

PENTAX™

Digital Camera

Optio X

Operating Manual



To ensure the best performance from your camera, please read the Operating Manual before using the camera.

Thank you for buying the PENTAX Optio X Digital Camera.
Please read this manual before using the camera in order to get the most out of all the features and functions. Keep this manual safe, as it can be a valuable tool in helping you to understand all the camera's capabilities.

Regarding copyrights

Images taken using the Optio X that are for anything other than personal enjoyment cannot be used without permission according to the rights as specified in the Copyright Act. Please take care, as there are even cases where limitations are placed on taking pictures even for personal enjoyment during demonstrations, industrial enterprise or as items for display. Images taken with the purpose of obtaining copyrights also cannot be used outside the scope of use of the copyright as laid out in the Copyright Act, and care should be taken here also.

Regarding trademarks

- PENTAX, Optio and smc PENTAX are trademarks of PENTAX Corporation.
- The SD logo  is a trademark.
- All other brands or product names are trademarks or registered trademarks of their respective companies.

To users of this camera

- There is a possibility that recorded data may be erased or that the camera may not function correctly when used in surroundings such as installations generating strong electromagnetic radiation or magnetic fields.
- The liquid crystal panel used in the LCD display is manufactured using extremely high precision technology. Although the level of functioning pixels is 99.99% or better, you should be aware that 0.01% or fewer of the pixels may not illuminate or may illuminate when they should not. However, this has no effect on the recorded image.

This product supports PRINT Image Matching III, PRINT Image Matching enabled digital still cameras, printers and software help photographers to produce images more faithful to their intentions. Some functions are not available on printers that are not PRINT Image Matching III compliant.

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The PRINT Image Matching logo is a trademark of Seiko Epson Corporation.

Regarding PictBridge

PictBridge allows the user to connect the printer and digital camera directly, using the unified standard for the direct printout of images. You can print images directly from the camera through a few simple operations.

- There is a possibility that the illustrations and the display screen of the LCD monitor in this manual are different from the actual product.

FOR SAFE USE OF YOUR CAMERA

Sufficient attention has been paid to the safety of this product but please pay particular attention to the warnings indicated by the following symbols during use.



Warning

These symbols indicate that it is possible that the user may experience serious difficulties if the warnings are not heeded.



Caution

These symbols indicate that it is possible that the user may experience minor or middling difficulties or physical difficulties if the warnings are not heeded.

About the Camera



Warning

- Do not attempt to take the camera apart or remodel the camera. High voltages are present within the camera, and there is therefore a danger of electric shocks.
- If the inside of the camera should become exposed as a result of, for example, the camera being dropped, please do not under any circumstances touch such exposed portions, as there is a danger of receiving an electric shock.
- To avoid the risk of it being swallowed by mistake, keep the SD Memory Card out of the reach of small children. Seek medical attention immediately if accidentally swallowed.
- Wrapping the strap of the camera around your neck is also dangerous. Please take care that small children do not hang the strap around their necks.
- If the camera emits smoke or a strange smell, or in the event of any other irregularity, stop using the camera immediately, remove the battery and contact your nearest PENTAX service center. Continued use of the camera may result in fire or electric shock.

Caution

- Never try to disassemble or short the battery. Also, do not dispose of the battery in fire, as it may explode.
- Do not charge any batteries other than rechargeable lithium-ion battery D-LI8. The battery could explode or catch fire.
- Do not place your finger on the flash when it is discharging as there is a risk of burns.
- Do not discharge the flash while it is touching your clothing as there is a risk of discoloring.
- If any of the battery leakage should come in contact with your eyes, do not rub them. Flush your eyes with clean water and get medical attention immediately.
- If any of the battery leakage should come in contact with skin or clothes, wash the affected areas thoroughly with water.
- Remove the battery from the camera immediately if it becomes hot or begins to smoke. Be careful not to burn yourself during removal.
- Some portions of the camera heat up during use, so please take care, as there is a risk of low temperature burns if such portions are held for long periods of time.
- Should the LCD be damaged, be careful of glass fragments. Also, be careful not to allow the liquid crystal to get on your skin or eyes or in your mouth.

About the USB Cradle

Warning

- Do not use the product at a voltage other than the specified voltage. Use with a power source or voltage other than that designed can cause a fire or electrical shock. The specified voltage is 100-240V AC.
- Do not disassemble or modify the product. This can cause a fire or electrical shock.
- If the generation of smoke or strange odor from the product or other abnormality occurs, immediately discontinue using and consult a PENTAX Service Center. Continuing to use the product can cause a fire or electrical shock.
- If water should happen to get inside the product, consult a PENTAX Service Center. Continuing to use the product can cause a fire or electrical shock.

- If lightning should be present during using, unplug the power cord and discontinue using. Continuing to use the product can cause damage to the equipment, fire or electrical shock.
- Wipe off the plug of the power cord if it should become covered with dust. This can cause a fire.



Caution

- Do not place heavy objects on the AC plug cord, allow heavy objects to drop onto it or allow the AC plug cord to become damaged due to excessive bending. If the AC plug cord becomes damaged, consult a PENTAX Service Center.
- Do not short or touch the output terminals of the product while it is still plugged in.
- Unplug the AC plug cord when not using the USB cradle.
- Do not plug in the AC plug cord with wet hands. This can cause an electrical shock.
- Do not subject the product to strong impacts or allow it to drop onto a hard surface. This can cause a malfunction.

Care to be Taken During Handling

- Take the Worldwide Service Network that is included in the package. This will be useful if you experience problems abroad.
- When the camera has not been used for a long time, confirm that it is still working properly, particularly prior to taking important pictures (such as at a wedding or during traveling). Contents of the recording cannot be guaranteed if recording, playback or transferring your data to a computer, etc. is not possible due to a malfunction of your camera or recording media (SD Memory Card), etc.
- The lens on this camera is not exchangeable. The lens is not removable.
- Do not clean the product with organic solvents such as thinner or alcohol benzene.
- Places of high temperature and humidity should be avoided. Particular care should be taken regarding vehicles, which can become very hot inside.
- Storing the camera where pesticides and chemicals are handled should be avoided. Remove from case and store in a well-ventilated place to prevent the camera from becoming moldy during storage.

- Do not use the camera where it may come in contact with rain, water or any other liquid, because the camera is not weather, water, or liquid resistant. Should the camera get wet from rain, splashing water, or any other liquid, wipe it off immediately with a dry soft cloth.
- Ensure that the camera is not subjected to substantial vibrations, shocks or pressure. Place the camera on a cushion for protection when the camera is subjected to the vibrations of a motorbike, car, or ship, etc.
- The temperature range in which the camera can be used is 0°C to 40°C (32°F to 104°F).
- The liquid crystal display will become black at temperatures of approximately 60°C (140°F) but will return to normal when normal temperatures are returned to.
- The response speed of the liquid crystal display becomes slow at low temperatures. This is due to the properties of the liquid crystal and is not a fault.
- Periodic checks are recommended every 1 to 2 years in order to maintain high performance.
- If the camera is subjected to rapid temperature changes, condensation may form on the inside and outside of the camera. Therefore put the camera in a bag or plastic bag, and take the camera out when the difference in temperature has subsided.
- Avoid contact with garbage, dirt, sand, dust, water, toxic gases, salt, etc. as this may cause damage to the camera. If rain or drops of water get onto the camera, please wipe dry.
- Refer to "Precautions When Using an SD Memory Card" (p.21) regarding the SD Memory Card.
- Please do not press forcefully on the LCD monitor. This could cause breakage or malfunction.
- Be careful not to sit down with the camera in your back pocket as this may damage the exterior of the camera or the LCD monitor.
- When using a tripod with the camera, be careful not to overtighten the screw in the tripod socket on the camera.
- The AC plug cord D-CO24 supplied with the camera is for use exclusively with the USB cradle D-CR24. Do not use it with any other equipment.

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Composition of the Operating Manual

This operating manual contains the following chapters.

1 Getting Started

This chapter explains what you need to do after purchasing the camera before you start taking pictures. Be sure to read it and follow the instructions.

2 Quick Start

This chapter explains the simplest way to take pictures and play back images. Use it if you want to start taking pictures or playing back images straightaway.

3 Common Operations

This chapter explains common operations such as the functions of the buttons and how to use the menus. For more details, refer to the respective chapters below.

4 Taking Pictures

This chapter explains the various ways of taking still pictures and how to set the relevant functions.

5 Playing Back and Deleting Images

This chapter explains how to view still pictures and movies on the camera or on a TV and how to delete images from the camera.

6 Editing and Printing Still Pictures

This chapter explains the various ways of printing still pictures and how to edit images with the camera. For instructions on how to print or edit images using a computer, refer to the "PC Connection Manual – Enjoying Your Digital Camera Images On Your PC".

7 Recording and Playing Back Sound

This chapter explains how to record sound-only files or add sound (a voice memo) to an image, and how to play back voice memos.

8 Settings

This chapter explains how to set the camera-related functions.

9 Appendix

This section deals with troubleshooting, and lists the optional accessories.

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7

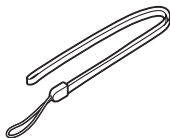
8

9

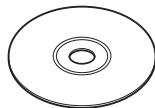
Checking the Contents of the Package



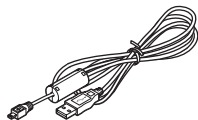
Camera
Optio X



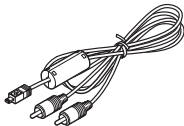
Strap
O-ST20 (*)



Software (CD-ROM)
S-SW24



USB cable
I-USB7 (*)



AV cable
I-AVC7 (*)



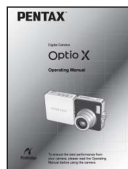
Rechargeable lithium-ion
battery D-LI8 (*)



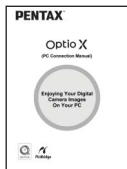
USB cradle
D-CR24



AC plug cord
D-CO24



Operating Manual
(this manual)

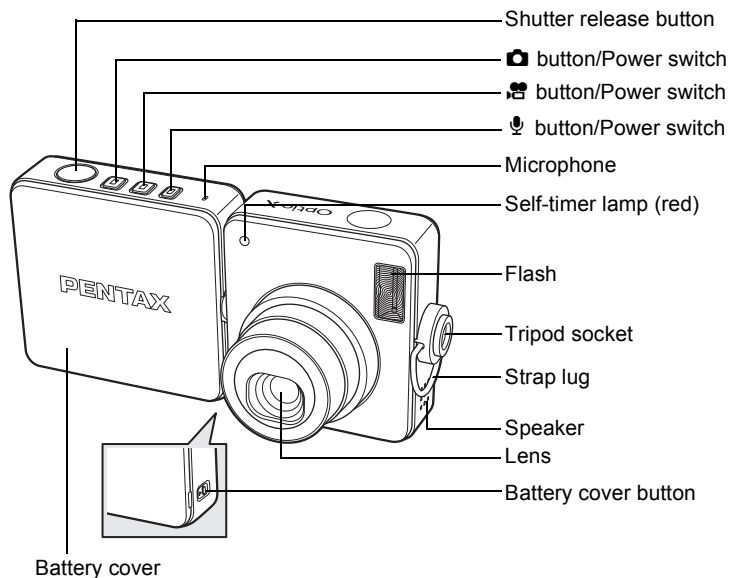


Operating Manual
(PC Connection Manual)

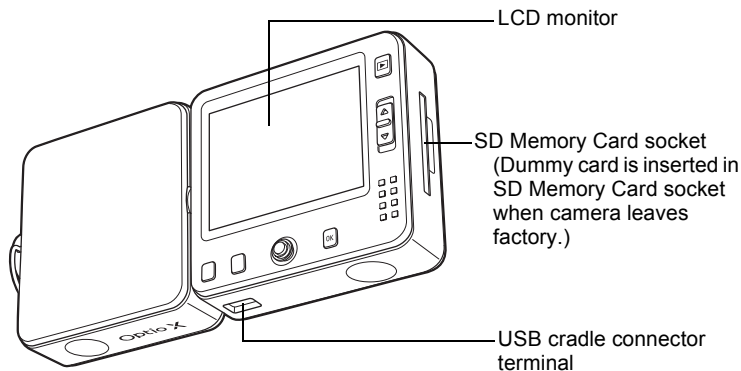
Items marked with an asterisk (*) are also available as optional accessories.
For other optional accessories, refer to "Optional Accessories" (p.167).

Names of Parts

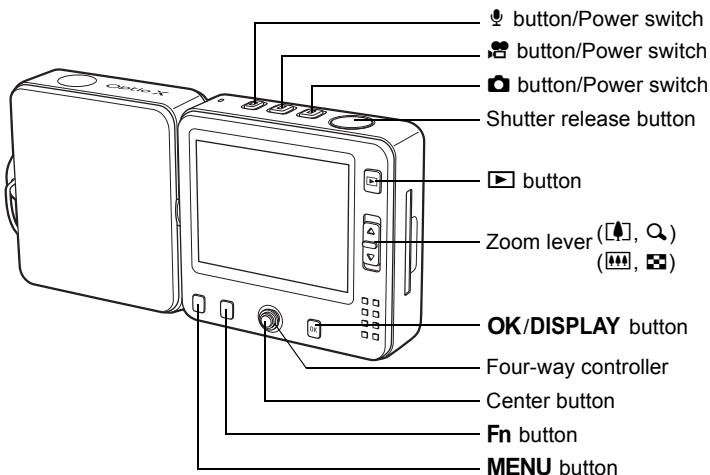
Front



Back



Names of Operating Parts

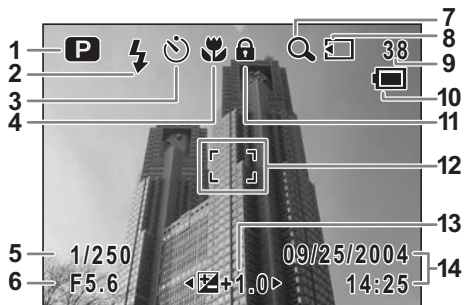


For functions of each buttons, refer to “Understanding the Button Functions” (pp.40 - 43).

Monitor Indications

Normal Display in Still Picture Capture Mode

The display shows information such as the shooting conditions.



- | | |
|---|------------------------------------|
| 1 Shooting mode (p.55) | 9 Remaining image storage capacity |
| 2 Flash mode (p.78) | 10 Battery indicator (p.19) |
| 3 Drive mode (pp.64 - 72) | 11 Key lock icon (p.36) |
| 4 Focus mode (p.75) | 12 Focus frame (p.34) |
| 5 Shutter speed | 13 EV compensation (p.63) |
| 6 Aperture | 14 Date and time (p.32) |
| 7 Digital zoom icon (p.61) | |
| 8 Memory status (p.25) | |
|  : Built-in memory
(without card) | |
|  : SD Memory Card | |
|  : Card is write-protected | |

Full Display in Still Picture Capture Mode



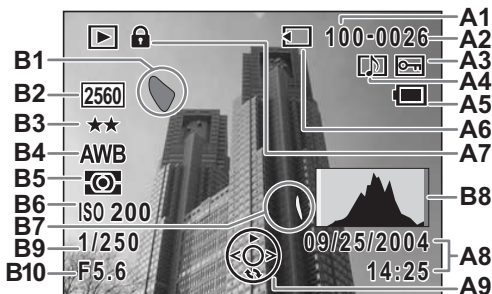
- | | |
|--------------------------------|------------------------|
| 1 Bright portion (blinks red) | 5 White balance (p.82) |
| 2 Dark portion (blinks yellow) | 6 AE metering (p.86) |
| 3 Recorded pixels (p.79) | 7 Sensitivity (p.87) |
| 4 Quality (p.81) | 8 Histogram (p.74) |

About the Bright and Dark Portions

When there is an area in the frame that is so bright it appears white, the indicated area blinks red as a warning. Similarly, when there is an area that is so dark it appears black, the indicated area blinks yellow as a warning.

Full Display in Still Picture Playback Mode

The display shows information such as the shooting conditions. B1 to B10 only appear when [Histogram + Info] is selected. (p.105)



- | | |
|---|---|
| A1 Folder number | B1 Bright portion (blinks red) (p.13) |
| A2 File number | B2 Recorded pixels (p.79) |
| A3 Protect icon (p.115) | B3 Quality (p.81) |
| A4 Voice memo icon (p.140) | B4 White balance (p.82) |
| A5 Battery indicator (p.19) | B5 AE metering (p.86) |
| A6 Memory status (p.25) | B6 Sensitivity (p.87) |
| : Built-in memory (without card) | B7 Dark portion (blinks yellow) (p.13) |
| : SD Memory Card | B8 Histogram (p.74) |
| : Card is write-protected | B9 Shutter speed |
| A7 Key lock icon (p.36) | B10 Aperture |
| A8 Captured date and time (p.32) | |
| A9 Four-way controller guide | |

Guide Indications

A guide to available button operations appears on the LCD monitor during operation.

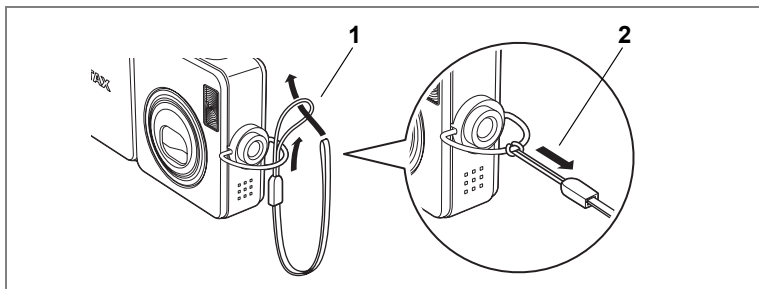
The buttons are indicated as shown below.

Four-way controller (▲)	▲
Four-way controller (▼)	▼
Four-way controller (◀)	◀
Four-way controller (▶)	▶
MENU button	

Zoom lever	
OK button	
Shutter release button	
Fn button	

Attaching the Strap

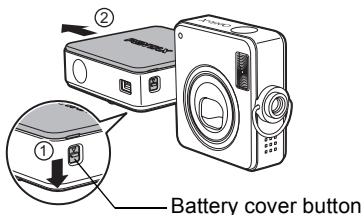
Attach the strap (O-ST20) supplied with the camera.



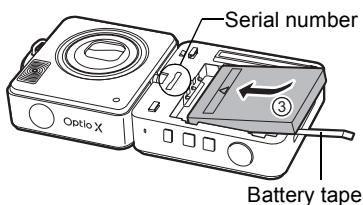
- 1** Pass the narrow end of the strap through the strap lug.
- 2** Pass the other end of the strap through the loop and pull tight.

Powering the Camera

Remove the battery cover



Insert the battery



* The serial number can be found on the camera once the battery cover has been removed.

Installing the Battery

The battery for this camera is included in the package. Insert the battery in the camera and then place the camera on the USB cradle to charge the battery.

1 Press the battery cover button on the side of the LCD monitor.

Swivel the lens section of the camera to expose the battery cover button.

2 Hold the button down and slide the battery cover in the direction of the arrow.

Remove the battery cover from the camera.

Caution

Do not pull the battery cover up with too much force while sliding it off. Doing so may damage the battery cover.

3 Insert the battery so that the ▲ symbol is pointing toward the lens.

Make sure that the battery tape protrudes from between the camera and the battery. The battery tape is useful for removing the battery and should not be pushed out of sight under the battery.

4 Close the battery cover.

Slide the cover on from the SD Memory Card socket side of the camera and push until it clicks.

The battery cover fits on the camera so that the “X” of the PENTAX logo on the cover is nearest the lens.

Removing the Battery

1 Remove the battery cover.

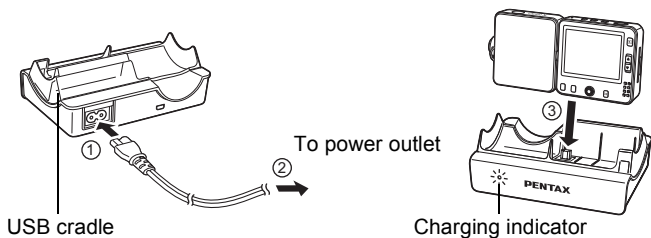
Refer to Steps 1 and 2 on the previous page.

2 Pull the battery tape to lift the battery up.

Lift the battery out of the camera.

Caution

- This camera uses a rechargeable lithium-ion battery D-LI8. Use of any other type of battery may damage the camera and cause malfunction.
- Insert the battery correctly. If the battery is incorrectly oriented, malfunction may result.
- Do not remove the battery while the camera is turned on.
- If you do not intend to use the camera for a long time, remove the battery.
- If the camera is left without the battery for a long time, the date will be reset.



When using the camera for the first time or after a long period of non-use, or when the [Battery depleted] message appears, charge the battery as described below.

Charging the Battery

- 1 Connect the AC plug cord D-CO24 to the USB cradle.**
- 2 Plug the AC plug cord into the power outlet.**
- 3 Place the camera on the USB cradle.**

Make sure that the connector on the bottom of the LCD monitor section of the camera is inserted into the connector terminal on the USB cradle. The charging indicator on the USB cradle lights red during charging. The charging indicator turns off when charging is finished.



- The time required for full charge is about 110 minutes maximum. The appropriate ambient temperature range for charging the battery is 0°C to 40°C. (The charging time may vary depending on the ambient temperature and charging conditions.)
- The battery has reached the end of its service life when it starts to run down soon after being charged. Replace with a new battery.



- Do not charge the camera other than Optio X with the rechargeable lithium-ion battery D-L18 inserted using the USB cradle because the cradle may overheat or be damaged.
- If the camera is inserted correctly but the charging indicator fails to light, the fault may lie with the USB cradle, the camera or the battery. Replace the battery with a new battery or contact your nearest PENTAX customer service center.

• **Image Storage Capacity and Playback Time**
(at 23°C with the LCD monitor on and the battery fully charged)

Image Storage Capacity (using the flash for 50% of shots)	Playback Time
Approx. 165 pictures	Approx. 160 min.

The still picture storage capacity is based on measuring conditions in accordance with CIPA standards and the playback time is based on PENTAX measuring conditions. Some deviation from the above figures may occur in actual use depending on shooting mode and shooting conditions.



- In general, battery performance may temporarily deteriorate as the temperature decreases.
- Be sure to take a spare battery with you when traveling or using the camera in a cold region, or if you intend to take a lot of pictures.

• **Battery Level Indicator**

You can check the battery level by the indicator on the LCD monitor.

Screen Display	Battery Status
(green)	Adequate power remains.
(green)	Battery is running low.
(yellow)	Battery is running very low.
(red)	Battery is exhausted.
[Battery depleted]	The camera will turn off after this message appears.

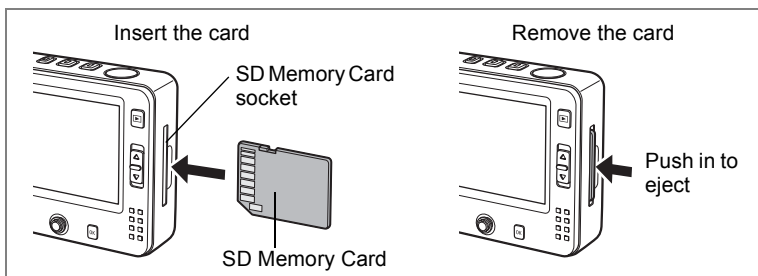
• **Recycling Batteries**



This symbol indicates that the battery is recyclable. Cover the terminals with insulating tape and take the battery to a store displaying this symbol.

Li-ion

Installing the SD Memory Card



This camera uses an SD Memory Card. Captured images, movies and voice recordings can be saved on the SD Memory Card if a card is inserted in the camera. They are saved in the built-in memory if a card is not inserted. (p.25)



Make sure that the camera is turned off before inserting or removing the SD Memory Card.



- A dummy card is inserted in the SD Memory Card socket when the camera leaves the factory to protect the socket from scratches and dust. Remove the dummy card before inserting the SD Memory Card. No images or sound can be recorded on the dummy card.
- Be sure to format unused cards or cards that have been used on another camera. Refer to "Formatting an SD Memory Card or the Built-in Memory" (p.142) for instructions on formatting.
- The still picture storage capacity varies depending on the capacity of the SD Memory Card and the selected number of recorded pixels and quality level. (p.22)
- Depending on the mode, the button, button or button blinks while the SD Memory Card is being accessed (data is being recorded or read).

1 Insert the SD Memory Card into the SD Memory Card socket so that the label is facing toward the front of the camera (the side with the PENTAX logo).

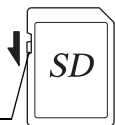
Push the card in until it clicks. Images and sound may not be recorded correctly if the card is not inserted all the way.

1 Push the card into the SD Memory Card socket to eject it.

Pull the card out.

Precautions When Using an SD Memory Card

- The SD Memory Card is equipped with a write-protect switch. Setting the switch to LOCK protects the existing data by prohibiting recording of new data, deletion of existing data or formatting of the card.
 appears on the LCD monitor when the card is write-protected.
- Care should be taken when removing the SD Memory Card immediately after using the camera, as the card may be hot.
- Do not remove the SD Memory Card or turn the camera off while data is being saved to the card, images or sound files are being played back, or the camera is connected to a computer with the USB cable, as this may cause the data to be lost or the card to be damaged.
- Do not bend the SD Memory Card or subject it to violent impact. Keep it away from water and store away from high temperature.
- Do not remove the SD Memory Card during formatting as this may damage the card and render it unusable.
- The data on the SD Memory Card may be deleted in the following circumstances. PENTAX does not accept any liability for data that is deleted
 - (1) when the SD Memory Card is mishandled by the user.
 - (2) when the SD Memory Card is exposed to static electricity or electrical interference.
 - (3) when the card has not been used for a long time.
 - (4) when the card is ejected or the battery is removed while the data on the card is being recorded or accessed.
- The SD Memory Card has a limited service life. If it is not used for a long time, the data on the card may become unreadable. Be sure to make a backup of important data on a computer.
- Avoid using or storing the card where it may be exposed to static electricity or electrical interference.
- Avoid using or storing the card in direct sunlight or where it may be exposed to rapid changes in temperature or to condensation.
- When using an SD Memory Card with a slow recording speed, recording may stop while you are taking movies even when there is adequate space in the memory, or shooting and playback may take a long time.
- For information on compatible memory cards, visit the PENTAX website or contact your nearest PENTAX customer service center.



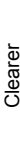
Recorded Pixels and Quality Level

Choose the number of pixels (size) and quality level (data compression rate) of still pictures according to how you intend to use the pictures you have taken.

Higher quality levels and numbers of pixels produce clearer images for printing, but the resulting increase in data volume reduces the total number of pictures that can be stored in the camera's built-in memory or on the SD Memory Card.

The quality of the captured photo or printed picture depends on the quality level, exposure control, resolution of the printer and a variety of other factors, so you do not need to select more than the required number of pixels. 1024×768 is sufficient for printing postcard-size prints. Refer to the table below for the appropriate settings according to use.

