E
ENGLISH

FCC STATEMENT

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.

Note:

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

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

Use of shielded cable is required to comply with Class B limits in Subpart B of Part 15 of the FCC rules. Do not make any changes or modifications to the equipment unless otherwise specified in the manual. If such changes or modifications should be made, you could be required to stop operation of the equipment.

TRADEMARK INFORMATION

■ Microsoft® and Windows® are U.S. registered trademarks of Microsoft Corporation.
■ Pentium® is a registered trademark of Intel Corporation.
■ Macintosh is a trademark of Apple Computer, Inc.
■ SD™ is a trademark.
■ Other names and products may be trademarks or registered trademarks of their respective owners.

READ THIS FIRST

Notice:
1. Product design and specifications are subject to change without notice. This includes primary product specifications, software, software drivers and user's manuals. This User Manual is a general reference guide for the product.
2. The illustrations in this manual are for the purpose of explanation and may differ from the actual design of your camera
3. The manufacturer assumes no liability for any errors or discrepancies in this user manual.
4. For driver updates, refer to our website.

Safety Instructions

Read and understand all Warnings and Cautions before using this product

WARNING

If foreign objects or water have entered the camera, turn the power OFF and remove the battery and the AC power adapter
Continued use in this state might cause fire or electric shock. Contact our hotline.

If the camera has fallen or its case has been damaged, turn the power OFF and remove the battery and the AC power adapter.
Continued use in this state might cause fire or electric shock. Contact our hotline.

Do not disassemble, change or repair the camera.
This might cause fire or electric shock. For repair or internal inspection, contact our hotline.

Use the supplied AC adapter only with the indicated power supply voltage.
Use with any other power supply voltage might cause fire or electric shock.

Do not use the camera in areas near water.
This might cause fire or electric shock. Take special care during rain, snow, on the beach or near the shore.

Do not place the camera on inclined or unstable surfaces.
This might cause the camera to fall or tilt over, causing damage.

Keep the battery out of the reach of children.
Swallowing the battery may cause poisoning. If the battery is accidentally swallowed, immediately consult a doctor

Do not use the camera while you are walking, driving or riding a motorcycle.
This might cause you to fall over or result in traffic accident.

CAUTION

Insert the battery paying careful attention to the polarity (+ or -) of the terminals.
Inserting the battery with its polarities inverted might cause fire and injury, or damage to the surrounding areas due to the battery rupturing or leaking.

Do not fire the flash close to anyone's eyes.
This might cause damage to the person's eyesight.

Do not subject the LCD monitor to impact.
This might damage the glass on the screen or cause the internal fluid to leak. If the internal fluid enters your eyes or comes into contact with your body or clothes, rinse with fresh water. If the internal fluid enters your eyes, consult a doctor for immediate treatment.

A camera is a precision instrument. Do not drop it, strike it or use excessive force when handling the camera.
This might cause damage to the camera.

Do not use the camera in humid, steamy, smoky or dusty places.
This might cause fire or electric shock.

Do not remove the battery immediately after long period of continuous use.
The battery becomes hot during use. Touching a hot battery might cause burns.

Do not cover the camera with any material.
This might cause heat to build up and deform the case, resulting in fire. Use the camera in a well-ventilated place.

Do not leave the camera in places where the temperature may rise significantly, such as inside a car.
This might adversely affect the case or the parts inside, resulting in fire.

Before you move the camera, disconnect cords and cables.
Failure to do this might damage cords and cables, resulting in fire and electric shock.

Notes on Battery Usage

When you use the battery, carefully read and strictly observe the Safety Instructions and the notes described below:

- Different types of batteries may have different battery performance.
- Avoid using batteries in extremely cold environments as low temperatures can shorten the battery life and reduce camera performance.
- If you are using the new rechargeable batteries or rechargeable batteries that have not been used for an extended period of time (batteries that pass the expiry date are exceptions), this might affect the number of pictures that can be taken. Therefore, to maximize their performance and lifetime, we recommend that you fully charge the batteries and discharge them for at least one complete cycle before use.
- The battery may feel warm when using the camera for an extended period of time or using the flash continuously. This is normal and not a malfunction.
- The camera may feel warm when being used continuously or for an extended period of time. This is normal and not a malfunction.
- If you do not intend using the batteries for an extended period of time, remove them from the camera to prevent leakage or corrosion.
- Always keep the terminals in a clean state.
- Do not use a battery other than that specified for use with your camera.
- Use of an unsuitable battery may result in the battery splitting, or leaking and may cause a fire, injury or soiling of the battery compartment.

CONTENTS

INTRODUCTION

Overview

Congratulations on your purchase of this new digital camera.
Capturing high-quality digital pictures is fast and easy with this state-of-the-art smart camera. Equipped with a 6.36 Mega pixel CCD, this camera is capable of capturing pictures with a resolution of up to 2816 x 2112 pixels.
Other cool features provided by the camera include the following:

LCD monitor -	The 2.0" low temperature poly silicon TFT color LCD monitor makes it easy to frame your subject when taking pictures. It also displays the pictures you have taken.
Recording medium -	External memory supports SD card up to 512MB.
Camera mode -	Variety of camera modes allows you to operate however suits you best and take photographs according to photographic conditions.
Optical zoom -	3x optical lens allows you to take telephoto and wide-angle pictures.
Digital zoom -	4.4x digital zoom and 3x optical zoom permit zoom photography of up to 13.2 times; 2x and 4x playback captured images to enlarge a selected portion of an image.
Flexible flash settings -	Change the flash setting according to your lighting environment and photography mode setting.
Focus mode -	Photographs can be taken with the distance to the subject set by auto focus, macro, infinity, 3 m or 1 m.
Self-timer mode -	Time selectable between 10 seconds, 2 seconds, 10+2 seconds and interval.
Still image capture -	Take different still images including single, a series of 3 images with different exposures and 5 images continuously.

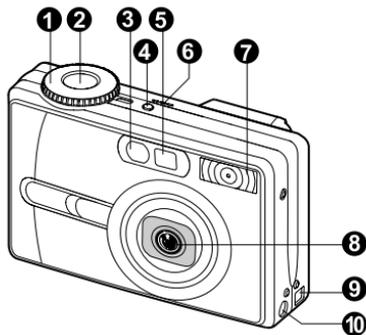|	
Movie mode -	Record video clips with voice.
Voice memo -	A voice memo can be recorded once for 30 seconds in photography mode immediately following the capture of a still image or in playback mode while viewing the picture.
Camera settings -	Have more control over picture quality by adjusting the menu options.
Thumbnail display -	Displays in sets of nine pictures on the LCD for easier and quicker selection of pictures.
TV and PC connection -	View pictures on a television monitor or computer while connected to the USB or A/V cable.
DPOF settings -	Allows you to embed printing information on your SD card and to print your images on a DPOF compatible printer by simply inserting it.

Package Contents

Carefully unpack your camera and ensure that you have the following items.

Common Product Components:
- Digital camera
- A/V cable
- User's manual
- USB cable
- Software CD-ROM
- Camera strap
- Camera pouch
- SD card
- AC power adapter
- Rechargeable lithium-ion battery x 2
- Battery charger

GETTING TO KNOW THE CAMERA

Front View

#	Name	Description
1.	Mode dial	Sets the camera mode.
2.	Shutter button	Focuses and locks the exposure of the camera when pressed halfway down, and takes the picture when pressed all the way down.
3.	Self-timer LED (AF auxiliary light)	Blinks green during Self-timer mode until picture is taken. Effective for still image capture mode when the luminance value of Auto and Macro focus mode is below 6.
4.	**POWER** button	Turns the camera power on and off.
5.	Viewfinder window	Allows you to frame the subject of the picture.
6.	**MIC** (Microphone)	Records audio clips.
7.	Flash	Provides flash illumination.
8.	Zoom lens	3x optical zoom lens allows you to take telephoto and wide-angle pictures.
9.	USB/A/V OUT terminal	Allows you to connect a USB cable or an A/V cable to the camera.
10.	DC IN 5V terminal	Allows you to connect AC power adapter to the camera to operate the camera without battery, or to charge rechargeable battery.

Rear View
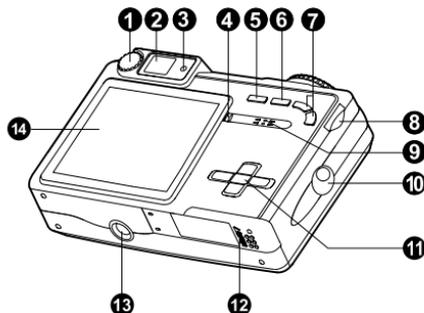
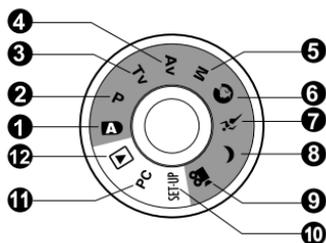| #	Name	Description
1.	Diopter adjustment dial	Provides a clearer image when using the viewfinder.
2.	Viewfinder window	Allows you to frame the subject of the picture.
3.	Viewfinder LED	Displays the camera's current state.
4.	▭ (Display) button	Turns the LCD monitor display and live view on and off.
5.	**MENU** button	Toggles OSD menu on and off.
6.	🗑 (Erase) button	Allows you to erase the picture.
7.	▣ (Zoom in) button	Zooms the lens to telephoto position.
	▥ (Zoom out) button	Zooms the lens to wide-angle position.
8.	Search dial	Selects the next or previous picture in playback mode, or changes the exposure compensation, shutter speed or aperture value setting.
9.	Speaker	Produces camera sounds and plays recorded audio.
10.	Strap holder	Camera strap attachment.
11.	SET /Direction button	Allows you to scroll through menus and pictures, and then select choices.
12.	Battery/SD card cover	Allows access to the battery and the insertion or removal of the memory card.
13.	Tripod socket	Allows tripod mounting.
14.	LCD monitor	Provides menu information to operate the camera, and previews the picture before taking it and for reviewing it afterwards.

SET /Direction button

#	Name		Description
1.	**SET**	button	Enters the menu page and confirms the chosen setting.
2.	▲	button	Scrolls upwards.
	▲/▲	(Focus) button	Allows you to choose the appropriate focus setting.
3.	▼	button	Scrolls downwards.
	⟳/INT.	(Self-timer) button	Allows you to toggle the self-timer to on/off. selects the desired self-timer mode or you can choose interval photography.
4.	◄	button	Scrolls left.
	⧄/⧄	(Exposure compensation / Backlight correction) button.	Allows you to toggle the exposure compensation / backlight correction on and off.
5.	►	button	Scrolls right.
	⚡/⊙	(Flash) button	Allows you to choose the appropriate flash setting.

Mode dial

▭ : photography mode

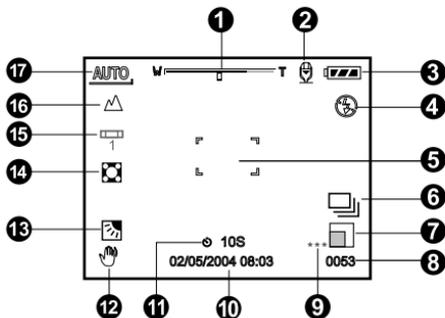| #	Mode		Description
1.	Auto photography		The camera is automatically set for exposure, etc.
2.	**P**	Program (auto exposure)	This permits the shutter speed and aperture to be set automatically and other factors to be set manually.
3.	**Tv**	Shutter speed priority	Select this when you want to photograph with shutter speed priority.
4.	**Av**	Aperture priority	Select this when you want to photograph with aperture priority.
5.	**M**	Manual photography	Select this when you want to manually set the exposure, aperture and other settings.
6.		Portrait	Select this when you want to photograph a person and blur the background.
7.		Sports	Select this when photographing fast-moving subjects.
8.		Night scene	Select this when photographing evening or night scenes.
9.		Movie	Select this when recording video clips.
10.		Set-up	Choose your preferences on the camera's settings.
11.	**PC**	PC	Download the image to the personal computer.
12.		Playback	Performs image playback, deleting and writing of the print information.

