

GETTING READY

This section contains information about things you need to know about and do before trying to use the camera.

About This Manual

This section contains information about the conventions used in this manual.

Terminology

The following table defines the terminology used in this manual.

This term as used in this manual:	Means this:
"this camera" or "the camera"	The CASIO QV-R40 Digital Camera
"file memory"	The location where the camera is currently storing images you record (page 51)
"batteries"	The Rechargeable nickel-metal hydride batteries
"charger unit"	The CASIO BC-5H Charger Unit

Button Operations

Button operations are indicated by the button name inside of brackets ([]).

On-screen Text

On-screen text is always enclosed by double quotation marks (" ").

File Memory

The term "file memory" in this manual is a general term that refers to the location where your camera is currently storing the images you record. File memory can be any one of the following three locations.

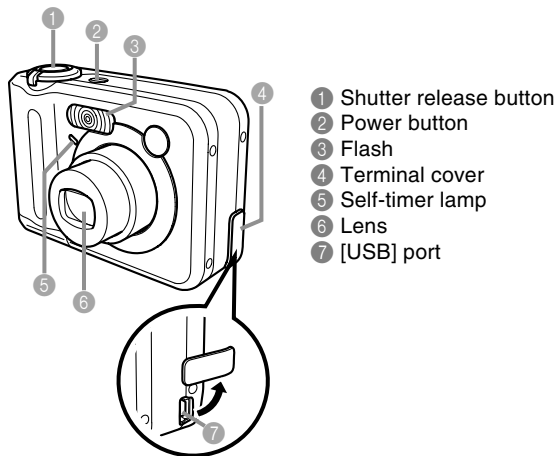
- The camera's built-in Flash memory
- An SD memory card loaded in the camera
- A MultiMediaCard loaded in the camera

For more information about how the camera stores images, see page 129.

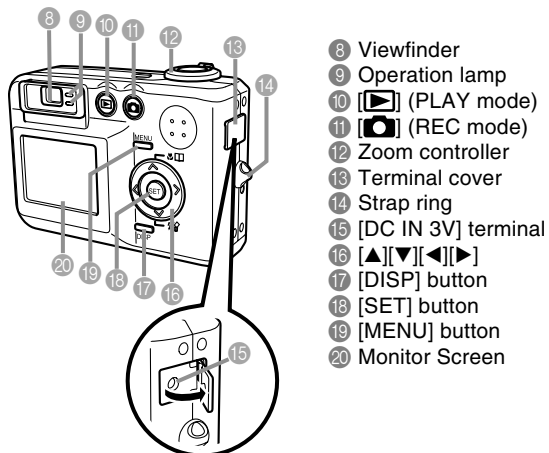
General Guide

The following illustrations show the names of each component, button, and switch on the camera.

■ Front

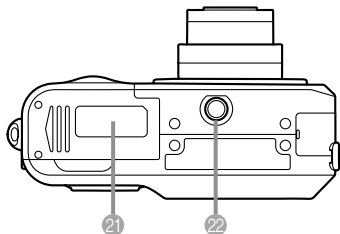


■ Back



GETTING READY

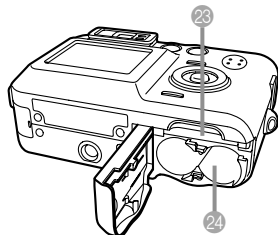
■ Bottom



21 Battery compartment cover

22 Tripod screw hole

* Use this hole when attaching to a tripod.



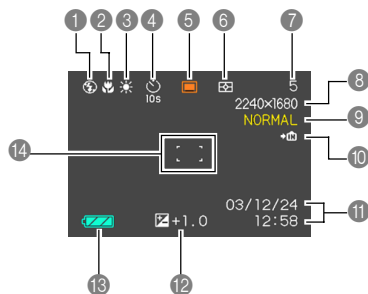
23 Memory card slot

24 Battery compartment

Monitor Screen Contents

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

REC mode



- 1 Flash Mode indicator**

None	Auto
	Flash Off
	Flash On
	Red-eye reduction

 - If the camera detects that flash is required while auto flash is selected, the flash on indicator will appear when the shutter release button is pressed half way.
- 2 Focus Mode indicator**