● Appropriate Number of Recorded Pixels According to Use

Recorded Pixels	Use
2560×1920	 For printing high quality photos or A4-size pictures, or editing images on a PC.
2304×1728	
2048×1536	
1600×1200	
1024× 768	
640× 480	For making postcard-size prints. For posting on a website or attaching to e-mail.

The default setting is 2560×1920.

● Appropriate Quality Level According to Use

★★★	Best	Lowest compression rate. Suitable for photo prints.
★★	Better	Standard compression rate. Suitable for viewing the image on a computer screen.
★	Good	Highest compression rate. Suitable for posting on a website or attaching to e-mail.

The default setting is ★★.

Choose the appropriate number of recorded pixels and quality level for still pictures on the [ Rec. Mode] menu.

Selecting the Recorded Pixels  p.79

Selecting the Quality Level  p.81

● Recorded Pixels, Quality Level and Image Storage Capacity

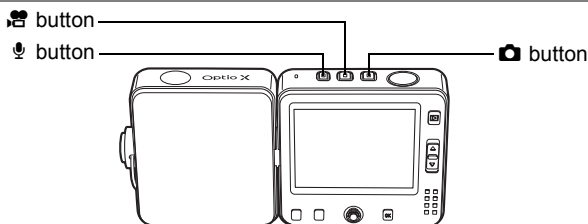
Quality Level Recorded Pixels	★★★ Best	★★ Better	★ Good	Movie	Sound
2560×1920	Approx. 18 pictures	Approx. 35 pictures	Approx. 60 pictures	Approx. 2 min. 56 sec.	Approx. 2 hr. 12 min. 13 sec.
2304×1728	Approx. 24 pictures	Approx. 46 pictures	Approx. 66 pictures		
2048×1536	Approx. 30 pictures	Approx. 55 pictures	Approx. 80 pictures		
1600×1200	Approx. 50 pictures	Approx. 86 pictures	Approx. 117 pictures		
1024× 768	Approx. 107 pictures	Approx. 193 pictures	Approx. 242 pictures		
640× 480	Approx. 227 pictures	Approx. 352 pictures	Approx. 430 pictures		

- The above table shows the approximate image storage capacity and recording time when using a 64MB SD Memory Card.
- The above figures may vary depending on the subject, shooting conditions, shooting mode and SD Memory Card, etc.

Turning the Camera On and Off

1

Getting Started



Turning the Camera On

- 1 Press the , or button depending on the mode you want to use.

The start-up sound is played and the camera turns on. The screen that appears depends on the button that was pressed.

button:

The camera turns on in (still picture) mode.

This is the mode for taking still pictures. The lens cover opens and the lens extends.



button:

The camera turns on in (movie) mode.

This is the mode for recording movies. The lens cover opens and the lens extends.

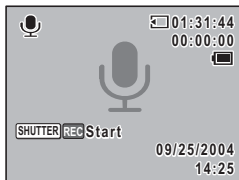


 button:

The camera turns on in  (voice recording) mode.

This is the mode for recording only sound, not for taking pictures or recording movies.

The lens cover stays closed.



- You can use the , , or  button to switch to a different mode after the camera has been turned on.
- If the Initial Settings screen or Date Adjust screen appears when you turn the camera on, follow the procedure on p.30 to set the display language and/or current date and time.

Checking the Memory Card

The memory card is checked automatically when the camera turns on.  appears on the LCD monitor when a card has been inserted and  appears when no card has been inserted.

 appears instead of  when the write-protect switch on the SD Memory Card is in the locked position. Images and sound cannot be recorded when the write-protect switch is locked.

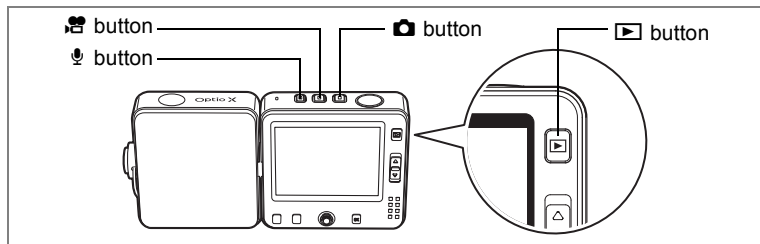
Memory status



Turning the Camera Off

- 1 Press and hold down the , , or  button.**

The camera turns off. The LCD monitor turns off, the lens retracts and the lens cover closes.



Turning the Camera On in Playback Only Mode

Use this mode when you want to play back several pictures or sound files. Still pictures, movies and sound files stored in the camera's built-in memory or on the SD Memory Card are played back without extending the lens.

In Playback Only mode, pressing the shutter release button does not change the mode to Capture mode.

1 Press the , or button while pressing the button.

The camera turns on, but the lens does not extend. The Playback screen appears.

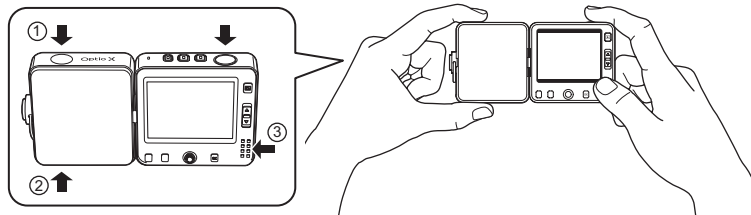


- You cannot take still pictures or movies, or record sound in Voice Recording mode when the camera is turned on in Playback Only mode.
- You cannot switch from Playback Only mode to another mode by pressing the , or button. To switch to another mode, turn the camera off and then turn it on again by pressing the button for the mode that you want to use.
- When you press the button for more than two seconds in Capture mode, the camera switches to Playback mode and the lens is retracted. Unlike Playback Only mode, you can switch to Capture mode or Voice Recording mode by pressing the button or shutter release button again, or by pressing the , or button.

Using the Camera

This camera is designed so that the lens and LCD monitor swivel to allow you to take pictures from a variety of angles (free style). The following describes the basic way to hold the camera and how to use it.

Holding the Camera

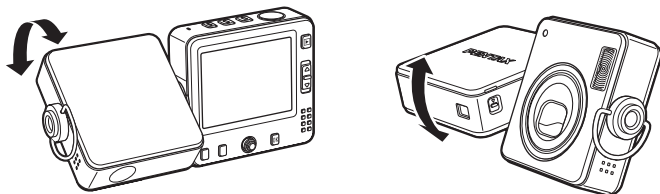


The exterior of the camera is designed to ensure easy operation by the user. To swivel the lens, place the finger and thumb of your left hand in the dents ① and ②. When taking pictures, hold the camera with the thumb of your right hand on ③ ready to press the buttons on the back of the monitor.



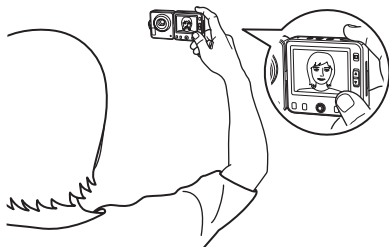
- Make sure that the thumb of your left hand is not covering the flash when you hold the camera.
- Hold the strap at the same time to make sure that you do not drop the camera.

Swiveling the Lens and LCD Monitor

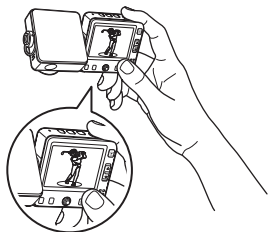


By swiveling the lens or LCD monitor section of the camera as shown above, you can position it at the desired angle.

Make use of this feature to take pictures of yourself or to take pictures in a crowd by extending your arm.



Swiveling both the lens and LCD monitor toward yourself is useful for taking pictures of yourself or with a group.



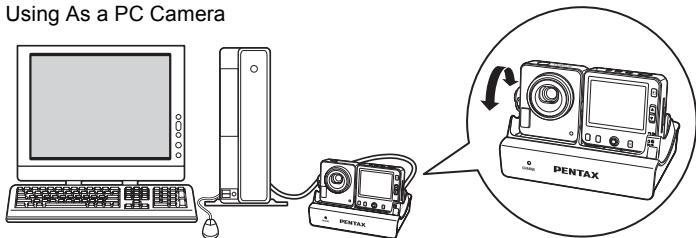
By swiveling the lens so it faces downwards and holding the camera at arm's length, you can follow your subject in a crowd or at a sporting event.

Taking Pictures With the Camera in the USB Cradle

You can take pictures with the camera while it is still in the USB cradle. The USB cradle makes a stable base for positioning the camera on a table or shelf or other flat surface. It is useful for taking self-portraits or group photos without a tripod.

The USB cradle is also used to connect the camera to your PC, TV or other AV equipment. By connecting the camera to your PC or TV using the USB cradle and USB cable, as well as transferring still pictures and other data from the camera to the PC, you can use the camera as a "PC camera" (USB camera) and post images captured by the camera lens directly on a website via the PC.

Using As a PC Camera

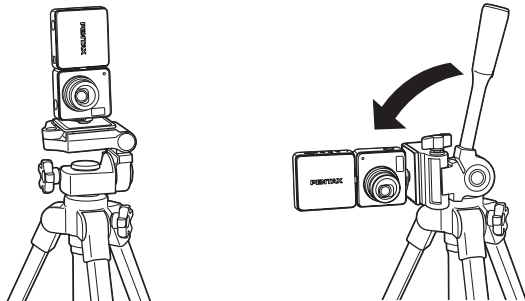


By connecting the camera to a video recorder, DVD recorder or other AV equipment, you can record images captured by the camera. (p.110)



You cannot take pictures while using an AC power supply. If you intend to use the camera for a long period of time as a “PC camera”, make sure that the battery is fully charged.

Using a Tripod



As the tripod socket is located on the side of the lens section, pictures are taken in the vertical position unless you adjust the camera after attaching it to the tripod.

To take pictures in the horizontal position, adjust the position of the platform so that the camera is horizontal.



Make sure the tripod is steady and does not overbalance due to the weight of the camera. You are recommended to use a sturdy tripod.

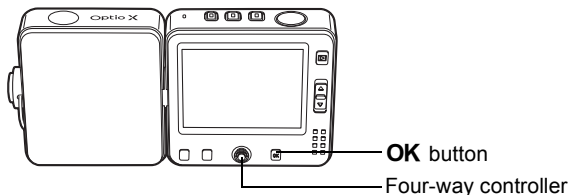


- The way the camera is fixed to the tripod varies depending on the type of tripod. For more information, refer to the operating manual for your tripod.
- Camera may be unstable depending on the tripod used. If the camera is unstable, use a tripod stabilizer (sold separately) and place it between the camera and platform. Do not use if the height of the tripod screw is low or the fit in the tripod socket is not secure. Contact customer service for more details.

Initial Settings

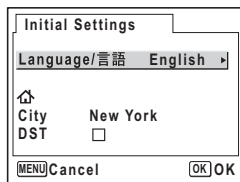
1

Getting Started



If the Initial Settings screen or Date Adjust screen appears when you turn the camera on, follow the procedure below to set the display language and/or current date and time.

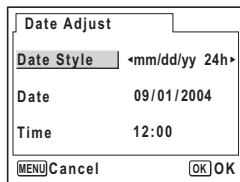
If the Initial Settings screen appears



➤ p.31 "Setting the Display Language"

➤ p.32 "Setting the Date and Time"

If the Date Adjust screen appears



➤ p.32 "Setting the Date and Time"

If neither screen appears, setting is not required.

Setting the Display Language

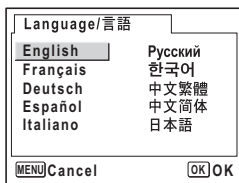
You can choose the language in which the menus, error messages, etc. are displayed from the following: English, French, German, Spanish, Italian, Russian, Korean, Chinese and Japanese.

1 Press the four-way controller (▶).

The Language/言語 screen appears.

2 Use the four-way controller (▲▼◀▶) to choose a language.

The default setting is English.

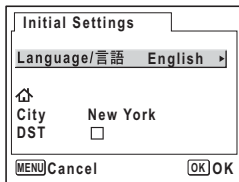


3 Press the OK button.

4 Press the four-way controller (▼).

The frame moves to [City].

5 Use the four-way controller (◀▶) to choose the desired city (Hometown).



6 Press the four-way controller (▼).

The frame moves to [DST] (Daylight Saving Time).

7 Use the four-way controller (◀▶) to select ☒ (On) or ☐ (Off).

8 Press the OK button.

The Date Adjust screen appears.

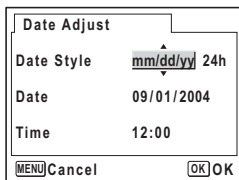
Setting the Date and Time

Set the current date and time and the display style.

1

1 Press the four-way controller (►).

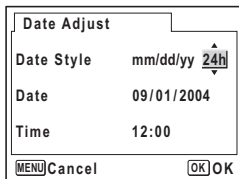
The frame moves to [mm/dd/yy].



2 Use the four-way controller (▲▼) to choose the date and time display style.

3 Press the four-way controller (►).

The frame moves to [24h].



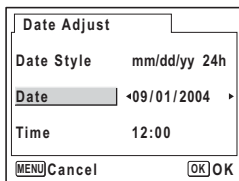
4 Use the four-way controller (▲▼) to select [24h] (24-hour display) or [12h] (12-hour display).

5 Press the four-way controller (►).

The frame returns to [Date Style].

6 Press the four-way controller (▼).

The frame moves to [Date].



7 Press the four-way controller (►).

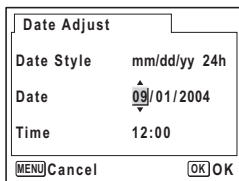
The frame moves to month.

8 Use the four-way controller (▲▼) to change the month.

Change the day and year in the same manner.

Next, change the time.

If you select [12h] in Step 4, the setting switches between am and pm corresponding to the time.



9 Press the **OK** button.

The camera is ready to take pictures. If you set the date and time with the menu operations, the screen will return to the [📷 Set-up] menu. Press the **OK** button again.

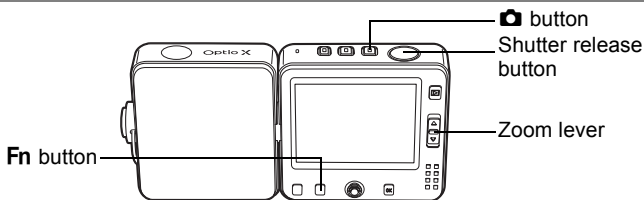


- When you finish the settings and press the **OK** button, the camera clock is reset to 00 seconds.
- To set the exact time, press the **OK** button when the time signal (on the TV, radio, etc.) reaches 00 seconds.
- You can change the language and date and time settings with the menu operations. (📖 p.143, p.148)



When the Initial Settings or Date Adjust screen is displayed, you can cancel the setting operation and switch to Capture mode by pressing the **MENU** button. In this case, the Initial Settings screen will appear next time you turn the camera on.

Taking Still Pictures



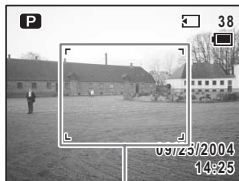
The standard procedure for taking still pictures is described below. The flash fires automatically depending on the light conditions.

1 Press the button.

The camera turns on and is ready to take still pictures.

2 Confirm the subject and shooting information on the LCD monitor.

The focus frame in the middle of the LCD monitor indicates the zone of automatic focusing.



Focus frame

Press the zoom lever up or down to change the area.

: enlarges the subject

: enlarges the area captured by the camera

3 Press the shutter release button halfway.

The focus frame turns green if the subject is in focus.

4 Press the shutter release button fully.

The picture is taken.

The image appears on the LCD monitor for one second (Instant Review) and is saved to the SD Memory Card or built-in memory. (p.35)



When the Zoom Position is toward , taking pictures with the flash may cause an edge of the picture to appear dark. Check the picture using playback.

Using the Shutter Release Button

The shutter release button works in a two-step action as follows.

Press halfway

The focus, exposure and white balance are locked when the shutter release button is pressed halfway. The shutter speed and aperture settings only appear on the LCD monitor when the shutter release button is pressed halfway. The green focus frame lights on the LCD monitor when the shutter release button is pressed halfway and the subject is in focus. If the subject is out of focus, the frame will light red.

Press fully

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

[Poor focusing conditions]

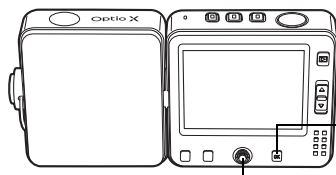
The camera may not be able to focus under the following conditions. In this case, lock the focus on an object the same distance away as the subject (by pressing the shutter release button halfway), then aim the camera at your subject and press the shutter release button fully.

- Objects that lack contrast such as a blue sky or white wall
- Dark places or objects, or conditions that prevent light being reflected back
- Horizontal lines or intricate patterns
- Fast moving objects
- When there is an object in the foreground and an object in the background in the same picture
- Strongly reflected light or strong backlighting (bright background)

Instant Review

The image appears on the LCD monitor for one second (Instant Review) immediately after it is captured. You can change the Instant Review time. (esp.p.88)

You can delete the image during Instant Review by pressing the **Fn** button.



OK button

Four-way controller
Center button

Key Lock

Engaging the Key Lock in Capture mode disables all camera operations except power off, shutter and zoom operations.

As no pictures can be played back or voice memos recorded, etc., this function is useful for preventing erroneous operation when you ask someone to take pictures for you.

1 Press the center button in mode.

The quick menu appears.

2 Use the four-way controller (▲▼) to select [Key Lock].



3 Press the center button.

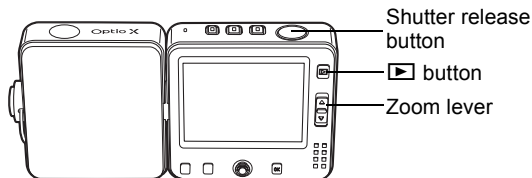
The Key Lock is engaged and the camera returns to Capture mode.

Pressing the **OK** button during Key Lock displays  at the top of the LCD monitor, indicating that the lock is engaged.

To cancel Key Lock, press the center button to display the quick menu and press the center button.



Playing Back Still Pictures



Playing Back Images

You can play back the images you have taken.

- 1 Press the  button after taking a picture.**

The image appears on the LCD monitor. This is called Playback mode. To take another picture, press the  button again or press the shutter release button halfway.



Playing Back Images with the Lens Retracted

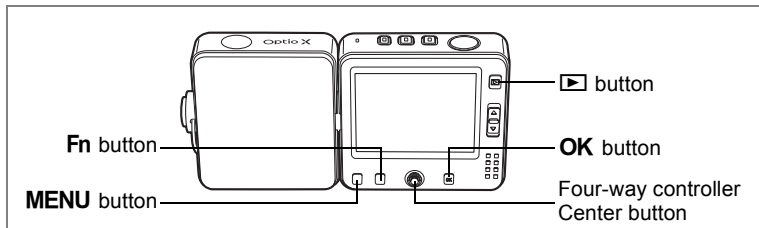
You are recommended to use the camera with the lens retracted when you want to play back several pictures.

- 1 Press and hold down the  button for more than two seconds after taking a picture.**

The camera switches to Playback mode and the lens is retracted. To take another picture, press the  button again or press the shutter release button halfway.



- If there are no images stored, the [No image & sound] message appears.
- You can enlarge the image by pressing the zoom lever. (p.103)
- For instructions on how to view images on a computer, refer to the "PC Connection Manual – Enjoying Your Digital Camera Images On Your PC".



Playing Back the Previous or Next Image

Still pictures can be played back one at a time, proceeding either forward or backward.

- 1 **Press the  button after taking a picture.**

The image appears on the LCD monitor.

- 2 **Press the four-way controller ( ).**

The previous or next image appears.

Rotating the Displayed Image

- 1 **Press the  button after taking a picture.**

The image appears on the LCD monitor.

- 2 **Press the four-way controller ().**

The image is rotated 90 degrees clockwise each time the button is pressed.

- 3 **Press the OK button.**

The original image appears.

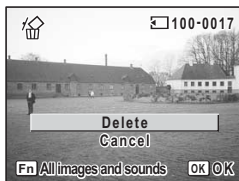


Movies cannot be rotated.

Deleting the Displayed Image

Press the **Fn** button and then the four-way controller (◀) to display the Delete screen while the image is displayed on the LCD monitor.

You can delete the displayed image by using the four-way controller (▲) to select [Delete] and pressing the **OK** button. (p.111)



Engaging the Key Lock Function

Engaging the Key Lock in Playback mode disables all camera operations except power off and playback operations.

As no pictures can be taken or voice memos recorded, etc., this function is useful for preventing erroneous operation when showing images to someone.

1 Press the center button in Playback mode.

The quick menu appears.

2 Use the four-way controller (▲▼) to select [Key Lock].



3 Press the center button.

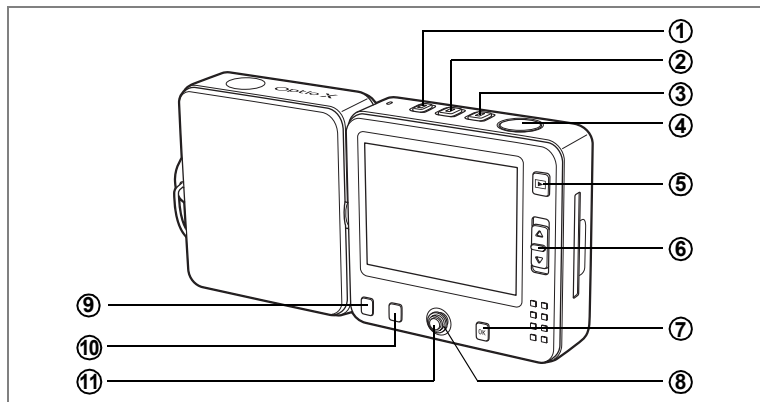
The Key Lock is engaged and the camera returns to Playback mode.

To cancel Key Lock, press the center button again to display the quick menu and select [Release Key Lock].

Pressing the **OK** button during Key Lock displays a lock icon at the top of the LCD monitor, indicating that the lock is engaged.



Understanding the Button Functions



Capture and Voice Recording Modes

- ① **🎤 button**
 📷, 🎥 mode: Switches to 🎤 mode. (☞p.136)
 Turns the camera off when held down.
- ② **🎥 button**
 📷, 🎤 mode: Switches to 🎥 mode. (☞p.95)
 Turns the camera off when held down.
- ③ **📷 button**
 🎤, 🎥 mode: Switches to 📷 mode. (☞p.34)
 Turns the camera off when held down.
- ④ **Shutter release button**
 📷 mode : Takes a still picture. (☞p.34)
 🎥 mode : Records a movie. (☞p.95)
 🎤 mode : Records a voice memo. (☞p.136)
- ⑤ **▶ button**
 Switches to the Playback mode. (☞p.37, p.108)

⑥ Zoom lever

 mode: Changes the captured area. (p.61)

 : enlarges the subject

 : enlarges the area captured by the camera

⑦ OK/DISPLAY button

Changes the information displayed on the LCD monitor. (p.73)

⑧ Four-way controller

The outer rim can be pressed in four directions: up, down, left and right. Pressing the center turns the controller into the center button (⑪).

 mode

(▲▼) : Displays the Mode Palette. (p.55)

 mode

(◀▶) : Adjusts the exposure. (p.63)

⑨ MENU button

Displays the [ Rec. Mode] menu or [My Menu]. (p.44)

([My Menu] only appears when a function has been saved in [My Menu].)

⑩ Fn button

Displays the Fn guide. Pressing the four-way controller (▲◀▶) performs the following operations.

Not all functions can be selected depending on the shooting mode when the **Fn** button is pressed.

(▲) : Selects self-timer shooting (p.64), continuous shooting (p.66), multiple shooting (p.66), auto bracketing (p.68) or interval shooting. (p.70)

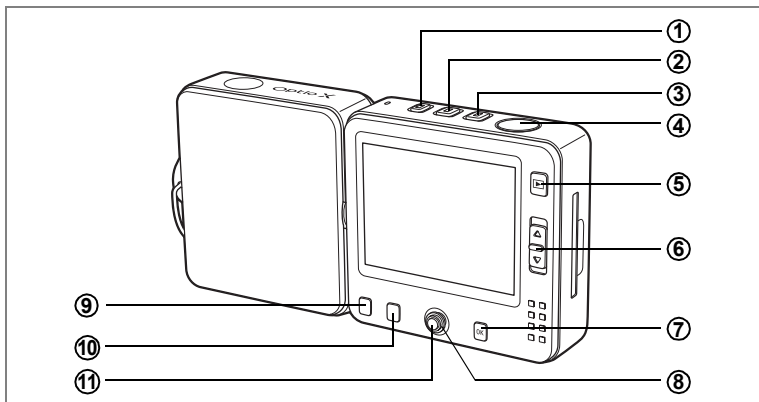
(◀) : Selects a flash mode. (p.78)

(▶) : Selects a focus mode. (p.75)

⑪ Center button

Press the middle of the button. Pressing the rim up, down, left or right turns the button into the four-way controller (⑧).

The quick menu appears. (p.50)



Playback Mode

- ① **button**
Switches to mode. (p.136)
Turns the camera off when held down.
- ② **button**
Switches to mode. (p.95)
Turns the camera off when held down.
- ③ **button**
Switches to mode. (p.34)
Turns the camera off when held down.
- ④ **Shutter release button**
Press down halfway or fully to switch to mode. (p.34)
- ⑤ **button**
Switches to mode in single-image display. (p.34)
- ⑥ **Zoom lever**
Press toward in single-image display to switch to nine-image display, and press toward again to switch to folder display. Press toward to return to the previous display. (p.101)
Press toward to enlarge the image in single-image display. Press toward to return to the previous display. (p.101)

⑦ **OK/DISPLAY button**

Changes the information displayed on the LCD monitor. (p.105)

Returns zoom display, rotated image display or nine-image display to single-image display. (p.101)

Displays nine-image display for the folder selected in folder display. (p.101)

⑧ **Four-way controller**

The outer rim can be pressed in four directions: up, down, left and right.

Pressing the center turns the controller into the center button (⑪).

(▲) : Plays back and pauses a movie or voice recording. (p.108)

(◀▶) : Displays the previous or next image in single-image display. (p.38)

Frame forwards, frame reverses, fast forwards and reverses a movie during playback. (p.108)

Fast forwards, reverses, and moves to the index during voice recording playback. (p.138)

(▼) : Rotates the image in single-image display. (p.38)

Stops a movie or voice recording during playback. (p.108)

(▲▼◀▶) : Moves the display area of the enlarged image. (p.103)

Selects an image in nine-image display and a folder in folder display. (p.101)

⑨ **MENU button**

Displays the [▶ Playback] menu or [My Menu]. (p.44)

([My Menu] only appears when a function has been saved in [My Menu].)

⑩ **Fn button**

Displays the Fn guide. Pressing the four-way controller (▲◀▶) performs the following operations.

Not all functions can be selected depending on the type of sound or image displayed when the **Fn** button is pressed.

