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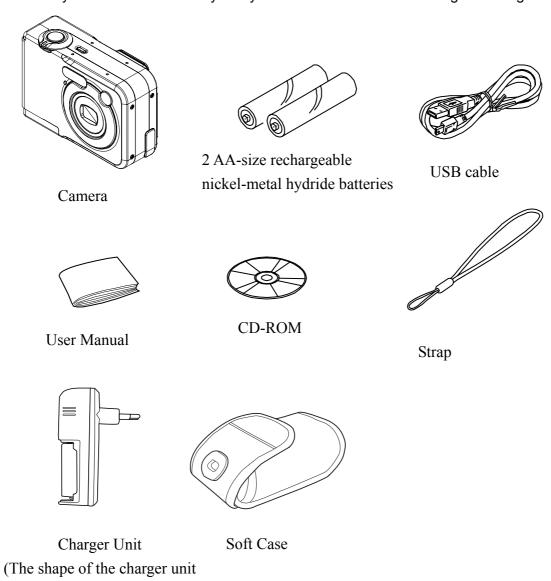
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# **INTRODUCTION**

plug varies according to country or geographic area.)

# **Package Contents**

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



# **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.

- Never operate the camera inside of an aircraft or anywhere else where operation of such devices is restricted. Improper use creates the risk of serious accident.
- 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 power outlet. Take the camera to the nearest authorized service center for repair. Never attempt 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.
- Never apply too much force when cleaning the surface of the lens. Doing so can scratch the lens surface and cause malfunction.
- The camera may become slightly warm during use. This does not indicate malfunction.
- If the exterior of the camera needs cleaning, wipe it with a soft, dry cloth.

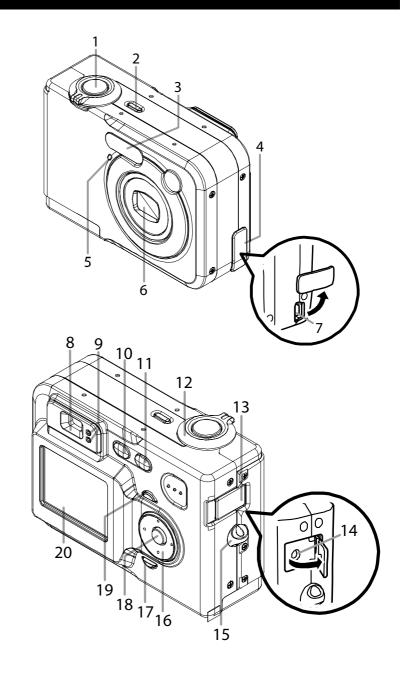
# **Camera Components**

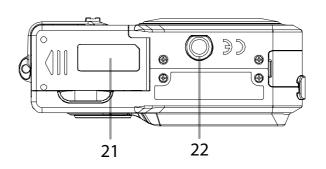
#### **Front**

- 1 Shutter release button
- 2 Power button
- 3 Flash
- 4 Terminal cover
- 5 Self-timer lamp
- 6 Lens
- 7 [USB] port

#### **Back**

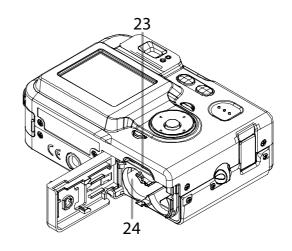
- 8 Viewfinder
- 9 Operation lamp
- 10 (PLAY mode)
- 11 (REC mode)
- 12 Zoom controller
- 13 DC Jack with cover(Elastomer)
- 14 Strap ring
- 15 [DC IN 3V] terminal
- 16 Cursor Button[ $\triangle$ ][ $\nabla$ ][ $[\bullet]$ ]
- 17 [DISP] button
- 18 [SET] button
- 19 [MENU] button
- 20 LCD Monitor





#### **Bottom**

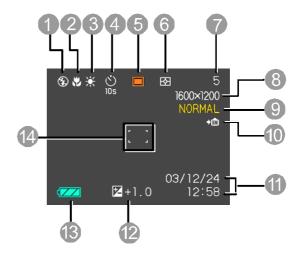
- 21 Battery compartment cover
- 22 Tripod screw hole
- \* Use this hole when attaching to a tripod.
- 23 Memory card slot
- 24 Battery compartment

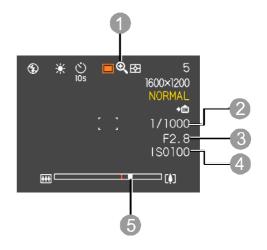


## **Monitor Screen Contents**

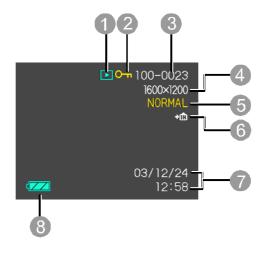
The monitor screen uses various indicators and icons to keep you informed of the camera's status.

- 1.Flash Mode indicator
- 2. Focus Mode indicator
- 3. White balance indicator
- 4.Self-timer
- 5.REC modes
- 6. Metering Mode
- 7. Memory capacity
- 8.Image size
- 9. Quality
- 10. Memory selected for data storage
- 11.Date and time
- 12.EV value
- 13. Battery capacity
- 14. Focus frame
- 1.Digital zoom indicator
- 2. Shutter speed value
- 3. Aperture value
- 4.ISO sensitivity
- 5.Zoom indicator





#### **PLAY** mode



1.PLAY mode file type (Snapshot, Movie)

2.Image protection indicator

3.Folder number/File number

4. Image size

5. Quality

6. Memory selected for data storage

7.Date and time

8. Battery capacity

### **Changing the Contents of the Monitor Screen**

Each press of the [DISP] button changes the contents of the monitor screen as shown below.

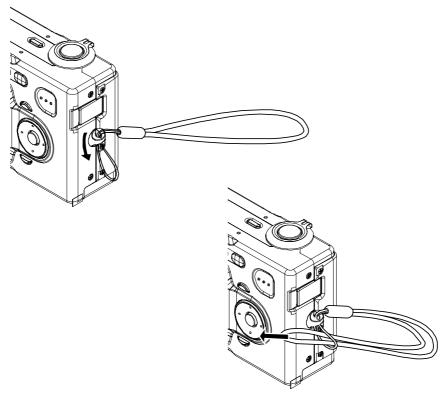
Indicators on → Histogram on — Indicators off

### **₩** IMPORTANT!

 You cannot use the [DISP] button to change the contents of the monitor screen while a movie is being recorded.

# **Attaching the Wrist Strap**

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



#### **#** IMPORTANT!

- Be sure to keep the strap around your wrist when using the camera to protect against accidentally dropping it.
- Don't swing the camera when carrying it by the wrist strap.

# PREPARING THE CAMERA

# **Power Requirements**

Your camera features a two-way power supply that lets you use either AA-size batteries or household AC current. A set of AA-size rechargeable nickel-metal hydride batteries is supplied with the camera. The other items listed below are available separately.

#### Batteries

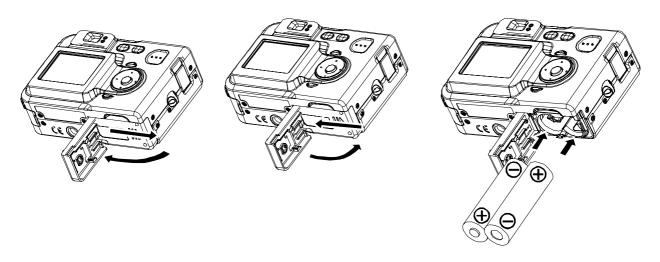
- Two AA-size rechargeable nickel-metal hydride batteries
- Two AA-size lithium batteries: FR6
- Two AA-size alkaline batteries: LR6
- Proper operation cannot be guaranteed if you use any other type of battery other than that noted above.
- When being powered by AA-size alkaline batteries (LR6), the camera may not operate at all at temperatures of 5°C (41°F) or lower.

# Note:

• The batteries are not charged when you purchase the camera. You need to charge batteries before using the camera for the first time.

#### To load batteries

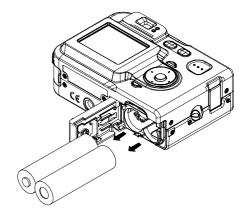
- 1. Turn off the camera.
- 2. Slide the battery compartment cover in the direction indicated by the arrow.
- 3. Load batteries as shown in the illustration.
- 4. While pressing down at the point indicated by the arrow in the illustration, slide the battery compartment cover closed.



#### To remove the batteries from the camera

- 1. Slide the battery compartment cover on the bottom of the camera in the direction indicated by the arrow and then swing it open.
- 2. Carefully tilt the camera until the batteries slide out.
  - Take care to avoid dropping the batteries.