Viewfinder LED Indicator

This describes the color and state of the viewfinder LED.

Color	State	During power off	During photography	During playback	During connection to a PC
Green	On	Battery charging in progress.	Auto focusing successful. (AF is locked)	-	While the camera is connected to a PC.
	Flashing	-	-	-	-
Red	On	AC adaptor plugged in	Writing to SD card in progress	Accessing of SD card in progress. DPOF file is being created.	Accessing of SD card in progress. PC mode stand by
	Flashing	-	Auto focusing failure Interval photography stand by	-	-
Orange	On	Battery charging error.	Processing image. Flash charging in progress.	-	Not recognized by the PC, or other status.
	Flashing	-	No battery power left. Camera malfunction. Battery cover open SD card write-protect	No battery power left.	No battery power left. No SD card.

LCD Monitor Icons
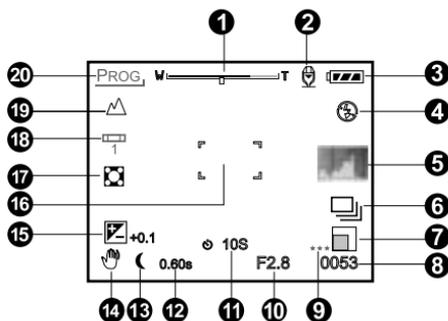
Photography modes [▲] [◻] [↗] [( ]

1. Zoom status
2. Voice memo
3. Remaining battery status
4. Flash icon
5. Focus area (When the shutter button is pressed halfway down.)
6. Capture mode icon
7. Image size
8. Possible number of shots
9. Quality

10. Date and time
11. Self-timer icon
12. Unsteady hold warning icon
13. Backlight correction
14. Metering icon
15. White balance icon
16. Focus icon
17. Mode icon

NOTE

■ Each press of the ▢ button switches one step in the sequence of Normal display (displaying the icons, etc), display OFF, LCD monitor OFF.

Digital Camera >>

Photography modes [P] [Tv] [Av] [M]

1. Zoom status
2. Voice memo
3. Remaining battery status
4. Flash icon
5. Histogram
6. Capture mode icon
7. Image size
8. Possible number of shots
9. Quality
10. Aperture
11. Self-timer icon

12. Shutter speed
13. Long time exposure mode icon
14. Unsteady hold warning icon
15. Exposure compensation
16. Focus area (When the shutter button is pressed halfway down.)
17. Metering icon
18. White balance icon
19. Focus icon
20. Mode icon

NOTE

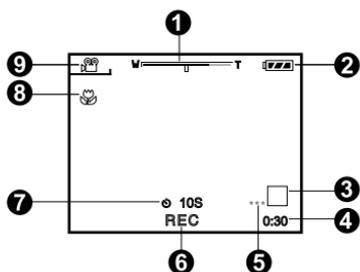■ Each press of the 🔲 button switches one step in the sequence of Normal display (displaying the icons, etc), Normal and Histogram display, display OFF, LCD monitor OFF.

Video capture mode [🎥]

1. Zoom status
2. Remaining battery status
3. Image size
4. Possible recording time/elapsed time
5. Quality
6. Recording indicator
7. Self-timer icon
8. Focus icon
9. Mode icon

Playback mode [▶]-Still Picture Playback
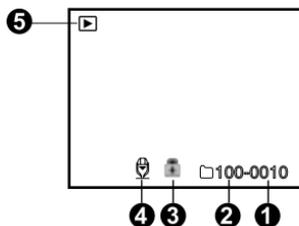
1. File number
2. Folder number
3. Protect icon
4. Voice memo icon
5. Mode icon

Playback mode [▶]-Video Playback
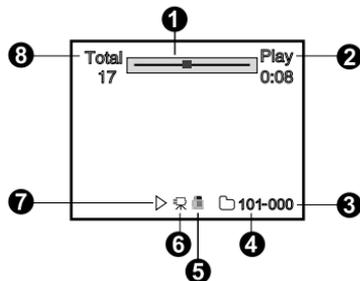
1. Movie status bar
2. Elapsed time
3. File number
4. Folder number
5. Protect icon
6. Mode icon
7. Play mode
8. Total time

GETTING STARTED

Attaching the Camera Strap

Attach the camera strap as shown in the illustration.
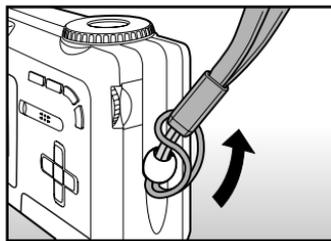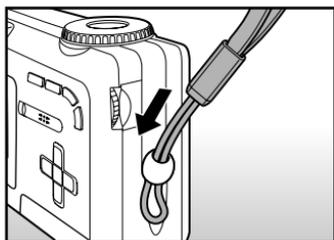
Inserting and Removing the Battery

We highly recommend using the specified rechargeable lithium-ion battery to get the most out of this camera. Charge the battery before using the camera. Make sure that the power of the camera is off before inserting or removing the battery.

Inserting the Battery
1. Open the battery/SD card cover.
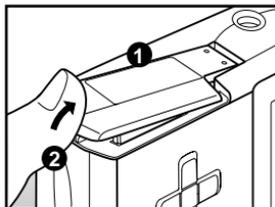
2. Insert the battery in the correct orientation shown.
    ■ Tilt the battery lock lever in the direction of the arrow and orient the battery so that its label is facing to the front side of the camera, and then insert the battery.
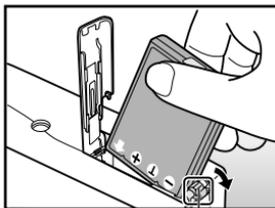
Battery lock lever

3. Close the battery/SD card cover.
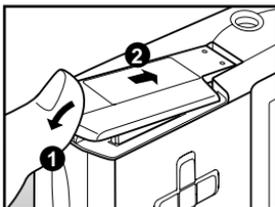
Removing the Battery
Open the battery/SD card cover and then release the battery lock lever. When the battery comes out a little, slowly pull it out the rest of the way.

NOTE

■ If you do not intend using the battery for an extended period of time, remove it from the camera to prevent leakage or corrosion.

■ Avoid using the battery in extremely cold environments as low temperatures can shorten the battery life and reduce the camera performance.

Charging the Battery

Using a new battery or a battery that has not been used for an extended period of time (a battery that has passed its expiry date is an exception) might affect the number of pictures that can be taken. Therefore, to maximize its performance and lifetime, we recommend that you fully charge the battery and discharge it for at least one complete cycle before use. Using the optional AC power adapter charges the battery. Make sure that the power of the camera is off and then insert the battery before starting.
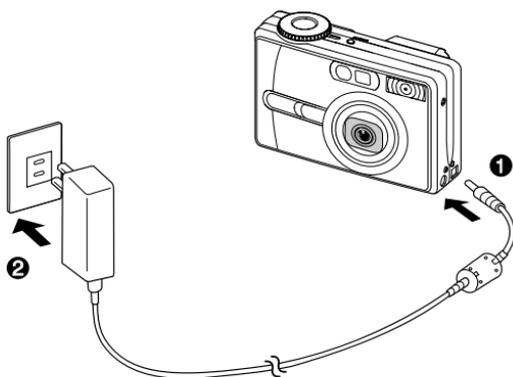
1. Insert one end of the AC power adapter into the DC IN 5V terminal of the camera.
2. Insert the other end of the AC power adapter into a wall outlet.
    ■ The viewfinder LED lights green when charging starts and goes off when charging is completed. It lights orange when a charging error occurs.
    ■ We recommend that you fully discharge or exhaust the battery before charging.
    ■ Charging time varies according to the environmental temperature and the status of battery.
    ■ If you want to use the camera when battery charging is in progress, use the camera with the AC power adapter connected.

NOTE

■ This camera must be used with the specified AC power adapter. Damage caused by the use of an incorrect adapter is not covered under the warranty.

■ If charging does not start (even after following the above procedure), turn the power on in any mode after the LCD indication appears, and then turn the power off.

■ The battery may feel warm after it has been charged or immediately after being used. This is normal and not a malfunction.

■ When using the camera in cold locations, keep the camera and battery warm by holding them inside your outer clothes.

■ If you open the battery cover without removing the battery, the power will not be terminated. If you remove the battery, you should insert the battery again within a period of 2 hours in order to make sure that the date and time are not reset.

Inserting and Removing the SD Card

Images photographed with this camera will be stored on the SD card. Without inserting the SD card, you cannot take photographs using the camera. Before inserting or removing the SD card, make sure that the power of the camera is off.

Inserting the SD card
1. Open the battery/SD card cover.
2. Insert the SD card in the correct position as shown.
   ■ Hold the SD card with its metal contact end surface facing the rear of the camera, and then insert the card as far as it can go.
3. Close the battery /SD card cover.
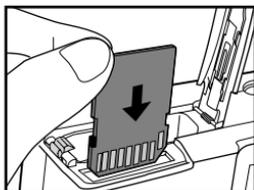
Removing the SD card
Open the battery/SD card cover, press lightly on the edge of the SD card and it will eject.

NOTE

■ If the camera is powered on without an SD card inserted into the camera, the "NO CARD" message appears on the LCD monitor.

■ To prevent valuable data from being accidentally erased from an SD card you can slide the write-protected tab (on the side of the SD card) to "LOCK".

LOCK   LOCK

Write-protection tab   Write-protection state

■ To save, edit or erase data on an SD card, you must unlock the card.

■ This camera does not support MultiMediaCard™.
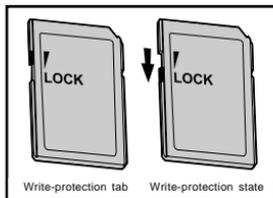
Turning the Power On/Off

Load the battery and insert an SD card before starting.

Turning the power on
Press the **POWER** button to turn the power on.
- The viewfinder LED lights green and the camera is initiated.
- When the power is turned on, the camera will start in the mode that was set with the mode dial.
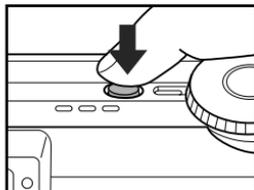
Turning the power off
Press the **POWER** button to turn the power off.

NOTE

- The power is turned off automatically when the camera has not been operated for a fixed period time. To resume the operation condition, turn the power on again. Refer to the section in this manual titled "**Auto OFF**" in the **Setup Menu (Basic)** for further details.
- After the power is turned on, it may take several seconds to charge the flash. While the flash is being charged, the viewfinder LED lights orange, and the camera is not yet ready for photography. Start photography after the viewfinder LED is turned off.

Formatting the SD Card

This erases all of the images and folders that have been recorded on the SD card. Formatting is not possible when the SD card is in the locked position.