(▲) : Makes DPOF print settings. (p.128)

(◀) : Deletes the image. (p.111)

(▶) : Protects the image. (p.115)

⑪ **Center button**

Press the middle of the button. Pressing the rim up, down, left or right turns the button into the four-way controller (⑧).

The quick menu appears.

Engages Key Lock (p.39) and adds a voice memo to a still picture (p.139).

Using the Menu

When you press the **MENU** button, a menu appears on the LCD monitor. The menu varies depending on the camera mode. You can set functions, save the settings and change the camera settings on these menus.

If you assign the function you use most frequently to [My Menu], pressing the **MENU** button will take you straight to [My Menu] (p.51).



The explanations in this operating manual use examples of the My Menu screen with no function assigned.

3

How to Use the Menu

A guide to available button operations appears on the LCD monitor during menu operation.

Ex.) To set the [Quality Level] on the [Rec. Mode] menu

1 Press the MENU button in Capture mode.

The [Rec. Mode] menu appears.

2 Press the four-way controller (▼).

The frame moves to each item.

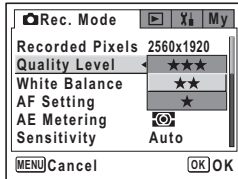
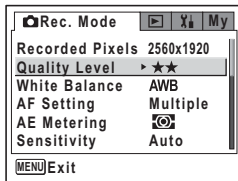
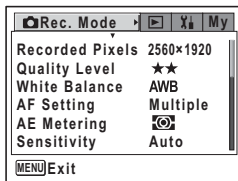
3 Press the four-way controller (▼).

The frame moves to [Quality Level].

4 Press the four-way controller (▶).

A pull-down menu appears with the menu items that can be selected.

The pull-down menu displays only those items that can be selected with the current camera settings.



5 Use the four-way controller (▲▼) to change the setting.

The quality level changes each time the four-way controller (▲▼) is pressed.

To Save the Setting and Start Taking Pictures

6 Press the shutter release button halfway.

The setting is saved and the camera returns to capture status.
When the shutter release button is pressed fully, the picture is taken.

To Save the Setting and Begin Playback of Images

6 Press the button.

The setting is saved and the camera returns to playback status.

To Save the Setting and Continue with Menu Operations

6 Press the OK button or the four-way controller (◀).

The setting is saved and the screen returns to Step 3.

To Cancel the Changes and Continue with Menu Operations

6 Press the MENU button.

The changes are canceled and the screen returns to Step 3.

The **MENU** button functions differ depending on the screen. Refer to the guide indications.

 Exit : Save the current setting, exit the operation and return to the original screen (Capture or Playback mode).

  : Save the current setting and return to Step 1.

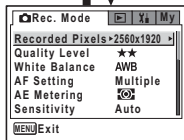
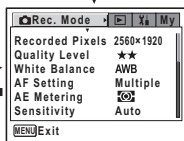
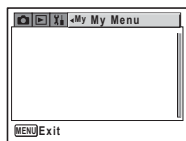
 Cancel : Cancel the current selection, exit the operation and return to Step 3.

Example of Menu Operation

Press the **MENU** button during taking a picture and the [Rec. Mode] menu appears. Press the **MENU** button during playback and the [My Menu] appears. [My Menu] appears if a function has been saved in [My Menu]. (p.51)



MENU



In a pull-down menu or setting screen,

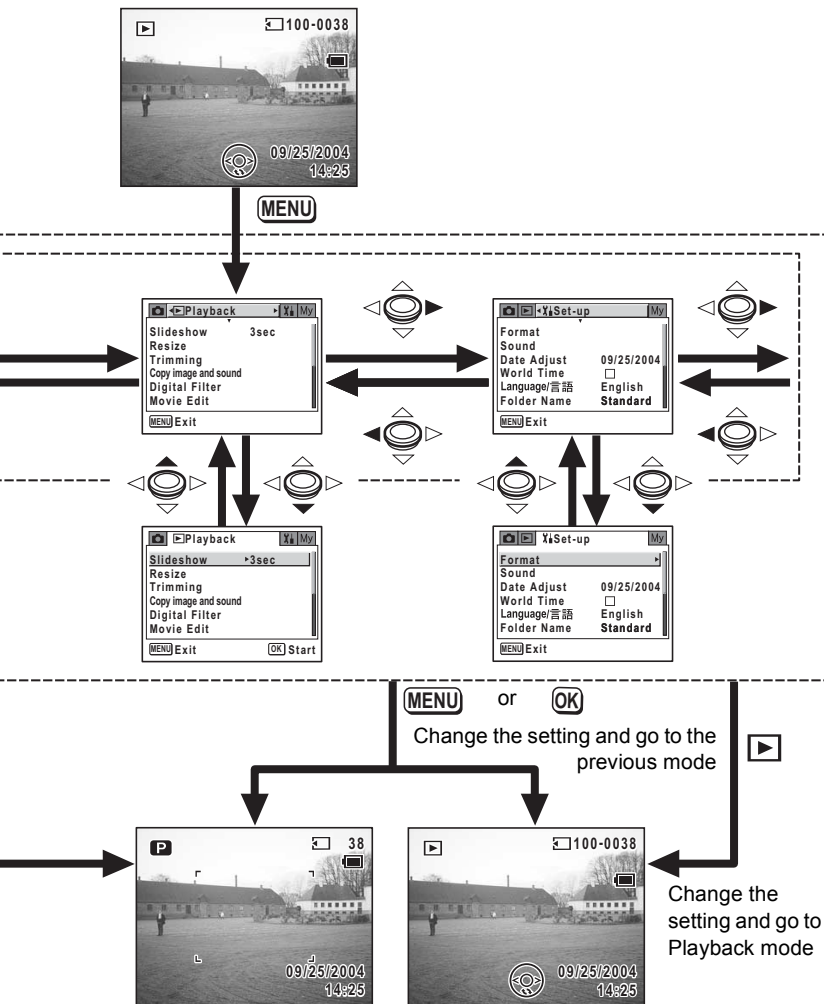
- press the shutter release button to go to Capture mode.
- press the button to go to Playback mode.

SHUTTER Press halfway

Change the setting and go to Capture mode

Caution

- Press the **OK** button or four-way controller (◀) when a pull-down menu is displayed to return to the menu item selection screen.
- Press the **MENU** button when a pull-down menu is displayed to cancel the setting.



Menu List

This displays the items that can be set with the menus and provides descriptions of each item. See the list of default settings in the Appendix (p.163) to decide whether you want the settings saved when the camera is turned off and whether you want the settings returned to the defaults when the camera is reset.

[Rec. Mode] Menu

This menu shows the functions related to taking still pictures and recording movies.

3

Item		Description	Page
Recorded Pixels		For selecting the number of pixels of still pictures	p.79
Quality Level		For selecting the compression rate of still pictures	p.81
White Balance		For adjusting the color balance according to the light conditions	p.82
AF Setting	Focusing Area	For changing the area of the autofocus	p.84
	Focus Limiter	For limiting the lens movement area according to the conditions	p.84
AE Metering		For setting the metering method to determine the exposure	p.86
Sensitivity		For setting the sensitivity	p.87
Auto Bracket		For automatically changing the shooting conditions	p.68
Interval Shoot		For continuous shooting of a set number of pictures at a set interval	p.70
Movie	Color Mode	For selecting a color filter for movies	p.98
	Time-lapse Movie	For setting the frame rate when recording time-lapse movies	p.99
Digital Zoom		For taking digital zoom pictures	p.61
Instant Review		For setting the Instant Review time	p.88
Memory		For choosing whether to save the set values of the shooting function or return to the defaults when the camera is turned off	p.92
Sharpness		For choosing whether you want the image to have sharp or soft outlines	p.89
Saturation		For setting the color saturation	p.90
Contrast		For setting the image contrast	p.91



All the settings on the [Rec. Mode] menu can be returned to their defaults with the [Initialize Rec. Mode] of the quick menu. (p.94)

[▶ Playback] Menu

Item		Description	Page
Slideshow		For playing back recorded images one after another	p.106
Resize		For changing the size of images	p.117
Trimming		For deleting the unneeded part of a picture	p.119
Copy image and sound		For copying files from the built-in memory to the SD Memory Card and vice versa	p.121
Digital Filter		For creating a color filter effect using red, blue, green filters etc.	p.123
Movie Edit	Save as Still image	For saving one frame from a movie as a still picture	p.125
	Divide Movies	For dividing a movie into two	p.126
	Stitch Movies	For joining two movies together	p.127
Quick Zoom		For displaying the image at maximum magnification by pressing the zoom lever once	p.104
Quick Delete		For displaying the Delete screen with [Delete] highlighted when [On] is selected	p.112
Alarm		For setting the alarm to ring and display an image at a specific time	p.158

[⚙️ Set-up] Menu

Item		Description	Page
Format		For formatting the SD Memory Card or built-in memory	p.142
Sound		For adjusting the playback volume and settings of the start-up sound, shutter sound, key operation sound and self-timer sound	p.144
Date Adjust		For adjusting the date, time, and date and time styles	p.143
World Time		For setting the world time	p.146
Language/言語		For changing the language in which menus and messages appear	p.148
Folder Name		For setting the folder name with the date setting	p.148
Screen Setting	Change Start-up Screen	For displaying an image as the start-up screen when the camera is turned on	p.150
	Background color	For choosing the background color of the menus	p.151
	Brightness Level	For changing the brightness of the LCD monitor	p.152
Video Out		For setting the output format to the TV monitor	p.153
USB Connection		For changing the USB connection mode according to purpose	p.154
Sleep Timeout		For setting the power-saving function	p.155
Auto Power Off		For turning off the power automatically after a fixed time	p.156
Reset		For returning settings other than the date and time, language, world time, video out and my menu to their defaults	p.157

Quick Menu

The quick menu appears when you press the center button (in the middle of the four-way controller). Press the **MENU** button to exit the quick menu without changing any of the settings.

The quick menu for each mode is shown below.

mode

Item	Description	Page
 REC Start	For starting and stopping voice recording in still picture capture mode	p.54
 REC Stop		
Mode Palette	For displaying the Mode Palette	p.55
Initialize Rec. Mode	For returning all the settings in the [ Rec. Mode] menu to their defaults. The settings in the [ Playback] menu and [ Set-up] menu remain unchanged.	p.94
 Key Lock	For disabling all operations except power off, release key lock, shutter and zoom	p.36
 Set Direction	For returning to the direction screen in Panorama Assist mode	p.60

mode

Item	Description	Page
Take Still image	For taking still pictures without interrupting movie recording	p.96
Initialize Rec. Mode	For returning all the settings in the [ Rec. Mode] menu to their defaults	p.94
 Key Lock	For disabling all operations except power off, release key lock, shutter and zoom	p.36

Still Picture Playback mode

Item	Description	Page
 REC Start	For attaching a voice memo to the still picture displayed on the LCD monitor. Starts and stops recording.	p.139
 REC Stop		
 Key Lock	For disabling all operations except power off, release key lock and four-way controller operation	p.39
Slideshow	For starting a slideshow	p.106

Before and during playback in Movie Playback mode, and before starting voice recording or playback

Item	Description	Page
 Key Lock	For disabling all operations except power off, release key lock and four-way controller operation	p.39
Slideshow	For starting a slideshow	p.106

During pause in Movie Playback mode

Item	Description	Page
Save as Still image	For saving the frame displayed on the LCD monitor as a still picture	p.109
Back to 1st frame	For returning to the first frame of the selected movie	—

[Rec. Mode], [Playback] and [Set-up] menu

Item	Description	Page
My Menu	For saving the selected function in My Menu	p.51
Cancel	For returning to the original menu without saving a function in My Menu	—

My Menu

Item	Description	Page
Upward	For moving the selected item to the field above	p.52
Downward	For moving the selected item to the field below	p.52
Delete	For deleting the selected item from My Menu	p.52

Using My Menu

[My Menu] appears when a function has been saved in [My Menu] and the **MENU** button is pressed. You can go straight to the settings screen of the function you use most frequently by saving that function in My Menu.



- You can use the saved function in the same way on the original menu ([Rec. Mode], [Playback] and [Set-up]).
- You cannot save different settings for the same function in My Menu and on the original menu.

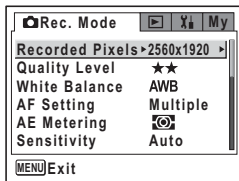
Saving a Function in [My Menu]

1 Press the **MENU** button.

The Menu screen appears.

2 Use the four-way controller () to choose a menu.

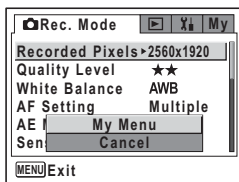
3 Use the four-way controller () to choose the function you want to save.



4 Press the center button.

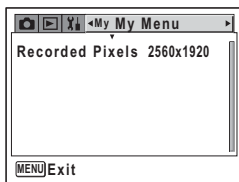
The quick menu appears.

5 Use the four-way controller (▲▼) to select [My Menu].



6 Press the center button.

The selected function is saved in [My Menu].



- Any function in the [📷 Rec. Mode], [▶ Playback] or [⚙️ Set-up] menu can be saved in [My Menu].
- [My Menu] settings are not returned to the defaults (with no function saved) by selecting [Reset] on the [⚙️ Set-up] menu. Delete the settings one by one.

Editing [My Menu] (Changing the display order and deleting items)

1 Press the MENU button.

[My Menu] appears.

2 Use the four-way controller (▲▼) to choose an item.

3 Press the center button.

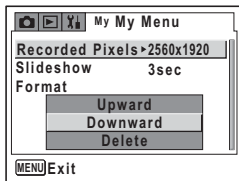
The quick menu appears.

If the selected item appears at the top, [Downward] is highlighted. If the selected item appears in any other position, [Upward] is highlighted.

Upward : Moves the selected item up one field

Downward : Moves the selected item down one field

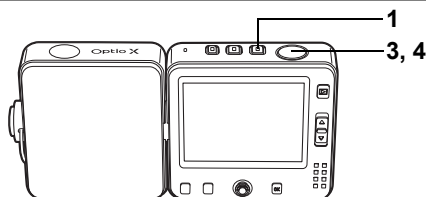
Delete : Deletes the selected item



4 Use the four-way controller (▲▼) to choose an item and press the center button.

The menu item is moved or deleted.

Taking Pictures



P

Letting the Camera Choose the Optimal Settings (Program Mode)

In **P** (Program) mode, the camera automatically sets the shutter speed and aperture for taking still pictures. However, you can select other functions such as the flash mode and recorded pixels.

1 Press the button.

The camera turns on and is ready to take still pictures.

2 Set the functions you want to use.

Refer to “Setting the Shooting Functions” (pp.75 - 91) for details of how to set the functions.

3 Press the shutter release button halfway.

The focus frame on the LCD monitor turns green if the subject is in focus and the aperture and shutter speed appear.

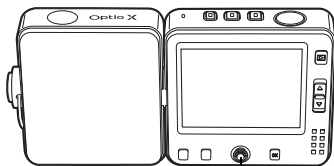
4 Press the shutter release button fully.

The picture is taken.



- You can take a still picture while recording a movie or a voice memo. (p.54, p.96)
- The left and right keys on the four-way controller can be used to adjust the exposure. (p.63)

Taking Still Pictures p.34



1, 2

Recording a Voice Memo While in Still Picture Capture Mode

Use the quick menu to record a voice memo while in still picture capture mode. You can continue taking pictures while recording the voice memo.

4

1 Press the center button in mode.

The quick menu appears.

2 Use the four-way controller () to select [**REC Start**] and press the center button.

The camera returns to mode and recording starts.

Continue taking pictures while recording.

To finish recording, press the center button again to display the quick menu. Select [**REC Stop**] and press the center button.



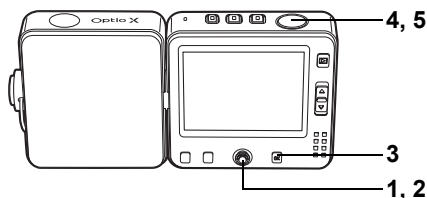
- You can also take still pictures while recording a voice memo. (p.137)
- You can also take still pictures while recording a movie. (p.96)

Selecting the Picture Mode According to the Shooting Scene

Your Optio X camera has a variety of shooting modes that allow you to take pictures according to the situation or shooting conditions simply by choosing the right mode for that situation.

There are 15 available shooting modes.

	Program	The basic picture-taking mode. Lets you take pictures using the various camera functions.
	Landscape	Lets you capture the bright colors of landscape views by emphasizing the contours and tones of green trees, blue sky, etc.
	Flower	Lets you capture the vivid colors of flowers. The brightness of the image is maintained while the background is moderately blurred.
	Portrait	Lets you take beautiful portrait shots. (Natural skin tone is captured by reducing the contrast.)
	Night Scene	Lets you take dark scenes such as night views.
	Panorama Assist	Lets you overlap the edges of your images so that they can be joined to form a panorama picture using the software supplied with the camera.
	Surf	Lets you take clear, vivid pictures of water, such as the sea or a lake, in bright sunshine.
	Snow	Lets you take photos against dazzling backgrounds such as snow-covered mountains.
	Self-portrait	Lets you take pictures of yourself, either alone or with others. (The focus is controlled to take into account the shooting distance (arm length).)
	Night Scene Portrait	Lets you capture evening or night views or take pictures of people against a nightscape. (The camera has a max. slow shutter speed of four seconds and features slow synchronization and noise reduction functions.)
	Food	Lets you take pictures of prepared food that looks really appetizing.
	Museum	Lets you capture exhibits and works of art in museums and galleries without using the flash.
	Pet	Lets you capture lifelike pictures of your pet.
	Sport	Lets you take sharp pictures of a quickly moving subject, such as at a sporting event.
	Fireworks	Lets you take clear photos of fireworks.



1 Press the four-way controller (▲▼) in mode.

The Mode Palette appears.

2 Use the four-way controller (▲▼◀▶) to choose a shooting mode.



3 Press the OK button.

The shooting mode is selected and the camera returns to capture status.

4 Press the shutter release button halfway.

The focus frame turns green if the subject is in focus.



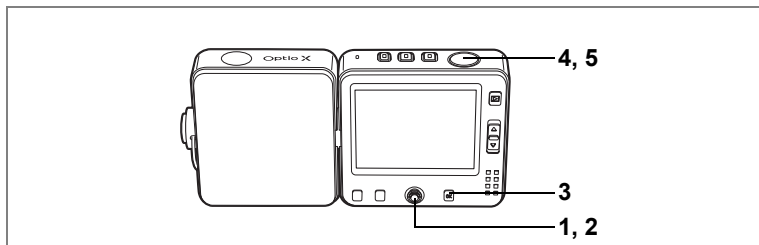
5 Press the shutter release button fully.

The picture is taken.



- In the shooting modes other than and , the flash, focus, saturation, contrast, sharpness and white balance are automatically set to the optimal settings for each mode.
- You can also display the Mode Palette from the quick menu by pressing the center button. (p.50)

Using the Shutter Release Button p.55



Taking Pictures of Dark Scenes (Night Scene/ Night Scene Portrait/Fireworks Mode)

You can choose settings appropriate for taking pictures of dark scenes, such as nightscapes.

	Use this mode when taking pictures of night views only.
	Use this mode when taking pictures of someone against a night scene.
	Use this mode when taking clearer pictures of fireworks.

1 Press the four-way controller (▲▼) in mode.

The Mode Palette appears.

2 Use the four-way controller (▲▼◀▶) to select , or .

3 Press the OK button.

The shooting mode is selected and the camera returns to capture status.

4 Press the shutter release button halfway.

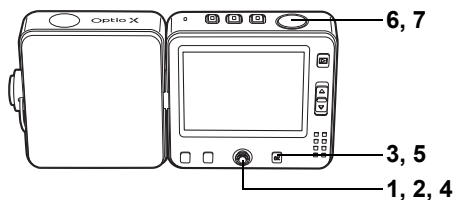
The focus frame turns green if the subject is in focus.

5 Press the shutter release button fully.

The picture is taken.



- The shutter speed is slower when taking pictures of dark scenes.
- To prevent camera shake, use a tripod and the self-timer function. (p.29, p.64)

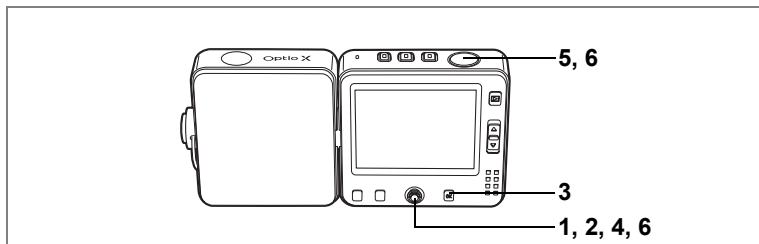


Taking Pictures of Your Pet (Pet Mode)

In Pet mode, you can take pictures that show your pet at its best. Choose the appropriate icon depending on what color your pet is (closer to black or white or in between).

- 1 Press the four-way controller (▲▼) in mode.**
The Mode Palette appears.
- 2 Use the four-way controller (▲▼◀▶) to select .**
- 3 Press the OK button.**
The screen for selecting the pet mode appears.
- 4 Use the four-way controller (▲▼) to select , , , , or .**
There are two icons of a cat and a dog.
(Choosing either the cat or dog icon does not affect the resulting picture. Choose whichever you prefer.)
- 5 Press the OK button.**
The Pet mode is selected and the camera returns to capture status.
- 6 Press the shutter release button halfway.**
The focus frame turns green if the subject is in focus.
- 7 Press the shutter release button fully.**
The picture is taken.





Taking Panorama Pictures (Panorama Assist)

You can take a number of images and join them together to form a panorama picture. The panorama software (ACDSee for PENTAX) on the CD-ROM (S-SW24) supplied with the camera and a computer are necessary for joining the images. The Panorama Assist mode enables you to overlap the edges of the images so that they are easier to join together later into a panorama picture.

- 1 Press the four-way controller (▲▼) in mode.**
The Mode Palette appears.
- 2 Use the four-way controller (▲▼◀▶) to select .**
- 3 Press the OK button.**
- 4 Use the four-way controller to choose the direction in which the images will be joined.**
 - ◀ : Joins the images at the left.
 - ▶ : Joins the images at the right.
 - ▲ : Joins the images at the top.
 - ▼ : Joins the images at the bottom.



The example shows the images when ▶ is selected.

5 Take the first image.

Press the shutter release button fully to take the first image. The right edge of the image appears in semi-transparent form on the left of the LCD monitor.



6 Move the camera to the right and take the second image.

Move the camera until the semi-transparent image and the actual view overlap and press the shutter release button. Repeat Steps 5 and 6 to take the third and subsequent images.



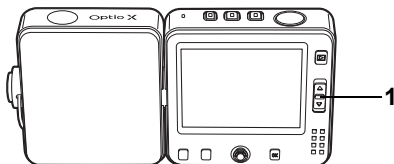
To exit Panorama Assist mode, press the center button or the four-way controller (▲▼) to display the Mode Palette and change to another mode.



The camera cannot join the images. Use the panorama software supplied with the camera (ACDSee for PENTAX, ACD photostitcher). Refer to the "PC Connection Manual – Enjoying Your Digital Camera Images On Your PC" for instructions on stitching images.



To return to Step 4, select [↶ Set Direction] on the quick menu in ■■■ mode and press the center button.



Using the Zoom

You can use the zoom to change the captured area.

1 Press the zoom lever in mode or mode.

: enlarges the subject

: enlarges the area captured by the camera

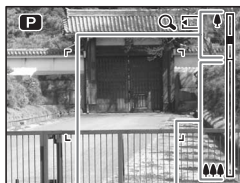
The zoom bar indicates the current level of magnification.

When the digital zoom function is disabled, you can take pictures at up to three times magnification using the optical zoom. When the digital zoom function is set to (On), you can combine it with the optical zoom to enlarge the subject to a maximum magnification equivalent to 12 times.



Zoom bar

↓ Press toward



Optical zoom range

Digital zoom range



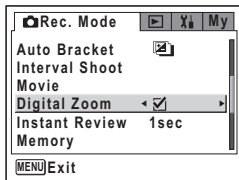
- You are recommended to use a tripod to prevent camera shake when taking pictures at a high magnification rate. (→p.29)
- Pictures taken in the digital zoom range appear grainier than pictures taken in the optical zoom range.

Setting the Digital Zoom

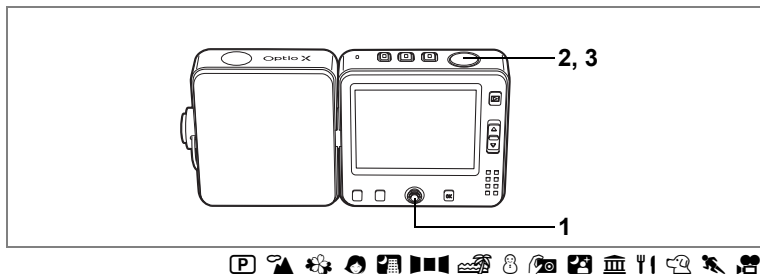
The digital zoom is set to ☒ (On) in the default settings. To take pictures using only the optical zoom, set the digital zoom to ☐ (Off).

- 1 Press the MENU button in  mode or  mode.**
The [ Rec. Mode] menu appears.
- 2 Use the four-way controller (▲ ▼) to select [Digital Zoom].**
- 3 Use the four-way controller (◀ ▶) to select ☒ (On) or ☐ (Off).**
- 4 Press the shutter release button halfway.**

The digital zoom function setting is saved and the camera returns to capture status. Refer to Step 6 of “How to Use the Menus” (p.45) for other operations after the setting has been made.



Saving the Digital Zoom Function Setting  p.92



Setting the Exposure (EV Compensation)

You can adjust the overall brightness of the picture.
Use this function to take pictures that are intentionally overexposed or underexposed.

- 1 Press the four-way controller (◀▶) button in mode or mode.**

You can change the EV setting.
To brighten, select a positive (+) value. To darken, select a negative (–) value.
You can choose the EV setting in the range of –2.0 EV to +2.0 EV in 1/3 EV steps.



EV Compensation

- 2 Press the shutter release button halfway.**
- 3 Press the shutter release button fully.**

The focus frame turns green if the subject is in focus.

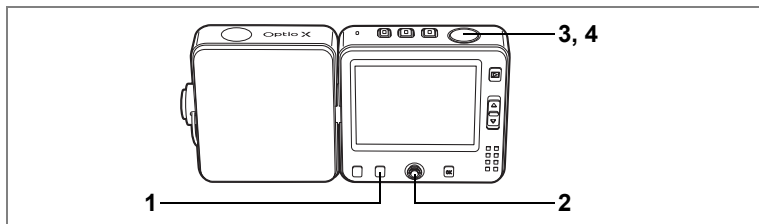
The picture is taken.



When the histogram is displayed, bright portions and dark portions are indicated on the LCD monitor, enabling you to check the exposure. (ⓘp.73)

Saving the EV Compensation Value ⓘp.92

Auto Bracketing ⓘp.68



Using the Self-timer

In Self-timer mode, the picture is taken ten seconds or two seconds after the shutter release button is pressed.