#### Low Battery Indicator

The following shows how the battery capacity indicator on the LCD monitor changes as battery power is used. The indicator means that remaining battery power is low.

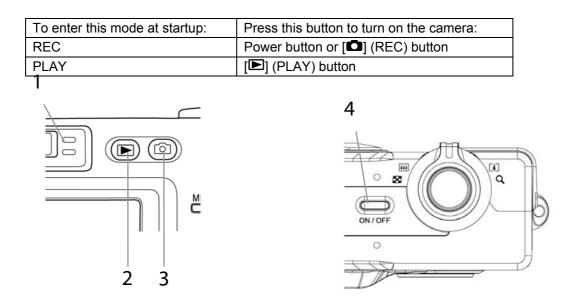
Note that you will not be able to record images while the battery indicator is . Immediately replace or charge the batteries whenever either of these indicators appears.

| Charge Level | High ← Low |
|--------------|------------|
| Indicator    |            |

# **Turning the Camera On and Off**

#### To turn on the camera

Press the power button, [ [ (REC) button, or [ (PLAY) button. This will cause the green operation lamp to light momentarily, and then power will turn on. The mode the camera enters depends on which button you pressed to turn it on.



- 1. Green operation lamp
- 2. [E] (PLAY)
- 3. [C] (REC)
- 4. Power button

# NOTES:

- Pressing [♠] (REC) to turn on the camera enters the REC mode, while pressing [♠] (PLAY) enters
  the PLAY mode.
- Pressing [►] (PLAY) while in the REC mode switches to the PLAY mode. The lens retracts about 10 seconds after switching modes.

#### **₩** IMPORTANT!

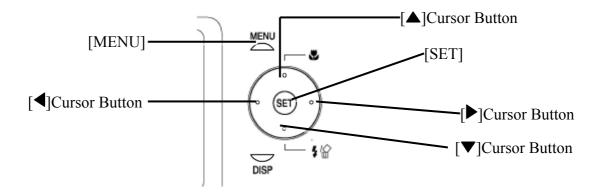
• If camera power is turned off by the Auto Power Off feature, press the power button, [▶] (REC) or [▶] (PLAY) to turn it back on again.

#### To turn off the camera

Press the power button to turn off the camera.

# Operating the Multi-controller

The multi-controller is used to select choices, images and menus on the LCD monitor and confirm the selection. The following shows an example menu procedure in the REC mode.



- 1. Press the power button or the [ (REC) button.
- 2. Press [MENU]
- 3. Press [◀] or [▶] to select the tab you want, and then press [SET] to move the selection cursor from the tab to the settings.
- Use [▲] and [▼] to select the feature whose setting you want to configure, and then press [▶]. (Instead of pressing [▶], you could also press [SET].)
- 5. Use [▲] and [▼] to change the currently selected setting.
- 6. Perform one of the following operations to apply the setting you configured.



Settings (indicates the currently selected item)

| Apply the setting and exit the menu screen.                  | Press [SET].   |
|--|--|
| Apply the setting and return to feature selection in step 4. | Press [◀].   |
| Apply the setting and return to tab selection in step 3.     | Press [◀]. Use [▲] to move back up to tab selection. |

# **Setting the Language**

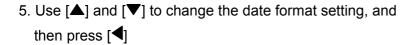
- 1. Press the power button or the [ (REC) button.
- 2. Press [MENU]
- 3. Press [◀] or [▶] to select the [Setup] tab, and then press [SET] to move the selection cursor from the tab to the settings.
- 4. Use [▼] to select the Language, and then press [SET].



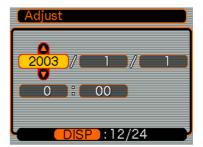
5. Use [▲] and [▼] to change the language setting, and then press [SET]

# **Setting the Date and Time**

- 1. Press the power button or the [ (REC) button.
- 2. Press [MENU].
- 3. Press [▶] to select the [Setup] tab, and then press [SET].
- 4. Use [▼] to select the Date Style, and then press [SET].







- 6. Use [▼] to select the Adjust, and then press [SET].
- 7. Use  $[\P]$  [P] and  $[\P]$  to set the current date and time.

| Change the setting                             | Press [▲] and [▼]. |
|--|--------------------|
| Move the cursor between settings               | Press [◀] and [▶]. |
| Toggle between 12-hour and 24-hour timekeeping | Press [DISP].      |

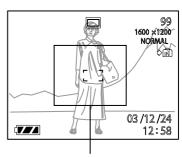
8. Press [SET].

# **BASIC IMAGE RECORDING**

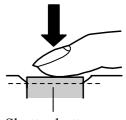
# Recording an Image

Your camera automatically adjusts shutter speed in accordance with the brightness of the subject.

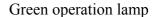
- 1. Press the power button or the [ (REC) button to turn on the camera.
- 2. Compose the image on the monitor screen so the main subject is within the focus frame.
  - The focusing range of the camera in the Auto Focus mode is approximately 60cm (23.6") to infinity (∞)
- 3. Press the shutter release button half way to focus the image.
  - The camera's Auto Focus feature automatically focuses the image, one beep will sound when the camera has finished metering, and the indicator beside the viewfinder will light green.
  - The shutter speed and aperture value show on the LCD monitor.
  - The green indicator will blink if the subject is difficult to focus on.
- After making sure that the image is focused properly, press the shutter release button the rest of the way down to record.

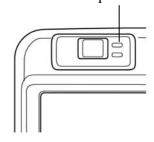


Focus frame



Shutter button





## **Using Zoom**

Your camera is equipped with two types of zoom: optical zoom and digital zoom.

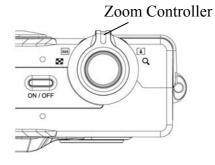
### **Optical Zoom**

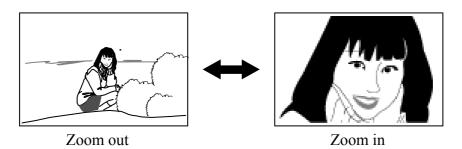
The range of the optical zoom factor is shown below.

Factor Range: 1X to 3X

(1X to 1.2X in the Macro Mode)

 In the REC mode, slide the zoom controller left or right to change the zoom factor.





2. Record the image.

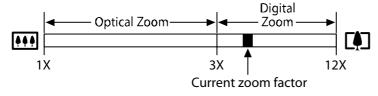
# NOTES:

- The optical zoom factor also affects the lens aperture.
- Use of a tripod is recommended to protect against hand movement when using the telephoto setting (zoom in).

#### **Digital Zoom**

Digital zoom is activated after you reach the maximum optical zoom factor (3X). It enlarges the part of the image at the center of the image screen. The range of the digital zoom factor is shown below.

- Digital Zoom Factor Range: 3X to 12X (in combination with optical zoom)
- 1. In the REC mode, press [MENU].
- 2. Use [◀] and [▶] to select the "REC" tab.
- 3. Use [▲] and [▼] to select "Digital Zoom", and then press [▶].
- 4. Use [▲] and [▼] to select "On", and then press [SET].
- 5. Slide the zoom controller towards (Telephoto)/ to change the zoom factor.
  - The lens will zoom to the maximum optical telephoto setting and stop. Release the lever and press it toward again to further zoom the image digitally. The zoom indicator shows the current approximate zoom factor.



Record the image.

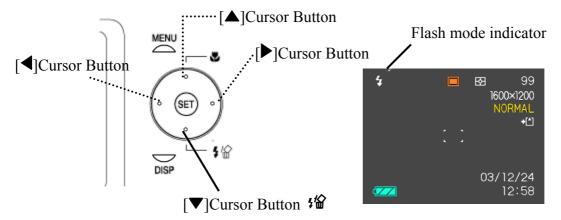
### **₩** IMPORTANT!

• Digital zoom is disabled whenever the monitor screen is turned off.

# **Using the Flash**

Perform the following steps to select the flash mode you want to use.

- 1. In the REC mode.
- - Each press of [▼] 🕍 cycles through the flash mode settings shown below on the LCD monitor.
- 3. Record the image.



| None     | Auto                    | The flash fires automatically as required by the lighting level.   |
|----------|-------------------------|--|
| 3        | Flash Off               | The flash does not fire.   |
| 4        | Flash On                | The flash always fires.  |
| <b>o</b> | 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. |

### # IMPORTANT!

- Image recording may not be performed if you press the shutter release button while the red operation lamp is flashing.
- You may not be able to achieve the desired results using a flash if the subject is too close or too far away.