None	Auto Focus
	Macro
	Infinity
	Manual Focus
- 3 White balance indicator**

None	Auto
	Sunlight
	Shade
	Light Bulb
	Fluorescent
	Manual
- 4 Self-timer**

None	1-Image
	Self-timer 10 sec
	Self-timer 2 sec
	Triple self-timer
- 5 REC modes**

	Snapshot
	Best Shot
	Movie
- 6 Metering Mode indicator**

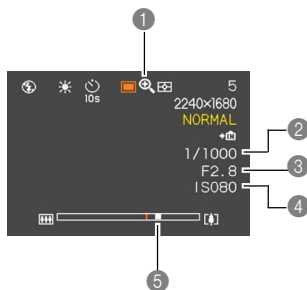
	Multi-pattern Metering
	Center-weighted Metering
	Spot Metering
- 7 Memory capacity**
(Remaining number of storable images)
- 8 Image size**

2304 × 1712 pixels
2240 × 1680 pixels
1600 × 1200 pixels
1280 × 960 pixels
640 × 480 pixels

Movie Recording: recording time (seconds)
- 9 Quality**

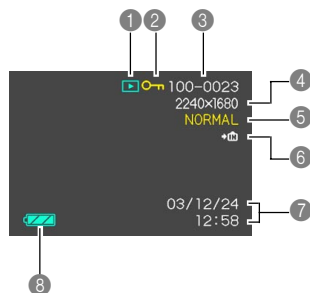
FINE
NORMAL
ECONOMY
- 10** Built-in memory selected for data storage.
 Memory card selected for data storage.
- 11 Date and time**
- 12 EV value**
- 13 Battery capacity**
- 14 Focus frame**

 - Focusing complete: Green
 - Focusing failed: Red




- 1 Digital zoom indicator
- 2 Shutter speed value
 - An out of range aperture or shutter speed causes the corresponding monitor screen value to turn amber.
- 3 Aperture value
- 4 ISO sensitivity
- 5 Zoom indicator
 - Left side indicates optical zoom.
 - Right side indicates digital zoom.

PLAY mode



1 PLAY mode file type

-  Snapshot
-  Movie

2 Image protection indicator



3 Folder number/File number

4 Image size

- 2304 × 1712 pixels
- 2240 × 1680 pixels
- 1600 × 1200 pixels
- 1280 × 960 pixels
- 640 × 480 pixels

5 Quality

- FINE
- NORMAL
- ECONOMY

- 6  Built-in memory selected for data storage.
-  Memory card selected for data storage.

7 Date and time

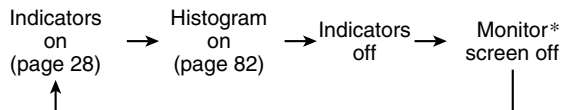
8 Battery capacity

▶▶ IMPORTANT! ◀◀

- Some information may not display properly if you display an image that was recorded using a different digital camera model.

Changing the Contents of the Monitor Screen

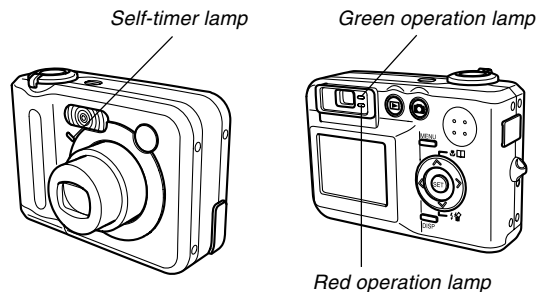
Each press of the [DISP] button changes the contents of the monitor screen as shown below.



* You cannot turn off the monitor screen in the following modes: PLAY mode, Best Shot mode, Movie mode.

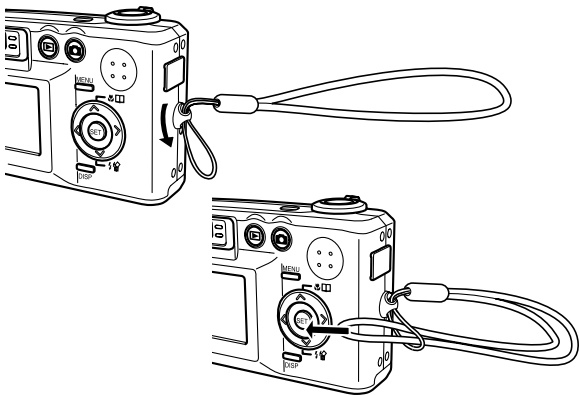
Indicator Lamps

You can find out the operational status of the camera at a glance by checking the color of the indicator lamps, and whether a lamp is lit or flashing. For details, see “Indicator Lamp Reference” on page 164.