	Use this mode when you want to be included in a group picture. The picture is taken approximately ten seconds after the shutter release button is pressed.
	Use this mode to avoid camera shake when the shutter release button is pressed. The picture is taken approximately two seconds after the shutter release button is pressed.

1 Press the Fn button in mode or mode.

The Fn guide appears.



2 Use the four-way controller () to select or .

The camera is ready to take the picture using the self-timer.



3 Press the shutter release button halfway.

The focus frame turns green if the subject is in focus.

4 Press the shutter release button fully.

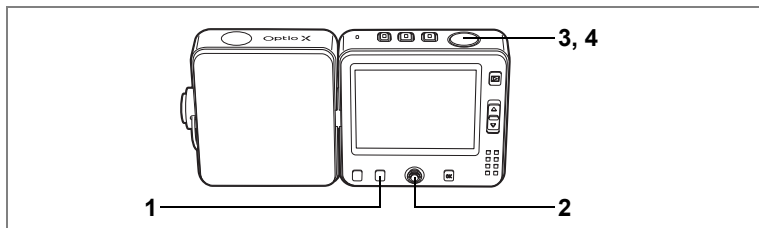
The picture is taken ten seconds or two seconds later.



Focusing may be compromised if you move the camera while the self-timer lamp is blinking when taking still pictures.



- In  mode, recording will start after ten seconds (or two seconds).
- Press the **MENU** button or **OK** button while the self-timer is engaged to cancel the self-timer. Alternatively, press the shutter release button halfway to stop the countdown and press fully to restart the countdown.



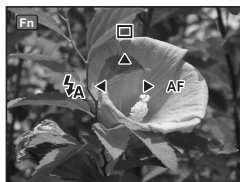
Taking a Series of Pictures (Continuous Shooting Mode & Multiple Shooting Mode)

There are two ways of taking a series of pictures. One involves taking pictures one after the other and saving each one separately (Continuous Shooting mode), and the other involves joining a series of pictures into a single image (Multiple Shooting mode).

	Continuous Shooting	Pictures are taken continuously for as long as the shutter release button is pressed. Shooting stops when you take your finger off the shutter release button.
	Multiple Shooting	Four frames are taken at once and joined into a single picture.

1 Press the Fn button in mode.

The Fn guide appears.



2 Use the four-way controller () to select or .

The camera is ready to take a series of pictures.



3 Press the shutter release button halfway.

The focus frame turns green if the subject is in focus.

4 Press the shutter release button fully.

Pictures are taken in the selected mode.



- The flash will not discharge in Continuous Shooting mode.
- Continuous shooting is not possible in , ,  or  mode.

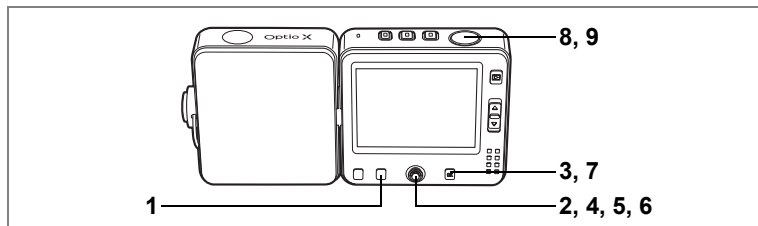


- You can continue shooting until the memory capacity of the SD Memory Card or built-in memory is full.
- The interval of continuous shooting will vary according to the Recorded Pixels and Quality Level settings.
- The focus, exposure and white balance are locked with the first image.
- In Multiple Shooting mode, recorded pixels and quality level are [2048×1536] and [★★ (Better)], irrespective of settings.

Example of picture taken in Multiple Shooting mode

Four frames are joined to form a single image.





Automatically Changing the Shooting Conditions (Auto Bracket)

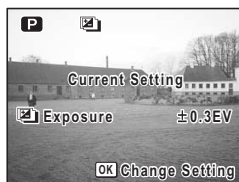
Auto bracketing can be used to automatically vary settings such as the exposure and white balance over a series of three shots when the shutter release button is pressed. This simple operation ensures that you are able to get the best shots after shooting.

Auto Bracket Settings

	Exposure	Pictures are taken in the following sequence: normal, underexposed (dark), overexposed (bright). Choose the bracketing steps from 0.3, 0.7, 1.0, 1.3, 1.7 and 2.0. (☞p.63)
	White Balance	Conditions change in the following sequence: normal, red tinge (low color temperature), blue tinge (high color temperature). Choose the bracketing steps from 1, 2, 3, 4 and 5. (☞p.82)
	Sharpness	Conditions change in the following sequence: current setting, - (soft), + (hard). (☞p.89)
	Saturation	Conditions change in the following sequence: current setting, - (low), + (high). (☞p.90)
	Contrast	Conditions change in the following sequence: current setting, - (low), + (high). (☞p.91)

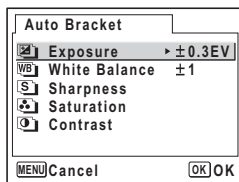
- Press the Fn button in mode.**
The Fn guide appears.
- Use the four-way controller () to select .**

The icon corresponding to the current setting appears, and then the setting appears for five seconds.
To take pictures with the displayed setting, go to Step 8.



3 Press the OK button while the setting is displayed.

The Auto Bracket options screen appears.



4 Use the four-way controller (▲▼) to choose the shooting conditions.

5 Press the four-way controller (▶) to choose the Auto Bracket settings for [A] or [WB].

A pull-down menu appears.

6 Use the four-way controller (▲▼) to choose the bracketing steps.

7 Press the OK button.

The camera is ready to take pictures.

The function chosen for auto bracketing appears on the LCD monitor.

8 Press the shutter release button halfway.



The focus frame turns green if the subject is in focus.

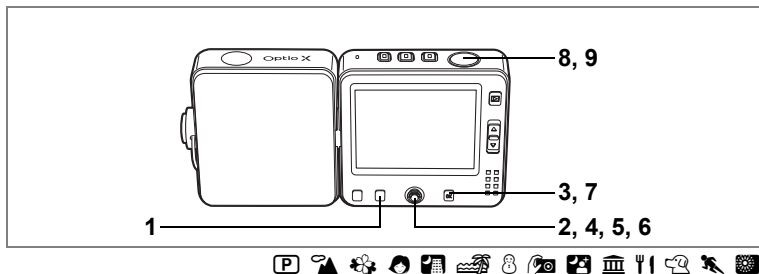
9 Press the shutter release button fully.



- Three pictures are taken in succession when [A] is selected and the shutter release button is pressed down fully in Step 9.
- Only one picture is taken when any other auto bracket option is selected and the shutter release button is pressed down fully in Step 9, and the camera creates the series of three shots internally.
- Auto bracketing is not possible in [M], [A], or [S] mode.
- The flash will not discharge in Auto Bracket mode.
- When recorded pixels is set to [2048×1536] and above, images are taken at [★★ (Better)] despite quality level set at [★★★ (Best)].



- The Auto Bracket options screen in Step 3 above can also be displayed from the [Rec. Mode] menu.
- With the exception of the shooting conditions selected for auto bracketing, the second and third pictures are taken under the same conditions as the first picture.



Taking Pictures at a Fixed Interval (Interval Shooting)

A set number of pictures can be automatically taken from a set time and for a set interval.

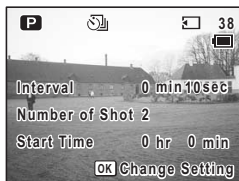
Interval	10 seconds to 99 minutes	Interval shooting can be set at intervals of 10 seconds to 4 minutes in units of 1 second, and intervals of 4 minutes to 99 minutes in units of 1 minute. Intervals of less than 10 seconds cannot be set.
Number of Shot	From 2 to 99	Number of shots can be set.
Start Time	After 0 minutes to 23 hours 59 minutes	Can be set in units of 1 minute. If the start time is set to 0 min., the first picture will be taken as soon as the shutter release button is pressed.

1 Press the Fn button in mode.

The Fn guide appears.

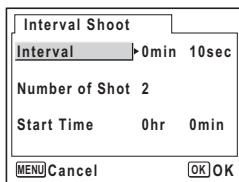
2 Use the four-way controller () to select .

The current interval shooting setting appears for five seconds. To take pictures with the current setting, go to Step 8.



3 Press the OK button while the setting is displayed.

The Interval Shoot screen appears and [Interval] is framed.



4 Set the interval time.

1 Press the four-way controller (►).

2 Use the four-way controller (▲ ▼) to change the minutes, then press (►).

3 Use the four-way controller (▲ ▼) to change the seconds, then press (►).

The frame returns to [Interval].

5 Set the number of shots.

1 Use the four-way controller (▲ ▼) to select [Number of Shot].

2 Press the four-way controller (►).

3 Use the four-way controller (▲ ▼) to change the number of shots, then press (►).

The frame returns to [Number of Shot].

6 Set the time to start shooting.

1 Use the four-way controller (▲ ▼) to select [Start Time].

2 Press the four-way controller (►).

3 Use the four-way controller (▲ ▼) to change the hours, then press (►).

4 Use the four-way controller (▲ ▼) to change the minutes, then press (►).

The frame returns to [Start Time].

7 Press the OK button.

The camera is ready to take pictures.

8 Press the shutter release button halfway.

The focus frame turns green if the subject is in focus.

9 Press the shutter release button fully.

Interval shooting starts.

Between shots, LCD monitor turns off. The remaining image storage capacity and interval time appear on the LCD monitor when you press the  button during standby.

The message [Stop interval shooting?] appears when you press the **MENU** button. To cancel interval shooting, press the **OK** button.



- Interval shooting is not possible in  or  mode.
- The Interval Shoot screen in Step 3 can also be displayed from the [ Rec. Mode] menu.



- In interval shooting, all pictures are taken under the same shooting conditions as the first picture. Items set to Auto are stored as Auto settings. When the focus mode is set to AF Setting, the autofocus is adjusted for each shot.
- Interval shooting stops and the camera turns off automatically when the SD Memory Card or built-in memory runs out of memory space.

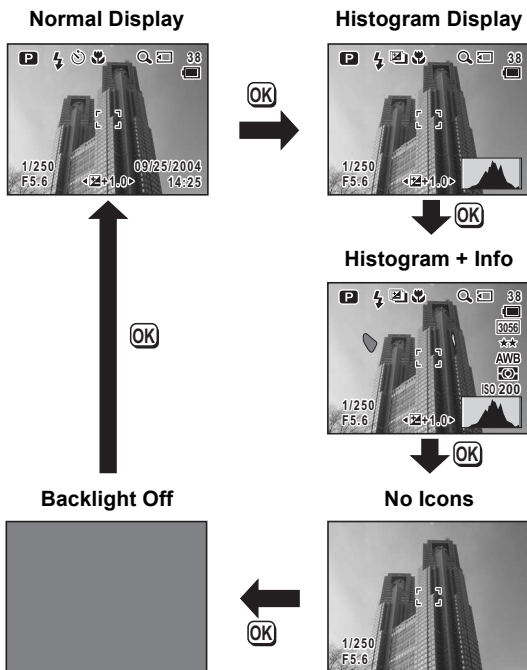
Displaying Shooting Information in Capture Mode

The LCD monitor display changes in the following sequence each time you press the **OK** button: Normal Display, Histogram Display, Histogram + Info, No Icons, Backlight Off.

Refer to “Monitor Indications” (p.12) for details of each display mode.



All the camera buttons function as normal even when the backlight is off. Press the shutter release button to take pictures as normal.



Using the Histogram

A histogram is a graph showing the brightness of the image on the horizontal axis (darkest at the left and brightest at the right) and the number of pixels on the vertical axis.

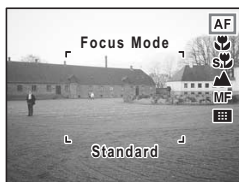
The shape of the histogram tells you whether the exposure of the image is correct or not. If the exposure is correct, the graph peaks in the middle. If the image is too dark, the peak is on the left side, and if it is too bright, the peak is on the right side.

Bright portions (where the image is so bright that it is totally white) blink red on the LCD monitor and dark portions (where the image is so dark that it is totally black) blink yellow.

2 Press the four-way controller (►).

The focus mode changes each time the button is pressed.

The camera is ready to take pictures in the selected focus mode.



Make sure that the surface of the lens is clean as any dirt on the lens in  mode may cause the camera to focus on the dirt rather than on the subject.



The default setting is **AF**.

Saving the Focus Mode  p.92

Manual Focus

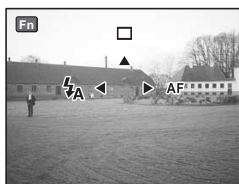
The procedure for setting the focus manually is described below.

1 Press the Fn button in mode.

The Fn guide appears.

2 Use the four-way controller (►) to select MF.

The central portion of the screen is magnified twice as large when focusing.

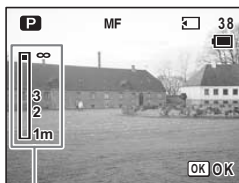


3 Press the four-way controller (▲▼).

The MF indicator appears on the LCD monitor to indicate the approximate distance to the subject. Use the four-way controller (▲▼) to adjust the focus using the indicator as a guide.

▲: for distant focus

▼: for closer focus



MF indicator

4 Press the shutter release button halfway.

The focus is fixed and the camera returns to the normal display.

The focus is fixed automatically after five seconds.

Adjusting the Focusing Area

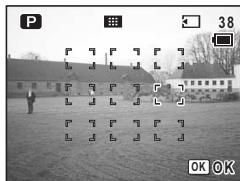
- 1 Press the Fn button in  mode.**
- 2 Use the four-way controller (▶) to select .**

The previously selected focusing area appears.

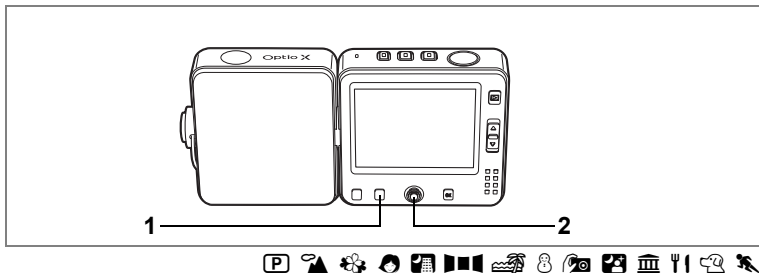
- 3 Use the four-way controller (▲▼◀▶) to choose the focusing area.**

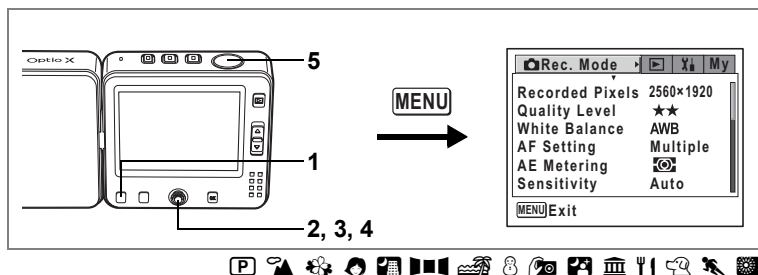
- 4 Press the OK button.**

The focusing area is fixed in its new position.



The focusing area appears as a spot when it is being adjusted.





Selecting the Recorded Pixels

You can choose from six recorded pixels settings.

The larger your recorded pixels, the clearer the details will appear when you print your picture. The quality of the printed picture depends on the image quality, exposure control, resolution of the printer and other factors; therefore, you do not need to select more than the required number of recorded pixels.

1024×768 is sufficient for printing postcard-size prints.

The approximate file size is indicated after the number of recorded pixels.

The more pixels there are, the larger the picture and the bigger the file size. The data volume also varies depending on the quality level setting (p.81).

Recorded Pixels

Recorded Pixels	Use
2560×1920	Clearer For printing high quality photos or A4-size pictures, or editing images on a PC.
2304×1728	
2048×1536	
1600×1200	
1024× 768	
640× 480	Clearer For making postcard-size prints. For posting on a website or attaching to e-mail.

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

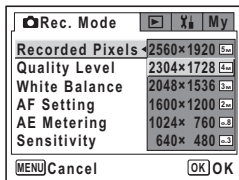
The [ Rec. Mode] menu appears.

2 Use the four-way controller () to select [Recorded Pixels].

3 Press the four-way controller ().

A pull-down menu appears.

The approximate file size is indicated after the number of recorded pixels.



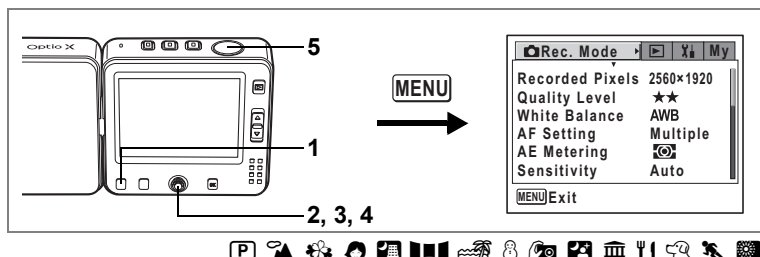
4 Use the four-way controller () to change the number of recorded pixels.

5 Press the shutter release button halfway.

The Recorded Pixels setting is saved and the camera returns to capture status.

Refer to Step 6 of "How to Use the Menus" (p.45) for other operations after the setting has been made.

Recorded Pixels and Quality Level  p.22



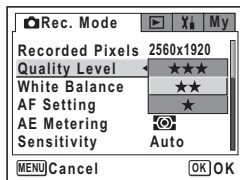
Selecting the Quality Level

Image quality refers to the compression rate of still pictures. The more stars, the lower the compression rate and the higher the quality, but the file size becomes larger. The recorded pixels setting also affects the file size (p.79).

Quality Level

★★★	Best	Lowest compression rate. Suitable for photo prints.
★★	Better	Standard compression rate. Suitable for viewing the image on a computer screen.
★	Good	Highest compression rate. Suitable for posting on a website or attaching to e-mail.

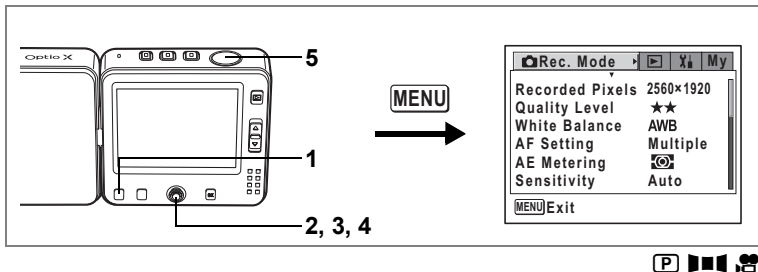
- 1 Press the MENU button in [camera icon] mode.**
The [camera icon Rec. Mode] menu appears.
- 2 Use the four-way controller (▲▼) to select [Quality Level].**
- 3 Press the four-way controller (▶).**
A pull-down menu appears.
- 4 Use the four-way controller (▲▼) to change the quality level.**
- 5 Press the shutter release button halfway.**



The Quality Level setting is saved and the camera returns to capture status.

Refer to Step 6 of “How to Use the Menus” (p.45) for other operations after the setting has been made.

Recorded Pixels and Quality Level p.22



Adjusting the White Balance

You can take pictures in natural colors by adjusting the white balance according to the light conditions at the time of shooting.

4

Taking Pictures

White Balance

AWB	Auto	The camera adjusts the white balance automatically.
	Daylight	Use this mode when taking pictures outside in sunlight.
	Shade	Use this mode when taking pictures outside in the shade.
	Tungsten Light	Use this mode when taking pictures under electric or other tungsten light.
	Fluorescent Light	Use this mode when taking pictures under fluorescent light.
	Manual	Use this mode when adjusting the white balance manually.

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

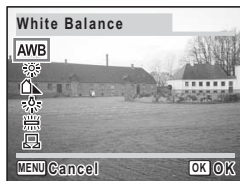
The [Rec. Mode] menu appears.

2 Use the four-way controller () to select [White Balance].

3 Press the four-way controller ().

The White Balance screen appears.

4 Use the four-way controller () to change the setting.



5 Press the shutter release button halfway.

The White Balance setting is saved and the camera returns to capture status.

Refer to Step 6 of “How to Use the Menu” (p.45) for other operations after the setting has been made.

Saving the White Balance  p.92

Auto Bracketing  p.68

Manual Setting

Have a blank sheet of white paper ready.

1 Select (manual) on the White Balance screen.

2 Point the camera at the blank sheet of paper so that it fills the screen of the LCD monitor.

3 Press the shutter release button fully.

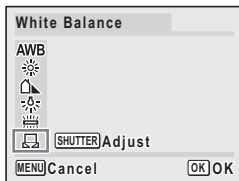
The white balance is automatically adjusted.

4 Press the OK button.

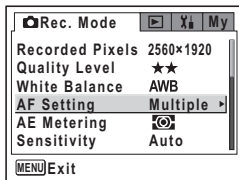
The setting is saved and the screen returns to the [ Rec. Mode] menu.

5 Press the MENU button.

The camera is ready to take pictures.



- 2 Use the four-way controller (▲▼) to select [AF Setting].**



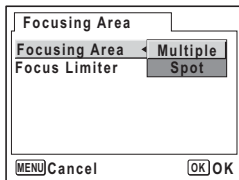
- 3 Press the four-way controller (▶).**

The Focusing Area screen appears.

- 4 Use the four-way controller (▲▼) to select [Focusing Area].**

- 5 Press the four-way controller (▶).**

A pull-down menu appears.



- 6 Use the four-way controller (▲▼) to change the setting.**

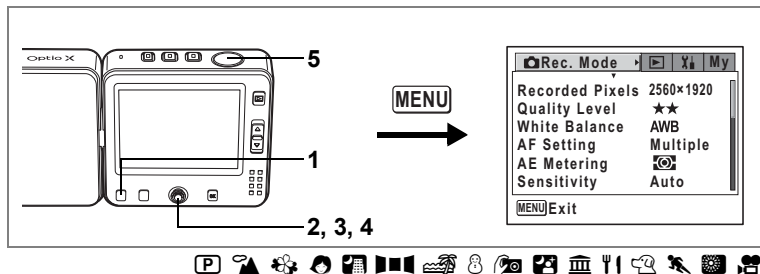
- 7 Use the four-way controller (◀) and then the four-way controller (▼) to select [Focus Limiter].**

- 8 Use the four-way controller (◀▶) to select ☒ or ☐.**

- 9 Press the shutter release button halfway.**

The AF setting is saved and the camera returns to capture status.

Refer to Step 6 of "How to Use the Menus" (p.45) for other operations after the setting has been made.



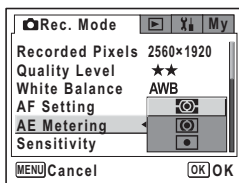
Setting the Light Metering Range to Determine the Exposure (AE Metering)

You can choose which part of the screen to use to measure the brightness and determine the exposure. The default setting is (multi-segment).

AE Metering

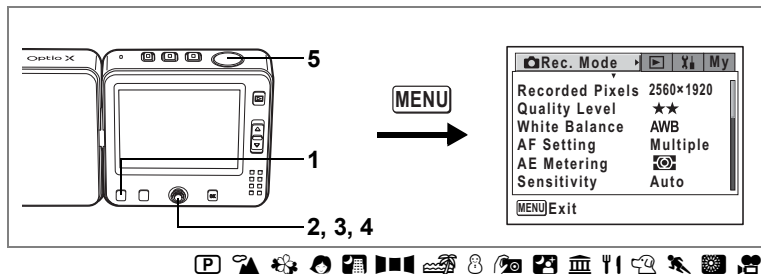
	Multi-segment	The exposure is determined by the entire screen.
	Center-weighted	The exposure is determined mainly by the center of the screen.
	Spot	The exposure is determined by the small area in the center of the screen only.

- Press the MENU button in mode or mode.**
The [Rec. Mode] menu appears.
- Use the four-way controller () to select [AE Metering].**
- Press the four-way controller ().**
A pull-down menu appears.
- Use the four-way controller () to change the AE Metering mode.**
- Press the shutter release button halfway.**



The AE Metering setting is saved and the camera returns to capture status.
Refer to Step 6 of “How to Use the Menus” (p.45) for other operations after the setting has been made.

Saving the AE Metering Mode p.92



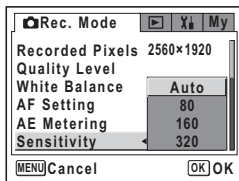
Setting the Sensitivity

You can select the sensitivity to suit the brightness of the surroundings. The default setting is Auto.

Sensitivity

Auto	The camera sets the sensitivity automatically.
80	- The lower the sensitivity, the less noise that affects the image. The shutter speed will be slower in low light conditions. - Higher sensitivity settings use faster shutter speeds in low light conditions to reduce camera shake, but the image may be affected by noise.
160	
320	

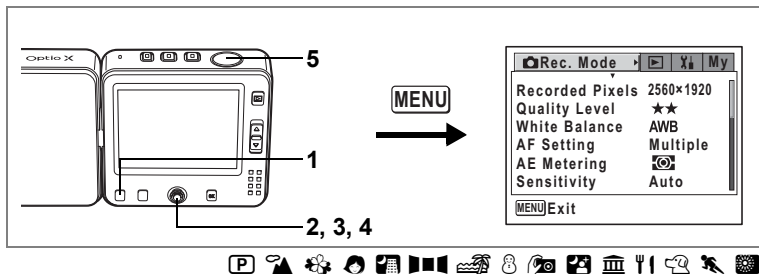
- Press the MENU button in mode or mode.**
The [Rec. Mode] menu appears.
- Use the four-way controller (▲▼) to select [Sensitivity].**
- Press the four-way controller (▶).**
A pull-down menu appears.
- Use the four-way controller (▲▼) to change the sensitivity.**
- Press the shutter release button halfway.**



The Sensitivity setting is saved and the camera returns to capture status.

Refer to Step 6 of “How to Use the Menus” (p.45) for other operations after the setting has been made.

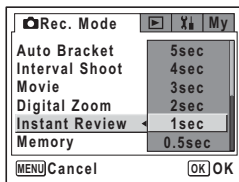
Saving the Sensitivity p.92



Setting the Instant Review Time (Instant Review)

You can choose the Instant Review time from 0.5 sec, 1 sec, 2 sec, 3 sec, 4 sec, 5 sec and Off (no display). The default setting is 1 sec.

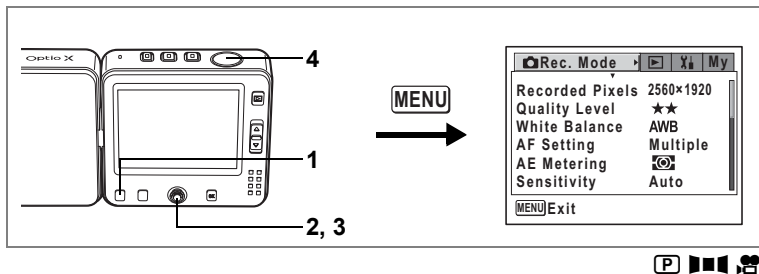
- 1 Press the MENU button in mode.**
The [Rec. Mode] menu appears.
- 2 Use the four-way controller () to select [Instant Review].**
- 3 Press the four-way controller ().**
A pull-down menu appears.
- 4 Use the four-way controller () to change the display time.**
- 5 Press the shutter release button halfway.**



The Instant Review setting is saved and the camera returns to capture status.