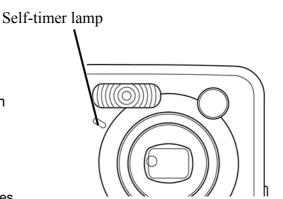
### **About Red-eye Reduction**

Using the flash to record at night or in a dimly lit room can cause red spots inside the eyes of people who are in the image. This is caused when the light from the flash reflects off of the retina of the eye. When red-eye reduction is selected as the flash mode, the camera performs two pre-flash operations, one designed to cause the irises in the eyes of any people in the image to close, and one for the Auto Focus operation. This is followed by another flash operation for actual recording of the image.

# **Using the Self-timer**

The self-timer lets you select either a 2-second or 10-second delay of the shutter release after you press the shutter button.

- 1. In the REC mode, press [MENU].
- 2. Use [◀] and [▶] to select the "REC" tab.
- 3. Use [▲] and [▼] to select "Self-timer", and then press [▶].
- 4. Use [▲] and [▼] to setting the self-timer time, and then press [SET].
- 5. Record the image.
  - When you press the shutter button, the self-timer lamp flashes and the shutter releases after the self-timer reaches the end of its countdown.



## Specifying Image Size and Quality

You can specify the image size and image quality to suit the type of image you are recording.

#### To specify the image size

- 1. In the REC mode, press [MENU].
- 2. Use [◀] and [▶] to select the "REC" tab.
- 3. Use  $[\blacktriangle]$  and  $[\blacktriangledown]$  to select "Size", and then press  $[\blacktriangleright]$ .
- 4. Use [▲] and [▼] to select the setting you want, and then press [SET].

| Size           | Purpose                    |
|----------------|----------------------------|
| 2816×2112      | Print large prints         |
| 2816×1872(3:2) | 3:2 Print large prints     |
| 2048×1536      | Print on normal size paper |
| 1600×1200      | Print on small size paper  |
| 1280×960       | Send images by e-mail      |
| 640×480        | Shoot more images          |

# To specify the image quality

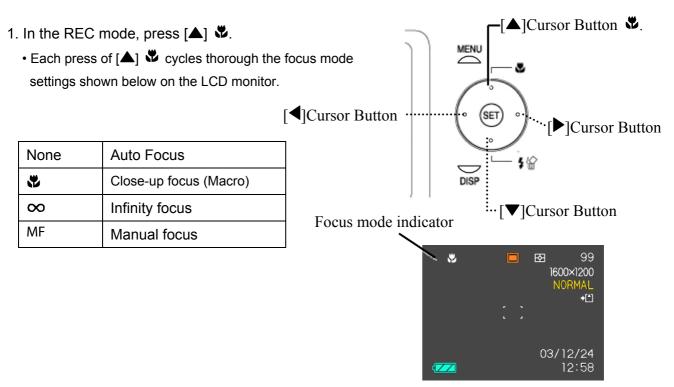
- 1. In the REC mode, press [MENU].
- 2. Use [◀] and [▶] to select the "REC" tab.
- 3. Use  $[\blacktriangle]$  and  $[\blacktriangledown]$  to select "Quality", and then press  $[\blacktriangleright]$ .
- 4. Use [▲] and [▼] to select the setting you want, and then press [SET].

| Quality | Purpose                                |  |
|---------|--|--|
| Fine    | Very high quality, but large file size |  |
| Normal  | Normal quality                         |  |
| Economy | Small file size, but low quality       |  |

# OTHER RECORDING FUNCTIONS

# **Selecting the Focus Mode**

You can select one of four different focus modes: Auto Focus, Macro, Infinity, and Manual.



### **Specifying the Auto Focus Area**

You can use the following procedure to change the Auto Focus area used in the Auto Focus Mode and the Macro Mode.

- 1. In the REC mode, press [MENU].
- 2. Use [◀] and [▶] to select the "REC" tab.
- 3. Use [▲] and [▼] to select "AF Area", and then press [▶].
- 4. Use [▲] and [▼] to select the auto focus area you want, and then press [SET].



| Spot  | Very limited range in the center of the screen                                   |
|-------|--|
| Multi | Automatic selection of the focus area where the subject closest to the camera is |
|       | located  |

#### **Using the Macro Mode**

Use the macro mode to shoot close-up of subjects. The following is the focus range in the Macro mode.

Range: Approximately 10cm to 60cm (3.9" to 23.4")

- 1. In the REC mode, press [A] ...
- 2. Record the image.

#### # IMPORTANT!

• In the Macro mode, the optical zoom range is 1X to 1.2X.

#### **Using the Infinity Mode**

Use this mode when recording scenery and other faraway images.

- 1. Keep pressing [▲] ♥ until the focus mode indicator shows "∞".
- 2. Record the image.

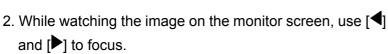
#### **Using Manual Focus**

With the Manual Focus mode, you can adjust the focus of an image manually. The following shows focus ranges in the Macro mode for two optical zoom factors.

| Optical Zoom Factor | Approximate Focus Range      |
|---------------------|------------------------------|
| 1X                  | 10cm (3.9") to infinity (∞)  |
| 3X                  | 60cm (23.6") to infinity (∞) |
| Macro Mode          | 10cm (3.9") to 60cm (23.4")  |

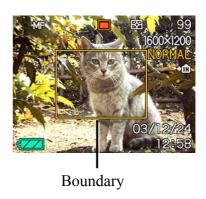
- Keep pressing [▲] 

   until the focus mode indicator shows "MF".
  - At this point, a boundary also appears on the display, indicating the part of the image that will be used for manual focus.



| [◀] | Focus out on the subject |
|-----|--------------------------|
| [▶] | Focus in on the subject  |

3. Record the image.





Manual focus position

## **Exposure Compensation (EV Shift)**

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

- 1. In the REC mode, press [MENU].
- 2. Use [◀] and [▶] to select the "REC" tab.
- 3. Use  $[\blacktriangle]$  and  $[\blacktriangledown]$  to select "EV Shift", and then press  $[\blacktriangleright]$ .
- 4. Use [▲] and [▼] to change the exposure compensation value, and then press [SET].
  - To cancel EV Shift, adjust the value until it becomes 0.0.
  - Performing an EV shift operation causes the metering mode to switch automatically to center weighted metering.
     Returning the EV shift value to 0.0 causes the metering mode to change back to multi-pattern metering.

The settings can be adjusted in 1/3 steps in the range of -2EV to +2EV.





# **Adjusting White Balance**

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

- 1. In the REC mode, press [MENU].
- 2. Use [◀] and [▶] to select the "REC" tab.
- 3. Use [▲] and [▼] to select "White Balance", and then press [▶].
- 4. Use [▲] and [▼] to set the white balance value, and then press [SET].



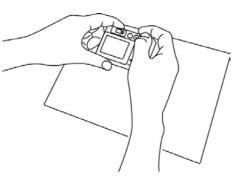
| Auto    | Auto        | Settings are automatically set by the camera            |
|---------|-------------|---|
| *       | Day light   | For recording outdoors on a bright day                  |
|         | Shade       | For recording under overcast, shady or twilight skies   |
| *       | Tungsten    | For recording under tungsten lighting                   |
| <b></b> | Fluorescent | For recording under fluorescent lighting                |
| Manual  | Manual      | Difficult lighting that requires manual control Balance |

#### **Adjusting White Balance Manually**

You can set a custom white balance to obtain the optimal setting for the shooting conditions by having the camera evaluate a subject such as a white piece of paper or cloth, or a photo-quality gray card.

- 1. In the REC mode, press [MENU].
- 2. Use [◀] and [▶] to select the "REC" tab.
- Use [▲] and [▼] to select "White Balance", and then press [▶].
- 4. Use [▲] and [▼] to select "Manual".
- Point the camera at a white piece of paper or similar object under the lighting conditions for which you want to set the white balance, and then press the shutter release button.
- 6. Press [SET].





### **Using the NICESHOT Mode**

Selecting one of the 19 NICESHOT scenes automatically sets up the camera for recording a similar type of image.

#### Example Sample Scene



- 1. In the REC mode, press [MENU].
- 2. Use [◀] and [▶] to select the "REC" tab.
- 3. Use [▲] and [▼] to select "REC Mode", and then press [▶].

- 4. Use [▲] and [▼] to select "NICE SHOT", and then press [SET].
  - This enters the NICESHOT mode and displays a sample scene.
- 5. Use [◀] and [▶] to select the sample scene you want. and then press [SET].
- 6. Record the image.

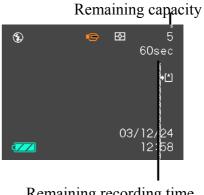
#### ▼ IMPORTANT!

- Images recorded using a NICESHOT scene may not produce the results you expected due to shooting conditions and other factors.
- After selecting a NICESHOT scene, you can change to a different one by press [SET] and using [◀] and [ ] to scroll through available scenes. When the one you want is displayed, press [SET].
- You can change the camera settings that are made when you select a NICESHOT scene. Note, however, that the NICESHOT settings revert to their defaults when you select another NICESHOT scene, change the recording mode, or turn off the camera.
- Noise reduction processing is performed automatically when you are recording a night scene, fireworks, or other image that requires slow shutter speeds. Because of this, it takes longer to record images at lower shutter speeds.