Attaching the Strap

Attach the strap to the strap ring as shown in the illustration.



►► IMPORTANT! ◀◀

- Be sure to keep the strap around your wrist when using the camera to protect against accidentally dropping it.
- The supplied strap is intended for use with this camera only. Do not use it for any other purpose.
- Never swing the camera around by the strap.

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: HR-3UA
- Proper operation cannot be guaranteed if you use any other type of battery other than that noted above.

The batteries are not charged when you purchase the camera. You need to charge batteries before using the camera for the first time (page 33).

- Two AA-size lithium batteries: FR6
- AA-size alkaline batteries (LR6) can be used if they are the only option available to you. Note, however, that alkaline batteries provide about ten minutes or so of camera operation. Alkaline batteries may not provide any operation when the temperature is 5°C (41°F) or lower.

■ Household Current

- AC Adaptor: AD-C30

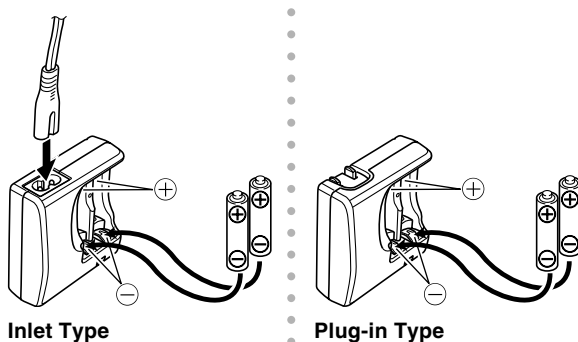
Charging Batteries

You can use the steps below to charge the rechargeable nickel-metal hydride batteries (HR-3UA) using the charger unit (BC-5H) that comes with the camera.

Never try to use the charger unit to charge any other type of batteries besides the specified rechargeable nickel-metal hydride batteries (HR-3UA). Attempting to use it to charge dry cells or other types of rechargeable batteries creates the risk of battery leakage, overheating, and explosion.

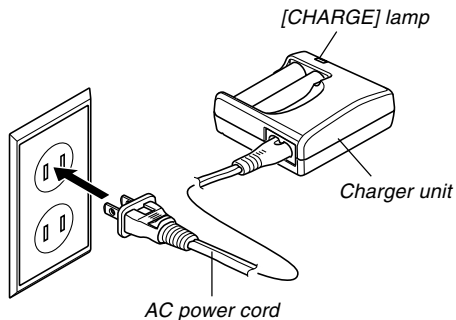
■ To charge the batteries

1. Positioning the positive and negative terminals of each battery as shown in the illustration, attach the batteries to the charger unit.



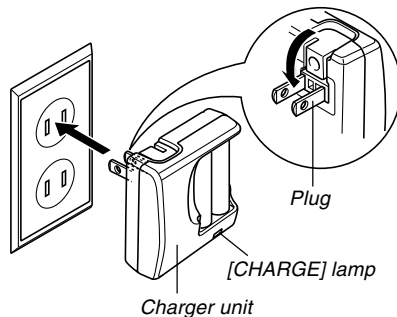
2. Plug the charger unit into a household power outlet.

- This will cause the [CHARGE] lamp to light.
- Charging will take about four hours.
- Note that the shape of the charger unit depends on the area where you purchased the camera.



NOTE

- The bundled charger unit is designed for operation with any power supply in the range of 100V to 240V AC. Note, however, that the shape of the AC power cord plug varies according to country or geographic area. If you plan to use the charger unit in a geographic area where the power receptacle shape is different from that in your area, replace the AC power cord with one of the other ones that comes with the camera, or purchase a commercially available AC power cord that is compatible with the power outlets in that area.



»» NOTE ««

- The charger unit is designed for operation on power ranging from 100V AC to 240V AC. Note, however, that the shape of the power plug varies according to country or geographic area. When traveling abroad, it is up to you to find out if the shape of the charger unit power plug is compatible with local power outlets and to purchase any required adapters.

