage the camera or the memory card. Make sure that the memory card is correctly oriented.



Removing Memory Cards

Before removing memory cards, turn the camera off and confirm that the power-on lamp and the monitor are off. Open the battery-chamber/memory card slot cover and press the card in ① to partially eject the card ②. The card can then be removed by hand.

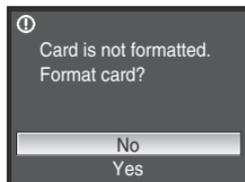


✓ Formatting a Memory Card

If the message at right is displayed, the memory card must be formatted before use. **Note that formatting (F170) permanently deletes all pictures and other data on the memory card.** Be sure to make copies of any pictures you wish to keep before formatting the memory card.

Use the multi selector to choose **Yes** and press the **OK** button. The confirmation dialog will be displayed. To start formatting, choose **Format** and press the **OK** button.

- Do not turn the camera off or open the battery-chamber/memory card slot cover until formatting is complete.
- The first time you insert the memory cards used in other devices into this camera, be sure to format them (F170) with this camera.

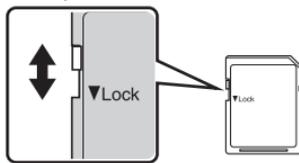


✓ The Write Protect Switch

SD memory cards are equipped with a write protect switch. Pictures cannot be recorded or deleted and the memory card cannot be formatted when this switch is in the "lock" position. Unlock by sliding the switch to the "write" position.

- Unlock when using the LAN features of the COOLPIX P6000 to upload pictures from memory card onto my Picturetown.

Write protect switch



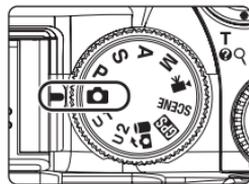
✓ Memory Cards

- Use only Secure Digital memory cards.
- Do not perform the following during formatting, while data is being written to or deleted from the memory card, or during data transfer to a computer. Failure to observe this precaution could result in the loss of data or in damage to the camera or memory card:
 - Eject the memory card
 - Remove the battery
 - Turn off the camera
 - Disconnect the AC adapter
- Do not format the memory card using a computer.
- Do not disassemble or modify.
- Do not drop, bend, expose to water or strong physical shocks.
- Do not touch the metal terminals with your fingers or metal objects.
- Do not affix labels or stickers to the memory card.
- Do not leave in direct sunlight, closed vehicles or areas exposed to high temperatures.
- Do not expose to humidity, dust, or to corrosive gases.

Step 1 Turn the Camera On and Select (Auto) Mode

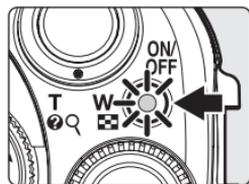
Choose this  (auto) mode, an automatic, “point-and-shoot” mode recommended for first-time users of digital cameras.

1 Rotate the mode dial to .



2 Press the power switch to turn on the camera.

- The power-on lamp will flicker and the monitor will turn on. The lens will extend at this time.

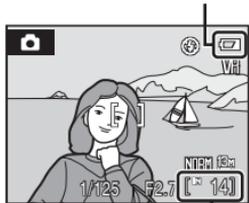


3 Check the battery level and number of exposures remaining.

Battery level indicator

Battery Level

Monitor	Description
NO INDICATOR	Battery fully charged.
	Battery low; prepare to charge or replace the battery.
 Battery exhausted.	Cannot shoot pictures. Recharge or replace with a fully-charged battery.



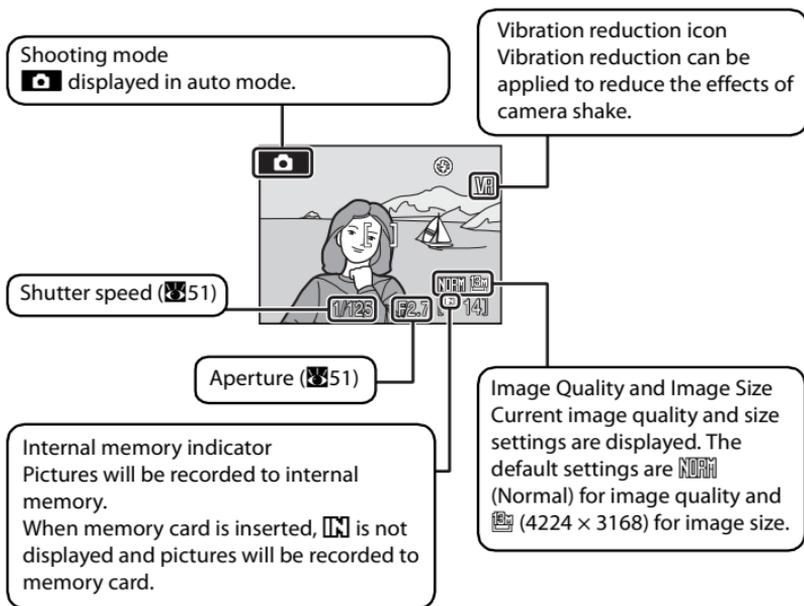
Number of exposures remaining

Number of Exposures Remaining

The number of exposures remaining will be displayed.

The number of pictures that can be stored depends on the capacity of the memory or memory card, image quality, and image size ( 127).

Indicators Displayed in (Auto) Mode



Note on the Flash

When the built-in flash is lowered, the flash setting is fixed at off and  appears at the top of the monitor. In situations where flash is needed, such as in dark locations or when the subject is backlit, be sure to raise the built-in flash (33).

Available Functions in (Auto) Mode

In  (auto) mode, focus mode (37) and exposure compensation (40) can be applied and the camera can shoot using the flash mode (32) and self-timer (35). Pressing the **MENU** button displays the shooting menu options for specifying the **Image quality** (124) and **Image size** (126).

Vibration Reduction

Vibration reduction (167), when **On** (default setting) is selected, can be applied to effectively reduce blur, caused by slight hand movement known as camera shake, that commonly occurs when shooting with zoom applied or at slow shutter speeds.

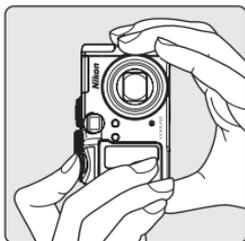
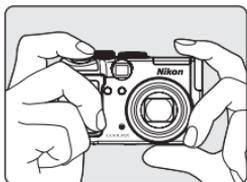
Vibration reduction can be used in all shooting modes.

Set **Vibration reduction** to **Off** when using a tripod to stabilize the camera during shooting.

Step 2 Frame a Picture

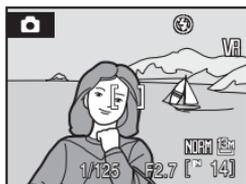
1 Ready the camera.

- Hold the camera steadily in both hands.
- Keep your fingers, hair, strap and other objects away from the lens, AF-assist illuminator, microphone and speaker.



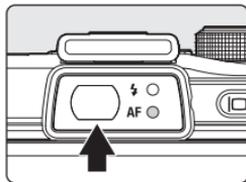
2 Frame the picture.

- Position the main subject near the center of the monitor.



Using the Viewfinder

Use the viewfinder to frame pictures when bright light makes it difficult to see the display in the monitor.



Notes on the Viewfinder

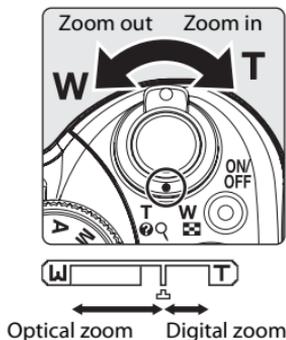
As the area visible in the viewfinder may differ from that of the final picture, use the monitor to frame pictures in the following situations:

- When shooting at ranges of about 1 m (3 ft. 3 in.) or less
- When a converter lens is used (available separately from Nikon;  149, 179)
- When digital zoom is applied ( 27)
- When shooting at an **Image size** ( 126) of  4224x2816,  4224x2376 or  3168x3168

Using the Zoom

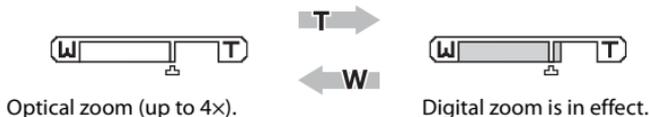
Use the zoom control to activate optical zoom. Rotate **T** to zoom in so that the subject fills a larger area of the frame, or **W** to zoom out, thus increasing the area visible in the frame.

A zoom indicator is displayed at the top of the monitor when the zoom control is rotated.



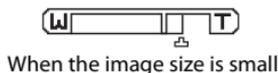
Digital Zoom

When the camera is zoomed in to the maximum optical zoom magnification, rotating and holding the zoom control at **T** triggers digital zoom. The subject is magnified up to 4x. Focus will be on the center of the screen (without active focus area display) when digital zoom is in effect.



Digital Zoom and Interpolation

Unlike optical zoom, digital zoom uses a digital imaging process known as interpolation to magnify images (📷126), resulting in slight deterioration of picture quality. Interpolation is applied at zoom positions beyond . When zoom is increased beyond the  position, interpolation is initiated and the zoom indicator turns yellow to indicate that interpolation is being applied. The position of  moves to the right as image size decreases, allowing for confirmation of the zoom positions at which shooting without interpolation is possible at the current image mode setting.

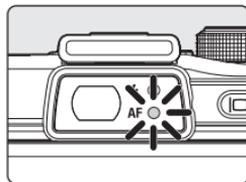
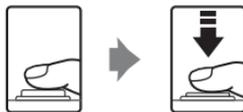


- **Digital zoom** (📷168) in the Setup menu (📷159) can be limited to the range at which interpolation is not in effect, or it can be turned off.

Step 3 Focus and Shoot

1 Press the shutter-release button halfway.

- The camera automatically focuses on the subject in the center focus area. When the subject is in focus, the focus area will glow green, and the green AF lamp next to the viewfinder will light.
- When digital zoom is in effect, and the subject is in focus, the AF lamp will glow green. The focus area is not displayed.
- Focus and exposure remain locked while the shutter-release button is pressed halfway.
- When the camera is unable to focus, the focus area will blink in red or the AF lamp will flicker when the shutter-release button is pressed halfway. Change the composition and press the shutter-release button halfway again.



2 Press the shutter-release button the rest of the way down.

- The picture will be recorded to the memory card or internal memory.



Shutter-release Button

The camera features a two-stage shutter-release button. To set focus and exposure, press the shutter-release button halfway. Continue pressing the shutter-release button fully to release and shoot. Do not use force when pressing the shutter-release button, as this may result in camera shake and blurred pictures.



Press the shutter-release button halfway to set focus and exposure.

Press the shutter-release button the rest of the way down to shoot.

✓ During Recording

While images are being recorded, the AF lamp and/or the indicator showing the number of exposures remaining will blink. Do not turn the camera off, open the battery-chamber/memory card slot cover, or remove or disconnect the power source while these are blinking. Cutting power or removing the memory card in these circumstances could result in loss of data or in damage to the camera or card.

✓ Autofocus

Autofocus may not perform as expected in the following situations. And in some rare cases, the subject may not be in focus despite the fact that the active focus area or the AF lamp glow green.

- Subject is very dark
- Objects of sharply differing brightness are included in the scene (e.g. the sun is behind the subject and is in deep shadow)
- No contrast between the subject and surroundings (e.g. when the subject is standing in front of a white wall, wearing a white shirt)
- Several objects are at different distances from the camera (e.g. the subject is inside a cage)
- 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 and use focus lock.

👁 Focus Lock

To focus on an off-center subject when Center is selected for AF area mode, use focus lock as described below.

- Be sure that the distance between the camera and the subject does not change while focus is locked.
- When the shutter-release button is pressed halfway, exposure is locked.



Position the subject in the center focus area.



Press the shutter-release button halfway.



Confirm that the focus area is green.



Continue holding down the shutter-release button halfway and recompose the picture.



Press the shutter-release button the rest of the way down.

👁 AF-assist Illuminator

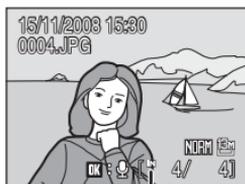
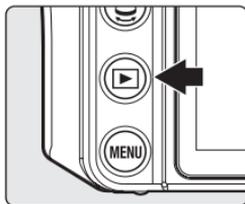
If the subject is poorly lit, the AF-assist illuminator (📷 168) may light by pressing the shutter-release button halfway.

Step 4 Viewing and Deleting Pictures

Viewing Pictures (Playback Mode)

Press the  button.

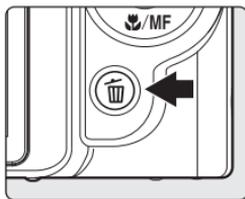
- The last picture shot will be displayed in full-frame playback mode.
- Press the multi selector  to view additional pictures. Hold down the buttons to fast forward pictures. The command dial can also be used to choose the picture.
- Pictures may be displayed briefly at low resolution while being read from the memory card or internal memory.
- Press the  button or the shutter-release button to switch to shooting mode.
- When  is displayed, pictures stored in the internal memory will be displayed. When memory card is inserted,  is not displayed and pictures stored on the memory card will be displayed.



Internal memory indicator

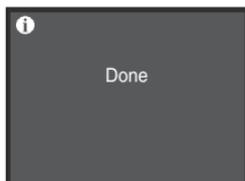
Deleting Pictures

- 1 Press the  button to delete the picture currently displayed in the monitor.



- 2 Use the multi selector to choose **Yes** and press the  button.

- To exit without deleting the picture, choose **No** and press the  button.



Playback Mode

The following options are available in full-frame playback mode.

Option	Use	Description	
Playback zoom	T 	Enlarge view of picture currently displayed in monitor, up to about 10x. Press the OK button to return to full-frame playback mode.	66
View thumbnails	W 	Display 4, 9 or 16 picture thumbnails.	65
Hide or show photo info		Switch between displaying or hiding photo and shooting information.	14
Record/play voice memo	OK 	Record or play back voice memos up to 20 seconds in length.	74
Switch to shooting mode		Press the  button or the shutter-release button to switch to the mode selected with the mode dial.	30
			

Pressing the button to Turn On the Camera

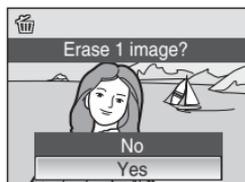
When the camera is off, holding down the  button will turn the camera on in playback mode. The lens does not extend.

Viewing Pictures

- To view pictures stored in the internal memory remove the memory card from the camera.
- Pictures that were shot using Face Priority (145) will be rotated automatically when displayed in full-frame playback mode according to the orientation of the face.

Deleting the Last Picture Shot

In shooting mode, press the  button to delete the last picture shot.



Deleting Multiple Pictures

Choose **Delete** (156) from Playback menu (153) or Calendar/List by Date menu (78) to delete multiple pictures.

Using the Flash

In dark locations or when the subject is backlit, you can shoot pictures with flash by raising the built-in flash.

The flash has a range of about 0.3 to 6.0 m (1 to 19 ft.) when the camera is zoomed out all the way. With maximum optical zoom applied, the range is about 0.3 to 3.0 m (1 to 9 ft.) (when **ISO sensitivity** is set to **Auto**).

When the built-in flash is raised, you can set the flash mode according to your shooting environment.

Available Flash Modes



Auto

Flash fires automatically when lighting is poor.



Auto with red-eye reduction

Reduces “red-eye” in portraits (ⓧ34).



Off

Flash will not fire.



Fill flash

Flash fires when a picture is shot. Use to “fill-in” (illuminate) shadows and backlit subjects.



Slow sync

Fill flash is combined with slow shutter speed.

Flash illuminates main subject; slow shutter speeds are used to capture background at night or under dim light.



Rear-curtain sync

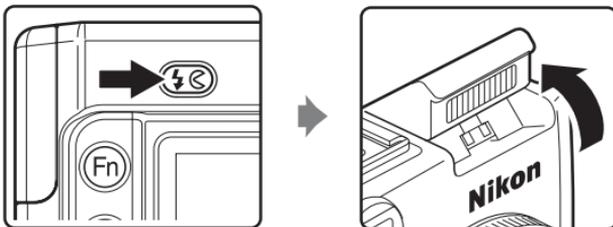
Fill flash fires just before shutter closes, creating effect of a stream of light behind moving subjects.

Setting the Flash Mode

1 Press the (flash pop-up) button.

Built-in flash will be raised.

- When the built-in flash is lowered, it is fixed to  (off).



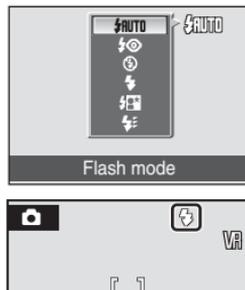
2 Press (flash mode).

- The flash mode menu is displayed.



3 Use the multi selector to choose the desired flash mode and press the button.

- The icon for the selected flash mode is displayed at the monitor.
- When  (auto) is applied,  is only displayed for a few seconds even if monitor indicators ( 14) are On.
- If a setting is not applied by pressing the  button within a few seconds, the selection will be cancelled.



Lowering the Built-in Flash

- When not using the built-in flash, gently push to lower the flash until it clicks shut.



✓ Shooting When Lighting is Poor or when the Flash is Disabled (🚫)

- Use of a tripod is recommended to stabilize the camera during shooting and avoid the effects of camera shake. Set **Vibration reduction** (📷167) to **Off** when using a tripod to stabilize the camera during shooting.
- The **ISO** icon may be displayed on the monitor at times. Pictures shot when **ISO** is displayed may be slightly mottled as ISO sensitivity has been increased.

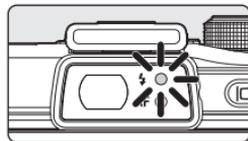
✓ Note on Using the Flash

When using the flash, reflections from dust particles in the air may appear as bright spots in pictures. To reduce these reflections, set the flash to 🚫 (Off), or lower the built-in flash.

🔧 The Flash Lamp

The flash lamp shows the flash status when the shutter-release button is pressed halfway down.

- On: Flash will fire when picture is shot.
- Blinks: Flash charging. Not possible to shoot.
- Off: Flash will not fire when picture is shot.



🔧 The Flash Mode Setting

- The default setting for flash mode will differ according to the shooting mode.
 - 📷 (auto) mode: **🔧AUTO** (auto)
 - **P, S, A, M** mode: **🔧AUTO** (auto)
 - Scene mode: Availability varies between different scene modes (📷42 to 48).
 - Time-lapse movie: **🔧AUTO** (auto)
- Shoot with the flash set to 📷 (red-eye reduction) while in 📷 (auto) mode and the setting will be saved even after the camera is turned off.
- When shooting mode is set to **P, S, A** or **M**, the setting is saved even after the camera is turned off.

🔧 Red-eye Reduction

This camera uses advanced red-eye reduction ("In-Camera Red-Eye Fix").

The flash fires repeatedly at low intensity before the main flash, reducing red-eye.

The camera then analyzes the picture; if red-eye is detected, the affected area will be processed to further reduce red-eye before the picture is saved. The flash will fire at low intensity before the main flash for processing red eye reduction when NRW (RAW) images are recorded (including the JPEG image that is recorded together).

Take note of the points below when shooting.

- Note that because there is a slight lag between the shutter-release button being pressed and the picture being shot, this mode is not recommended when a quick shutter response is required.
- The time before the next picture can be shot also increases slightly.
- Advanced red-eye reduction may not produce the desired results in all situations.
- In extremely rare instances, areas not subject to red-eye may be affected by advanced red-eye reduction processing; in these cases, choose another mode and try again.

🔍 More Information

See "Using Optional Speedlights (External Flash)" (📷180) for more information.

Shooting with the Self-timer/Remote Control

The self-timer and optional remote control (ML-L3) is suitable for taking memorial pictures and for reducing vibration due to pressing of the shutter-release button. When using the self-timer and remote control, use of a tripod is recommended. Turn **Vibration reduction** (⚙️ 167) to **Off** when using a tripod.

Shooting with the Self-timer

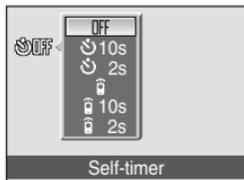
1 Press (self-timer).

- The self-timer menu is displayed.



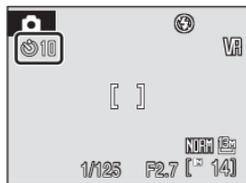
2 Use the multi selector to choose 10 s or 2 s and press the button.

-  **10 s** (ten seconds): Suited for important occasions (such as weddings).
-  **2 s** (two seconds): Suited for preventing camera shake.
- The mode selected for self-timer is displayed.
- If a setting is not applied by pressing the  button within a few seconds, the selection will be cancelled.



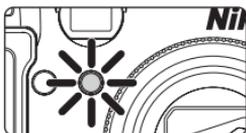
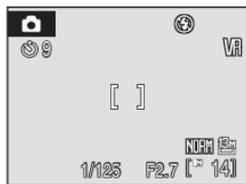
3 Frame the picture and press the shutter-release button halfway.

- Focus and exposure will be set.



4 Press the shutter-release button the rest of the way down.

- The self-timer starts, and the number of seconds remaining before the shutter is released is displayed in the monitor. The self-timer lamp blinks while the timer is counting down. About one second before the shutter is released, the lamp remains lit and stops blinking.
- When the shutter is released, the self-timer turns **OFF**.
- To stop the timer before a picture is shot, press the shutter-release button again.

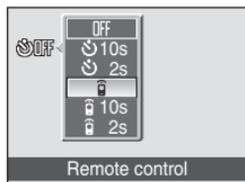


Shooting with Remote Control

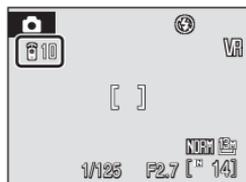
An optional remote control (ML-L3) is required.

- 1 Choose Remote control mode using the multi selector in the self-timer menu (step 2 of  35) and press the **OK** button.

-  (quick-response remote): Press the send button on the remote control to shoot instantly.
-  10 s (ten seconds remote): Press the send button on the remote control to shoot ten seconds after camera has focused.
-  2 s (two seconds remote): Press the send button on the remote control to shoot two seconds after camera has focused.
- The icon for the selected remote control mode is displayed.
- If a setting is not applied by pressing the **OK** button within a few seconds, the selection will be cancelled.

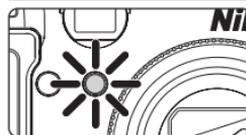
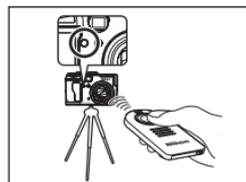
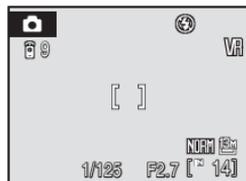


- 2 Frame the picture.



- 3 Aim the transmitter at the infrared receiver on the front of the camera and press the send button.

- Press the send button from a distance of 5 m (16 ft.) or less.
- In quick-response remote mode, once focus has been locked the shutter will be released and the self-timer lamp will flash.
- In ten seconds or two seconds remote mode, the self-timer lamp will blink, and glow approximately for one second before the shutter is released.
- When the shutter is released in ten seconds or two seconds remote mode, the remote control mode will turn to **OFF**.
- To stop the timer before a picture is shot, press the send button again.



Choosing a Focus Mode

Choose a focus mode according to the subject and composition.

AF Autofocus

Camera automatically adjusts focus according to distance to subject. Use when the distance from subject to lens is 50 cm (1 ft. 7 in.) or more when camera is zoomed all the way out.

Macro close-up

Use for close-ups of flowers, insects, or small objects.

When the  mark on the monitor glows green (when the zoom indicator is positioned before ) , the camera can focus on subjects as close as about 2 cm (0.8 in.) from the lens. The closest distance at which the camera can focus varies depending on the zoom position.

Infinity

Use when shooting distant scenes through foreground objects such as windows or when shooting landscapes.

When the shutter-release button is pressed halfway, the AF lamp always glows green. However, the camera may not be able to focus on nearby objects. The flash mode is set to  (off).

MF Manual focus

The focus can be adjusted for any subject that is a distance of about 2 cm (0.8 in.) to infinity from the lens (39).

Focus Modes Available in Each Shooting Mode

		P, S, A, M, U1, U2	SCENE	
AF (Autofocus)	✓ ¹	✓ ¹	2	✓ ¹
 (Macro close-up)	✓	✓		✓
 (Infinity)	✓	✓		✓
MF (Manual focus)	–	✓		–

1 Default setting for each shooting mode.

2 Availability varies between different scene modes (42 to 49).

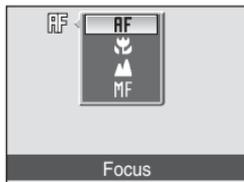
The Focus Mode Setting

When the flash mode is changed in the **P, S, A,** and **M** shooting modes, the setting is saved even after the camera is turned off.

Setting the Focus Mode

1 Press /MF (focus mode).

- The focus mode menu is displayed.



2 Use the multi selector to choose the desired focus mode and press the  button.

- The icon for the selected focus mode is displayed at the monitor.
- When **AF** (autofocus) is applied,  is displayed for a few seconds.
- If a setting is not applied by pressing the  button within a few seconds, the selection will be cancelled.



Macro Close-up Mode

In macro close-up mode, the camera focuses continuously due to autofocus. Press the shutter-release button halfway to lock focus and set the exposure.

However, in **P, S, A, M, U1** and **U2** modes, the setting of **Autofocus mode** ( 146) will be applied.

Infinity Focus Mode

If you set focus mode to infinity while using  (auto) mode or the **P, S, A, M, U1** or **U2** modes, the focus area will not appear on the screen.

Using Manual Focus

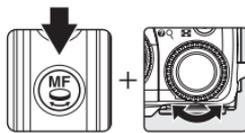
1 Press /MF (focus mode) to display the focus menu.

- Use the multi selector to choose **MF**, and press the  button.



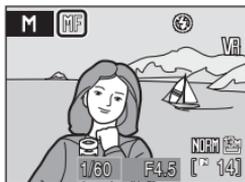
2 Focus while rotating the command dial and pressing the  button.

- Adjust the focus while viewing the image in the monitor.
- Rotate clockwise to focus on far subjects.
- Rotate counterclockwise to focus on near subjects.



3 Release the  button to end the setting for manual focus.

- **MF** appears at the top of the monitor, and the focus is locked to the set focus.
- To readjust the focus, repeat steps 2 to 3.



Notes on MF (Manual Focus)

- Press the shutter-release button halfway to preview the depth of field (the area of focus on the subject).
- Digital zoom is not available.
- Focus mode will change to **AF** (autofocus) when the monitor is turned off.

Exposure Compensation

Exposure compensation is used to alter exposure from the value suggested by the camera to make pictures brighter or darker.

1 Press (exposure compensation).

- The exposure compensation value will be displayed.
- Exposure compensation is not available in **M** (manual) mode.



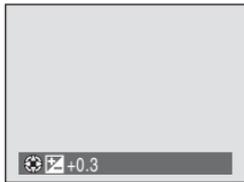
2 Press the multi selector or to adjust exposure.

- The exposure compensation guide is displayed.
- When the picture is too dark, adjust the exposure compensation in the positive (+) direction.
- When the picture is too bright, adjust the exposure compensation in the negative (-) direction.
- Exposure compensation can be set to values between -2.0 and +2.0 EV in increments of 1/3 EV.



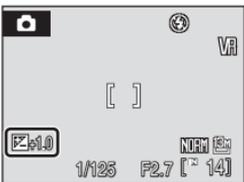
3 Press the shutter-release button to shoot.

- Repeat steps 2 and 3 to shoot while adjusting the exposure compensation value a little at a time.



4 Press the button to end the setting for exposure compensation.

- When an exposure compensation value other than **0.0** is applied, the value is displayed with the  icon in the monitor.
- To cancel exposure compensation, select **0.0** before pressing the  button, or follow steps 1 and 2 to select **0.0**.



Exposure Compensation Value

When shooting mode is set to **P**, **S** or **A**, the setting of exposure compensation is saved even after the camera is turned off.

Using Exposure Compensation

- The camera tends to lower exposure when the frame is dominated by brightly lit objects that fill the frame (for example, sunlit expanses of water, sand, or snow) or when the background is much brighter than the main subject. When the picture is too dark, adjust the exposure compensation in the positive (+) direction.
- Negative compensation may be called for when large areas of the frame contain very dark objects (for example, a swath of dark green leaves) or when the background is much darker than the main subject. When the picture is too bright, adjust the exposure compensation in the negative (-) direction.

Shooting in the Scene Mode

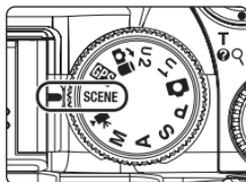
Choose this mode for automatic adjustment of settings to suit the selected subject type, or use the voice recording option to record sound only.

Portrait	Party/indoor	Night landscape	Copy
Landscape	Beach/snow	Close-up	Backlight
Sports	Sunset	Museum	Panorama assist
Night portrait	Dusk/dawn	Fireworks show	Voice recording*

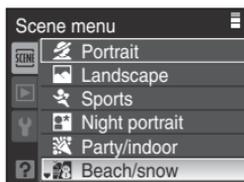
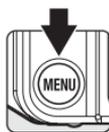
* See "Voice Recordings" (185).

Setting the Scene Mode

1 Rotate the mode dial to **SCENE**.

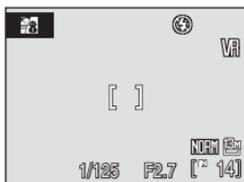


2 Press the **MENU** button to display the scene menu screen, choose the desired scene with the multi selector and press the **OK** button.



3 Frame the subject and shoot.

- For scene modes that use the flash, be sure to press the (flash pop-up) button to raise the built-in flash before shooting.



Using the Command Dial to Select a Scene

Instead of pressing the **MENU** button, a scene can also be selected by holding down the **Fn** button and rotating the command dial in step 1 above.

Image Quality and Image Size

Image quality (124) and **Image size** (126) can be set in the scene menu. However, NRW (RAW) images cannot be recorded in scene mode.

Features

Portrait

Use this mode for portraits in which the main subject stands out clearly. Portrait subjects exhibit smooth, natural-looking skin tones.

- The camera detects and focuses on a face looking toward the camera (Shooting with Face Priority → )145).
- If the camera detects multiple faces, the camera focuses on the face closest to the camera.
- If no face is recognized, the camera will focus on the subject in the center focus area.
- Digital zoom is not available.



* Other settings can be selected.

Landscape

Use this mode for vivid landscapes and cityscapes.

- Camera focuses at infinity. When the shutter-release button is pressed halfway, the AF lamp always glows green. Note, however, that objects in the foreground may not always be in focus.
- AF-assist illuminator will not light up regardless of the AF assist ()168) setting.



* Other settings can be selected.

Icons Used for Descriptions

 is the flash mode setting when the built-in flash is raised ()33).

 is the setting for self-timer ()35),  is the setting for focus mode ()37), and  is the setting for exposure compensation ()40).

Sports

Use this mode for dynamic action shots that freeze the action in a single shot and record motion in a series of pictures. With continuous shooting, instantaneous movements in moving subjects can be captured clearly.

- The camera will continuously focus on different objects until you press the shutter-release button halfway to lock focus.
- While the shutter-release button is held down, the camera shoots at a rate of about 0.9 frames per second (fps) when image quality is set to **Normal** and image size is set to  **4224x3168**. Focus, exposure compensation, and white balance are fixed at values determined with the first shot in each series.
- The maximum frame rate with continuous shooting may vary, depending upon the current image quality setting, image size setting, and the memory card used.
- The camera focuses on the subject in the center of the frame.
- AF-assist illuminator will not light up regardless of the AF assist (168) setting.



			Off	 /MF	AF ¹		0.0 ²
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1 Also **MF** (manual focus) can be selected.

2 Other settings can be selected.

Night portrait



Use this mode to achieve a natural balance between the main subject and background lighting in portraits shot at night.

- The camera detects and focuses on a face looking toward the camera (Shooting with Face Priority → 145).
- If the camera detects multiple faces, the camera focuses on the face closest to the camera.
- If no face is recognized, the camera will focus on the subject in the center focus area.
- Shoot pictures with the built-in flash raised.
- Digital zoom is not available.