# **Using the Movie Mode**

You can record movies up to 60 seconds long.

- Image Size: 320 x 240 pixels
- Maximum Movie Length One Movie: 60 seconds
- 1. In the REC mode, press [MENU].
- 2. Use [◀] and [▶] to select the "REC" tab.
- 3. Use [▲] and [▼] to select "REC Mode", and then press
- 4. Use [▲] and [▼] to select " Movie", and then press [SET].
- 5. Point the camera at the subject and then press the shutter button.
  - Movie recording continues for 60 seconds, or until you stop it by pressing the shutter button again.
  - The remaining recording time value counts down on the monitor screen as you record.



Remaining recording time

# **About the Histogram**

The histogram is a graph that allows you to judge the brightness of the recorded image. The greater the bias toward the left in the graph, the darker the image. The greater the bias toward to the right, the brighter the image. If the image is dark, adjust the exposure compensation to a positive number. Similarly, adjust the exposure compensation to a negative number if the image is bright.

#### Histogram Examples



#### **Specifying ISO Sensitivity**

Use the following procedure to select the ISO sensitivity setting that suits the type of image you are recording. You can choose from the following speeds: Auto, 64, 125, 250 and 500.

- 1. In the REC mode, press [MENU].
- 2. Select the "REC" tab, select "ISO", and then press [▶].
- 3. Use  $[\blacktriangle]$  and  $[\blacktriangledown]$  to select the setting you want, and then press [SET].

#### # IMPORTANT!

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

#### **Selecting the Metering Mode**

Use the following procedure to specify multi-pattern metering, spot metering, or center-weighted metering as the metering mode.

- 1. In the REC mode, press [MENU].
- 2. Select the "REC" tab, select "Metering", and then press [ ].
- 3. Use  $[\blacktriangle]$  and  $[\blacktriangledown]$  to select the setting you want, and then press [SET].

### Multi (Multi-pattern):

Multi-pattern metering divides the image into sections and measures the light in each section for a balanced exposure reading. The camera automatically determines shooting conditions according to the measured lighting pattern, and makes exposure settings accordingly. This type of metering provides error-free exposure settings for a wide range of shooting conditions.



### © Center weighted (Center-weighted):

Center-weighted metering measures light concentrating on the center of the focus area. Use this metering method when you want to exert some control over exposure, without leaving settings totally up to the camera.



## Spot (Spot):

Spot metering takes readings at a very small area. Use this metering method when you want exposure to be set according to the brightness of a particular subject, without it being affected by surrounding conditions.



### IMPORTANT!

 Changing the exposure compensation setting to a value other than 0.0 changes the metering mode setting to "Center Weighted." The metering mode changes back to "Multi" when you return the exposure compensation setting to 0.0.

### **Using the Filter Function**

The camera's filter function lets you alter the tint of an image when you record it.

- 1. In the REC mode, press [MENU].
- 2. Select the "REC" tab, select "Filter", and then press [▶].

- 3. Use  $[\blacktriangle]$  and  $[\blacktriangledown]$  to select the setting you want, and then press [SET].
  - Available filter settings are: Off, B/W, Sepia, Red, Green, Blue, Yellow, Pink, Purple

#### # IMPORTANT!

• Using the camera's filter feature produces the same effect as attaching a color filter to the lens.

#### **Specifying Color Saturation**

Use the following procedure to control the intensity of the image you are recording.

- 1. In the REC mode, press [MENU].
- 2. Select the "REC" tab, select "Saturation", and then press [▶].
- 3. Use  $[\blacktriangle]$  and  $[\blacktriangledown]$  to select the setting you want, and then press [SET].

#### **Specifying Contrast**

Use this procedure to adjust the relative difference between the light areas and dark areas of the image you are recording.

- 1. In the REC mode, press [MENU].
- 2. Select the "REC" tab, select "Contrast", and then press [▶].
- 3. Use  $[\blacktriangle]$  and  $[\blacktriangledown]$  to select the setting you want, and then press [SET].

#### **Specifying Outline Sharpness**

Use the following procedure to control the sharpness of image outlines.

- 1. In the REC mode, press [MENU].
- 2. Select the "REC" tab, select "Sharpness", and then press [ ].
- 3. Use  $[\blacktriangle]$  and  $[\blacktriangledown]$  to select the setting you want, and then press [SET].

### Turning the On-screen Grid On and Off

You can display gridlines on the monitor screen to help you compose images and ensure that the camera is straight when recording.

1. In the REC mode, press [MENU].



- 2. Select the "REC" tab, select "Grid", and then press [▶].
- 3. Use [▲] and [▼] to select the setting you want, and then press [SET].

#### **Turning Image Review On and Off**

Image review displays an image on the monitor screen as soon as you record it. Use the following procedure to turn image review on and off.

- 1. In the REC mode, press [MENU].
- 2. Select the "REC" tab, select "Review", and then press [▶].
- 3. Use [▲] and [▼] to select the setting you want, and then press [SET].

#### **Specifying Power On Default Settings**

The camera's "mode memory" feature lets you specify the power on default settings individually for the REC mode, flash mode, focus mode, white balance mode, ISO sensitivity, AF Area, metering mode, flash intensity, digital zoom mode, manual focus position. Turning on mode memory for a mode tells the camera to remember the status of that mode when you turn off the camera, and restore it the next time you turn the camera back on. When mode memory is turned off, the camera automatically restores the initial factory default setting for the applicable mode.

- 1. In the REC mode, press [MENU].
- 2. Use [◀] and [▶] to select the "Memory" tab.
- 3. Use  $[\blacktriangle]$  and  $[\blacktriangledown]$  to select the item you want to change, and then press  $[\blacktriangleright]$ .
- 4. Use [▲] and [▼] to select the setting you want, and then press [SET].

#### **Resetting the Camera**

Use the following procedure to reset all of the camera's settings to their initial defaults as shown under "Menu Reference" on page 45.

- 1. In the REC mode or the PLAY mode, press [MENU].
- 2. Select the "Set Up" tab, select "Reset", and then press [▶].
- 3. Use  $[\blacktriangle]$  and  $[\blacktriangledown]$  to select "Reset", and then press [SET].
  - To cancel the procedure without resetting, select "Cancel" and press [SET].

# **PLAYBACK**

You can use the camera's built-in monitor screen to view images after you record them.

## **Basic Playback Operation**

Use the following procedure to scroll through files stored in the camera's memory.

- 1. Press [ | PLAY) to turn on the camera.
  - This enters the PLAY mode.
  - This causes an image or a message to appear on the monitor screen.
- 2. Use [▶] (forward) or [◄] (back) to scroll through files on the monitor screen.







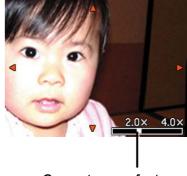
### NOTES:

Holding down [◀] or [▶] scrolls images at high speed.

# **Zooming the Display Image**

Perform the following procedure to zoom the image currently on the monitor screen up to four times its normal size.

- 1. In the PLAY mode, use [◀] and [▶] to display the image you want.
- 2. Slide the zoom controller towards to enlarge the image.
  - This displays an indicator that shows the current zoom factor.
  - You can toggle between the zoomed image and normal image by pressing [DISP].
- 3. Use [▲], [▼], [◀], and [▶] to shift the image up, down, left, or right.
- 4. Press [MENU] to return the image to its original size.



Current zoom factor

### # IMPORTANT!

- You cannot enlarge a movie image.
- Depending on the original size of the recorded image, you may not be able to zoom a display image the full four times its normal size.

 An image recorded using the 2816 x 2112 or 2816 x 1872 (3:2) pixel size cannot use the zooming function.

### Resizing an Image

You can use the following procedure to change an image to one of the three sizes.

1600 x1200-pixel UXGA size

1280 x 960-pixel SXGA size

640 x 480-pixel VGA size

- VGA is the optimum image size for attachment to e-mail messages or incorporation into Web pages.
- 1. In the PLAY mode, press [MENU].
- 2. Select the "PLAY" tab, select "Resize", and then press [▶].
- 3. Use [◀] and [▶] to scroll through images and display the one you want to resize.
- 4. Use [▲] and [▼] to select the setting you want, and then press [SET].



### # IMPORTANT!

Resizing an image creates a new file that contains the image in the size you select. The file with the original image also remains in memory.

An image recorded using the 2816 x 2112 or 2816 x 1872 (3:2) pixel size cannot be resized.

