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6 Replaying Photo & Video Clips

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1 Getting Started

Package Contents

Please contact your dealer immediately if any of the items below are missing or damaged.

Camera

Soft Case

Strap

Software Installation
CD-ROM, one with QuickTime Player
for reviewing Video clip, the other with
driver and photoediting software and
User's Guide

Compact Power Adapter
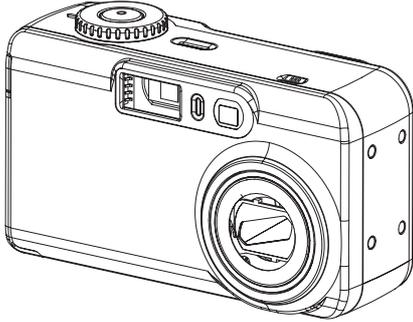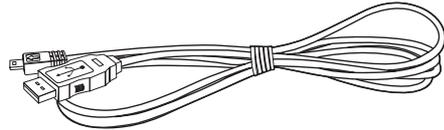
USB Cable
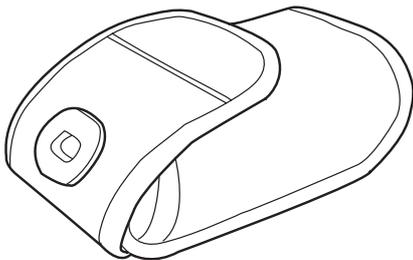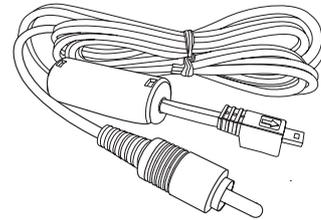
TV out cable
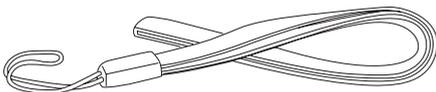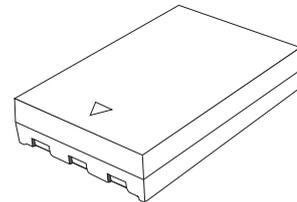
Li-ion Rechargeable Battery Pack
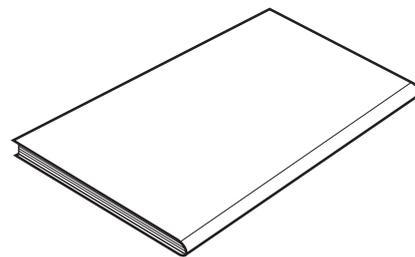
Quick Start Guide
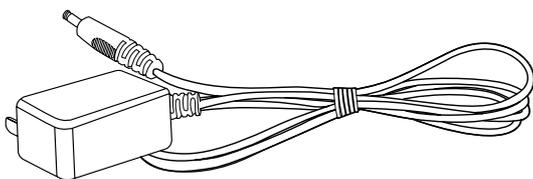
System Requirements

Windows:

- PC with processor better than MMX Pentium 300 MHz
- Windows XP/2000/ME/98SE
- Minimum 128 MB RAM
- USB port
- CD-ROM drive
- 1024 x 768 monitor, 24-bit color (true color)

Macintosh:

- Power Mac G3 or later
- Mac OS 9.0, 9.1, 9.2 and OS X
- Minimum 64 MB RAM
- USB port
- CD-ROM drive
- 800x600 pixels, 16-bit color display compatible monitor

Specifications are subject to change without prior notice.

Safety Information

- Before using the camera, please ensure that you read and understand the safety precautions described below. Always ensure that the camera is operated correctly.

- Do not aim the camera directly into the sun or other intense light sources which could damage your eyesight.

- Do not try to open the case of the camera or attempt to modify this camera in any way. High-voltage internal components create the risk of electric shock when exposed. Maintenance and repairs should be carried out only by authorized service providers.

- Do not fire the flash too close to the eyes of animals or people, especially for young children. Eye damage may result. In particular, remain at least one meter away from infants when using flash.

- Keep the camera away from water and other liquids. Do not use the camera with wet hands. Never use the camera in the rain or snow. Moisture creates the danger of fire and electric shock.

- Keep the camera and its accessories out of the reach of children and animals to prevent accidents or damage to the camera.

- If you notice smoke or a strange odor coming from the camera, turn the power off immediately and unplug the AC adapter from the po let. Take the camera to the nearest authorized service center for repair. Never attempt wer out to repair the camera on your own.

- Use only the recommended power accessories. Use of power sources not expressly recommended for this equipment may lead to overheating, distortion of the equipment, fire, electrical shock or other hazards.

- Disconnect the compact power adapter from both the camera and power outlet after recharging and when the camera is not in use to avoid fires and other hazards.

The compact power adapter of the camera is designed for exclusive use with this camera. Do not use it with other products. There is a risk of fire and other hazards.

FCC Compliance and Advisory

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 unsatisfactory operation.

This equipment has been tested and found to comply with the limits for a Class B peripheral, 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 communication. 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 to 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.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. When shielded interface cables have been provided with the product or when specified additional components or accessories have elsewhere been designated to be used with the installation of the product, they must be used in order to ensure compliance with FCC regulations.

Quick Start

1.■ Charge the Battery (p. 10).

Put battery inside the camera body and plug the compact power adapter then a green-light indicator is on, that means charging is on the way.
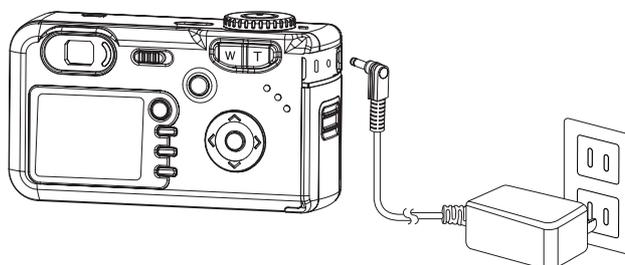
2.■ Install the Battery (p. 11).

Slide the battery cover in the direction of the arrows. Insert the battery pack with the positive (+) and negative (-) poles matching the directions indicated inside the battery cover. Slide the battery cover closed.
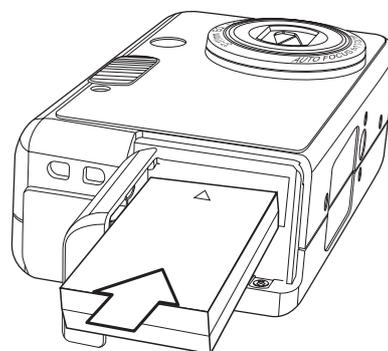
3.■ Install the SD Card (p. 12).

Turn off the camera. Slide the SD card slot/battery cover in the direction of the arrow to open the cover. The SD card slot is located beneath the battery compartment. Insert the SD card with the label facing up and the arrow pointing in.
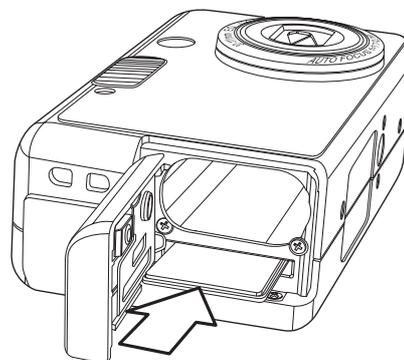
4.■ Turn on the Camera Power (p. 14).

Slide the power switch to right side and hold it until the LCD indicator begins flashing green. It takes about 2 seconds to power on the camera.

Power switch
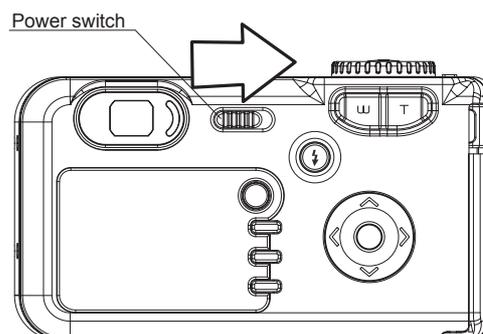
5. Turn the Shooting Mode dial to AUTO (p. 25).

Turn the Mode dial to **A** mode.
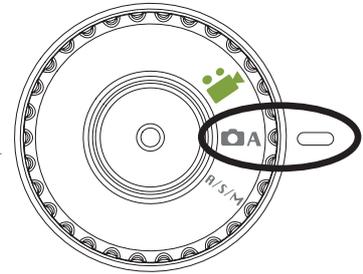
6. Focus the Subject and Shoot (p. 25).

Aim the camera at the subject. Press the shutter button down halfway. When the camera has finished adjusting its settings, the auto focus indicator will appear. Press the shutter button all the way.
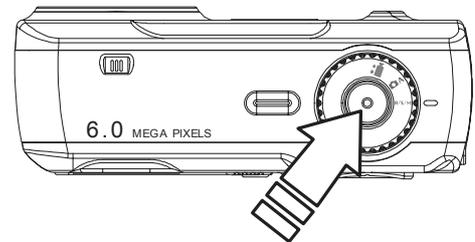
7. View the Recorded Image (p. 26).

The recorded image appears in the LCD monitor for approximately 2 seconds.

Press ▷ to view the captured photo.

To delete the file, press ⚡ 🗑.

Press ◀ and ▶ to select OK or Cancel, press **OK** 🆗 to confirm the choice.

Press ▷ again, return to shooting mode.

Camera Components

Flash   Viewfinder

Self-Tmer /
Battery
Charge LED

Lens

Tripod Socket

Front

Operation lamp

Viewfinder

Power switch

⊖/Zoom Out button

⊕/Zoom In button

Flash/ Erase

Up button

Right button

OK / Quick Function button

Battery cover

Down button

Left button

Replay

Macro/ Protect

LCD screen

MENU button

DISP button

Rear

6.0 MEGA PIXELS

Mode dial

Shutter button

Top

Speaker   Microphone

DC IN terminal

USB port

Wrist Strap
Holder

Battery/Me
mory
Card door

Side

Using the Included Accessories

Attaching the Wrist Strap

The illustration shows how to attach the wrist strap to your camera.

> *Don't swing the camera
> when carrying it by the
> wrist strap.*
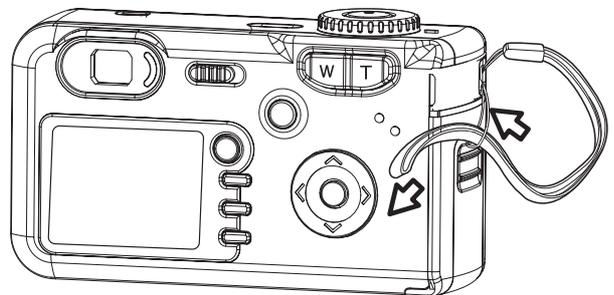
Using the Soft Case

● Store the camera in the included soft case
  when not in use.
● Slide the camera in the case with the LCD
  screen facing down as illustrated.
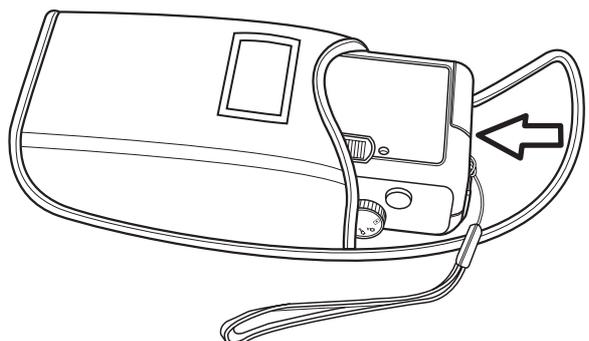
Operating the Multi-controller

The multi-controller is used to select choices, images and menus on the LCD monitor and confirm the selection.
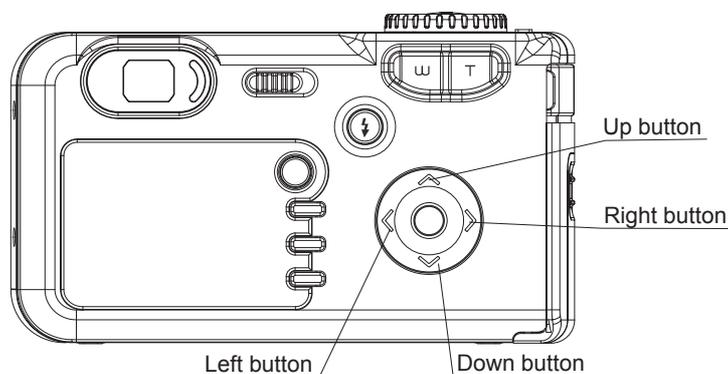
Moving the cursor on the LCD monitor up and down.