3. The [CHARGE] lamp will go out when charging is complete.

4. After charging is complete, unplug the charger unit from the power outlet, and remove the batteries from it.

- Always unplug the charger unit from the power outlet and remove the batteries whenever you are not using it for charging.

»» IMPORTANT! ««

- If the [CHARGE] lamp starts to flash when you start a charge operation, it means that charging cannot be started yet because the surrounding temperature or the temperature of the charger unit is outside the range of about 0°C to 40°C (32°F to 104°F). Charging will start automatically (indicated when the [CHARGE] lamp stops flashing and remains lit) as soon as temperature returns to normal.
- Charging batteries while they are still warm immediately after removing them from the camera can result in only partial charging. Give batteries time to cool before charging them.
- Batteries discharge slightly even when they are left without loading them into the camera. Because of this, it is recommended that you charge batteries immediately before you need to use them.
- The rechargeable batteries used with this camera are specifically designed for use with digital cameras. If you want to try to use them to power another type of device, you should first check the user documentation that comes with the device to see if they are compatible.
- Though the actual service life of the rechargeable batteries depends on the environment under which they are used, you can expect to be able to recharge them about 500 times before they need replacement.

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- Charging the camera's batteries may cause interference with TV and radio reception. If this happens, plug the charger into an outlet that is further away from the TV or radio.
- Dirty charger contacts and/or battery terminals can make proper charging impossible. Be sure to wipe contacts and terminals occasionally with a dry cloth to keep them clean.

■ Charger Unit Precautions

- The charger unit becomes slightly warm during charging. This is normal and does not indicate malfunction.
- Unplug the charger unit from the power outlet whenever you are not using it.

■ Battery Precautions

Precautions During Use

- Use only the charger unit that comes with the camera to charge the batteries. Never use any other type of charger unit for charging.
- New batteries are not charged. Be sure to charge the batteries before using them for the first time.
- Cold tends to shorten battery life, so the amount of power provided by fully charged batteries may be shorter in cold areas.

- Charge the batteries in a location where the temperature is in the range of 10°C to 35°C (50°F to 95°F). Charging outside this temperature range can cause charging to take longer than normal or even cause charging to fail.
- Very limited operation following a full charge indicates that the batteries have reached the end of their service life. Replace the batteries with new ones.

Storage Precautions

- Though rechargeable nickel-metal hydride batteries provide high power in a compact configuration, storing them for long periods while they are charged can cause batteries to deteriorate.
 - Always remove the batteries from the camera when you are not using it. Leaving batteries in the camera can cause them to discharge and go dead or even leak.
 - Store batteries in a dry place where the temperature is 20°C (68°F) or lower.
 - If you store batteries for a long time, charge them two or three times before using them again.

■ Optional Batteries

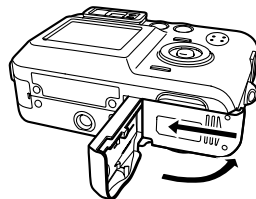
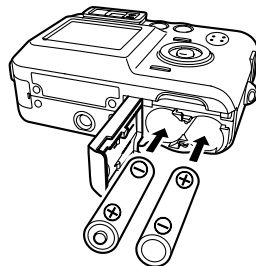
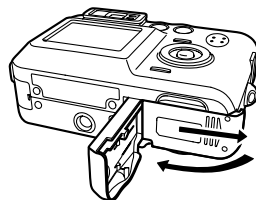
Use of SANYO Electric Co., Ltd. Rechargeable nickel-metal hydride batteries (HR-3UA) is recommended for this camera. Proper operation cannot be guaranteed when other brands of rechargeable batteries are used.

▶▶ IMPORTANT! ◀◀

- Never mix two batteries of different brands, ages, or charge levels. Doing so creates the risk of shortened battery life and can even damage the camera.

To load batteries

1. Turn off the camera.
2. Slide the battery compartment cover on the bottom of the camera in the direction indicated by the arrow and then swing it open.
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.



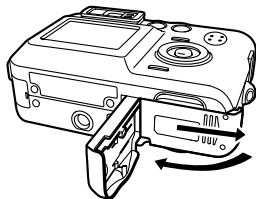
GETTING READY

▶▶ IMPORTANT! ◀◀

- Use only the included rechargeable nickel-metal hydride batteries or the specified type of AA-size batteries.