	 ¹		Off ²	 /MF	AF		0.0 ²
---	--	---	------------------	---	----	---	------------------

1 Fill flash with slow sync and red-eye reduction.

2 Other settings can be selected.

: For those scene modes with , use of a tripod is recommended. Turn **Vibration reduction** (167) to **Off** when using a tripod.

: Pictures shot in scene modes utilizing  may be processed to reduce noise and therefore take longer to record.

Shooting in the Scene Mode

Party/indoor

Captures the effects of candlelight and other indoor background lighting.

- The camera focuses on the subject in the center of the frame.
- Hold the camera steadily as pictures are easily affected by camera shake. When shooting under low lighting, use of a tripod is recommended. Set **Vibration reduction** (167) to **Off** when using a tripod to stabilize the camera during shooting.



- 1 Fill flash with slow sync and red-eye reduction. Other settings can be selected.
- 2 Other settings can be selected.

Beach/snow

Captures the brightness of such subjects as snowfields, beaches, or sunlit expanses of water.

- The camera focuses on the subject in the center of the frame.



- * Other settings can be selected.

Sunset



Preserves the deep hues seen in sunsets and sunrises.

- The camera focuses on the subject in the center of the frame.



- * Other settings can be selected.

: For those scene modes with , use of a tripod is recommended. Turn **Vibration reduction** (167) to **Off** when using a tripod.

Dusk/dawn



Preserves the colors seen in the weak natural light before sunrise or after sunset.

- Camera focuses at infinity. When the shutter-release button is pressed halfway, the AF lamp always glows green. Note, however, that objects in the foreground may not always be in focus.
- AF-assist illuminator will not light up regardless of the AF assist (168) setting.



* Other settings can be selected.

Night landscape



Slow shutter speeds are used to produce stunning night landscapes.

- Camera focuses at infinity. When the shutter-release button is pressed halfway, the AF lamp always glows green. Note, however, that objects in the foreground may not always be in focus.
- AF-assist illuminator will not light up regardless of the AF assist (168) setting.



* Other settings can be selected.

: For those scene modes with , use of a tripod is recommended. Turn **Vibration reduction** (167) to **Off** when using a tripod.

: Pictures shot in scene modes utilizing  may be processed to reduce noise and therefore take longer to record.

Shooting in the Scene Mode

Close-up

Photograph flowers, insects and other small objects at close range.

-  (macro close-up) is selected for focus mode ( 37) and the camera automatically zooms to the position at the closest distance at which the camera can focus.
- When the  mark on the monitor glows green (when the zoom indicator is positioned before ) , the camera can focus on subjects as close as about 2 cm (0.8 in.) from the lens. The closest distance at which the camera can focus varies depending on the zoom position.
- **AF area mode** is set to **Manual**. When the  button is pressed, camera focuses on subject in active focus area ( 144).
- The camera will continuously focus on different objects until you press the shutter-release button halfway to lock focus.
- As pictures are easily affected by camera shake, check the **Vibration reduction** ( 167) setting and hold the camera steadily.



* Other settings can be selected. Note that the flash may be unable to light entire subject at distances of less than 30 cm (1 ft).

Museum

Use indoors where flash photography is prohibited (for example, in museums and art galleries) or in other settings in which you do not want to use the flash.

- The camera focuses on the subject in the center of the frame.
- BSS (Best Shot Selector) ( 140) is used when shooting.
- As pictures are easily affected by camera shake, check the **Vibration reduction** ( 167) setting and hold the camera steadily.
- AF-assist illuminator will not light up regardless of the AF assist ( 168) setting.



1 Other settings can be selected.

2 Also  (macro close-up) can be selected.

Fireworks show



Slow shutter speeds are used to capture the expanding burst of light from a firework.

- Camera focuses at infinity. When the shutter-release button is pressed halfway, the AF lamp always glows green. Note, however, that objects in the foreground may not always be in focus.
- Digital zoom is not available.
- AF-assist illuminator will not light up regardless of the AF assist (168) setting.



* Remote control can be chosen.

Copy

Provides clear pictures of text or drawings on a white board or in print.

- The camera focuses on the subject in the center of the frame.
- Use  (macro close-up) mode (37) in focus mode with this mode to focus at short ranges.
- Colored text and drawings may not show up well.



1 Other settings can be selected.

2 Also  (macro close-up) can be selected.

Backlight

Use when light is coming from behind your subject, throwing features or details into shadow. The flash fires automatically to “fill in” (illuminate) shadows.

- The camera focuses on the subject in the center of the frame.
- Shoot pictures with the built-in flash raised.



* Other settings can be selected.

: For those scene modes with , use of a tripod is recommended. Turn **Vibration reduction** (167) to **Off** when using a tripod.

Panorama assist



Use when shooting a series of pictures that will later be joined to form a single panorama using the supplied Panorama Maker software.

- The camera focuses on the subject in the center of the frame.



1 Other settings can be selected.

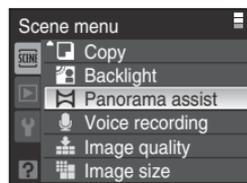
2  (macro close-up) or  (infinity) can also be selected.

Shooting Pictures for a Panorama

The camera focuses on the subject in the center of the frame. Use a tripod for best results. Set **Vibration reduction** () to **Off** when using a tripod to stabilize the camera during shooting.

- Use the multi selector to choose **Panorama assist** in the scene menu and press the **OK** button () (41).

- The panorama direction icon () is displayed to show the direction in which pictures will be joined.



- Use the multi selector to choose the direction and press the **OK** button.

- Select how pictures will be joined together in the completed panorama; right () , left () , up () or down () .
- Yellow direction icons () appear for the selected direction. When you press the **OK** button, the selected direction is set, and a white direction icon () appears for that direction.
- Apply flash mode ()32, self-timer ()35, focus mode ()37 and exposure compensation ()40 settings with this step, if necessary.
- Press the **OK** button to reselect the direction.



3 Shoot the first picture.

- The first picture is displayed in the first third of the monitor.

**4 Shoot the second picture.**

- Compose the next picture so that 1/3 of it overlaps the first picture, and press the shutter-release button.
- Repeat until you have shot the necessary number of pictures to complete the scene.

**5 Press the **OK** button when shooting is completed.**

- The camera returns to step 2.

**✔ Panorama Assist**

- Fix settings for flash mode, self-timer, focus and exposure compensation before commencing the shoot. Settings cannot be changed after shooting starts. Apply the appropriate settings before shooting begins. Pictures cannot be deleted, nor can zoom, image quality (124), or image size (126) be adjusted until the series is finalized.
- The panorama series is terminated if the camera enters standby mode with the auto off function (169) during shooting. Setting the time allowed to elapse before the auto off function is enabled to a longer setting is recommended.

👁 AE/AF-L (exposure lock) Display

In Panorama Assist, AE/AF-L is displayed on the screen when the first shot has been taken. This indicates that exposure, white balance, and focus have been locked at the values set with the first shot. All pictures taken in a panorama series have the same exposure, white-balance, and focus settings.

👁 Panorama Maker

Install Panorama Maker from the supplied Software Suite CD. Transfer pictures to a computer (91) and use Panorama Maker (94) to join them in a single panorama.

👁 More Information

See "Image/Sound File and Folder Names" (181) for more information.



P, S, A, M mode

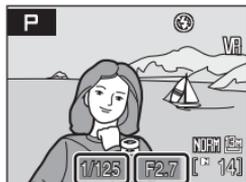
By rotating the mode dial, you can shoot pictures in the following four exposure modes: **P** (programmed auto), **S** (shutter-priority auto), **A** (aperture-priority auto), and **M** (manual). In addition to allowing you to set the shutter speed and aperture yourself, these modes offer control over a variety of advanced settings such as changing the ISO sensitivity and white balance in the shooting menu (📷121).

Mode	Description	Usage
P Programmed auto (📷52)	Camera sets shutter speed and aperture for optimal exposure. Flexible program, which changes the combination of shutter speed and aperture, can be used (📷52).	Recommended for most situations.
S Shutter-priority auto (📷53)	Camera selects aperture according to the shutter speed set for best results.	Use to shoot fast moving subjects using a fast shutter speed, or use to emphasize the movements of a moving subject using a slow shutter speed.
A Aperture-priority auto (📷54)	Camera selects shutter speed according to the aperture set for best results.	Use to blur background or bring both foreground and background into focus.
M Manual (📷55)	User controls both shutter speed and aperture.	Use to control exposure according to shooting requirements.

Settings that are frequently used for **P**, **S**, **A** and **M** shooting mode can be registered in mode dial **U1** or **U2**. Rotating the mode dial to **U1** or **U2** enables you to shoot using those settings that are frequently used (📷58).

Shutter Speed and Aperture

The same exposure can be achieved with different combinations of shutter speed and aperture, allowing you to freeze or blur motion and control depth of field. The following figure shows how shutter speed and aperture affects exposure. When the ISO sensitivity setting (8 138) is changed, the range of shutter speeds and aperture values at which the correct exposure can be obtained also changes.



Shutter speed — Aperture



Fast shutter speed: 1/1,000 s



Slow shutter speed: 1/30 s



Large aperture
(small f-number): f/2.7

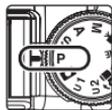


Small aperture
(large f-number): f/7.2

P (Programmed Auto) Mode

Shoot pictures with shutter speed and aperture value set automatically by the camera.

1 Rotate the mode dial to P.



2 Frame the subject and shoot.

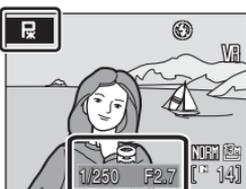
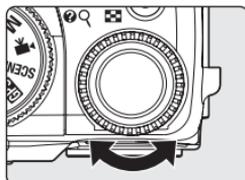
- Camera automatically selects the focus area (one of nine) containing the subject closest to the camera (144).



Flexible Program

In mode **P** (Programmed Auto), different combinations of shutter speed and aperture can be selected by rotating the command dial. ("flexible program"). While flexible program is in effect, an asterisk (*****) appears next to the mode indicator (**P**) in the monitor.

- Rotate the command dial to the right for large apertures (small f-numbers) that blur background details or fast shutter speeds that "freeze" motion.
- Rotate the command dial to the left for small apertures (large f-numbers) that increase depth of field or slow shutter speeds that blur motion.
- To disable flexible program, rotate the command dial until the asterisk (*****) next to the mode indicator is no longer displayed. Selecting another mode, or turning off the camera, also disables flexible program.



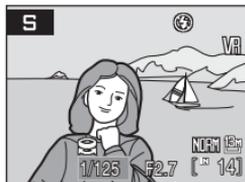
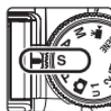
Note on Shutter Speed

Shutter speed is restricted to a maximum of 1/2 s when **Continuous**, **BSS**, **Continuous flash** and **Multi-shot 16** are set for **Continuous** (140), or when any mode other than **Off** is set for **Auto bracketing** (143).

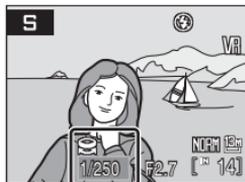
S (Shutter-Priority Auto) Mode

Set the shutter speed and shoot pictures.

1 Rotate the mode dial to **S**.



2 Rotate the command dial to choose the shutter speed value between 1/2,000 s and 8 s.



3 Focus and shoot.

- Camera automatically selects the focus area (one of nine) containing the subject closest to the camera (144).



✓ Notes on S (Shutter-Priority Auto) Mode

- If the selected shutter speed would result in the picture being over- or underexposed, the shutter speed display will flash when the shutter-release button is pressed halfway. Choose another shutter speed and try again.
- At speeds slower than 1/4 s, the shutter speed indicator will turn red to show that noise is in the image. Setting **Noise reduction** to **On** (148) is recommended to reduce “noise” in the form of randomly-spaced, brightly colored dots.

✓ Note on Shutter Speed

Shutter speed is restricted to a maximum of 1/2 s when **Continuous**, **BSS**, **Continuous flash** and **Multi-shot 16** are set for **Continuous** (140), or when any mode other than **Off** is set for **Auto bracketing** (143).

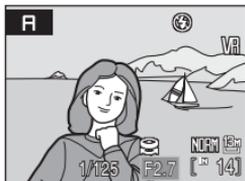
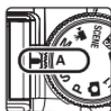
✓ Shutter Speed of 1/2,000 s

A shutter speed of 1/2,000 s is available only when the camera is zoomed out.

A (Aperture-Priority Auto) Mode

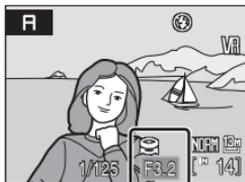
Set the aperture value and shoot pictures.

1 Rotate the mode dial to **A**.



2 Rotate the command dial to choose the f-number (aperture value).

- When the camera is zoomed all the way out, aperture can be set to values between f/2.7 and f/7.2; at maximum zoom, aperture can be set to values between f/5.9 and f/7.7.



3 Focus and shoot.

- Camera automatically selects the focus area (one of nine) containing the subject closest to the camera (144).



✓ Note on **A (Aperture-Priority Auto) Mode**

If the selected aperture would result in the picture being over- or underexposed, the aperture display will flash when the shutter-release button is pressed halfway. Choose another aperture and try again.

✓ Note on Shutter Speed

Shutter speed is restricted to a maximum of 1/2 s when **Continuous**, **BSS**, **Continuous flash** and **Multi-shot 16** are set for **Continuous** (140), or when any mode other than **Off** is set for **Auto bracketing** (143).

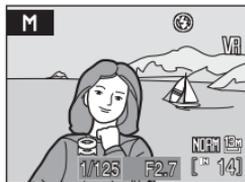
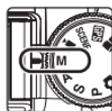
👁 Aperture and Zoom

Aperture is expressed as an f-number, which is the ratio of the focal length of the lens to the effective diameter of the opening (aperture) through which light enters the camera. Large apertures (expressed by small f-numbers) let more light into the camera, small apertures (large f-numbers) less. When the camera is zoomed out, the focal length of the lens diminishes and the f-number decreases. When the camera is zoomed in, the focal length and f-number increase. This camera has a lens with a focal length of 6-24mm and an aperture of f/2.7 to f/5.9. The aperture value will increase when the camera is zoomed in, and decrease when the camera is zoomed out.

M (Manual) Mode

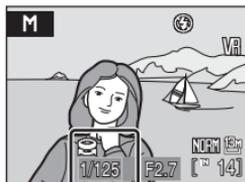
Set the shutter speed and aperture value, and shoot pictures.

1 Rotate the mode dial to **M**.



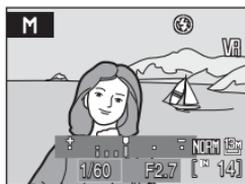
2 Press the multi selector , and choose the shutter speed setting.

- The active setting switches between shutter speed and aperture each time the multi selector  is pressed.
- At speeds slower than 1/4 s, the shutter speed indicator turns red (53).

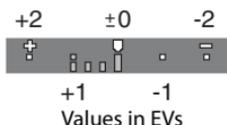


3 Rotate the command dial to choose the shutter speed value between 1/2,000 s and 30 s.

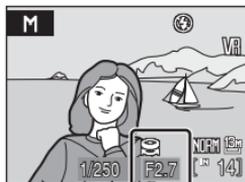
- When adjusting aperture or shutter speed, the degree of deviation from the exposure value measured by the camera is displayed for a few seconds in the exposure display.
- The degree of deviation in the exposure display is shown in EVs (-2 to +2 EV in increments of 1/3 EV). A display similar to that illustrated at right indicates that the picture will be overexposed by 1 EV (+1).



Overexposed Underexposed



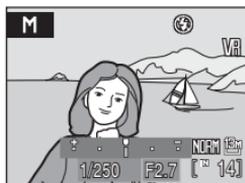
4 Press the multi selector to activate the aperture setting.



M (Manual) Mode

5 Rotate the command dial to choose an aperture value.

- Repeat steps 2 to 5 to modify shutter speed and aperture settings until the desired exposure is achieved.



6 Focus and shoot.

- Camera automatically selects the focus area (one of nine) containing the subject closest to the camera (144).



✔ Note on Shutter Speed

- Shutter speed is restricted to a maximum of 1/2 s when **Continuous**, **BSS**, **Continuous flash** and **Multi-shot 16** are set for **Continuous** (140), or when any mode other than **Off** is set for **Auto bracketing** (143).
- Shutter speed is restricted to a maximum of 8 s when **Intvl timer shooting** is set for **Continuous**.
- Shutter speed is restricted to a maximum of 8 s when **ISO sensitivity** (138) is set to higher than **1600**.

✔ Shutter Speed of 1/2,000 s

A shutter speed of 1/2,000 s is available only when the camera is zoomed out.

✔ Note on ISO Sensitivity

When **ISO sensitivity** (138) is set to **Auto** (default setting), **Fixed range auto**, or **High ISO sensitivity auto**, ISO sensitivity will be fixed at ISO 64.

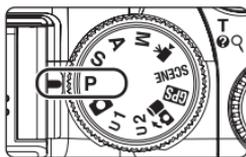
Active D-Lighting

“Active D-Lighting” preserves details in highlights and shadows, creating photographs with natural contrast. Use for high contrast scenes, for example when photographing brightly lit outdoor scenery through a door or window or taking pictures of shaded subjects on a sunny day. This can be used when **P**, **S**, **A**, **M**, **U1** or **U2** is selected for shooting mode, and **Fine**, **Normal** or **Basic** is selected for **Image quality** (📷124).

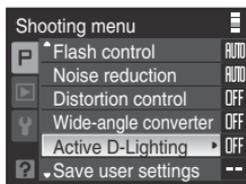
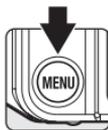
To use Active D-Lighting

1 Rotate the mode dial to **P**, **S**, **A** or **M**.

- Can be set even if **U1** or **U2** is selected.

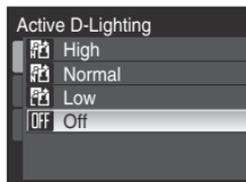


2 Press the **MENU** button to display the shooting menu screen, choose **Active D-Lighting** with the multi-selector and press the **OK** button.



3 Choose the extent of the setting, and press the **OK** button.

- Choose from three levels, **High**, **Normal**, or **Low**.
- The setting for Active D-Lighting can be previewed in the monitor during shooting (nothing will be displayed if **Off** is selected) (📷8).



✓ Notes on Active D-Lighting

- Additional time is required to record images when Active D-Lighting is on.
- Although exposure is in fact reduced to prevent loss of detail in highlights and shadows, highlights, underexposed areas, and mid-tones are automatically adjusted to prevent the resulting photograph from being underexposed.
- Set **Metering** (📷139) to **Matrix** when shooting with Active D-Lighting.
- This cannot be adjusted together with the **Contrast** setting of COOLPIX Picture Control (📷129).
- When **ISO sensitivity** (📷138) is set to **High ISO sensitivity auto** or a setting higher than **1600**, Active D-Lighting will not function.

✓ Active D-Lighting Versus D-Lighting

The **Active D-Lighting** option in the shooting menu adjusts exposure before shooting to optimize the dynamic range, while the **D-Lighting** (📷68) option in the playback menu optimizes dynamic range in images after shooting.

Using U 1, U 2 (User Setting Mode)

Settings that are frequently used for **P**, **S**, **A** and **M** shooting mode can be registered in mode dial **U1** or **U2**.

Rotating the mode dial to **U1** or **U2** enables you to shoot with the settings that are frequently used.

The following settings can be registered for **U1** and **U2**.

Exposure mode P/S/A/M (150)	Image quality (124)	Flash exp. comp. (147)
(Flash mode) (32)	Image size (126)	Flash control (147)
M/F (Focus mode) (37)	Picture Control (129)	NR Noise reduction (148)
(Exposure Compensation) (40)	White balance ⁵ (136)	Distortion control (148)
MF Distance for Manual Focus ¹ (39)	ISO sensitivity (138)	Wide-angle converter (149)
Monitor (14)	Metering (139)	Active D-Lighting (57)
Zoom Position (27)	Continuous (140)	
Flexible Program ² (52)	Auto bracketing (143)	
Shutter speed ³ (53)	AF area mode ⁶ (144)	
Aperture ⁴ (54)	Autofocus mode (146)	

1 Settings can be registered when the focus mode is set to **MF** (manual focus).

2 Settings can be registered when the mode dial is set to **P**.

3 Settings can be registered when the mode dial is set to **S** or **M**.

4 Settings can be registered when the mode dial is set to **A** or **M**.

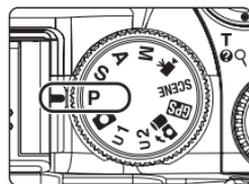
5 The preset value for Preset Manual applies to shooting modes **P**, **S**, **A**, **M**, **U1** and **U2**.

6 The AF-area position selected in **Manual** is also registered.

Register the Settings in U 1 or U 2

1 Set the mode dial to the desired exposure mode.

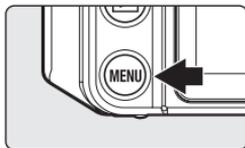
- Set to **P**, **S**, **A** or **M**.
- Can be set even if **U1** or **U2** is selected. The default settings of shooting mode **P** will be set at time of purchase.



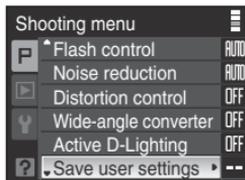
2 Change to a frequently used setting.

3 Press the **MENU** button.

- The shooting menu is displayed.

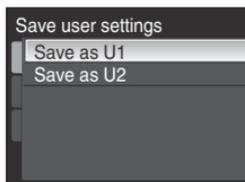


4 Use the multi selector to choose **Save user settings** and press the **OK** button.



5 Choose the destination to register to and press the **OK** button.

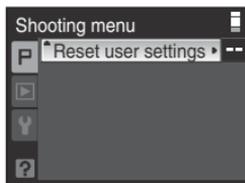
- The current settings have been registered.
- The setting in the destination will be overwritten.



Resetting Registered Settings

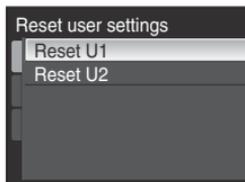
The registered setting will be changed back to the default setting of shooting mode **P**.

1 Choose **Reset user settings** at the shooting menu screen and press the **OK** button.



2 Choose the destination to reset and press the **OK** button.

- The registered settings have been reset.



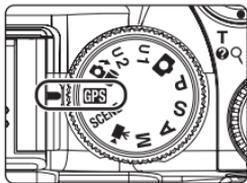
Recording Positional Information to Pictures

The Global Positioning System (GPS) is a satellite-based navigation system using the electro-magnetic waves of a network of GPS satellites placed into orbit. It allows users to determine their locations anywhere on Earth. The camera's internal GPS receives signals from the GPS satellites and calculate its current time and position. This is known as positioning.

The positional information (latitude and longitude) can be recorded onto the pictures to be shot.

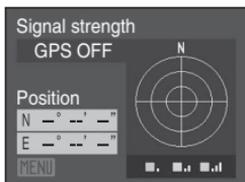
1 Rotate the mode dial to **GPS**.

- Operate in an open space when starting to receive signals from GPS satellites.
- The GPS signal status display screen is displayed.
- Set the camera's date/time if it has not been set before using the GPS function (20, 160, 162). The GPS function is not usable if the date/time has not been set.

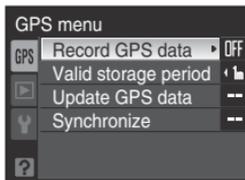


2 Press the **MENU** button.

- The GPS menu is displayed.

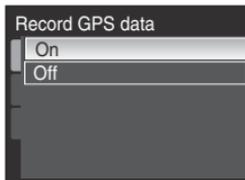


3 Choose **Record GPS data** and press the **OK** button.



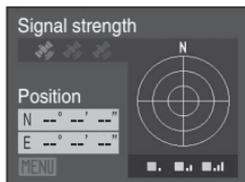
4 Choose **On** and press the **OK** button.

- Signals are received from the GPS satellites and positioning begins.
- Several minutes may be required to obtain the positional information if setting **Record GPS data** to **On** for the first time, or about two hours have passed since obtaining the last positioning information.
- The setting **On** for **Record GPS data** will be recorded even if the power is turned off, and positioning will be done every 90 minutes for six times. However, leaving the **Record GPS data** setting as **On** will result in the battery being depleted in a faster period of time.
- If there is a need to turn the power off when staying inside an airplane or a hospital, set **Record GPS data** to **Off** as well.



5 Press the MENU button.

- This returns to the GPS signal status display screen.
- Check the positioning status before shooting. Refer to the “GPS Signal Status Display” below for more information on the positioning status.



6 Rotate the mode dial to the shooting mode and shoot.

- While the camera is turned on, positioning is done and updated every five seconds. However, positional information will not be updated when the zoom control and any dials are operated, or when any button is pressed.
- The positional information will not be updated when the shutter-release button is pressed halfway. The positional information obtained when the shutter-release button is pressed halfway will be recorded onto the pictures to be shot. However, positional information will not be recorded if the **Valid storage period** (63) is exceeded while pressing the shutter-release button halfway.
- Check the positioning status before shooting. Refer to the “GPS Signal Status Display” below for more information on the positioning status.



GPS Signal Status Display

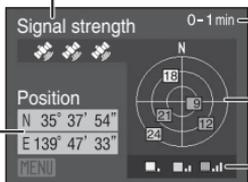
The GPS signals that will be displayed when the mode dial is set to **GPS** are as follows.

Positioning status:

GPS signal status	Shooting mode	Description
 (White)		Receives signals from four or more satellites and determines position. Positional information will be recorded onto the picture.
 (White)		Receives signals from three satellites and determines position. Positional information will be recorded onto the picture.
 (White)		Positioning has not been done but valid storage period limit is not over yet (63). The last recorded position will be recorded.
 (Red)		Positioning has not been possible for a period of time more than the valid storage period. Positional information will not be recorded.

Positional information:

Displays the latitude and longitude of the determined position.



Time elapsed:

Displays the time elapsed since the last positioning.

GPS satellite position and signal status:

Displays the number, position, and signal status of the transmitting satellite. A maximum of 12 satellites will be displayed. The strength of the receiving signals are indicated as follows: gray → yellow → blue (stronger).

Notes on GPS

- After about two hours of positioning or if the battery has been changed, it will take several minutes to obtain the positional information.
- Positions of the GPS satellites change constantly. You may not be able to determine the position or it may take some time depending on your location and the time. Use GPS in an open space whenever possible. Receiving of signals will be smoother if the GPS antenna (📶) is facing the sky.
- The following locations will block or reflect signals, resulting in failed or inaccurate positioning.
 - Inside buildings or at the basement of buildings
 - Between high-rise buildings
 - Under overpasses
 - Inside tunnels
 - Near high-voltage electrical power lines
 - Between clusters of trees
- Using a mobile phone of 1.5 GHz band near this camera may disrupt positioning.
- When carrying this camera around while positioning, do not place it in a metal bag. Positioning cannot be done if the camera is covered in metal materials.
- GPS satellites may have a margin error of several hundred meters depending on the positioning environment.
- Be aware of your surroundings when positioning.
- If **Record GPS data** is set to **On**, positioning will be done every 90 minutes for six times when the camera is turned off. During positioning, the power-on lamp will blink. The monitor will not light up. Positioning will cancel if three minutes pass and positioning cannot be done.
- The date of the camera's internal clock at the time of shooting is recorded in the date of recording and time of recording indicators displayed on the camera during playback. The time obtained by the positional information recorded on images will not be displayed on the camera.
- Positional information will be recorded on the first frame of pictures shot using **Continuous** (📷140) or **Auto bracketing** (📷143). In continuous shooting, the positional information will not be recorded for pictures taken after the valid storage period has ended.
- Positional information cannot be recorded onto movies.
- The Geodetic system for this camera's GPS function uses the WGS 84 (World Geodetic System 1984).

Pictures with Recorded Positional Information

- The 📶 icon is displayed during playback for pictures which have the positional information recorded (📷9).
- Positional information recorded onto a picture can be checked on a map with ViewNX (Ver. 1.2) after transferring the picture to a computer.
- ViewNX (Ver. 1.2) is compatible with Windows Vista Service Pack 1, Windows XP Service Pack 3 and Mac OS X 10.5.4, but not compatible with Windows 2000.
- ViewNX (Ver. 1.2) can be downloaded through the Internet. (See "Installing Nikon Transfer" of the *Quick Start Guide*.)
For more information on using ViewNX, refer to the on-screen instructions and help information contained in ViewNX.
- The actual place of shooting may differ from the GPS information recorded on the picture files due to the accuracy of the positional information obtained and the Geodetic system used.

Changing GPS Settings (GPS Menu)

Set **Record GPS data** to **On** in the GPS menu to change the valid storage period for recording positional information onto a picture or manually update the positional information. You can also use the signal transmission from the GPS satellites to set the date/time of the built-in clock in the camera.

Valid Storage Period

If a picture is shot while positioning cannot be done, the last positional information will be recorded onto the picture. As a result, a margin of error will occur between the shooting location and the recorded positional information.

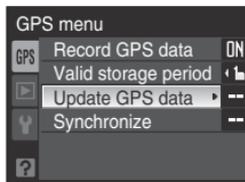
Set **Valid storage period** to reduce the margin of error with the shooting location. Choose the valid storage period from **15 seconds or less**, **30 seconds or less**, **1 minute or less** (default setting), **5 minutes or less**, **15 minutes or less**, **30 minutes or less**, **60 minutes or less**, or **2 hours or less**.

If positioning cannot be done after the valid storage period has ended, the positional information will not be recorded onto the picture. (The valid storage period is timed by the camera's internal clock. If the date/time of the internal clock is changed, the timing of the valid storage period may be wrong for a short period of time.)

Update GPS Data

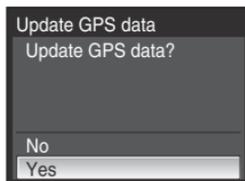
Positioning is updated automatically, but **Update GPS data** can be used to update manually. Using this feature may enable the time taken for obtaining the positional information to be reduced if long distances have been travelled or a long period of time has passed since the last positional information obtained.

- 1 Use the multi selector to choose **Update GPS data** from the GPS menu, and press the **OK** button.



- 2 Choose **Yes** and press the **OK** button.

- Updating of positional information begins.
- When the updating is complete, **Update complete** is displayed on the screen and the monitor display returns to the GPS menu.
- To cancel the update operation, choose **No**.



Synchronize

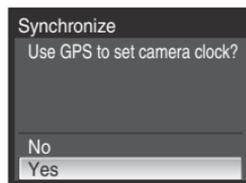
This function allows you to use the signal transmission from the GPS satellites to set the date/time of the camera clock. Set **Record GPS data** (F60) to **On** and check the positioning status before starting Synchronize.

- 1 Use the multi selector to choose **Synchronize** from the GPS menu, and press the **OK** button.



- 2 Choose **Yes** and press the **OK** button.

- Date/time adjustment begins.
- When the updating is complete, **Done** is displayed on the screen and the monitor display returns to the GPS menu.
- To cancel the date/time adjustment, choose **No**.



Synchronize

- Date/time adjustment by **Synchronize** is set according to the time zone set in **Date** (F162) of the setup menu (F159). Check the time zone before setting **Synchronize**.
- The date/time set using **Synchronize** is not as accurate as radio clocks. Use **Date** in the setup menu to set the time if it is not accurate in **Synchronize**.

Viewing Multiple Pictures: Thumbnail Playback

Rotate the zoom control to **W** (📐) in full-frame playback mode (📺30) to display pictures as thumbnail images in thumbnail playback mode.

The following operations can be performed in thumbnail playback.

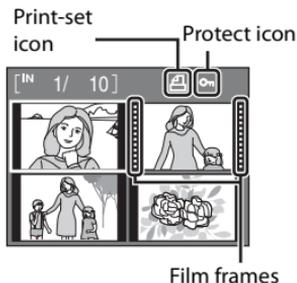


Option	Use	Description	📺
Choose pictures		Press the multi selector ▲▼◀▶ to choose pictures.	12
		Rotate the command dial to choose pictures.	-
Increase number of pictures displayed (4 → 9 → 16)	W (📐)	Rotate the zoom control to W (📐).	-
Decrease number of pictures displayed (16 → 9 → 4)	T (📏)	Rotate the zoom control to T (📏).	-
Cancel thumbnail playback		Press the button.	30
Switch to shooting mode		Press the button or the shutter-release button to switch to the mode selected with the mode dial.	30

Icons on the Thumbnails

When pictures for which Print Set (📄101) and Protect (🔒156) settings have been configured are selected, the icons shown on the right appear.