Press the **MENU** button.

Press the ▼ or ▲ to select a menu item on the LCD monitor.

Moving the cursor on the LCD monitor left and right.

Press the **MENU** button.

Press the ◀ or ▶ to select a menu item on the LCD monitor.

Confirming a menu selection.

Press the **OK** ⓞⓚ button.

Press the **MENU** button to close the menu window.

2 Preparing the Camera

Charging the Battery Pack

Recharge the Battery Pack with the compact power adapter before you use the camera for the first time.

1. Put the battery pack inside the camera body.
2. Connect the DC plug of the power adapter to the camera's DC-IN in terminal. Plug the other end of the adapter into a power outlet.
3. While charging the battery pack, the Self-Timer/Charge LED located at the front side of the camera will light up in green. When charging is complete, the LED will turn off.
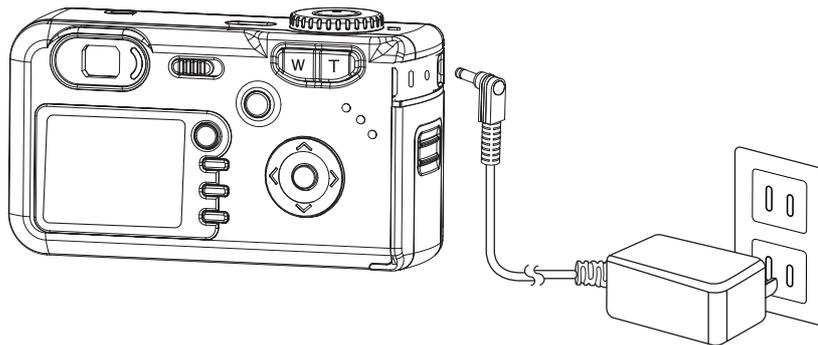
> *The camera can be used while charging.*

Battery Status Symbols
The following icons indicate the battery status on the LCD monitor. These icons will not appear while the camera is powered with a compact power adapter.

🔋	Sufficient battery charge
🔋	Low battery
🔋	Replace or recharge battery

Installing the Battery Pack

The camera is powered by a Rechargeable 3.7V 900mA Battery Pack (supplied). Install the Battery Pack into the camera as follows. Use the Compact Power Adapter instead of the Battery Pack to power the camera for extended periods.

1. Slide the battery cover in the direction of the arrows.

2. Insert the battery pack with the positive (+) and negative (-) poles matching the directions indicated inside the battery cover.

3. Slide the battery cover closed.
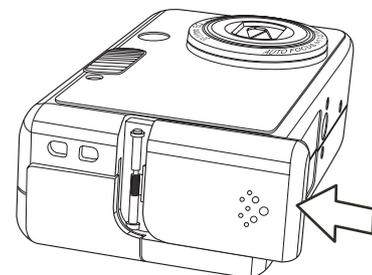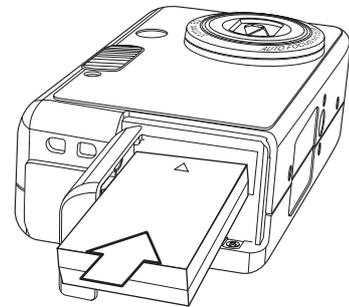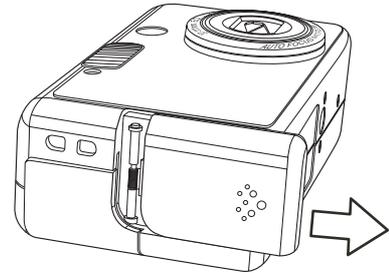
> *When the indicator on the right side of the viewfinder is blinking green, the SD card is being written to, read, erased or transmitted to. Therefore, never turn off the camera or open the SD card slot/battery cover while this indicator is blinking green.*

Using Compact Power Adapter

Connect the DC plug of the power adapter to the camera's DC-IN in terminal. Plug the other end of the adapter into a power outlet.
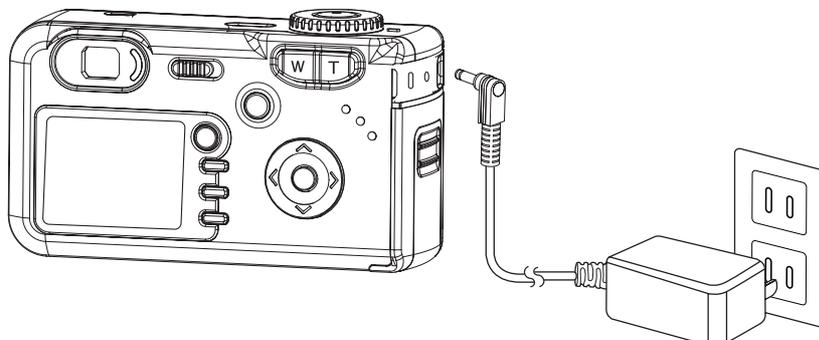
> 1. *Always turn the camera's power off before connecting or disconnecting the power adapter.*
> 2. *The camera automatically switches to AC power adapter-powered operation when the adapter is plugged into the camera.*
> 3. *Use an AC adapter that meets the camera's power specification (DC 5V). Using an incorrect AC power adapter may result in permanent damage to the camera.*

Installing an SD Card

1. Turn off the camera.
2. Slide the SD card slot/battery cover in the direction of the arrow to open the cover.
3. Insert the SD card with the label facing up and the arrow pointing in.
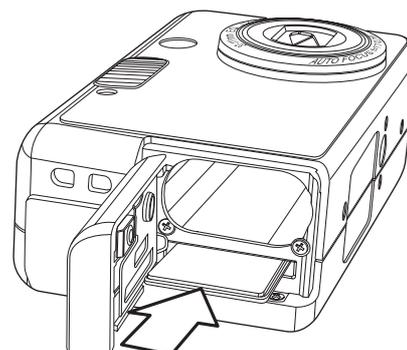
> 1. *Charge the battery pack before using it the first time.*
>
> 2. *This is a lithium ion battery pack so there is no need to completely use or discharge it before recharging. It can be recharged at any time.*
>
> 3. *To protect and prolong the life of the battery pack, do not charge it for 24 hours or longer at a time.*

Understanding Camera Memory and Storage

Internal Memory

The digital camera is equipped with internal memory. If an SD card is not installed in the camera, all photos recorded by the camera will be stored in the internal memory. If an SD card is installed, photos and video clips are stored on the SD card.

Optional SD Memory Card

Photos, video clips, and other information recorded by the camera are stored on the SD card using the Design Rule for Camera File System (DCF) protocol. The DCF protocol is designed to accommodate file and data exchange between digital cameras and other devices.

To remove the SD card

1. Turn off the camera.
2. Slide the SD card slot/battery cover in the direction of the arrow to open the cover.
3. Gently press on the edge of the SD card and release it. Pull the card out and close the slot/battery cover.
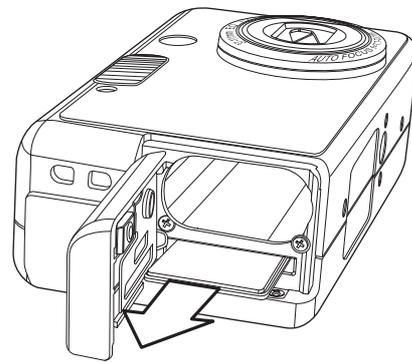
Formatting Internal or SD Card Memory

When you wish to delete all the files in the internal memory or on your SD card, or when you newly brought an SD card, format it by following steps below:

1. Insert the SD card if it is to format SD card, and then turn the camera on.
2. Press the **MENU** button.
3. Press the ▶ arrow to select the Setup Menu.

4. Press the ▼ or ▲ arrow to select **Format** then press the **OK** button.

5. Press the **OK** button to confirm the selection.

6. Press the **MENU** button to close the menu window.
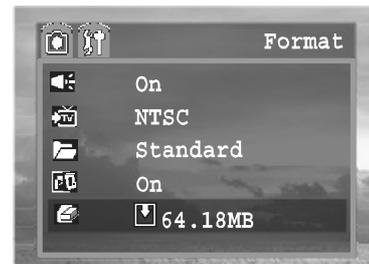
1. Formatting will erases all the data in the internal memory or on the SD card, including protected files. Please check the contents in the memory before formatting it.

2. SD cards formatted in another camera, computer or peripheral device may not operate correctly. When that happens, reformat the SD card with this camera.

Turning the Power On / Off

Power switch

Slide the power switch to the right side and hold it until the LCD indicator begins flashing green. It takes about 2 seconds to power on the camera.
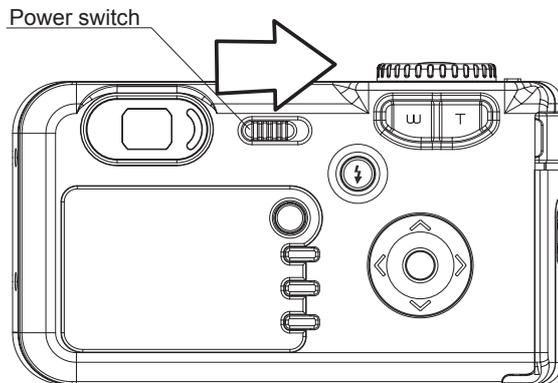
Note:
1. When the camera is turned on, the lens barrel will extend out automatically. Do not block the lens barrel.
2. You may also press and hold the Mode button for more than 1 second to turn the camera on in Review mode and then press the Mode button repeatedly to switch to Shooting Mode.
3. If the camera cannot be powered on, the batteries may be drained. Recharge the battery and try again.
4. To turn off the camera, slide the power switch to the right side.
The camera can be turned off automatically (p. 16). One minute before the camera is auto off, the LCD will be turned off. When the LCD is automatically power off, the green status LED remains light. In this situation, you may press any button to turn the camera back on.

Setting the Date and Time

1. Turn on the camera.
2. Press the **MENU** button.
3. Press the ▶ arrow to select the Setup Menu.
4. Press the ▼ or ▲ arrow to select Date/Time then press the **OK** 🆗 button.
5. Press the ◀ or ▶ arrow to select a field to change.
6. Press the ▼ or ▲ arrow to set the values.
7. Press the **OK** 🆗 button.
8. Press the **MENU** button to close the menu window.

```
                    Date/Time
         Standard
         On
         🔺64.18MB
ABC         English
         64.08.03' 19:56
```

```
🕐 Set Date/Time

              ▲
12.08.2003 19:56 MM/DD/YY
              ▼

  SET OK    MENU Cancel
```
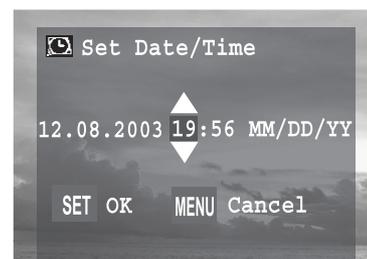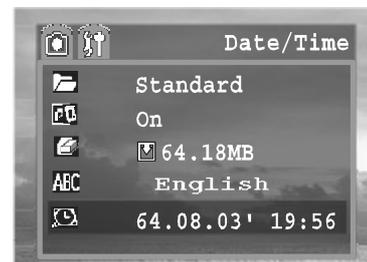
Print Date

Prints the image's creation date on the image.