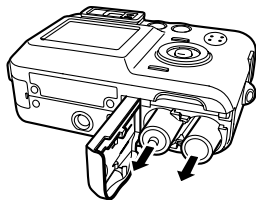
To remove the batteries from the camera

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 monitor screen 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	 →  →  → 

■ Battery Life Guidelines

The battery life guideline values given below indicate the approximate amount of time at a standard temperature of 23°C (73°F) until power automatically turns off due to battery failure. They do not guarantee that the batteries will provide the amount of service indicated. Low temperatures and continued use reduce battery life.

Type of Operation	Number of Shots* ¹ (Recording Time)	Continuous Playback* ²
AA-size Rechargeable Ni-MH Batteries HR-3UA	220 shots (110 minutes)	230 minutes
AA-size Lithium Batteries FR6	180 shots (90 minutes)	290 minutes

- AA-size alkaline batteries (LR6) can be used if they are the only option available to you. Note, however, that alkaline batteries provide about ten minutes or so of camera operation. Alkaline batteries may not provide any operation when the temperature is 5°C(41°F) or lower.

- The above approximate guidelines are based on the following battery types:

Rechargeable Nickel-Metal Hydride
: HR-3UA SANYO Electric Co., Ltd.
Lithium : Energizer

* Battery life varies with brand.

*1 Number of Shots


- Normal temperature: 23°C (73°F)
- Monitor Screen: On
- Zoom operation between full wide to full telephoto every 30 seconds, during which two images are recorded, one image with flash; power turned off and back on every time 10 images are recorded.

*2 Continuous Playback Conditions

- Normal temperature: 23°C (73°F)
- Scroll one image about every 10 seconds

- The above values are based on new batteries starting from a full charge. Repeated charging shortens battery life.
- Battery life is greatly affected by how much you use flash, zoom and other functions, and how long you leave power turned on.
- The following shows approximate battery life for continuous recording while flash is off, when power is not turned off.
AA-size rechargeable nickel-metal hydride batteries (HR-3UA): 660 shots (110 minutes)

■ Tips to Make the Batteries Last Longer

- If you do not need the flash while recording, select  (flash off) for the flash mode (page 58).
- Enable the Auto Power Off and the Sleep features (page 44) to protect against wasting battery power when you forget to turn off the camera.

■ Alkaline Battery Life

The actual life of alkaline batteries is affected by a variety of factors, including the battery manufacturer, the amount of time the batteries spend in storage before you use them, temperature while you are recording, and photographic conditions. As a rule, we recommend the use of rechargeable nickel-metal hydride batteries, which have longer lives than alkaline batteries.

AA-size alkaline batteries (LR6): 20 shots (10 minutes)

*1 Number of Shots

- Normal temperature: 23°C (73°F)
- Monitor Screen: On
- Zoom operation between full wide to full telephoto every 30 seconds, during which two images are recorded, one image with flash; power turned off and back on every time 10 images are recorded.
- Alkaline batteries may not provide any operation when the temperature is 5°C (41°F) or lower.

■ Battery Handling Precautions

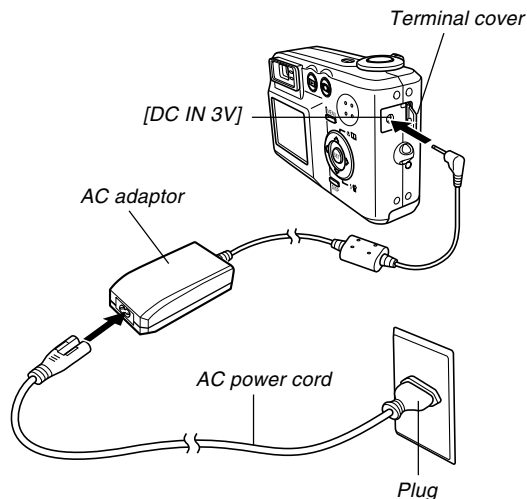
Misuse of batteries can cause them to leak or explode, which damages and corrodes the area around the batteries and creates the danger of fire and personal injury. Make sure you observe the following precautions when using batteries.