1. Set the mode dial to [SET-UP].
   ■ [Basic] of the set-up menu is displayed.
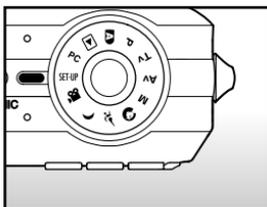
2. Select [Format] with the ▲ / ▼ buttons from [Basic] of the set-up menu, then press the **SET** button.

Basic	
Card Info.	Next Menu
Fr.No.Reset	Next Menu
Format	▶ Next Menu
Sound	ON
Beep	OFF
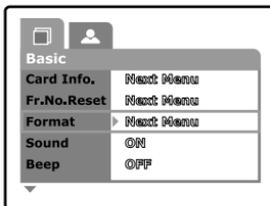
3. Select [Execute] with the ▲ / ▼ buttons, and press the **SET** button.
   ■ To cancel formatting, select [Cancel] and press the **SET** button.

Basic	
▶ Format SD Card	
	Cancel
	▶ Execute
Menu:Exit	Set:OK

NOTE

■ You need to format an SD card before using it in this camera.
■ Formatting the SD card also erases the protected images. All data other than images are also erased. Before formatting the card, make sure that all the images are unnecessary.
■ Formatting is an irreversible action and data cannot be recovered at a later time.
■ An SD card having any problem cannot be properly formatted.

Choosing the Language

When you first turn the camera on, choose a language for the displayed information on the LCD monitor.

1. Set the mode dial to [󰀁] and press the 󰀂 button
   ■ [Custom] of the set-up menu is displayed.

2. Select [Language] with the ▲ / ▼ buttons and press the **SET** button.
   ■ The Language setting screen will be displayed.
   ■ Select the displayed language using the ▲ / ▼ buttons and press the **SET** button. The setting will be stored.

Custom	▷English
Date/Time	Français
Sys.Reset	Deutsch
Language	Español
Video Output	Italiano
System Info.	Português
	Nederlands
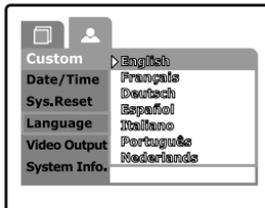
Setting the Date and Time

The date/time needs to be set if/when:
■   The camera is turned on for the first time.
■   The camera is turned on after leaving the camera without the battery for
    an extended period of time.

When the date and time information is not displayed on the LCD monitor, follow
these steps to set the correct date and time.
1. Set the mode dial to [SET-UP] and press the ▶
    button.
    ■ [Custom] of the set-up menu is
      displayed.
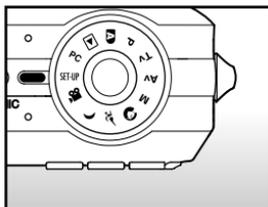
2. Select [Date/Time] with the ▲ / ▼ buttons
    and press the **SET** button.
    ■ The Date/Time setting screen will be
      displayed.
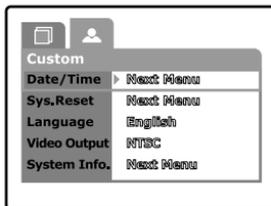
3. Select the item's field with the ◄ / ► buttons
    and adjust the value for the date and time
    with the ▲ / ▼ buttons.
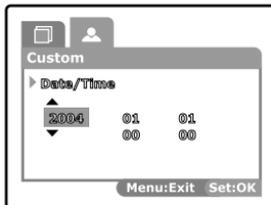
4. After confirming all settings are correct, press the **SET** button.
    ■ The setting will be stored and the screen will return to the set-up menu.
    ■ The date and time is set in the order year-month-day-hour-minute.

Setting Image Resolution and Quality

Resolution and quality settings determine the pixel size (dimension), image file size, and compression ratio for your images. These settings affect the number of images that can be stored on a memory card. As you get to know the camera, it is recommended that you try each quality and resolution setting to get an appreciation for the effects that these settings will have on your images.

Higher resolution and higher quality images offer the best photographic results but produce large files sizes. Therefore, few images will take up a lot of memory space.

High resolution and quality settings are recommended for printed output and situations requiring the finest detail. Lower resolution/quality images take up less memory space and may be quite suitable for sharing images via e-mail, in a report or on a web page.

To change the image resolution or image quality, perform these steps below:
1. Set the mode dial to one of the photography modes.
2. Press the **MENU** button.
   - ■ [Picture] of the photography menu is displayed.
3. Select [Size] with the ▲ / ▼ buttons, and press the **SET** button.
4. Select the desired setting with the ▲ / ▼ buttons, and press the **SET** button.

Picture	
Size	2816x2112
Quality	2272x1704
Sharpness	1600x1200
Contrast	640x480
Color	Standard
	Menu:Exit Set:OK

5. Select [Quality] with the ▲ / ▼ buttons, and press the **SET** button.
6. Select the desired setting with the ▲ / ▼ buttons, and press the **SET** button.
7. To exit from the photography menu, press the **MENU** button.

Possible number of shots (Still picture)

The table shows the approximate shots that you can take at each setting based on an optional SD card from 32MB to 512MB.

Image size	Quality	SD card				
		32MB	64MB	128MB	256MB	512MB
(6M) 2816x2112	✱✱✱ (Fine)	11	22	45	91	183
	✱✱ (Standard)	18	38	77	154	311
	✱ (Economy)	34	70	142	283	571
	TIFF	2	5	10	21	43
(4M) 2272x1704	✱✱✱ (Fine)	18	37	76	151	305
	✱✱ (Standard)	30	61	124	247	498
	✱ (Economy)	59	121	244	487	981
(2M) 1600x1200	✱✱✱ (Fine)	37	76	153	306	616
	✱✱ (Standard)	59	121	244	487	981
	✱ (Economy)	118	242	489	975	1963
(VGA) 640 x 480	✱✱✱ (Fine)	145	298	602	1200	2417
	✱✱ (Standard)	210	430	870	1734	3491
	✱ (Economy)	379	775	1566	3121	6284

Possible recording time/sec (Video clip)

Image size	Quality	SD card				
		32MB	**64MB**	**128MB**	**256MB**	**512MB**
☐ 320 x 240	★★★ (Fine)	01:45	03:34	07:13	14:23	28:59
	★★ (Standard)	02:36	05:20	10:46	21:28	43:13

* The data shows the standard testing results. The actual capacity varies according to the shooting conditions and settings.

NOTE

■ The memory card testing results for 512MB are based on Toshiba, Panasonic and Sandisk SD card.

PHOTOGRAPHY MODE

[🅰] Auto Photography Mode

Auto photography is a favorite method of photography. Photographs can be easily taken because the exposure (the combination of shutter speed and aperture setting) is controlled automatically to suit the photographic conditions. You can use both a viewfinder and a 2.0" LCD monitor to compose the images. Taking photographs using the viewfinder will conserve the battery power. If the battery power is low, it is recommended that you compose images using the viewfinder. By using the LCD monitor, you can compose images more accurately, but it consumes more battery.

Using the Viewfinder
Make sure that the battery is inserted before taking photographs.

1. Press the **POWER** button to turn the power on.
2. Set the mode dial to [🅰].
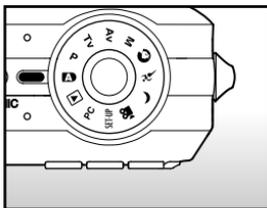
3. Compose your image in the viewfinder.

4. Press the shutter button.

Press down halfway.
Press down fully.

■ Pressing the shutter button down halfway automatically focuses and adjusts the exposure, and then pressing the shutter button down fully will take the photograph.

■ The focus area frame turns blue and the viewfinder LED lights green when the camera is in focus and the exposure is calculated.

■ When the focus or exposure are not suitable, the frame of the focus area turns yellow and the viewfinder LED flashes red.

■ If the photographic preview is set to "ON", the preview image (captured image) will be displayed while the image is being recorded onto the memory.

■ When the voice memo is set to "ON", [VOICE RECORDING] will be displayed on the screen immediately after the photography, and the voice memo recording will start.

■ Press the shutter button one more time during recording, or wait for 30 seconds, [VOICE RECORD END] will be displayed and the recording will end. A [🎤] icon is displayed with images that have been recorded with a voice memo.
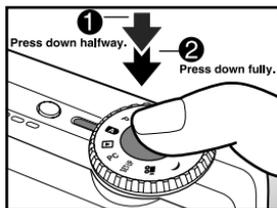
Using the LCD Monitor

Make sure that the battery is inserted before taking photographs.

1. Press the **POWER** button to turn the power on.
2. Set the mode dial to [🔺].
   ■ By default, the LCD monitor setting is on.
3. Compose your image in the LCD monitor.
4. Press the shutter button down halfway, then press it down fully.
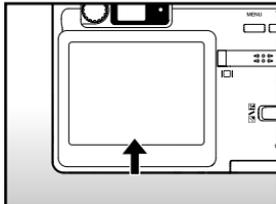
Using the Optical Zoom

Zoom photography allows you to take zoom photographs up to 3 times in size or wide-angle photography depending on the distance to the subject. You can also enlarge the center of the screen and take photographs in the digital zoom mode.

1. Set the mode dial to one of the photography modes.
2. If required, turn on the LCD monitor by pressing the ▢ button.
3. Compose the picture with the zoom button.
   ■ Pressing the 🔍 button zooms in on the subject, and enlarges the subject on the LCD monitor.
   ■ Pressing the 🔍 button provides a wider angle picture.
   ■ The lens position moves according to the zoom button setting.
4. Press the shutter button down halfway, then press it down fully.
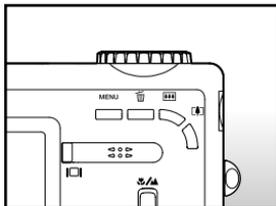
Using the Digital Zoom

Using a combination of 3 times optical zoom and 4.4 times digital zoom permits zoom photography of up to 13.2 times to suit the subject and the distance. The more an image is enlarged (zoomed), the more pixilated (grainier) the image will appear.

1. Set the mode dial to one of the photography modes.
2. Power on the LCD monitor by pressing the ▯◫▯ button.
3. To enable the digital zoom:
   a. Press the **MENU** button.
   b. Select [Function] with the ◀ / ▶ buttons.
   c. Select [Digital Zoom] with the ▲ / ▼ buttons, and press the **SET** button.
   d. Select [ON] with the ▲ / ▼ buttons again, and press the **SET** button.
   e. Press the **MENU** button to exit from the menu screen.
   f. To activate the digital zoom, press the [▣] button completely and hold it until the image on the LCD monitor expands.
4. Press the shutter button to capture a "zoomed" image.

Function	
Capture Mode	Single
Voice Memo	ON
LCD Bright.	0
Digital Zoom ▶	ON
Preview	OFF
	Menu:Exit Set:OK

W ▮▮▮▮▮▮▮▮▮▮▮▮▮▮ **T**

Optical zoom 1X to 3X   Digital zoom 1X to 4.4X
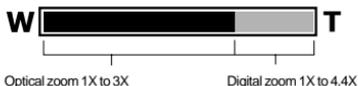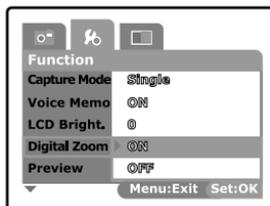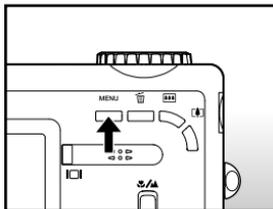
NOTE

- The digital zoom is cancelled when the ▯◫▯ button is pressed and the LCD monitor is turned off.
- The zoom setting is automatically cancelled by either turning the camera off or activating the Auto Power Off function.