1. Press the **MENU** button.
2. Press the ▶ arrow to select the Setup Menu.
3. Press the ▼ or ▲ arrow to select **Print Date**.
4. Press the ◀ or ▶ to set **on/off**.
5. Press the **MENU** button to close the menu window.
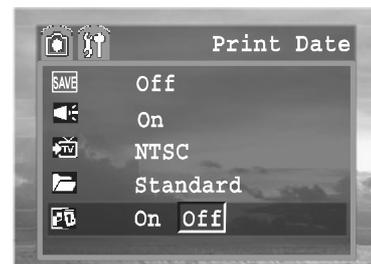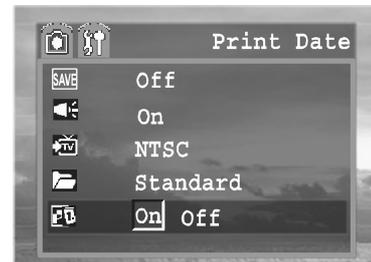
Setting the Language

1. Press the **MENU** button.
2. Press the ▶ arrow to select the Setup Menu.
3. Press the ▼ or ▲ arrow to select.
4. Press the ◀ or ▶ to select a Language.
5. Press the **MENU** button to close the menu window.

Setting the Beep Sound

1. Press the MENU button.
2. Press the ▶ arrow to select the Setup Menu.
3. Press the ▼ or ▲ arrow to select Beep.

4. Press the ◀ and ▶ to set **on/off**.

5. Press the MENU button to close the menu window.

Auto Power Off Settings

1. Press the **MENU** button.

2. Press the ▶ arrow to select the Setup Menu.

3. Press the ▼ or ▲ arrow to select POWER SAVE.

4. Press the ◀ or ▶ to set auto power off values. (off, 1 min ~10min)

5. Press the **MENU** button to close the menu window.

TV Out Signal Set-Up

1. Press the **MENU** button.

2. Press the ▶ arrow to select the Setup Menu.

3. Press the ▼ or ▲ arrow to select TV OUTPUT.

4. Press the ◀ or ▶ to set the video output signal standard. (NTSC, PAL)

5. Press the **MENU** button to close the menu window.

Setting LCD Brightness

1. Press the **MENU** button.
2. Press the ▶ arrow to select the **Setup Menu**.
3. Press the ▼ or ▲ arrow to select **LCD Brightness**.
4. Press the ◀ or ▶ to set the LCD Brightness level.
5. Press the **MENU** button to close the menu window.

Folder Format

1. Press the **MENU** button.
2. Press the ▶ arrow to select the **Setup Menu**.
3. Press the ▼ or ▲ arrow to select **FOLDER FORMAT**.
4. Press the ◀ or ▶ to set the folder format type. (standard, date)
5. Press the **MENU** button to close the menu window.
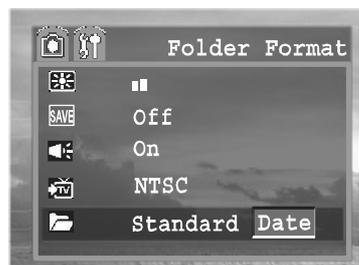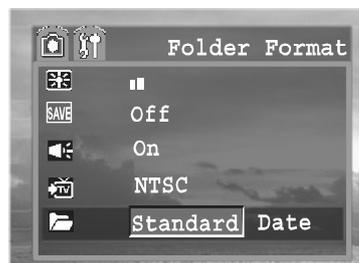
Quick View

The length of time images are displayed after a photo has been taken can be changed from 2 seconds to 10 seconds or turned off.

1. Press the **MENU** button.
2. In the camera menu, press the ▼ or ▲ arrow to select **Quick View**.
3. Press the ◀ or ▶ to set the Quick View values. (Off, 2 sec, 10 sec)
4. Press the **MENU** button to close the menu window.

Selecting Menus and Settings

This chart shows the options for each menu settings.

Menu Items Selectable with the MENU Button

	Menu Item	Available Setting	Reference Page
Camera Menu (Auto)	Resolution	L M₁ M₂ S	p. 26
	Quality	F N	p. 26
	Drive Mode	□ ☺2 ☺10 ▣	p. 29
	File No. Reset	On / Off	p. 46
	Quick View	10 sec / 2 sec / Off	p. 18
	Digital Zoom	On / Off	p. 24
Camera Menu A/S/M (Advanced Mode)	Mode	A / S / M	p. 34
	Resolution	L M₁ M₂ S	p. 26
	Quality	F N	p. 26
	Drive Mode	□ ☺2 ☺10 ▣	P. 29
	EV	+2/+1.7/+1.3/+1.0/+0.7/+0.3/0.0/-0.3/-0.7/-1.0/-1.3/-1.7/-	p. 34
	White Balance	AWB ☀ ☁ ☀ ☀	p. 35
	ISO ISO	AUTO 50 100 200	p. 35
	File No. Reset	On / Off	p. 46
	Quick View	10 sec / 2 sec / Off	p. 18
	Digital Zoom	On / Off	p. 24
Movie Mode	Resolution	L / S	p. 26
	Quality	F /N	p. 26
	File No. Reset	On / Off	p. 46

Playback Menu	Erase All	OK	p. 40
	Slide Show	Loop On / Off, Period 3-10 sec, 15 sec, 30 sec	p. 42
	Print	Print images	p. 47
	Copy Card	Copy internal memory images to SD Card	p. 44
Setup Menu	LCD Brightness	▯ ▮	p. 17
	Power Save	Off, 1-10 min	p. 16
	Beep	On / Off	p. 15
	TV Output	NTSC / PAL	p. 16
	Folder Format	Standard / Date	p. 18
	Print Date	On / Off	p. 15
	Format Media	Formatting Internal or SD Card Memory	p. 13
	Language	English / Traditional Chinese / Simplified Chinese / Japanese / Korean / Deutsch / Français / Nederlands / Italiano / Español / Portugues / Russian	p. 15
	Date/Time	Sets the date and time	p. 14

3 Basic Functions

Previewing a Picture

The LCD Screen can be used to confirm an image during shooting, to review recorded images or to adjust menu setting.

1. Press ▷ to view the captured photo or video clip.
2. The image automatically appears on the LCD screen with information about camera settings.
3. Press ▷ again, return to shooting mode.

Setting the LCD Display Mode

Pressing the **DISP** button switches the LCD screen display mode.

Pressing the **DISP** button cycles the LCD screen to the next mode each time the button is pressed.

Shooting Mode

On (with Information)→→On (No Information) →→Off
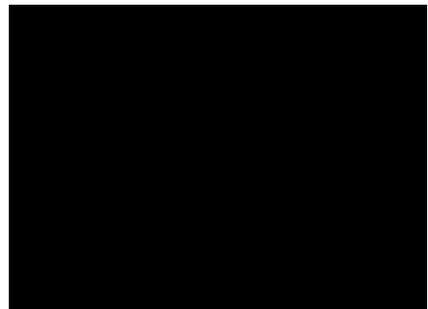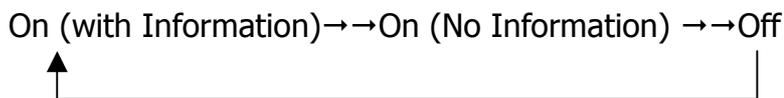
Playback Mode

Display (Information with exposure settings data)→→ Display (information without exposure settings data→→ Simple Display (No Information)

Information Displayed on the LCD Monitor

The LCD monitor displays information in Shooting or Playback mode, such as the camera settings, remaining image capacity and shooting date / time.

Shooting Mode

Playback Mode

Play Mode

Internal memory   File Number

Aperture Value

Shutter Speed

ISO Speed

White Balance

Flash Mode

F4

1/30

100

AWB

0.0

9/9

S N

100-0013

12:34

2003/12/05

Exposure Compensation

Compression Setting

Resolution Setting

Shooting Time / Date

Display Image / Total
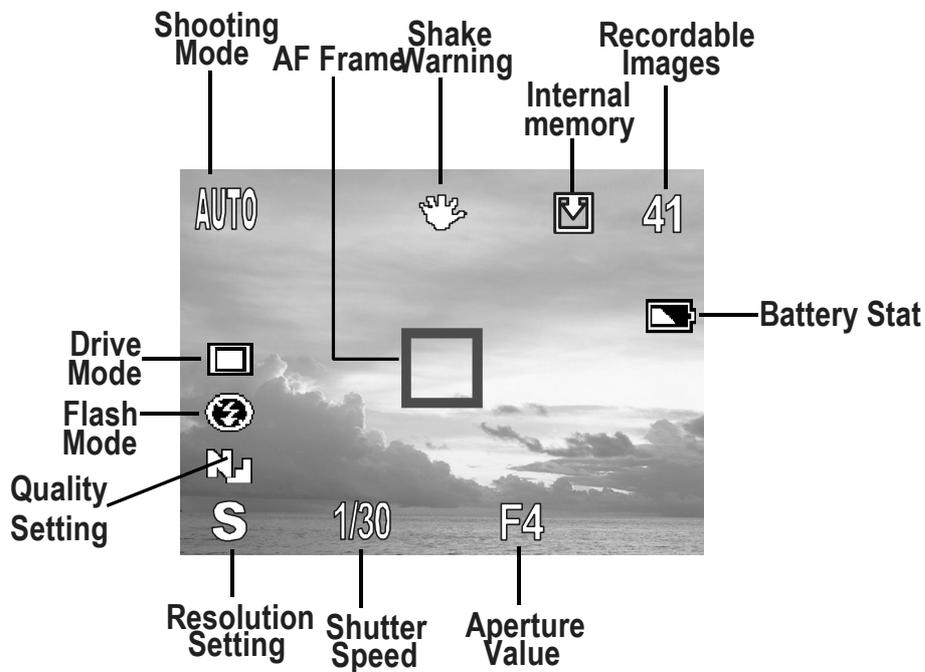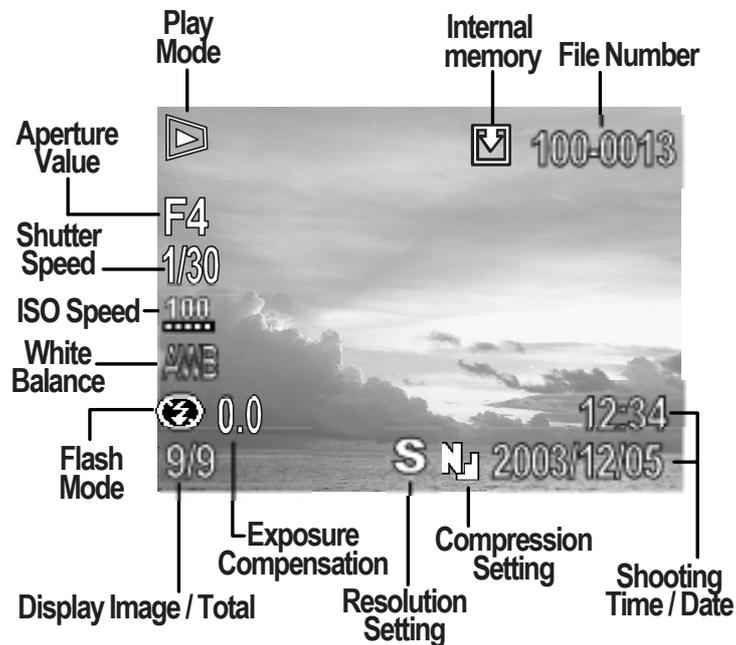
Using the Zoom Feature

The camera has a 3x optical zoom lens with an effective zoom range 7.7 mm to 23.1 mm (equivalent to 37 mm to 111 mm in 35 mm film format) as well as 4x digital zoom capability.