### **Cropping an Image**

Use the following procedure when you want to crop a portion of an enlarged image and use the remaining part of the image as an e-mail attachment, Web page image, etc.

- 1. In the PLAY mode, use [◀] and [▶] to scroll through images and display the one you want to crop.
- 2. Press [MENU].
- 3. Select the "PLAY" tab, select "Trimming", and then press [▶1.
  - This causes a cropping boundary to appear.
- 4. Use the zoom controller to make the cropping boundary larger or smaller.



- The size of the cropping boundary depends on the size of the image on the display.
- 5. Use [♠], [♥], [◀], and [▶] to move the cropping boundary up, down, left, or right until the area of the image you want to extract is within the boundary.
- 6. Press [SET] to extract the part of the image enclosed in the cropping boundary.
  - If you want to cancel the procedure at any point, press [MENU].

### **₩** IMPORTANT!

- Cropping an image creates a new file that contains the cropped image. The file with the original image also remains in memory.
- For a 640 x 480 size image, you cannot change the size of the cropping boundary at all.
- An image recorded using the 2816 x 2112 or 2816 x 1872 (3:2) pixel size cannot be cropped.

# Playing a Movie

Use the following procedure to play back a movie that was recorded in the movie mode.

- 1. In the PLAY mode, press [◀] and [▶] to scroll through images until the movie you want to play is displayed.
- 2. Press [SET].
  - This starts playback of the movie.
  - You can perform the following operations while a movie is playing.



| Fast forward or fast reverse the movie      | Hold down [◀] or [▶].               |
|---|-------------------------------------|
| Pause movie playback                        | Press [SET].                        |
| Skip forward or back one frame while paused | Press [ <b>4</b> ] or [ <b>▶</b> ]. |
| Cancel playback                             | Press [MENU].                       |

### **₩** IMPORTANT!

 You cannot repeat play a movie. To play a movie more than once, repeat the steps of the above procedure.

# Viewing Pictures in Thumbnail Mode

The Thumbnail mode allows you to view up to nine images at a time on the LCD monitor.

Selection boundary

- 1. In the PLAY mode, slide the zoom controller left (♣ ) briefly, and then release it.
- 2. The selected image is highlighted.
- 3. Press the  $[\blacktriangle]$ ,  $[\blacktriangledown]$ , or  $[\blacktriangleright]$  to select an image.
- 4. Slide the zoom controller right ( ) to display the selected image in full screen size.

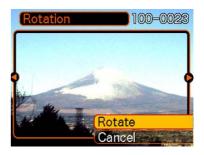




# **Rotating the Display Image**

Use the following procedure to rotate the image 90 degrees and register the rotation information along with the image. After you do this, the image is always displayed in its rotated orientation.

- 1. In the PLAY mode, press [MENU].
- 2. Select the "PLAY" tab, select "Rotation", and then press [▶].
- 3. Use [◀] and [▶] to scroll through images until the one you want to rotate is on the monitor screen.
- 4. Use [▲] and [▼] to select "Rotate", and then press [SET].
  - This rotates the image 90 degrees to the right.
- 5. After you are finished configuring settings, press the [MENU] button to exit the setting screen.



#### # IMPORTANT!

- You cannot rotate an image that is protected. To rotate such an image, first unprotect it.
- You cannot rotate movie images.

# **DELETING FILES**

You can delete a single file, or you can delete all files currently in memory.

# **Deleting a Single File**

Perform the following steps when you want to delete a single file.

- 1. In the PLAY mode, press [▼] 🛣.
- 2. Use [◀] and [▶] to scroll through files and display the one you want to delete.
- 3. Use [▲] and [▼] to select "Delete".
  - To exit the file delete operation without deleting anything, select "Cancel".
- 4. Press [SET] to delete the file.
  - Repeat steps 2 through 4 to delete other files, if you want.
- 5. Press [MENU] to exit the menu screen.

#### **IMPORTANT!**

- Please note that deleted images cannot be recovered. Exercise caution before deleting a file.
- A protected file cannot be deleted. To delete a protected file, unprotect it first.

# **Deleting All Files**

The following procedure deletes all unprotected files currently in memory.

- 2. Use [▲] and [▼] to select "All File Delete", and then press [SET].
- 3. Use [▲] and [▼] to select "Yes".
  - To exit the file delete operation without deleting anything, select "No".
- 4. Press [SET] to delete all the files.



# **FILE MANAGEMENT**

The file management capabilities of the camera make it easy to keep track of images. You can protect files against deletion, and even use its DPOF feature to specify images for printing.

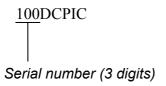
### **Folders**

Your camera automatically creates a directory of image storage folders in its built-in Flash memory or on the memory card.

#### Memory Folders and Files

An image you record is automatically stored in a folder, whose name is a serial number. You can have up to 900 folders in memory at the same time. Folder names are generated as shown below.

Example: Name of the 100th folder.



Each folder can hold files numbered up to 9,999. Trying to store the 10,000th file in a folder causes the next serially numbered folder to be created. Folder names are generated as shown below.

Example: Name of the 26th file.

• The actual number of files you will be able to store on a memory card depends on the image quality settings, capacity of the card, etc.

# **Protecting Files**

Once you protect a file it cannot be deleted. You can protect files individually or you can protect all files in memory with a single operation.

#### To protect a single file

- 1. In the PLAY mode, press [MENU].
- 2. Select the "PLAY" tab, select "Protect", and then press 

  [▶].
- 3. Use [◀] and [▶] to scroll through files and display the one you want to protect.
- 4. Use [▲] and [▼] to select "On", and then press [SET].
  - A file that is protected is indicated by the mark.
  - To unprotect a file, select "Off" in step 4, and then press [SET].
- 5. Press [MENU] to exit the menu screen.





#### To protect all files in memory

- 1. In the PLAY mode, press [MENU].
- 2. Select the "PLAY" tab, select "Protect", and then press [▶].
- 3. Use [◀] and [▶] to select "All Files : On", and then press [SET].
  - To unprotect all files, press [SET] in step 3 so the setting shows "All Files : Off".
- 4. Press [MENU] to exit the menu screen.

### **DPOF**

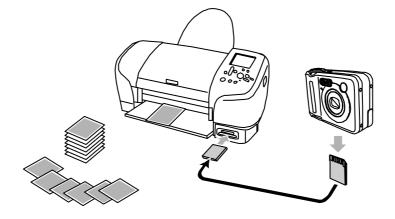
The letters "DPOF" stand for "Digital Print Order Format", which is a format for recording on a memory card or other medium which digital camera images should be printed and how many copies of the image should be printed. Then you can print on a DPOF-compatible printer or at a professional print service in accordance with the file name and number of copies settings recorded on the card.



With this camera, you should always select images by viewing them on the monitor screen. Do not specify images by file name without viewing the file contents.

#### DPOF Settings

File Name, number of copies, date



#### To configure print settings for a single image

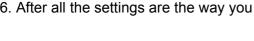
- 1. In the PLAY mode, press [MENU].
- 3. Use [▲] and [▼] to select "Select images", and then press [▶].
- 4. Use [◀] and [▶]to display the image you want.
- 5. Use [▲] and [▼] to specify the number of copies.
  - You can specify up to 99 for the number of copies. Specify 00 if you do not want to have the image printed.
- 6. To turn on date stamping for the prints, press [DISP] so is displayed.
  - To turn off date stamping for the prints, press [DISP] so is not displayed.
  - Repeat steps 4 through 6 if you want to configure other images for printing.
- 7. After all the settings are the way you want, press [SET] to apply them.





#### To configure print settings for all images

- 1. In the PLAY mode, press [MENU].
- 2. Select the "PLAY" tab, select "DPOF", and then press [▶].
- 3. Use [▲] and [▼] to select "All images", and then press [▶].
- 4. Use [▲] and [▼] to specify the number of copies.
  - You can specify up to 99 for the number of copies. Specify 00 if you do not want to have the image printed.
- 5. To turn on date stamping for the prints, press [DISP] so 🔯 is displayed.
  - To turn off date stamping for the prints, press [DISP] so is not displayed.
- 6. After all the settings are the way you want, press [SET] to apply them.



PRINT Image Matching II

Images include PRINT Image Matching II data (mode setting and other camera setup information). A printer that supports PRINT Image Matching II reads this data and adjusts the printed image accordingly, so your images come out just the way you intended when you recorded them.



\* Seiko Epson Corporation holds the copyright for PRINT Image Matching and PRINT Image Matching II.

### **Exif Print**

Exif Print is an internationally supported, open standard file format that makes it possible to capture and display vibrant digital images with accurate colors. With Exif 2.2, files include a wide range of shooting condition information that can be interpreted by an Exif Print printer to produce better looking prints.