Setting the Flash

Set the flash for taking photographs. The flash firing mode can be set to suit the photographic conditions.

1. Set the mode dial to one of the photography modes.
    ■ The flash setting is limited depending on the selected photography mode, scene mode, and capture mode.
2. Toggle the ⚡/🔆 button to select the desired flash mode.
    ■ Each press of the ⚡/🔆 button moves the icon one step through the sequence and displays it on the screen.

    ■ For the mode of [📷]:

    ┌─→ [Blank] Auto ──→ [☻ ⚡] Red-eye Reduction ──┐
    │   │
    └── [🚫] Suppressed Flash ◄── [⚡] Forced Flash ◄─┘

    ■ For the modes of [**P**], [**Tv**], [**Av**] and [**M**]:

    ┌─→ [☻ ⚡] Red-eye Reduction ──→ [⚡] Forced Flash ─┐
    │   │
    └──────── [🚫] Suppressed Flash ◄──────────────────────┘
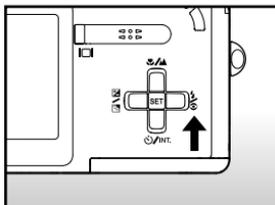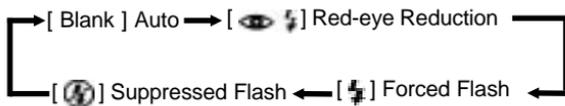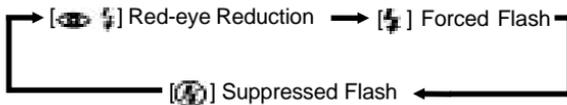
The table below will help you choose the appropriate flash mode:

Flash mode	Description
[Blank] Auto	The flash fires automatically to suit the photographic conditions. This is only effective when the camera is set to the [🔲] mode.
[⬛ ⚡] Red-eye Reduction	Use this mode to reduce the red-eye phenomenon when you want to take natural-looking photographs of people and animals in low-light conditions. The flash always fires twice, and the photograph is taken at the second firing. When the camera mode is [🔲] and [**P**], the flash will fire to suit the brightness of the subject. When the camera mode is [**Tv**], [**Av**] and [**M**], the flash will always fire.
[⚡] Forced Flash	In this mode, the flash always fires. Use this mode for photographing under artificial light such as backlighting, fluorescent lighting, etc.
[🚫] Suppressed Flash	Use this mode when taking pictures using indoor lighting, for stages and indoor competitions, and when the subject is too far away for the flash to be effective.

NOTE

■ In [🔵] scene mode, the flash mode is fixed to [⬛ ⚡] Red-eye Reduction.

■ In [☀] scene mode, the flash mode is fixed to [🚫] Suppressed Flash.

■ In [🏛] scene mode, the flash mode is fixed to [⚡] Forced Flash.

■ In [🏔] focus mode, the flash mode is fixed to [🚫] Suppressed Flash.

■ The flash cannot be set in [🎬] mode or capture mode [Continuous].

Setting the Focus

Photographs can be taken with the distance to the subject set by auto focus, [🌷] macro, [▲] infinity, [**3M**] fixed at 3 m, or [**1M**] fixed at 1 m.

The settings will be maintained even when the power is turned off or when Auto Power Off is activated. The focus settings will be limited depending on the selected photography.

1. Set the mode dial to one of the photography modes.
2. Toggle the 🌷/▲ button to select the desired focus mode.
   - Each press of the 🌷/▲ button moves the icon one step through the sequence and displays it on the screen.
   - For the modes of [🄰], [**P**], [**Tv**], [**Av**], [**M**], [🏃] and [🎥]:

[Blank] Auto focus ⟶ [🌷] Macro ⟶ [▲] Infinity

[**1M**] Fixed at 1 m ⟵ [**3M**] Fixed at 3 m

   - For the modes of [🄰] and [🕯]:

[Blank] Auto focus ⟶ [▲] Infinity

[**1M**] Fixed at 1 m ⟵ [**3M**] Fixed at 3 m
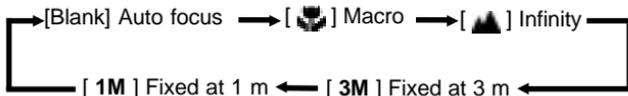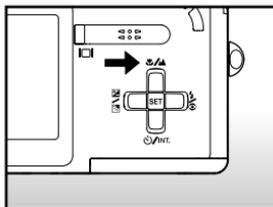
The table below will help you choose the appropriate focus mode:

Focus mode	Description
[Blank] Auto Focus	Select this when you want to allow the camera to make the adjustments so that you can take photographs without paying attention to settings. Approximately 80 cm (both Wide and Tele)
[🌷] Macro	Select this when you want to take close up photography. Wide (zoom off) : Approximately 9 cm to infinity Tele (at optical zoom 3x) : Approximately 30 cm to infinity
[▲] Infinity	Select this when you want to take photographs of subjects at a distance of 5 m or more from the camera.
[**3M**] Fixed at 3 m	Select this when you want to take photographs of subjects at a distance of about 3 m from the camera.
[**1M**] Fixed at 1 m	Select this when you want to take photographs of subjects at a distance of about 1 m from the camera.

NOTE

■ When [▲], [**3M**] or [**1M**] is set, the camera takes photographs with the focus fixed at those distances.

E-39

Self-timer/Photographing at Intervals

This setting allows photographs to be taken with the self-timer and allows interval photography.

1. Set the mode dial to one of the photography modes.
2. Toggle the ⏱/INT button to select the setting.
   ■ Each press of the ⏱/INT button moves the icon one step through the sequence and displays it on the screen.


```
  ┌─→ OFF ──→ [ ⏱ 10S ] 10 sec. ──→ [ ⏱ 2S ] 2 sec. ─┐
  │                                                     │
  └── [ ⏱ Intv ] Interval ←── [ ⏱ 10+2 ] 10+2 ←───────┘
                                       sec.
```
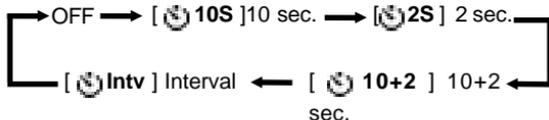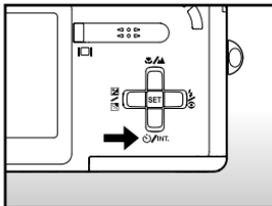
   ■ For the [🎥] mode and capture mode ([Continuous] and [Auto Exp.])

```
  ┌─→ OFF ──→ [ ⏱ 10S ] 10 sec. ──→ [ ⏱ 2S ] 2 sec. ─┐
  │                                                     │
  └─────────────────────────────────────────────────────┘
```
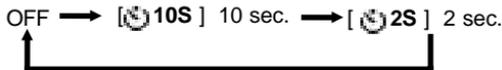
3. Compose the picture, press the shutter button down halfway, then press it down fully.
   ■ The self-timer LED flashes and the photograph is taken after the preset time has elapsed.
   ■ The countdown is displayed on the LCD monitor.
   ■ To cancel the self-timer during operation, press the **SET** button.

The table below will help you choose the appropriate self-timer mode:

Self-timer mode	Description
[10S]10 sec.	The picture is taken about 10 seconds after the shutter button is pressed.
[2S] 2 sec.	The picture is taken about 2 seconds after the shutter button is pressed.
[10+2]10+2 sec.	One picture is taken about 10 seconds after the shutter button is pressed, then the camera prepares for another photograph (charging the flash). The other photograph is taken 2 seconds after this preparation is completed. This is convenient when taking group photographs in succession.
[Intv] Interval	This allows photographs to be taken with settings of a fixed interval and number of photograph cycles. The photographic interval can be set to 1, 3, 10, or 60 minutes, and the number of photograph cycles can be set from 2 to 99. During the interval between one photograph and another, the viewfinder LED flashes red and the LCD monitor is automatically turned off (standby mode).

NOTE

- The self-timer setting is automatically cancelled after a photograph is taken.
- Use of the [2S] self-timer setting is effective in preventing blurring that can result when the shutter button is pressed.
- The number of photographs that can be taken will differ depending on the capacity of the memory, the image settings, and other factors.
- Interval photography is not available for TIFF setting.

Exposure Compensation/Backlight Correction

Photographs can be taken with the overall screen intentionally made brighter or darker. These settings are used when a suitable brightness (exposure) cannot otherwise be obtained in circumstance where the difference in brightness between the subject and the background (the contrast) is large, or when the subject that you want to photograph is very small within the screen. Exposure can be set in 0.3 EV units.

1. Set the mode dial to one of [**P**], [**Tv**] or
   [**Av**] and press the ▦ / ▦ button.
   ■ Each press of the ▦ / ▦ button displays the
   setting in the order of [Blank], ▦ Backlight
   Correction, and ▦ Exposure
   Compensation.
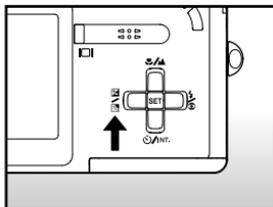
2. Set the exposure value with the search dial.
   ■ Turn the search dial to the ▲ side to decrease the value.
   ■ Turn the search dial to the ▼ side to increase the value.
   ■ The setting range of the exposure compensation is as follows.
   -2.0, -1.7, -1.3, -1.0, -0.7, -0.3, 0, +0.3, +0.7, +1.0, +1.3, +1.7, +2.0
   ■ The larger the value, the brighter the image. The smaller the value, the darker the image. The set value is displayed on the screen.
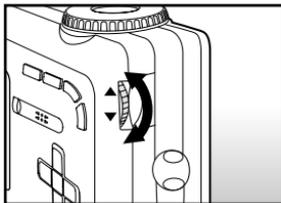
Effective Subjects and Set Values
- + (positive) compensation
- * Printed matter comprising black text on light-colored paper
- * Backlighting
- * Bright scenes or strong reflected light such as ski slopes
- * When the sky accounts for a large area on the screen

- - (negative) compensation
- * People illuminated by a spotlight, especially against a dark background
- * Printed matter comprising white text on dark-colored paper
- * Weak reflecting bodies such as evergreen trees or dark leaves

- Backlight correction (+1.3, fixed)
- * When the background is bright and the subject is dark.
- * When subjects (people) have a light source such as the sun to their backs.

NOTE

■ The backlight correction setting can be set in the [🔲], [**P**], [**Tv**], [**Av**],[🔲] and [🔎] modes.

[P] Program (Automatic Exposure) Photography Mode
The camera automatically sets the shutter speed and the aperture to suit the brightness of the subject. This allows you to take photographs with ease just like when the [🔲] mode is selected.

1. Set the mode dial to [**P**].
2. Compose the picture, press the shutter button down halfway, then press it down fully.

NOTE

■ Exposure compensation can be set.

[Tv] Shutter Speed Priority Photography Mode

In this mode, photographs are taken with the priority given to shutter speed. The aperture is automatically set according to the shutter speed. If you set a fast shutter speed, you can take photographs of moving subjects that look as if they are still. If you set a slow shutter speed, you can take photographs that give the impression that the subject is in motion.