Refer to Step 6 of “How to Use the Menus” (p.45) for other operations after the setting has been made.

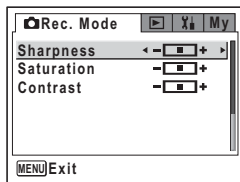
Instant Review p.35



Setting the Image Sharpness (Sharpness)

You can choose whether you want the image to have sharp or soft outlines.

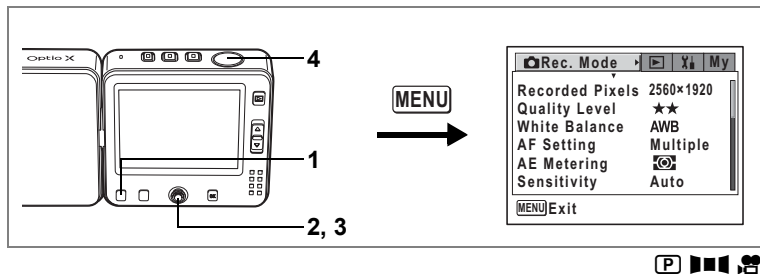
- 1 Press the MENU button in  mode or  mode.**
The [ Rec. Mode] menu appears.
- 2 Use the four-way controller (▲▼) to select [Sharpness].**
- 3 Use the four-way controller (◀▶) to change the setting from  [Normal] to  [Hard (+)] or  [Soft (-)].**
To soften the contours, choose (-) and to sharpen the contours, choose (+).
- 4 Press the shutter release button halfway.**



The Sharpness setting is saved and the camera returns to capture status.

Refer to Step 6 of “How to Use the Menus” (p.45) for other operations after the setting has been made.

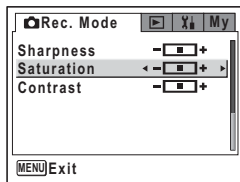
Auto Bracketing  p.68



Setting the Color Saturation (Saturation)

You can set the color saturation.

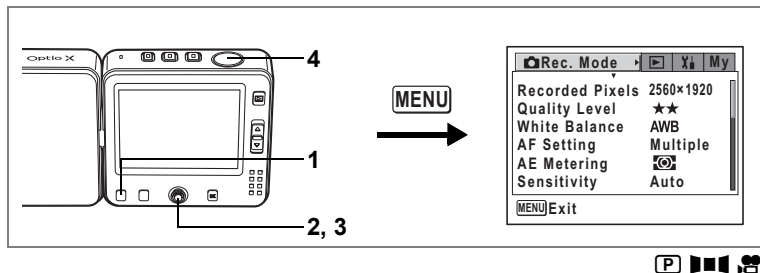
- 1 Press the MENU button in mode or mode.**
The [Rec. Mode] menu appears.
- 2 Use the four-way controller () to select [Saturation].**
- 3 Use the four-way controller () to change the setting from [Normal] to [High (+)] or [Low (-)].**
To reduce the saturation, choose (-) and to increase the saturation, choose (+).
- 4 Press the shutter release button halfway.**



The Saturation setting is saved and the camera returns to capture status.

Refer to Step 6 of “How to Use the Menus” (p.45) for other operations after the setting has been made.

Auto Bracketting p.68



Setting the Image Contrast (Contrast)

You can set the image contrast.

- 1 Press the MENU button in  mode or  mode.**
The [ Rec. Mode] menu appears.
- 2 Use the four-way controller ( ) to select [Contrast].**
- 3 Use the four-way controller ( ) to change the setting from  [Normal] to  [High (+)] or  [Low (-)].**

To reduce the contrast, choose (-) and to increase the contrast, choose (+).

- 4 Press the shutter release button halfway.**

The Contrast setting is saved and the camera returns to capture status.

Refer to Step 6 of “How to Use the Menus” (p.45) for other operations after the setting has been made.

Auto Bracketing  p.68

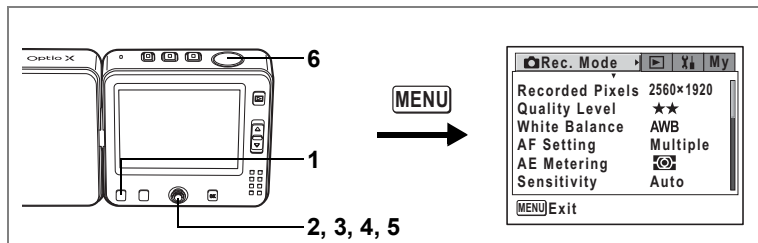
Saving the Settings (Memory)

You can choose whether you want the set values to be saved when the camera is turned off or returned to the defaults. The items that can be saved or reset are listed below. If you select ☒ (On), the settings will be saved in the status they were in immediately before the camera was turned off. If you select ☐ (Off), the settings will be reset to the defaults when the camera is turned off. The table below also shows whether the Memory default setting for each item is On or Off. Items not listed here will be saved in the selected settings when the camera is turned off.

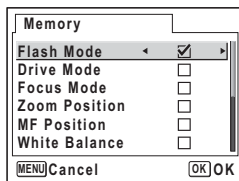
Item	Description	Default Setting
Flash Mode	The flash mode set with the Fn button and four-way controller (◀) (p.78)	☒
Drive Mode	The drive mode set with the Fn button and four-way controller (▲) (pp.64-72)	☐
Focus Mode	The focus mode set with the Fn button and four-way controller (▶) (p.75)	☐
Zoom Position	The zoom position set with the zoom lever (p.61)	☐
MF Position	The manual focus position set with the Fn button and four-way controller (▶) (p.76)	☐
White Balance	The [White Balance] setting on the [📷 Rec. Mode] menu (p.82)	☐
AE Metering	The [AE Metering] setting on the [📷 Rec. Mode] menu (p.86)	☐
Sensitivity	The [Sensitivity] setting on the [📷 Rec. Mode] menu (p.87)	☐
EV Compensation	The EV compensation value set with the four-way controller (◀▶) (p.63)	☐
Digital Zoom	The [Digital Zoom] setting on the [📷 Rec. Mode] menu (p.62)	☒
DISPLAY	The LCD monitor information display mode set with the OK button (p.73, p.105)	☐
File #	If a new SD Memory Card is inserted when On has been selected, file numbers are assigned sequentially.	☒



Setting [MF] to ☒ (On) sets [Zoom Position] to ☒ (On) at the same time.



- 1 Press the MENU button in mode or mode.**
The [Rec. Mode] menu appears.
- 2 Press the four-way controller () to select [Memory].**
- 3 Press the four-way controller ().**
The Memory screen appears.
- 4 Use the four-way controller () to choose an item.**
- 5 Use the four-way controller () to select ☒ (On) or ☐ (Off).**
- 6 Press the shutter release button halfway.**



The Memory setting is saved and the camera returns to capture status. Refer to Step 6 of "How to Use the Menus" (p.45) for other operations after the setting has been made.

Returning Only the Shooting Functions to the Default Settings

This function lets you return all the shooting function settings but not the other settings to the defaults.

All the items on the [ Rec. Mode] menu are reset:

Recorded Pixels, Quality Level, White Balance, AF Setting, AE Metering, Sensitivity, Auto Bracket, Interval Shoot, Movie, Digital Zoom, Instant Review, Memory, Sharpness, Saturation, Contrast

1 Press the center button in mode.

The quick menu appears.

2 Use the four-way controller (▲▼) to select [Initialize Rec. Mode].

3 Press the center button.

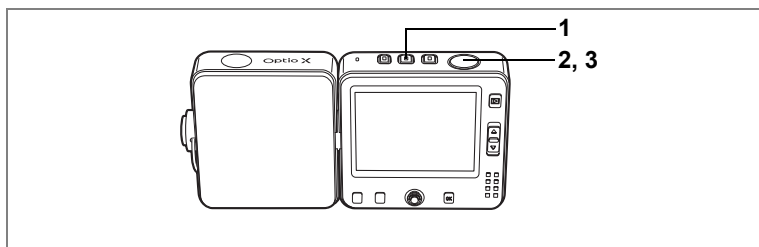
The confirmation screen appears.

4 Use the four-way controller (▲▼) to select [Initialize] and press the center button.

All the shooting function settings return to the defaults and the camera returns to  mode.



Recording Movies



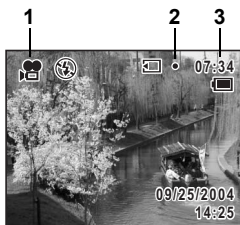
Recording Movies

This mode lets you record movies and sound.

1 Press the button.

The following information appears on the LCD monitor.

- 1 Movie mode icon
 - 2 Recording indicator (blinks during recording)
 - 3 Remaining recording time
- Press the zoom lever up or down to change the captured area.



 : enlarges the subject

 : enlarges the area captured by the camera

2 Press the shutter release button fully.

Recording starts.

The zoom can only be used in the digital zoom range during movie recording.



- Press the  button to switch from  or  mode to  mode. However, recording will stop if you switch to  mode while recording in  mode.
- The flash will not discharge in  mode.
- The focus is locked while recording in  mode.

3 Press the shutter release button fully.

Recording stops.

Playing Back Movies  p.108

Keeping the Shutter Release Button Pressed

If you keep the shutter release button pressed for more than one second, movies will be taken for as long as you keep the button pressed. Shooting stops when you take your finger off the shutter release button.

Taking Still Pictures while Recording Movie

You can take still pictures without interrupting movie recording.

4



- Self-timer shooting, continuous shooting, multiple shooting, auto bracketing and interval shooting are not available during movie recording.
- The shutter sound and operation sound are muted when taking a still picture during movie recording.
- To enable the image data to be processed when taking still pictures during movie recording, the movie image processing is locked for the shutter speed plus about two seconds when the still picture is taken.
- If you take a still picture while recording sound, you can continue to record the sound without interruption, but the sound of the shutter, etc. may also be picked up.

● Taking Still Pictures Using the Button while Recording Movie

By using the  button, you can take a still picture while continuing to record a movie.

1 Press the button quickly while recording a movie.

The camera switches to  mode while recording continues.

The movie recording time appears on the  mode screen.

Refer to “Taking Pictures” (p.53) for details of how to take still pictures.



Movie recording time

2 Press the shutter release button fully.

The picture is taken.

Recording continues after the picture has been taken.

● Taking Still Pictures Using the Quick Menu while Recording Movie

You can take a still picture quickly while recording a movie by using the quick menu.

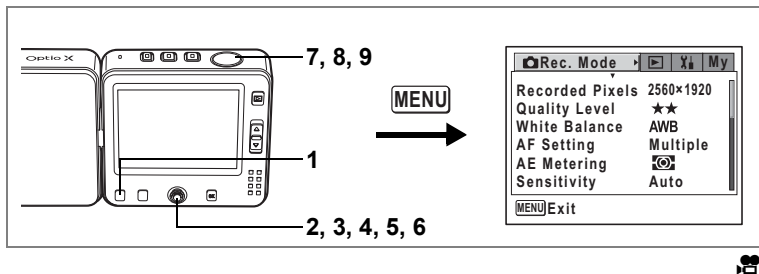
1 Press the center button while recording a movie.

The quick menu appears while recording continues.

2 Use the four-way controller () to select [Take Still image] and press the center button.

The still picture is taken. After the picture has been taken, the camera returns to movie recording status.





Recording Movies in Black and White or Sepia Tones (Color Mode)

4

You can add a color effect to movies by using color filters. As well as recording in normal colors, you can choose a B&W filter or a Sepia filter.

- 1 Press the MENU button in mode.**

The [Rec. Mode] menu appears.

- 2 Use the four-way controller (▲▼) to select [Movie].**

- 3 Press the four-way controller (▶).**

The Movie screen appears.

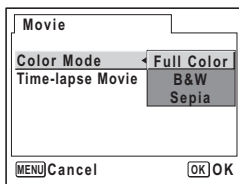
- 4 Use the four-way controller (▲▼) to select [Color Mode].**

- 5 Press the four-way controller (▶).**

A pull-down menu appears.

- 6 Use the four-way controller (▲▼) to choose a color.**

- 7 Press the shutter release button halfway.**



The selected color mode is enabled and the camera is ready to record.

- 8 Press the shutter release button fully.**

Starts recording movie.

- 9 Press the shutter release button fully.**

Stops recording movie.

Taking Time-lapse Movies

This mode lets you take movies at a delayed frame rate, so that when you play the movie at the normal frame rate, the action appears speeded up. For example, if you choose the $\times 2$ setting, half the normal number of frames will be taken, so that when you play the movie at the normal frame rate, the action will appear to be twice as fast as normal.

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

The [ Rec. Mode] menu appears.

2 Use the four-way controller () to select [Movie].

3 Press the four-way controller () .

The Movie screen appears.

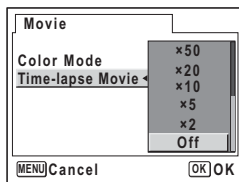
4 Use the four-way controller () to select [Time-lapse Movie].

5 Press the four-way controller () .

A pull-down menu appears.

6 Use the four-way controller () to change the time-lapse setting.

You can choose from Off, $\times 2$, $\times 5$, $\times 10$, $\times 20$, $\times 50$ and $\times 100$.



7 Press the shutter release button halfway.

The camera is ready to record a time-lapse movie.

8 Press the shutter release button fully.

Starts recording a time-lapse movie.

The selected time-lapse setting appears on the LCD monitor.

9 Press the shutter release button fully.

Stop recording movie.



Movies taken in time-lapse mode are recorded without sound.

Playing Back Still Pictures

Switching between Capture Mode and Playback Mode

 mode is for taking still pictures and  mode is for recording movies. Follow the procedure below to switch between  mode,  mode and Playback mode.

To Switch from Mode or Mode to Playback Mode

1 Press the button.

The camera switches to Playback mode.

To Switch from Playback Mode to Mode or Mode

1 Press the button or button.

The camera switches to  mode or  mode.

To Switch from Mode to Mode

1 Press the button.

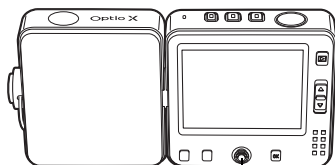
The camera switches to  mode.



To switch from  mode to  mode, press the  button. Holding down the  button or  button turns the camera off. Press quickly when changing the mode.

Playing Back Still Pictures

Refer to “Playing Back Images” (p.37) for instructions.



Four-way controller

Nine-Image Display and Folder Display

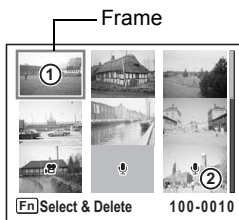
Nine-Image Display

You can display nine thumbnails of captured images at a time.

1 Press the zoom lever in Playback mode.

A page consisting of nine thumbnail images appears. The displayed images change nine at a time page by page.

Use the four-way controller (   ) to move the frame. When ten or more images have been saved, if you choose image ① and press the four-way controller ( ) the previous page appears. Similarly, if you choose image ② and press the four-way controller ( ) the next page appears.



The icons that appear on the images indicate the following:

No icon : Still picture without voice memo

 (with image) : Still picture with voice memo

 : Movie (first frame appears)

 (without image) : Sound file only

Press the zoom lever toward  or press the **OK** button to switch to full screen display of the selected image.

Press the  button to switch to Capture mode.

Folder Display

By setting [Folder Name] in the [Set-up] menu to [Date], images and voice recordings can be saved in different folders according to the date when taken. You can choose a folder for a certain date by the following procedure.

1 Press the zoom lever toward in Playback mode.

The screen changes to nine-image display.

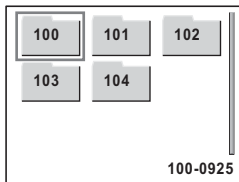
2 Press the zoom lever toward .

The list of folders appears.

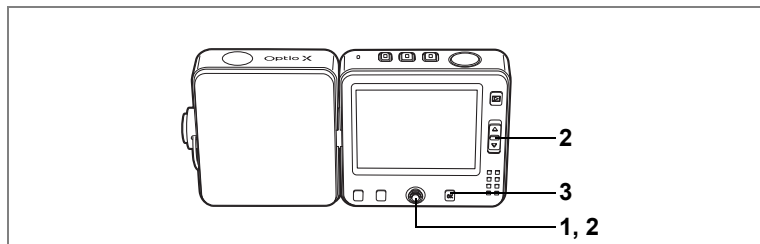
3 Use the four-way controller (▲▼◀▶) to choose a folder.

Press the zoom lever  to display nine thumbnails of the folder.

Next, press the zoom lever  or the **OK** button to switch to full screen display of the selected image.



Changing the Image Folder Name  p.148



Zoom Playback

You can display images magnified up to eight times. A guide to operation appears on the LCD monitor during magnification.

- 1 Enter the Playback mode and use the four-way controller (◀▶) to choose an image to magnify.**
- 2 Press the zoom lever .**

The image is magnified (×1 to ×8). Holding down the button changes the magnification continuously.



The following operations can be performed while the magnified image is displayed.

Four-way controller (▲▼◀▶)

Zoom lever () Moves the position to be magnified

Zoom lever () Makes the image bigger (max. ×8)

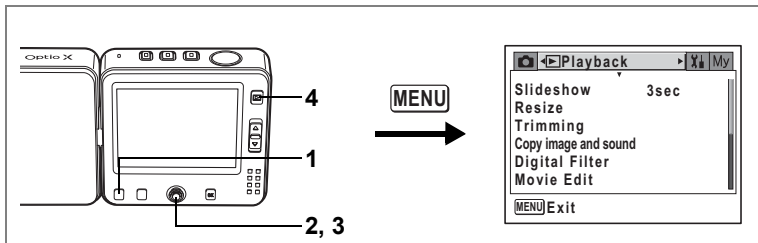
Zoom lever () Makes the image smaller (min. ×1)

- 3 Press the OK button.**

The image returns to single image display.



Movies cannot be magnified.



Setting the Quick Zoom Function

This function lets you display the image at maximum magnification by pressing the zoom lever **Q** once in single image display.

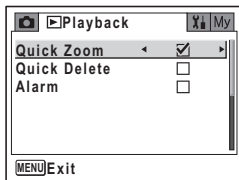
1 Press the **MENU** button in Playback mode.

The [▶ Playback] menu appears.

2 Use the four-way controller (▲ ▼) to select [Quick Zoom].

3 Use the four-way controller (◀ ▶) to select ☒ (On) or ☐ (Off).

- ☒ : Jumps to ×8 magnification
- ☐ : Pressing the zoom lever **Q** once magnifies the image in stages from ×1.0 to ×8.0



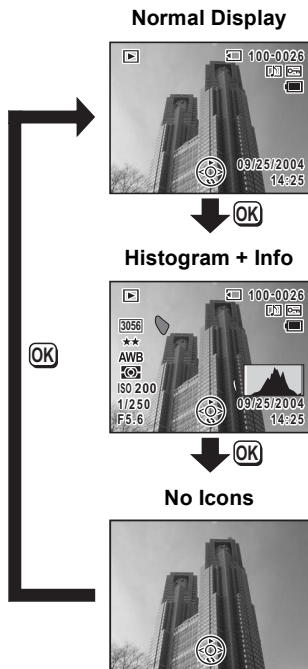
4 Press the **▶** button.

The camera is ready to play back images.

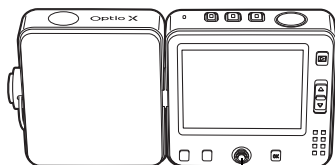
Refer to Step 6 of “How to Use the Menus” (p.45) for other operations after the setting has been made.

Displaying Shooting Information in Playback Mode

Shooting information can be displayed on the LCD monitor in Playback mode. Pressing the **OK** button changes the display mode. Refer to p.14 for details of each display mode.



Displaying Shooting Information in Capture Mode  p.73



1, 2, 3

Slideshow

You can play back all the recorded images one after another.

1 Press the center button in Playback mode.

The quick menu appears.

2 Use the four-way controller (▲▼) to select [Slideshow].

3 Press the center button.

The slideshow starts.

To exit the slideshow, press the **OK** button during the slideshow.

Setting the Slideshow Conditions

You can choose how the images change from one to the next during the slideshow.

Effect

Off	No effect
Wipe	The next image slides over the previous one from left to right
Checker	The next image appears in small square mosaic blocks
Fade	The previous image fades out and the next image appears

1 Enter the Playback mode and use the four-way controller (◀▶) to choose the image to start the slideshow with.

2 Press the MENU button.

The [▶ Playback] menu appears.

3 Use the four-way controller (▲▼) to select [Slideshow].

To start the slideshow with the current settings, go to Step 9.

4 Press the four-way controller (▶).

The slideshow screen appears.

5 Use the four-way controller (▲▼) to select [Interval].

6 Press the four-way controller (▶).

A pull-down menu appears.

7 Use the four-way controller (▲▼) to change the interval and press the OK button.

Choose from the following:

3 sec, 5 sec, 10 sec, 20 sec, 30 sec.

8 Select the [Effect] in the same way.

You can choose from Off, Wipe, Checker and Fade.

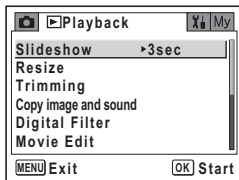
9 Press the OK button.

The slideshow starts using the selected interval and effect.

Pressing the center button during the slideshow pauses the slideshow. To resume the slideshow, press any button while the slideshow is paused.

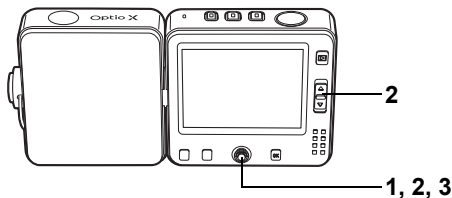
10 Press the OK button.

The slideshow stops.



- The slideshow will continue until you press any button.
- Pictures with a voice memo will be played through to the end before the next picture is played back, regardless of the set interval.
- Pressing the four-way controller (▶) while playing back a movie displays the next image.
- Sound files made in 🎤 mode are not played back in the slideshow.

Playing Back Movies



Playing Back a Movie

You can play back the movies you have taken. An operation guide appears on the LCD monitor when switching to Playback mode. Sound is played back at the same time.

- 1 Enter the Playback mode and use the four-way controller (◀▶) to choose a movie to play back.**
- 2 Press the four-way controller (▲).**
Playback starts.



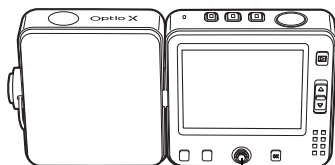
The following operations can be performed during playback.

- | | |
|-------------------------|----------------------|
| Four-way controller (◀) | Reverse playback |
| Four-way controller (▶) | Forward playback |
| Four-way controller (▲) | Pause |
| Zoom lever (L) | Increases the volume |
| Zoom lever (R) | Reduces the volume |

The following operations can be performed while Pause is engaged.

- | | |
|-------------------------|------------------------------------|
| Four-way controller (◀) | Frame reverse |
| Four-way controller (▶) | Frame forward |
| Four-way controller (▲) | Releases the Pause function (Play) |

- 3 Press the four-way controller (▼).**
Playback stops and the camera returns to the start screen.



1, 2, 3, 4, 5, 6

Saving a Frame from a Movie as a Still Picture

This function lets you save one frame from a movie as a still picture.

- 1 Enter the Playback mode and use the four-way controller (◀▶) to choose the movie.**
- 2 Use the four-way controller (▲) to play the movie.**
- 3 Press the four-way controller (▲) when you reach the scene that you want to save as a still picture.**

Playback pauses.

You can play the movie frame by frame forward and in reverse using the four-way controller (◀▶).

- 4 Press the center button.**
- 5 Use the four-way controller (▲▼) to select [Save as Still image].**
- 6 Press the center button.**

The quick menu appears.



The image displayed on the LCD monitor is saved as a 320 × 240-pixel still picture.

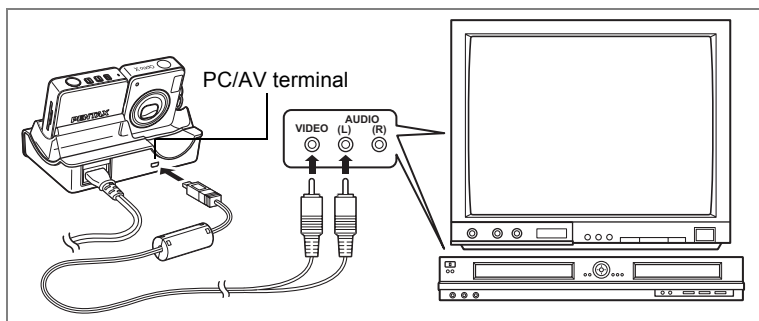
When the image has been saved, the screen returns to Step 3.



Single frames selected from movies and saved as still pictures are saved in 320 × 240-pixel size.

Resizing, trimming and digital filter are not possible in the [▶]Playback menu.

Connecting the Camera to AV Equipment



By using the AV cable to connect the camera to AV equipment with a video IN jack, such as a TV, DVD recorder or video recorder, you can record images captured and play back camera images on the AV equipment. Make sure the camera is turned off before connecting the cable.



The AV cable cannot be connected directly to the camera. Place the camera on the USB cradle and connect the AV cable to the USB cradle.

- 1 Place the camera on the USB cradle.
- 2 Connect the AV cable to the PC/AV terminal on the USB cradle.
- 3 Connect the other ends of the AV cable to the image input terminal and sound input terminal on the AV equipment.

When using stereo sound equipment, insert the sound terminal into the L (white) terminal.

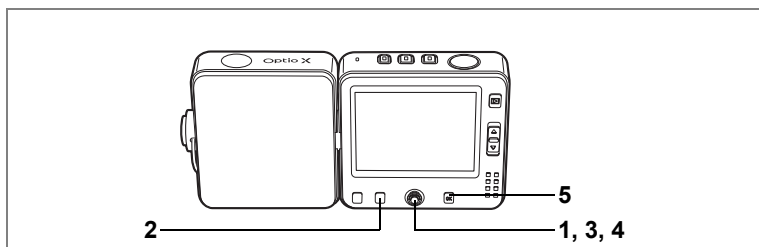
- 4 Turn the AV equipment and camera on.



The video output format varies according to country or region. If you have any problems displaying the images, check the video output format. Refer to the operating manual for the TV or AV equipment to which the camera is connected.

Changing the Video Output Format p.153

Deleting Images



Deleting Single Images and Sound Files

You can delete single images and sound files one at a time.