Telephoto / Wide Angle

1. Press **T** to zoom in for a telephoto shot.

2. Press **W** to zoom out for a wide angle shot.
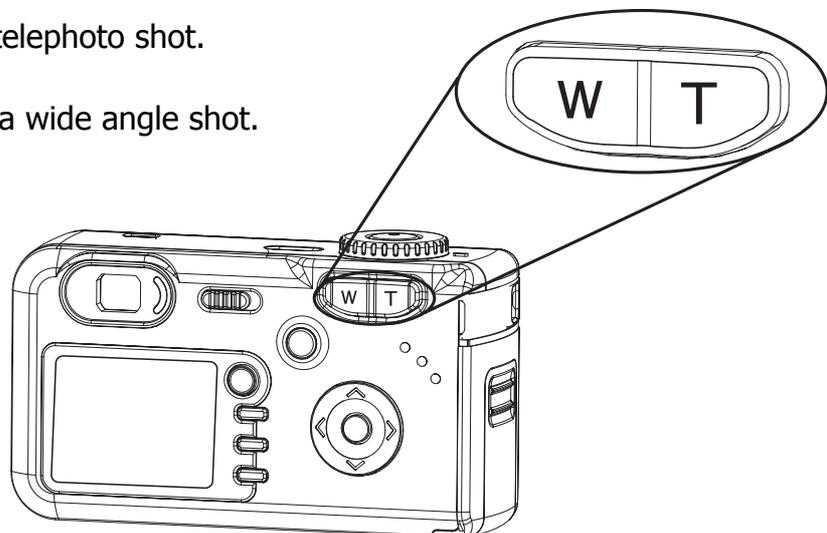
Digital Zoom

Digital zoom lets you zoom in the image through a software interpolation process. When the zoom exceeds 3.0 X, the digital zoom is used to achieve magnification levels up to 12.0 X.

1. Press the **MENU** button.
2. Press the ▶ arrow to select the Setup Menu.
3. Press the ▼ or ▲ arrow to select digital zoom.
4. Press the ◀ or ▶ to set digital zoom on/off.
5. Press the **MENU** button to close the menu window.
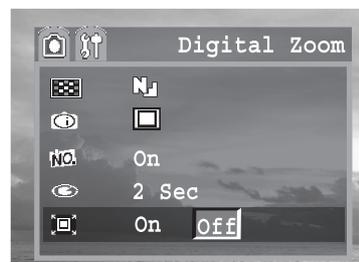
# Using the Mode Dial

Use the mode dial to switch between the camera's available working modes at any time.

S Mode: Shutter Speed Priority Mode, that is, the Shutter speed can be set manually, while the Aperture will be set automatically.

M Mode: Both Aperture and Shutter Speed can be set manually

Movie mode

Auto mode

A/S/M (Advanced) mode
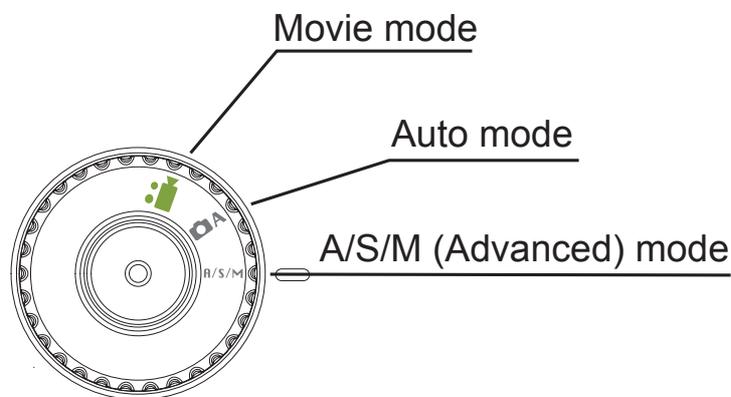
4 Taking Pictures

Taking Pictures in Auto Mode

In this mode, all you have to do is to press the shutter button and let the camera do everything else.

1. Turn the Mode dial to **A** mode.

2. Aim the camera at the subject.

3. Press T or W button to zoom in or out the subject.
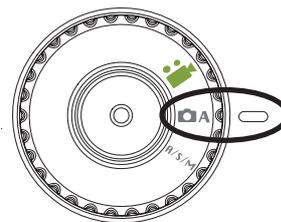
4. Press the shutter button down halfway. When the camera has finished adjusting its settings, the auto focus indicator will appear.
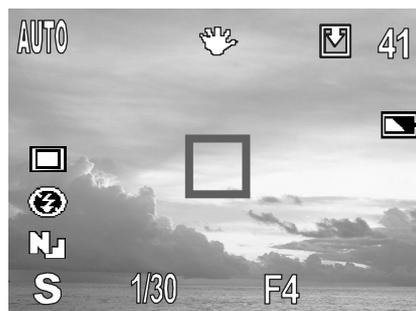
5. Press the shutter button all the way. You will hear the sound of the shutter when the shutter activates.

> 1. The beep does not sound if the beeper setting is turned off in the setup menu.
> 2. Please note that camera shake becomes a factor at low shutter speed. If the camera "shaking hand" icon appears in the LCD monitor, secure the camera to a tripod before shooting.
> 3. When the shutter button is pressed half way down, check the exposure value that appears on the LCD monitor to make sure it is appropriate for the current light conditions.
> 4. When the camera has successfully locked the exposure, white balance and focus, the blue Auto Focus indicator will appear. If auto focus failed, the

Replaying an Image after Shooting Quickly

The quick playback function is available in each shooting mode.

1. Press ▷ to view the captured photo or video clip.
2. To delete the file, press ⚡🗑. Press ◀ and ▶ to select OK or Cancel, press **OK** (OK) to confirm the choice.
3. Press ▷ again, return to shooting mode.

Setting the Image Quality and Resolution

You can change the image quality and resolution settings to suit the purpose of the image you are about to shoot.

1. Press MENU
2. Press the ▼ or ▲ arrow to select image resolution and quality.
3. Press the ◀ or ▶ to select a value.
4. Press the MENU button to close the menu window.
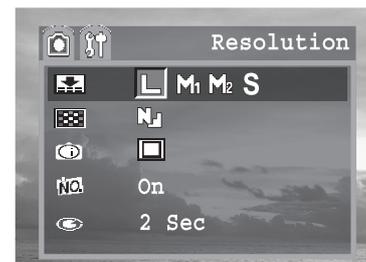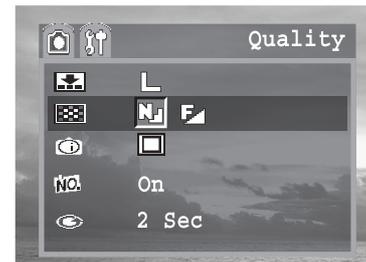
Resolution		Purpose
L (Large)	2848×2136 (fine, normal)	Print large prints
M₁ (Medium 1)	2048×1536 (fine, normal)	Print on small size paper
M₂ (Medium 2)	1408×1056 (fine, normal)	Send images by e-mail
S (Small)	640×480 (fine, normal)	Shoot more images

Image Quality		Purpose
F⊿	Fine	Shoot normal quality images
N⌐	Normal	Shoot more images

Movie Mode

Resolution		Purpose
L (Large)	640×480 (15 fps)	TV
S (Small)	320×240 (25 fps)	Web video

Using the Flash

Use the flash according to the guidelines below

A⚡	Auto	The flash fires automatically as required by the lighting level.
⚡	Force On	The flash always fires.
⊘	Force Off	The flash does not fire.
A👁	Red-eye reduction, Force on	The flash always fires and the flash pre-strobes before shooting to reduce red-eye phenomenon.
(S)	Red-eye reduction, Auto	The flash fires automatically as required by the lighting level, and the flash pre-strobes before shooting to reduce red-eye phenomenon.
S⚡	Slow sync.	When the shutter speed is slow, the flash will fire after the shutter is full open but before it closes.
◉	Slow Red-Eye	Combine the red-eye reduction function and slow sync. function

1. Press the ⚡☞ button to switch between flash modes.
2. The selected flash mode appears on the LCD monitor.
3. You can switch between settings by pressing the ⚡☞ button.
4. Shoot the image.

Flash icon

A⚡ ⚡ ⊘ A👁 ◉ S⚡ (S)

Setting the Red-eye Reduction Function

Shooting with flash in dark places, the subject's eyes may appear red in the picture. This phenomenon is known as "Red-Eye" and occurs when flash reflects back from the retina. With the Red-Eye Reduction feature, the camera can contract the pupils of the subject by lighting for about 1 second before the flash is fired to reduce the chances of Red-Eye.

Setting the Slow Sync.

In low light conditions, slow shutter speed provides better lighting of the background that is out of range of the flash. When flash synchronization is selected, the flash will be simultaneous with the shutter, that is, the flash will fire after the shutter is fully open but before it closes.

Macro Mode

Use the Macro mode to shoot close-up of subjects in the range as listed below:

Mode   Focus Range

W Mode 5 cm – 80 cm (0.16 ft. – 2.62 ft.)

T Mode   30 cm – 80 cm (0.98 ft. –2.62 ft.)

Macro icon

1. Press the DISPLAY button to turn the LCD monitor on.
2. Press the MACRO 🌷 button.
3. The 🌷 icon appears on the LCD monitor.
4. After Macro mode is selected, the Flash will be set at Off status. Press (flash) button to set flash and then shoot the image.
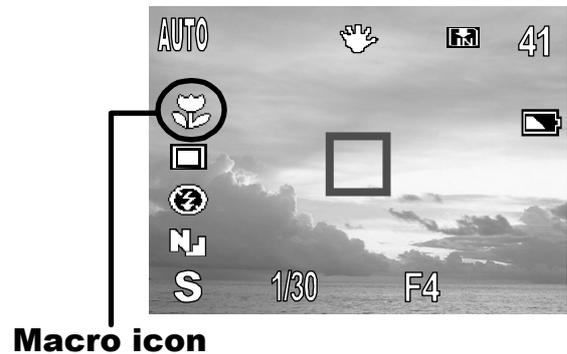
Mode	Auto	Advanced Mode(A/S/M)	Video
Macro available	Yes	Yes	No

> 1. Distances referred to measure the distance between the camera lens surface and the subject.
> 2. Any flash setting can be used in macro mode.
> 3. Always use the LCD monitor to compose images in macro mode. Shooting with the optical viewfinder is possible, however, the parallax phenomenon may cause images composed with the optical viewfinder to be off-center.

Setting the Self-Timer

You can take pictures with the self-timer in Auto mode or A/S/M mode.

Use the self-timer to set a delay from the time the shutter button is pressed to the time

the image is shot.

1. Press the **MENU** button.
2. Press the ▼ or ▲ arrow to select **Drive Mode**.
3. Press the ◀ or ▶ to select **2 sec self-timer or 10 sec self-timer.**
4. Press the **MENU** button to close the menu window.
5. Shoot the image.

   If you select 🕙, the self-timer starts sounding and blinking after the shutter button

   is pressed all the way. The self-timer sounds and the blinking gets faster two

   seconds before the shutter activates.

Setting	Description
▭	Single shoot
🕑	Two seconds
🕙	Ten seconds
▱	5 images at one shot

Continuous Shooting

Use this mode to shoot 5 successive images at M2 (1408 x 1056) resolution at one shoot.

1. Press the MENU button.
2. Press the ▼ or ▲ arrow to select Drive Mode.
3. Press the ◀ and ▶ to select Continuous shooting.
4. Press the MENU button to close the menu window.
5. Shoot the image.
6. Press the shutter button halfway to lock the focus.
7. Press the shutter button all the way to shoot.

5 A/S/M (Advanced) Mode

A (Aperture Priority) Mode

When you set the aperture in the aperture-priority AE mode, the camera automatically selects a shutter speed to match the brightness. The larger the number for the aperture setting, the smaller the aperture opening, consequently the less the amount of light enters. A larger aperture setting produces a lighter image, while a lower aperture value produces a darker image.