1. Set the mode dial to [**Tv**] and press the button.
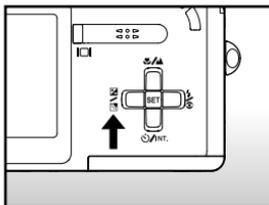
2. Set the shutter speed with the search dial.
   - Turn the search dial to the side (toward faster shutter speeds)
   - Turn the search dial to the side (toward slower shutter speeds)
   - The setting range is as follows.
   1/1500, 1/1250, 1/1000, 1/820, 1/650, 1/500, 1/400, 1/320, 1/250, 1/200, 1/160, 1/125, 1/100, 1/80, 1/64, 1/50, 1/40, 1/32, 1/25, 1/20, 1/16, 1/13, 1/10, 0.13s, 0.16s, 0.20s, 0.25s, 0.30s, 0.40s, 0.50s, 0.60s, 0.80s, 1.0s, 1.3s, 1.6s, 2.0s, 2.5s, 3.2s, 4.0s, 5.0s, 6.4s, 8.0s
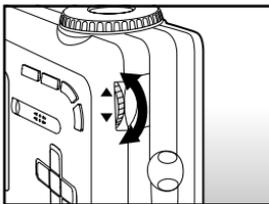
■ The shutter speed and corresponding aperture value are displayed on the screen. If an appropriate combination cannot be set, the aperture value is displayed in red, but photographs can be taken.

3. Compose the picture, press the shutter button down halfway, then press it down fully.

NOTE

■ Setting the shutter speed slower than 0.5 second will result in long exposure photography and the [📷] will be displayed on the screen.

■ In the flash photography mode, when [📷] and [📷 📷] are set, the fastest shutter speed is 1/250 second.

■ In the capture mode [Continuous] and [Auto Exp.], the shutter speed cannot be set slower than 0.5 second.

[Av] Aperture Priority Photography Mode

In this mode, photographs are taken with the priority given to aperture. The shutter speed is automatically set according to the aperture.

If you set a large aperture (smaller F value), you can take portrait photographs with an out-of-focus background. Alternatively, if you set a small aperture (higher F value), both close objects and distant objects will be in focus, for example when taking landscape photographs.

1. Set the mode dial to [**Av**] and press the ▦ⁱ▦ button.
2. Set the aperture value with the search dial.
   - Turn the search dial to the ▲ side to increase the value.
   - Turn the search dial to the ▼ side to decrease the value.
   - The setting range is as follows.
     F6.7/F5.6/F 4.8/F4.0/F3.5/F2.8
   - The aperture and corresponding shutter speed are displayed on the screen. If an appropriate combination cannot be set, the shutter speed value is displayed in red, but photographs can be taken.
3. Compose the picture, press the shutter button down halfway, then press it down fully.

NOTE

- The aperture value is adjusted automatically depending on the position of the zoom lens.

[M] Manual Photography Mode

In this mode, photographs are taken by setting the aperture value and the shutter speed individually.

1. Set the mode dial to [**M**].
2. Select the shutter speed or the aperture with the ▦/▦ button.
3. Set the shutter speed or the aperture value with the search dial.
4. Compose the picture, press the shutter button down halfway, then press it down fully.
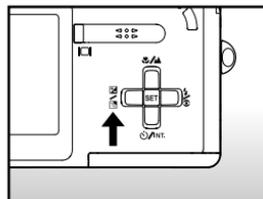
NOTE

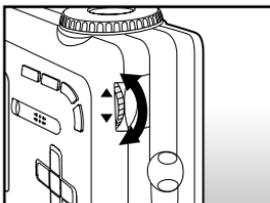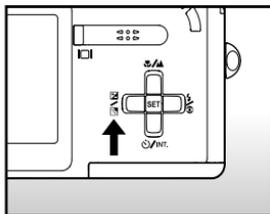■ In the flash photography mode, when [▦] and [▦ ▦] are set, the fastest shutter speed is 1/250 second.
■ Setting the shutter speed slower than 0.5 second will result in long exposure photography and the [▦] will be displayed on the screen.

Setting the Scene Mode

This sets the scene setting such as [![]] portrait, [![]] sports or [![]] night scene and takes the photograph.

1. Set the mode dial to one of the scene modes.
   - When the camera mode is set to [![]] or [![]], [![]] cannot be selected.
2. Compose the picture, press the shutter button down halfway, then press it down fully.

The table below will help you choose the appropriate scene mode:

Scene Mode	Description
[![]] Portrait	Select this when you want to take a photograph that makes the person stand out and blurs the background. The flash setting is fixed at [![]] which is effective in reducing the red-eye phenomenon.
[![]] Sports	Select this when you want to photograph fast-moving subjects. The flash mode cannot be set.
[![]] Night scene	Select this when you want to photograph people with an evening or night scene background. The flash is fixed at [![]].

NOTE

- The description of each scene serves as a general guide. Set the camera to suit your own preferences.

[🎥] Movie Mode

This mode is for recording video clips. Voice can also be recorded.

1. Set the mode dial to [🎥].
2. Compose the picture with the zoom button.
   - Optical zoom and digital zoom can be set while composing.
3. Fully press the shutter button.
   - The recording of the video clip will start.
   - Pressing the shutter button one more time will end the recording of the video clip, and record the image on the SD card.
   - The recording time depends on the storage size and the subject of the picture to be recorded.

NOTE

- In [🎥] mode, the LCD monitor cannot be turned off.
- When recording video clips, flash photography is not possible.
- While the image is being recorded onto the SD card, do not open the battery/SD card cover, or remove the battery or the SD card. Doing so might damage the SD card or destroy the data of the SD card.

[▶] PLAYBACK MODE

Playing Back Still Images

You can play back the still images on an LCD monitor. Insert the SD card into the camera and turn on the power before starting.

1. Set the mode dial to [▶].
    -   The last image appears on the screen.
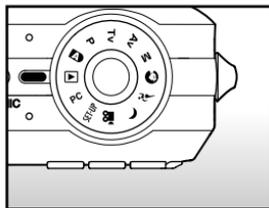
2. Turn the search dial to move forwards or backwards.
    -   Turn to the ▲ side: go back to the previous frame.
    -   Turn to the ▼ side: advance to the next frame.
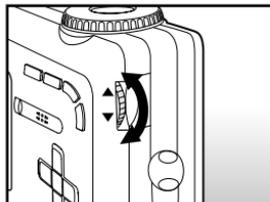
    -   The images can also be fed in reverse or forwards by pressing the ▲ / ▼ buttons.
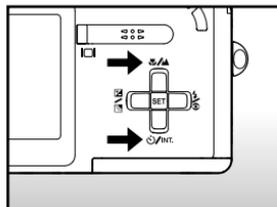
Image Display Information

You can switch the state of the information display by pressing the |▣| button when playing back images. Each press of the |▣| button switches the information display state in the following order:
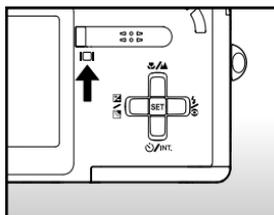
NOTE

■ Pressing the ◄ / ► buttons during image playback will result in a 90 degree rotated display. The ► button rotates the image clockwise and displays it, whereas the ◄ button rotates the image counterclockwise and displays it. A press of the button opposite to the direction in which the image was rotated will return the image to the normal display.

■ A [▤] icon is displayed with the video data. Video clips cannot be rotated.

■ A [▤] icon is displayed with images which have an audio memo recorded.

■ Press the **SET** button to playback the voice memo data.

■ In the zoom playback, the display is switched between normal and non-display.

■ The condition of the information display cannot be switched with video clips.

Playing Back Video Clips

You can play back video clips recorded on the camera. You can also play back voice.

1. Set the mode dial to [▣].
   ■ The last image appears on the screen.
2. Select the desired video clip with the search dial.
   ■ You can also select the desired video clip with the ▲ / ▼ buttons.
3. Press the **SET** button.
   ■ Pressing the ▶ / ◀ buttons during playback allows fast forward play / fast reverse play.
   ■ To stop video playback:
     Press the ▼ button.
     This stops playback and returns to the start of the video clip.
   ■ To pause video playback
     Press the ▲ button.
     This pauses video playback.
     To cancel pause, press the ▲ button again.

Button Operations

	During playback	During pause	During a Stop
▶ button	Fast forward play Each press of the ▶ button moves the operation one step in the sequence of 2 times fast forward play, 4 times fast forward play, and regular play.	2x-speed playback	
◀ button	Reverse play Each press of the ◀ button moves the operation one step in the sequence of 2 times fast reverse play, 4 times reverse play, and regular forward play.	Reverse playback	
▲ button	Pause	Canceling pause	The previous image is displayed.
▼ button	Stop (The display returns to the 1st frame playback)		The next image is displayed.
SET button	Regular forward play	Canceling pause	Regular forward play

NOTE

■ Video clips cannot be displayed rotated or enlarged.
■ Turning the search dial during a pause feeds the video forward or backward, respectively, one frame at a time. Turning the search dial to the ▼ side feeds the video forward; turning to the ▲ side feeds the video backward.

Playing Back Still Images/Video Clips on a TV

You can also playback your images on a TV screen. Before connecting to any devices, make sure to select NTSC / PAL system to match the video output system of the video equipment you are going to connect to the camera, then turn all connected devices off. It is also recommended to use the AC power adapter while transferring the recorded images and video files.

1. Set the mode dial to [▣].
2. Connect one end of the A/V cable to the A/V OUT terminal of the camera.
3. Connect the other end to the A/V input socket of the TV set.
4. Turn the TV and camera on.
5. Play back the still images / video clips.
   - The method of operation is the same as playing back still images and video clips on the camera.
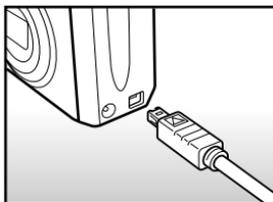
NOTE

- In the case of the PAL system, images are surrounded by a black frame.
- Refer to the section in this manual titled "**Video Output**" in the **Setup Menu (Custom)** for further details.

Recording Voice Memos

A maximum of 30 seconds of audio can be recorded as a memo for photographed still images. The voice memo can be recorded only once.

1. Set the mode dial to [▣].
   ■ The last image appears on the screen.
2. Select the image with the search dial.
3. Press the shutter button.
   ■ [VOICE RECORDING] is displayed on the screen and recording starts.
4. To stop recording voice memo during recording, press the shutter button again.
   ■ [VOICE RECORD END] will be displayed and the recording will end.

   A [■] icon is displayed with images that have been recorded with a voice memo.

Playing back voice memo
A press of the **SET** button displays [VOICE PLAYBACK] and plays back the voice memo.

NOTE

■ Voice memo is available in the still single image capture mode.

Thumbnail Display

This function allows you to view 9 thumbnail images on the LCD monitor at the same time, so you can quickly search for the image that you want.

1. Set the mode dial to [▶].
   - The last image appears on the screen.
2. Press the ▦ button once.
   - The images are displayed in the thumbnail display.
   - Images that have been selected with the
     ▲ / ▼ / ◀ / ▶ buttons or the search dial will be indicated by a green frame.
   - When there are ten or more images, scroll the screen with the ▲ / ▼ buttons or the search dial.
3. Press the ▲ / ▼ / ◀ / ▶ buttons to select the image to be displayed at regular size.
4. Press the **SET** button.
   - The selected image is displayed at its regular size.
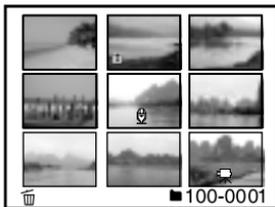
NOTE

- A [🖳], [🔳], [💽] icon will be displayed in a thumbnail display to indicate the recording type.