- When loading batteries, make sure their positive (+) and negative (–) ends are facing correctly.
- Never mix new batteries with old ones.
- Never mix batteries of different brands.
- Use only the batteries that are specified for this camera.
- Never try to take batteries apart and always take care to avoid conditions where their two ends can become connected to each other (shorting). Never expose batteries to heat or throw them into fire.
- Dead batteries are susceptible to leakage, which can cause serious damage to your camera. Remove batteries from the camera as soon as you notice they are dead.
- Remove batteries from the camera if you do not plan to use it for more than two weeks.
- The batteries that power the camera normally become warm as you use them.

Using AC Power

You need to purchase the optionally available AC adaptor (AD-C30) in order to be able to power the camera using AC power.

1. Connect the AC power cord to the AC adaptor.



2. Open the camera's terminal cover and connect the AC adaptor to the port marked [DC IN 3V].
3. Plug the AC power cord into an electrical outlet.

»» NOTE ««

- The AC adaptor can be used with any power source rated from 100V to 240V AC. If you plan to use the AC adaptor in another country, it is up to you to purchase the applicable AC power cord that matches the configuration of power receptacles in that country.

■ AC Adaptor Precautions

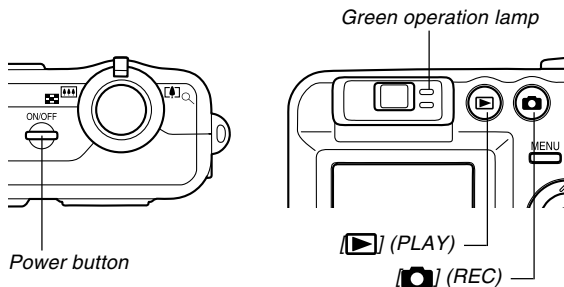
- Be sure to turn off power before connecting or disconnecting the AC adaptor.
- Always turn camera power off before disconnecting the AC adaptor, even if the camera has batteries installed. If you don't, the camera will turn off automatically when you disconnect the AC adaptor. You also run the risk of damaging the camera whenever you disconnect the AC adaptor without first turning power off.
- The AC adaptor may become warm to touch after extended periods of use. This is normal and is not cause for alarm.
- After using the camera, turn it off and unplug the AC adaptor from the AC outlet.
- The camera automatically switches over to AC adaptor powered operation whenever the AC adaptor is plugged into the camera.
- Always use the AC adaptor to power the camera whenever it is connected to a computer.
- Never place a blanket or any other cover on the AC adaptor. Doing so creates the risk of fire.

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.

To enter this mode at startup:	Press this button to turn on the camera:
REC	Power button or [📷] (REC) button
PLAY	[▶] (PLAY) button



▶▶ 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.
- Pressing the power button or [📷] (REC) to turn on the camera also causes the lens to extend. Take care to any interference with the lens operation or allowing anything to strike the lens when it is extended.

■ To turn off the camera

Press the power button to turn off the camera.

Configuring Power Saving Settings

You can configure the settings described below to conserve battery power.

Sleep : Automatically turns off the monitor screen if no operation is performed for a specified amount of time in the REC mode.

Performing any button operation causes the monitor screen to turn back on.

Auto Power Off : Turns off power if you do not perform any operation for a specified amount of time.

1. Turn on the camera.
2. Press [MENU].
3. Use [◀] and [▶] to select the “Set Up” tab.
4. Use [▲] and [▼] to select the feature whose setting you want to configure, and then press [▶].

- See page 45 for information about how to use menus.

To configure this feature:	Select this setting:
Sleep	Sleep
Auto Power Off	Auto Power Off

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

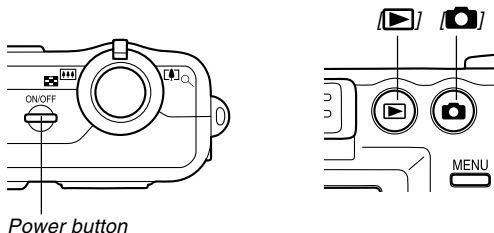
- Available Sleep settings are: “30 sec”, “1 min”, “2 min”, and “Off”.
- Available Auto Power Off settings are: “2 min” and “5 min”.
- Note that the Sleep feature does not operate in the PLAY mode.
- Pressing any button while the camera is in the Sleep state immediately turns the monitor screen back on.
- The Auto Power Off and Sleep features are disabled in the following cases.
 - When the camera is connected to a computer or some other device through the USB cable