## Using USB DIRECT-PRINT

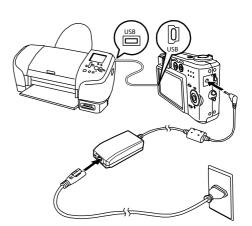
Your camera supports USB DIRECT-PRINT. When connected directly to a printer that supports USB DIRECT-PRINT, you can select images to be printed and start the print operation directly from the camera.

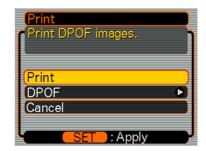


• Use of the optional AC adaptor is recommended when printing with USB DIRECTPRINT.



- 1. Use the DPOF procedure on page 34 to specify the images in file memory that you want to print.
- 2. Connect the AC adaptor to the camera.
- 3. Use the USB cable that comes with the camera to connect it to a printer.
- 4. Turn on the printer.
- 5. Press the camera's power button.
  - This displays the print menu on the camera's monitor screen.
- 6. On the camera's monitor screen, select "Print", and then press [SET].
  - This automatically starts printing of the images you specified with the DPOF procedure.
  - A message appears on the monitor screen, followed by the DPOF setting screen, if there are no DPOF settings currently configured on the camera to control the printing operation. If this happens, configure the required DPOF settings and then perform step 5 of the above procedure again.
- 7. The camera will turn off automatically when printing is complete.





#### # IMPORTANT!

- See the documentation that comes with your printer for information about print quality and paper settings.
- Contact your printer manufacturer for information about models that support USB DIRECT-PRINT, upgrades, etc.
- To interrupt an ongoing print operation, perform the required operation on the printer.
- The camera's monitor screen will go blank after printing starts. A blank monitor screen does not
  necessarily mean that printing is complete. Check the status of your printer to find out if printing is
  complete.

## **OTHER SETTINGS**

## Specifying the File Name Serial Number Generation Method

Use the following procedure to specify the method for generating the serial number used for file names.

- 1. In the REC mode or the PLAY mode, press [MENU].
- 2. Select the "Set Up" tab, select "File No.", and then press [▶].
- 3. Use  $[\blacktriangle]$  and  $[\blacktriangledown]$  to change the setting, and then press [SET].

| Continue | Store the last file number used and increment it, regardless of whether files are deleted or whether the memory card is replaced with a new one |
|----------|---|
| Reset    | Find the highest file number in the current folder and increment it   |

## **Setting the Beep Sound**

Use the following procedure to turn the beep sounds when you press a key on and off.

- 1. In the REC mode or the PLAY mode, press [MENU].
- 2. Select the "Set Up" tab, select "Beep", and then press [▶].
- 3. Use  $[\blacktriangle]$  and  $[\blacktriangledown]$  to set beep sound on/off, and then press [SET].

## Specifying an Image for the Startup Screen

- 1. In the REC mode or the PLAY mode, press [MENU].
- 2. Select the "Set Up" tab, select "Startup", and then press [▶].
- 3. Use  $[\P]$  and [P] to display the image you want to use as the startup image.
  - You can specify a snapshot image or a movie image that is two seconds (200KB) or less in length.
- 4. Use [▲] and [▼] to change the setting, and then press [SET].

### **₩** IMPORTANT!

Selecting a new startup image overwrites anything that is already stored in startup image memory.
 Because of this, if you want to return to a previous startup image, you need to have a separate copy of that image in the camera's standard image memory.

## **Formatting Built-in Memory**

Formatting built-in memory deletes any data stored in it.

#### # IMPORTANT!

- Note that data deleted by a format operation cannot be recovered. Check to make sure you do not need any of the data in memory before you format it.
- Formatting built-in memory deletes all files, including protected files, the startup image.
- 1. Check to make sure there is no memory card loaded in the camera.
  - If there is a memory card loaded in the camera, remove it.
- 2. In the REC mode or the PLAY mode, press [MENU].
- 3. Select the "Set Up" tab, select "Format", and then press [▶].
- 4. Use [▲] and [▼] to select "Format", and then press [SET].
  - To exit the format operation without formatting, select "Cancel".

## **USING A MEMORY CARD**

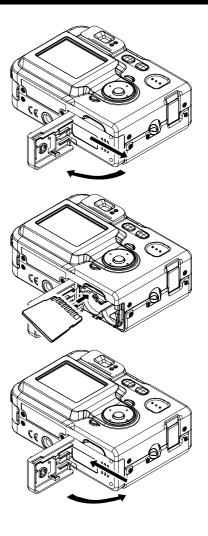
You can expand the storage capabilities of your camera by using a commercially available memory card (SD memory card or MultiMediaCard). You can also copy files from built-in flash memory to a memory card and from a memory card to flash memory.



- Normally, files are stored in built-in flash memory. When you insert a memory card, however, the camera automatically stores files to the card.
- Note that you cannot save files to built-in memory while a memory card is installed in the camera.
- Use only an SD memory card or a MultiMediaCard with this camera. Proper operation is not guaranteed when any other type of card is used.
- Certain types of cards can slow down processing speeds.
- SD memory cards have a write protect switch, which you can use to protect against accidental deletion of image data. Note, however, if you write protect an SD memory card, you must remove write protection whenever you want to record to it, format it, or delete any of its files.

## 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. Positioning the memory card so its back is facing in the same direction as the camera's monitor screen, carefully slide it into the card slot and close the slot/battery cover.



## To remove the SD card

Gently press on the edge of the SD card and release it.
 Pull the card out and close the slot/battery cover.

### # IMPORTANT!

• Never remove a card from the camera while the operation lamp is flashing. Doing so can cause the file save operation to fail, and even damage the memory card.

## **Formatting a Memory Card**

Formatting a memory card deletes any data already stored on it.

- 1. Load the memory card into the camera.
- 2. Turn on the camera. Next, enter the REC mode or PLAY mode, and press [MENU].
- 3. Select the "Set Up" tab, select "Format", and then press [▶].
- 4. Use [▲] and [▼] to select "Format", and then press [SET].
  - To exit the format operation without formatting, select "Cancel".

#### Memory Card Precautions

- We recommend that you format a memory card before using it for the first time after purchasing it, or whenever the card you are using seems to be the cause of abnormal images.
- Before starting a format operation, check to make sure that the batteries are fully charged. Power
  interruption during the format operation can result in improper formatting, and even damage the
  memory card and make it unusable.

## **Copying Files**

Use the procedures below to copy files between built-in memory and a memory card.

### **₩** IMPORTANT!

Only snapshot and movie files recorded with this camera can be copied. Other files cannot be copied.

### To copy all the files in built-in memory to a memory card

- 1. Load the memory card into the camera.
- 2. Turn on the camera. Next, enter the PLAY mode, and press [MENU].
- 3. Select the "PLAY" tab, select "Copy", and then press [▶].



- Use [▲] and [▼] to select "Built-in Card", and then press [SET].
  - This starts the copy operation and displays the message "Busy....Please wait...".
  - After the copy operation is complete, the monitor screen shows the last file in the folder.

#### To copy a file from a memory card to built-in memory

With this procedure you can copy one file at a time.

- 1. Perform steps 1 through 3 of the procedure under "To copy all the files in built-in memory to a memory card".
- 2. Use [▲] and [▼] to select "Card Built-in", and then press [SET].
- 3. Use [◀] and [▶] to select the file you want to copy.
- 4. Use [▲] and [▼] to select "Copy", and then press [SET].
  - Repeat steps 3 through 4 to copy other images, if you want.
- 5. Press [MENU] to exit the copy operation.

## **VIEWING IMAGES ON A COMPUTER**

After using the USB cable to establish a USB connection between the camera and your computer, you can use your computer to view images in file memory and copy images to your computer's hard disk or other storage media. In order to do this, you first need to install the USB driver located on the CD-ROM that comes bundled with the camera onto your computer.

## Using the Camera with a Windows Computer

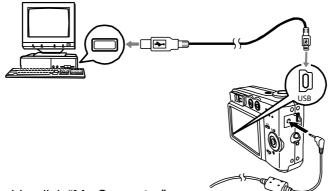
The following are the general steps for viewing and copying files from a computer running under Windows. You can find details about each operation in the procedures that follow below.

### **₩** IMPORTANT!

- Low battery power can cause the camera to power down suddenly during data communication. Use
  the optional AC adaptor is recommended to power the camera during data communication with a
  computer.
- Do not try to establish a connection between the camera and computer before installing the USB driver onto the computer.
- If you want to transfer files from the camera's built-in memory to a computer, make sure there is no memory card loaded in the camera before you connect the USB cable.