Zoom Playback

Images that are being played back can be enlarged and displayed in 2 levels of 2 times and 4 times enlargement. This mode also allows you to enlarge your image on the selected section of the image to check for small details.

1. Set the mode dial to [▣].
2. Press the ▲ / ▼ buttons to select the image you want to enlarge.
   - You can also select the image you want to enlarge with the search dial or from the thumbnail display.
3. Adjust the zoom ratio with the 🔍/ 🔍 buttons.
   - Pressing the 🔍 button enlarges the image.
   - To return to normal magnification, press the 🔍 button.

Entire image   Current position of enlargement

   - The image is displayed enlarged, and a white frame and green frame are displayed on the LCD monitor.
   - The white frame indicates the entire image, while the green frame shows the location of the currently enlarged area.
4. Press the ▲ / ▼ / ◄ / ► buttons to select the area to enlarge.
5. To return to regular display, toggle the 🔍 button until the regular display appears on the screen.
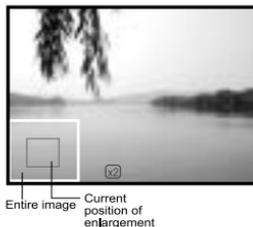
NOTE

- Pressing the 🔍 button magnifies the image from 1x —> 2x —> 4x.
- Pressing the 🔍 button reduces the image from 4x —> 2x—> 1x.

Slideshow Display

The slideshow function enables you to playback your still images automatically in order one image at a time.

1. Set the mode dial to [▣].
2. Press the **MENU** button.
   ■ The playback menu is displayed.
3. Select [Slide Show] with the ▲ / ▼ buttons, and press the **SET** button.
   ■ The slideshow starts.
4. To stop the slide show during playback, press the **SET** button.
   ■ The image is displayed on screen when you press the **SET** button.

Play	
Slide Show	▶ Execute
DPOF	Next Menu
Protect	Next Menu
LCD Bright.	0
	Menu:Exit Set:OK
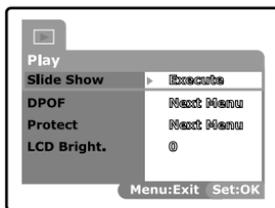
NOTE

■ The Auto Power Off function does not operate during slide show.
■ All images in the folder are automatically played back.

Protecting Images

Set the data to read-only to prevent images from being erased by mistake.

Protecting Images

1. Set the mode dial to [▣].
2. Select the image that you want to protect with the search dial.
3. Press the **MENU** button.
   ■ The playback menu is displayed.

4. Select [Protect] with the ▲ / ▼ buttons, and press the **SET** button.

5. Select [Single] or [All] with the ▲ / ▼ buttons, and press the **SET** button.

```
┌─────────────────────────┐
│ ▣                       │
│  Play                   │
│ ▶ Protect               │
│  Single                 │
│  All                    │
│  Select                 │
│                         │
│        Menu:Exit  Set:OK│
└─────────────────────────┘
```

6. Select [Set] with the ▲ / ▼ buttons, and press the **SET** button.
   ■ Protect is executed and the camera returns to the play mode.
   ■ The protect icon [🔒] is displayed with protected images. When [All] has been selected, [🔒] is displayed with all the images.

```
┌─────────────────────────┐
│ ▣                       │
│  Play                   │
│ ▶ Protect               │
│  Single                 │
│  Set                    │
│  Cancel Protect         │
│  Exit                   │
│        Menu:Eixt  Set:OK│
└─────────────────────────┘
```
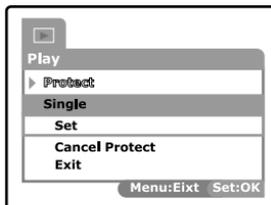
Canceling the Protection

To cancel protection for only one image, display the image that you want to remove the image protection from.

1. Select [Protect] with the ▲ / ▼ buttons from the playback menu, and press the **SET** button.
2. Select [Single] or [All] with the ▲ / ▼ buttons, and press the **SET** button.
3. Select [Cancel Protect] with the ▲ / ▼ buttons, and press the **SET** button.
   ■ The removal of image protection is executed and the camera returns to the play mode.

Protecting multiple images simultaneously

1. Select [Protect] with the ▲ / ▼ buttons from the playback menu, and press the **SET** button.
2. Select [Select] with the ▲ / ▼ buttons, and press the **SET** button.
   ■ The images are displayed in the thumbnail display.
3. Select the image you want to protect with the ▲ / ▼ / ◀ / ▶ buttons, and press the ☐ button.
   ■ The protect icon [🔒] is displayed with protected images. Selecting a protected image and pressing the ☐ button again will cancel the protection. This procedure is repeated to select multiple images.
4. Press the **SET** button.
   ■ Protection and cancellation of the protection are executed and the camera returns to the play mode.
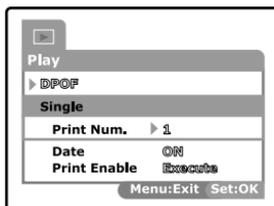

NOTE

■ Formatting the SD card undoes the protection, and erases all images.
■ Even when multiple folders exist in the SD card, the images of all of the folders can be selected with the ▲ / ▼ buttons or the search dial.

DPOF Settings

DPOF is the abbreviation for Digital Print Order Format, which allows you to embed printing information on your memory card. You can select the images to be printed and how many prints to make with the DPOF menu in the camera and insert the memory card to the card compatible printer. When the printer starts printing, it will read the embedded information on the memory card and print the specified images.

1. Set the mode dial to [▶].
2. Select the image that you want to set DPOF with the search dial.
3. Press the **MENU** button.
   ■ The playback menu is displayed.
4. Select [DPOF] with the ▲ / ▼ buttons, and press the **SET** button.
   ■ The DPOF setting screen is displayed.
5. Select [Single] or [All] with the ▲ / ▼ buttons, and press the **SET** button.
   ■ Single: Sets DPOF for each individual image.
     All: Sets DPOF for all images at once.
6. Select [Print Num.] with the ▲ / ▼ buttons, and press the **SET** button.
   ■ This displays the number of prints setting screen.
7. Set the number of prints with the ▲ / ▼ buttons, and press the **SET** button.
   ■ You can set up to 9 prints for each image.
8. Select [Date] with the ▲ / ▼ buttons, and press the **SET** button.

Play	
Slide Show	Execute
DPOF	Next Menu
Protect	Next Menu
LCD Bright.	0
Menu:Exit	Set:OK

Play	
▶ DPOF	
Single	
All	
Menu:Exit	Set:OK

Play	
▶ DPOF	
Single	
Print Num.	▶ 1
Date	ON
Print Enable	Execute
Menu:Exit	Set:OK
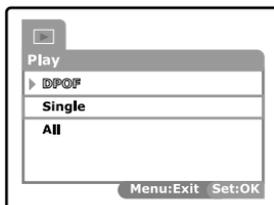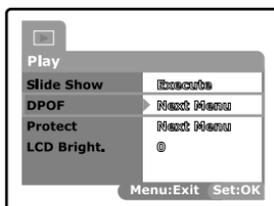
- The date and time setting screen appears.
9. Select date to [ON] or [OFF] with the ▲ / ▼ buttons, and press the **SET** button.
    - **ON:** The date of the photograph will also be printed.
    - **OFF:** The date of the photograph will not be printed.
10. Select [Print Enable] with the ▲ / ▼ buttons, and press the **SET** button.
11. Select [Execute] with the ▲ / ▼ buttons, and press the **SET** button.
    - This creates a file containing the DPOF information, and when the operation is finished, the screen returns to the playback screen.

NOTE

- The date that is printed on the photo is the date set on the camera. To print the correct date on the photo, set the date on the camera before you photograph the image. Refer to the section in this manual titled "**Setting the Date and Time**" for further details.
- Even when multiple folders exist in the SD card, the images of all of the folders can be selected with the ▲ / ▼ buttons or the search dial.

[🗑] Erasing Images

Erasing in Photography Mode (Quick Delete Function)

The Quick Delete Function enables you to erase the image during photography. The quick delete menu allows you to directly erase the last image without further settings.

1. Set the mode dial to one of the photography modes.
2. Press the 🗑 button.
    ■ The last image and quick delete menu appear on the screen.
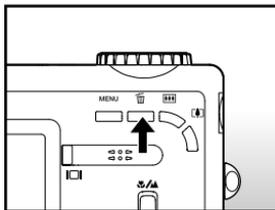
3. Press the **SET** button to erase the image.
    ■ To not erase, select [Cancel], and press the **SET** button.

Erasing in Playback Mode

Erasing single image / Erasing all images
1. Set the mode dial to ▶.
    ■ The last image will be displayed on the screen.
2. Select the image you want to erase with the search dial.
3. Press the 🗑 button.
    ■ The delete menu will be displayed.

4. Select [Single] or [All] with the ▲/▼ buttons, and press the **SET** button.
    ■ **Single:** Erases the selected image or the last image.
      All: Erases all of the images on the SD card except for the protected images.
      Select: Erases a number of selected images.

5. Select [Execute] with the ▲/▼ buttons, and press the **SET** button.
    ■ To not erase, select [Cancel], and press the **SET** button.
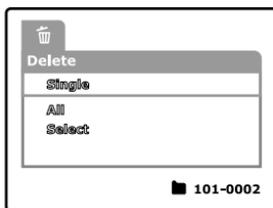
NOTE

■ Even if you take photographs after erasing an image, the file number is assigned as the next number of the very last one before the image was erased.

Erasing selected images.
This erases a number of selected images.
1. Set the mode dial to ▶.
2. Press the 🗑 button.
    ■ The deletion menu will be displayed.
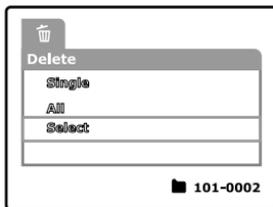
3. Select [Select] with the ▲/▼ buttons, and press the **SET** button.
    ■ The images are displayed in the thumbnail display.
4. Select the image you want to erase with the ▲/▼/◀/▶ buttons, and press the 🗑 button.
    ■ The [🗑] icon will be displayed. One more press of the erase button will cancel the operation. Repeat this procedure and select all the images that you want to erase.
5. Press the **SET** button.
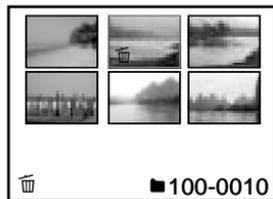
MENU OPTIONS

Photography Menu (Picture)

This menu is for the basic settings to be used when taking pictures in the photography mode. The setting is not canceled even if the camera is turned off or the Auto Power Off function is activated.

1. Set the mode dial to one of the photography modes.
2. Press the **MENU** button.
   ■ [Picture] of the photography menu is displayed.
3. Select the desired [Picture] option item with the ▲ / ▼ buttons, and press the **SET** button to enter its respective menu.
4. Select the desired setting with the ▲ / ▼ buttons, and press the **SET** button.
5. To exit from the photography menu, press the **MENU** button.
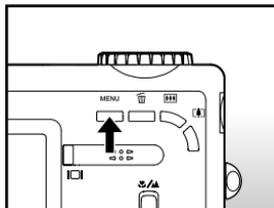
Size
This sets the size of the image that will be photographed.
[Still picture]
2816 x 2112:   2816 x 2112 pixel (6M)
2272 x 1704:   2272x1704 pixel (4M)
1600 x 1200:   1600x 1200 pixel (2M)
640 x 480:   640 x 480 pixel (VGA)

[Video clip]
320 x 240 :   320 x 240 pixel

Quality

This sets the quality (compression rate) at which the photograph is taken.