1. Turn the mode dial to **A/S/M** (advanced) mode.
2. Press the **MENU** button.
3. In the camera setup mode Press the ▼ or ▲ arrow to select **mode**.
4. Press the ◀ or ▶ to set the camera mode to A (aperture-priority) Mode.
5. Press the **MENU** button to close the menu window.
6. The aperture will appear on the LCD monitor. Press the ◀ or ▶ button to select a aperture value.
7. Shoot the image.
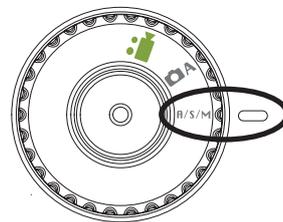
> 📄 *The correct exposure has been set if the shutter speed and aperture value show in the LCD monitor.*

Aperture Setting Display

The larger the aperture value, the smaller the lens aperture.

F2.8	F3.3	F3.9	F4.7	F5.6	F6.7

> 📄 *The aperture value change according to the zoom state.*

S (Shutter Priority) Mode

When you set the shutter speed in the shutter speed-priority AE mode, the camera automatically selects an aperture value to match the brightness. Faster shutter speeds allow you to catch an instantaneous image of a moving subject while slower speeds create a flowing effect and allow you to shoot without a flash in dark areas.

1. Turn the mode dial to **A/S/M** (advanced) mode.
2. Press the **MENU** button.
3. In the camera setup mode Press the ▼ or ▲ arrow to select **mode**.
4. Press the ◀ or ▶ to set the camera mode to **S** (Shutter speed-priority) Mode.
5. Press the **MENU** button to close the menu window.
6. The shutter speed will appear on the LCD monitor. Press the ◀ and ▶ button to select a shutter speed.
7. Shoot the image.

	1. The correct exposure has been set if the shutter speed and aperture value show in the LCD monitor.
	2. Please note that camera shake becomes a factor at low shutter speed. If the camera "shaking hand" icon appears in the LCD monitor, secure the camera to a tripod before shooting.

Shutter Speed Display

For slower speeds, quote marks indicate the decimal place, so 2″ indicates 2 seconds.

1/2000   1/1400   1/1000   1/650   1/500   1/320   1/250   1/160   1/125   1/80   1/60
1/40   1/30   1/20   1/15   1/10   1/8   1/6   1/4   1/3   1/2   1″   2″   3″   4″   6″   8″


M (Manual) Mode

You can manually set the shutter speed and aperture to achieve a particular effect. This is convenient for shooting fireworks and other images where it is difficult to set the correct exposure automatically.

Turn the mode dial to **A/S/M** (advanced) mode.

1. Press the **MENU** button.

2. In the camera setup mode Press the ▼ or ▲ arrow to select mode.

3. Press the ◀ or ▶ to set the camera mode to M (Manual) Mode.

4. Press the **MENU** button to close the menu window.

     The shutter speed and aperture will appear on the LCD monitor. the shutter speed or aperture displays in blue, Press the ◀ or ▶ button to select a value. When the setting is done, press ▼ to switch between the shutter speed and the aperture value setting. Press the ◀ or ▶ button to select a value.

5. Shoot the image.

Quick Switching in A/S/M (Advanced) Mode

In **A/S/M** (Advanced) Mode, you can changing the settings quickly.

1. Pressing the **OK** ⓞⓚ button cycles the next setting menu each time the button is pressed.

Shooting mode (A/S/M) →→ EV adjustment →→ Setting the White Balance →→ Off
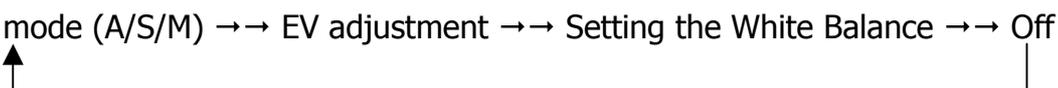
2. In each setting menu, press the ◀ and ▶ to set a new value.
3. Press the **OK** ⓞⓚ button again to close the menu window.

Mode Aper. Pri.	EV	WB Auto
A S M	0.0	AWB

Adjusting the Exposure ---EV adjustment

Adjust the exposure compensation setting to compensate for certain light conditions including: backlighting, indirect indoor lighting, and dark backgrounds.

1. Turn the Mode dial to **A/S/M** (advanced) mode.
2. Press the **MENU** button.
3. In the camera menu, press the ▼ or ▲ arrow to select EV then press the **OK** ⓞⓚ button..

4. Press the ◀ and ▶ to set the exposure compensation value. Available settings are:-2.0, -1.7, -1.3, -1.0, -0.7, -0.3, 0.0, +0.3, +0.7, +1.0, +1.3, +1.7, +2.0.
5. Press the **MENU** twice button to close the menu window.
6. Shoot the image.

ASM A S NⒿ □ EV 0.0	EV +0.3

Adjusting Color Tones ---Setting the White Balance

When the white balance mode is set to match the light source, the camera reproduces colors more accurately.

AWB	Auto	Settings are automatically set by the camera
	Cloudy	For recording under overcast, shady or twilight skies
	Day light	For recording outdoors on a bright day
	Fluorescent	For recording under fluorescent lighting
	Tungsten	For recording under tungsten lighting

1. Turn the Mode dial to **A/S/M** (advanced) mode.
2. Press the **MENU** button.
3. In the camera menu, press the ▼ or ▲ arrow to select **white balance** then press the **OK** (OK) button.
4. Press the ◀ or ▶ to set the white balance value then.
5. Press the **MENU** button twice to close the menu window.
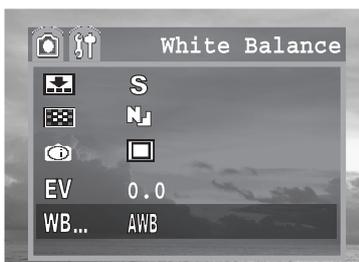
Changing the ISO Speed

Change the ISO speed when shooting in dark places or when you want to shoot with a faster shutter speed. You can choose from the following speeds: AUTO, 50, 100, 200

1. Turn the Mode dial to **A/S/M** (advanced) mode.
2. Press the **MENU** button.

3. In the camera menu, press the ⌄ or ⌃ arrow to select **ISO**.
4. Press the ◄ or ► to set the ISO value.
5. Press the **MENU** button to close the menu window.

> *Higher ISO speeds increase the image noise. To take clean images, use as low an ISO speed as possible.*

Movie Mode

The digital camera can shoot movie clips with audio. The resolution can be set to either [**L** (640×480)] or [**S** (320×240)](p. 26).

1. Turn the Mode dial to video mode.

   The LCD monitor displays the maximum recording time (in seconds).

2. Press the shutter button all the way

3. Press the shutter button all the way to stop recording the movie.

4. The camera stops recording automatically when the memory capacity has been reached.

Movie icon

Maximum Recording Time

The white movie icon turns red when the camera is recording movie.

Resolution(L/S)
Quality(F/N)

> *Be careful not to touch the microphone while shooting.*

1. When using the internal memory supplied with the camera, the resolution is set to 320×240 pixels. Video resolution cannot be changed.
2. The indicator aside the viewfinder will blink green while recording video.
3. White balance is set and locked to the settings of the first frame.
4. There is no shutter sound in movie mode.
5. If you are using the MMC card, the L(640×480) setting is not available.

"MPEG-4 files can only be played with the installation of Quick Time software from the CD.
If such software is not installed yet, please download Quick Time from the internet."

QuickTime 4.0 or higher is required to replay movie files on a computer. (QuickTime player for Windows is a shareware. You can free download it from www.apple.com. On the Macintosh platform, QuickTime is generally bundled with Mac OS 8.5 or later operating system).

Functions Available in Each Camera Mode

Function	Mode	Auto	Advanced (A/S/M)	Video
EV	-2.0~+2.0	×	○	×
White Balance	Auto	×	○	×
	Daylight	×	○	×
	Cloudy	×	○	×
	Tungsten	×	○	×
	Fluorescent	×	○	×
ISO	AUTO/50/100/200	×	○	×
Resolution	L (2848×2136)	○	○	×
	M1 (2048×1536)	○	○	×
	M2 (1408×1056)	○	○	×
	S (640×480)	○	○	×
Movie Resolution	L (640×480) 15fps	×	×	○
	S (320×240) 25pfs	×	×	○
Quality	Fine	○	○	
	Normal	○	○	
Flash	Auto	○	○	×
	Force On	○	○	×
	Force Off	○	○	×
	Red-eye reduction, Force on	○	○	×
	Red-Eye	○	○	×
	Slow	○	○	×
	Slow Red-Eye	○	○	×
Macro	On /Off	○	○	×
Self-timer	On /Off	○	○	×
Optical Zoom		○	○	○
Digital Zoom		○	○	×

Continuous Shooint   On/Off   (Auto)   (A/S/M)

6 Replaying Photo & Video Clips

Replaying Pictures/Video clips

You can view the recorded images and video clips on the LCD monitor.

The playback function is available in each shooting mode.

1. Press ▷ to view the captured photo or video clip.

    The last recorded image or video clip appears

    on the LCD monitor. Press OK to view the video

    clip. Press OK again to pause or resume.

2. Use ◀ to move to the previous image and ▶ to move to the next image.

3. Press ▷ or Shutter again, return to shooting mode.

Replay
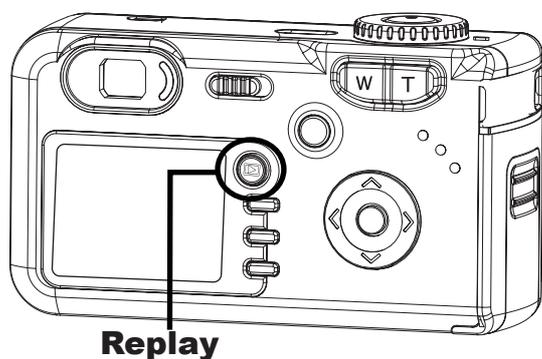
> *Press the* DISP *button to show the data for the displayed image (page. 22).*
> *Press the ⚡🗑 button to quickly delete the displayed image (page. 40).*

Magnifying Images

Images can be magnified up from 1 times to 4 times.
1. Press ▷ to view the captured photo.
2. Press T to magnify the image.
3. Press W to zoom out to the original full-sized image.

The zoom factor is shown

Viewing Pictures in Thumbnail Mode

The Thumbnail mode allows you to view up to six images at a time on the LCD monitor. The playback function is available in each shooting mode.

1. Press ▷ to view the captured photo.
2. The last captured image appears on the LCD monitor.
3. Press the wide angle **W** button to view thumbnail images.
4. The selected image is highlighted.
5. Press the ◀, ▶, ▼ or ▲ to select an image.
6. Press the telephoto **T** button to display the selected image in full screen size.
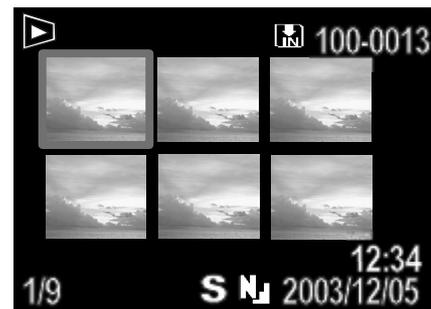
Erasing Files From Memory

Erase files that you don't want to keep to make more memory space available. You can erase individual files or all files when the camera is in playback mode.

Erasing Images Individually

1. Press ▷ to view the captured photo or video clip.
2. The last recorded image or video clip appears on the LCD monitor.
3. Use ◀ to move to the previous image and ▶ to move to the next image.

4. To delete the file, press ⚡ 🗑. Press ◀ and ▶ to select YES or NO, press **OK** ⊙ to confirm the choice.

5. Press ▷ again, return to shooting mode.
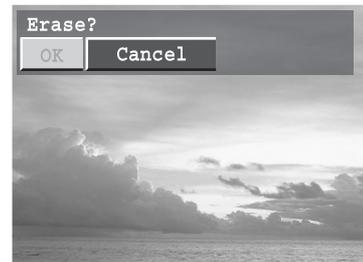
> ⚙ *Please note that erased images cannot be recovered. Exercise caution before erasing a file.*

Erasing All Unprotected Images

1. Press ▷ to view the captured photo or video clip.
2. The last recorded image or video clip appears on the LCD monitor.
3. Press the **MENU** button.
4. Press the ▼ arrow to select ERASE ALL , and then press OK to enter its submenu.