Using the On-screen Menus

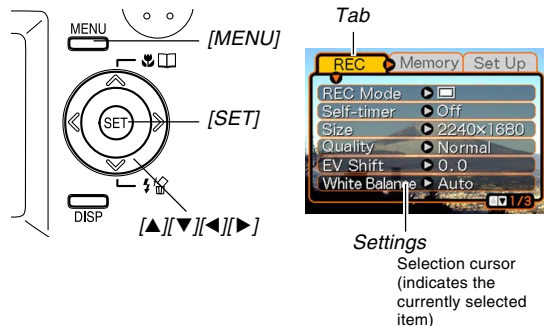
Pressing [MENU] displays menus on the monitor screen that you can use to perform various operations. The menu that appears depends on whether you are in the REC mode or the PLAY mode. The following shows an example menu procedure in the REC mode.

1. Press the power button or the [CAMERA] (REC) button.

- If you want to enter the PLAY mode instead, press the [PLAY] (PLAY) button.



2. Press [MENU].



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● Menu Screen Operations

When you want to do this:	Do this:
Move between tabs	Press [◀] and [▶].
Move from the tab to the settings	Press [▼].
Move from the settings to the tab	Press [▲].
Move between the settings	Press [▲] and [▼].
Display the options available for a setting	Press [▶] or press [SET].
Select an option	Press [▲] and [▼].
Register an option selection and exit the menu screen	Press [SET].
Register an option selection and return to the menu screen	Press [◀].
Exit the menu screen	Press the [MENU] button.

3. Press [◀] or [▶] to select the tab you want, and then press [SET] to move the selection cursor from the tab to the settings.

4. Use [▲] and [▼] to select the feature whose setting you want to configure, and then press [▶].

- Instead of pressing [▶], you could also press [SET].



Example: To select the "REC Mode" item.

5. Use [▲] and [▼] to change the currently selected setting.

6. Perform one of the following operations to apply the setting you configured.

To do this:	Perform this key operation:
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.	<ol style="list-style-type: none"> 1. Press [◀]. 2. Use [▲] to move back up to tab selection.

- See “Menu Reference” on page 162 for more information about menus.

Configuring Display Language and Clock Settings

Be sure to configure the following settings before using the camera to record images.

- Display language
- Home city
- Date Style
- Date and time

Note that the current date and time settings are used by the camera to generate the date and time that are stored along with image data, etc.

▶▶ IMPORTANT! ◀◀

- The camera's clock settings are cleared whenever power is totally cut off. This can happen if the batteries go dead while the camera is not being supplied power by the AC adaptor. The clock setting screen will appear automatically the next time you turn on power after the settings are cleared. Set the date and time before using the camera.
- The current date and time settings will be cleared if the batteries remain dead without being charged for about two days.
- Recording images without configuring the clock settings causes incorrect time information to be registered. Be sure to configure the clock settings before using the camera.

To configure display language and clock settings

1. Press the power button, the **[CAMERA]** (REC) or the **[PLAY]** (PLAY) button to turn on the camera.
2. Use **[▲]**, **[▼]**, **[◀]**, and **[▶]** to select the language you want, and then press **[SET]**.



日本語	: Japanese
English	: English
Français	: French
Deutsch	: German
Español	: Spanish
Italiano	: Italian
Português	: Portuguese
中國語	: Chinese (Complex)
中国語	: Chinese (Simplified)
한국어	: Korean

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3. Use [▲], [▼], [◀], and [▶] to select the geographical area where you live, and then press [SET].



4. Use [▲] and [▼] to select the name of the city where you live, and then press [SET].



5. Use [▲] and [▼] to select the summer time (DST) setting you want, and then press [SET].

When you want to do this:	Select this setting:
Keep time using summer time (Daylight Saving Time)	On
Keep time using standard time	Off

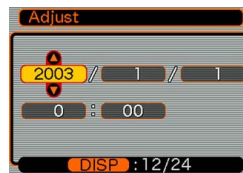
6. Use [▲] and [▼] to change the date format setting, and then press [SET].



Example: October 23, 2003

To display the date like this:	Select this format:
03/10/23	YY/MM/DD
23/10/03	DD/MM/YY
10/23/03	MM/DD/YY

7. Set the current date and the time.



To do this:	Do this:
Change the setting at the current cursor location	Press [▲] and [▼].
Move the cursor between settings	Press [◀] and [▶].
Toggle between 12-hour and 24-hour timekeeping	Press [DISP].