Fine: Low compression rate
Standard: Normal
Economy: High compression rate
TIFF: No compression rate (the highest image quality and the largest file sizes.)

> **NOTE**
> ■ Economy setting cannot be set in the [🎥] mode.
> ■ TIFF setting is selectable only when size setting is set to 2816x2112.

Sharpness

This sets the sharpness of the image that will be photographed.

Hard: Hard
Normal: Normal
Soft: Soft

> **NOTE**
> ■ This setting cannot be set in the [🎥] mode.

Contrast

This sets the difference between the bright and dark sections of the image that will be photographed.

Hard: Increases the contrast.
Normal: Set the contrast automatically.
Soft: Decreases the contrast.

Color

This sets the color of the image that will be photographed.

Standard: Standard color
Vivid: Bright color
Sepia: Sepia
Monochrome: Black and white

Photography Menu (Function)

1. Set the mode dial to one of the photography modes.
2. Press the **MENU** button, and select the [Function] menu with the ▶ button.
   - [Function] of the photography menu is displayed.
3. Select the desired [Function] option item with the ▲ / ▼ buttons, and press the **SET** button to enter its respective menu.

Function	
Capture Mode	▶ Single
Voice Memo	OFF
LCD Bright.	0
Digital Zoom	ON
Preview	ON
▼	Menu:Exit Set:OK

4. Select the desired setting with the ▲ / ▼ buttons, and press the **SET** button.
5. To exit from the photography menu, press the **MENU** button.
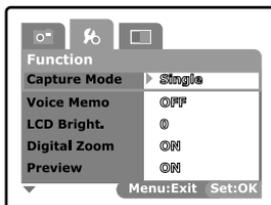
Capture Mode

This sets the recording method at the time of taking pictures.

(Blank) Single: Takes one photograph at a time.

(🗍) Continuous: Permits continuous photography of 5 pictures max, at the fastest interval of 0.62 seconds.

(AEB) Auto Exp.: Effective when it is difficult to determine the exposure for continuous photography with exposure at the 3 levels of standard exposure (0), underexposure (-0.67) and overexposure (+0.67) compensation.

NOTE

- In continuous photography, press and hold the shutter button until 5 images have been captured. If the shutter button is released earlier, the continuous photography will end at that point.
- When the size setting is set to TIFF, the maximum recordable number is 3 shots.

Voice Memo

A voice memo can be recorded for 30 seconds immediately following still single image photography. This feature is also available during playback mode.

Refer to the section in this manual titled "[🔳] Auto Photography Mode" for further details.

ON: Enable voice memo.

OFF: Disable voice memo.

> **NOTE**
> ■ When voice memo is set to on, the preview setting is also fixed to on.

LCD Bright.

Select a brightness level for the LCD monitor. The LCD becomes brighter with the ▲ button and darker with the ▼ button. The adjustment range is from -5 to +5.

```
┌────────────────────────┐
│  ⊙▤   ƒʘ   ▢           │
│ Function               │
│  ▶ LCD Bright.         │
│       ▲                │
│       0                │
│       ▼                │
│           Menu:Exit  Set:OK │
└────────────────────────┘
```
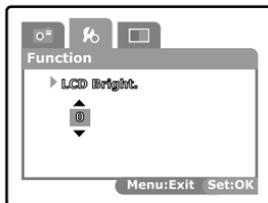
Digital Zoom

This sets whether or not to use digital zoom at the time of photography.

ON: Enable digital zoom.

OFF: Disable digital zoom.

Preview

This sets whether or not to display the photographed image on the screen immediately after the picture is taken.

ON: Displayed when images are being recorded on the SD card.

OFF: Does not display.

> **NOTE**
> ■ A photographed image is displayed on the LCD monitor for 2 seconds.
> ■ When preview is set to off, the voice memo setting is also fixed to off.

Date Print

The date of recording can be printed directly on the still images. This function must be activated before the image is taken.

ON: Imprints the date on the still images when taking pictures.

OFF: Does not imprint the date on the still images when taking pictures.
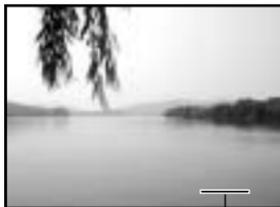
Date imprinted here.

Interval/Count

This automatically photographs at a fixed interval for the number of set cycles.

It is effective when the [🔄 **Intv**] is set with the 🔻 button.

1 Min.: Photographs at a 1-minute interval.

3 Min.: Photographs at a 3-minute interval.

10 Min.: Photographs at a 10-minute interval.

60 Min.: Photographs at a 60-minute interval.

Number of photographs: Can be set from 2 to 99 times.

Refer to the section in this manual titled "**Self-timer/Photographing at Intervals**" for further details.

```
┌──────────────────────────┐
│ o⁻  ƒσ  ▢                 │
│ Function                 │
│ ▶ Interval/Count         │
│         ▲                │
│      1 Min.   03         │
│         ▼                │
│                          │
│         Menu:Exit  Set:OK│
└──────────────────────────┘
```
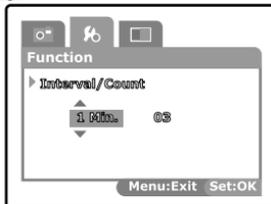
NOTE

■ The number of photographs that can be taken will differ depending on the capacity of the memory, the image settings, and other factors.

■ During the interval between one photograph and another, the viewfinder LED flashes red and the camera power is automatically turned off.

Photography Menu (AE/AWB)

1. Set the mode dial to one of the photography modes.
2. Press the **MENU** button, and select the [AE/ AWB] menu with the ▶ button.
   - [AE/AWB] of the photography menu is displayed.
3. Select the desired [AE/AWB] option item with the ▲ / ▼ buttons, and press the **SET** button to enter its respective menu.

○▼	▶	□
AE/AWB		
White Balance	▶	Auto
Metering		Multi
ISO		50
Manual WB		Adjust
	Menu:Exit	Set:OK

4. Select the desired setting with the ▲ / ▼ buttons, and press the **SET** button.
5. To exit from the photography menu, press the **MENU** button.
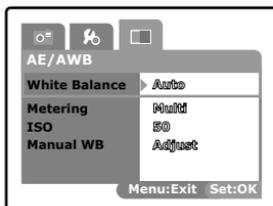
> ■ This photography menu cannot be used in [▣] mode.
>
> **NOTE**

White Balance

This sets the white balance photography under a variety of lighting conditions and permits photographs to be taken that approach the conditions that are seen by the human eye.

Auto: Automatic adjustment.
Incandescent: Photography under incandescent lighting.
Fluorescent 1: Photography under a daylight fluorescent tube with a bluish cast.
Fluorescent 2: Photography under a daylight white fluorescent tube with a reddish cast.
Day Light: Outdoor photography.
Cloudy: Photography under a cloudy sky.
Manual: Photography with a Manual WB.

Metering

This sets the metering method for calculating the exposure.

Multi: The entire area of the screen is measured, and the exposure is calculated.

Spot: A very small section of the center of the screen is measured, and the exposure is calculated.

ISO

This sets the sensitivity for taking pictures. When the sensitivity is raised (and the ISO figure is increased), photography will become possible even in dark locations, but the image will appear more pixilated (grainier).

50: Equivalent to ISO50.

100: Equivalent to ISO100.

200: High-sensitive photography equivalent to ISO200.

Auto: Automatic setting in the range of ISO 50 to 200 (Selection is permitted only when set to the [**P**] mode.)

Manual WB

This manually sets the white balance and stores it. Use of this is convenient when the white balance does not offer a good match.

Before select [Execute] determine the subject (such as a white paper) that will be used to set the white balance.

Cancel: Disable manual white balance.

Execute: Enable manual white balance.

Playback Menu

In the [▶] mode, set which settings are to be used for playback. The setting is not canceled even if the camera is turned off or the Auto Power Off function is activated.

1. Set the mode dial to [▶].
2. Press the **MENU** button.
   ■ The playback menu is displayed.
3. Select the desired option item with the ▲ / ▼ buttons, and press the **SET** button to enter its respective menu.
4. Select the desired setting with the ▲ / ▼ buttons, and press the **SET** button.
5. To exit from the playback menu, press the **MENU** button.

Play	
Slide Show	Execute
DPOF	Next Menu
Protect	Next Menu
LCD Bright.	0

Menu:Exit Set:OK

Slide Show

Automatically plays back still images in order and one image at a time.
Refer to the section in this manual titled "**Slideshow Display**" for further details.

DPOF

Sets the number of prints and date display in DPOF format to images that you want to print. (This function is available for still images only.) You can print images easily just by inserting the SD card to a DPOF-compatible printer or a print shop.
Refer to the section in this manual titled "**DPOF Settings**" for further details.

Protect

Sets the data to read-only to prevent images from being erased by mistake.
Refer to the section in this manual titled "**Protecting Images**" for further details.
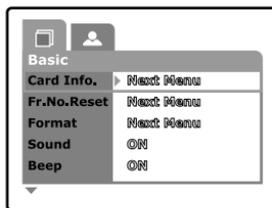
LCD Bright.

Adjusts the brightness of the LCD monitor. This function does not adjust the brightness of recorded images.
Refer to the section in this manual titled "**LCD Bright.**" in **Photography Menu (Function)** for further details.

Setup Menu (Basic)

Sets your camera's operating environment. The settings will be saved after the power has been turned off or Auto Power Off is activated.

1. Set the mode dial to [🔧].
   ■ [Basic] of the set-up menu is displayed.
2. Select the desired [Basic] option item with the ▲ / ▼ buttons, and press the **SET** button to enter its respective menu.
3. Select the desired setting with the ▲ / ▼ buttons, and press the **SET** button.
4. To exit from the set-up menu, change the mode dial setting.

```
┌───┬───┐
│ ⬜ │ 👤 │
├───┴───────────────┐
│ Basic             │
│ Card Info.  ▶ Next Menu │
│ Fr.No.Reset   Next Menu │
│ Format        Next Menu │
│ Sound         ON        │
│ Beep          ON        │
│ ▼                 │
└───────────────────┘
```

Card Info.
This allows a check of the free capacity of the SD card as well as other information.

Fr. No. Reset
This creates a new folder. The photographed images are recorded to the newly created folder from number 0001.
Cancel: Does not reset the file number.
Execute: Resets the file number and creates a new folder.

Format
This function erases all images and reformats the SD card loaded in your camera. Protected images are also erased. The SD card cannot be formatted if it is write-protected.
Refer to the section in this manual titled "**Formatting the SD Card**" for further details.

Sound

This sets whether or not to mute the playback sound of the recorded voice memo and voice recorded with the video clip.

ON: Does not mute the playback sound of the voice memo and voice recorded with the video clip.

OFF: Mute the playback sound of the voice memo and voice recorded with the video clip.

Beep

This sets the camera sound each time you press the camera button if this function is enabled.

ON: The beep tone sounds.

OFF: The beep tone does not sound.

Auto OFF

If no operation is performed for a specific period of time, the power to the camera is automatically turned off. This feature is useful to reduce battery wear.