5. Press **OK** ⊙ to confirm the choice.

6. Press the MENU button to close the menu window.
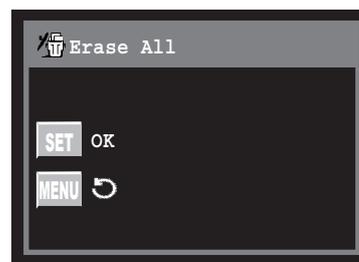
Protecting Photos and Video Clips

You can protect important images from accidental erasure.

1. Press ▷ to view the captured photo or video clip.
2. The last recorded image or video clip appears on the LCD monitor.
3. Use ◀ and ▶ to select an image you want to protect.
4. Press ⛉ button to protect the image. (The protect icon appears on the LCD monitor for all protected images.)
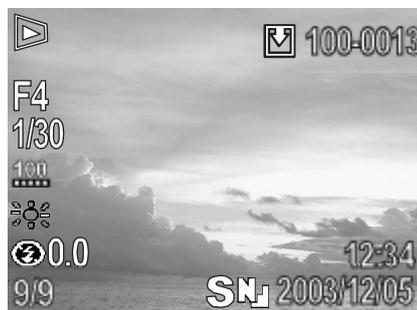
To remove the protection, follow steps 1 to 4 above and Press PROTECT ⛉ button again to remove protection. The protect icon does not appear when unprotected images are viewed on the LCD monitor.

Playing a Slide Show (Auto Play)

In slide show mode, all images can be displayed one-by-one in an automated slide show.

1. Press ▷ to view the captured images.
2. The last recorded image appears on the LCD monitor.
3. Press **MENU** button.
4. Press the ▼ arrow to select SLIDE

   SHOW then press the **OK** ⓞⓚ button.

5. Press the ▼ or ▲ to select **PLAY** and

   press **OK** ⓞⓚ.

   The slide show begins automatically, starting from the first picture. For video clips, only the first frame will be shown.

6. Press MENU button to stop the slide
   show.
7. Press the MENU button to close the
   menu window.

Adjusting the Play Time and Repeat Settings

You can change the play time for all the images in a show and have the show repeat itself
continuously.

Repeat	Sets whether the slide show stops when all the slides have been displayed or continues to display until stopped.
Period	Sets the duration that each image in a slide show is displayed. The options are 3 to 10 seconds, 15 seconds, 30 seconds.

1. Press ▷ to view the captured images.
2. The last recorded image appears on the
   LCD monitor.
3. Press **MENU** button.
4. Press the ▼ arrow to select SLIDE

   SHOW then press the **OK** ⓞⓚ button.

5. Press the ▼ or ▲ to select SET or

   PLAY. Select SET and press **OK** ⓞⓚ.

6. Use ◀ or ▶ to set Repeat On or Off.
7. Press the ▼ arrow to select Period, use
   ◀ or ▶ to select a Play time value (3~30
   sec).
8. Press **MENU** button. (The SET menu
   closes.)
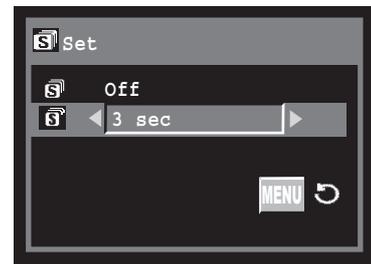
Copying Flash Memory Images to a Memory Card

The camera allows you to copy all files from internal memory to SD memory or vice versa (if the free memory is enough).

1. Press ▷ to view the captured photo or video clip.
2. The last recorded image or video clip appears on the LCD monitor.
3. Press the **MENU** button.
4. Press the ▾ arrow to select **Copy card**.

5. Press **OK** ⑩ to confirm the choice.

6. Press (left arrow) or (right arrow) to select copy direction.
7. Press OK to confirm. The progress bar appear. If the free memory is not enough to hold all the files, the "Memory full" message will appear on the LCD.
8. Press the **MENU** button to close the menu window.
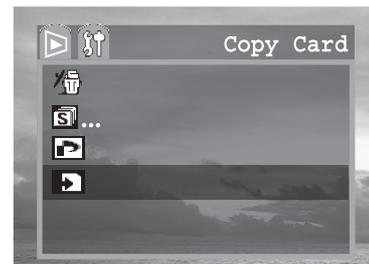
7 File Names & Printing

About File and Folder Numbers

Images or video clips are assigned file numbers from 0001 to 9999, and folders are assigned folder numbers from 100 to 999
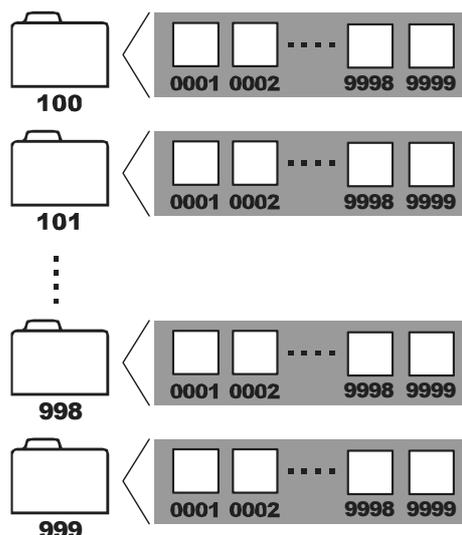
Folder File Capacity

Each folder usually contains up to 999 images. If a photo is taken when the folder with highest folder number contains a picture file number equal to or greater than 0999, the camera creates a new folder by adding one to the current folder number. For example, if the current folder is "100V6000" the new folder is named "101V6000."

If the highest folder number is 999 and the highest file number exceeds 9999, the camera will display the warning message "FILE NUMBER OVER."

If "FILE NUMBER OVER" appears, follow one of the two methods below:

1. Set the File No. Reset to On, then format the memory. The folder number and file number are initialized and renumbered from 100 and 0001 respectively.
2. Turn on File Number Reset in the camera menu and plug in a new memory card.
   Note: New folder will be created while copying files from internal memory to SD card or in the reverse direction.

File Number Reset

Use File Number Reset if the camera experiences a "FILE NUMBER OVER" or if you want to restart numbering, for example, after erasing all files.

On	The file numbers are reset to the start (0001) each time the memory is formatted or a new SD card is inserted.
Off	The last file number is memorized so that new images start from the next number.

1. Turn the Mode dial to **A/S/M** (advanced) mode , Auto mode, or Video mode..
2. Press the **MENU** button.
3. In the camera menu, press the ▼ or ▲ arrow to select File No. Reset .
4. Press the ◀ or ▶ to select on or off.
5. Press the **MENU** button to close the menu window.
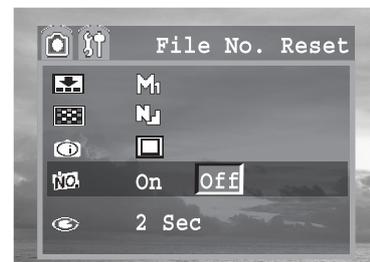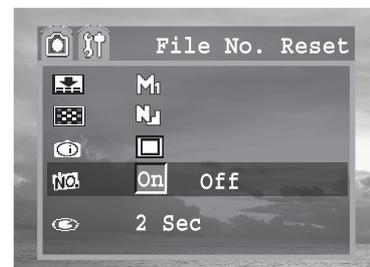
1. Setting the File No. Reset to OFF is useful for avoiding file name duplication when images are downloaded to a computer.

DPOF Print Settings

The Digital Print Order Format (DPOF) setting allows you to select images on an SD card for printing and specify the number of print copies in advance using the camera. This is extremely convenient for sending the images to a photo developing service or for printing on a direct print function compatible printer.

Selecting Images for Printing

Insert an SD card and transfer the files from internal memory to SD card.

Press ▷ to view the captured photo or video clip.

The last recorded image or video clip appears on the LCD monitor.

1. Use ◀ to move to the previous image and ▶ to move to the next image. And set a print order.
2. Press MENU button.
3. In the Playback menu, press the ▼ or ▲ arrow to select **Print**.
4. Press **OK** ⊙ to enter the **PRINT** setting menu.
5. Press the ◀ or ▶ arrow to select **ON**.
6. Press the ▼ arrow to select Order, then press **OK** ⊙ to enter print order menu.
7. Press the ◀ or ▶ button to set the number of copies (from 0 to 99).
8. Press the ◀ or ▶ button to search for the other pictures to be printed. Then press the ▼ or ▲ button to set the number
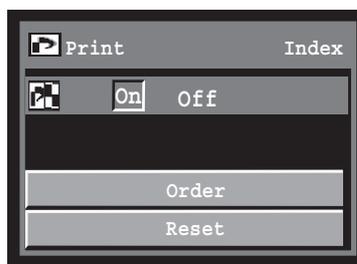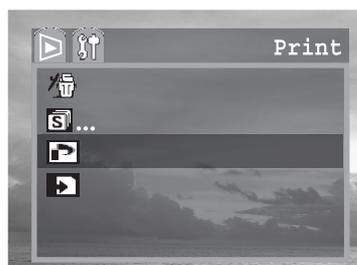
of copies.   The total number of copies will be shown on the LCD.

Note: Video clips cannot be printed. The message "Function not supported" will appear if the file that you are trying to set print order is video clip.

Resetting the Print Settings

The print settings can all be removed at once.

1. In the PRINT setting menu.
2. Press the ▼ arrow to select **RESET**, then press **OK** 🔘 to clear all DPOF settings.
3. Press **MENU** to return to main playback menu.
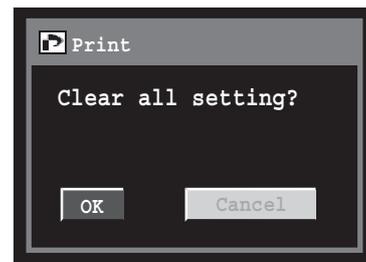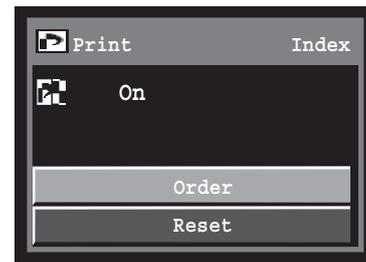
*The **Digital Print Order Format (DPOF)** setting is only supported for photos stored on an SD card. If you are using internal memory, please copy images from internal memory to SD card.*

8 Making Connections

Viewing Images on a TV

A video-compatible television connected via the supplied AV cable can be used to view images as you shoot or replay them.
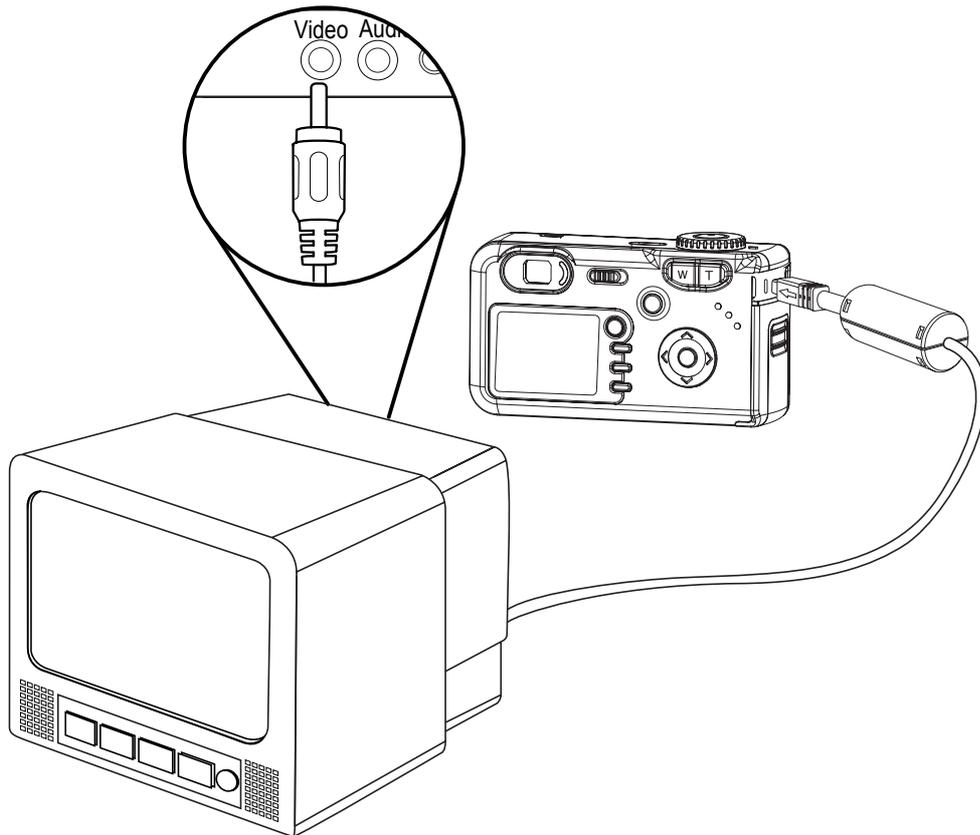
1. Turn off the camera.
2. Attach the included AV cable to the AV OUT/ USB terminal on the camera.
3. Plug the other end of the AV cable to the video-in jack on the TV.
4. Turn on the TV and switch it to VIDEO mode.
5. Turn on the camera.