Movies are displayed as film frames.



Taking a Closer Look: Playback Zoom

Rotating the zoom control to **T** (Q) during full-frame playback mode (30) zooms the current picture, with the center of the picture displayed in the monitor.

- The guide at lower right shows which portion of the picture is enlarged.

The following operations can be performed while pictures are zoomed in.



Option	Use	Description	
Zoom in	T (Q)	Zoom increases each time the zoom control is rotated to T (Q), up to about 10x. Zoom also increases by rotating the command dial to right.	-
Zoom out	W (Q)	Rotate the zoom control to W (Q). When the magnification ratio reaches 1x, the display returns to full-frame playback mode. Zoom also decreases by rotating the command dial to left.	-
View other areas of picture		Press the multi selector ▲▼◀▶ to move the display area.	12
Cancel thumbnail playback	OK	Press the OK button.	30
Crop picture	MENU	Press to crop current picture to contain only the portion visible in the monitor.	69
Switch to shooting mode		Press the button or the shutter-release button to switch to the mode selected with the mode dial.	30

Pictures Taken in Face Priority

When the zoom control is rotated to **T** (Q) during full-frame playback mode for pictures taken in Face Priority (145), the picture will be enlarged using the face focused on during shooting time as the centralized point.

- If several faces are recognized, the picture will be enlarged using the face (which was focused on during shooting time) as the centralized point, and pressing the multi selector **▲▼◀▶** will enable you to switch between the people's faces.
- Change the zoom ratio back to the normal playback zoom by rotating the zoom control to **T** (Q) or **W** (Q).



Editing Pictures

The COOLPIX P6000 can use the functions below to edit images, and store them as separate files (📷181).

Editing function	Description
D-Lighting(📷68)	Create a copy of the current picture with enhanced brightness and contrast, brightening dark portions of the picture.
Crop (📷69)	Enlarge the image or refine the composition and create a copy containing only the portion visible in the monitor.
Small picture (📷70)	Create a small copy of pictures suitable for use on web pages or as e-mail attachments.
Black border(📷71)	Create a copy with a black border along the border of the picture.
NRW (RAW) processing (📷72)	Create JPEG-format copies of NRW (RAW) images using just the camera without a need for the computer .

📌 Notes on Picture Editing

- Pictures shot at an **Image size** (📷126) of **4224×2816**, **4224×2376**, and **3168×3168** cannot be modified using an editing function other than black border.
- NRW (RAW) images cannot be edited using D-Lighting, Crop, Small picture and Black border. Edit the JPEG images created using NRW (RAW) processing.
- The COOLPIX P6000's editing functions may not be available for pictures shot with non-COOLPIX P6000 digital cameras.
- If a copy created using the COOLPIX P6000 is viewed on a different digital camera, the picture may not be displayed properly or may not be able to be transferred to a computer.
- Editing functions are not available when there is not enough free space in the internal memory or on the memory card.

📌 Restrictions on Picture Editing

1st editing	2nd editing			
	D-Lighting	Crop	Small picture	Black border
D-Lighting	-	✓	✓	-
Crop	-	-	-	-
Small picture	-	-	-	-
Black border	-	-	-	-

- Pictures cannot be edited twice with the same editing function.
- D-Lighting should be done first while the restricted use of combination exists.
- A black border cannot be applied to copies created using editing functions.

📌 Original Pictures and Edited Copies

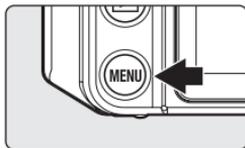
- Copies created with editing functions are not deleted if the original pictures are deleted. The original pictures are not deleted if copies created with editing functions are deleted.
- Edited copies are stored with the same recording date and time as the original.
- Edited copies are not marked for printing (📷101) or protecting (📷156) as the original.

Enhancing Brightness and Contrast: D-Lighting

D-Lighting can be used to create copies with enhanced brightness and contrast, brightening dark portions of a picture. Enhanced copies are stored as separate files.

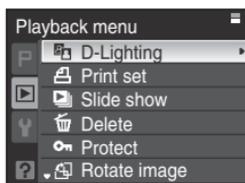
- 1 Select the desired picture from full-frame (F30) or thumbnail (F65) playback mode and press the **MENU** button.

- The playback menu is displayed.



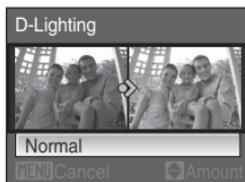
- 2 Use the multi selector to choose **D-Lighting** and press the **OK** button.

- The original version will be shown on the left and the edited version will be shown on the right.
- Switch to playback menu by choosing the playback tab from any mode other than playback menu, and choose **D-Lighting** to display the picture selection screen (F154). Choose the picture to be edited, and press the **OK** button.



- 3 Choose the extent of the setting using ▲▼ of the multi selector, and press the **OK** button.

- Choose from three levels, **High**, **Normal**, or **Low**.
- A new copy with enhanced brightness and contrast is created.
- To cancel D-Lighting, press the **MENU** button.
- D-Lighting copies can be recognized by the  icon displayed during playback.



More Information

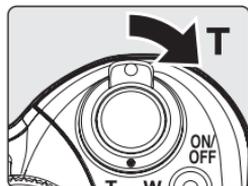
See "Image/Sound File and Folder Names" (F181) for more information.

Crop Picture

This function is only available when **MENU**  is displayed in the monitor with playback zoom  (66) enabled. Cropped copies are stored as separate files.

1 Rotate the zoom control to **T** (Q) in full-frame playback mode (30) to zoom in on the image.

- To crop a picture displayed in “tall” (portrait) orientation, zoom in on the picture until the black bars displayed on the both sides of the monitor disappear. The cropped picture will be displayed in landscape orientation. To crop the picture in its current “tall” (portrait) orientation, first, use the **Rotate image** option  (157) to rotate the picture so that it is displayed in landscape orientation. Next, enlarge the picture for cropping, crop the picture, and then rotate the cropped picture back to “tall” (portrait) orientation.

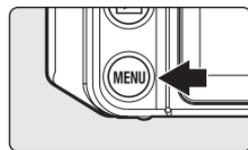


2 Refine copy composition.

- Rotate the zoom control to **T** (Q) or **W** (R) to adjust the zoom ratio.
- Press the multi selector  to move the display area.



3 Press the **MENU** button.



4 Use the multi selector to choose **Yes** and press the **OK** button.

- A new picture, containing only the portion visible in the monitor, is created.
- To cancel creating a cropped copy, choose **No**.



Picture Size

The size of the cropped copy (amount of pixels) will be small if the range of cropping is small. When the image size setting for a cropped copy is 320×240 or 160×120, a gray frame will appear around the picture during playback, and the  or  small picture icons will appear on the left side of the monitor.

More Information

See “Image/Sound File and Folder Names”  (181) for more information.

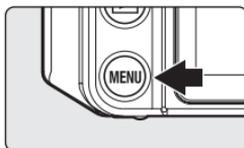
Resizing Pictures: Small Picture

Create a small copy of the current picture. The following sizes are available. Small copies are stored as separate files with a compression ratio of 1:16.

Type	Description
 640×480	Suited to television playback.
 320×240	Suited to display on web pages.
 160×120	Suitable for e-mail attachments.

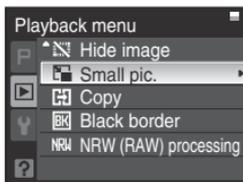
- 1 Select the desired picture from full-frame () or thumbnail () playback mode and press the **MENU** button.

- The playback menu is displayed.

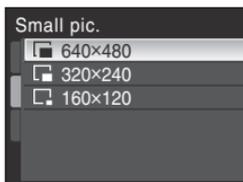


- 2 Use the multi selector to choose **Small pic.** and press the **OK** button.

- Switch to playback menu by choosing the playback tab from any mode other than playback menu, and choose **Small pic.** to display the picture selection screen ()154). Choose the picture to be edited, and press the **OK** button.

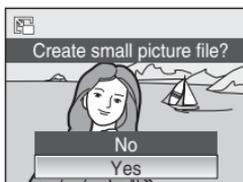


- 3 Choose the desired copy size and press the **OK** button.



- 4 Choose **Yes** and press the **OK** button.

- A new, smaller copy is created.
- To cancel creating a small copy, choose **No**.
- The copy is displayed with a gray frame.



More Information

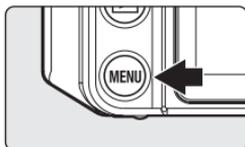
See "Image/Sound File and Folder Names" ()181) for more information.

Adding Black Frame on Pictures: Black Border

This function creates black lines along borders of pictures. Choose from **Thin**, **Medium**, or **Broad** black lines. Copies with black borders are stored as separate files.

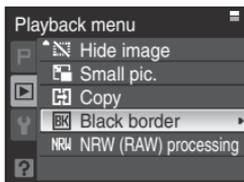
- 1 Select the desired picture from full-frame (30) or thumbnail (65) playback mode and press the **MENU** button.

- The playback menu is displayed.



- 2 Use the multi selector to choose **Black border** and press the **OK** button.

- Switch to playback menu by choosing the playback tab from any mode other than playback menu, and choose **Black border** to display the picture selection screen (154). Choose the picture to be edited, and press the **OK** button.

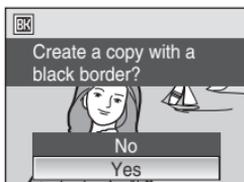


- 3 Choose the desired thickness of frame and press the **OK** button.



- 4 Choose **Yes** and press the **OK** button.

- A new copy with black border is created.
- To cancel creating a copy with black border, choose **No**.



Black Border

- Borders of a picture will be hidden with black lines because black portion is drawn from picture's edges according to their thickness.
- When a picture with black border are printed using printer's borderless print function, black frame may not be printed.

More Information

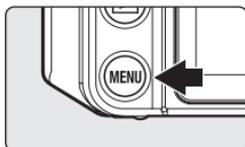
See "Image/Sound File and Folder Names" (181) for more information.

RAW Processing Using the Camera: NRW (RAW) Processing

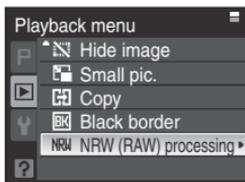
Create JPEG-format copies by RAW processing the NRW (RAW) images stored at **Image quality** (124) settings of **NRW (RAW)**, **NRW (RAW) + Fine**, **NRW (RAW) + Normal** or **NRW (RAW) + Basic** within the camera.

1 Press the **MENU** button in playback mode.

- The playback menu is displayed.

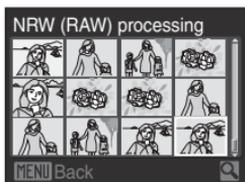


2 Use the multi selector to choose **NRW (RAW) processing** and press the **OK** button.



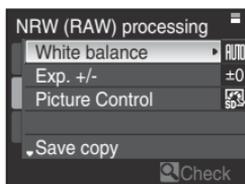
3 Use the multi selector **◀▶** to choose the picture to be processed and press the **OK** button.

- The NRW (RAW) processing menu is displayed.



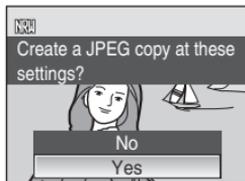
4 Adjust the **White balance**, **Exp. +/-**, **Picture Control**, **Image quality** and **Image size** options as desired.

- Apply the settings below while checking the image and rotating the zoom control to **T** (Q). Rotate to **T** (Q) again to return to the setting screen.
 - **White balance**: Choose white balance setting (M/136).
 - **Exp. +/-**: Adjust brightness.
 - **Picture Control**: Choose a image processing setting (M/129).
 - **Image quality**: Choose image quality from **Fine**, **Normal**, or **Basic** (M/124).
 - **Image size**: Choose image size (M/126). Image will be cropped if **4224x2816**, **4224x2376** or **3168x3168** is selected.
- Select **Image quality** and **Image size** by pressing ▼ and displaying the second page.
- Choose **Use default settings** to change back to the default settings.
- Choose **Save copy** when all settings have been adjusted.



5 Choose **Yes** and press the **OK** button.

- A NRW (RAW) processed JPEG image will be created.
- To cancel creating a JPEG image copy, choose **No**.



✓ Notes on NRW (RAW) Processing

- The COOLPIX P6000 can only create JPEG-format copies of NRW (RAW) processed images taken with the COOLPIX P6000.
- NRW (RAW) processing > **White balance** > **Preset manual** cannot be selected for photographs taken at a **White balance** setting other than **Preset manual**.

🔍 More Information

See "Printing Images of Size 1:1" (M/128) for more information.

See "Image/Sound File and Folder Names" (M/181) for more information.

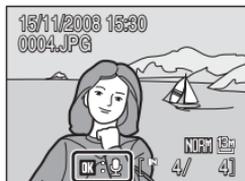
Voice Memos: Recording and Playback

Use the camera's built-in microphone to record voice memos for pictures marked with   in full-frame playback mode (30).

Recording Voice Memos

A voice memo, up to 20 seconds in length, will be recorded while the  button is pressed down.

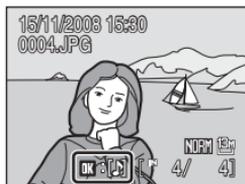
- Do not touch the built-in microphone during recording.
- During recording, **REC** and  blink.



Playing Voice Memos

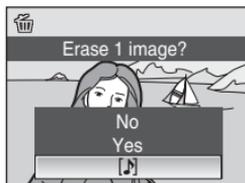
Press the  button while a picture is displayed in full-frame playback mode to play voice memo. Playback ends when the voice memo ends or the  button is pressed again.

- Pictures with voice memos can be recognized by the   icons.
- Use the zoom control **T** ()/**W** () during playback to adjust the volume.



Deleting Voice Memos

Select a picture with a voice memo and press the  button. Use the multi selector to choose  and press the  button. Only the voice memo will be deleted.



Notes on Voice Memos

- When a picture with a voice memo attached is deleted, both the picture and its voice memo are deleted.
- If a voice memo already exists for the current picture, it must be deleted before a new voice memo can be recorded.
- The COOLPIX P6000 cannot be used to attach voice memos to pictures shot with cameras other than the COOLPIX P6000.

More Information

See "Image/Sound File and Folder Names" (181) for more information.

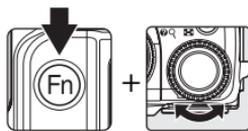
Viewing Pictures by Date

In calendar mode or list by date mode, pictures shot on a specified date can be displayed. In full-frame playback, zooming of images, editing, recording/playback of voice memos or movie playback can be done. When the **MENU** button is pressed and the calendar/list by date menu is displayed, all pictures shot on a specified date can be selected for deletion, printing, or protection in one setting.

Selecting a Date in Calendar Mode

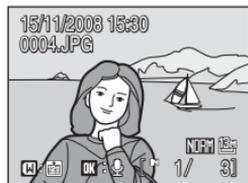
- 1 Press the **Fn** button in playback mode and use the command dial to choose **Calendar**.

- When the **Fn** button is released, the camera enters calendar mode.



- 2 Choose the date and press the **OK** button.

- Dates for which pictures exist are underlined in yellow. Choose a date which is underlined in yellow.
- Rotate the zoom control to **W** (◀) to view the previous month, rotate the zoom control to **T** (▶) to view the following month.
- The first picture for that date will be displayed in full-frame playback.
- Rotate the zoom control to **W** (◀) in full-frame playback mode to return to calendar mode.



Selecting a Date in List by Date Mode

1 Press the **Fn** button in playback mode and use the command dial to choose **List by date**.

- When the **Fn** button is released, the camera enters list by date mode.
- Dates for which pictures exist will be listed.



2 Choose the date and press the **OK** button.

- Camera lists up to 29 dates. If pictures exist for more than 30 dates, all pictures recorded earlier than most recent 30 dates will be listed together as **Others**.
- The first picture for that date will be displayed in full-frame playback.
- Rotate the zoom control to **W** (📷) in full-frame playback mode to return to the date list.



Using Calendar Mode and List by Date Mode

The following operations are possible from the date selection screen.

Option	Use	Description	
Select date		For calendar mode, press the multi selector ▲▼◀▶ . For list by date mode, press the multi selector ▲▼ . The date can also be selected by rotating the command dial.	12
Select previous month (calendar mode only)	W 	Rotate the zoom control to W  to view the last month.	-
Select next month (calendar mode only)	T 	Rotate the zoom control to T  to view the following month.	-
Switch to full-frame playback		Display the first picture shot on the selected date. Rotate the zoom control to W  in full-frame playback to return to the date selection screen.	30
Deleting Pictures		Delete all pictures of the chosen date. Choose Yes on the deletion confirmation screen.	30
View calendar or list by date menu	MENU	Display the calendar or list by date menu.	78
Switch to shooting mode		Press the  button or the shutter-release button to switch to the mode selected with the mode dial.	30
			

Notes on Calendar Mode and List by Date Mode

- Only the most recent 9,000 pictures can be displayed in calendar mode or in list by date mode. If a date includes the 9,001th picture, an asterisk (*) is displayed next to the number of pictures for that date.
- Pictures shot with no date stamp are not listed in these modes.

Calendar and List by Date Menus

Press the **MENU** button in either mode to display the following menus for only the pictures shot on the specified date.

D-Lighting*	 68
Print set	 101
Slide show	 155
Delete	 156
Protect	 156
Rotate image*	 157
Hide image	 157
Small pic.*	 70
Black border*	 71
NRW (RAW) processing*	 72

* During full-frame playback only

When the **MENU** button is pressed in the date selection screen (, 75, 76), options can be applied to all pictures shot on the same date, or all pictures shot on the same date can be deleted.

To apply options to individual pictures, or to select individual pictures for deletion, display a picture full-frame and press the **MENU** button.

Note on Print Set

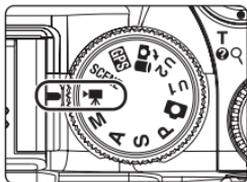
When print marking already exists for pictures shot on dates other than that specified, a confirmation dialog **Save print marking for other dates?** will be displayed. Choose **Yes** to add the new print marking to the existing marking. Choose **No** to remove the existing print marking and leave only the new marking.

Recording Movies

Shoot movies with sound.

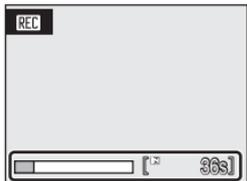
1 Rotate the mode dial to .

- Exposure count display shows maximum total length of movie that can be recorded.



2 Press the shutter-release button all the way down to start recording.

- Camera focuses on the subject in the center focus area.
- A progress bar at the bottom of the monitor shows the amount of recording time remaining.
- To end recording, press the shutter-release button all the way down a second time.



Notes on Recording Movies

- Exposure compensation () is available. **AF** (autofocus),  (macro close-up), and  (infinity) are available for the focus mode (). Flash () can only be used for time-lapse movies. The self-timer is unavailable. Quick-response remote () can be used (except for time-lapse movie).
- Flash mode, focus mode, and exposure compensation settings cannot be applied or changed while movies are being recorded. Apply or change settings as necessary before movie recording begins.
- Optical zoom cannot be adjusted once movie recording begins. Digital zoom cannot be applied before movie recording begins. However, digital zoom (up to 2x) can be applied while movies, other than time-lapse movies, are being recorded.

Note on During Recording

When the movie has been fully recorded to the internal memory or memory card, the monitor display will revert to the normal shooting mode display. Do not open the battery-chamber/memory card slot cover while movies are being recorded. Turning the camera off or removing the memory card while movies are being recorded could result in loss of data or in damage to the camera or card.

Changing Movie Settings

- Movie options** and **Autofocus mode** settings can be changed from the movie menu ().
- When **Movie options** is set to **Time-lapse movie** , movies are recorded without sound.

The Movie Menu

Movie options and **Autofocus mode** settings can be changed from the movie menu (81).

Press the **MENU** button in movie mode to display the movie menu and use the multi-selector to modify and apply settings.

Selecting Movie Options

The movie menu offers the options shown below.

Type	Image size and frame rate
 TV movie 640★ (default setting)	Image size: 640 × 480 pixels Frame rate: 30 frames per second
 TV movie 640	Image size: 640 × 480 pixels Frame rate: 15 frames per second
 Small size 320	Image size: 320 × 240 pixels Frame rate: 15 frames per second
 Time-lapse movie★ (82)	The camera automatically shoots pictures at intervals and joins them into a movie. Record flowers opening or butterflies emerging from cocoons. No sound will be recorded. Image size: 640 × 480 pixels Frame rate: 30 frames per second
 Sepia movie 320	Record movies in sepia tones. Image size: 320 × 240 pixels Frame rate: 15 frames per second
 B&W movie 320	Record movies in black and white. Image size: 320 × 240 pixels Frame rate: 15 frames per second

Using the Command Dial to Choose Movie Options

Instead of pressing the **MENU** button, the movie type can also be switched by holding down the **Fn** button and rotating the command dial.

Movie Options and Maximum Movie Length and Frames

Type	Internal memory (approx. 48 MB)	Memory card (256 MB)
 TV movie 640★ (default setting)	43 s	3 m 40 s
 TV movie 640	1 m 26 s	7 m 20 s
 Small size 320	2 m 50 s	14 m 25 s
 Time-lapse movie ★ ( 82)	513 frames	1,800 frames per movie
 Sepia movie 320	2 m 50 s	14 m 25 s
 B&W movie 320	2 m 50 s	14 m 25 s

* All figures are approximate. Maximum movie length or frames varies with make of memory card. The maximum file size for a single movie is 2 GB. Therefore, the 2 GB maximum movie length will be displayed even when memory cards with greater capacities are used.

More Information

See "Image/Sound File and Folder Names" (181) for more information.

Autofocus Mode

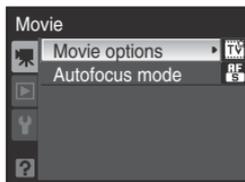
Choose how the camera focuses in movie mode.

Type	Description
 Single AF (default setting)	Camera focuses when shutter-release button is pressed halfway and locks at this position during shooting. Focus will be locked at that position during shooting.
 Full-time AF	Camera focuses continuously until focus is acquired and locked. Sound of camera focusing may be recorded as well during the recording. Setting to Single AF is recommended if the sound is noticeable.

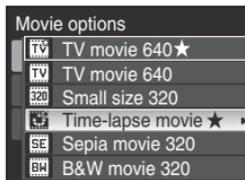
Time-Lapse Movies

Record flowers opening or butterflies emerging from cocoons.

- Use the multi selector to choose **Movie options** from the movie menu, and press the **OK** button.

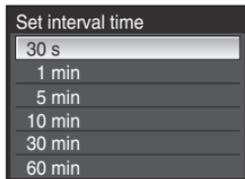


- Choose **Time-lapse movie** and press the **OK** button.



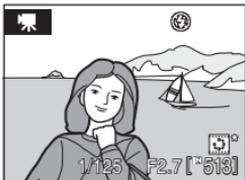
- Choose the interval between shots and press the **OK** button.

- Choose from **30 s**, **1 min**, **5 min**, **10 min**, **30 min** and **60 min**.



- Press the **MENU** button.

- The camera returns to shooting mode.



- Press the shutter-release button all the way down to start recording.

- Monitor turns off and power-on lamp blinks between shots.
- Monitor reactivates automatically for the next shot.

- Press the shutter-release button all the way down a second time to end recording.

- Recording will automatically stop if the internal memory or memory card becomes full, or when 1,800 frames have been recorded. An 1,800-frame movie has a playback time of 60 seconds.

✓ Notes on Time-Lapse Movie

- Flash mode (Ⓝ32), focus mode (Ⓝ37), and exposure compensation (Ⓝ40) cannot be adjusted after the first picture is shot. All frames thereafter will be shot using the same setting. Settings cannot be changed after shooting starts. Apply the appropriate settings before shooting begins.
- To prevent the camera from turning off unexpectedly during recording, use a fully charged battery.
- To power the camera continuously for extended periods, use an AC Adapter EH-66. Do not, under any circumstances, use another make or model of AC adapter. Failure to observe this precaution could result in overheating or in damage to the camera.
- Do not rotate the mode dial during recording of Time-Lapse movies.

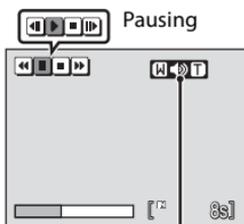
Movie Playback

In full-frame playback mode (⏮30), movies are recognized by movie options (⏮80). To play a movie, press **OK**.

Use the zoom control **T** (Q)/**W** (⏮) during playback to adjust the volume.

Rotate the command dial to advance or rewind the movie.

Press the multi selector ◀▶ to choose a control. The following operations are available.



During
playback

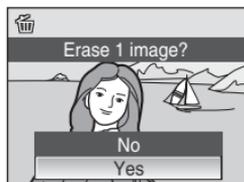
Volume
indicator

Option	Use	Description	
Rewind	⏮	Rewind movie when the OK button is pressed down.	
Advance	⏭	Advance movie when the OK button is pressed down.	
Pause	⏸	Press the OK button to pause playback. The following operations can be performed while playback is paused.	
		⏮	Press the OK button to rewind movie by one frame. Rewind continues while the button is pressed.
		⏭	Press the OK button to advance movie by one frame. Advance continues while the button is pressed.
	▶	Press the OK button to resume playback.	
End	⏹	Press the OK button to return to full-frame playback mode.	

Deleting Movie Files

Press the  button during movie playback, when displayed in full-frame playback mode (⏮30), or when selected in thumbnail (⏮65) playback mode to display the confirmation dialog for deletion.

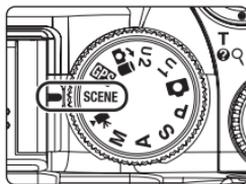
To delete the file, choose **Yes** and press the **OK** button. To cancel deletion, choose **No**.



Making Voice Recordings

Audio voice recordings can be recorded over the built-in microphone and played back over the built-in speaker.

1 Rotate the mode dial to **SCENE**.



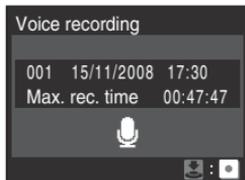
2 Press the **MENU** button to display the shooting menu screen, choose **Voice recording** with the multi selector and press the **OK** button.

- The length of recording that can be made will be displayed.



3 Press the shutter-release button all the way down to start recording.

- The AF lamp lights during recording.
- If no operations are performed for about 30 seconds after voice recording begins, the camera's power saving function is enabled and the monitor turns off.
- See "Operations During Recording" (186) for more information.



4 Press the shutter-release button all the way down a second time to end recording.

- Recording will end automatically if the internal memory or memory card becomes full, or after five hours of recording on the memory card.

More Information

See "Image/Sound File and Folder Names" (181) for more information.

Operations During Recording

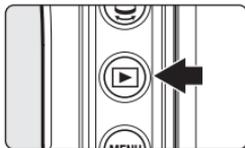


Option	Use	Description
Reactivate the monitor		If the monitor has turned off, press the button to reactivate.
Pause/resume recording		Press the button. The AF lamp blinks when recording is paused.
Create index*		Press the multi selector . Indexes make it easy to locate desired portions of a recording. Start of recording is index number 01; other numbers that follow are assigned in ascending order each time the multi selector is pressed, up to index number 98.
End recording		Press the shutter-release button the rest of the way down.

* The copied files can be played back using QuickTime or any other WAV-compatible audio player, but index points created with the camera cannot be used.

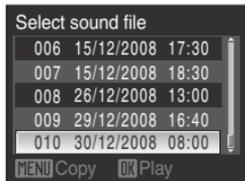
Playing Voice Recordings

- 1 Press the  button in the voice recording screen (, step 3).

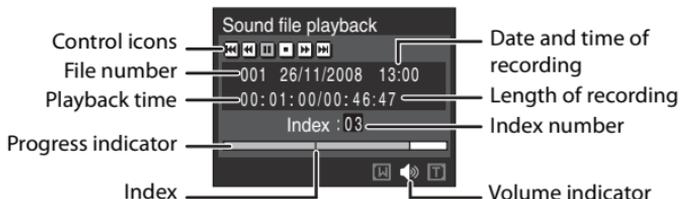


- 2 Use the multi selector to choose the desired sound file and press the  button.

- The selected sound file will be played back.



Operations During Playback

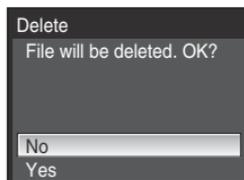


Use the zoom control **T** (Q)/**W** (⏏) during playback to adjust the volume. Rotate the command dial to advance or rewind the voice recording. Press the multi selector ◀▶ to choose a control. The following operations are available.

Option	Use	Description
Rewind	⏮	Rewind the voice recording when the OK button is pressed down.
Advance	⏭	Advance the voice recording when the OK button is pressed down.
Skip to previous index	⏮	Press the OK button to skip to previous index.
Skip to next index	⏭	Press the OK button to skip to next index.
Pause	⏸ ▶	Press the OK button to pause playback. Press the OK button to resume playback while playback is paused.
End	⏹	Press the OK button to return to the sound file selection screen.

Deleting Sound Files

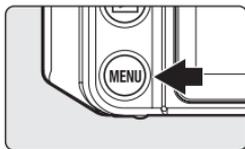
Press the **⏸** button during playback or after selecting a sound file in the sound file selection screen to display the confirmation dialog. To delete the file, choose **Yes** and press the **OK** button. To cancel deletion, choose **No**.



Copying Voice Recordings

Copy voice recordings between the internal memory and a memory card.
Do this only when a memory card is inserted in the camera.

- 1 Press the **MENU** button in the select sound file screen (87, step 2).



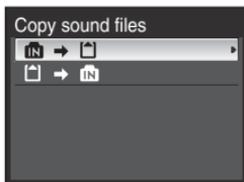
- 2 Use the multi selector to choose an option from the copy screen and press the **OK** button.



Copy recordings from internal memory to memory card.

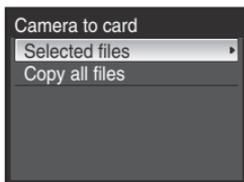


Copy recordings from memory card to internal memory.



- 3 Choose a copy option and press the **OK** button.

- **Selected files** → step 4
- **Copy all files** → step 5



- 4 Choose the data to be copied.

- Press **▶** to select the data (checkmark ticked) or to cancel the selection (no checkmark).
- Multiple files can be selected.
- Press the **OK** button when setting is complete.



- 5 When a confirmation dialog is displayed, choose **Yes** and press the **OK** button.

- Copying starts.

Note on Voice Recordings

The COOLPIX P6000 may be unable to play or copy sound files created with cameras other than the COOLPIX P6000.

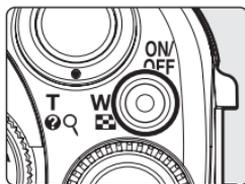
No sound file. Message

If there are no sound files stored on the memory card when the **▶** button is pressed (87, step 1), the message **No sound file.** will be displayed. Press the **MENU** button to display the copy sound files screen, and copy the sound files stored in the camera's internal memory to the memory card.

Connecting to a TV

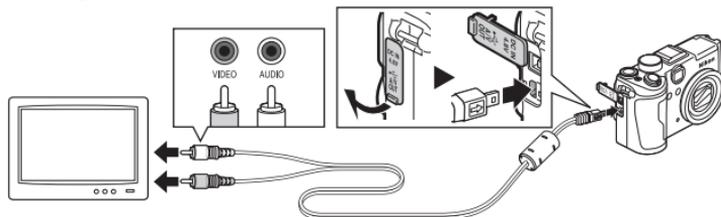
Connect the camera to a television using the supplied audio/video cable to play back pictures on the television.

1 Turn off the camera.



2 Connect the camera to the TV.

- Connect the yellow plug to the video-in jack on the TV, and the white plug to the audio-in jack.

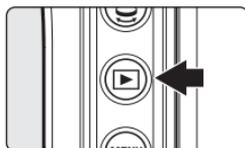


3 Tune the television to the video channel.

- See the documentation provided with your television for details.