- Once deleted, images and sound files cannot be restored.
- You cannot delete protected images and sound files. (p.115)

- 1 Enter the Playback mode and use the four-way controller (◀▶) to choose an image or sound file to delete.**
- 2 Press the Fn button.**
The Fn guide appears.
- 3 Press the four-way controller (◀).**
The Delete screen appears.
- 4 Use the four-way controller (▲) to select [Delete].**
- 5 Press the OK button.**
The image or sound file is deleted.

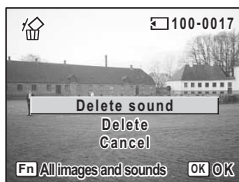


- If [Quick Delete] is set to ☒ (On) in the [▶ Playback] menu, Step 4 can be omitted. (p.112)
- If you press the **Fn** button while the Instant Review screen is displayed, the Delete menu appears, enabling you to delete the image you have just taken. (p.35)

Deleting Voice Memos Only

If an image has a voice memo (p.139), you can delete the voice memo without deleting the image.

- 1 **Enter the Playback mode and use the four-way controller (◀▶) to choose an image with a voice memo attached.**
- 2 **Press the Fn button.**
- 3 **Press the four-way controller (◀).**
The Delete screen appears.
- 4 **Use the four-way controller (▲▼) to select [Delete sound].**
- 5 **Press the OK button.**
The voice memo is deleted.

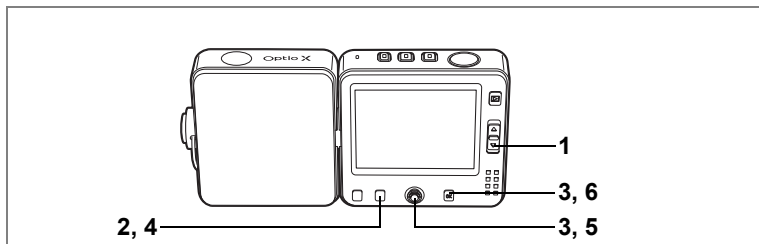


Select [Delete] in Step 4 above to delete both the image and the voice memo.

Setting the Quick Delete Function

When the Quick Delete function is set to ☒ (On), the Delete screen appears with [Delete] already framed.

- 1 **Press the MENU button in Playback mode.**
The [▶ Playback] menu appears.
- 2 **Use the four-way controller (▲▼) to select [Quick Delete].**
- 3 **Use the four-way controller (◀▶) to select ☒ (On) or ☐ (Off).**
- 4 **Press the ▶ button.**
The camera is ready to play back images.
Refer to Step 6 of “How to Use the Menus” (p.45) for other operations after the setting has been made.



Deleting Selected Images and Sound Files (from Nine-Image Display)

You can delete multiple images and sound files from the nine-image display.



- Once deleted, images and sound files cannot be restored.
- Protected images and sound files cannot be deleted.

1 Press the zoom lever  in Playback mode.

Nine thumbnail images appear.

2 Press the Fn button.

 appears on the images or sound files.

3 Use the four-way controller (   ) to choose the images and sound files to delete and press the OK button.

 appears on the selected images.

Press and hold the zoom lever  to display a full screen display of the selected image.

Once you release the button, the screen returns to the nine-image display. You cannot gain full screen display of protected images.

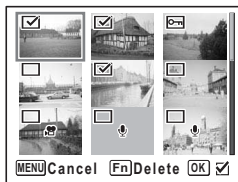
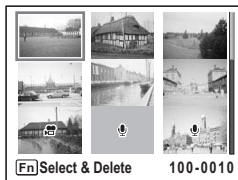
4 Press the Fn button.

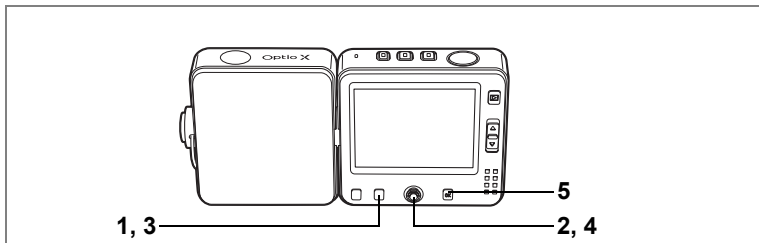
The Delete confirmation screen appears.

5 Use the four-way controller ( ) to select [Select & Delete].

6 Press the OK button.

The selected images and sound files are deleted.





Deleting All Images

You can delete all the images and sound files at once.

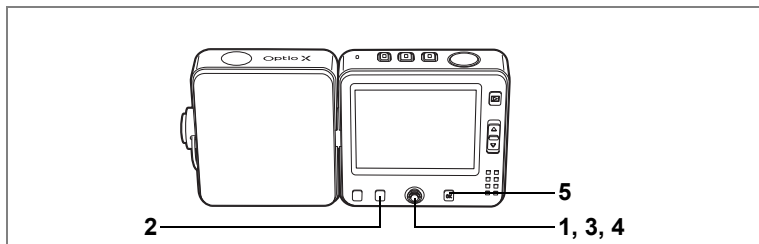


- Once deleted, images cannot be restored.
- Protected images and sound files cannot be deleted. (p.115)

- 1 Press the Fn button in Playback mode.**
The Fn guide appears.
- 2 Press the four-way controller (◀).**
The Delete screen appears.
- 3 Press the Fn button.**
The Delete All screen appears.
- 4 Use the four-way controller (▲) to select [Delete All].**
- 5 Press the OK button.**
All the images and sound files are deleted.



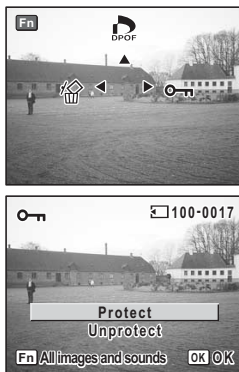
If [Quick Delete] is set to ☒ (On) in the [▶ Playback] menu, Step 4 can be omitted. (p.112)



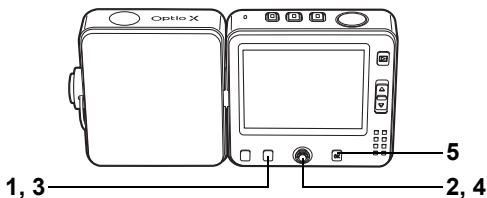
Protecting Images and Sound Files from Deletion (Protect)

You can protect images and sound files from being accidentally deleted.

- 1 Enter the Playback mode and use the four-way controller (◀▶) to choose an image or sound file to protect.**
- 2 Press the Fn button.**
The Fn guide appears.
- 3 Press the four-way controller (▶).**
The Protect screen appears.
- 4 Use the four-way controller (▲) to select [Protect].**
- 5 Press the OK button.**
The selected image is protected.



- To cancel the Protect setting, select [Unprotect] in Step 4.
- appears below the file number on protected images and sound files during playback.



Protecting All Images and Sound Files

You can protect all your images and sound files.



Protected images and sound files will be deleted when the SD Memory Card or built-in memory is formatted.

5

1 Press the Fn button in Playback mode.

The Fn guide appears.

2 Press the four-way controller (►).

The Protect screen appears.

3 Press the Fn button.

The Protect All screen appears.

4 Use the four-way controller (▲) to select [Protect].

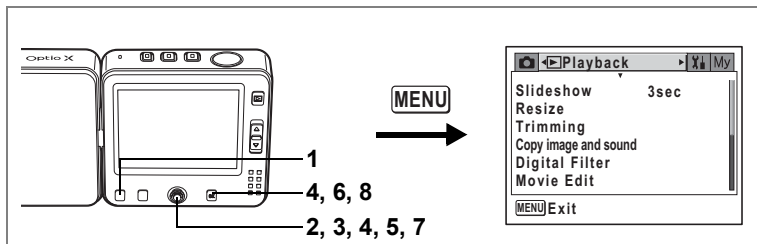
5 Press the OK button.

All the images and sound files are protected.



To cancel the Protect setting on all your images and sound files, select [Unprotect] in Step 4.

Editing Still Pictures



Changing the Image Size and Quality (Resize)

By changing the size and quality of a selected image, you can make the file size smaller than the original. You can use this function to continue taking pictures when the SD Memory Card or built-in memory is full, by making the images smaller and overwriting the original images to make more space available on the card.

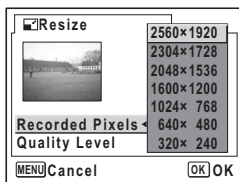
- 1 Press the MENU button in Playback mode.**
The [▶ Playback] menu appears.
- 2 Use the four-way controller (▲▼) to select [Resize].**
- 3 Press the four-way controller (▶).**
The Resize screen appears.
Movies cannot be resized.
- 4 Use the four-way controller (◀▶) to choose the image you want to resize and press the OK button.**
The screen for selecting the resolution and quality appears.



5 Select the resolution and quality.

Use the four-way controller (►) to display the pull-down menu, then use the four-way controller (▲▼) to choose a size and quality and press the four-way controller (◀).

You cannot select a larger resolution or higher quality than that of the original image.



6 Press the OK button.

The overwrite confirmation screen appears.

If the image is protected, the confirmation screen does not appear and the image is saved as a new file.

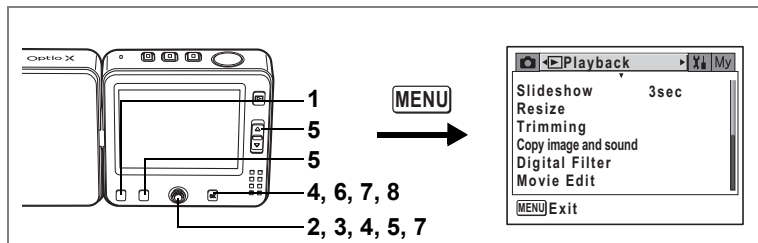
7 Use the four-way controller (▲▼) to select [Overwrite] or [Save as].

8 Press the OK button.

The resized image is saved.

Press the shutter release button to cancel image resizing and return to mode, or press the button to return to Playback mode.

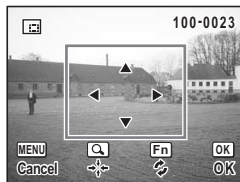




Trimming Images

You can delete the unwanted part of a picture and save the trimmed image as a separate image.

- 1 Press the MENU button in Playback mode.**
The [▶ Playback] menu appears.
- 2 Use the four-way controller (▲▼) to select [Trimming].**
- 3 Press the four-way controller (▶).**
Images that can be trimmed appear.
- 4 Use the four-way controller (◀▶) to choose the image you want to trim and press the OK button.**
The Trimming screen appears.
- 5 Choose the trimming conditions.**



Operations that can be performed on the Trimming screen.

Zoom lever (L/III) Changes the size of the trimmed section

Four-way controller (▲▼◀▶)

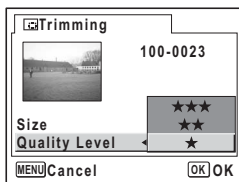
Moves the trimming position up, down, left and right

Fn button

Rotates the trimming area

6 Press the OK button.

The Quality Level options screen appears. The number of size is selected automatically according to the size of the trimmed section.



7 Select the Quality Level.

Use the four-way controller (►) to display the pull-down menu, then use the four-way controller (▲▼) to choose a quality level and press the **OK** button.

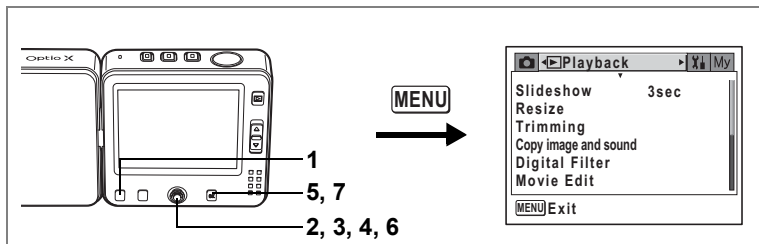
You cannot select a higher quality than that of the original image.

8 Press the OK button.

The trimmed image is saved with a new file name.



- Movies cannot be trimmed.
- Press the shutter release button halfway to cancel trimming and return to mode, or press the button to return to Playback mode in Step 8 above.



Copying Files

You can copy images and sound files from the built-in memory to the SD Memory Card and vice versa. This function can only be selected when an SD Memory Card has been inserted in the camera.



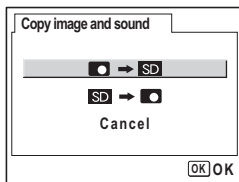
Make sure that the camera is turned off before inserting or removing the SD Memory Card.

- 1 Press the MENU button in Playback mode.**
The [▶ Playback] menu appears.
- 2 Use the four-way controller (▼) to select [Copy image and sound].**
- 3 Press the four-way controller (▶).**
The Copy screen appears. Choose the copying method you want to use.

To Copy Files from the Built-in Memory to the SD Memory Card

All the files are copied to the SD Memory Card at once. Before copying the images, make sure that there is enough space in the SD Memory Card.

- 4 Use the four-way controller (▲▼) to select [Built-in Memory → SD].**
- 5 Press the OK button.**
All the files are copied.



To Copy Files from the SD Memory Card to the Built-in Memory

Selected files are copied to the built-in memory one at a time.

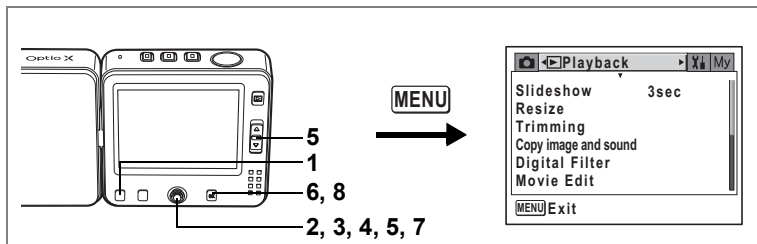
- 4 Use the four-way controller (▲▼) to select [SD→].**
- 5 Press the OK button.**
- 6 Use the four-way controller (◀▶) to select the file you want to copy.**
- 7 Press the OK button.**



The selected file is copied.



- If the image has a voice memo attached, the sound file is copied with the image.
- When a file is copied from the SD Memory Card to the built-in memory, it is assigned a new file name.



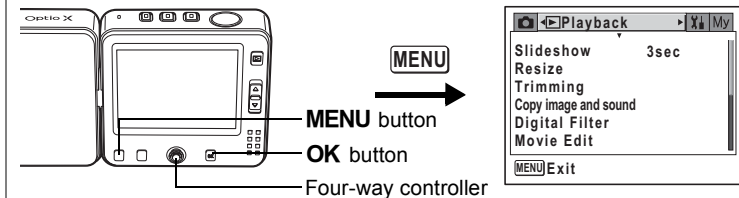
Editing Pictures with Digital Filters

This function enables you to edit still pictures with digital filters. You can choose from nine filters: B&W, Sepia, Red, Pink, Purple, Blue, Green, Yellow and Brightness.

- 1 Press the MENU button in Playback mode.**
The [▶ Playback] menu appears.
- 2 Use the four-way controller (▲▼) to select [Digital Filter].**
- 3 Press the four-way controller (▶).**
Images that can be edited with the digital filters appear.
- 4 Use the four-way controller (◀▶) to choose an image.**
- 5 Use the four-way controller (▲▼) to choose a digital filter.**
If you select , you can adjust the brightness by pressing the zoom lever up and down.
- 6 Press the OK button twice.**
The overwrite confirmation screen appears.
- 7 Use the four-way controller (▲▼) to select [Overwrite] or [Save as].**
- 8 Press the OK button.**



How to display the [Movie Edit] screen

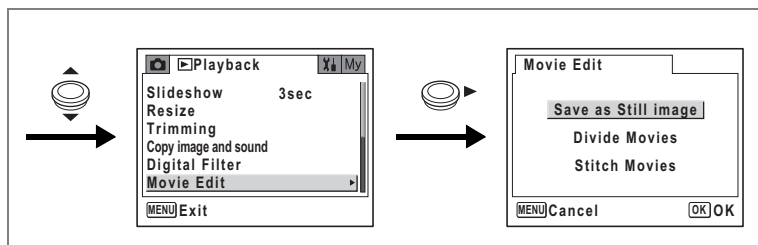


Editing Movies

You can select a frame from a recorded movie to save as a still picture, divide a movie into two or stitch two movies together.

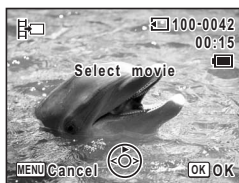
- 1 Press the MENU button in Playback mode.**
The [▶ Playback] menu appears.
- 2 Use the four-way controller (▲ ▼) to select [Movie Edit].**
- 3 Press the four-way controller (▶).**

The Movie Edit screen appears. Choose the editing function that you want to use.

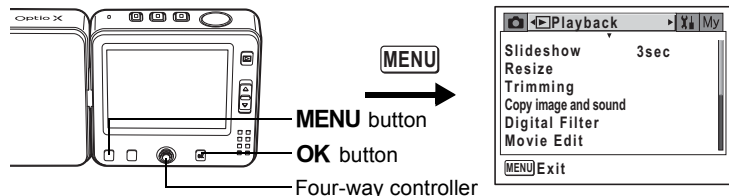


Saving a Frame from a Movie as a Still Picture

- 4 Use the four-way controller (▲▼) to select [Save as Still image].**
- 5 Press the OK button.**
The screen for choosing a movie appears.
- 6 Use the four-way controller (◀▶) to choose the movie you want to edit.**
- 7 Press the OK button.**
The screen for choosing a frame appears.
- 8 Use the four-way controller (◀▶) to choose the frame you want to save.**
- 9 Press the OK button.**
The selected frame is saved as a still picture.



How to display the [Movie Edit] screen



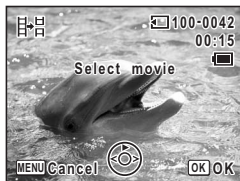
Dividing a Movie

4 Select [Divide Movies] on the Movie Edit screen.

5 Press the OK button.

The screen for choosing a movie appears.

6 Use the four-way controller (◀▶) to choose a movie.



7 Press the OK button.

The screen for choosing the dividing position appears.

8 Use the four-way controller (▲▼◀▶) to determine the dividing position.

▲ : Plays the movie

▼ : Stops the movie

◀ : Reverses the movie frame by frame

▶ : Advances the movie frame by frame



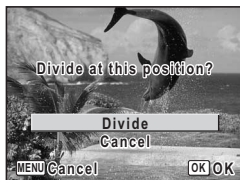
9 Press the OK button.

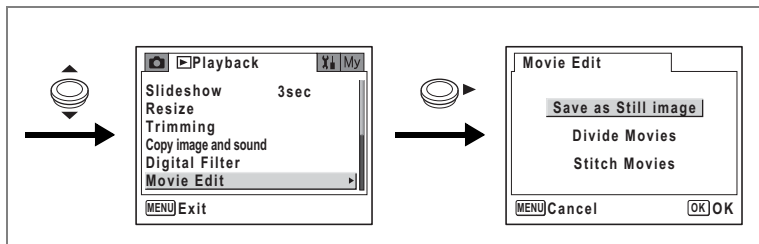
The confirmation screen appears.

10 Use the four-way controller (▲▼) to select [Divide].

11 Press the OK button.

The movie is divided at the specified position and the two portions are saved as separate files.





Stitching Movies

4 Select [Stitch Movies] on the Movie Edit screen.

5 Press the OK button.

The screen for choosing a movie appears.

6 Use the four-way controller (◀▶) to choose the first movie.

7 Press the OK button.



8 Use the four-way controller (◀▶) to choose the second movie.

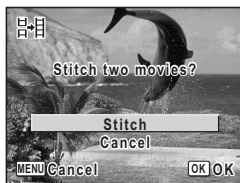
9 Press the OK button.

The confirmation screen appears.

10 Use the four-way controller (▲▼) to select [Stitch].

11 Press the OK button.

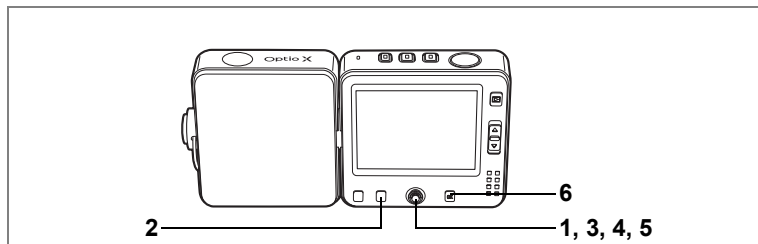
The two selected movies are joined into one.



The movie may appear to stop at the stitch point where the second movie starts. This is because in Movie Edit mode the movie data is edited in units of one second, so even if the last frame of the first movie lasts less than one second, it is counted as one second of data when the second movie is joined to it.

Setting the Printing Service (DPOF)

By saving DPOF (Digital Print Order Format) print reservation data with the still pictures that you have taken, you can print the images according to the settings using a DPOF compatible printer or photo processing lab. You cannot set the printing service for movies or sound-only files.



Printing Single Images

Set the following items for each image.

Copies	Choose the number of copies up to 99.
Date	Specify whether you want the date inserted on the print or not.

- 1 Use the four-way controller (◀▶) to choose the image to print in Playback mode.**
- 2 Press the Fn button.**
The Fn guide appears.



- 3 Press the four-way controller (▲).**
The DPOF screen appears.
If DPOF settings have already been made for an image, the previous number of copies and date setting (☑ or ☐) will be displayed.



- 4 Use the four-way controller (◀▶) to choose the number of copies and press the four-way controller (▼).**

The frame moves to [Date].

- 5 Use the four-way controller (◀▶) to choose whether to insert the date or not.**

- ☒ (On) : The date will be imprinted.
☐ (Off) : The date will not be imprinted.

- 6 Press the OK button.**

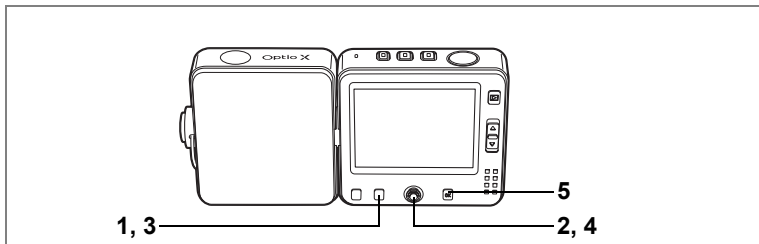
The DPOF settings are saved and the camera returns to playback status.



To cancel DPOF settings, set the number of copies to [00] in Step 4 and press the **OK** button.



Depending on the printer or printing equipment at the photo processing lab., the date may not be imprinted on the pictures even if the DPOF setting was made.



Printing All Images

1 Press the Fn button in Playback mode.

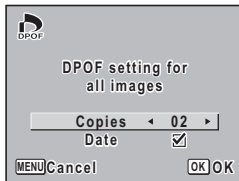
The Fn guide appears.

2 Press the four-way controller (▲).

3 Press the Fn button.

The screen for making DPOF settings for all images appears.

4 Use the four-way controller (◀▶) to choose the number of copies and whether to insert the date or not.



Refer to Steps 4 and 5 in "Printing Single Images" (p.129) for details of how to make the settings.

5 Press the OK button.

The DPOF settings for all the images are saved and the camera returns to playback status.



The number of copies specified in the DPOF settings applies to all the images. Before printing, check that the number is correct.



Settings for single images are canceled when settings are made for all images.

Printing Using PictBridge

This function lets you print images directly from the camera without using a PC. Place the camera on the USB cradle and connect the USB cradle to a printer that supports PictBridge using the USB cable (I-USB7) supplied with the camera. Select the images you want to print and the number of copies on the camera after it has been connected to the printer.

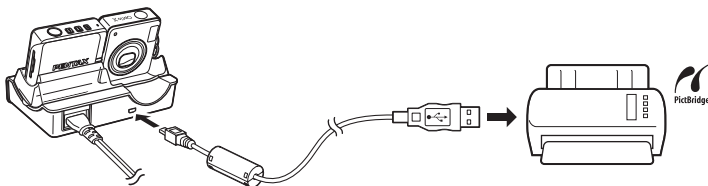


- You are recommended to connect the USB cradle to an AC power outlet while the camera is connected to the printer. The printer may not work properly or the image data may be lost if the battery runs out of power while the camera is connected to the printer.
- Do not disconnect the USB cable during data transfer.
- Depending on the type of printer, not all the settings made on the camera (such as print settings and DPOF settings) may be valid.
- A printing error may occur if the selected number of copies exceeds 500.
- You cannot use the camera to select multiple images for printing on a single sheet. Make the settings on the printer. For details, refer to the operating manual for your printer.

Connecting the Camera to the Printer

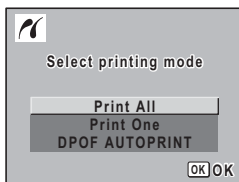
- 1 Select [PictBridge] for the [USB Connection] on the [Y↓ Set-up] menu.**
Refer to “Changing the USB Connection Mode” (p.154).
- 2 Turn the camera off.**
- 3 Connect the USB cradle to the printer using the USB cable supplied with the camera.**

For details of how to use the USB cradle, refer to “Charging the Battery” (p.18).



- 4 Turn the printer on.**
- 5 Place the camera on the USB cradle and turn the camera on.**

The PictBridge menu appears.

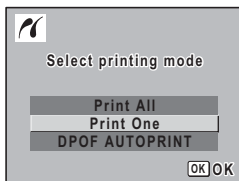


Printing Single Images

- 1 Use the four-way controller (▲▼) to select [Print One] on the PictBridge menu.**

- 2 Press the OK button.**

The Print This Image screen appears.



- 3 Use the four-way controller (◀▶) to choose an image to print.**

- 4 Use the four-way controller (▲▼) to choose the number of copies.**

You can print up to 99 copies.



- 5 Use the Fn button to choose whether to insert the date or not.**

☒ (On) : The date will be imprinted.

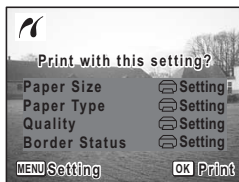
☐ (Off) : The date will not be imprinted.

- 6 Press the OK button.**

The print settings confirmation screen appears.

To print the image according to the print settings, press the **OK** button.

To change the print settings, go to Step 7.

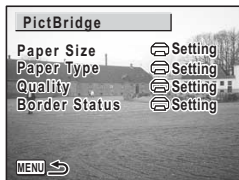


7 Press the **MENU** button.

The screen for changing print settings appears.

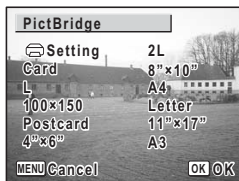
8 Select **[Paper Size]** and press the four-way controller (**▶**).

The Paper Size screen appears.



9 Use the four-way controller (**▲▼◀▶**) to choose the paper size.

You can only choose a size that is supported by your printer.



10 Press the **OK** button.

11 Repeat Steps 8 to 10 to set **[Paper Type]** **[Quality]** and **[Border Status]**.

The print settings confirmation screen appears after each item has been set.

When the Paper Size is set to **[Setting]**, images are printed according to the printer settings.

Paper Type with more ★ support higher quality paper.