You must install the camera software drivers if your operating system is Windows 98, Me, 2000 or XP. 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. On the menu screen that appears, click "English".
- 3. Click [USB driver] and then [Install].
- 4. On the screen that appears after installation is complete, select the "Yes, I want to restart my computer now." check box and then click [Finish] to restart your computer.
- 5. Turn on the camera.
- Connect the USB cable that comes bundled with the camera to the camera and your computer's USB port.
  - This will cause the "New Hardware..." dialog box to appear on the computer screen as the computer automatically detects the camera's file memory. After you install the USB driver, "New Hardware..." dialog box will no longer appear when you perform the above steps to establish a USB connection.



- 7. On your computer, double-click "My Computer".
- 8. Double-click "Removable Disk".
- 9. Double-click the "Dcim" folder.
- 10. Double-click the folder that contains the image you want.
- 11. Double-click the file that contains the image you want to view.
- 12. Depending on the version of Windows you are running, use one of the following procedures to terminate the USB connection.

#### WindowsMe/98/XP Users

• Press the camera's power button. After making sure that the camera's green operation lamp is not lit, disconnect the camera from the computer.

#### Windows2000 Users

• Click card services in the task tray on your computer screen, and disable the drive number assigned to the camera. Next, disconnect the USB cable from the camera, and then turn off the camera.

## Using a Memory Card to Transfer Images to a Computer

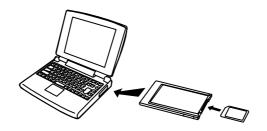
The procedures in this section describe how to transfer images from the camera to your computer using a memory card.

#### Using a Computer with a Built-in SD Memory Card Slot

Insert the SD memory card directly into the slot.

#### Using a Computer with a Built-in PC Card Slot

Use a commercially available PC card adapter (for an SD memory card/MMC). For full details, see the user documentation that comes with the PC card adapter and your computer.

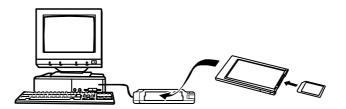


#### Using a Commercially Available SD Memory Card Reader/Writer

See the user documentation that comes with the SD memory card reader/writer for details about how to use it.

# Using a Commercially Available PC Card Reader/Writer and PC Card Adapter (for SD Memory Cards and MMCs)

See the user documentation that comes with the PC card reader/writer and PC card adapter (for an SD memory card/MMC) for details about how to use them.



### Memory Data

Images recorded with this camera and other data are stored in memory using DCF (Design rule for Camera File System) protocol. DCF protocol is designed to make it easier to exchange image and other data between digital cameras and other devices.

#### **DCF Protocol**

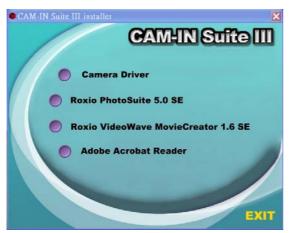
DCF devices (digital cameras, printers, etc.) can exchange images with each other. DCF protocol defines camera format for image file data and the directory structure for file memory, so images can be viewed using another manufacturer's DCF camera or printed on a DCF printer.

## **Installing Software**

## **Install the Software Driver**

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



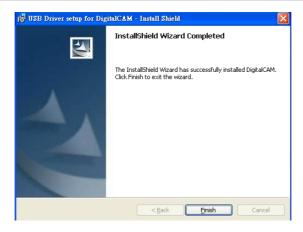






#### 4. Click Next.

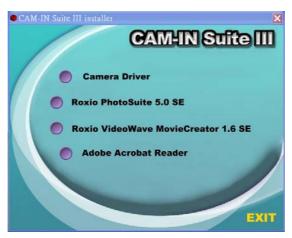
- The USB driver installation starts. When the installation is completed, the screen informs you of completion.
- 5. Click "Finish".
  - Your computer restarts. Then, you can establish USB connection.



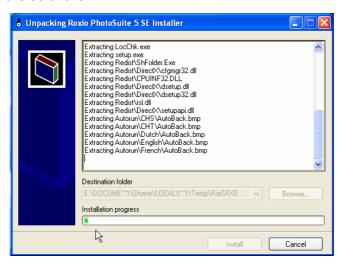
### Installing Roxio PhotoSuite 5.0 SE

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.



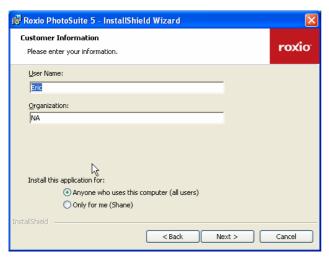
4. A welcome window appears. Click Next to continue with the installation.



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.



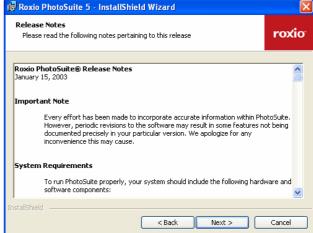
6. Select a destination folder in which the software will be installed. For most users, C:\Program files\ is the most appropriate choice.



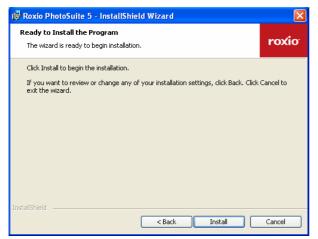


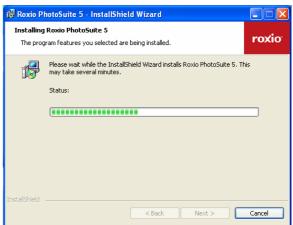
7. Click Next to begin copying files from the CD-ROM to the computer hard drive.





- 8. The Release Notes window appears. Click Next to continue.
- 9. The Ready to Install the Program window appears. Click Install.





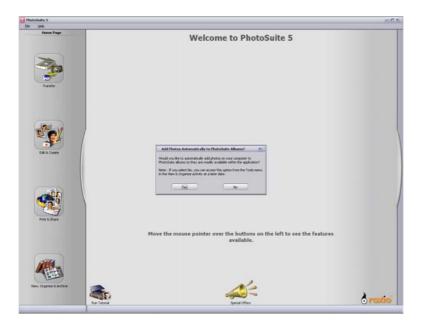
10. When installation is completed, Click **Finish** to quit the InstallShield Wizard.



## 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



# **APPENDIX**

## Menu Reference

The following shows lists of menus that appear in the REC mode and PLAY mode, and their settings.

#### □ REC mode

#### **REC** tab menu

| REC Mode        | Snapshot / NICESHOT / Movie   |  |  |
|-----------------|---|--|--|
| Self-Timer      | 10 sec/2 sec/Off  |  |  |
| Size            | 2816 x 2112, 2816 x 1872 (3:2), 2048 x 1536, 1600 x 1200, 1280 x 960, 640 x 480         |  |  |
| Quality         | Fine / Normal / Economy   |  |  |
| EV Shift        | -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 |  |  |
| White Balance   | Auto / 🛣 (Sunlight) / 🎑 (Shade) / 🔜 (Tungsten) / 🖼 (Fluorescent) / Manual               |  |  |
| ISO             | Auto, 64, 125, 250, 500   |  |  |
| AF Area         | Spot / Multi  |  |  |
| Metering        | Multi / Center weighted / Spot  |  |  |
| Filter          | Off / B/W / Sepia / Red / Green / Blue / Yellow / Pink / Purple                         |  |  |
| Sharpness       | Soft / Normal / Hard  |  |  |
| Saturation      | Low / Normal / High   |  |  |
| Contrast        | Low / Normal / High   |  |  |
| Flash Intensity | Weak / Normal / Strong  |  |  |
| Grid            | On / Off  |  |  |
| Digital Zoom    | On / Off  |  |  |
| Review          | On / Off  |  |  |

### Memory tab menu

| REC Mode        | On / Off |
|-----------------|----------|
| Flash           | On / Off |
| Focus           | On / Off |
| White Balance   | On / Off |
| ISO             | On / Off |
| AF Area         | On / Off |
| Metering        | On / Off |
| Flash Intensity | On / Off |
| Digital Zoom    | On / Off |
| MF Position     | On / Off |

#### Set Up tab menu

| Веер                         | On / Off  |  |
|------------------------------|---|--|
| Startup                      | On (Selectable image) / Off   |  |
| File No.                     | Continue / Reset  |  |
| Date Style                   | YY/MM/DD / DD/MM/YY / MM/DD/YY                                      |  |
| Adjust                       | Time setting  |  |
| Language                     | / English / Français / Deutsch / Español / Italiano / Português / / |  |
| Sleep                        | 30 sec / 1 min / 2 min / Off  |  |
| Auto Power Off 2 min / 5 min |   |  |
| Format                       | Format / Cancel   |  |
| Reset                        | Reset / Cancel  |  |

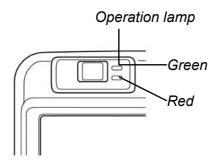
#### PLAY mode

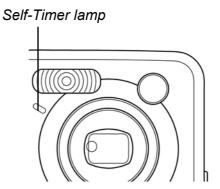
#### PLAY tab menu

| DPOF     | Select images / All images / Cancel           |  |
|----------|---|--|
| Protect  | On / All Files : On / Cancel                  |  |
| Rotate   | Rotate / Cancel                               |  |
| Resize   | 1600 x 1200 / 1280 x 960 / 640 x 480 / Cancel |  |
| Trimming |   |  |
| Сору     | Built-in→Card / Card→Built-in / Cancel        |  |

## **Indicator Lamp Reference**

The camera has three indicator lamps: a green operation lamp, a red operation lamp, and a self-timer lamp. These lamps light and flash to indicate the current operational status of the camera.