4 Hold down the button to turn on the camera.

- The camera enters playback mode, and pictures recorded will be displayed on the television.
- While connected to the TV, the camera monitor will remain off.



Connecting the USB Cable

Be sure that the connectors are oriented correctly, and do not use force, to connect the USB cable. When disconnecting the USB cable, do not pull the connector at an angle.

When Nothing Appears on the TV

Be sure that the camera's video mode setting in the setup menu  159 **Video mode**  171 conforms to the standard used by your television.

Connecting to a Computer

Use the supplied USB cable to connect the camera to a computer, and copy (transfer) pictures to a computer with the supplied Nikon Transfer software.

Before Connecting the Camera

Installing the Software

Before connecting the camera to a computer, software, including Nikon Transfer, and Panorama Maker for creating panorama photo, must be installed from the supplied Software Suite CD. For more information on installing the software, refer to the *Quick Start Guide*.

Operating Systems Compatible with the Camera

Windows

Preinstalled versions of 32-bit Windows Vista Service Pack 1 (Home Basic/Home Premium/Business/Enterprise/Ultimate editions), Windows XP Service Pack 3 (Home Edition/Professional)

Macintosh

Mac OS X (version 10.3.9, 10.4.11, 10.5.4)

Refer to the Nikon website for the latest information on operating system compatibility.

Notes on Power Source

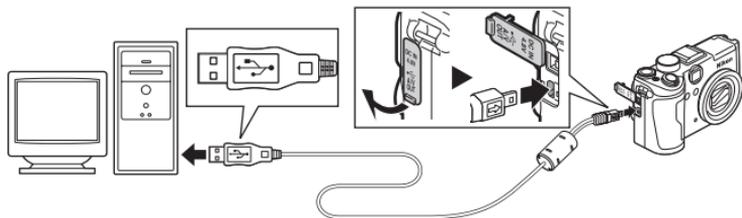
- When connecting the camera to a computer or printer, use a fully charged battery to prevent the camera from turning off unexpectedly.
- To power the camera continuously for extended periods, use an AC Adapter EH-66. Do not, under any circumstances, use another make or model of AC adapter. Failure to observe this precaution could result in overheating or in damage to the camera.

If You Are Using Windows 2000 Professional

- Do not connect the camera to the computer.
- Use a card reader or similar device to transfer pictures stored on the memory card to the computer (892).
- If the camera has been connected to the computer, the **Found New Hardware** Wizard dialog is displayed. Select **Cancel** to close the dialog and disconnect the camera from the computer.

Transferring Pictures from the Camera to a Computer

- 1 Start the computer to which Nikon Transfer was installed.
- 2 Turn off the camera.
- 3 Connect the camera to the computer using the supplied USB cable.



- 4 Turn on the camera.

The power-on lamp will light.

- **Windows Vista:**

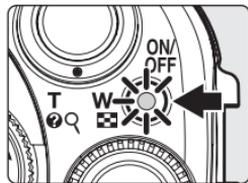
When the **AutoPlay** dialog is displayed, click **Copy pictures to a folder on my computer using Nikon Transfer**. To bypass this dialog in the future, check **Always do this for this device:**

- **Windows XP:**

When the action selection dialog is displayed, click **Nikon Transfer Copy pictures to a folder on my computer**, and click **OK**. Nikon Transfer will start. To bypass this dialog in the future, check **Always use this program for this action.**

- **Mac OS X:**

Nikon Transfer will start automatically if **Yes** was selected in the **Auto-Launch setting** dialog when Nikon Transfer was first installed.

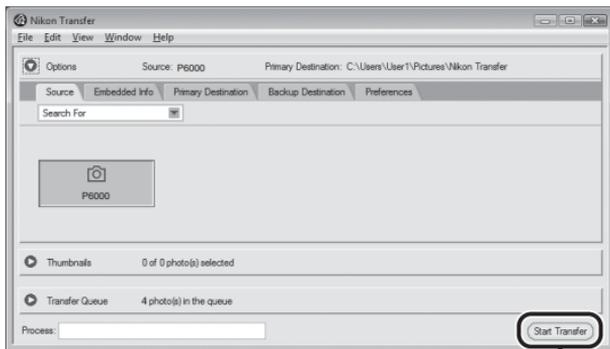


✓ Connecting the USB Cable

- When connecting the USB cable, be sure that the connectors are oriented correctly. Do not use force when connecting the USB cable. When disconnecting the USB cable, do not pull the connector at an angle.
- Connection may not be recognized when the camera is connected to a computer via a USB hub.

5 Transfer pictures when Nikon Transfer has finished loading.

- Click the **Start Transfer** button in Nikon Transfer. At the default setting, all pictures are transferred to the computer (Nikon Transfer default setting).



Start Transfer button

- At the Nikon Transfer default setting, the folder to which pictures are transferred is automatically opened when transfer is complete.
- If ViewNX has been installed, ViewNX will start automatically and you can view the pictures transferred.
- For more information on using Nikon Transfer or ViewNX, refer to the help information contained in Nikon Transfer or ViewNX.

6 Disconnect the camera when transfer is complete.

Turn the camera off and disconnect the USB cable.

Using a Card Reader

The pictures stored on the memory card inserted into a card reader or similar device can also be transferred to the computer using Nikon Transfer.

- If the memory card has a capacity greater than 2 GB, or is SDHC-compliant, the intended device must support these features of the memory card.
- At the Nikon Transfer default settings, Nikon Transfer will start automatically when a memory card is inserted into the card reader or similar device. See step 5 of “Transferring Pictures from the Camera to a Computer” (1893).
- To transfer pictures stored in the camera’s internal memory to the computer, the pictures must first be copied to a memory card using the camera (1889, 158).

Using Standard OS Operations to Open Image/Sound Files

- Navigate to the folder on the computer’s hard disk to which pictures were saved and open a picture in the viewer supplied with your operating system.
- For information on playback of NRW (RAW) images refer to “COOLPIX P6000 NRW (RAW) images” (125).
- Sound files copied to the computer can be played back using QuickTime or any other WAV compatible audio player.

Panorama Creation with Panorama Maker

- Use a series of pictures taken using the **Panorama assist** option in scene mode (148) to create a single panorama photo with Panorama Maker.
- Panorama Maker can be installed to a computer using the supplied Software Suite CD.
- After installation is complete, follow the procedure described below to start Panorama Maker.

Windows:

Open **All Programs (Programs** under Windows 2000) from the Start menu → **ArcSoft Panorama Maker 4** → **Panorama Maker 4**.

Macintosh:

Open Applications by selecting **Applications** from the Go menu, and double-click the **Panorama Maker 4** icon.

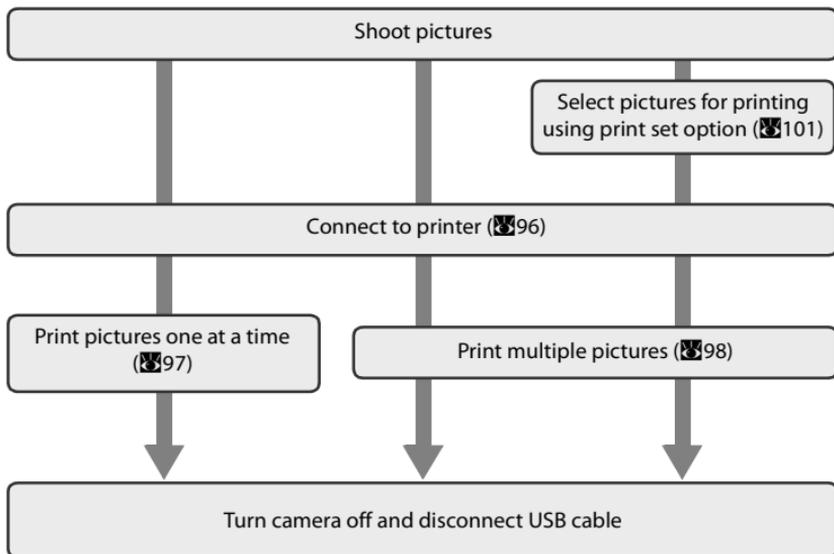
- For more information on using Panorama Maker, refer to the on-screen instructions and help information contained in Panorama Maker.

More Information

See “Image/Sound File and Folder Names” (181) for more information.

Connecting to a Printer

Users of PictBridge-compatible (📷200) printers can connect the camera directly to the printer and print pictures without using a computer. The steps for printing are as follows.



📌 Notes on Power Source

- When connecting the camera to a computer or printer, use a fully charged battery to prevent the camera from turning off unexpectedly.
- To power the camera continuously for extended periods, use an AC Adapter EH-66. Do not, under any circumstances, use another make or model of AC adapter. Failure to observe this precaution could result in overheating or in damage to the camera.

📷 Printing Pictures

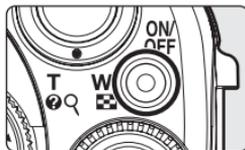
In addition to printing pictures transferred to a computer from your personal printer and printing over a direct camera-to-printer connection, the following options are also available for printing pictures:

- Insert a memory card into a DPOF-compatible printer's card slot.
- Take a memory card to a digital photo lab.

For printing using these methods, specify the pictures and the number of prints each using your camera's print set menu **Print set** (📷101).

Connecting the Camera and Printer

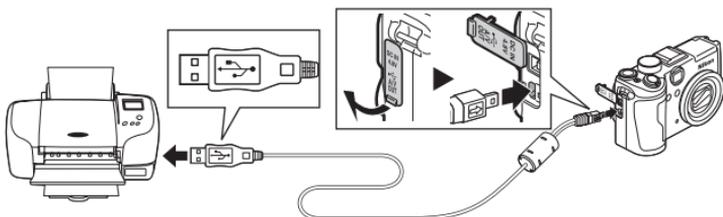
- 1 Turn off the camera.



- 2 Turn on the printer.

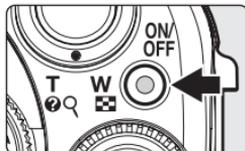
- Check printer settings.

- 3 Connect the camera to the printer using the supplied USB cable.



- 4 Turn on the camera.

- When connected correctly, the PictBridge startup screen ① will be displayed in the camera monitor. Then the print selection screen will be displayed ②.



Connecting the USB Cable

When connecting the USB cable, be sure that the connectors are oriented correctly. Do not use force when connecting the USB cable. When disconnecting the USB cable, do not pull the connector at an angle.

More Information

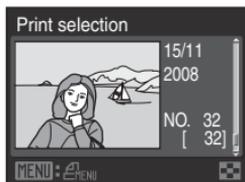
See "Printing Images of Size 1:1" ( 128) for more information.

Printing Pictures One at a Time

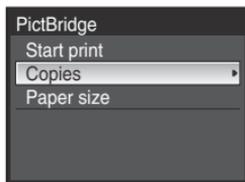
After connecting the camera to the printer correctly (896), print pictures by following the procedure below.

1 Use the multi selector to select the picture to be printed and press the **OK** button.

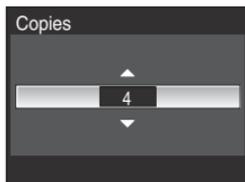
- The command dial can also be used to choose the picture.
- Rotate the zoom control to **W** (🖼️) to display 12 thumbnails, or to **T** (📺) to switch back to full-frame playback.



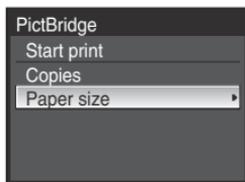
2 Choose **Copies** and press the **OK** button.



3 Choose the number of copies (up to nine) and press the **OK** button.

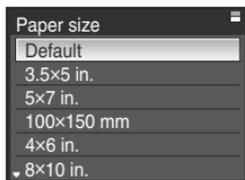


4 Choose **Paper size** and press the **OK** button.

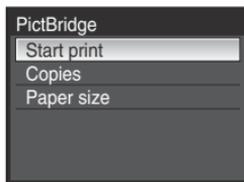


5 Choose the desired paper size and press the **OK** button.

- To specify paper size using printer settings, choose **Default** in the paper size menu.

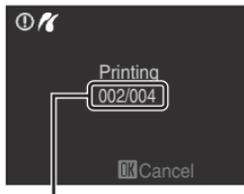


6 Choose **Start print** and press the **OK** button.



7 Printing starts.

- Monitor display returns to that shown in step 1 when printing is complete.
- To cancel before all copies have been printed, press the **OK** button.



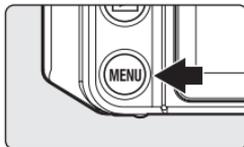
Current print/total number of prints

Printing Multiple Pictures

After connecting the camera to the printer correctly (B96), print pictures by following the procedure below.

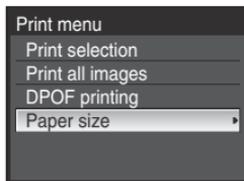
1 When the print selection screen is displayed, press the **MENU** button.

- The print menu is displayed.



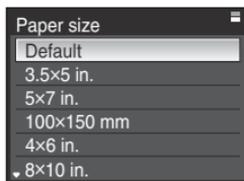
2 Use the multi selector to choose **Paper size** and press the **OK** button.

- To exit the print menu, press the **MENU** button.

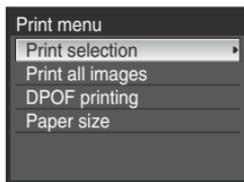


3 Choose the desired paper size and press the **OK** button.

- To specify paper size using printer settings, choose **Default** in the paper size menu.



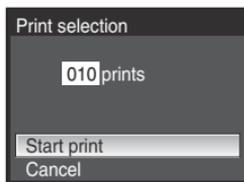
4 Choose **Print selection**, **Print all images** or **DPOF printing** and press the **OK** button.



Print selection

Choose the pictures and number of copies (up to nine) of each.

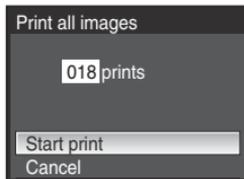
- Press the multi selector **◀▶** to select pictures, and press **▲▼** to set the number of copies for each.
- The command dial can also be used to choose the picture.
- Pictures selected for printing can be recognized by the check mark icon and the numeral indicating the number of copies to be printed. The pictures for which no copies have been specified will not be printed.
- Rotate the zoom control to **T** (Q) to switch to full-frame playback, or **W** (W) to switch back to thumbnail display.
- Press the **OK** button when setting is complete.
- The menu shown at right will be displayed. To print, choose **Start print** and press the **OK** button.
- Choose **Cancel** and press the **OK** button to return to the print menu.



Print all images

All pictures stored in the internal memory, or on the memory card, can be printed one at a time.

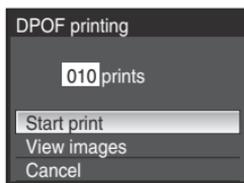
- The menu shown at right will be displayed. To print, choose **Start print** and press the **OK** button.
- Choose **Cancel** and press the **OK** button to return to the print menu.



DPOF printing

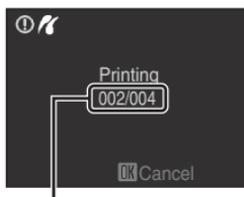
Print pictures for which a print order was created in **Print set** (101).

- The menu shown at right will be displayed. To print, choose **Start print** and press the **OK** button.
- Choose **Cancel** and press the **OK** button to return to the print menu.
- To view the current print order, choose **View images** and press the **OK** button. To print pictures, press the **OK** button again.



5 Printing starts.

- Monitor display returns to that shown in step 2 when printing is complete.
- To cancel before all copies have been printed, press the **OK** button.



Current print/total number of prints

Paper Size

In Paper size, other than **Default** (the default paper size for the current printer), out of **3.5x5 in.**, **5x7 in.**, **100x150 mm**, **4x6 in.**, **8x10 in.**, **Letter**, **A3**, and **A4**, only sizes supported by the current printer will be displayed.

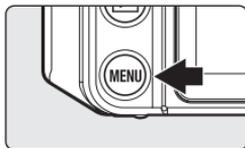
Creating a DPOF Print Order: Print Set

The Print set option in the playback menu is used to create digital “print orders” for printing on DPOF-compatible devices (📷200).

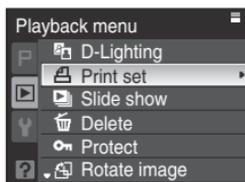
When the camera is connected to a PictBridge-compatible printer, pictures can be printed from the printer according to the DPOF print order you have created for pictures on the memory card. If the memory card is removed from the camera, you can create the DPOF print order for pictures in the internal memory.

1 Press the **MENU** button in playback mode.

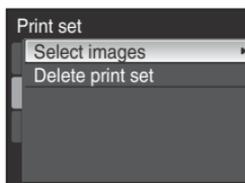
- The playback menu is displayed.



2 Use the multi selector to choose **Print set** and press the **OK** button.



3 Choose **Select images** and press the **OK** button.



4 Choose the pictures and number of copies (up to nine) of each.

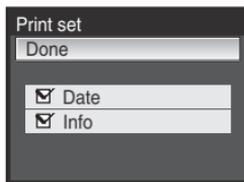
- Press the multi selector **◀▶** to select pictures, and press **▲▼** to set the number of copies for each.
- The command dial can also be used to choose the picture.
- Pictures selected for printing can be recognized by the check mark icon and the numeral indicating the number of copies to be printed. The pictures for which no copies have been specified will not be printed.
- Rotate the zoom control to **T** (📷) to switch to full-frame playback, or **W** (📷) to switch back to thumbnail display.
- Press the **OK** button when setting is complete.

More Information

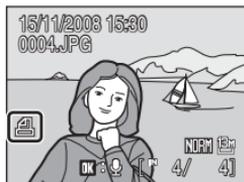
See “Printing Images of Size 1:1” (📷128) for more information.

5 Choose whether or not to also print shooting date and photo information.

- Choose **Date** and press the **OK** button to print date of recording on all pictures in the print order.
- Choose **Info** and press the **OK** button to print photo information (shutter speed and aperture) on all pictures in the print order.
- Choose **Done** and press the **OK** button to complete the print order.



Pictures selected for printing can be confirmed during playback.



✓ Notes on Printing Shooting Date and Photo Information

When the **Date** and **Info** options are enabled in the print set menu, shooting date and photo information are printed on pictures when a DPOF-compatible (L200) printer which supports printing of shooting date and photo information is used.

- Photo information cannot be printed when the camera is connected directly to a printer, via the supplied USB cable, for DPOF printing (L100).
- **Date** and **Info** are reset each time the **Print set** menu is displayed.

✎ Deleting All Print Orders

Choose **Delete print set** in step 3 and press the **OK** button. Print orders for all pictures will be deleted.

✎ Note on the Print Set Date Option

The date and time printed on pictures with DPOF printing, when date in the print set menu is enabled, are those recorded with the picture as it was shot. Date and time printed using this option are not affected when the camera's **Date** setting are changed from the setup menu after pictures are recorded.



🕒 Date Imprint

The date and time of recording can be imprinted on pictures using the **Date imprint** option (L165) in the setup menu. Pictures with the date and time imprinted on them can be printed from printers that do not support printing of the date and time on pictures.

Only the Date imprint date and time on pictures will be printed, even if **Print set** is enabled with date selected in the print set screen.

LAN Features and my Picturetown

Picture Bank can be used with the camera's LAN feature. Picture Bank can be used to upload and save pictures taken onto my Picturetown. To upload pictures, an Internet broadband connection and LAN cables are required.

my Picturetown

my Picturetown is an Internet service for storing and sharing photos. The service offers up to 2 GB of free storage.

- Pictures can be stored on the server using the LAN features of the camera, or a computer connected to the Internet.
- Pictures stored on the server can be easily managed and sorted using a computer.

Access my Picturetown from the following URL:

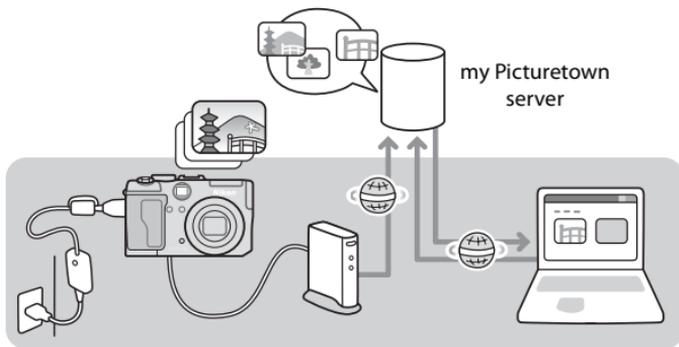
<http://mypicturetown.com/>

Picture Bank

Pictures and movies are uploaded to the my Picturetown server for storage. The my Picturetown server can be used as your own personal storage space for pictures, and those pictures can be downloaded to a computer any time.

Upload just the selected pictures, or upload all pictures automatically when the AC adapter and the LAN network is connected to the camera. If you connect the AC adapter and the LAN network to the camera before sleeping, upload of pictures and the charging of the battery will be completed by the next morning, making this a convenient service for saving the pictures you take on an everyday basis.

- Voice recording files cannot be uploaded.



✓ LAN Communication Features

LAN communication features cannot be used to connect the camera to a computer.

my Picturetown Setup Workflow

Before taking advantage of my Picturetown services using the LAN features of the camera, the camera's network settings must be configured and you must register with my Picturetown. Configure the camera's network settings by using the camera.

First Steps (be sure that all LAN requirements are in place and ready necessary information) (🔗105)
Confirm network requirements for LAN connection, and ready the necessary network profile for LAN connection and user information for my Picturetown.

Network settings

Configuring a Network Connection Profile (🔗109)
Configure the network profile necessary for connecting the camera to the Internet via an access point.

Enter my Picturetown User Information (🔗110)
Enter the information, such as your e-mail address, required to use the my Picturetown services, from the camera's Sender option.

Protecting LAN Information Stored in the Camera (🔗111)*
Apply password protection to the camera.

Uploading Pictures to the my Picturetown Server (🔗117)
Upload pictures using Picture Bank. Once pictures have been uploaded, e-mail notification requesting user registration with my Picturetown will be sent to the e-mail address specified from the camera's Sender option.

Registering with my Picturetown (🔗114)
Use a computer to open the e-mail notification requesting user registration, click the URL provided in the email notification, and register the camera and user information with my Picturetown from the sign-up Web page. Setup is complete when you receive an e-mail message confirming my Picturetown registration.

* The camera's password does not need to be specified immediately.

Confirming LAN Connection

Requirements

- LAN cable
 - Only use LAN cables/switching hubs/broadband routers that are compatible with "100BASE-TX".
- ADSL modem or router equipped broadband network environment
 - my Pictoretown is not available if the home LAN uses a proxy server to connect to the Internet.
 - For more information on home LAN configuration, contact the Internet service provider (ISP).

Ready Information Required for LAN Connection

Network Profile

Retrieve settings for the LAN network to which the camera will be connected. This information is necessary when setting up the camera's **Network profile** (8109).

For information on the network profile, see the documentation provided by the service provider.

IP address

This is a unique identifier assigned to communication devices on a computer network. The IP address can be acquired automatically with this camera. If the network uses a fixed IP address, manually enter the camera's IP address, as well as the subnet mask, gateway, primary DNS, and secondary DNS.

my Picturetown User Information

The following information is required to register user information and the camera (📷114) with my Picturetown, and to log-in to my Picturetown (📷120) after picture upload.

E-mail address

You must register a computer e-mail address with my Picturetown. Specify an e-mail address, comprised of up to 64 alphanumerical characters. Cellular telephone e-mail addresses are not supported.

- E-mail notification requesting user registration with my Picturetown will be sent to this e-mail address.
- Once registered, use this e-mail address for the Email ID when logging in to my Picturetown.

Alias

Specify an alias, comprised of up to 16 alphanumerical characters, to use with my Picturetown.

Password

Use this password when logging in to my Picturetown from a computer or a cellular telephone. Specify a password, comprised of four to ten alphanumerical characters.

Key information

Key information refers to unique information attached to each camera.

- Enter information in the my Picturetown user registration page.
- See "Retrieving key information" (📷114) for more information.

Protecting the Camera with a Password

A password (four-digit number) can be applied to prevent unauthorized access to the camera's network services by third parties, and to protect information stored in the camera.

See "Protecting LAN Information Stored in the Camera" (📷111) for more information.

Settings from the Camera

Set up camera network connections and user information.

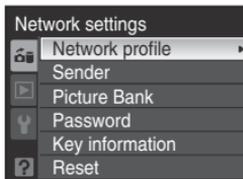
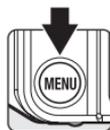
Basic Operation of the Network Settings

Displaying the Network Settings Menu

- 1 Rotate the mode dial to .
 - The select image screen is displayed.



- 2 Press the **MENU** button.
 - The network settings menu is displayed.



Entering Text with the Camera

Text for information such as aliases, e-mail addresses, and password can be entered using the multi selector. Rotate the command dial, or press ▲▼◀▶, to choose a character, [Aa@], or [↵] in the keyboard area.



Text entry area

Selected characters are displayed here.

Keyboard area

Use the multi selector to highlight characters and press the [OK] button to select.



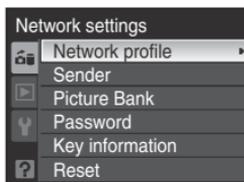
- Text is entered at the current cursor position in the text entry area.
- Highlight [↵] and press the [OK] button to move the cursor in the text entry area.
- Highlight [Aa@] and press the [OK] button to change the type of character entered. Each time the [OK] button is pressed, the type of character changes in the following order: lowercase letters→uppercase letters→symbols→lowercase letters. The type of characters displayed in the keyboard area can also be changed by rotating the command dial right or left. The position of the scroll bar at left in the monitor display indicates the type of characters currently shown.
- To delete a character, move the cursor to that character's position and press the [Delete] button to delete.
- When some of the characters cannot be displayed, rotate the zoom control to T (Q) to preview all the characters that have been entered. Rotate the zoom control to T (Q) again to return to the text entry screen.
- Once all necessary text has been entered, highlight [↵] and press the [OK] button. The monitor display proceeds to the next screen.

Configuring a Network Profile

Enable connection of the camera to the Internet via a LAN access point. Enter the same settings as the desired LAN network.

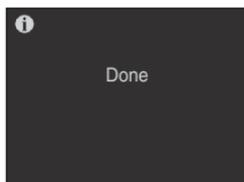
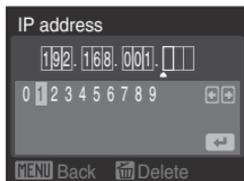
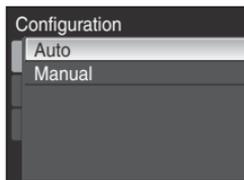
Configuring a Network Profile

- 1 Choose **Network profile** from the Network settings menu (F107), and press the OK button.



- 2 Specify the camera's IP address (F105).

- To acquire the IP address automatically, choose **Auto** and press the OK button.
- To enter a fixed IP address, choose **Manual** and press the OK button. Specify the **IP address**, **Subnet mask**, **Gateway**, **Primary DNS**, and **Secondary DNS** settings.
- When configuring **IP address**, **Subnet mask**, **Gateway**, **Primary DNS**, and **Secondary DNS** settings, enter each set of numbers so that they are aligned to the right. Numbers must be entered correctly for the settings to be properly applied.
- For information on entering text, see "Entering Text with the Camera" (F108).
- Once all network settings have been configured, **Done** will be displayed and the monitor display will return to the network settings menu. Network profile configuration is complete.



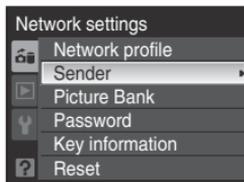
When setting up the LAN features of this camera for the first time, next enter the information required for my Pictown user registration. Proceed to "Entering my Pictown User Information" (F110).

Entering my Pictown User Information

Enter the information required for user registration with my Pictown from the **Sender** option. This information is necessary to log-in to my Pictown after picture upload.

If you have already registered with my Pictown, use the same e-mail address and nickname (alias) currently used by my Pictown (📷116).

- 1 Choose **Sender** from the Network settings menu (📷107), and press the **OK** button.



- 2 Enter your e-mail address (up to 64 alphanumerical characters).

- Cellular telephone e-mail addresses are not supported.
- Check that the e-mail address is correct. No error message, or indication that an error has occurred, is sent from the server when delivery errors occur due to incorrect entry of e-mail addresses.
- For information on entering text, see "Entering Text with the Camera" (📷108).



- 3 Enter your alias (up to 16 alphanumerical characters).

- Once the alias has been entered, the confirm address and alias screen will be displayed. Press the **OK** button to apply the settings and return to the network settings menu.



When the settings have been done, see "Protecting LAN Information Stored in the Camera" (📷111).

Editing the my Pictown User Information

When uploading pictures using Picture Bank after user information has been registered with my Pictown, user information (including information stored in the camera's Sender setting) stored in the camera cannot be displayed or edited (📷115).

Protecting LAN Information Stored in the Camera

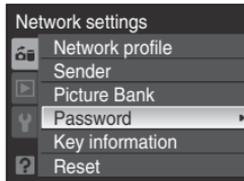
A password can be applied to prevent access to LAN information stored in the camera, including network profiles and recipient e-mail addresses, by third parties if the camera should be lost or stolen, or otherwise compromised. In addition, all camera settings can be restored to their default settings and data stored in the camera's internal memory can be deleted before the camera is transferred to another owner or discarded.

Applying a Password to the Camera

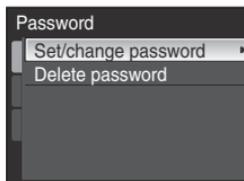
If the camera is protected with a password, the password must be entered to perform LAN operations using the camera.

- 1 Choose **Password** from the Network settings menu (107), and press the **OK** button.

- The password screen will be displayed.

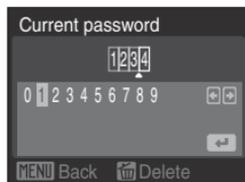
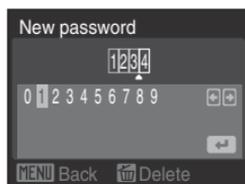


- 2 Choose **Set/change password** and press the **OK** button.



3 Specify a password for the camera, or edit the current password.

- To specify a password, enter a password of four numbers in the new password screen.
- To edit the password, enter the current password in the current password screen. When the new password screen is displayed, enter a new password.
- When a password is entered, the re-enter password screen will be displayed for confirming the password. Enter the correct password again.
- For information on entering text, see “Entering Text with the Camera” (🔗108).
- When the password has been re-entered, the message, **Password settings complete.** will be displayed and the monitor display will return to the network settings menu.



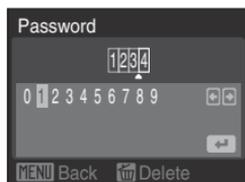
When setting up the LAN features of this camera for the first time, the final step requires user registration with my Picturertown.

First, use Picture Bank (🔗117) to upload pictures to my Picturertown. Once pictures have been uploaded, e-mail notification requesting user registration with my Picturertown will be sent to the e-mail address specified as instructed in “Entering my Picturertown User Information” (🔗110).

See “Registering with my Picturertown” (🔗114) for more information on user registration.

Entering the Password

If a password has been set for the camera, the Password screen will be displayed when changing network settings or when choosing pictures to upload to Picture Bank. Enter the password to remove protection.

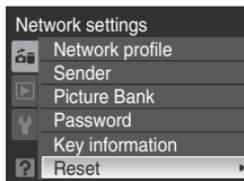


Resetting the Camera's Network Setting

Follow the instructions below to reset all LAN connection settings, including the camera's password, stored in the camera. Use the Reset option to delete all user information stored in the camera before transferring it to another owner. This option can also be used to reset the camera if you forget the password.

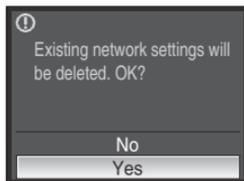
1 Choose **Reset** from the Network settings menu (🔑107), and press the **OK** button.

- The confirmation dialog is displayed.



2 Choose **Yes** and press the **OK** button.

- The message, **Network settings have been reset.** will be displayed and the monitor display will return to the network settings menu.
- To cancel the reset operation, choose **No** in the confirmation dialog.