Quality with more ★ indicate higher print quality.

12 Press the **OK** button twice.

The image is printed according to the settings.

Press the **MENU** button to cancel printing.



The **📷** button lights while the camera is communicating with the printer, and the **🔊** button blinks while the card is being accessed and during printing.

Printing All Images

- 1 Use the four-way controller (▲▼) to select [Print All] on the PictBridge menu.

- 2 Press the OK button.

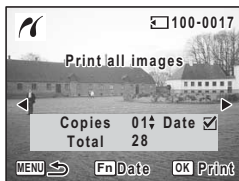
The Print All Images screen appears.



- 3 Choose the number of copies and whether to insert the date or not and confirm the settings.

The number of copies and date setting that you choose apply to all the images.

Refer to Steps 4 to 11 in “Printing Single Images” (pp.132-133) for details of how to make the settings.



- 4 Press the OK button on the print settings confirmation screen.

All the images are printed according to the settings.

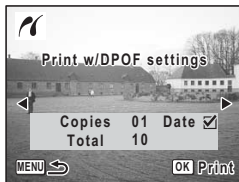
Press the **MENU** button to cancel printing.

Printing Images Using the DPOF Settings

1 Use the four-way controller (▲▼) to select [DPOF AUTOPRINT] on the PictBridge menu.

2 Press the OK button.

The Print w/DPOF Settings screen appears. Use the four-way controller (◀▶) to check the images and print settings. Set the print settings with the printing service (DPOF). (p.128)



3 Press the OK button.

The print settings confirmation screen appears.

4 Press the OK button on the print settings confirmation screen.

The images are printed according to the settings. Press the **MENU** button to cancel printing.

Disconnecting the Cable from the Printer

Disconnect the cable from the printer when you have finished printing.

1 Disconnect the USB cable from the USB cradle.

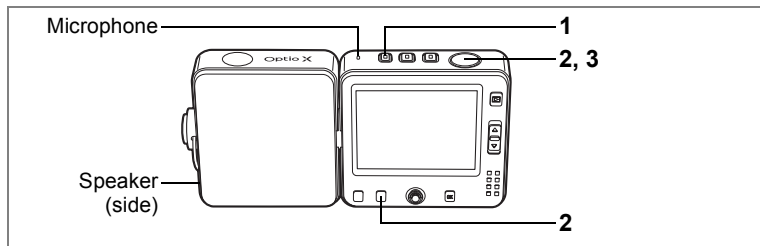
2 Disconnect the USB cable from the printer.



The camera turns off automatically when the USB cable is disconnected from the USB cradle.

Recording Sound (Voice Recording Mode)

You can record sound with the camera. The microphone is located on the top of the camera. Aim the camera to obtain the best sound.

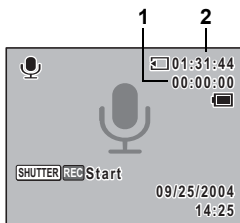


1 Press the button.

The remaining recordable time and the recording time of the current file appear on the LCD monitor.

1 Recording time

2 Remaining recordable time



2 Press the shutter release button fully.

Recording starts. The  button and self-timer lamp blink during recording.

When the **FN** button is pressed during recording, an index can be added to the current sound file.



3 Press the shutter release button fully.

Recording stops.



- In Voice Recording mode, the still picture function and voice recording function can be used independently for taking still pictures and recording sound files.
- Sound is saved in WAVE monaural files.
- Pressing the **OK** button clears the voice recording screen from the LCD monitor. Press the **OK** button again to display the voice recording screen.

Taking Still Pictures in Voice Recording Mode

1 Press the button quickly in Voice Recording mode.

The camera switches to  mode while recording continues.

The recording time appears on the  mode screen.

Refer to “Taking Pictures” (p.53) for details of how to take still pictures.



Recording time

2 Press the shutter release button halfway.

The focus frame turns green if the subject is in focus.

3 Press the shutter release button fully.

The picture is taken.

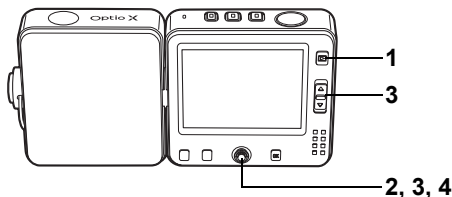
Recording continues after the picture has been taken.



- The shutter sound and operation sound are muted when taking a still picture during voice recording.
- When you switch to  mode during recording, the lens extends while recording continues. The sound of the lens extending may be picked up at this time.

Playing Back Sound

You can play back the sound files you made in  mode.



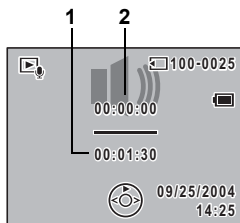
1 Press the  button.

2 Use the four-way controller ( ) to choose a sound file to play back.

3 Press the four-way controller ().
You can play back the sound files you have recorded.

1 Total file recording time

2 Playback time



The following operations can be performed during playback.

- | | |
|---|----------------------|
| Four-way controller () | Pauses playback |
| Zoom lever () | Increases the volume |
| Zoom lever () | Reduces the volume |

If there are no recorded indexes:

- | | |
|---|------------------------|
| Four-way controller () | Reverses playback |
| Four-way controller () | Fast forwards playback |

If there are recorded indexes:

- | | |
|---|---|
| Four-way controller () | Plays back starting from the previous index |
| Four-way controller () | Plays back starting from the next index |

The following operations can be performed while playback is paused.

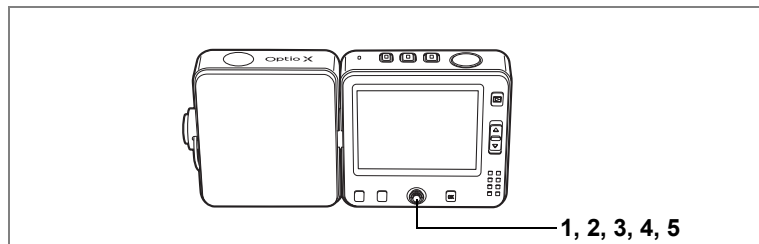
- | | |
|---|----------------------------|
| Four-way controller () | Resumes playback |
| Four-way controller () | Rewinds approx. 5 seconds |
| Four-way controller () | Advances approx. 5 seconds |

4 Press the four-way controller ().

Playback stops.

Adding a Voice Memo to Images

You can add a voice memo to your still pictures.



Recording a Voice Memo

1 Enter the Playback mode and use the four-way controller (◀▶) to choose the still picture to which you want to add a voice memo.

2 Press the center button.

The quick menu appears.

3 Use the four-way controller (▲▼) to select [🎤 REC Start] and press the center button.

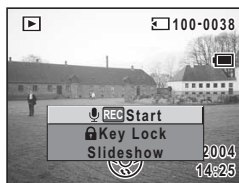
Recording starts. You can record until the SD Memory Card or built-in memory is full.

4 Press the center button.

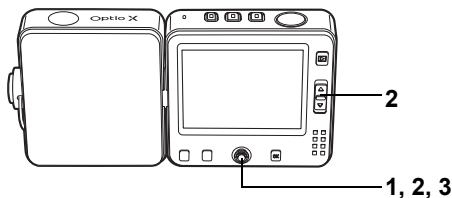
The quick menu appears.

5 Use the four-way controller (▲▼) to select [🎤 REC Stop] and press the center button.

Recording stops.



- A voice memo cannot be added to an image which already has a voice memo. Delete the old voice memo and record a new one. (p.112)
- A voice memo cannot be added to protected (🔒) images. (p.115)



Playing Back a Voice Memo

- 1 Enter the Playback mode and use the four-way controller (◀▶) to choose the still picture with the voice memo that you want to play back.**

If [] appears on the displayed image, a voice memo has been recorded.



- 2 Press the four-way controller (▲).**

Playback starts.

The following operations can be performed during playback.

- | | |
|----------------|----------------------|
| Zoom lever (⬆) | Increases the volume |
| Zoom lever (⬆) | Reduces the volume |

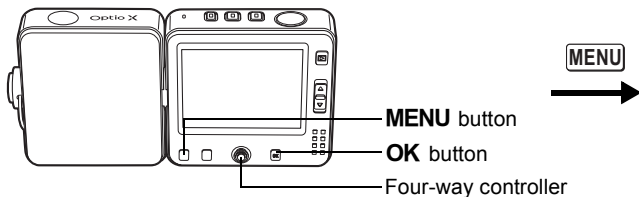
- 3 Press the four-way controller (▼).**

Playback stops.

Deleting Voice Memos Only p.112

Camera Settings

How to display the [X Set-up] menu



Formatting an SD Memory Card or the Built-in Memory

Formatting will delete all the data on the SD Memory Card. All the data in the built-in memory will be deleted if no SD Memory Card has been inserted in the camera.



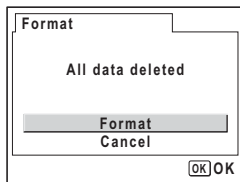
- Do not remove the SD Memory Card during formatting as this may damage the card and render it unusable.
- Formatting will delete protected data too.
- SD Memory Cards formatted on a PC or device other than the camera cannot be used. Be sure to format the card with the camera.

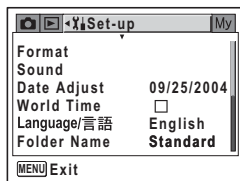
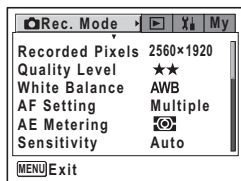
8

Settings

- 1 Select [Format] on the [X Set-up] menu.**
- 2 Press the four-way controller (▶).**
The Format screen appears.
- 3 Use the four-way controller (▲ ▼) to select [Format].**
- 4 Press the OK button.**

Formatting starts. When formatting is completed, the camera is ready to take or playback image.





Changing the Date and Time

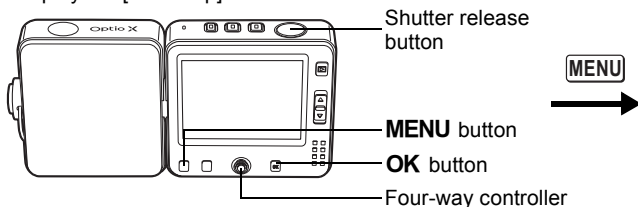
You can change the initial date and time settings. You can also set the style in which the date appears on the camera. Choose [mm/dd/yy], [dd/mm/yy] or [yy/mm/dd].

- 1 Select [Date Adjust] on the [Set-up] menu.**
- 2 Press the four-way controller (►).**

The Date Adjust screen appears.

Refer to “Setting the Date and Time” (p.32) for the setting procedure.

How to display the [M Set-up] menu

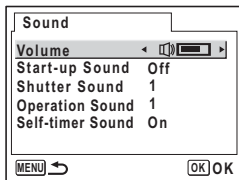


Changing the Sound Settings

You can adjust the volume of operation sounds and change the type of sound.

- 1 Select [Sound] on the [M Set-up] menu.
- 2 Press the four-way controller (►).

The Sound screen appears.

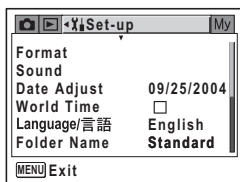
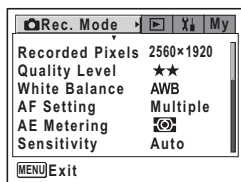


Changing the Operation Volume

- 3 Use the four-way controller (▲ ▼) to select [Volume].
- 4 Use the four-way controller (◀ ▶) to adjust the volume.
Set the volume to 0 to mute operation sounds.

Changing the Sound Type

- 5 Use the four-way controller (▲ ▼) to select [Start-up Sound].
- 6 Press the four-way controller (►).
A pull-down menu appears.
- 7 Use the four-way controller (▲ ▼) to select [1], [2], [3], [Off] or [USER] and press the four-way controller (◀).



8 Repeat Steps 5 to 7 to set [Shutter Sound], [Operation Sound] and [Self-timer Sound].

Select [On], [Off] or [USER] for the self-timer sound.

9 Press the shutter release button halfway.

The setting is saved and the camera returns to capture status. Refer to Step 6 of "How to Use the Menus" (p.45) for other operations after the setting has been made.

Setting the User Sound

You can set the first two seconds of your favorite recorded sound as the user sound and then use this as the start-up sound or shutter sound. The sound to be used is recorded with the camera. (p.136)

1 Select [USER] in Steps 7 and 8 above.

2 Press the OK button.

The Playback screen appears if a sound that can be used as the user sound has been saved in the camera. USER appears for the sound set as the user sound.



3 Use the four-way controller (◀▶) to choose a sound file.

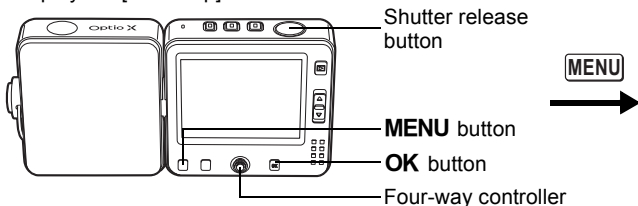
Four-way controller (▲) Plays back the first two seconds of the sound file

Four-way controller (▼) Stops playback

4 Press the OK button.

The selected sound is set as the user sound for the start-up sound or shutter sound.

How to display the [X Set-up] menu



Setting the World Time

The date and time selected in “Setting the Date and Time” (p.32) serve as the (Hometown) date and time.

By using the world time function, you can display the time in a city other than the Hometown (Destination). This is useful when taking pictures in a different time zone.

The procedure for setting the Destination date and time is described below.

1 Select [World Time] on the [X Set-up] menu.

2 Press the four-way controller (▶).

The World Time screen appears.

3 Use the four-way controller (◀▶) to turn World Time (On).

: Displays the time in the city selected in (Destination)

: Displays the time in the city selected in (Hometown)

4 Press the four-way controller (▼).

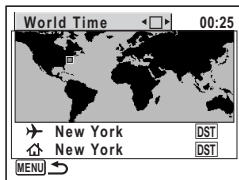
The frame moves to the (Destination) city. The city that is currently selected blinks on the map.

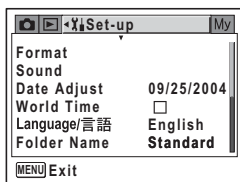
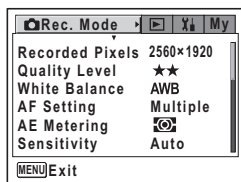
5 Press the four-way controller (▶).

The screen for magnifying the Destination region appears. Use the four-way controller (◀▶) to choose a region.

6 Press the four-way controller (▼).

The frame moves to the City.





7 Use the four-way controller (◀▶) to select the Destination city.

The current time, location and time difference of the selected city appear.

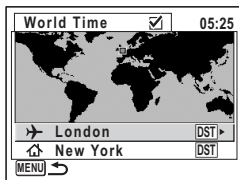
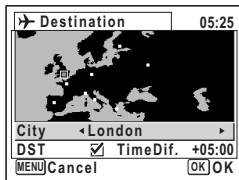
8 Use the four-way controller (▼) to select [DST].

9 Use the four-way controller (◀▶) to select ☒ (On) or ☐ (Off).

Select ☒ (On) if the Destination city uses daylight saving time.

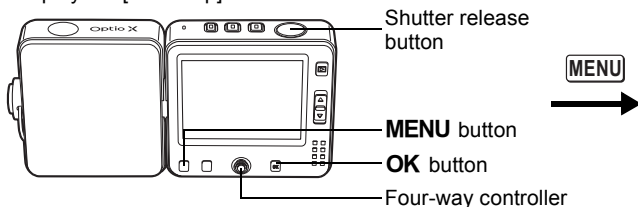
10 Press the shutter release button halfway.

The World Time setting is saved and the camera returns to capture status. To continue with World Time setting operations, press the **OK** button to return to the World Time screen.



Select  in Step 4 to set the city and DST setting for the Hometown city.

How to display the [**⏏** Set-up] menu



Changing the Display Language

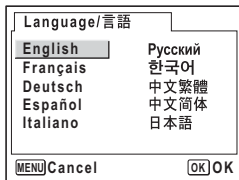
You can change the language in which the menus, error messages, etc. are displayed.

You can choose from English, French, German, Spanish, Italian, Russian, Korean, Chinese (traditional and simplified) and Japanese.

1 Select [Language/言語] on the [⏏** Set-up] menu.**

2 Press the four-way controller (▶).

The Language/言語 screen appears.
Refer to “Setting the Display Language”
(p.31) for the setting procedure.



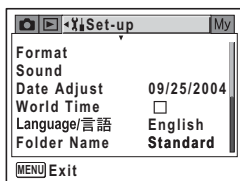
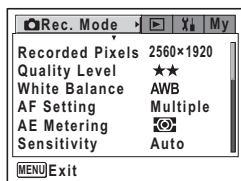
8

Changing the Image Folder Name

You can change the image folder name from the standard name to the date that pictures were taken. When the name is changed to the date, pictures are saved in separate folders by the date they were taken.

Image Folder Name

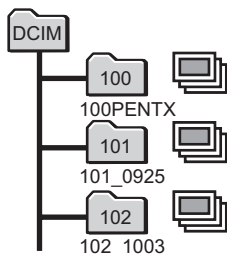
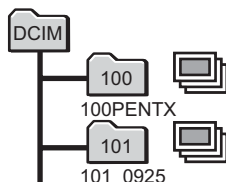
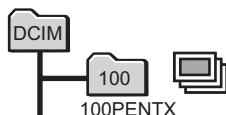
Standard	XXXPENTX (where XXX is the 3-digit folder number)
Date	XXX_mmdd (3-digit folder number_month day)



Picture taken with
standard folder name
(Example: September 25)

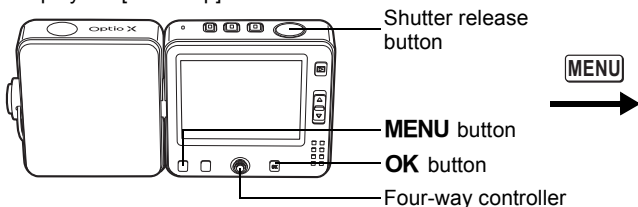
Folder name changed to
date setting
(Example: September 25)

Next time a picture is taken
(Example: October 3)



- 1 Select [Folder Name] on the [X Set-up] menu.**
- 2 Press the four-way controller (▶).**
A pull-down menu appears.
- 3 Use the four-way controller (▲ ▼) to select [Standard] or [Date].**
- 4 Press the shutter release button halfway.**
The Folder Name setting is saved and the camera returns to capture status. Refer to Step 6 of "How to Use the Menus" (p.45) for other operations after the setting has been made.
To view the images and sound files saved in the individual folders, refer to "Folder Display" (p.102).

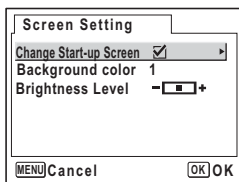
How to display the [X Set-up] menu



Changing the Screen Setting

You can change the start-up screen, the background color of the menus and the brightness of the LCD monitor.

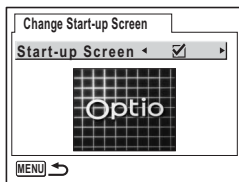
- 1 Select [Screen Setting] on the [X Set-up] menu.**
- 2 Press the four-way controller (▶).**
The Screen Setting screen appears.

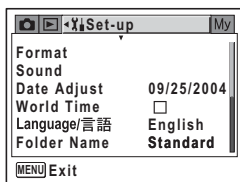
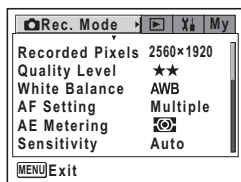


Changing the Start-up Screen

You can choose an image to be displayed as the start-up screen when the camera is turned on.

- 3 Use the four-way controller (▲ ▼) to select [Change Start-up Screen].**
- 4 Press the four-way controller (▶).**
The Change Start-up screen appears.
- 5 Use the four-way controller (◀ ▶) to select ☒ (On) or ☐ (Off).**
 - ☒ : Displays the start-up screen
 - ☐ : Hides the start-up screen





6 Press the four-way controller (▼).

The screen for choosing an image appears.

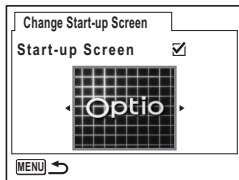
7 Use the four-way controller (◀▶) to choose an image for the start-up screen.

8 Press the OK button.

The setting is saved.

9 Press the shutter release button halfway.

The camera is ready to take pictures. Refer to Step 6 of “How to Use the Menus” (p.45) for other operations after the setting has been made.



Once the start-up screen has been set, it will not be deleted even if the original image is deleted or the SD Memory Card or built-in memory is formatted.

Changing the Background Color

You can choose the background color of the LCD monitor.

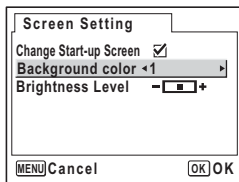
3 Use the four-way controller (▲▼) to select [Background color].

4 Use the four-way controller (◀▶) to choose a background color.

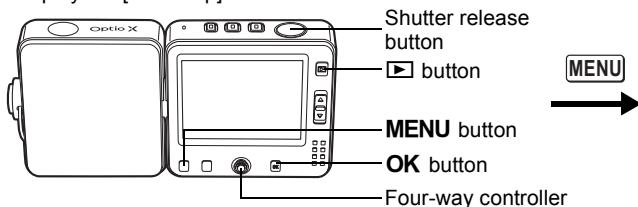
The background color of the menus changes.

5 Press the shutter release button halfway.

The camera is ready to take pictures. Refer to Step 6 of “How to Use the Menus” (p.45) for other operations after the setting has been made.



How to display the [X Set-up] menu



Adjusting the Brightness of the LCD Monitor

You can adjust the brightness of the LCD monitor.

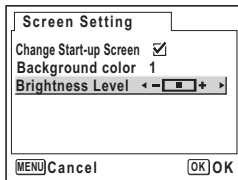
3 Use the four-way controller (▲▼) to select [Brightness Level].

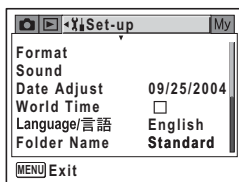
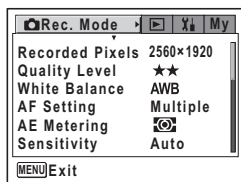
4 Use the four-way controller (◀▶) to adjust the brightness.

The monitor gets darker as the bar slider moves to the left and brighter as it moves to the right.

5 Press the shutter release button halfway.

The Brightness Level setting is saved and the camera returns to capture status. Refer to Step 6 of “How to Use the Menus” (p.45) for other operations after the setting has been made.





Changing the Video Output Format

When you connect the camera to AV equipment, choose the appropriate video output format (NTSC or PAL) for taking and playing back images.

- 1 Select [Video Out] on the [Set-up] menu.**
- 2 Press the four-way controller (▶).**

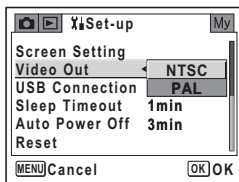
A pull-down menu appears.

- 3 Use the four-way controller (▲▼) to select [NTSC] or [PAL].**

Choose the video output format to match the output format of the AV equipment.

- 4 Press the [▶] button.**

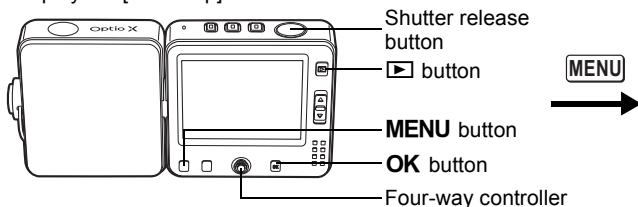
The Video Out setting is saved and the camera returns to playback status. Refer to Step 6 of "How to Use the Menus" (p.45) for other operations after the setting has been made.



The video output format varies according to region. NTSC is the video output format used in North America.

Connecting the Camera to AV Equipment p.110

How to display the [X Set-up] menu



Changing the USB Connection Mode

Choose the appropriate USB connection mode for your purpose (transferring image data, direct printing or using the camera as a PC camera). You can use the camera as a video phone by selecting [PC Camera] and connecting the camera to your PC using the USB cradle.



Refer to the "PC Connection Manual – Enjoying Your Digital Camera Images On Your PC" for instructions on connecting the camera to a PC.

1 Select [USB Connection] on the [X Set-up] menu.

2 Press the four-way controller (▶).

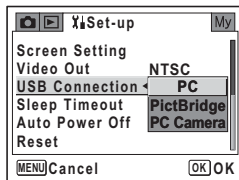
A pull-down menu appears.

3 Use the four-way controller (▲ ▼) to select [PC], [PictBridge] or [PC Camera].

[PC] : Select this option when transferring image data to a computer

[PictBridge] : Select this option when connecting the camera to a PictBridge-compatible printer

[PC Camera]: Select this option when using the camera as a PC camera

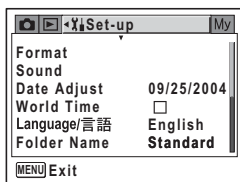
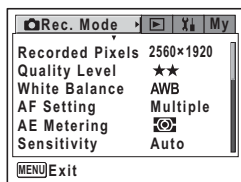


4 Press the ▶ button.

The USB Connection setting is saved and the camera returns to playback status. Refer to Step 6 of "How to Use the Menus" (p.45) for other operations after the setting has been made.



Do not connect the camera to your PC while [PictBridge] is selected for the USB Connection mode.



Setting Sleep Timeout

You can set the LCD monitor to turn off automatically when no operation is performed for a fixed time. Pressing any button during Sleep Timeout will turn the LCD monitor back on.

- 1 Select [Sleep Timeout] on the [Set-up] menu.**
- 2 Press the four-way controller (▶).**
A pull-down menu appears.
- 3 Use the four-way controller (▲▼) to select [2min], [1min], [30sec] or [Off].**
- 4 Press the shutter release button halfway.**

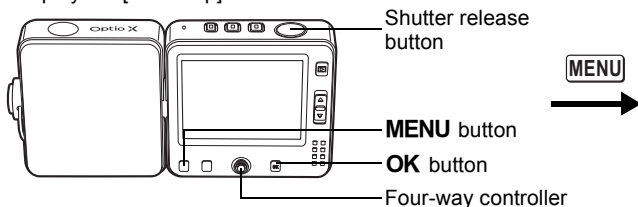
The Sleep Timeout setting is saved and the camera returns to capture status. Refer to Step 6 of "How to Use the Menus" (p.45) for other operations after the setting has been made.



Sleep Timeout does not function in the following situations:

- during a slideshow or movie playback
- while the camera is connected to a PC or printer

How to display the [X Set-up] menu



Setting Auto Power Off

You can set the camera to turn off automatically when no operation is performed for a fixed time.