There are three lamp flash patterns. Pattern 1 flashes once per second, Pattern 2 flashes twice per second, and Pattern 3 flashes four times per second. The table below explains what each flash pattern indicates.

#### **REC Mode**

| Operation Lamp |           | Self-timer<br>Lamp | Meaning  |
|----------------|-----------|--------------------|--|
| Green          | Red       | Red                |  |
| Lit            |           |                    | Operational (Power on, recording enabled)                          |
|                | Pattern 3 |                    | Flash is charging.   |
|                | Lit       |                    | Flash charging is complete.  |
| Lit            |           |                    | Auto Focus operation was successful.                               |
| Pattern 3      |           |                    | Cannot Auto Focus.   |
| Lit            |           |                    | Monitor screen is off.   |
| Pattern 2      |           |                    | Storing image  |
| Pattern 1      |           |                    | Storing movie  |
|                |           | Pattern 1          | Self-timer countdown (10 to 3 seconds)                             |
|                |           | Pattern 2          | Self-timer countdown (3 to 0 seconds)                              |
|                | Pattern 1 |                    | Cannot charge flash.   |
|                | Pattern 2 |                    | Memory card problem / Memory card is unformatted.                  |
|                | l i+      |                    | Memory card is locked. / Cannot create folder. / Memory is full. / |
|                | Lit       |                    | Write error  |
|                | Pattern 3 |                    | Low battery alert  |
| Pattern 3      |           |                    | Formatting card  |
| Pattern 3      |           |                    | Powering down  |
| Lit            |           |                    | USB connection   |

#### **PLAY Mode**

| Operation Lamp |           | Self-timer<br>Lamp | Meaning   |
|----------------|-----------|--------------------|---|
| Green          | Red       | Red                |   |
| Lit            |           |                    | Operational (Power on, recording enabled)                         |
| Pattern 3      |           |                    | One of the following operations is being performed: delete, DPOF, |
| ratterns       |           |                    | image protect, copy, format, power down                           |
|                | Pattern 2 |                    | Memory card problem / Memory card is unformatted.                 |
|                | Lit       |                    | Memory card is locked. / Cannot create folder. / Memory is full.  |
|                | Pattern 3 |                    | Low battery alert   |
| Lit            |           |                    | USB connection  |

# **Troubleshooting Guide**

| Problem                                   | Cause   | Solution   |
|---|---|--|
|   | Battery is inserted in the wrong direction  | Reload battery in the correct direction.                                       |
| Power does not turn on                    | The batteries are dead.   | Charge or replace the batteries.   |
|   | You are using the wrong type of AC adaptor.   | Use only the type of AC adaptor specified for this camera.                     |
| Camera suddenly                           | Auto Power Off activated  | Turn power back on.  |
| powers down                               | The batteries are dead.   | Charge or replace the batteries.   |
|   | The camera is in the PLAY mode.   | Press (REC) to enter the REC mode.   |
| The camera does not                       | The flash is charging   | Wait for the flash to charge.  |
| take pictures                             | Memory is full  | Insert a new SD card   |
|   | SD card is not formatted correctly  | The card may be defective, use a new card.                                     |
|   | The lens is dirty.  | Clean the lens.  |
| Auto Focus does not                       | The subject is not located in the center of the focus frame when you compose the image. | Make sure the subject is centered in the focus frame when composing the image. |
| focus properly                            | The subject you are shooting is a type that is not compatible with Auto Focus operation | Use manual focus   |
|   | You are moving the camera.  | Mount the camera on a tripod.  |
| The flash doesn't fire                    | Flash is set to OFF   | Set the flash to any mode except off.  |
|   | You are using the Manual Focus<br>Mode and have not focused the<br>image.               | Focus the image  |
| Image is blurry or out of focus           | You are trying to use the Macro<br>Mode when shooting a scenery or<br>portrait shot.    | Use Auto Focus for scenery and portrait shots.                                 |
|   | You are trying to use Auto Focus or the Infinity Mode when shooting a close-up shot.    | Use the Macro Mode for close-ups.  |
| Image is not displayed on the LCD monitor | An SD Card with non-DCIF images<br>(recorded with another camera) is<br>loaded          | This camera cannot display non-DCIF images.                                    |
| Recorded images are not                   | Camera powers down before the save operation is complete.                               | When the battery indicator shows, charge or replace the camera's batteries.    |
| saved in memory                           | Removing the memory card before the save operation is complete.                         | Do not remove the memory card before the save operation is complete.           |

| Cannot transfer images<br>to a computer after<br>connecting the USB<br>cable | USB driver is not installed  | Install the USB driver before you connect the camera to a computer / turn the camera on.     |
|--|--|--|
| Monitor screen is off.   | USB communication is in progress.  | After confirming that the computer is not accessing camera memory, disconnect the USB cable. |
|  | The monitor screen is turned off (in the REC mode).  | Press [DISP] to turn on the monitor screen.  |
| All buttons and switches are disabled.                                       | Circuit problem caused by electrostatic charge, impact, etc. while the camera was connected to another device. | Remove the batteries from the camera, reinsert them, and then try again.                     |

# **Specifications**

| Sensor                         | 6 Mega Pixels CCD<br>Size: 1/1.8 inch   |  |
|--------------------------------|---|--|
| Lens                           | $3\times$ zoom lens F2.8 (W) to 4.9 (T); f= 8 (W) to 24mm (T) (equivalent to approximately 39 (W) to 117 (T) for 35mm film)   |  |
| View Finder                    | Monitor screen and optical viewfinder   |  |
| Color LCD Display              | 1.6" TFT color LCD  |  |
| Focus Range                    | Normal Mode : 60 cm ~ infinity Macro Mode : 10 cm ~ 70 cm Manual Mode : Wide-angle 10 cm~ infinity Telephoto 60 cm ~ infinity   |  |
| ISO/ASA Sensitivity            | Auto, 64, 125, 250, 500   |  |
| Still Image Resolution         | 2816 x2112, 2816 x1872 (3:2), 2048 x 1536, 1600 x 1200, 1280 x 960, 640 x 480   |  |
| Video Resolution               | 320 × 240, AVI (Motion JPEG)  |  |
| Exposure Control               | Program AE  |  |
| <b>Exposure Compensation</b>   | -2EV to +2EV in 1/3 step.   |  |
| Exposure Meter                 | Multi-pattern center-weighted, spot by CCD  |  |
| Shutter                        | CCD electronic shutter; mechanical shutter, 1/8 to 1/2000 second (Changes in accordance with recording mode and ISO sensitivity setting.)  • Shutter speed is different for the following NICESHOT scenes.  Night Scene: 4 to 1/2000 second  Fireworks: 2 seconds (fixed) |  |
| Aperture                       | Wide-angle: F2.8/4.8, auto switching<br>Telephoto: F4.9/8.4, auto switching   |  |
| Zoom                           | 3X optical zoom; 4 X digital zoom (12X in combination with optical zoom)  |  |
| Image File Format              | JPEG (Exif Ver.2.2); DCF (Design rule for Camera File system) 1.0 standard; DPOF compliant  |  |
| White Balance                  | Automatic, fixed (4 modes), manual switching  |  |
| Picture Storage                | Internal: 9.7 MB built-in Flash memory<br>External: SD Memory Card or MultiMediaCard  |  |
| Self-Timer                     | 2 seconds, 10 seconds   |  |
| Flash Modes                    | AUTO, ON, OFF, Red eye reduction  |  |
| Flash Range                    | Wide Angle Optical Zoom: 0.6 to 3.2 meters (2.0 ′ to 10.5 ′) Telephoto Optical Zoom: 0.6 to 1.8 meters (2.0 ′ to 5.9 ′) (ISO Sensitivity: "Auto")   |  |
| Power Supply                   | Two AA-size rechargeable nickel-metal hydride batteries Two AA-size lithium batteries Two AA-size alkaline batteries DC IN 3V   |  |
| Operating Temperature<br>Range | 0°C to 40°C (32°F to 104°F)   |  |

# **FCC Compliance and Advisory**

This device complies with Part 15 of the FF 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.