Resetting the Camera and Camera Password

- Avoid using a password that can be easily guessed, such as a birth date. Be sure that you do not forget your password.
- To delete the current password without resetting the camera, choose **Delete password** in step 2 of "Applying a Password to the Camera," and press the **OK** button. Enter the password to be deleted in the current password screen, highlight , and then press the **OK** button.
- When the camera's network setting is reset, user information must be registered with my Picturetown again (🔑114).

Registering with my Picturetown

Registration (creation of a user account) with my Picturetown is required to take advantage of my Picturetown services.

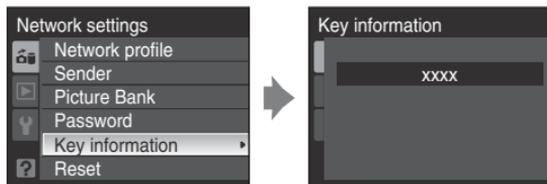
1 To register, upload pictures to my Picturetown.

- See “Using Picture Bank” (📖117) for more information on uploading pictures to my Picturetown.
- E-mail notification requesting user registration with my Picturetown will be sent to the e-mail address specified for user information.

2 Use a computer to open the e-mail notification requesting user registration.

3 Click the URL provided in the e-mail notification requesting user registration, and register with my Picturetown from the sign-up Web page.

- The following information is required for user registration:
 - Nickname (the alias stored in the camera's Sender setting; 📖110)
 - Email ID (the e-mail address stored in the camera's Sender setting; 📖110)
 - Password for my Picturetown
 - Key information*
- * Confirm key information by selecting **Key information** from the Network settings menu (📖107), and pressing the **OK** button.



- For more information, follow the instructions and procedures provided in e-mail messages received from my Picturetown and the sign-up Web page.

4 Receive the e-mail message confirming my Picturetown registration.

- An e-mail message confirming my Picturetown registration will be sent to the registered e-mail address.

This completes setup of the LAN features.

Notes on User Registration

- Register user information as soon as possible. Using the camera without registering user information will cause any pictures saved to be revealed to a third party if the camera is stolen or lost.
- Until user information is registered, e-mail notification requesting user registration will be sent whenever pictures are uploaded. If you do not receive the e-mail notification, the information stored in the camera's Sender setting may be incorrect. Correct the information (🔧110) and upload pictures again.
- When uploading pictures after user information has been registered with my Picturetown, the user information (including information stored in the camera's Sender setting) stored in the camera cannot be displayed or edited from the camera. In addition, the my Picturetown password cannot be edited from the camera. Use a computer's Web browser to access my Picturetown to edit user information.
- Before discarding the camera or transferring it to another owner, confirm whether or not pictures have ever been uploaded using my Picturetown services. If pictures have been uploaded, ever once, be sure that you have registered with my Picturetown, and then reset all network settings (🔧113).
- If this camera was given to you by a previous owner, reset all network settings (🔧113) before using the camera and taking advantage of the network services.

Note on Protecting Personal Information

Once the LAN features have been used, personal information is stored in the camera and on the my Picturetown server.

To protect personal information from unsolicited viewing or theft, apply a password to protect data stored in the camera (🔧111), and register with my Picturetown to protect uploaded data. It is highly recommended that these protection measures be applied.

Accessing the my Picturetown Website

You can visit the my Picturetown Website at the following URL:
<http://mypicturetown.com/>

Registering a Camera with my Picturetown

A camera must be registered with the my Picturetown server in any of the following situations:

- You registered with my Picturetown before setting up the LAN features of this camera (e.g. this is a second camera).
- The camera is reset for any purpose other than transfer of ownership (🔗113).

Follow the procedures indicated below to register the camera.

1 Be sure that the network requirements for connecting the camera to a LAN (🔗105) have been met.

2 Configure the camera's network settings (🔗109).

3 Register my Picturetown user information with the camera (🔗110).

- Enter the same e-mail address and nickname (alias) currently used by my Picturetown.
 - If the current nickname uses characters or symbols that are not available using the camera, enter a new nickname comprised of alphanumerical characters (when a different nickname (alias) is registered with the camera, the nickname (alias) currently used by my Picturetown will be used to identify you in e-mail notification of picture upload sent to recipients).
-

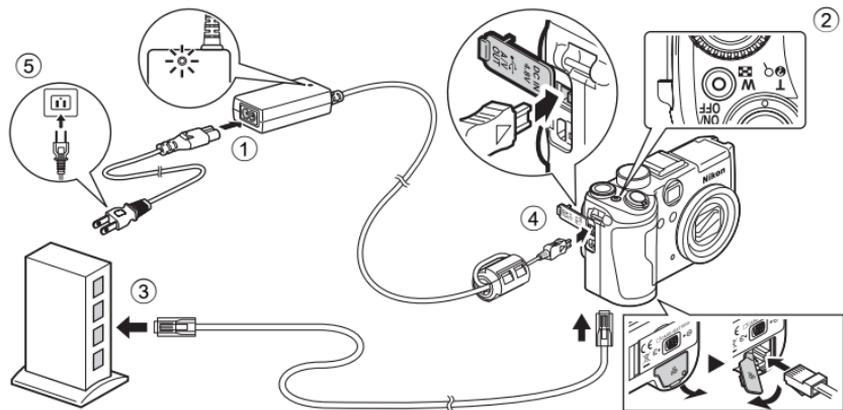
4 Register the camera with the my Picturetown server.

- E-mail notification requesting user registration with my Picturetown is sent to the specified e-mail address after picture upload using Picture Bank. Click the URL provided in the e-mail notification, enter the camera's key information, and register the camera with my Picturetown from the sign-up Web page (🔗114). Once the camera has been registered with the my Picturetown server, an e-mail message confirming my Picturetown registration will be sent to the registered e-mail address.

Using Picture Bank

Uploading All Pictures at Once

The camera automatically starts charging and upload pictures that have not yet been uploaded to the my Picturetown server whenever the AC adapter and the LAN network is connected to the camera.



1 Connect the power cable and AC adapter ①.

2 Make sure that the power-on lamp is off ②.

- Do not turn on the camera. **Picture upload cannot be initiated when the camera is turned on.**

3 Connect the network device with the camera using the LAN cable ③.

4 Connect the AC adapter to the camera's DC input connector ④.

- The DC input connector should be fully inserted.

5 Plug the power cable into an outlet ⑤.

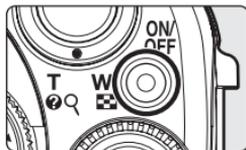
- When the camera is turned on and the message **Starting upload to Picture Bank** is displayed, uploading of pictures will begin (☒119).
- If sender setting has not been configured, enter your Email ID (e-mail address) and Nickname (alias) necessary for my Picturetown user information (☒110).
- After using Picture Bank to upload pictures for the first time using the camera, proceed with user registration with my Picturetown (☒114).

Modifying the Automatic Picture Bank Upload Setting

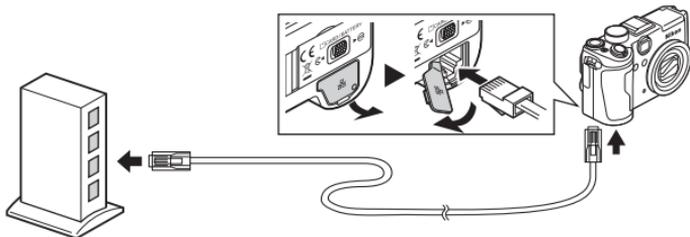
Change the settings for the AC adapter and LAN connections in **Picture Bank** of the network settings menu (☒107). If **On** (default setting) is changed to **Off**, the battery will begin charging immediately without uploading pictures when the camera is turned off and the AC adapter and the LAN network is connected to the camera.

Uploading Selected Pictures

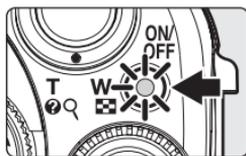
- 1 Turn off the camera.



- 2 Connect the network device to the camera using the LAN cable.

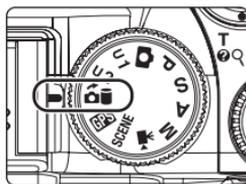


- 3 Turn on the camera.



- 4 Rotate the mode dial to .

- If sender setting has not been configured, enter your Email ID (e-mail address) and Nickname (alias) necessary for my Pictoretown user information (110).
- When the Transfer is Unsuccessful → 119



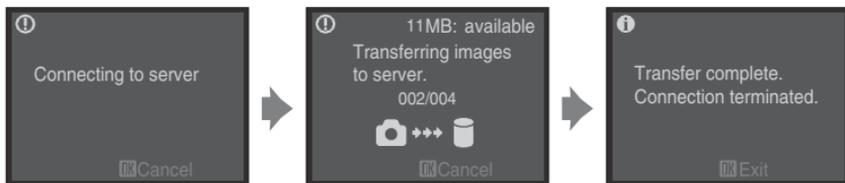
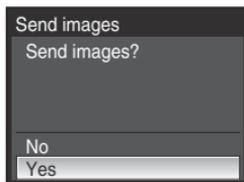
- 5 Choose pictures.

- Press  and  on the multi selector to highlight a picture, and press  and  to select the desired picture (checkmark ticked) or cancel the selection (no checkmark).
- The command dial can also be used to choose the picture.
- Up to 30 pictures can be selected.
- Rotate the zoom control to **T** (Q) to switch to full-frame playback; Rotate the zoom control to **W** (R) to return to thumbnail display.
- Press the  button to finalize picture selection.



6 Upload pictures.

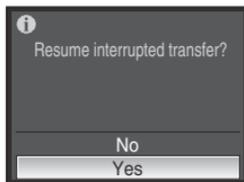
- Choose **Yes** and press the **OK** button to start uploading.
- Choose **No** and press the **OK** button to return to the screen shown in step 5.
- The connecting to server screen and the uploading screen will be displayed in this order. To cancel before all copies have been uploaded, press the **OK** button. Once upload has finished the Transfer complete screen will be displayed. Press the **OK** button when upload is complete*.
- After using Picture Bank to upload pictures for the first time using the camera, proceed with user registration with my Picturetown (Ⓜ114).



- * When the AC adapter and the LAN network is connected to the camera and all pictures are uploaded to Picture Bank, the camera will turn off automatically once upload has completed, and the battery begins charging.

When the Transfer is Unsuccessful

When transfer over a network connection is unsuccessful, the next time you rotate the mode dial to , the confirmation dialog shown at right will be displayed. Choose **Yes** to resume the interrupted transfer. This confirmation dialog will not be displayed when upload of all pictures using Picture Bank is initiated by connecting the AC adapter (Ⓜ117).



File Types Supported by Picture Bank

Still pictures (JPEG/NRW (RAW) images), including those with voice memos attached, and movie files can be uploaded using the Picture Bank service. Voice recording files cannot be uploaded.

Picture Bank Images

Pictures that have been uploaded to the server using Picture Bank are recognized by the  icon displayed with them in full-frame playback mode. Pictures with this icon will not be automatically uploaded to the server using the automatic upload feature when the AC adapter and the LAN network is connected to a camera. If pictures have been deleted from the server, and you would like to upload them again, choose Picture Bank mode and select the desired pictures to be uploaded (Ⓜ118).

Viewing Pictures on the my Picturetown Server

Use a computer's Web browser to access <http://mypicturetown.com/> and enter the Email ID (e-mail address) and password registered with my Picturetown to display the **My Photos** page.

From **My Photos** page, you can upload and sort pictures, create and share albums, and create slide shows. Refer to help information contained in my Picturetown for more information.

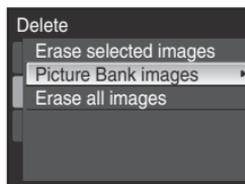
If you would like to use my Picturetown with your cellular telephone^{*}, access <http://mypicturetown.com/> and select **Log In**. When the **log-in** page is displayed, enter the registered Email ID (e-mail address) and password.

* The use of cellular telephone is only possible in the United States, and is supported only for BlackBerry smartphones (version 4.0 or later recommended). Some devices may not be able to use this.

Deleting Picture Bank Images

The pictures stored in the internal memory or on the memory card, and taken on the specified date, that have already been uploaded to the my Picturetown server can be deleted.

Register the camera and user information with my Picturetown before deleting pictures from the internal memory or the memory card (114). When you receive the e-mail message confirming my Picturetown registration, use a computer to be sure that the uploaded pictures have all been saved to my Picturetown before deleting those pictures.



- 1 Press the **Fn** button in playback mode and use the command dial to choose  **Calendar** or  **List by date**.
 - The camera will enter calendar mode or list by date mode.
- 2 Choose the date and press the **OK** button.
 - The pictures will be displayed full frame in calendar or list by date mode.
- 3 Press the **MENU** button and use the multi selector to choose **Delete** in calendar/list by date mode, and press the **OK** button.
- 4 Choose **Picture Bank images** and press the **OK** button.
 - The Erase selected Images screen is displayed.
 - Press **◀▶** on the multi selector to highlight a picture, and press **▲▼** to select the desired picture (checkmark ticked) or cancel the selection (no checkmark).
 - Press the **OK** button to finalize picture selection.
- 5 When a confirmation dialog is displayed, choose **Yes** and press the **OK** button.
 - The selected picture will be deleted.

Shooting Options: The Shooting Menu

The shooting menu of **P**, **S**, **A**, **M**, **U1** and **U2** modes contain the following options.

	Image quality*	 124
	Choose the image quality (compression ratio) of recorded pictures.	
	Image size*	 126
	Choose the image size of recorded pictures.	
	Picture Control	 129
	Change the settings for creating images to be recorded according to the shooting scene or your preferences.	
	Custom Picture Control	 134
	Save adjusted COOLPIX Picture Controls as custom settings to be used for picture editing.	
	White balance	 136
	Match white balance to the light source to save images with real-life colors.	
	ISO sensitivity	 138
	Control the camera's sensitivity to light.	
	Metering	 139
	Choose how the camera meters exposure.	
	Continuous	 140
	Select the option to shoot pictures one at a time, in a sequence, or with Best Shot Selector (BSS).	
	Auto bracketing	 143
	Vary exposure over a sequence of pictures.	
	AF area mode	 144
	Choose where the camera focuses.	
	Autofocus mode	 146
	Choose how the camera focuses.	
	Flash exp. comp.	 147
	Adjust flash level.	
	Flash control	 147
	Control built-in flash.	
	Noise reduction	 148
	Reduce noise in pictures shot at slow shutter speeds.	

Shooting Options: The Shooting Menu

	Distortion control  148
Correct the distortion.	
	Wide-angle converter  149
Adjust settings for the optional converter lenses.	
	Active D-Lighting  57
This option can be used to prevent loss of detail in highlights and shadows when shooting images.	
	Save user settings  58
Register the current edited settings into the mode dial U1 and U2	
	Reset user settings  59
Reset the registered settings in U1 and U2 back to the default settings.	

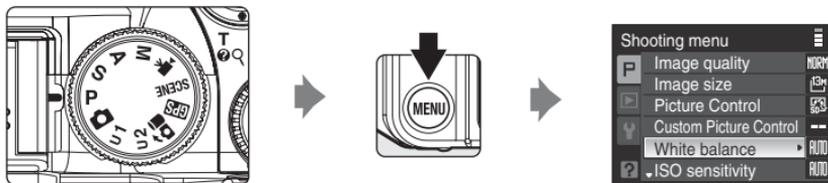
* These options can be set in other shooting mode menus (except for movie menu).

Restrictions on Camera Settings

Multiple functions cannot be set simultaneously ( 150).

Displaying the Shooting Menu

Choose **P** (Programmed Auto), **S** (Shutter-Priority Auto), **A** (Aperture-Priority Auto), **M** (Manual), or **U1/U2** by rotating the mode dial. Press the **MENU** button to display the shooting menu.



- Use the multi selector to select items and set functions on menus (🔍 12).
- To return to the shooting mode from the shooting menu, press the **MENU** button or the shutter-release button.

Navigating the Camera Menu

The command dial can also be used in place of the multi selector ▲▼.

Image Quality

Choose the compression ratio for the pictures recorded.

Lower compression ratios result in higher quality pictures, but also larger file sizes, limiting the number of pictures that can be recorded.

FINE**Fine**

Images are of a finer quality than **Normal**, suitable for enlargement or high quality prints.

File formats: JPEG, compression ratio of 1:4

NORM**Normal (default setting)**

Normal image quality, suited to most applications.

File formats: JPEG, compression ratio of 1:8

BASIC**Basic**

Basic image quality that is of a lower quality than **Normal**, suitable for pictures that will be distributed by e-mail or used in web pages.

File formats: JPEG, compression ratio of 1:16

NRW**NRW (RAW)***

Raw data from the image sensor are saved. Create JPEG image files after shooting using **NRW (RAW) processing** (8, 72) in the playback menu.

- White balance and COOLPIX Picture Control settings can be adjusted in **NRW (RAW) processing**.
- NRW (RAW) images cannot be printed. Creating JPEG images with **NRW (RAW) processing** enables the images to be printed using PictBridge compatible printers or in digital photo labs.

File formats: NRW (RAW)

**NRW+
FINE****NRW (RAW) + Fine***

Two images are recorded, one NRW (RAW) image and one fine-quality JPEG image.

**NRW+
NORM****NRW (RAW) + Normal***

Two images are recorded, one NRW (RAW) image and one normal-quality JPEG image.

**NRW+
BASIC****NRW (RAW) + Basic***

Two images are recorded, one NRW (RAW) image and one basic-quality JPEG image.

* Can only be chosen in Auto shooting modes, **P, S, A, M, U1** and **U2** modes. NRW (RAW) images cannot be recorded in scene mode.

The setting for Image quality is shown by an icon displayed on the monitor during shooting and playback (8, 9).

COOLPIX P6000 NRW (RAW) images

- The extension of the image taken is "NRW".
- COOLPIX Picture Control (129) settings will not be recorded on any NRW (RAW) images taken. COOLPIX Picture Controls for NRW (RAW) images can be set in **NRW (RAW) processing** (72) of the playback menu after shooting. If the image quality setting is set to **NRW (RAW) + Fine**, **NRW (RAW) + Normal** or **NRW (RAW) + Basic**, the COOLPIX Picture Control settings will only be applied to the JPEG images that were recorded together with the NRW (RAW) images.
- Distortion control (148) cannot be used if the image quality setting is set to **NRW (RAW)**, **NRW (RAW) + Fine**, **NRW (RAW) + Normal** or **NRW (RAW) + Basic**.
- NRW (RAW) images cannot be edited using D-Lighting (68), Crop (69), Small Picture (70) and Black Border (71). Edit the JPEG images created using **NRW (RAW) processing**.
- Windows Vista Service Pack 1 or Windows XP Service Pack 3, ViewNX (Ver. 1.2) and NRW Codec needs to be installed on the computer to be able to view RAW images on the computer. However, the settings for COOLPIX Picture Controls of NRW (RAW) images cannot be set in ViewNX. Capture NX, Capture NX 2 and Mac OS X are not compatible with NRW (RAW) images.
- ViewNX (Ver. 1.2) and NRW Codec can be downloaded through the Internet. (See "Installing Nikon Transfer" of the *Quick Start Guide*.)
For more information on using ViewNX, refer to the on-screen instructions and help information contained in ViewNX.

Notes on the Image Quality Setting

- Digital zoom cannot be used when the image quality setting is set to **NRW (RAW)**, **NRW (RAW) + Fine**, **NRW (RAW) + Normal** or **NRW (RAW) + Basic**.
- Active D-Lighting (57) cannot be used when the image quality setting is set to **NRW (RAW)**, **NRW (RAW) + Fine**, **NRW (RAW) + Normal** or **NRW (RAW) + Basic**.
- The image quality setting is applied to the auto shooting mode, scene modes, and **P**, **S**, **A**, and **M** modes simultaneously (Multi-shot 16 (140) is excluded).
- NRW (RAW) images cannot be recorded in scene mode. Image quality will be switched to **Normal**, and the image size to  **4224×3168** when changing to scene mode and image quality setting is set to **NRW (RAW)**. Only JPEG images will be recorded when changing to scene mode and image quality setting is set to **NRW (RAW) + Fine**, **NRW (RAW) + Normal**, or **NRW (RAW) + Basic**.

More Information

- See "Number of exposures remaining" (127) for more information.
See "Image/Sound File and Folder Names" (181) for more information.

Image Size

Choose the size (pixel count) for the pictures recorded.

Pictures shot at large sizes require more memory and are suitable for printing, but the number of shots that can be taken will be fewer.

Small image sizes are suitable for pictures that will be distributed by e-mail or used in web pages. However, printing small images at large print sizes will result in the image turning "grainy".

Image size	Description
 4224×3168 (default setting)	Record pictures exhibiting greater detail than those shot at  3264×2448 or  2592×1944 .
 3264×2448	Good balance between file size and quality makes this the best choice in most situations.
 2592×1944	
 2048×1536	Smaller than  4224×3168 ,  3264×2448 , and  2592×1944 for recording more pictures.
 1600×1200	
 1280×960	
 1024×768	Record pictures suited to display on a computer monitor.
 640×480	Record pictures suited to display on a television, or to distribution via e-mail or the web.
 4224×2816	Record pictures with the same aspect ratio (3:2) as those shot with 35mm [135] format film cameras.
 4224×2376	Record pictures with the same aspect ratio (16:9) as wide-screen televisions.
 3168×3168	Record perfectly square pictures.

The Image size setting is shown by an icon in the monitor during shooting or playback (, , 9).

Note on the Image Size Setting

- The image size setting is applied to the auto shooting mode, scene modes, and **P**, **S**, **A**, and **M** modes simultaneously (Multi-shot 16 (140) is excluded).
- Image size cannot be set for images with **Image quality** (124) set to **NRW (RAW)**.
- The image size of JPEG images can be set when the image quality is set to **NRW (RAW) + Fine**, **NRW (RAW) + Normal**, or **NRW (RAW) + Basic**. However,  **4224×2816**,  **4224×2376** and  **3168×3168** cannot be selected.
- The image size of JPEG images created using **NRW (RAW) processing** (72) can be chosen for recorded NRW (RAW) images (up to a maximum of 4224×3168 pixels).

Number of exposures remaining

The following table lists the approximate number of pictures that can be stored in internal memory, and on a 256 MB memory card, at each combination of **Image quality** ( 124) and **Image size** ( 126) settings. Note that the number of pictures that can be stored will differ depending on the composition of the picture (due to JPEG compression). In addition, this number may differ depending on the make of memory card, even if the capacity for the memory card is the same.

Image size	Image quality	Internal memory (approx. 48 MB)	Memory card ¹ (256 MB)	Print size ² (cm/in.)
 4224×3168 (default setting)	Fine	7	35	36×27/ 14.2×10.6 ³
	Normal	14	75	
	Basic	29	145	
	NRW (RAW)	2	10	
 3264×2448	Fine	12	60	28×21/ 10.8×8.1
	Normal	24	120	
	Basic	48	240	
 2592×1944	Fine	19	95	22×16/ 8.6×6.4
	Normal	38	195	
	Basic	75	380	
 2048×1536	Fine	31	155	17×13/ 6.8×5.1
	Normal	60	305	
	Basic	114	575	
 1600×1200	Fine	50	255	14×10/ 5.3×4
	Normal	96	485	
	Basic	171	865	
 1280×960	Fine	77	390	11×8/ 4.2×3.2
	Normal	140	705	
	Basic	256	1300	
 1024×768	Fine	114	575	9×7/ 3.4×2.5
	Normal	205	1040	
	Basic	342	1730	
 640×480	Fine	256	1300	5×4/ 2.1×1.6
	Normal	385	1950	
	Basic	616	3120	
 4224×2816	Fine	8	40	36×24/ 14.2×9.4
	Normal	16	80	
	Basic	32	165	
 4224×2376	Fine	9	50	36×20/ 14.2×7.9
	Normal	19	100	
	Basic	39	195	
 3168×3168	Fine	9	50	27×27/ 10.6×10.6
	Normal	19	100	
	Basic	39	195	

Shooting Options: The Shooting Menu

- 1 If the number of exposures remaining is 10,000 or more, the number of exposures remaining display shows "9999".
- 2 When the printer resolution is set to 300 dpi.
Print sizes are calculated by dividing the number of pixels by printer resolution (dpi) and multiplying by 2.54 cm (1 in.). However, at the same image size, pictures printed at higher resolutions will print smaller than the size indicated, and those printed at lower resolutions will print larger than the size indicated.
- 3 The print size of NRW (RAW) images will differ according to the image size of NRW (RAW) processed images (72).



Printing Images of Size 1:1

Set the printer to "Border" when printing images of size set to 1:1.

The images may not be printed in 1:1 ratio depending on the printer.

See the instruction booklet of the printer or check with the authorized print dealer for further details.

Picture Control (COOLPIX Picture Control)

Change the settings for creating images to be recorded according to the shooting scene or your preferences. Sharpness, contrast and saturation can be adjusted in detail.



Standard (default setting)

Standard processing for balanced results. Recommended for most situations.



Neutral

Minimal processing for natural results. Choose for photographs that will later be extensively processed or retouched.



Vivid

Pictures are enhanced for a vivid, photoprint effect. Choose for photographs that emphasize primary colors.



Monochrome

Take monochrome photographs.



Custom 1*

Change to the setting for **Custom 1** in COOLPIX Custom Picture Control.



Custom 2*

Change to the setting for **Custom 2** in COOLPIX Custom Picture Control.

* Will only be displayed when the setting customized in **Custom Picture Control** ( 134) has been registered.

The current COOLPIX Picture Control is shown in the shooting information display (nothing will be displayed when **Standard** is selected) ( 8).

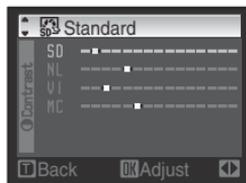
✔ COOLPIX Picture Control

- **Contrast** (P132) cannot be adjusted manually when **Active D-Lighting** (P57) is set to settings other than **Off**.
- COOLPIX Picture Control settings will not be recorded on any NRW (RAW) images taken. COOLPIX Picture Controls for NRW (RAW) images can be set in **NRW (RAW) processing** (P72) of the playback menu after shooting. If the **Image quality** (P124) setting is set to **NRW (RAW) + Fine**, **NRW (RAW) + Normal** or **NRW (RAW) + Basic**, the COOLPIX Picture Control settings will only be applied to the JPEG images that were recorded together with the NRW (RAW) images.
- COOLPIX Picture Control cannot be set for NRW (RAW) images in ViewNX.
- The COOLPIX Picture Control feature of the COOLPIX P6000 cannot be used with other makes of cameras, Capture NX, Capture NX 2 and ViewNX Picture Control feature.

🔗 The COOLPIX Picture Control Bar

Rotating the zoom control in **T** (Q) direction displays a COOLPIX Picture Control bar showing the contrast and saturation for the selected COOLPIX Picture Control. Rotate the zoom control in **T** (Q) direction again to return to the COOLPIX Picture Control screen. The COOLPIX Picture Control Bar displays the current and default settings in relation to the other COOLPIX Picture Controls.

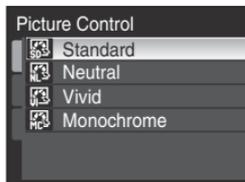
- Press **▲▼** on the multi selector to select a different COOLPIX Picture Control.
- Press **◀▶** to select contrast and saturation.
- Press the **OK** button to display the COOLPIX Picture Control Setting screen (step 2 of P131).



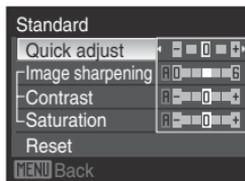
Customizing Existing COOLPIX Picture Controls: Quick Adjust and Manual Adjust

COOLPIX Picture Control can be customized using quick adjust, which allows for balanced adjustment of sharpness, contrast, saturation and other image editing components, or manual adjust, which allows for detailed adjusting of the components individually.

- 1 Use the multi selector to choose COOLPIX Picture Control and press the **OK** button.

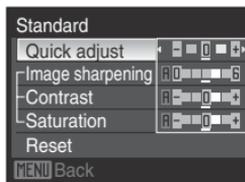


- 2 Press **▲▼** to highlight the desired setting and press **◀▶** to choose a value.



- 3 Press the **OK** button.

- The value will be set.
- Selecting **Reset** and pressing the **OK** button will change the values back to the default setting.



Modifications to Original COOLPIX Picture Controls

COOLPIX Picture Controls that have been modified from default settings are indicated by an asterisk (*) in the Picture Control Setting menu.

Quick adjust¹

Adjust the sharpness, contrast and saturation levels automatically. Five levels of adjustment can be done by choosing from values between **-2** up to **+2**. Choose from options between **-2** and **+2** to reduce or emphasize the effect of the selected COOLPIX Picture Control (note that this resets all manual adjustments). The default setting is **0**.

Image sharpening

Control the sharpness of outlines. Choose **A** (auto) to adjust sharpening automatically, or seven levels of adjustment can be done by choosing from values between **0** (no sharpening) and **6**. The default setting is **3** for **Standard** or **Monochrome**, **2** for **Neutral** and **4** for **Vivid**.

Contrast

Control contrast. Choose **A** (auto) to adjust contrast automatically according to the type of scene, or seven levels of adjustment can be done by choosing from values between **-3** and **+3**.
– will make it into an image with a softer appearance, and + will give it a harder appearance. Choose lower values to prevent highlights in portrait subjects from being “washed out” in direct sunlight, higher values to preserve detail in misty landscapes and other low-contrast subjects. The default setting is **0**.

Saturation²

Control the vividness of colors. Choose **A** (auto) to adjust saturation automatically according to the type of scene, or seven levels of adjustment can be done by choosing from values between **-3** and **+3**. (lower values reduce saturation and higher values increase it). The default setting is **0**.

Filter effects³

Simulate the effect of color filters on monochrome photographs. Choose from **Off** (the default setting), **Y** (yellow), **O** (orange), **R** (red), and **G** (green).

Y, O, R:

Enhance contrast. Can be used to tone down the brightness of the sky in landscape photographs. The strength of the contrast are as follows: **Y** → **O** → **R**.

G:

Softens skin tones. Suitable for portraits.

Toning³

Choose the tint used in monochrome photographs from **B&W** (black-and-white, the default setting), **Sepia**, and **Cyanotype** (blue-tinted monochrome).

Pressing ▼ on the multi selector when **Sepia** or **Cyanotype** is selected enables you to choose from seven levels of saturation. Press ◀▶ to adjust saturation.

- 1 Quick adjust cannot be chosen in **Neutral**, **Monochrome**, **Custom 1** and **Custom 2**.
The values set manually will be disabled if quick adjust is used after manual setting.
- 2 Will not be displayed for **Monochrome**.
- 3 Will only be displayed for **Monochrome**.

Note on Image Sharpening

The effects of image sharpening cannot be previewed in the monitor during shooting. Check results in playback mode.

Note on Contrast

When **Active D-Lighting** (L/57) is set to settings other than **Off**, the  mark will be displayed for **Contrast** and it cannot be adjusted.

Contrast, Saturation and A (Auto)

- Results for contrast and saturation vary with exposure, and the position and size of the subject in the frame.
- The setting for the COOLPIX Picture Control which has **A** (auto) selected for either **Contrast** or **Saturation** will be displayed in green in the COOLPIX Picture Control bar.

The COOLPIX Picture Control Bar

Rotating the zoom control in **T** (Q) direction while adjusting **Contrast** or **Saturation** for COOLPIX Picture Control will display a COOLPIX Picture Control Bar showing the selected COOLPIX Picture Control in relation to the other COOLPIX Picture Controls. Rotate the zoom control in **T** (Q) direction again to return to the COOLPIX Picture Control screen.

Options that Can Be Adjusted in Custom 1 and Custom 2

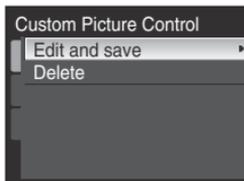
The option of the original COOLPIX Picture Control can be adjusted if **Custom 1** or **Custom 2** is selected.

Custom Picture Control (COOLPIX Custom Picture Control)

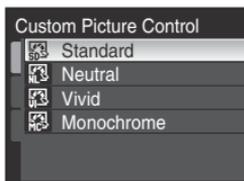
The COOLPIX Picture Controls ( 129) supplied with the camera can be adjusted into customized picture editing options and saved as custom Picture Controls.

Creating COOLPIX Custom Picture Controls

- 1 Use the multi selector to choose **Edit and save** and press the  button.