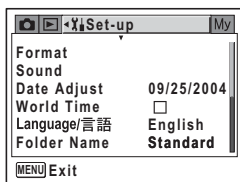
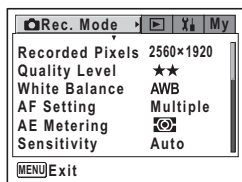
- 1 Select [Auto Power Off] on the [X Set-up] menu.**
- 2 Press the four-way controller (►).**
A pull-down menu appears.
- 3 Use the four-way controller (▲ ▼) to select [5min], [3min] or [Off].**
- 4 Press the shutter release button halfway.**

The Auto Power Off setting is saved and the camera returns to capture status. Refer to Step 6 of "How to Use the Menus" (p.45) for other operations after the setting has been made.



Auto Power Off does not function in the following situations:

- during a slideshow or movie playback
- while the camera is connected to a PC or printer



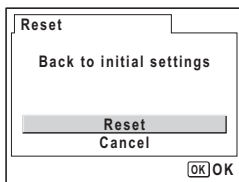
Resetting to Default Settings (Reset)

You can reset the camera settings to their defaults. Refer to the default setting list (p.163) for the reset settings.

To reset only the shooting functions, refer to "Returning Only the Shooting Functions to the Default Settings" (p.94).

- 1 Select [Reset] on the [Set-up] menu.**
- 2 Press the four-way controller (▶).**
- 3 Use the four-way controller (▲) to select [Reset].**
- 4 Press the OK button.**

The setting is cancelled and the camera returns to capture status. Refer to Step 6 of "How to Use the Menu" (p.45) for other operations after the setting has been made.

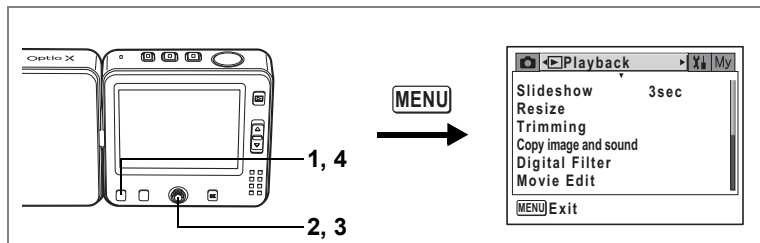


The following settings are not affected by resetting.

Date Adjust, Language/言語, World Time, Video Out and My Menu

Setting the Alarm

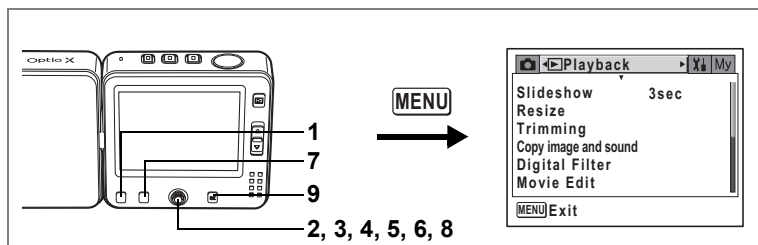
You can set the alarm to ring at a specified time and display a selected image.



Checking the Alarm

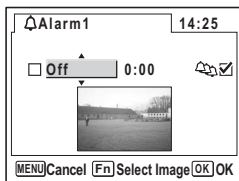
- 1 Press the MENU button in Playback mode.**
The [▶ Playback] menu appears.
- 2 Press the four-way controller (▲ ▼) to select [Alarm].**
- 3 Press the four-way controller (▶).**
The list of alarms appears.
Checked alarms are active alarms. When the snooze function (👉) is enabled (☑), the alarm will ring again a few minutes after it is stopped.
- 4 Press the MENU button twice.**
The camera is ready to play back images.





Setting the Alarm

- 1 Press the MENU button in Playback mode.**
The [▶ Playback] menu appears.
- 2 Press the four-way controller (▲▼) to select [Alarm].**
- 3 Press the four-way controller (▶).**
The list of alarms appears.
- 4 Press the four-way controller (▲▼) to choose Alarm [⌚ 1], [⌚ 2] or [⌚ 3].**
- 5 Press the four-way controller (▶).**
The screen for setting the alarm appears.
- 6 Set the alarm mode, alarm time and snooze function (⌚).**



Four-way controller (◀▶) : Selects the item

Four-way controller (▲▼) : Changes the setting

7 Press the Fn button.

The alarm image options screen appears.

8 Use the four-way controller (◀▶) to choose the image to be displayed when the alarm rings.

If the selected image has a voice memo attached, the voice memo will sound as the alarm.

9 Press the OK button four times.

When the alarm is turned on, [Alarm was set] appears and the camera turns off.



Turning the Alarm Off

The alarm will ring for one minute and the selected image will be displayed when the set time is reached while the camera is turned off. You can stop the alarm by pressing any button on the camera while the alarm is ringing.

When the snooze function is enabled, the alarm will ring again five minutes after it is stopped. It will do this five times. To turn the alarm off, press the **MENU** button while holding down the **OK** button and the alarm will stop ringing repeatedly.



8

Caution

The alarm will not ring when the set time is reached if the camera is on or during interval shooting standby.

List of World Time Cities

Refer to the following list of cities when setting the World Time.

Region	City	Region	City
North America	Honolulu	Africa/ West Asia	Nairobi
	Anchorage		Jeddah
	Vancouver		Tehran
	San Francisco		Dubai
	Los Angeles		Karachi
	Calgary		Kabul
	Denver		Male
	Chicago		Delhi
	Miami		Colombo
	Toronto		Kathmandu
	New York		Dacca
	Halifax	East Asia	Yangon
Central and South America	Mexico City		Bangkok
	Lima		Kuala Lumpur
	Santiago		Vientiane
	Caracas		Singapore
	Buenos Aires		Phnom Penh
	Sao Paulo		Ho chi Minh
	Rio de Janeiro		Jakarta
			Hong Kong
Europe	Madrid		Beijing
	London		Shanghai
	Paris		Manila
	Milan		Taipei
	Rome		Seoul
	Berlin		Tokyo
	Athens		Guam
	Helsinki	Oceania	Perth
	Moscow		Adelaide
Africa/ West Asia	Dakar		Sydney
	Algiers		Noumea
	Johannesburg		Wellington
	Istanbul		Auckland
	Cairo		Pago Pago
	Jerusalem		

Default Settings

The table below lists the factory default settings.
The following is a description of the table notation.

Last Memory Setting

- Yes : The current setting (last memory) is saved when the camera is turned off.
- No : The setting returns to the default setting when the camera is turned off.
- * : The setting depends on the Memory setting (p.92).

Reset Setting

- Yes : The setting returns to the default setting with the reset function (p.157).
- No : The setting is saved even after reset.

● [📷 Rec. Mode] Menu Items

Item		Default Setting	Last Memory Setting	Reset Setting	Page
Recorded Pixels		2560×1920	Yes	Yes	p.79
Quality Level		★★	Yes	Yes	p.81
White Balance		AWB (auto)	*	Yes	p.82
AF Setting	Focusing Area	Multiple	Yes	Yes	p.84
	Focus Limiter	On	Yes	Yes	p.84
AE Metering		 (Multi-segment)	*	Yes	p.86
Sensitivity		Auto	*	Yes	p.87
Auto Bracket		Exposure (±0.3V)	Yes	Yes	p.68
Interval Shoot	Interval	10 sec	Yes	Yes	p.70
	Number of Shot	2 shots	Yes	Yes	p.70
	Start Time	After 0 hr 0 min	Yes	Yes	p.70
Movie	Color Mode	Full Color	Yes	Yes	p.98
	Time-lapse Movie	Off	Yes	Yes	p.99
Digital Zoom		On	*	Yes	p.62
Instant Review		1 sec	Yes	Yes	p.88

Memory	Flash Mode	On	—	Yes	p.78
	Drive Mode	Off	—	Yes	pp.64 - 72
	Focus Mode	Off	—	Yes	p.75
	Zoom Position	Off	—	Yes	p.61
	MF Position	Off	—	Yes	p.76
	White Balance	Off	—	Yes	p.82
	AE Metering	Off	—	Yes	p.86
	Sensitivity	Off	—	Yes	p.87
	EV Compensation	Off	—	Yes	p.63
	Digital Zoom	On	—	Yes	p.62
	DISPLAY	Off	—	Yes	p.73 p.105
	File #	On	—	Yes	—
Sharpness		Normal	Yes	Yes	p.89
Saturation		Normal	Yes	Yes	p.90
Contrast		Normal	Yes	Yes	p.91

● [▶ Playback] Menu Items

Item		Default Setting	Last Memory Setting	Reset Setting	Page
Slideshow	Interval	3 sec	Yes	Yes	p.106
	Effect	Off	Yes	Yes	p.106
Resize		—	No	—	p.117
Trimming		—	No	—	p.119
Copy image and sound		—	—	—	p.121
Digital Filter		B&W	No	—	p.123
Movie Edit		—	No	—	p.124
Quick Zoom		Off	Yes	Yes	p.104
Quick Delete		Off	Yes	Yes	p.112
Alarm (1, 2, 3)	Alarm selection	Off	Yes	Yes	p.158
	Alarm setting	Off	Yes	Yes	p.159
	Time	00:00	Yes	Yes	p.159
	Snooze function	Off	Yes	Yes	p.159
	Image selection	No image	Yes	Yes	p.159

● [X] Set-up] Menu Items

Item		Default Setting	Last Memory Setting	Reset Setting	Page
Format		—	—	—	p.142
Sound	Volume	3	Yes	Yes	p.144
	Start-up Sound	Off	Yes	Yes	
	Shutter Sound	1	Yes	Yes	
	Operation Sound	1	Yes	Yes	
	Self-timer Sound	On	Yes	Yes	
Date Adjust	Date Style (date)	According to default setting	Yes	No	p.32
	Date Style (time)	According to default setting	Yes	No	
	Date	According to default setting	Yes	No	
	Time	According to default setting	Yes	No	
World Time	World Time setting	Off	Yes	Yes	p.146
	Destination (City)	Same as Hometown	Yes	No	
	Destination (DST)	Same as Hometown	Yes	No	
	Hometown (City)	According to default setting	Yes	No	
	Hometown (DST)	According to default setting	Yes	No	
Language/言語		According to default setting	Yes	No	p.31
Folder Name		Normal	Yes	Yes	p.148
Screen Setting	Change Start-up Screen	On	Yes	Yes	p.150
	Start-up Screen Image	Optio Logo screen	Yes	Yes	
	Background Color	1	Yes	Yes	p.151
	Brightness Level	Normal	Yes	Yes	p.152
Video Out		According to default setting	Yes	No	p.153
USB Connection		PC	Yes	Yes	p.154
Sleep Timeout		1 min	Yes	Yes	p.155
Auto Power Off		3 min	Yes	Yes	p.156
Reset		—	—	—	p.157

● Key Operation

Key Operation	Function	Default Setting	Last Memory Setting	Reset Setting	Page
	Operation Mode	Playback Mode	No	—	—
	Shooting Mode	(Program)	Yes	Yes	p.55
	EV Compensation	0.0EV	*	Yes	p.63
Zoom lever 	Zoom Position	Wide	*	Yes	p.61
Fn and	Flash Mode	(Auto)	*	Yes	p.78
Fn and	Drive Mode	(Normal Shooting)	*	Yes	pp.64 - 72
Fn and	Focus Mode	AF (Autofocus)	*	Yes	p.75

: Four-way controller

Optional Accessories

A number of dedicated accessories are available for this camera.

USB cradle D-CR24 (*)

AC plug cord D-CO24 (*)

D-CO2A Australia

D-CO24E Europe

D-CO2H Hong Kong, United Kingdom

D-CO24J Japan

D-CO2K Korea

D-CO24U North America, Canada

Rechargeable lithium-ion battery D-LI8 (*)

Battery charger D-BC8

USB cable I-USB7 (*)

AV cable I-AVC7 (*)

Strap O-ST20 (*)/O-ST24

Camera case O-CC24

Products marked with an asterisk (*) are the same as those supplied with the camera.

Messages

Messages such as the following may appear on the LCD monitor during camera operation.

Battery depleted	The battery is exhausted. Place the camera on the USB cradle and charge the battery.
Memory card full	The SD Memory Card is full and no more images can be saved. Insert a new SD Memory Card or delete unwanted images. (p.20, p.111) Change the quality level or recorded pixels of recorded images and try again. (p.117)
Memory card error	Shooting and playback are impossible due to a problem with the SD Memory Card. You may be able to display or copy the images on the card using a PC.
Card not formatted	The SD Memory Card you have inserted is unformatted or has been formatted on a computer or other device and is not compatible with this camera. (p.142)
Formatting	The SD Memory Card is being formatted.
Card locked	The SD Memory Card is write-protected. (p.21)
Compression error	This message appears when you have exceeded the capacity limit of the SD Memory Card while taking pictures.
No image & sound	There are no image/sound files on the SD Memory Card.
Movie recording stopped	This message appears when the internal temperature of the camera has exceeded normal operating limits while recording a movie.
Operation terminated due to high temperatures	This message appears when the internal temperature of the camera has exceeded normal operating limits. The camera turns off after displaying the message.
Start interval shooting	This message appears when interval shooting starts and the camera enters standby.
Stop interval shooting?	This message appears when you turn on the camera during interval shooting standby.

Interval shooting is completed	This message appears when interval shooting is canceled or before the camera automatically turns off after taking the set number of pictures.
Deleting	This message appears when deleting an image.
Camera cannot display this image	You are trying to play back an image in a format not supported by this camera. You may be able to play it back on another brand of camera or your computer.
Image folder could not be created	The largest file number has been assigned to an image in the largest folder number and no more images can be saved. Insert a new SD Memory Card or format the card. (p.142)
Image protected	The image or sound file you are trying to delete is protected.
Data being recorded	This message appears when you try to switch to Movie mode or Playback mode while an image is still being recorded, or when the protect setting or DPOF setting is being changed. It disappears after the image is recorded or the setting is changed.
Data being processed	This message appears when the camera takes more than five seconds to display an image due to, for example, image processing.
Alarm was set	This message appears when the alarm is set and before the camera automatically turns off.

Messages such as the following may appear on the LCD monitor when using the PictBridge function.

No paper in a printer	There is no paper in a printer.
No ink in a printer	There is no ink in a printer.
Printer error	An error message has been sent from the printer.
Data error	A data error message has been sent from the printer.
Paper stuck in a printer	The paper is stuck in a printer.

Troubleshooting

Problem	Cause	Remedy
Cannot insert SD Memory Card in camera	Protective card has been inserted in camera	Dummy card is inserted in SD Memory Card socket when camera leaves factory to protect socket from scratches and dust. Remove dummy card from camera before inserting SD Memory Card.
Camera will not turn on	Battery is not installed	Check if battery is installed. If not, install battery.
	Battery is installed incorrectly	Check orientation of battery. Reinsert battery according to $\oplus \ominus$ symbols. (p.16)
	Battery power is low	Charge the battery.
No image on LCD monitor	Camera is connected to a PC	LCD monitor is off when camera is connected to a computer.
	Camera is connected to a TV	LCD monitor is off when camera is connected to a TV.
	LCD monitor is set to OFF	Press the OK button to turn LCD monitor on. (p.73)
	Image is displayed but is hard to see	Image on LCD monitor may be hard to see when taking pictures outside in sunlight. Increase brightness of LCD monitor. (p.152)
Shutter will not release	Flash is charging	Pictures cannot be taken while the flash is charging. Wait until charging is finished.
	No available space on SD Memory Card	Insert SD Memory Card with available space or delete unwanted images. (p.20, p.111)
	Recording	Wait until recording is finished.

Problem	Cause	Remedy
Picture is dark	Subject is too far away in a dark environment, such as a night scene	Picture becomes dark if subject is too far away. Take picture within range of flash.
	Background is dark	When taking a picture of a person against a dark background, such as a night scene, the person may appear dark if the flash does not reach the background even with the correct exposure. Set the shooting mode to  to ensure both person and background are clear. (p.55)
Subject is not in focus	Subject is difficult to focus on	Lock focus on another object located at same distance (press shutter release button halfway), then aim at target and press shutter release button fully, or use Manual Focus mode. (p.35)
	Subject is not in focusing area	Position subject in focus frame in middle of LCD monitor. If the subject is outside the focusing area, aim the camera at the subject and lock the focus (press shutter release button halfway), then compose picture and press the shutter release button fully.
	Subject is too close	Set focus mode to  or  . (p.75)
	Focus mode is set to  or 	Normal pictures will be out of focus if taken with focus mode set on  or  .
Flash does not discharge	Flash mode is set to  (flash off)	Set to Auto or  (Flash On). (p.78)
	 mode Drive mode is set to  ,  or  Focus mode is set to  or  Capture mode is set to 	Flash will not discharge in these modes.

Problem	Cause	Remedy
Zoom will not work	Focus mode is set to 	Zoom does not function in Super Macro mode.
USB connection with computer does not work properly	USB connection mode is set to [PictBridge]	Set USB connection mode to [PC] or [PC Camera] according to purpose. (p.154)

Main Specifications

Type	Fully automatic compact swivel-type digital still camera with built-in zoom lens		
Effective Pixels	5.0 megapixels		
Sensor	5.36 megapixels (total pixels) 1/2.5 inch interline transfer CCD with a primary color filter		
Recorded Pixels	Still	2560×1920 pixels, 2304×1728 pixels, 2048×1536 pixels, 1600×1200 pixels, 1024×768 pixels, 640×480 pixels	
	Movie	320×240 pixels	
Sensitivity	Auto, manual (80/160/320: Standard Output Sensitivity)		
File Format	Still	JPEG (Exif 2.2), DCF, DPOF, PictBridge, PRINT Image Matching III	
	Movie	MOV (QuickTime Motion JPEG), streaming video, approx. 15fps (frames/sec.), PCM system, monaural	
	Sound	Voice memo, voice recording: WAVE (PCM) system, monaural	
Quality Level	Still	★★★ “Best”, ★★ “Better”, ★ “Good”	
Storage Medium	Built-in memory (approx. 14MB), SD Memory Card		

Approximate Image Storage Capacity and Recording Time
(when using a 64MB SD Memory Card)

Still Picture				Movie (320×240)	Sound
Quality Level Recorded Pixels	★★★ Best	★★ Better	★ Good		
2560×1920	18	35	60	2 min. 56 sec.	2 hr. 12 min. 13 sec.
2304×1728	24	46	66		
2048×1536	30	55	80		
1600×1200	50	86	117		
1024× 768	107	193	242		
640× 480	227	352	430		

*The above table shows the approximate figures.

White Balance	Auto, Daylight, Shade, Tungsten Light, Fluorescent Light, Manual		
Lens	Focal Length	5.8 mm - 17.4 mm (equivalent to 35.6 mm - 107 mm in 35 mm format)	
	Max. Aperture	f2.6 - f4.8	
	Lens Composition	6 elements in 5 groups (two aspherical elements)	
	Zoom Type	Electrically driven	
	Picture Range	Approx. 38.6 mm×28.9 mm (screen is filled) (Super Macro mode)	

Digital Zoom	Capture Mode	Max. 4× (combines with 3× optical zoom to give zoom magnification equivalent to 12×)
LCD Monitor	2 inch low-temperature polysilicon TFT color LCD monitor with brightness adjustment, approx. 210 kilopixels (with backlight), and swivel mechanism (approx. 270°)	
Playback Function	Single-frame, 9-frame index, enlargement (max. 8×), scroll, folder display, rotation, sound, slideshow, movie playback and edit (save as still image, divide movies, stitch movies), histogram display, copying image and sound, digital filter, trimming, resizing, alarm	
Focus Mode	Autofocus, Macro, Super Macro, Manual Focus, AF Area Move	
Autofocus	Type	TTL contrast detection system by sensor 9-point autofocus (multiple/spot changeable)
	Focusing Range (from lens front)	Normal : approx. 0.4 m - ∞ (full zoom range) Macro : approx. 0.18 m - 0.5 m (full zoom range) Super Macro : approx. 0.06 m - 0.2 m (focal distance is fixed at 10.2mm) Landscape : ∞ (full zoom range)
	Focus Lock	By half-pressing shutter release button
	Manual Focus	Focusing Range 0.18 m - ∞ (full zoom range)
	Exposure Mechanism	AE Metering TTL metering by sensor (multi-segment, center-weighted, spot) EV Compensation ±2 EV (can be set in 1/3 EV steps)
Shooting Mode	Program, Landscape, Flower, Portrait, Night Scene, Panorama Assist, Surf, Snow, Self-portrait, Night Scene Portrait, Food, Museum, Pet, Sport, Fireworks	
Digital Filter	B&W, Sepia, Red, Pink, Purple, Blue, Green, Yellow, Brightness	
Auto Bracket	Exposure, White Balance, Sharpness, Saturation, Contrast	
Movie	Continuous Recording Time	Approx. 1 second - until built-in memory or SD Memory Card is full
Shutter	Type	Electronic/mechanical shutter
	Speed	Approx. 1/2000 sec. - 4 sec.
Flash	Type	Built-in flash with red-eye reduction function
	Flash Modes	Auto (at low illumination), Flash Off, Flash On, Auto + Red-eye Reduction, Flash On + Red-eye Reduction, Slow Synchronization (Night Scene, Night Scene Portrait only)
	Working Range	Wide: approx. 0.18 m - 3.6 m (Sensitivity: in Auto condition) Tele: approx. 0.18 m - 1.9 m (Sensitivity: in Auto condition)

Drive Mode	Single-frame, 10-sec. Self-timer, 2-sec. Self-timer, Continuous Shooting, Multiple Shooting, Auto Bracket (Exposure, White Balance, Saturation, Sharpness, Contrast), Interval Shoot	
Self-timer	Electronic control type, control time: approx. 10 sec., 2 sec.	
Time Function	World Time setting for 68 cities (28 time zones)	
Alarm	Alarm with simultaneous display of selected image at specified time (max. 3 alarms) and snooze function	
Power Supply	Rechargeable lithium-ion battery D-LI8, USB cradle (charges battery in camera)	
Battery Life (Image storage capacity)	Approx. 165 pictures	At 23°C with flash fired for 50% of shots and using a lithium-ion battery D-LI8 in accordance with CIPA measuring conditions
Battery Life (Playback time)	Approx. 160 min.	At 23°C with the battery fully charged in accordance with PENTAX testing conditions (The time shown is approximate. It may be shorter in low temperature conditions.)
Max. Charging Time	Approx. 110 min.	
In/Out Port	USB cradle connector terminal	
Video Output Format	NTSC/PAL (monaural)	
PictBridge	Printer	PictBridge-compatible printer
	Print Modes	Print One, Print All, DPOF AUTOPRINT
	Print Settings	Paper Size, Paper Type, Quality, Border Status
Size	112 (W)×54 (H)×18 (D) mm (excluding operating members)	
Weight	125 g (excluding battery and SD Memory Card)	
Weight when shooting	145 g (including battery and SD Memory Card)	
Package Contents	Rechargeable lithium-ion battery, USB cradle, AC plug cord, USB cable, AV cable, software (CD-ROM), strap, operating manual	

USB cradle

Use	When charging battery, transferring data to PC, connecting camera to AV equipment, connecting camera to PC as PC camera	
Rated input	AC 100-240V (50 Hz/60 Hz)	
Rated output	DC 4.2V	
External dimensions	116.5 (W) × 46.5 (H) × 75.0 (D) mm	
Weight	136.5 g	

WARRANTY POLICY

All PENTAX cameras purchased through authorized bona fide photographic distribution channels are guaranteed against defects of material or workmanship for a period of twelve months from date of purchase. Service will be rendered, and defective parts will be replaced without cost to you within that period, provided the equipment does not show evidence of impact, sand or liquid damage, mishandling, tampering, battery or chemical corrosion, operation contrary to operating instructions, or modification by an unauthorized repair shop. The manufacturer or its authorized representatives shall not be liable for any repair or alterations except those made with its written consent and shall not be liable for damages from delay or loss of use or from other indirect or consequential damages of any kind, whether caused by defective material or workmanship or otherwise; and it is expressly agreed that the liability of the manufacturer or its representatives under all guarantees or warranties, whether expressed or implied, is strictly limited to the replacement of parts as hereinbefore provided. No refunds will be made on repairs by non-authorized PENTAX service facilities.

Procedure During 12-month Warranty Period

Any PENTAX which proves defective during the 12-month warranty period should be returned to the dealer from whom you purchased the equipment or to the manufacturer. If there is no representative of the manufacturer in your country, send the equipment to the manufacturer, with postage prepaid. In this case, it will take a considerable length of time before the equipment can be returned to you owing to the complicated customs procedures required. If the equipment is covered by warranty, repairs will be made and parts replaced free of charge, and the equipment will be returned to you upon completion of servicing. If the equipment is not covered by warranty, regular charges of the manufacturer or of its representatives will apply. Shipping charges are to be borne by the owner. If your PENTAX was purchased outside of the country where you wish to have it serviced during the warranty period, regular handling and servicing fees may be charged by the manufacturer's representatives in that country. Notwithstanding this, your PENTAX returned to the manufacturer will be serviced free of charge according to this procedure and warranty policy. In any case, however, shipping charges and customs clearance fees to be borne by the sender. To prove the date of your purchase when required, please keep the receipt or bills covering the purchase of your equipment for at least a year. Before sending your equipment for servicing, please make sure that you are sending it to the manufacturer's authorized representatives or their approved repair shops, unless you are sending it directly to the manufacturer. Always obtain a quotation for the service charge, and only after you accept the quoted service charge, instruct the service station to proceed with the servicing.

- This warranty policy does not affect the customer's statutory rights.
- The local warranty policies available from PENTAX distributors in some countries can supersede this warranty policy. Therefore, we recommend that you review the warranty card supplied with your product at the time of purchase, or contact the PENTAX distributor in your country for more information and to receive a copy of the warranty policy.



The CE Mark is a Directive conformity mark of the European Community.

For customers in USA

STATEMENT OF FCC COMPLIANCE

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not approved by the party responsible for compliance could void the user's authority to operate the equipment.

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 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/TV technician for help.

For customers in Canada

This Class B digital apparatus meets all requirements of the Canadian Interference - Causing Equipment Regulations.

Pour les utilisateurs au Canada

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

Memo

Memo

Declaration of Conformity
According to 47CFR, Parts 2 and 15 for
Class B Personal Computers and Peripherals

We: PENTAX Imaging Company
A Division of PENTAX of America, Inc.

Located at: 600 12th Street, Suite 300
Golden, Colorado 80401 U.S.A.
Phone: 303-799-8000 FAX: 303-790-1131

Declare under sole responsibility that the product identified herein complies with 47CFR Parts 2 and 15 of the FCC rules as a Class B digital device. Each product marketed is identical to the representative unit tested and found to be compliant with the standards. Records maintained continue to reflect the equipment being produced can be expected to be within the variation accepted, due to quantity production and testing on the statistical basis as required by 47CFR §2.909.

Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation. The above named party is responsible for ensuring that the equipment complies with the standards of 47CFR §15.101 to §15.109.

Product Name: PENTAX Digital Still Camera

Model Number: Optio X

Contact person: Customer Service Manager

Date and Place: September, 2004, Colorado

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