1 Min.: When the camera has not been operated, it turns the power off after 1 minute.

2 Min.: When the camera has not been operated, it turns the power off after 2 minutes.

3 Min.: When the camera has not been operated, it turns the power off after 3 minutes.
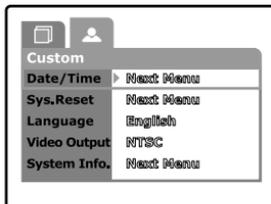
> ■ This function does not operate during a slideshow or in the [**PC**] mode and during PC connection.
>
> **NOTE**

Setup Menu (Custom)

1. Set the mode dial to [⚙], and select the [Custom] menu with the ▶ button.
   ■ [Custom] of the set-up menu is displayed.
2. Select the desired [Custom] option item with the ▲ / ▼ buttons, and press the **SET** button to enter its respective menu.
3. Select the desired setting with the ▲ / ▼ buttons, and press the **SET** button.
4. To exit from the set-up menu, change the mode dial setting.

Custom	
Date/Time	▶ Next Menu
Sys.Reset	Next Menu
Language	English
Video Output	NTSC
System Info.	Next Menu

Date/Time

This sets the date and the time.

Refer to the section in this manual titled "**Setting the Date and Time**" for further details.

Sys. Reset

This returns all basic settings to the camera's default settings. The time setting will not be reset.

Cancel: Does not return to the default settings.

Execute: Returns to the default settings.

Language

This sets the language that is displayed on the LCD monitor.
Refer to the section in this manual titled "**Choosing the Language**" for further details.

English: English
Português: Portuguese
Français: French
Deutsch: German
Español: Spanish
Italiano: Italian
Nederlands: Netherlands

Video Output

This sets the video output system of the video equipment that you are going to connect to the camera.
NTSC: NTSC system.
PAL: PAL system.

System Info.

This displays the firmware version of the camera.

TRANSFERRING RECORDED IMAGES/ VIDEO CLIPS TO YOUR COMPUTER

You can share recorded images/ video clips with your family or friends via e-mail or post them on the Web. Before doing so, you will need to connect the camera to your computer by using the USB cable and then transfer the images/video clips.

To transfer images/video clips from the camera to your computer, follow the steps below:

Step 1: Installing the USB driver (only for Windows 98)
Step 2: Connecting the camera to your computer
Step 3: Downloading images/video clips

	System Requirements (Windows)	System Requirements (Macintosh)
CPU	Pentium 166 MHz processor or higher	PowerPC G3/G4
OS	Windows 98/98SE/ Me/2000/XP	OS 8.6 or higher
Memory	32MB (64MB RAM recommended)	32MB (64MB RAM recommended)
Free Space on Hard Disk	128MB hard disk space	128MB hard disk space
Required Devices	A CD-ROM Drive, An Available USB Port	A CD-ROM Drive, An Available USB Port
Color Monitor	Color Monitor (800x600, 24-bit or higher recommended)	Color Monitor (800x600, 24-bit or higher recommended)

Step 1: Installing the USB Driver on a Windows PC

The USB driver on the supplied CD-ROM is exclusively for Windows 98. Installing the USB driver on computers running Windows 2000/Me/XP is not necessary.

1. Insert the CD-ROM that was packaged with the camera into the CD-ROM drive.
   The welcome screen appears.
2. Click "Install USB Driver". Follow the on-screen instructions to complete the installation. After the USB driver installation is complete, restart your computer.

Installing the USB Driver on a Macintosh PC

Mac OS 8.6 users must install a USB driver. For Mac OS 9.0 or higher version, the computer will automatically recognize the camera and load its own USB drivers.

1. Insert the CD-ROM that was packaged with the camera into your CD-ROM drive.
2. Select and double-click "Digital Camera Driver Installer".
3. Select "Install Location" and click "Install".
4. Follow the on-screen instructions to complete the installation and restart your computer.

Step 2: Connecting the Camera to Your Computer

1. Connect one end of the USB cable to an available USB port on your computer.
2. Connect the other end of the USB cable to the USB connector on the camera.
3. Turn the camera on.
4. Look for a new "Removable Disk" icon appearing in the "My Computer" window. Your recorded images/video clips will be in a folder on this "removable disk".
   (For Mac users, double-click the "untitled" disk on the desktop.)
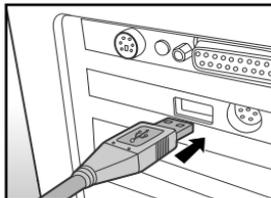
Step 3: Downloading Images/Video Clips

When the camera is turned on and connected to your computer, it is considered to be a disk drive, just like a floppy disk or CD. You can download (transfer) images by copying them from the "removable disk" ("untitled" disk on a Macintosh) to your computer hard drive.

For Computers Running Windows

Open the "removable disk" by double clicking on it. Double click on the folder containing your recorded images/video clips. Select the images/video clips that you prefer and then choose "Copy" from the "Edit" menu. After that, open the destination location and choose "Paste" from the "Edit" menu.

For Computers Running Mac OS

Open the "untitled" disk window and the hard disk or the destination location. Drag and drop from the camera disk to the desired destination.

NOTE

■ It is recommended that you use the AC power adapter as a power supply for the camera while transferring your images/video clips from the camera to your computer to avoid the camera being cut off unexpectedly if the battery runs out.

■ Memory card users may prefer to use a memory card reader (highly recommended).

Installing PhotoSuite

PhotoSuite is a very user-friendly image-editing program. With PhotoSuite, you can easily retouch, compose and organize your images. It contains a variety of templates, such as photo frames, birthday cards, calendars and more. Get your images ready and go explore this amazing program.

To Install PhotoSuite

1. Insert the CD-ROM packaged with the camera into the CD-ROM drive.
   The welcome screen appears.
2. Click "Install PhotoSuite". Follow the on-screen instructions to complete the installation.

NOTE

- For information on how to use PhotoSuite to edit and retouch your recorded images, please refer to its online help.
- For Windows 2000/XP users, be sure to install and use PhotoSuite while logged in as a user with an "Administrator" account.
- PhotoSuite is not supported on the Mac.

Installing PhotoVista

PhotoVista is an easy-to-use program that lets you create spectacular 360^0 panoramic images in an instant. When you view these scenes, you get the experience of being totally immersed in a realistic environment. PhotoVista's powerful engine quickly and automatically stitches images together, and its intuitive interface will let even a novice get great results in minutes.
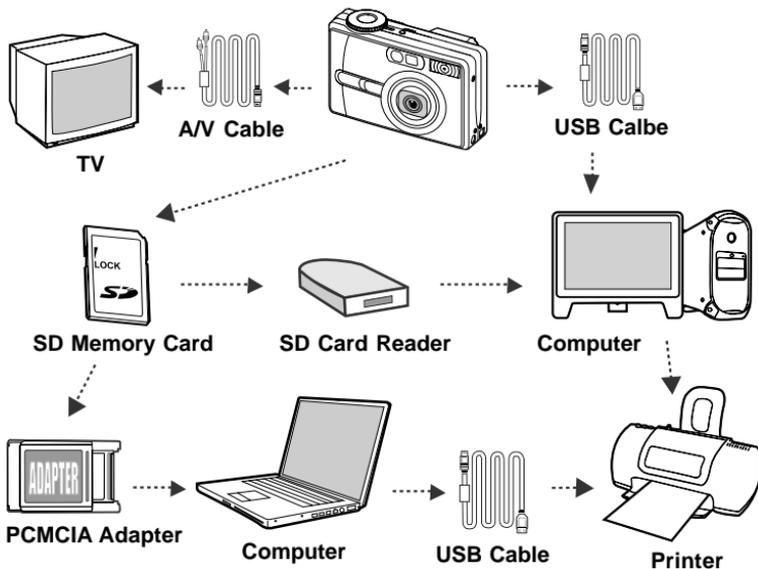
To Install PhotoVista

1. Insert the CD-ROM packaged with the camera into the CD-ROM drive.
   The welcome screen appears.
2. Click "Install PhotoVista". Follow the on-screen instructions to complete the installation.

NOTE

■ For information on how to use PhotoVista to create spectacular 360^0 panoramic images, please refer to its online help.
■ For Windows 2000/XP users, be sure to install and use PhotoVista while logged in as a user with an Administrator account.
■ For Windows XP users whose OS version does not include Service Pack 1 or higher, be sure to link to http://www.java.com/en/download/windows_automatic.jsp first and download the Java Virtual Machine installation. For more detail information about Java, please refer to its on-line help at - http://java.sun.com/getjava/help.html
After java software installation, you can start to install iSee Media Photovista Panorama.
Below is iSee Media Photovista Panorama system requirements and recommendations:
Windows 95/ Windows 98/ Windows NT 4 (Service Pack 3 or higher); Windows 2000/ Windows Me/ Windows XP (Service Pack 1 or higher).
■ PhotoVista is not supported on the Mac.

CONNECTING THE CAMERA TO OTHER DEVICES

A/V Cable

TV

USB Calbe

SD Memory Card

SD Card Reader

Computer

PCMCIA Adapter

Computer

USB Cable

Printer

CAMERA SPECIFICATIONS

Item	Description
Image sensor	1/1.8" CCD sensor Total number of pixels: 6.36 mega pixels Number of effective pixels: 5.95 mega pixels
Image resolution	<Still picture> 2816x2112, 2272x1704, 1600x1200, 640x480 <Video clip> 320x240
LCD monitor	Display: 2.0" color LTPS TFT LCD
Viewfinder	Real image optical zoom viewfinder
Image quality	Fine/Standard/Economy/TIFF (selectable at 2816x2112 only)
Recording medium	External memory: Supports SD card (optional, up to 512MB)
Compression format	JPEG compliant
Image file format	DCF 1.0, DPOF 1.1, EXIF 2.2, AVI, TIFF
Lens	f=7.2 mm - 21.6 mm (equivalent to 35 mm - 105 mm on a 35 mm camera)
Focus range	F=2.8 (wide angle) - 4.7 (tele) Approx. 80 cm to infinity (both Wide and Tele) Approx. 9 cm to infinity (Macro Wide)
	Approx. 30 cm to infinity (Macro Tele)
Auto-Focus Shutter speed	TTL method AF Long exposure: 8sec - 0.6 sec.
	Normal exposure: 1/2 sec.-1/1500 sec.
Image capturing	Single/ AEB: 3 images with - 0.67, 0, +0.67EV/ 5 images continuously
Digital zoom	4.4x (Capture mode) 2x and 4x (Playback mode)

Metering system	Multi metering, Spot metering
Exposure	Program AE/Shutter speed priority/Aperture priority/ Manual/Portrait /Sports / Night scene
Exposure compensation	-2EV - +2EV (in 0.3EV increments)
White balance	Auto/Incandescent/Fluorescent 1/Fluorescent 2/ Day light/Cloudy/Manual
Flash	Auto/Red-eye reduction/Suppressed Flash/Forced flash
Flash effective range	0.5 m-3.0m (Wide / ISO=200)
ISO sensitivity	Equivalent to ISO 50/100/200/Auto (ISO 50-ISO 200)
Self-timer	10 sec./2 sec./10+2 sec./Interval (1, 3, 10, 60min)
Video output Interface	NTSC/PAL DC IN 5V terminal A/V OUT terminal USB 1.1
Power supply	Lithium-ion battery (NA 1689004, 3.7V, 1050mAH) AC power adapter (5V)
Dimension	Approx. 98X63X35 mm (without protruding parts)
Weight	Approx. 180g (without the battery & SD card)

* Design and specifications are subject to change without notice.