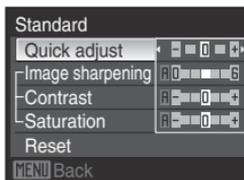


- 2 Choose the original COOLPIX Picture Control to be edited, and press the  button.



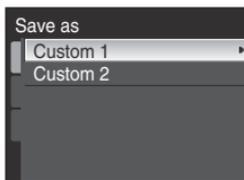
- 3 Press   to highlight the desired setting and press   to choose a value.

- This setting is the same as adjusting the COOLPIX Picture Control.
- Press the  button to display the Save as screen.
- Selecting **Reset** and pressing the  button will change the values back to the default setting.



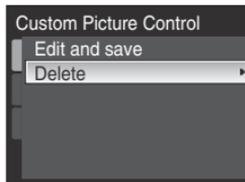
- 4 Choose the destination to register to and press the  button.

- The COOLPIX Custom Picture Control will be created.
- **Custom 1** or **Custom 2** can be selected from the **Picture Control** and **Custom Picture Control** selection screen after registration.

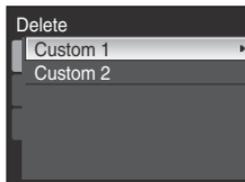


Deleting COOLPIX Custom Picture Controls

- 1** Use the multi selector to choose **Delete** and press the **OK** button.

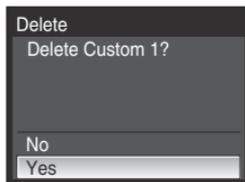


- 2** Choose a COOLPIX Custom Picture Control to delete, and press the **OK** button.



- 3** Choose **Yes** and press the **OK** button.

- The registration has been deleted.
- To cancel deletion, choose **No**.



WB White Balance

The human eye is able to adapt to changes in the color of the light source, with the result that white objects appear white whether seen in the shade, direct sunlight, or under incandescent lighting. Digital cameras can mimic this adjustment of the human eye by processing images according to the color of the light source. This is known as “white balance.”

Although the default setting, **Auto**, can be used under most types of lighting, you can apply the white balance setting suited to a particular light source or the weather to achieve more accurate results.

 **Auto (default setting)**

White balance automatically adjusted to suit lighting conditions. Best choice in most situations.

 **Preset manual**

Neutral-colored object used as reference to set white balance under unusual lighting conditions, see “Preset Manual” ( 137) for more information.

 **Daylight**

White balance adjusted for direct sunlight.

 **Incandescent**

Use under incandescent lighting.

 **Fluorescent**

Use under most types of fluorescent lighting.

 **Cloudy**

Use when shooting under overcast skies.

 **Flash**

Use with the flash mode.

The setting for white balance can be viewed in the screen during shooting. (nothing will be displayed when **Auto** is set) ( 8).

Settings Other than Auto and Flash

At white balance settings other than **Auto** or **Flash**, turn the flash off (  32).

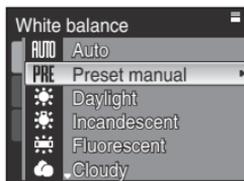
Preset Manual

Preset manual is used with mixed lighting or to compensate for light sources with a strong color cast when the desired effect has not been achieved with settings like **Auto** and **Incandescent** (for example, to make pictures shot under a lamp with a red shade look as though they had been shot under white light).

1 Place a white or gray reference object under the lighting that will be used during shooting.

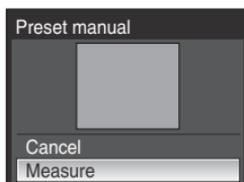
2 Use the multi selector to choose **PRE Preset manual** in the white balance menu, and press the **OK** button.

- The camera zooms in.

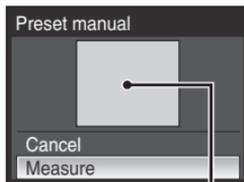


3 Choose **Measure**.

- To apply the most recently measured value for preset manual, choose **Cancel** and press the **OK** button. The most recently measured value will be applied for White Balance.



4 Frame the reference object.



Reference object frame

5 Press the **OK** button to measure the white balance value.

- The shutter is released and the new white-balance value is set.
- No pictures are recorded.

✔ Note on Preset Manual

Regardless of the flash mode selected, the flash will not fire when the **OK** button is pressed in step 5. Therefore, the camera cannot measure a value for preset manual for when the flash is used.

ISO ISO Sensitivity

Sensitivity is a measure of how quickly the camera reacts to light. The higher the sensitivity, the more effective it is to shoot in dark places or moving subjects, but the image taken will appear slightly grainy.

Auto (default setting)

Sensitivity is ISO 64 in bright places; in dark places the camera automatically raises sensitivity to a maximum of ISO 800. If **Auto** is set when **M** is selected with the mode dial, the ISO sensitivity is fixed to 64.

High ISO sensitivity auto

The ISO sensitivity is set automatically within the range of ISO 64 to 1600 according to the brightness of the subject. If **High ISO sensitivity auto** is set when **M** is selected with the mode dial, the ISO sensitivity is fixed to 64.

Fixed range auto

Choose the range in which the camera automatically adjusts ISO sensitivity, from **ISO 64-100** (default setting), **ISO 64-200**, or **ISO 64-400**. The camera will not raise sensitivity beyond the maximum value in the selected range. Set the maximum value for ISO sensitivity for effective control over the amount of "grain" that appears in images. If **Fixed range auto** is set when **M** is selected with the mode dial, the ISO sensitivity is fixed to 64.

64, 100, 200, 400, 800, 1600, 2000, 3200, 6400

Sensitivity will be locked at the specified value.

At the settings other than **Auto**, the current setting is displayed in the monitor (8).

If **Auto** is selected and the sensitivity is raised above ISO 64, the **ISO** icon will be displayed (34). When **High ISO sensitivity auto** is selected, **ISO** is displayed.

When **Fixed range auto** is selected, **ISO** and the maximum ISO sensitivity value are displayed.

Notes on ISO 3200 and 6400

- The image size will display in red during shooting if **ISO sensitivity** is set to **3200** or **6400**.
- **3200** or **6400** cannot be set for **ISO sensitivity** when **Image quality** (124) is set to **NRW (RAW)**, **NRW (RAW) + Fine**, **NRW (RAW) + Normal** or **NRW (RAW) + Basic**. **ISO sensitivity** will be set to **Auto** when **Image quality** (124) is set to **NRW (RAW)**, **NRW (RAW) + Fine**, **NRW (RAW) + Normal** or **NRW (RAW) + Basic** while **ISO sensitivity** is set to **3200** or **6400**.
- When **ISO sensitivity** is set to **3200** or **6400**, **Image size** (126) cannot be set to **4224×3168**, **3264×2448**, **2592×1944**, **4224×2816**, **4224×2376**, and **3168×3168**.

At these image size settings, selecting **3200** or **6400** for **ISO sensitivity** automatically switches the image size setting to **2048×1536**. When any option other than **3200** or **6400** is next selected for **ISO sensitivity**, the original image size setting is restored.

- At an **ISO sensitivity** setting of **3200** or **6400**, the Multi-shot 16 (140) option of the continuous shooting mode is not available. When **Continuous** is set to **Multi-shot 16**, selecting **3200** or **6400** for **ISO sensitivity** switches the setting to **Single**, and **Single** will not be changed even if changed to modes other than **3200** or **6400**.

Metering

Choose how the camera meters exposure. Set the metering method.



Matrix (default setting)

Camera sets exposure for entire frame. Recommended in most situations.



Center-weighted

Camera meters entire frame but assigns greatest weight to subject in center of frame. Classic meter for portraits; preserves background details while letting lighting conditions at center of frame determine exposure. Can be used with focus lock (29) to meter off-center subjects.



Spot

Camera meters area shown by circle in center of frame. Ensures that subject in metering target is correctly exposed even if background is much lighter or darker. Subject must be in the metering area before shooting. Can be used with focus lock (29) to meter off-center subjects.



Spot AF area

Camera meters selected focus area. Available only when a setting other than **Center** is selected for **AF area mode** (144).



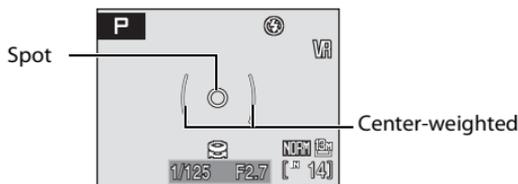
Note on Metering

At magnifications of 1.2x to 1.8x, **Metering** is set to **Center-weighted**, and at magnifications of 2.0x to 4.0x, to **Spot**. When digital zoom is in effect, the metered area is not shown in the monitor.



Metering Area

The active metering area is displayed in the monitor when **Center-weighted** or **Spot** for **Metering** is selected.



Continuous

Select the option to shoot pictures one at a time, in a sequence, or with Best Shot Selector (BSS).

When **Continuous**, **BSS**, or **Multi-shot 16** is selected, the flash will be set to , and focus, exposure and white balance are fixed at the values for the first picture in each series.

Single (default setting)

One picture is shot each time shutter-release button is pressed.

Continuous

While the shutter-release button is held down, the camera shoots at a rate of about 0.9 frames per second (fps) when image quality is set to **Normal** and image size is set to  **4224×3168**.

BSS (Best Shot Selector)

BSS is recommended for shooting under low lighting without the flash, with the camera zoomed in, or in other situations in which camera shake is likely to blur pictures.

When Best Shot Selector (BSS) is enabled, the camera shoots up to ten pictures while the shutter-release button is held down. The sharpest picture (picture with the most detail) in the series is automatically selected and saved.

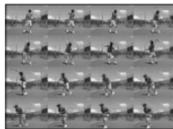
Continuous flash

While the shutter-release button is held down, continuous shooting is done using the built-in flash (approximately 3 frames continuously in 0.8 seconds when image quality is set to **Normal** and image size is set to  **4224×3168**).

Charge the built-in flash once continuous shooting ends. No shooting can be done until the charging ends. Because ISO sensitivity is raised during shooting, pictures may be affected by “noise” (randomly-spaced, brightly-colored dots).

Multi-shot 16

Each time shutter-release button is pressed, camera shoots 16 pictures at about 1.1 frames per second and arranges them in a single picture with image quality set to **Normal** and image size set to  **2592×1944**.



Intvl timer shooting

Camera shoots (up to 1,800 frames) automatically at specified interval ( 142).

The continuous mode setting is displayed in the monitor during shooting (nothing will be displayed for **Single**) (8).

✔ Notes on Continuous Shooting

- The maximum frame rate with continuous shooting may vary, depending upon the current image quality setting, image size setting, and the memory card used.
- Be aware that shooting will stop if the built-in flash is raised or lowered while you are pressing the shutter-release button fully in **Continuous** or **BSS** mode.
- **Continuous**, **BSS**, **Continuous flash** and **Multi-shot 16** cannot be used when **Image quality** (124) is set to **NRW (RAW)**, **NRW (RAW) + Fine**, **NRW (RAW) + Normal** or **NRW (RAW) + Basic**.

✔ Note on Best Shot Selector

BSS is best suited for shooting stationary subjects. BSS may not produce the desired results if the subject moves or the composition changes while the shutter-release button is pressed all the way down.

✔ Notes on Continuous Flash

- Continuous flash cannot be used when the built-in flash is shut. Pop up the built-in flash when using continuous flash to shoot.
- When **Continuous flash** is selected for **Continuous**, turning on the Speedlight will change the option to **Single**.

✔ Notes on Multi-shot 16

- Digital zoom is not available.
- At an **ISO sensitivity** (138) setting of **3200** or **6400**, the Multi-shot 16 option is not available. When shooting with the Multi-shot 16 option, select options other than **3200** or **6400** for **ISO sensitivity** and select **Multi-shot 16** for **Continuous**.

✔ Note on Shutter Speed

Shutter speed will be restricted to a maximum of 1/2 s when **Continuous**, **BSS**, **Continuous flash** or **Multi-shot 16** is selected for **Continuous**. Shutter speed will be restricted to a maximum of 8 s when **Intvl timer shooting** is selected.

🔍 More Information

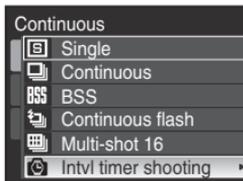
See "Built-in flash, Speedlights (available separately from Nikon)" (152) for more information.

Interval Timer Shooting

Pictures are shot automatically at specified intervals.

Choose from **30 s**, **1 min**, **5 min**, **10 min**, **30 min**, **60 min**.

- 1 Use the multi selector to choose **Intvl timer shooting** in the Continuous mode screen and press the **OK** button.



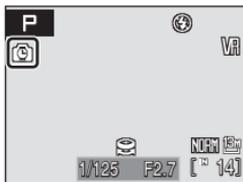
- 2 Choose the interval between shots and press the **OK** button.



- 3 Press the **MENU** button.
 - The camera returns to shooting mode.

- 4 Press the shutter-release button all the way down to shoot the first picture and initiate interval timer shooting.

- Monitor turns off and power-on lamp blinks between shots.
- The monitor turns back on automatically right before the next picture is shot.



- 5 Press the shutter-release button all the way down a second time to end recording.

- Recording will end automatically if the internal memory or memory card becomes full, or when 1,800 frames have been recorded.

Notes on Interval Timer Shooting

- To prevent the camera from turning off unexpectedly during recording, use a fully charged battery.
- To power the camera continuously for extended periods, use an AC Adapter EH-66. Do not, under any circumstances, use another make or model of AC adapter. Failure to observe this precaution could result in overheating or in damage to the camera.
- Do not rotate the mode dial, while performing interval-timer shooting.

More Information

See "Image/Sound File and Folder Names" (181) for more information.

BKT Auto Bracketing

Auto bracketing is used to vary exposure by a selected amount over a series of pictures, “bracketing” the exposure value selected by the camera or with exposure compensation. Use in situations in which it is difficult to guess the correct exposure (40).

 ± 0.3

Camera varies exposure by 0 EV, +0.3 EV, and -0.3 EV over next three shots. Keep shutter-release button pressed to take all three shots in sequence.

 ± 0.7

Camera varies exposure by 0 EV, +0.7 EV, and -0.7 EV over next three shots. Keep shutter-release button pressed to take all three shots in sequence.

 ± 1.0

Camera varies exposure by 0 EV, +1.0 EV, and -1.0 EV over next three shots. Keep shutter-release button pressed to take all three shots in sequence.

OFF Off (default setting)

Bracketing is not performed.

At settings other than **Off**, the icon for the current setting is displayed in the monitor (48).

Notes on Auto Bracketing

- **Auto bracketing** is not available when the mode dial is set to **M**.
- When exposure compensation is applied (40), and ± 0.3 , ± 0.7 , or ± 1.0 is selected for **Auto bracketing**, the combined exposure compensation values will be applied.
- Shutter speed will be restricted to a maximum of 1/2 s when any mode other than **Off** is selected for **Auto bracketing**.
- **Auto bracketing** cannot be used when **Image quality** (124) is set to **NRW (RAW)**, **NRW (RAW) + Fine**, **NRW (RAW) + Normal** or **NRW (RAW) + Basic**.

[+] AF Area Mode

Choose where the camera focuses.

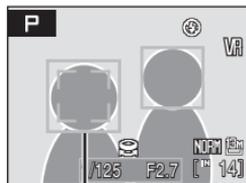
When digital zoom is effect, the camera will focus on the subject in the center of the screen regardless of the applied AF area mode option.



Face priority

The camera detects and focuses on a face looking toward the camera (Shooting with Face Priority → 145). If the camera detects multiple faces, the camera focuses on the face closest to the camera. When shooting pictures of subjects other than people, or framing a subject with which no face is recognized, AF area mode will be set to **Auto**. The camera chooses the focus area (one of nine) containing the subject closest to the camera and focuses on the subject.

- When the monitor has been turned off, the camera focuses using only the center focus area.



Focus area

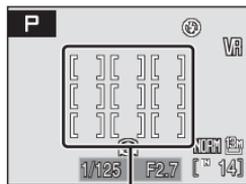


Auto (default setting)

Camera automatically selects the focus area (one of nine) containing the subject closest to the camera. Press the shutter-release button halfway to activate the focus area.

When the shutter-release button is pressed halfway, the focus area selected by the camera will be displayed in the monitor.

- When the monitor has been turned off, the camera focuses using only the center focus area.



Focus area

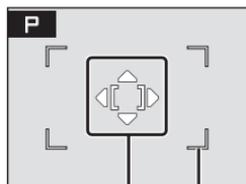


Manual

Choose the focus position from 99 areas in the screen. This option is suited to situations in which the intended subject is relatively still and not positioned in the center of the frame. Press the multi selector to select from the focus areas displayed on the screen, move the focus to that position and shoot the subject.

To end focus area selection and adjust the flash mode, focus mode, self-timer and exposure compensation settings, press the button. To return to the focus area selection screen, press the button again.

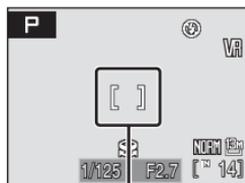
- At an **Image size** setting (126) of 1 **3168×3168**, 81 focus areas are available.



Focus area
Selectable focus areas

Center

Camera focuses on subject in center of frame.
Center focus area is used.



Focus area

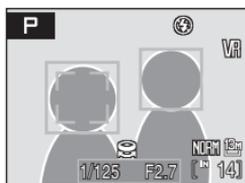
Shooting with Face Priority

When **Face priority** is selected for AF area mode, or the **Portrait** scene mode or **Night portrait** scene mode is selected during shooting, the face priority function will be applied.

The camera automatically detects and focuses on a face looking toward the camera.

1 Frame the picture.

- When the camera detects a face, the focus area containing the face will be displayed with a yellow double border.
- When the camera detects more than one face, the closest face is framed by a double border and the others by single borders. Up to 12 faces can be detected.



2 Press the shutter-release button halfway.

- The camera focuses on the face framed by the double border. The double border will glow green and focus will be locked.
- When the double border blinks, the camera is unable to focus. Press the shutter-release button halfway again to focus.
- Press the shutter-release button all the way down to shoot.



More Information

See "Autofocus" (29) for more information.

Face Priority

- When **Face priority** is selected for **AF area mode**, the setting will automatically switch to **Auto** if no face is recognized when the shutter-release button is pressed halfway.
- If no face is recognized when the shutter-release button is pressed halfway in **Portrait** or **Night portrait** scene mode, the camera will focus on the subject in the center focus area.
- The camera may be unable to detect faces in the following situations:
 - When faces are partially hidden by sunglasses or other obstructions
 - When the subject is not looking directly at the camera
 - When faces take up too much or too little of the frame
- The camera's ability to detect faces depends on a variety of factors, including whether or not the subject is facing the camera.
- In some rare cases shooting subjects with which autofocus may not perform as expected ()29), the subject may not be in focus despite the fact that the focus area glows green. Should this occur, switch to auto mode or change the AF area mode setting to **Manual** or **Center** in **P**, **S**, **A**, **M**, **U 1** or **U 2** modes, refocus on another subject positioned at the same distance from the camera as the actual portrait subject, and use focus lock ()29).
- When a face is detected during shooting, pictures will be rotated automatically, in full-frame and thumbnail playback modes, according to the orientation of the face detected.

Autofocus mode

Choose how the camera focuses.



Single AF (default setting)

Camera focuses when shutter-release button is pressed halfway.



Full-time AF

Camera focuses continuously until focus is acquired and locked. Use with moving subjects.

Flash Exp. Comp.

Flash compensation can be used to adjust flash output when the brightness of the main subject relative to the background needs to be changed.

When the Speedlight SB-400, SB-600, SB-800 or SB-900 flash unit () is mounted on the camera, flash output for the Speedlight is adjusted.

-0.3 to -2.0

Flash output is reduced from -0.3 to -2.0 EV, in increments of 1/3 EV, to prevent unwanted highlights or reflections. Reduce flash output to prevent unwanted highlights.

0.0 (default setting)

Flash output is not adjusted.

+0.3 to +2.0

Flash output is increased from +0.3 to +2.0 EV, in increments of 1/3 EV, to make the main subject of the frame appear brighter.

At settings other than **0.0**, the icon for the current setting is displayed in the monitor during shooting ()8).

Flash Control

Specify whether or not the built-in flash fires when a flash unit mounted on the camera's accessory shoe is not used ()180).

Auto (default setting)

When a flash unit is mounted, the flash fires. When there is no flash mounted on the accessory shoe, the built-in flash fires.

Built-in off

The built-in flash is disabled.

Note on Flash Control

When **Flash control** is set to **Built-in off**, only  **AUTO** (Auto), and  (Off), and  (Fill flash) flash modes ()32) are available.

NR Noise Reduction

At slow shutter speeds, pictures may be affected by “noise” in the form of randomly-spaced, brightly-colored dots concentrated in dark parts of the image. Use this option to reduce noise at slow shutter speeds. Enabling noise reduction increases the time needed to record pictures after they are shot.

Auto (default setting)

Noise reduction is performed at slow shutter speeds, likely to result in pictures affected by noise.

When **Continuous**, **BSS**, or **Multi-shot 16** is selected for **Continuous**, and when **Auto bracketing** is set to any mode other than **Off**, noise reduction will not be performed.

On

Noise reduction is applied to pictures shot at shutter speeds slower than 1/4 s. **On** is recommended when shooting at slow shutter speeds.

Only **Single** or **Intvl timer shooting** can be selected for **Continuous**.

Cannot be applied when **Auto bracketing** is set to modes other than **Off**.

When noise reduction is performed, the  icon is displayed in the monitor during shooting (.

Distortion Control

Correct the distortion. Enabling distortion control reduces the size of the area for shooting.

On

Distortion at frame peripheries is corrected (only when the image quality setting ( 124) is set to **Fine**, **Normal** or **Basic**).

Off (default setting)

No distortion correction performed.

At settings other than **Off**, the icon for the current setting is displayed in the monitor (.

Distortion Control/Converter Display

The icon for distortion control/converter displays ( 8) are as follows.

- : **Distortion control** is set to **On**, and **Wide-angle converter** ( 149) is set to **None**.
- : **Distortion control** is set to **Off**, and **Wide-angle converter** is set to **On**.
- : Both **Distortion control** and **Wide-angle converter** are set to **On**.
- No display: Both **Distortion control** and **Wide-angle converter** are set to **Off**.

Wide-angle Converter

This option is for use with the Step-down Ring Adapter UR-E21 (available separately from Nikon) to attach the converter lens WC-E76 (available separately from Nikon) listed below.

For more information on attaching the wide-angle converter, see “Wide-angle Converter” ( 179) of this manual. For more information on using the wide-angle converter, see the user’s manual provided with the wide-angle converter lens.

On

Use with the Wide-angle Converter WC-E76. When selecting this option, the camera is zoomed out to the maximum wide-angle position.

Enjoy wide-angle shooting at a focal length of roughly 21 mm (0.8 in.) (equivalent with 35mm [135] picture angle) when **Distortion control** is set to **Off** and the camera is zoomed out to the maximum wide-angle position. The full range of optical zoom is available, however, by its very nature, best results are achieved with the camera zoomed out to the maximum wide-angle position. Digital zoom is not available.

None (default setting)

No modifications made to camera settings. Use when no converter lens is attached (be sure to remove lens adapter ring).

Notes on Attaching the Wide-angle Converter for Shooting

- Set **Wide-angle converter** to **On** before shooting. Set **Wide-angle converter** to **None** when no converter lens is attached.
- The built-in flash is changed to  (off) when **Wide-angle converter** is set to **On**. Use flash units ( 180), available separately from Nikon) to shoot with the flash.
- **Continuous flash** cannot be used for **Continuous** ( 140).
- Using the flash units (available separately from Nikon) to shoot at wide angle may cast shadows in the pictures shot. Check the picture using the monitor after shooting. A wide panel is recommended when shooting with the Speedlight SB-600, SB-800 or SB-900.
- AF Assist cannot be used with **Wide-angle converter** is set to **On**.

More Information

See “Distortion Control/Converter Display” ( 148) for more information.

Restrictions on Camera Settings

Restrictions apply to the following settings in **P**, **S**, **A**, **M**, **U1** and **U2** modes.

Flash mode

- Flash mode is disabled (🚫) when ▲ (infinity) is selected for focus mode, **Continuous**, **BSS**, or **Multi-shot 16** is selected for **Continuous**, when any mode other than **Off** is enabled for **Auto bracketing**, or at **Wide-angle converter** settings of **On**.
- When **Continuous** is set to **Continuous flash**, the flash mode is set to 🔋 (fill flash).
- Applied setting is restored when any mode other than ▲ (infinity) is selected for focus mode, **Single** or **Intvl timer shooting** is selected for **Continuous**, **Off** is selected for **Auto bracketing**, or **None** is selected for **Wide-angle converter**.

Self-timer/Remote control

- If self-timer/remote control is on, **Continuous** will be set to **Single**, and **Auto bracketing** will be set to **Off**.
- Applied **Continuous** and **Auto bracketing** settings are restored when self-timer/remote control is turned off (or when shooting with the self-timer/remote control has finished).

Focus mode

- ▲ (infinity) is not available when **Continuous** is set to **Continuous flash**.
- If **Continuous** is set to **Continuous flash** while focus mode is set to ▲ (infinity), the focus mode setting automatically switches to **AF**.
- When **Face priority** is selected for **AF area mode**, setting focus mode to ▲ (infinity) changes AF area mode to **Auto**. Selecting an option other than ▲ (infinity) for focus mode restores AF area mode to **Face priority**.
- Digital zoom cannot be used when focus mode is set to **MF**.

Image quality

When **Image quality** is set to **NRW (RAW)**, **NRW (RAW) + Fine**, **NRW (RAW) + Normal** or **NRW (RAW) + Basic**, all continuous mode other than **Intvl timer shooting** will be set to **Single**, and **Auto bracketing** and **Active D-Lighting** will be set to **Off**.

Image size

- Image size cannot be set for images with **Image quality** set to **NRW (RAW)**.
- The image size of JPEG images can be set when the image quality is set to **NRW (RAW) + Fine**, **NRW (RAW) + Normal**, or **NRW (RAW) + Basic**. However,  **4224×2816**,  **4224×2376** and  **3168×3168** cannot be selected.

Picture Control

- **White balance** will change to **Auto** when **Picture Control** is set to **Monochrome**. Selecting an option other than **Monochrome** for **Picture Control** restores the original **White balance** setting.
- **Contrast** cannot be adjusted when **Active D-Lighting** is set to any mode other than **Off**.

ISO sensitivity

- **ISO sensitivity 3200** and **6400** cannot be used when **Image quality** is set to **NRW (RAW)**, **NRW (RAW) + Fine**, **NRW (RAW) + Normal** or **NRW (RAW) + Basic**.
When **ISO sensitivity** is set to **3200** or **6400** and **Image quality** is set to **NRW (RAW)**, **NRW (RAW) + Fine**, **NRW (RAW) + Normal** or **NRW (RAW) + Basic**, **ISO sensitivity** will be set to **Auto**.
- When **ISO sensitivity** is set to **3200** or **6400**, **Image size** cannot be set to  **4224×3168**,  **3264×2448**,  **2592×1944**,  **4224×2816**,  **4224×2376**, and  **3168×3168**.
At these image size settings, selecting **3200** or **6400** for **ISO sensitivity** automatically switches the image size setting to  **2048×1536**. When any option other than **3200** or **6400** is next selected for **ISO sensitivity**, the original image size setting is restored.
- At an **ISO sensitivity** setting of **3200** or **6400**, the Multi-shot 16 option of the continuous shooting mode is not available. When **Continuous** is set to **Multi-shot 16**, selecting **3200** or **6400** for **ISO sensitivity** switches the setting to **Single**, and **Single** will not be changed even if changed to modes other than **3200** or **6400**.
- If **ISO sensitivity** is set to **High ISO sensitivity auto** or a setting higher than **1600**, **Active D-Lighting** will not function.

Continuous

- **Auto bracketing** will change to **Off** when **Continuous** is set to any mode other than **Single**.
- Selecting **Multi-shot 16** changes **Image quality** setting to **Normal** and **Image size** setting to  **2592×1944**.

Auto bracketing

When **Auto bracketing** is set to any mode other than **Off**, **Continuous** will be set to **Single** and the flash mode will be disabled (🔒).

AF area mode

When **AF area mode** is set to **Center** while **Metering** is set to **Spot AF area**, the **Metering** setting will automatically change to **Matrix**. When a setting other than **Center** is selected for **AF area mode**, the **Metering** setting automatically reverts back to **Spot AF area**.

Noise reduction

- When **Auto** of **Noise reduction** is applied with **Continuous** set to an option other than **Single** or **Intvl timer shooting**, or with **Auto bracketing** set to an option other than **Off**, noise reduction will not be performed.
- Selecting **On** for **Noise reduction** changes all modes to **Single**, when an option other than **Intvl timer shooting** is selected for **Continuous**, and **Auto bracketing** is changed to **Off**.

Wide-angle converter

Selecting **On** for **Wide-angle converter** changes the flash mode to  (off).

Distortion control

- When **Distortion control** is set to **On**, **Continuous** is automatically set to **Single** and **Auto bracketing** is set to **Off**.
- Even when the **Distortion control** option is changed back to **Off**, **Continuous** will still be set to **Single** and **Auto bracketing** will still be set to **Off**.
- Distortion control cannot be used if the image quality setting is set to **NRW (RAW)**, **NRW (RAW) + Fine**, **NRW (RAW) + Normal** or **NRW (RAW) + Basic**.

Built-in flash, Speedlights (available separately from Nikon)

Built-in flash and Speedlight SB-400, SB-600, SB-800, or SB-900 flash unit (available separately from Nikon) operation is restricted, as shown below, depending upon the applied **Continuous** setting.

Continuous mode	Built-in flash	Flash units*
Single	Available	Available
Continuous	Off	Available
BSS	Off	Not available
Continuous flash	Available	Not available
Multi-shot 16	Off	Available
Intvl timer shooting	Available	Available

When a flash unit (available separately from Nikon) is mounted on the camera's accessory shoe, the built-in flash is automatically set to .

* When shooting using **Continuous**, **Multi-shot 16** or **Auto bracketing** with the flash mode set to  (red-eye reduction)  (32, 34), only the low intensity repeat flashes before the main flash will take place for red eye reduction.

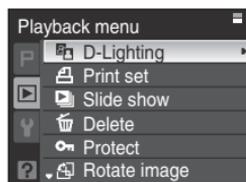
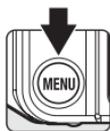
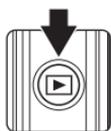
Playback Options: The Playback Menu

The playback menu contains the following options.

	D-Lighting  68
Copy current picture with enhanced details in shadows.	
	Print set  101
Select pictures to print and the number of copies for each.	
	Slide show  155
View pictures stored in the internal memory or on a memory card in an automatic slide show.	
	Delete  156
Delete pictures.	
	Protect  156
Protect selected pictures from accidental deletion.	
	Rotate image  157
Change the orientation of pictures.	
	Hide image  157
Hide selected pictures during playback.	
	Small pic.  70
Create a small copy of the current picture.	
	Copy  158
Copy files between memory card and internal memory.	
	Black border  71
Create the new picture surrounding with black border.	
NRW	NRW (RAW) processing  72
Create JPEG images by processing NRW (RAW) images.	

Displaying the Playback Menu

Change to playback mode by pressing the  button.
Display the playback menu by pressing the **MENU** button.



- Use the multi selector to choose and apply settings ( 12).
- To exit the playback menu, press the **MENU** button.

Selecting Multiple Pictures

The picture selection screen, as shown at right, will be displayed with the following menus:

- **Playback menu:** D-Lighting* (M/68),
Select images (M/101) in Print set,
Erase selected images (M/156) in Delete,
 Protect (M/156),
 Rotate image (M/157),
 Hide image (M/157),
 Small picture* (M/70),
Selected images (M/158) in Copy,
 Black border* (M/71),
 NRW (RAW) processing (M/72)
- **The Setup Menu:** Welcome screen (M/161)

* Select the menu item and display it by switching to Playback menu (M/13) after selecting the playback tab from any mode other than Playback menu.

Follow the procedure described below to select multiple pictures.