   Everything that would normally appear on the camera's LCD monitor, such as photo and video clip playback, slide shows, and image or video capture, appears on the TV.

The camera's LCD monitor turns off automatically during video output.

Selecting the Video Output Signal Mode

The video output signal can be switched (NTSC or PAL) to accommodate different regional

standards. (page 16)
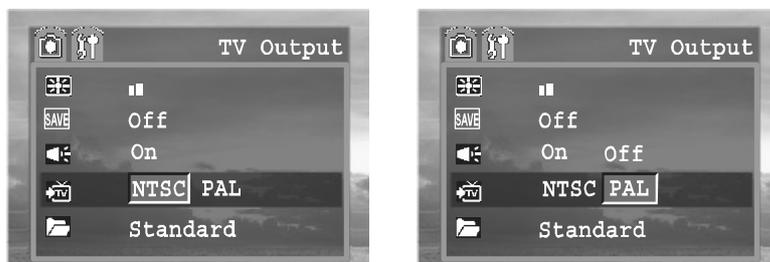
NTSC	Japan, U.S.A., Canada, Taiwan, etc.
PAL	Europe, Asia (excluding Taiwan), Oceania, etc.

If an incorrect video system is set, the output image will not display properly.

Downloading Images to a Computer

Download images taken with the camera to a computer in one of the following ways:

1.   Directly from the SD card reader.

2.   Connect the camera to a computer with the USB cable.

     You must install the software and USB driver bundled on the Software Installation

     CD-ROM before connecting the camera to the computer.
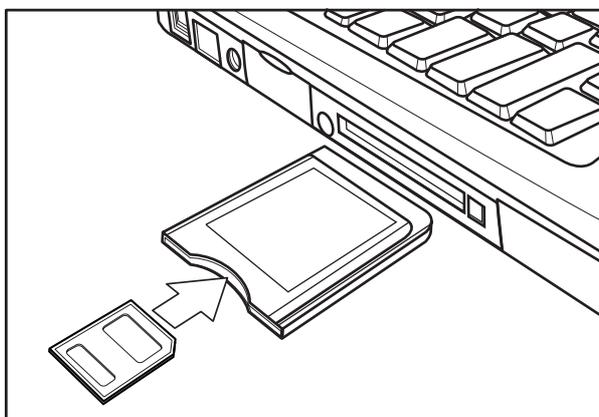
Downloading Directly from an SD Card

1. Eject the SD card from the camera, and insert it into an SD card reader connected to the computer.
   Note: If you are using a PC card reader, first insert the SD card into a PC card reader adapter (optional), and then insert the PC card adapter into the computer's PC card slot.
2. Double-click the icon of the drive with the SD card.
3. Copy images from the card into a folder of your choice on the hard disk.

Connecting the Camera to a Computer with a USB Cable

> *You must install the software and USB driver bundled on the Digital Camera software installation CD-ROM before connecting the camera to the computer.*

Connect the supplied USB interface cable to the computer's USB port and the camera's DIGITAL terminal.
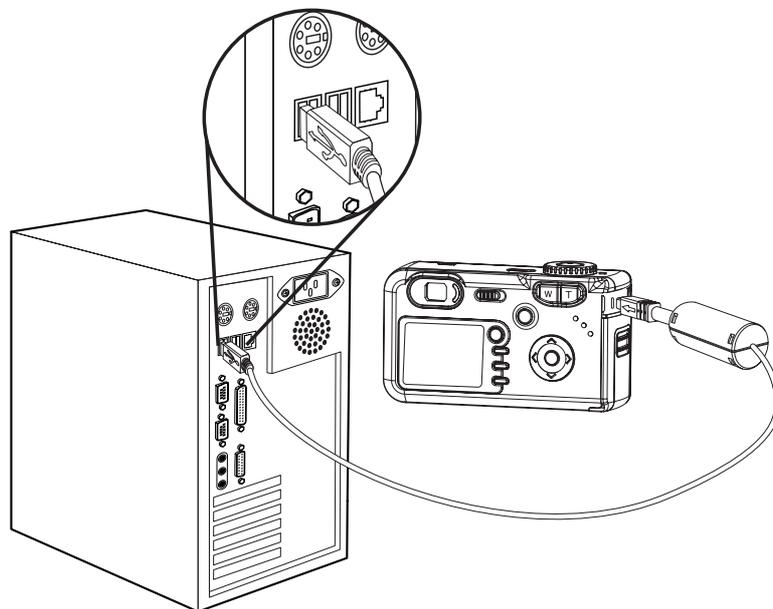
> 1. *You do not need to turn off the computer or camera when making this connection.*
> 2. *Please refer to your computer manual for information regarding the location of the USB port.*

The LCD monitor turns off when the connection to the computer has been successfully completed.

> *Windows 98/98SE user: If this is the first time the camera has been connected to the computer, Windows detects the camera as an "Unknown device" and automatically completes the required software installation.*

Open My Computer or Windows Explorer. A "removable"appears in the drive list.
Double-click the "removable" icon to view its contents.
Files stored on camera are located in the folder named "DCIM"

DCF Protocol
The DCF protocol defines the format for image file data as well as the directory for the memory card. Photos that are taken by a DCF camera can be viewed on DCF-compatible cameras from other manufacturers.

9 Installing Software

You must install the camera software drivers if your operating system is Windows 98 or Windows 98 SE. Once the USB driver is installed, you do not need to install the USB driver again.

1. Start up your computer, and insert the software installation CD-ROM into the CD-ROM drive.

2. The model selection screen appears, If it does not appear, double-click **My Computer** and find the CD-ROM drive, then double-click the **menu**.
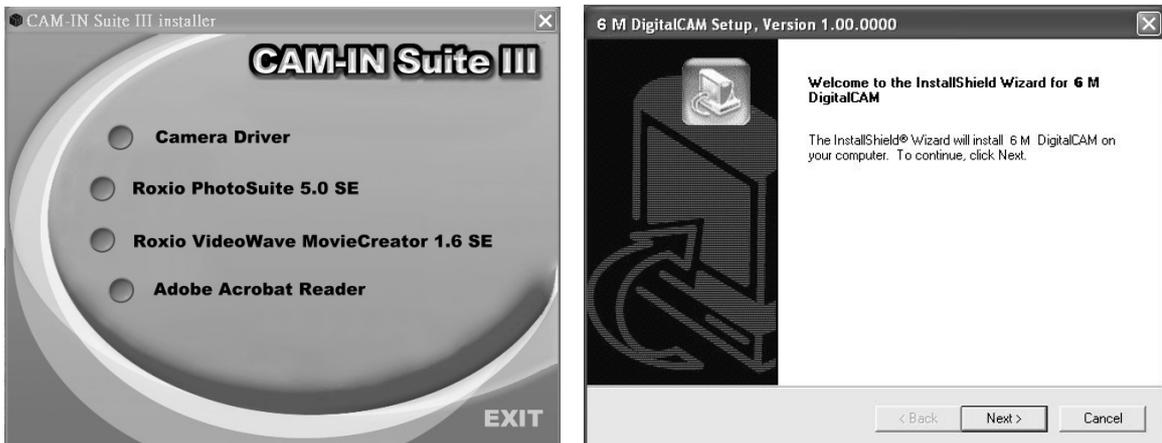
3. Click **Camera Driver** on the model selection screen. The "InstallShield Wizard" screen appears.

4. Click **Next**. When the "Warning Information" screen appears, click **OK**.
    The USB driver installation starts. When the installation is completed, the screen informs you of completion.

5. Click "Yes, I want to restart my computer now" then click "Finish"

Your computer restarts. Then, you can establish USB connection.
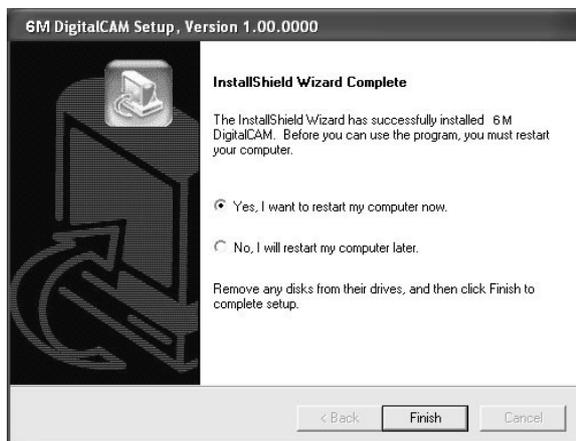
Installing Roxio PhotoSuite 5.0 SE

Roxio PhotoSuite 5.0 SE is a photo editing application that is included for free in the software installation CD-ROM. You must use Windows XP/ME/2000/98SE/98 on your computer to use this software.