1 Press the multi selector ◀▶ to choose the desired picture.

- The command dial can also be used in place of pressing ◀▶ on the multi selector.
- Only one picture can be selected for **Rotate image**, **D-Lighting**, **Small pic.**, **Black border**, **NRW (RAW) processing** and **Welcome screen**. → step 3
- Rotate the zoom control to **T** (Q) to switch to full-frame playback, or **W** (R) to switch back to thumbnail display.



2 Press ▲▼ to select ON or OFF (or the number of copies).

- When ON is selected, a check mark is displayed in the top left corner of the current picture. Repeat steps 1 and 2 to select additional pictures.



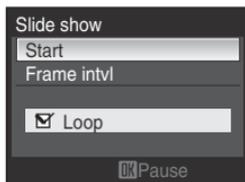
3 Press the OK button to select the image.

Slide Show

Play back pictures, stored in the internal memory or on a memory card, one by one in an automated “slide show.”

1 Use the multi selector to choose **Start** and press the **OK** button.

- To change the interval between pictures, choose **Frame intvl**, select the desired interval time, and press the **OK** button before choosing **Start**.
- To repeat the slide show automatically, enable **Loop** and press the **OK** button before choosing **Start** to add the check mark (✓) to the loop option.



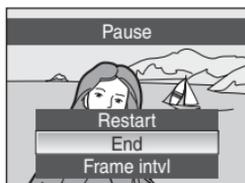
2 The slide show begins.

- Press the multi selector **▶** while the slide show is in progress to view pictures in the order recorded (hold down to fast forward), or **◀** to view pictures in reverse order (hold down to rewind).
- Press the **OK** button to pause the slide show.



3 Choose End or Restart.

- When the slide show ends or is paused, choose **End** and press the **OK** button to return to the playback menu, or choose **Restart** to play the slide show again.



Notes on Slide Show

- Only the first frame of movies () included in slide shows is displayed.
- Even if **Loop** is selected, the maximum playback duration for a slide show is 30 minutes ()

Delete

Delete pictures.

Erase selected images

Delete selected pictures in the Picture Selection screen (Selecting Multiple Pictures → 154).

Picture Bank images

This can only be selected in Calendar/List by Date menu. Refer to "Picture Bank Images" (119) for more information.

Erase all images

Delete all pictures.

Notes on Deletion

- Once deleted, pictures cannot be recovered. Transfer important images to a computer before deletion.
- Pictures marked with the  icon are protected and cannot be deleted.

Protect

Protect selected pictures from accidental deletion.

Select the image and apply the setting in the picture selection screen (Selecting Multiple Pictures → 154).

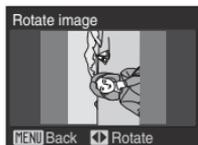
Note, however, that formatting the camera's internal memory or the memory card will permanently erase protected files (170).

Protected pictures are recognized by the  icon (9, 65).

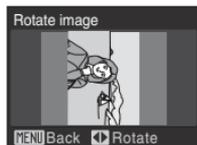
Rotate Image

After shooting, set the orientation in which pictures are displayed during playback. You can rotate still pictures 90 degrees clockwise or 90 degrees counterclockwise. Images that were taken in portrait orientation will be rotated 180 degrees in the opposite direction when clockwise or counterclockwise is chosen.

Select a picture in the picture selection screen (154) to display the Rotate Image screen. Press the multi selector ◀ or ▶ to rotate the picture 90 degrees.



Rotate 90 degrees
counterclockwise



Rotate 90 degrees
clockwise

Press the  button to set the orientation displayed, and save the orientation data with the picture.

Hide Image

Use this setting to hide pictures during playback.

Select the image and apply the setting in the picture selection screen (Selecting Multiple Pictures → 154).

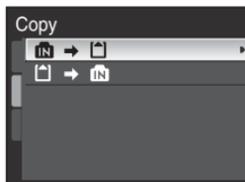
Hidden pictures cannot be deleted using the **Delete** option. Note, however, that formatting the internal memory or memory card (170) will delete hidden pictures.

Copy

Copy pictures between the internal memory and a memory card.

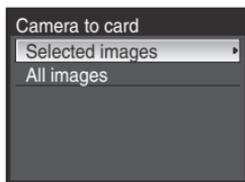
1 Use the multi selector to select an option from the copy screen and press the **OK** button.

- : Copy pictures from internal memory to memory card.
- : Copy pictures from memory card to internal memory.



2 Select a copy option and press the **OK** button.

- **Selected images:** Copy pictures selected from the picture selection screen (154).
- **All images:** Copy all pictures.



Notes on Copying Pictures

- JPEG-, NRW-, AVI-, and WAV-format images can be copied. Images recorded in any other format cannot be copied.
- If voice memos (74) are attached to pictures selected for copying, voice memos are copied with the pictures.
- Sound files recorded using Voice Recording (85) can be copied using the **Copy sound files** option (89).
- Pictures recorded with another make of camera or that have been modified on a computer cannot be copied.
- Edited copies have the same protection marking as the original, but are not marked for printing (101). Copying a picture that is protected (156) will result in the copy being protected as well.
- Hidden pictures (157) cannot be copied.

Memory contains no images. Message

If there are no pictures stored on the memory card when playback mode is applied, the message **Memory contains no images.** will be displayed. Press the **MENU** button to display the copy option screen, and copy the pictures stored in the camera's internal memory to the memory card.

More Information

See "Image/Sound File and Folder Names" (181) for more information.

Basic Camera Setup: The Setup Menu

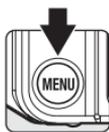
The setup menu contains the following options.

	Welcome screen  161
	Select screen displayed when camera is turned on.
	Date  162
	Set camera clock and choose home and destination time zones.
	Brightness  165
	Adjust monitor brightness.
	Date imprint  165
	Imprint date or date counter on pictures.
	Vibration reduction  167
	Enable vibration reduction for taking still pictures.
	AF assist  168
	Enable or disable AF-assist illumination.
	Digital zoom  168
	Enable or disable digital zoom.
	Sound settings  169
	Adjust the sound settings.
	Auto off  169
	Set time before camera enters standby mode.
	Format memory/Format card  170
	Format internal memory or memory card.
	Language  171
	Choose the language used for camera monitor display.
	Video mode  171
	Adjust settings for connection to TV.
	FUNC button  172
	Choose function performed when the Fn button is pressed.
	Customize My Menu  173
	Register frequently used menu items into My Menu.
	Reset all  174
	Restore camera settings to default values.
	Firmware version  176
	Display camera firmware version.

Displaying the Setup Menu

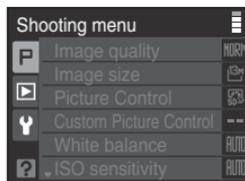
Choose **Y** tab in the menu screen.

- 1 Press the **MENU** button to display the menu screen.

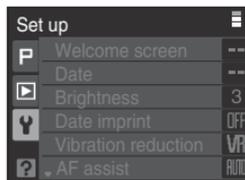


- 2 Press the multi selector **◀**.

- Tab will be selectable.

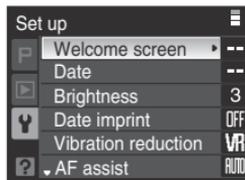


- 3 Press **▲▼** to select the **Y** tab.



- 4 Press **▶** or the **OK** button.

- The setup menu items will be selectable.



- Use the multi selector to select items and set functions on menus (**◀▶** 12).
- To exit the setup menu, press the **MENU** button or **◀** to select other tabs.

Welcome Screen

You can select the welcome screen to be displayed when the camera is turned on.

None (default setting)

Welcome screen is not displayed.

COOLPIX

Displays a welcome screen.

Select an image

Select a picture in the internal memory or on the memory card for the welcome screen. Choose a picture in the picture selection screen () 154) and press the  button.

As the selected image is stored in the camera, the image will appear in the welcome screen even if the original picture is deleted.

- NRW (RAW) images cannot be chosen.
- Pictures shot at an **Image size** setting () 126) of  **4224×2816**,  **4224×2376**, or  **3168×3168** cannot be selected.
- Copies reduced to 160 × 120 size through cropping () 69) and small picture editing () 70) cannot be selected.

Date

Set the camera clock.

The Time Zone (feature that calculates the time difference) function that is useful when traveling overseas can also be set.

Date

Set camera clock to current date and time.

To use the setup menu.

- Multi selector ◀▶: Move to another category (in the order of day, month, year, DMY).
- Multi selector ▲▼: Change the settings.
-  button: The setting is enabled.

Time zone

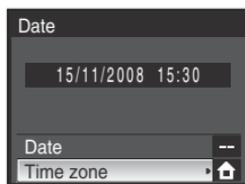
 (home time zone) can be specified and daylight saving enabled or disabled from Time zone options.

When  (destination time zone) is selected, the time difference between the home time zone () (UTC+164) is automatically calculated and the date and time in the selected region are recorded. Useful when traveling.

Setting Travel Destination Time Zone

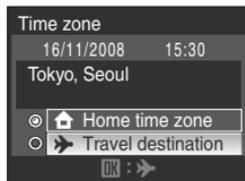
1 Use the multi selector to choose **Time zone** and press the button.

- The time zone screen is displayed.



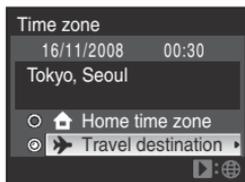
2 Choose **Travel destination** and press the button.

- The date and time displayed on the monitor changes according to the region currently selected.

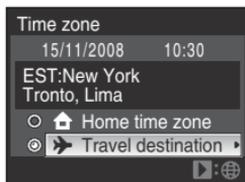


3 Press **▶**.

- The new city time zone menu is displayed.

**4** Press **◀** or **▶** to select the travel destination time zone.

- Pressing **▲** in a time zone where daylight saving is in effect will display the mark on the top of the screen. Daylight saving will be turned on and the time will advance by one hour. Press **▼** to set to Off.
- Press the **OK** button to select the travel destination time zone.
- While the travel destination time zone is selected, the mark will be displayed in the monitor when the camera is in shooting mode.

**✓ The Clock Battery**

The camera's internal clock uses a different battery from the camera's battery. The clock battery charges when the main battery is installed or the AC Adapter EH-66 is connected, and can provide several days of backup power after about ten hours of charging.

🔗 Home Time Zone

- To switch to the home time zone, choose **Home time zone** in step 2 and press the **OK** button.
- To change the home time zone, choose **Home time zone** in step 2 and perform the steps for **Travel destination** to set the home time zone.

🔗 Daylight Saving Time

Turn daylight saving on in the city time zone menu shown in step 4 when daylight saving is in effect, or off when daylight saving is not in effect.

Basic Camera Setup: The Setup Menu

Time Zones (20)

The camera supports the time zones listed below.

For time differences not listed below, set the camera clock using **Date**.

UTC +/-	Location	UTC +/-	Location
-20	Midway, Samoa	-8	Madrid, Paris, Berlin
-19	Hawaii, Tahiti	-7	Athens, Helsinki, Ankara
-18	Alaska, Anchorage	-6	Moscow, Nairobi, Riyadh, Kuwait, Manama
-17	PST (PDT): Los Angeles, Seattle, Vancouver	-5	Abu Dhabi, Dubai
-16	MST (MDT): Denver, Phoenix, La Paz	-4	Islamabad, Karachi
-15	CST (CDT): Chicago, Houston, Mexico City	-3.5	New Delhi
-14	EST (EDT): New York, Toronto, Lima	-3	Colombo, Dhaka
-13	Caracas, Manaus	-2	Bangkok, Jakarta
-12	Buenos Aires, Sao Paulo	-1	Beijing, Hong Kong, Singapore
-11	Fernando de Noronha	±0	Tokyo, Seoul
-10	Azores	+1	Sydney, Guam
-9	London, Casablanca	+2	New Caledonia
		+3	Auckland, Fiji

Brightness

Choose from five settings for monitor brightness. The default setting is **3**.

Date Imprint

Date and time of recording can be imprinted on pictures. This information can be printed even from printers that do not support printing of date and time (102).

Off (default setting)

Date and time are not imprinted on pictures.

Date

Date is imprinted on the bottom right corner of pictures shot while this option is in effect.

Date and time

Date and Time are imprinted on the bottom right corner of pictures shot while this option is in effect.

Date counter

An useful function for tracking the growth of a child, growth diary of a plant or other similar situations (166).

The setting for Date Imprint can be viewed on the monitor while shooting (nothing will be displayed when set to **Off**) (8).

Date Imprint

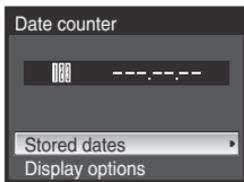
- Imprinted dates form a permanent part of image data and cannot be deleted.
- Dates imprinted at an **Image size** (126) setting of  **640x480** may be difficult to read. Choose  **1024x768** or larger when using date imprint.
- The date is recorded using the format selected in the setup menu's **Date** item (20, 162).
- Dates cannot be imprinted in the following situations (191).
 - When  **Sports**,  **Museum** or  **Panorama assist** is selected in scene mode
 - When **Continuous**, **BSS** or **Continuous flash** is selected for **Continuous** (140)
 - When modes other than **Off** is selected for **Auto bracketing** (143)
 - Movie mode
 - When **NRW (RAW)**, **NRW (RAW) + Fine**, **NRW (RAW) + Normal** or **NRW (RAW) + Basic** is selected for **Image quality** (124)

Date Imprint and Print Set

When printing from DPOF-compatible printers which support printing of shooting date and photo information, the date and information can be printed on pictures without date and time imprinted on **Date imprint**, using options in the **Print set** menu (101).

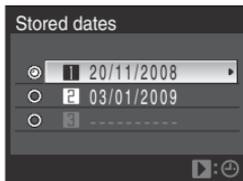
Using Date Counter

Pictures shot while this option is in effect are imprinted with the number of days remaining until, or the number of days elapsed since a specified date; for example a birthday. Use it to track the growth of a child or count down the days until a birthday or wedding.



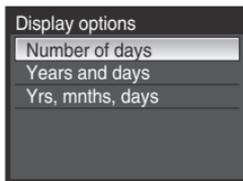
Stored dates

Choose from 1 to 3 and press **▶** on the multi selector to display the date screen. To set, choose an option, enter a date (**21**, step 5 of Setting Display Language, Date and Time), and press the **OK** button. Up to 3 types of date can be set. To select a different date, choose from 1 to 3 and press the **OK** button.



Display options

Choose the display format and press the **OK** button.



Sample date counter time stamps are shown below.



Two days remaining



Two days elapsed

Vibration Reduction

Vibration reduction effectively corrects blur, caused by slight hand movement known as camera shake, that commonly occurs when shooting with zoom applied or at slow shutter speeds. Vibration reduction can be used in all shooting modes. Turn vibration reduction **Off** when using a tripod to stabilize the camera during shooting.

On (default setting)

Vibration reduction is enabled when shooting still pictures and recording movies. Camera detects and factors out panning movements when reducing camera shake.

When camera is panned horizontally, for example, vibration reduction reduces only vertical shake. If camera is panned vertically, vibration reduction affects only horizontal shake.

Off

Vibration reduction is not enabled.

When vibration reduction is enabled, the current setting is displayed in the monitor during shooting (nothing will be displayed when **Off** is selected) (8).

Notes on Vibration Reduction

- Vibration reduction may take a few seconds to activate after the power is turned on, or the camera enters shooting mode from playback mode.
- Wait until the display stabilizes before shooting.
- Vibration reduction may be unable to completely eliminate the effects of camera shake in some situations.
- "VR" stands for vibration reduction.

AF Assist

Enable or disable AF-assist illumination.

Auto (default setting)

AF-assist illumination will be used to assist the focus operation when the subject is poorly lit. The illuminator has a range of about 5.5 m (18 ft.) at the maximum wide-angle position and about 3.2 m (10 ft.) at the maximum telephoto position. However, note that for some scene modes, AF-assist illumination turns off automatically (42 to 47) even if **Auto** is set.

Off

Disable this function. The camera may be unable to focus if lighting is poor.

Digital Zoom

Enable or disable digital zoom.

On (default setting)

Rotating and holding the zoom control at **T** () at the maximum optical zoom position, triggers digital zoom (27).

Crop

Limit digital zoom to the range at which image quality does not suffer.

Off

Disable digital zoom except when recording movies.

Notes on Digital Zoom

- When digital zoom is in effect, AF Area mode is set to **Center** (144).
- Digital zoom is not available in the following situations:
 - When the focus mode (37) is set to **MF** (manual focus)
 - When  **Portrait**,  **Night portrait** is selected in scene mode
 - When **Image quality** (124) is set to **NRW (RAW)**, **NRW (RAW) + Fine**, **NRW (RAW) + Normal** or **NRW (RAW) + Basic**
 - When **Multi-shot 16** is selected for **Continuous** (140)
 - When **On** is selected for **Wide-angle converter** (149)
 - Before movie recording begins (however, digital zoom of up to 2x can be applied while movies, other than time-lapse movies, are being recorded)
- At magnifications of 1.2x to 1.8x, **Metering** is set to **Center-weighted**, and at magnifications of 2.0x to 4.0x, to **Spot**.

Sound Settings

Adjust the following sound settings.

Button sound

Turn button sound **On** (default setting) or **Off**. A beep will sound once when operations are completed successfully, twice when the camera acquires focus on the subject, and three times when an error is detected. Start-up sound will also play when the camera is turned on.

Shutter sound

Choose shutter sound from **On** (default setting) or **Off**.

Auto Off

If no operations are performed for the selected length of time, the monitor will turn off and the camera will enter standby mode ( 17) to reduce the drain on the battery. The power-on lamp will blink in standby mode. If no operations are performed for about another three minutes, the camera will turn off automatically. Press the shutter-release button halfway or the  button to exit standby mode. Choose the time allowed to elapse before the camera enters standby mode. The time options are **30 s**, **1 min** (default setting), **5 min**, and **30 min**.

Notes on Auto Off

The time taken for the monitor to enter standby mode is as follows.

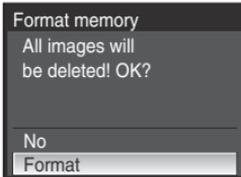
- Menus are displayed: three minutes
- Mode dial is set to : three minutes
- Mode dial is set to : three minutes
- Using voice recording: 30 seconds
- Slideshow playback: maximum of 30 minutes
- AC adapter is connected: 30 minutes

Format Memory/Format Card

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

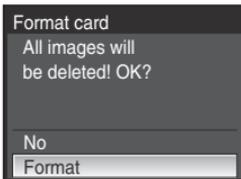
Formatting the Internal Memory

To format the internal memory, remove the memory card from the camera. The **Format memory** option appears in the setup menu.



Formatting a Memory Card

When the memory card is inserted in the camera, the **Format card** option appears in the setup menu.



Formatting Internal Memory and Memory Cards

- Formatting the internal memory or memory cards permanently deletes all data. Be sure to transfer important pictures to a computer before formatting.
- Do not turn the camera off or open the battery-chamber/memory card slot cover until formatting is complete.
- The first time you insert the memory cards used in other devices into the COOLPIX P6000, be sure to format them with this camera.

Language

Choose one of 24 languages for display of camera menus and messages.

Čeština	Czech
Dansk	Danish
Deutsch	German
English	(default setting)
Español	Spanish
Ελληνικά	Greek
Français	French
Indonesia	Indonesian
Italiano	Italian
Magyar	Hungarian
Nederlands	Dutch
Norsk	Norwegian

Polski	Polish
Português	Portuguese
Русский	Russian
Suomi	Finnish
Svenska	Swedish
Türkçe	Turkish
中文简体	Simplified Chinese
中文繁體	Traditional Chinese
日本語	Japanese
한글	Korean
ภาษาไทย	Thai
عربي	Arabic

Video Mode

Adjust settings for connection to TV.

Choose **NTSC** or **PAL**.

FUNC Button

Change the function performed by the **Fn** button in **P, S, A, M, U1** and **U2** modes.

Press the **Fn** button to display the shooting menu option assigned to it. This option is applied using the **FUNC button** item.

Hold down the **Fn** button and rotate the command dial to select a function, and then the setting can be assigned simply by releasing the **Fn** button.

One of the following shooting menu options can be assigned to the **Fn** button.

ISO sensitivity ( 138) (default setting)	Distortion control ( 148)	Picture Control ( 129)
Image quality ( 124)	Wide-angle converter ( 149)	Metering ( 139)
Image size ( 126)	Vibration reduction ( 167)	Auto bracketing ( 143)
White balance* ( 136)	Record GPS data ( 160)	Flash exp. comp. ( 147)
AF area mode ( 144)	Save user settings ( 58)	Autofocus mode ( 146)
Continuous ( 140)	Exposure compensation ( 40)	Active D-Lighting ( 57)

* When **Preset manual** is selected, the screen shown in step 3 of the section, "Preset Manual" (137), will be displayed.

My Menu Customize My Menu

Register frequently used menu items into My Menu (maximum of six). Menu items that are registered into My Menu can be retrieved and edited easily by pressing the **My** button (when shooting mode is set to **P**, **S**, **A**, **M**, **U1** or **U2**).

The following items can be registered.

Image quality (🔍124)	Continuous (🔍140)	Distortion control (🔍148)
Image size (🔍126)	Auto bracketing (🔍143)	Wide-angle converter (🔍149)
Picture Control (🔍129)	AF area mode (🔍144)	Active D-Lighting (🔍57)
Custom Picture Control (🔍134)	Autofocus mode (🔍146)	Vibration reduction (🔍167)
White balance (🔍136)	Flash control (🔍147)	Digital zoom (🔍168)
ISO sensitivity (🔍138)	Flash exp. comp. (🔍147)	Format memory/Format card (🔍170)
Metering (🔍139)	Noise reduction (🔍148)	- (no setting) (delete)*

* Choose to remove an item from My Menu.

Registering into My Menu

1 Use the multi selector to choose the menu item and press the **OK** button.

- The menu item selection screen is displayed.



2 Choose the menu item to be registered and press the **OK** button.

- The chosen menu item will be switched.



Reset All

When **Reset** is selected, the camera's settings will be restored to their default values.

Pop-up Menu

Option	Default value
Flash mode ( 32)	Auto
Self-timer/Remote control ( 35)	OFF
Focus mode ( 37)	Autofocus
Exposure compensation( 40)	0.0

Shooting in the Scene Mode

Option	Default value
Scene menu( 41)	Portrait

Movie Menu

Option	Default value
Movie options( 80)	TV movie 640 ★
Time-lapse movie ( 82)	30 s
Autofocus mode( 81)	Single AF

The Shooting Menu

Option	Default value
Image quality( 124)	Normal
Image size( 126)	 4224x3168
Picture Control( 129)	Standard
White balance( 136)	Auto
ISO sensitivity( 138)	Auto
Fixed range auto( 138)	ISO 64-100
Metering( 139)	Matrix
Continuous( 140)	Single
Intvl timer shooting ( 142)	30 s
Auto bracketing( 143)	Off

AF area mode(📷144)	Auto
Autofocus mode(📷146)	Single AF
Flash exp. comp.(📷147)	0.0
Flash control(📷147)	Auto
Noise reduction(📷148)	Auto
Distortion control(📷148)	Off
Wide-angle converter(📷149)	None
Active D-Lighting(📷57)	Off

The Setup Menu

Option	Default value
Welcome screen(📷161)	None
Brightness(📷165)	3
Date imprint(📷165)	Off
Vibration reduction(📷167)	On
AF assist(📷168)	Auto
Digital zoom(📷168)	On
Button sound(📷169)	On
Shutter sound(📷169)	On
Auto off(📷169)	1 min
FUNC button(📷172)	ISO sensitivity
Customize My Menu(📷173)	1: Image quality 2: Image size 3: Picture Control 4: White balance 5: Active D-Lighting 6: Distortion control

GPS Menu

Option	Default value
Record GPS data(📷60)	Off
Valid storage period(📷63)	1 minute or less

Network Settings Menu

Option	Default value
Picture Bank (M/117)	On

Others

Option	Default value
Paper size (M/97, 98)	Default
Slide show (M/155)	3 s

- Choosing **Reset all** also clears the current file number (M/181) from the memory. Numbering will continue from the lowest number available. To reset file numbering to "0001", delete all pictures from the internal memory or memory card (M/156) before selecting **Reset all**.

- The following settings in the menus will remain unaffected even if **Reset all** is performed.

Shooting menu:

Registering **Custom Picture Control** (M/134), preset manual data of **White balance** (M/137)

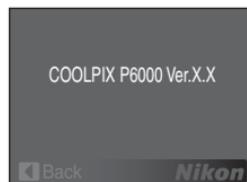
Setup menu:

Date (M/162), registration date of **Date counter** (M/166), **Language** (M/171), **Video mode** (M/171)

- **Network profile** (M/109), **Sender** (M/110) and **Password** (M/111) settings in the Network settings menu will not return to their original settings by **Reset all**. Use **Reset** to return the settings back to the original settings.
- User settings that were registered to the mode dial **U1** and **U2** modes will not be reset to the original settings when **Reset all** is used. Reset it by using **Reset user settings** (M/59).

Ver. Firmware Version

View the current camera firmware version.



Optional Accessories

Rechargeable battery	Rechargeable Li-ion Battery EN-EL5
Battery charger	Battery Charger MH-61
AC adapter	AC Adapter EH-66
USB cable	USB Cable UC-E6
A/V cable	Audio/Video Cable EG-CP14
Converter lens (require UR-E21 lens adapter ring)	Wide-angle Converter WC-E76 (0.76x)
Lens adapter ring	Adapter Ring UR-E21
Speedlights (available separately from Nikon)	Speedlight SB-400, SB-600, SB-900
Remote control	Remote Control ML-L3
	<p>How to replace the battery (3 V CR2025 lithium battery) in the remote control.</p>

See our websites or product catalogs for up-to-date information on accessories for the COOLPIX P6000.

Converters and Adapter Rings

Do not attach lens hoods or filters to the converter lens or adapter ring, as they may cause shading around the edges of pictures shot with the COOLPIX P6000.

External flash

The accessory shoe for COOLPIX P6000 is compatible with Nikon Speedlights SB-400, SB-600, SB-800 and SB-900, and the Wireless Speedlight Commander SU-800. Attempting to attach other external flashes may damage the camera and the external flash.

Approved Memory Cards

The following Secure Digital (SD) memory cards have been tested and approved for use in this camera.

- All cards of the designated make and capacity can be used, regardless of speed.

SanDisk	128 MB, 256 MB, 512 MB, 1 GB, 2 GB ¹ , 4 GB ² , 8 GB ²
TOSHIBA	128 MB, 256 MB, 512 MB, 1 GB, 2 GB ¹ , 4 GB ² , 8 GB ²
Panasonic	128 MB, 256 MB, 512 MB, 1 GB, 2 GB ¹ , 4 GB ² , 8 GB ²

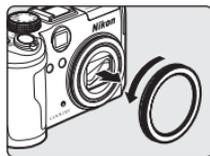
- 1 If the memory card will be used with a card reader or similar device, check that the device supports 2 GB cards.
- 2  SDHC compliant. If the memory card will be used with a card reader or similar device, check that device supports SDHC.

Operation is not guaranteed with other makes of card. Contact the manufacturer for details on the above cards.

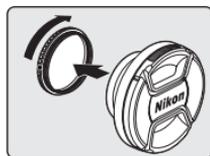
Wide-angle Converter

Attach the Wide-angle Converter WC-E76 (available separately from Nikon) as described below.

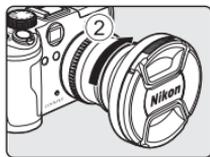
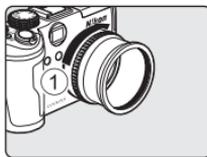
- 1 Turn the camera off and remove the lens ring as shown at right.



- 2 Remove the rear cap from the wide-angle converter.

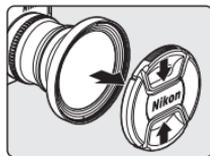


- 3 Attach the Adapter Ring UR-E21 (available separately from Nikon) to the camera lens ①. Then screw the converter lens into the Adapter Ring UR-E21 ②.



- 4 Rotate the mode dial to **P, S, A, M, U1** or **U2** and set **Wide-angle converter** (149) in the shooting menu to **On**.

- 5 Remove the lens cap from the converter lens.

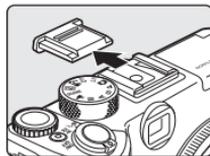


- To remove the wide-angle converter, turn the camera off and perform steps 1 to 4 in reverse order. Set the **Wide-angle converter** option in the camera shooting menu (149) to **None** when no wide-angle converter is attached.
- See the user's manual provided with the wide-angle converter for more information.

Using Optional Speedlights (External Flash)

The camera is equipped with an accessory shoe with a safety lock, allowing Speedlights SB-400, SB-600, SB-800 and SB-900 (available separately) to be mounted directly on the camera. Use Speedlights for indirect lighting or when additional lighting is required. The built-in flash  turns off automatically when using Speedlights. While  is displayed in the monitor, Speedlights flash mode is also displayed in the monitor, and it can be set with the same procedure as the built-in flash (32).

- Remove the accessory shoe cover before attaching a Speedlight. Slide the accessory shoe cover to the direction of the arrow as shown on the illustration to the right to remove it.
- Refer to the Speedlight manual for more information on how to attach Speedlight and details.
- Replace the accessory shoe cover when the Speedlight is not in use.

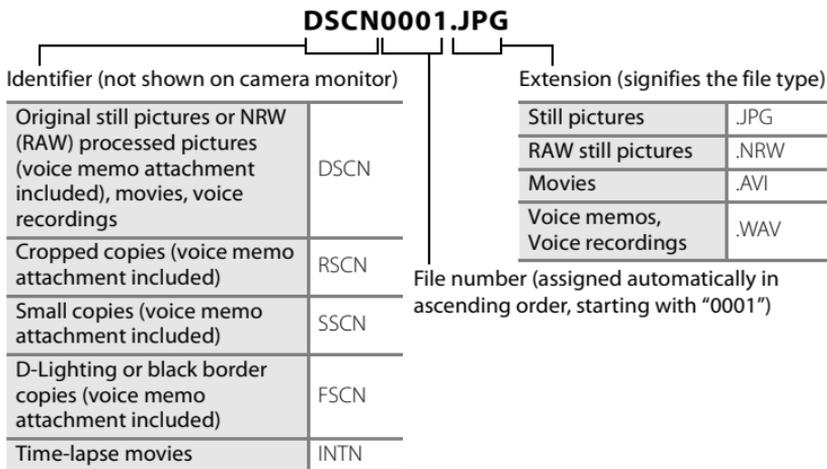


Speedlights SB-400, SB-600, SB-800 and SB-900

- Before using Speedlights SB-600, SB-800 or SB-900, set the Speedlight flash control mode to TTL. This enables the i-TTL flash control to use monitor pre-flashes to adjust flash output automatically in response to lighting conditions. Refer to the Speedlight manual for more information on i-TTL flash control.
- Shooting with Wireless Lighting can be done by setting the SB-800, SB-900 or Wireless Speedlight Commander SU-800 to “commander”, and setting the SB-600, SB-800 and SB-900 to “remote flash”. However, the flash is not usable even if the monitor flashes when the SB-800 and SB-900 is set to “commander”. The Wireless Lighting group setting is only applicable for group A. Change the setting for both the commander and the remote flash to group A. Refer to the Speedlight manual for more information.
- When shooting with Wireless lighting, if ISO sensitivity is set to **Auto**, **High ISO sensitivity auto** or **Fixed range auto**, it will be fixed to ISO 64.
- The camera does not support Flash Color Information Communication, Auto FP High-Speed Sync, FV lock, or AF-assist for multi-area AF when using Speedlights SB-600, SB-800 or SB-900.
- Power zoom can be used with Speedlights SB-600, SB-800 or SB-900, setting illuminating angle automatically depending upon focal length.
- When using Speedlights SB-600, SB-800 or SB-900, the edges of the picture shot at ranges under 2 m (6 ft. 7 in.) when the camera is zoomed out may appear darkened. In that case use the wide panel.
- When set to STBY (stand-by), the Speedlight will power on and off at the same time as the camera. Confirm the Ready-light is on with Speedlight unit.

Image/Sound File and Folder Names

Pictures, movies, voice memos and voice recordings are assigned file names as follows.



- Files are stored in folders named with a folder number followed by a five-character identifier: "P_" plus a three-digit sequence number for pictures shot using **Panorama assist** (e.g. "101P_001"; , 48), "INTVL" for interval timer photography (e.g. "101INTVL"; , 142), "SOUND" for voice recordings (e.g. "101SOUND"; , 85), and "NIKON" for all other pictures (e.g. "100NIKON"). When the number of files within a folder reaches 9999, a new folder will be created. File numbers will be assigned automatically starting with "0001."
- Files copied using **Copy > Selected images** or **Copy sound files > Selected files** are copied to the current folder, where they are assigned new file numbers in ascending order starting from the largest file number in memory. **Copy > All images** and **Copy sound files > Copy all files** copy all folders from the source medium; file names do not change but new folder numbers are assigned in ascending order, starting from the largest folder number on the destination medium (, 89, 158).
- A single folder can hold up to 200 pictures; if the current folder already contains 200 pictures, a new folder, named by adding one to the current folder name, will be created the next time a picture is shot. If the current folder is numbered 999 and contains 200 pictures, or a picture is numbered 9999, no further pictures can be shot until the internal memory or memory card is formatted (, 170), or a new memory card is inserted.

Caring for the Camera

To ensure continued enjoyment of this Nikon product, observe the following precautions when using or storing the device:

Keep dry

The device will be damaged if immersed in water or subjected to high humidity.

Do not drop

The product may malfunction if subjected to strong shock or vibration.

Handle the lens and all moving parts with care

Do not apply force to the lens, lens cover, monitor, memory card slot or battery chamber. These parts are easily damaged. Applying force to the lens cover could result in camera malfunction or damage to the lens. Should the monitor break, care should be taken to avoid injury caused by broken glass and to prevent the liquid crystal from the display touching the skin or entering the eyes or mouth.

Do not point the lens at strong light sources for extended periods

Avoid pointing the lens at the sun or other strong light sources for extended periods when using or storing the camera. Intense light may cause deterioration of the CCD image sensor, producing a white blur effect in photographs.

Keep away from strong magnetic fields

Do not use or store this device in the vicinity of equipment that generates strong electromagnetic radiation or magnetic fields. Strong static charges or the magnetic fields produced by equipment such as radio transmitters could interfere with the monitor, damage data stored on the memory card, or affect the product's internal circuitry.

Avoid sudden changes in temperature

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

Turn the product off before removing or disconnecting the power source

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

The Battery

- Check the battery level when taking the camera out, and charge the battery if necessary (818). Do not continue charging once the battery is fully charged, as this will result in reduced battery performance. If possible, carry a fully-charged spare battery when taking pictures on important occasions.
- Do not charge the battery at ambient temperatures below 0 °C (32 °F) or above 45 °C (113 °F). During charging, the temperature should be in the vicinity of 5 to 35 °C (41 to 95 °F). When charging the battery by connecting the AC Adapter EH-66, it may take longer time to charge if the battery temperature is at 0 to 10 °C (32 to 50 °F). Note that the battery may become hot during use; wait for the battery to cool before charging. Failure to observe these precautions could damage the battery, impair its performance or prevent it from charging normally.
- On cold days, the capacity of batteries tends to decrease. Be sure that the battery is fully charged before heading outside to take pictures in cold weather. Keep spare batteries in a warm place and exchange as necessary. Once warmed, a cold battery may recover some of its charge.
- Dirt on the battery terminals can prevent the camera from functioning.
- When the battery is not in use, remove it from the camera or battery charger and replace the terminal cover. The camera and battery charger draw minute amounts of current even when off; if left in place, the battery could be drained to the point that it no longer functions. Turning the camera on or off while the battery is exhausted can result in reduced battery life. If the battery will not be used for an extended period, store it in a cool (15 to 25 °C / 59 to 77 °F), dry place. Recharge it at least once every six months and run it flat before returning it to storage.
- Replace the battery when it no longer holds a charge. Used batteries are a valuable resource. Please recycle used batteries in accordance with local regulations.

Cleaning

Lens/ viewfinder	Avoid touching glass parts with your fingers. Remove dust or lint with a blower (typically a small device with a rubber bulb attached to one end that is pumped to produce a stream of air out the other end). To remove fingerprints or other stains that cannot be removed with a blower, wipe the lens with a soft cloth, using a spiral motion that starts at the center of the lens and working toward the edges. If this fails, clean the lens using a cloth lightly dampened with commercial lens cleaner.
Monitor	Remove dust or lint with a blower. To remove fingerprints and other stains, clean the LCD monitor with a soft, dry cloth, being careful not to apply pressure.
Body	Use a blower to remove dust, dirt or sand, then wipe gently with a soft, dry cloth. After using the camera at the beach or seaside, wipe off any sand or salt with a dry cloth lightly dampened with fresh water, then dry thoroughly. Note that foreign matter inside the camera could cause damage not covered by the warranty.

Do not use alcohol, thinner, or other volatile chemicals.

Storage

Turn the camera off when not in use. Check that the power-on lamp is off before putting the camera away. Remove the battery if the camera will not be used for an extended period. Do not store the camera with naphtha or camphor moth balls, or in any of the following locations:

- Next to equipment that produces strong electromagnetic fields, such as televisions or radios
- Exposed to temperatures below -10°C (14°F) or above 50°C (122°F)
- Poorly ventilated or subject to humidities of over 60 %

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

Use Only Nikon Flash Accessories

- Use only Nikon Speedlights. Negative voltages or voltages over 250 V applied to the accessory shoe could not only prevent normal operation, but damage the sync circuitry of the camera or flash.
- Before using a Nikon Speedlight not listed in this section, contact a Nikon-authorized service representative for more information.

Notes on the Monitor

- The monitor may contain a few pixels that are always lit or that do not light. This is a characteristic common to all TFT LCD displays, and does not indicate a malfunction. Images recorded using the product will not be affected.
- Images in the monitor may be difficult to see under bright lighting.
- The monitor is lit by an LED backlight. Should the monitor begin to dim or flicker, contact your Nikon-authorized service representative.

Note on Smear

When framing bright subjects, vertical comet-like streaks that whiten toward either end may appear in the display. This phenomenon, known as “smear,” does not appear in the final photograph and does not indicate a malfunction. Some smear may appear in movies.

Error Messages

The following table lists the error messages and other warnings displayed in the monitor, as well as the solutions for dealing with them.

Display	Description	Solution	
 (blinks)	Clock not set.	Set clock.	162
	Battery running low.	Prepare to charge or change battery.	16, 18
 Battery exhausted.	Battery exhausted.	Recharge or replace with a fully-charged battery.	16, 18
 Battery temperature high	Battery temperature is high.	Turn off camera, and allow battery to cool down before resuming use. After five seconds, this message will disappear, the monitor will turn off, and the power-on lamp will blink rapidly. After the lamp blinks for three minutes, the camera will turn off automatically, but you can also press the power switch to turn it off manually.	17
 Memory card is write protected.	Write-protect switch is in "lock" position.	Slide write-protect switch to "write" position.	23
 This card cannot be used.	Error accessing memory card.	<ul style="list-style-type: none"> • Use an approved card. • Check that connectors are clean. • Confirm that memory card is correctly inserted. 	178
 This card cannot be read.			22
 Card is not formatted. Format card? No Yes	Memory card has not been formatted for use in COOLPIX P6000.	Choose Yes and press the  button to format card.	23
 Out of memory.	Memory card is full.	<ul style="list-style-type: none"> • Choose lower image quality or smaller image size. • Delete pictures or sound files. • Insert new memory card. • Remove memory card and use internal memory. 	124, 126 30, 84, 88, 156 22 22

Error Messages

Display	Description	Solution		
 Image cannot be saved.	Error occurred while recording picture.	Format internal memory or memory card.	170	
	Camera has run out of file numbers.	<ul style="list-style-type: none"> Insert new memory card. Format internal memory or memory card. 	22 170	
	Picture cannot be used for welcome screen.	NRW (RAW) pictures, pictures smaller or equal to 160 × 120 pixels, or pictures shot with Image size set to  4224×2816 ,  4224×2376 or  3168×3168 cannot be used.		69, 70, 124, 126
	Destination does not have enough memory.	Delete pictures from destination.		156
 Sound file cannot be saved.	Camera has run out of file numbers.	<ul style="list-style-type: none"> Insert new memory card. Format internal memory or memory card. 	22 170	
 Image cannot be modified.	Pictures cannot be modified using the D-Lighting, crop, small picture, or black border functions.	<ul style="list-style-type: none"> Confirm restrictions on editing using the D-Lighting, crop, small picture, and black border functions. 	67	
		<ul style="list-style-type: none"> NRW (RAW) pictures that were taken with a non COOLPIX P6000 camera cannot be RAW processed. 	72	
		<ul style="list-style-type: none"> Movies cannot be edited. 	-	
 Cannot record movie.	Time out error while recording movie.	Choose memory card with faster write speed.	178	
 Memory contains no images.	<ul style="list-style-type: none"> No pictures or sound file in the internal memory or memory card. Memory card does not contain pictures or sound file. 	To copy picture or sound file from internal memory to memory card, press the MENU button. The Copy or Copy sound files screen will be displayed.	-	
 No sound file.				158, 89

Display	Description	Solution	
i File contains no image data.	File not created with COOLPIX P6000.	View file on computer or other device.	-
i This file cannot be played back.			
i All images are hidden.	Date and time are not set for pictures to be displayed in calendar mode or list by date mode.	-	-
	All pictures in internal memory/memory card are hidden.	Disable Hide image setting to view images.	157
i This image cannot be deleted.	Picture is protected.	Disable protection.	156
i Travel destination is in the current time zone.	Destination in same time zone as home.	-	164
i Mode dial is not in the proper position.	Mode dial is set between two modes.	Rotate mode dial to select desired mode.	10
i Press the flash pop-up button to raise the flash.	The built-in flash is not raised during the Night portrait or Backlight scene modes, and when continuous shooting is set to Continuous flash .	Press the  (flash pop-up) button to raise the built-in flash.	33, 43, 47
i Select manual focus (MF) mode.	The focus mode is not set to MF (manual focus).	Set focus mode to MF (manual focus), and press the  button while rotating the command dial.	39
i My Menu can not be changed at current setting.	All registered menu items cannot be changed using the current setting.	<ul style="list-style-type: none"> Check the settings of functions that are not registered in My Menu. Change the menu item to be registered in My Menu. 	150 150,173

Error Messages

Display	Description	Solution	
 (blinks)	Group A has not been selected for group setting when shooting using wireless lighting.	Set the group setting of the master commander and remote flash to Group A.	180
Lens error 	Lens is not operating properly.	Turn camera off and then on again. If error persists, contact retailer or Nikon-authorized service representative.	17
Lens cover error 	Lens cover does not open.	Finger or other obstructions are preventing lens cover from opening. Remove any obstructions from the lens cover and turn on the camera again.	6
 Communications error	USB cable disconnected during transfer or printing.	Turn camera off and reconnecting cable.	92, 96
System error 	Error has occurred in camera's internal circuitry.	Turn camera off, remove and reinsert battery, and turn camera on. If error persists, contact retailer or Nikon-authorized service representative.	17
 Battery exhausted. Transfer terminated.	Battery exhausted during picture upload.	Use the AC Adapter EH-66 or charge the battery. Turn the camera on and upload the picture again.	18, 117
 Connection error.	LAN cable was disconnected during connection, or LAN cable is not being attached.	Turn camera off and reconnect the cable.	117, 118
	Connection to the server failed, or error occurred during picture upload.	Choose Resume and press the  button. Attempt connection to the server again.	-
 User information incorrect.	Camera is not certified to connect to the network.	Press the  button.	-
 Server is full.	Picture Bank is full.	Delete pictures from the server.	-
 Service not available.	Cannot use my Picturetown network service.	Press the  button.	-

Display	Description	Solution	
① Failed to update GPS data	Signals from GPS satellites cannot be received.	Try positioning at another place and time.	62, 63, 64
① Could not obtain GPS data.			
①  Printer error: check printer status.	Printer error.	Check printer. After solving the problem, select Resume and press the  button to resume printing.*	-
①  Printer error: check paper	Specified size of paper is not loaded in printer.	Load the specified paper, select Resume and press the  button to resume printing.*	-
①  Printer error: paper jam	Paper has jammed in the printer.	Eject the jammed paper, select Resume and press the  button to resume printing.	-
①  Printer error: out of paper	No paper is loaded in printer.	Load the specified paper, select Resume and press the  button to resume printing.*	-
①  Printer error: check ink	Ink error.	Check ink, select Resume and press the  button to resume printing.*	-
①  Printer error: out of ink	Ink cartridge is empty.	Change the ink cartridge, select Resume and press the  button to resume printing.*	-
①  Printer error: file corrupt	An error caused by the image file has occurred.	Select Cancel and press the  button to cancel printing.	-

* See the documentation provided with your printer for further guidance and information.

Troubleshooting

If the camera fails to function as expected, check the list of common problems below before consulting your retailer or Nikon-authorized service representative. Refer to the page numbers in the right-most column for more information.

Display, Settings and Power Supply

Problem	Cause/Solution	
Monitor is blank.	<ul style="list-style-type: none"> • Camera is off. • Battery is low. • Standby mode for saving power. Press the shutter-release button halfway. • Monitor is turned off. Press the  button to turn it on. • Camera and computer are connected via USB cable. • Camera and TV are connected via audio/video cable. • Time lapse or interval timer photography in progress. 	17 24 17, 28 14 91 90 82, 142
Monitor is hard to read.	<ul style="list-style-type: none"> • Ambient lighting too bright. Use the viewfinder or move to a darker location. • Adjust monitor brightness. • Monitor is dirty. Clean monitor. • Monitor has dimmed to save power. Monitor brightens when controls are used. 	26 165 182 17
Camera turns off without warning.	<ul style="list-style-type: none"> • Battery is low. • Camera has turned off automatically to save power as no operations have been performed for some time. • Battery is cold. 	24 17 183
Date and time of recording are not correct.	<ul style="list-style-type: none"> • If the date has not been set ("Date not set" indicator blinks during shooting) pictures will have a time stamp of "00/00/0000 00:00"; and movies and voice recordings will be dated "01.01.08 00:00." Set the correct date and time using Date in the setup menu or Synchronize in the GPS menu. • The camera clock is not as accurate as a normal clock. Checking the camera clock against normal clocks regularly is recommended. 	20, 64, 162 162
No indicators displayed in monitor.	Shooting data and photo information may be hidden. Press the  button until shooting data or photo information will be displayed.	14
Date imprint not available.	Date has not been set.	20, 162

Problem	Cause/Solution	
Date not appearing on pictures even when Date imprint is enabled.	Dates cannot be imprinted in the following situations.	43, 46, 48
	• When Sports, Museum or Panorama assist is selected in scene mode	124
	• When Image quality in the shooting menu is set to NRW (RAW), NRW (RAW) + Fine, NRW (RAW) + Normal or NRW (RAW) + Basic	140
	• Continuous, BSS , or Continuous flash is selected for Continuous .	143
	• When modes other than Off is selected for Auto bracketing	79
• Movies		
Camera settings reset.	Backup battery is exhausted; all settings were restored to their default values.	163
Monitor turns off, and the power-on lamp blinks rapidly.	Battery temperature is high. Turn off camera, and allow battery to cool down before resuming use. After the lamp blinks for three minutes, the camera will turn off automatically, but you can also press the power switch to turn it off manually.	17

Electronically Controlled Cameras

In extremely rare instances, unusual characters may appear in the monitor and the camera may stop functioning. In most cases, this phenomenon is caused by a strong external static charge. Turn the camera off, remove and replace the battery, then turn the camera on again. Data that were present when the camera stops functioning may be lost as a result of this, but existing data in the internal memory or memory card will not be lost. In the event of continued malfunction, contact your retailer or Nikon-authorized service representative.

Shooting

Problem	Cause/Solution	
Camera does not shoot.	• When camera is in playback mode, press the  button or the shutter-release button.	30
	• When menus are displayed, press the MENU button.	13
	• Battery is low.	24
	• Raise the built-in flash when the scene mode is set to Night portrait or Backlight , or when Continuous is set to Continuous flash .	33, 43, 47, 140
	• When flash lamp blinks red, flash is charging.	34

Troubleshooting

Problem	Cause/Solution	
Camera cannot focus.	<ul style="list-style-type: none"> The intended subject is one with which autofocus does not perform well. 	29
	<ul style="list-style-type: none"> Set AF assist in the setup menu to Auto. Subject not in focus area when shutter-release button pressed halfway. The focus mode is set to MF (manual focus). Turn camera off and then on again. 	168 28, 144 37, 39 24
Pictures are blurred.	<ul style="list-style-type: none"> Use flash. Use vibration reduction. Use BSS. Use a tripod to stabilize the camera (use with the self-timer for best results). 	32 167 140 35
	<ul style="list-style-type: none"> Set Wide-angle converter in the shooting menu to On when a wide-angle converter is equipped. 	149
Bright specks appear in pictures shot with flash.	Flash is reflecting off particles in air. Turn flash  (off).	32
Built-in flash does not fire.	<ul style="list-style-type: none"> Flash is  (off). 	32
	<ul style="list-style-type: none"> Some scene modes that cannot turn on flash are selected. 	41
	<ul style="list-style-type: none"> Focus mode is set to  (infinity). 	37
	<ul style="list-style-type: none">  modes (other than Time-lapse movie ) is selected. 	79
	<ul style="list-style-type: none"> Continuous, BSS, or Multi-shot 16 is selected for Continuous. 	140
	<ul style="list-style-type: none"> Option other than Off is selected for Auto bracketing in shooting menu. 	143
	<ul style="list-style-type: none"> On is selected for Wide-angle converter in the shooting menu. 	149
	<ul style="list-style-type: none"> Built-in off is selected for Flash control in the shooting menu. 	147
	<ul style="list-style-type: none"> Built-in flash will not fire when a Speedlight (available separately from Nikon) is used. 	180
Optical zoom cannot be used.	Optical zoom cannot be used while recording movies.	79

Problem	Cause/Solution	
Digital zoom cannot be used.	<ul style="list-style-type: none"> • Digital zoom in the setup menu is set to Off. • Digital zoom is not available in the following situations: <ul style="list-style-type: none"> - The focus mode is set to MF (manual focus). - When Portrait, Night portrait is selected in scene mode - When Image quality in the shooting menu is set to NRW (RAW), NRW (RAW) + Fine, NRW (RAW) + Normal or NRW (RAW) + Basic - When Multi-shot 16 is selected for Continuous - When On is selected for Wide-angle converter - Before shooting a movie (operates up to 2x when shooting a movie, other than Time-lapse movie ★) 	168 37, 39 42, 43 124 140 149 79
Image size not available.	<ul style="list-style-type: none"> • Image size cannot be adjusted when NRW (RAW) is selected for Image quality. When Image quality is set to NRW (RAW) + Fine, NRW (RAW) + Normal or NRW (RAW) + Basic,  4224×2816,  4224×2376 or  3168×3168 cannot be selected for Image size. • Image size cannot be adjusted when Multi-shot 16 is selected for Continuous. • When ISO sensitivity is set to 3200 or 6400,  4224×3168,  3264×2448,  2592×1944,  4224×2816,  4224×2376, or  3168×3168 cannot be selected for Image size. 	126 140 138
No sound when shutter is released.	<ul style="list-style-type: none"> • Off is selected for Sound settings in Shutter sound in setup menu. • Continuous, BSS, or Multi-shot 16 is selected for Continuous. • Option other than Off is selected for Auto bracketing in shooting menu. • When Sports, or Museum is selected in scene mode. •  mode is selected. • The speaker is being blocked. Do not cover it. 	169 140 143 43, 46 79 7, 26
AF-assist illuminator does not light.	<ul style="list-style-type: none"> • AF assist in the setup menu is set to Off. • AF-assist illuminator turns off automatically in some modes. 	168 168
Pictures appear smeared.	Lens is dirty. Clean lens.	182
Colors are unnatural.	White balance setting is not appropriate for light source.	136

Troubleshooting

Problem	Cause/Solution	
Randomly spaced bright pixels ("noise") appear in image.	Subject is dark, and either the shutter speed is too slow, or ISO sensitivity has been raised. <ul style="list-style-type: none"> • Use flash. • Specifying a lower ISO sensitivity setting. • Applying Noise reduction in the shooting menu to suit situations. • Choosing scene mode with noise reduction. 	32 138 148 41
Pictures are too dark (underexposed).	<ul style="list-style-type: none"> • Flash is  (off). • Built-in flash has been blocked by foreign objects. • Subject is beyond flash range. • Adjust exposure compensation. • Raise the ISO sensitivity. • Subject is backlight during shooting. Raise the built-in flash, set Backlight of the scene mode or set the flash mode to , and then shoot the picture. 	32 26 32 40 138 32, 47
Pictures are too bright (overexposed).	Adjust exposure compensation.	40
Unexpected results when flash set to auto with red-eye reduction.	When  or "fill flash with slow sync and red-eye reduction" of the Night portrait scene mode is applied during shooting, In-Camera Red-Eye Fix may, in very rare cases, be applied to areas not affected by red-eye. Set a flash mode other than  when in a shooting mode other than the Night portrait scene mode during shooting.	32, 43
Camera does not shoot continuously.	On is selected for Noise reduction in the shooting menu.	148
Camera does not shoot with Multi-shot.	<ul style="list-style-type: none"> • Self timer/remote control has been selected. • Multi-shot cannot be used when NRW (RAW), NRW (RAW) + Fine, NRW (RAW) + Normal or NRW (RAW) + Basic is selected for Image quality. • At an ISO sensitivity setting of 3200 or 6400, the Multi-shot option of the continuous shooting mode is not available. • Auto bracketing has been selected. 	35 126, 140 138, 140 143
Contrast in COOLPIX Picture Control cannot be adjusted.	Option other than Off is selected for Active D-Lighting in shooting menu.	57, 132

Playback

Problem	Cause/Solution	
File cannot be played back.	<ul style="list-style-type: none"> • File was overwritten or renamed by computer or other make of camera. • Time lapse movie or interval timer shooting in progress. 	- 82, 142

Problem	Cause/Solution	
Cannot zoom in on picture.	Playback zoom cannot be used with movies, small pictures, or pictures that have been cropped to below 320 × 240.	-
Cannot record or playback voice memo.	<ul style="list-style-type: none"> • Voice memos cannot be appended to movies. • Voice memos cannot be appended to pictures shot by other cameras, and voice memos recorded by other cameras cannot be played back. 	84 74
Cannot use D-Lighting, crop, small picture, or black border options.	<ul style="list-style-type: none"> • Movies cannot be edited. • Pictures shot at an Image size of  4224×2816,  4224×2376, and  3168×3168 cannot be modified using an editing function other than black border. • NRW (RAW) images cannot be edited using D-Lighting, Crop, Small Picture and Black Border. Edit the JPEG images created using NRW (RAW) processing. • Confirm restrictions on editing using the D-Lighting, crop, small picture, and black border functions. • Pictures shot with other cameras cannot be edited. • Other cameras may be unable to play back pictures edited with this camera. 	84 126 72 67 - -
Pictures not displayed on television.	<ul style="list-style-type: none"> • Video mode in Setup menu has not been set correctly. • Memory card contains no pictures. Insert new memory card. Remove memory card to play back pictures from internal memory. 	171 22
Nikon Transfer does not start when camera is connected.	<ul style="list-style-type: none"> • Power is off. • Battery is low. • USB cable is not correctly connected. • Camera is not recognized by the computer. • Nikon Transfer is not set to launch automatically. • If your computer is running Windows 2000 Professional, camera cannot be connected to the computer. See the help information contained in Nikon Transfer.	24 24 92 - - 91
Pictures to be printed are not displayed.	Memory card contains no pictures. Insert new memory card. Remove memory card to play back pictures from internal memory.	22
Cannot select paper size with camera.	Paper size cannot be selected from the camera in the following situations even for PictBridge compatible printers. Use the printer to select page size. <ul style="list-style-type: none"> • The page size selected using the camera is not compatible with the printer. • A printer that automatically sets the paper size is been used. 	97, 98 -

GPS

Problem	Cause/Solution	
Power lamp flickers when camera is turned off	Camera was turned off with GPS menu Record GPS data set to On .	62
A long time is taken for positioning.	About two hours have passed without receiving any signals from GPS satellite.	62
Positional information have not been recorded to pictures	<ul style="list-style-type: none"> Positional information will not be recorded when the  mark is displayed in the screen while shooting. Check the GPS status before shooting. 	61
	<ul style="list-style-type: none"> Positioning has not been possible for a period of time more than the valid storage period. 	63
The place of shooting and positional information does not match.	<ul style="list-style-type: none"> The current location is different from the position of last update. 	63
	<ul style="list-style-type: none"> Update the positional information. 	63
	<ul style="list-style-type: none"> There may be mistakes depending on the positioning environment. 	62

Network

Problem	Cause/Solution	
Connection to the access point or server failed.	Network settings stored in the camera may not be the same as those for the LAN to which connection was attempted. Confirm network profile information using the camera's network settings menu.	109
Connection was terminated during picture upload, and upload failed.	<ul style="list-style-type: none"> LAN cable is not correctly connected. Battery is low. 	117, 118 24
E-mail notification requesting user registration with my Picturertown not sent.	Be sure that the e-mail address specified for sender information is correct.	110
Cannot upload pictures stored in the internal memory.	Eject the memory card to upload pictures stored in internal memory.	22
Pictures uploaded using the Picture Bank service not saved to my Picturertown.	Use a computer to open the e-mail notification requesting user registration, click the URL provided, and register the camera's key information.	114

Specifications

Nikon COOLPIX P6000 Digital Camera

Type	Compact digital camera
Effective pixels	13.5 million
Image sensor	1/1.7-in. CCD; total pixels: approx. 13.93 million
Lens	4x optical zoom, NIKKOR lens
Focal length	6-24mm (equivalent with 35mm [135] format picture angle: 28-112mm)
f/-number	f/2.7-5.9
Construction	9 elements in 7 groups (2 ED lens)
Digital zoom	Up to 4x (equivalent with 35mm [135] format picture angle: approx. 448mm)
Vibration reduction	Lens sensor shift
Autofocus (AF)	Contrast-detect AF, Multi area AF
Focus range (from lens)	<ul style="list-style-type: none">• Approx. 50 cm (1 ft. 7 in.) to ∞ from the lens• Macro close-up mode: Approx. 2 cm (0.8 in.) to ∞ (wide zoom position)
Focus-area selection	Face priority, auto (9-area automatic selection), center, manual with 99 focus areas
Viewfinder	Real-image optical viewfinder with LED indication
Frame coverage	Approx. 80 % horizontal and 80 % vertical (compared to the actual screen)
Monitor	2.7-in., approx. 230k-dot, wide viewing angle TFT LCD with anti-reflection coating and 5-level brightness adjustment
Frame coverage (shooting mode)	Approx. 97 % horizontal and 97 % vertical (compared to the actual screen)
Frame coverage (playback mode)	Approx. 100 % horizontal and 100 % vertical (compared to the actual screen)
Storage	
Media	Internal memory (approx. 48 MB), SD (Secure Digital) memory cards
File system	DCF, Exif 2.2, and DPOF compliant
File formats	Still pictures: RAW 12-bit (uncompressed), JPEG-Baseline compliant, compression rate: FINE (1:4), NORMAL (1:8), BASIC (1:16) RAW and JPEG can be saved simultaneously Movies: AVI Audio: WAV

Specifications

Image size (pixels)	<ul style="list-style-type: none"> • 4224×3168 [13 M] • 2592×1944 [5 M] • 1600×1200 [2 M] • 1024×768 [PC] • 4224×2816 [3:2] • 3168×3168 [1:1] • 3264×2448 [8 M] • 2048×1536 [3 M] • 1280×960 [1 M] • 640×480 [TV] • 4224×2376 [16:9]
ISO sensitivity (Standard output sensitivity)	ISO 64, 100, 200, 400, 800, 1600, 2000, 3200, 6400, Auto (auto gain from ISO 64 to 800), High ISO Sensitivity auto (ISO 64 to 1600), Fixed range auto (100, 200, 400)
Exposure	
Metering	256-segment matrix, center-weighted, spot, spot AF area (with support for 99 focus areas)
Exposure control	Programmed auto exposure with flexible program, shutter-priority auto, aperture-priority auto, manual, exposure compensation (-2.0 to +2.0 EV in steps of 1/3 EV), auto bracketing
Range (ISO 100)	W: -1 to +17.4 EV T: 1.3 to 16.6 EV
Shutter	Mechanical and charge-coupled electronic shutter
Speed	1/2000-8 s (1/2000-30 s when set to manual)
Aperture	Electronically-controlled 6-blade iris diaphragm
Range	10 steps of 1/3 EV
Self-timer	Can be selected from 10 and 2 second duration
Built-in flash	
Range (approx.) (ISO sensitivity: Auto)	W: Approx. 0.3 to 6.0 m (1 to 19 ft.) T: Approx. 0.3 to 3.0 m (1 to 9 ft.)
Flash control	TTL auto flash with monitor preflashes
Accessory shoe	Hot-shoe contact with safety lock
Sync contact	X-contact only
Interface	
USB	Hi-Speed USB (Data transfer protocol: MTP, PTP)
LAN	100BASE-TX
Video output	Can be selected from NTSC and PAL
I/O terminal	Audio/video out; digital I/O, LAN connector, DC Input connector
Supported languages	Arabic, Chinese (Simplified and Traditional), Czech, Danish, Dutch, English, Finnish, French, German, Greek, Hungarian, Indonesian, Italian, Japanese, Korean, Norwegian, Polish, Portuguese, Russian, Spanish, Swedish, Thai, Turkish

Power sources	One Rechargeable Li-ion Battery EN-EL5 (supplied) AC Adapter EH-66 (supplied)
Battery life*	Approx. 260 shots (when EN-EL5 is used)
Dimensions (W × H × D)	Approx. 107 × 65.5 × 42 mm (4.2 × 2.8 × 1.7 in.) (excluding projections)
Weight	Approx. 240 g (12.9 oz) (without battery and SD memory card)
Operating environment	
Temperature	0 to 40 °C (32 to 104 °F)
Humidity	Less than 85 % (no condensation)

- All figures are for a camera with a fully-charged Rechargeable Li-ion Battery EN-EL5 operated at an ambient temperature of 25 °C (77 °F).

* Based on Camera and Imaging Products Association (CIPA) standards for measuring the life of camera batteries. Measured at 23 (±2) °C (69 to 77°F); zoom adjusted with each shot, flash fired with every other shot, image quality set to **Normal**, image size set to  **4224×3168**. Battery life may vary depending on shooting interval and length of time menus and images are displayed.

Rechargeable Li-ion Battery EN-EL5

Type	Rechargeable lithium-ion battery
Rated capacity	DC 3.7 V, 1,100 mAh
Operating temperature	0 to 40 °C (32 to 104 °F)
Dimensions (W × H × D)	Approx. 36 × 54 × 8 mm (1.4 × 2.1 × 0.3 in.) (excluding projections)
Weight	Approx. 30 g (1.1 oz) (excluding terminal cover)

AC Adapter EH-66

Rated input	AC 100 to 240 V, 50/60 Hz, 0.18 to 0.1 A
Rated capacity	18 to 22 VA
Rated output	DC 4.8 V, 1.5 A
Operating temperature	0 to 40 °C (32 to 104 °F)
Dimensions (W × H × D)	Approx. 41 × 23.5 × 79 mm (1.6 × 0.9 × 3.1 in.) (excluding projections)
Length of DC cable	Approx. 1.7 m (5 ft. 6 in.)
Length of power cable	Approx. 1.8 m (6 ft.)
Weight	Approx. 110 g (3.9 oz) (excluding power cable)

Specifications

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

Supported Standards

- **DCF:** Design Rule for Camera File System is a standard widely used in the digital camera industry to ensure compatibility among different makes of camera.
- **DPOF:** Digital Print Order Format is an industry-wide standard that allows pictures to be printed from print orders stored on the memory card.
- **Exif version 2.2:** This camera supports Exif (Exchangeable Image File Format for Digital Still Cameras) version 2.2, a standard that allows information stored with photographs to be used for optimal color reproduction when images are output from Exif-compliant printers.
- **PictBridge:** A standard developed cooperatively by the digital camera and printer industries, allowing photographs to be output directly to a printer without connecting the camera to a computer.

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