1. Start up your computer, and insert the software installation CD-ROM into the CD-ROM drive.

2. The model selection screen appears, If it does not appear, double-click **My Computer** and find the CD-ROM drive, then double-click the **menu**.
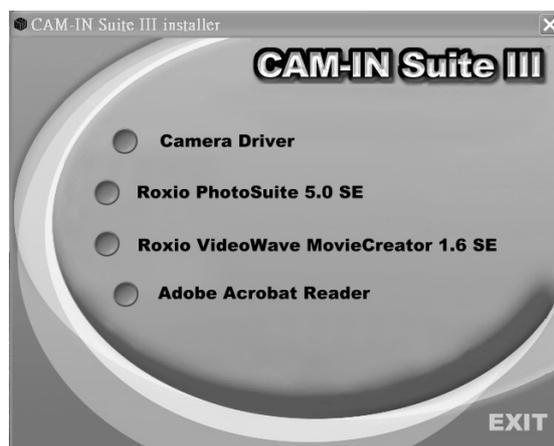

3. Click **Roxio PhotoSuite 5.0 SE** on the model selection screen. Follow the on-screen instructions to install the software.
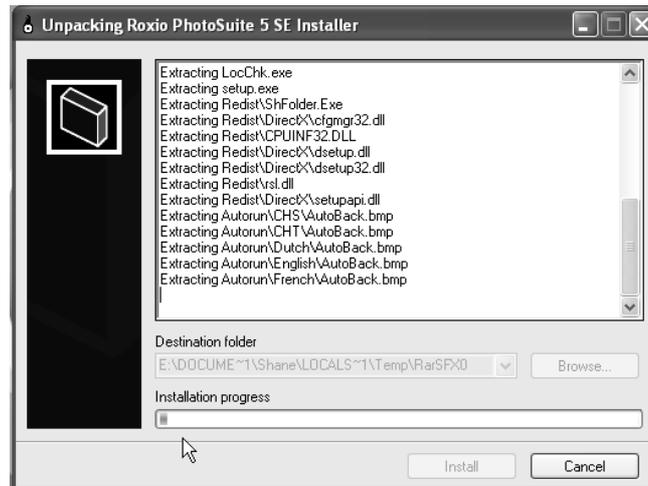
4. A welcome window appears. Click Next to continue with the installation.
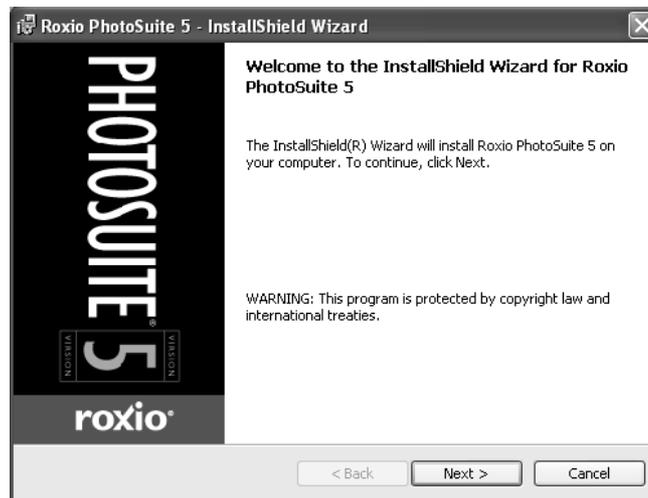
5. The Software License Agreement window appears. To accept the license, click Yes to continue. If you disagree with the terms of the license, click No to exit the installation program.
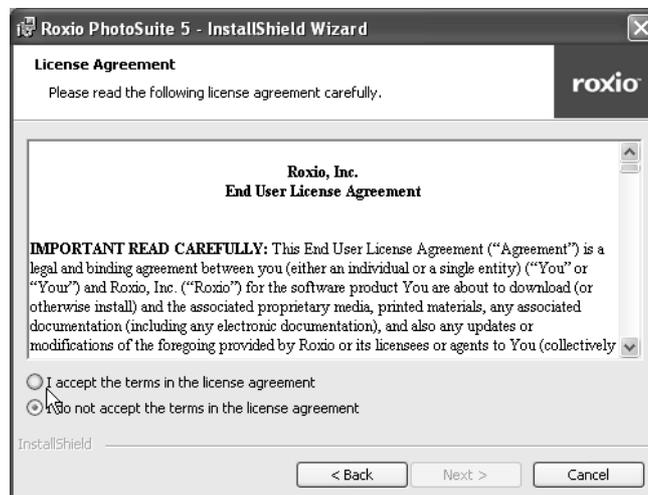
6. Select a destination folder in which the software will be installed. For most users, C:\Program files\ is the most appropriate choice.
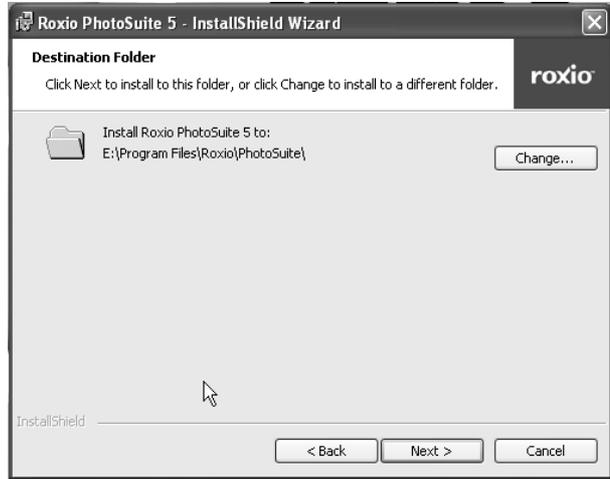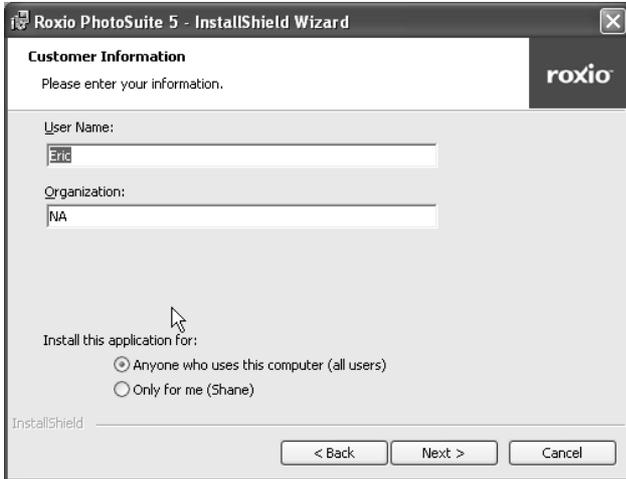
7. Click Next to begin copying files from the CD-ROM to the computer hard drive.

8. The Release Notes window appears. Click Next to continue.

9. The Ready to Install the Program window appears. Click Install.
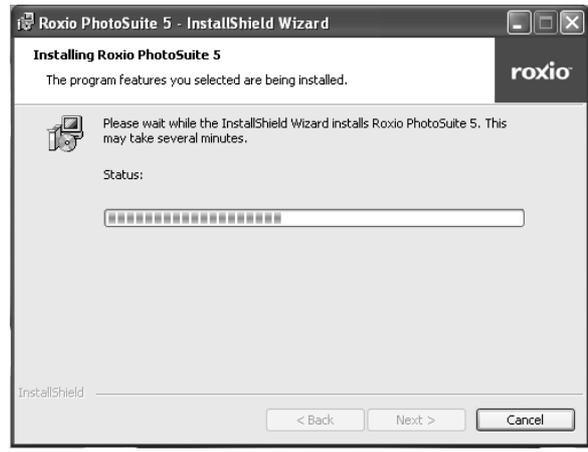
10. When installation is completed, Click **Finish** to quit the InstallShield Wizard.

Using the Roxio PhotoSuite 5.0 SE

Roxio PhotoSuite 5.0 SE gives you the ability to edit, crop and print the photos you download to your computer from the digital camera. Refer to the application help documentation for information on using the software.

To start this program, click Start > Program > Roxio PhotoSuite 5
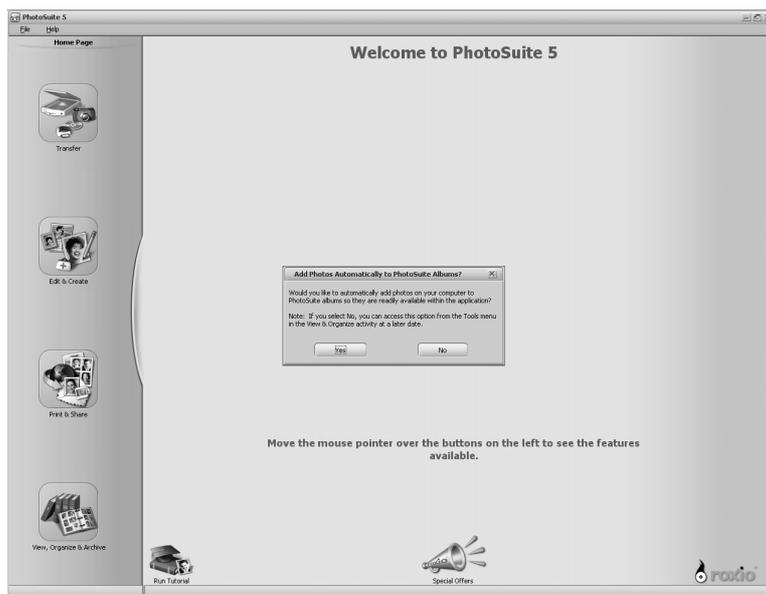
10 Appendix

Troubleshooting

Problem	Possible Cause	Solution
	Battery is dead	Fully charge the battery or use a compact power adapter.
	The battery compartment door is open	Make sure the battery compartment door is securely closed.
The camera does not take pictures	The flash is charging	Turn the mode dial to auto, A/S/M, or movie mode.
	Memory is full	Insert a new SD card
	SD card is not formatted correctly	The card may be defective, use a new card.
	Maximum file number is exceeded	Turn "File No. Reset" on, then format the card or insert a new card.
Image is not recorded when the shutter button is pressed	The mode dial is set to Playback mode	Turn the mode dial to auto, A/S/M, or movie mode.
	The flash is charging	Wait for the flash to charge.
	Memory is full	Insert an new SD card
The flash doesn't fire	Flash is set to OFF	Set the flash to any mode except off.
Image is blurry or out of focus	The camera was moving when the image was captured	Hold the camera steady when shooting picture.
	The subject was beyond the range within which the camera can focus	Turn the Macro mode on if the subject is within 5 - 80 cm (W) or 30 – 80 cm (T). Don't use Macro mode when shooting subjects further than 80 cm.
Image is not displayed on the LCD monitor	An SD Card with non-DCIF images (recorded with another camera) is loaded	This camera cannot display non-DCIF images.
Recorded images are not saved in memory	The camera was turned off/powered down before the image was stored in memory	If the Battery Low indicator appears on the LCD monitor, replace the battery immediately.
Cannot transfer images to a computer after connecting the USB cable	USB driver is not installed	Install the USB driver before you connect the camera to a computer / turn the camera on.
Image does not appear on the television	The cable is not connected securely	Use the included video cable to connect the camera to a TV.
	The video system setting is incorrect	Set the video system to the correct setting, NTSC or PAL.

Specifications

Sensor	6.1Mega Pixels CCD Size : 1/1.8 inch
Lens	Samsung 3× zoom lens
View Finder	Optical with real image
Color LCD Display	1.5" TFT LCD Panel
Focus Range	Normal Mode : 80 cm ~ infinity Macro Mode : 5 cm ~ 80 cm(W), 30 cm~80 cm(T)
ISO/ASA Sensitivity	Auto, 50, 100, 200,
Still Image Resolution	2848 × 2136, 2048 × 1536, 1408 × 1056, 640 × 480,
Video Resolution	MPEG4 , (640 × 480 15 fps), (320 × 240, 25 fps), with audio
Still Image quality	Fine Normal
Exposure Control	Auto & Manual
Exposure Compensation	-2EV to +2EV in 1/3 step.
Auto Lock	AE is locked by Snap 1
Exposure Meter	Center-weighted average
Shutter	Mechanical shutter, 1/2000 ~ 8 sec. with CCD variable electronic shutter
Optical Zoom	3 × , continues
Digital Zoom	Preview mode : 4 ×, 0.5 × per step Playback mode : 4 ×, scrollable
Image File Format	Still : EXIF 2.2 compatible format (JPEG compression) DCF compatible. Support DPOF
White Balance	Auto, Day light, Cloudy, tungsten, fluorescent
Aperture priority	Yes
Shutter priority	Yes
Start-up Time	Less than 2 sec.
Picture Storage	Internal : 16 MB embedded flash memory External : SD memory card up to 512 MB
Microphone	Built-in
Sound Feedback	Speaker
Communication Interface	USB 1.1
Self-Timer	2 steps, 2/10 sec. with beep sound
Playback Mode	Single / 6 thumbnails / slide show
TV System	NTSC / PAL selectable
Power Supply	Battery : Rechargeable battery, 3.7V 900mA DC input : 5V 2.0A DC adapter
Dimensions	101 × 56 ×34 (mm)
Weight	Camera Body w/o battery : 174 g, w/battery : 201 g
Ambient temperature	Operating : 0 to 40 ° C Storage : -20 to 60 ° C

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