8. Press [SET] to register the settings and exit the setting screen.

BASIC IMAGE RECORDING

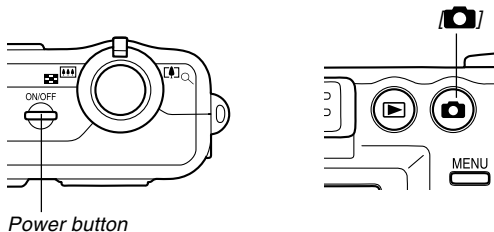
This section describes the basic procedure for recording an image.



Recording an Image

Your camera automatically adjusts shutter speed in accordance with the brightness of the subject. Images you record are stored in the camera's built-in memory, or to a memory card if you have one loaded in the camera.

- When an optionally available SD memory card or MultiMediaCard (MMC) is loaded in the camera, images are stored on the card (page 129).

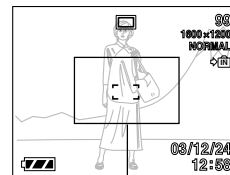
1. Press the power button or the (REC) button to turn on the camera.



- This causes an image or a message to appear on the monitor screen.
- This enters the REC mode for image recording.
- If the camera is in the PLAY mode when it turns on, the message "There are no files" will appear if you do not have any images stored in memory yet. In addition, the  icon will be visible at the top of the display. If this happens, press  (REC) to enter the REC mode.

2. Compose the image on the monitor screen so the main subject is within the focus frame.

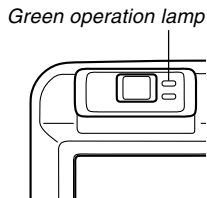
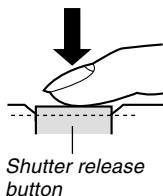
- The focusing range of the camera in the Auto Focus mode is approximately 60cm (2') to infinity (∞) (page 65).
- You can compose images using either the monitor screen or the optical viewfinder (page 55).
- When using the optical viewfinder to compose images, you can use the [DISP] button to turn off the monitor screen and conserve battery power.



Focus frame

3. Press the shutter release button half way to focus the image.

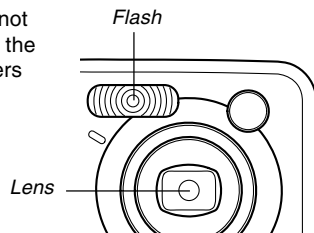
- When you press the shutter release button half way, the camera's Auto Focus feature automatically focuses the image, and displays the shutter speed and aperture values.
- You can tell whether the image is focused by observing the focus frame and the green operation lamp.



● Operation Lamp and Focus Frame Operation

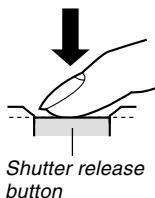
When you see this:	It means this:
Green focus frame Green operation lamp	The image is in focus.
Red focus frame Flashing green operation lamp	The image is not in focus.

- Make sure you are not blocking the lens or the flash with your fingers while recording an image.



4. After making sure that the image is focused properly, press the shutter release button the rest of the way down to record.

- The number of images that can be stored in memory depends on the resolution setting you are using (page 172).
- Press the shutter release button gently to avoid camera movement.



Recording Precautions

- Never open the battery compartment cover while the green operation lamp is flashing. Doing so not only causes the current image to be lost, it can also corrupt images already stored in file memory and even lead to malfunction of the camera.
- Never remove the memory card while an image is being recorded to the memory card.
- Fluorescent lighting actually flickers at a frequency that cannot be detected by the human eye. When using the camera indoors under such lighting, you may experience some brightness or color problems with recorded images.
- When "Auto" is selected for the ISO sensitivity setting (page 84), the camera automatically adjusts its sensitivity in accordance with the brightness of the subject. This can cause some static noise to appear in images of relatively dark subjects.
- When recording a dimly lit subject while "Auto" is selected for the ISO sensitivity setting (page 84), the camera increases sensitivity and uses a slower shutter speed. Because of this, you need to guard against camera movement if you have flash turned off (page 58).
- If unwanted light is shining on the lens, shade the lens with your hand when recording the image.

About Auto Focus

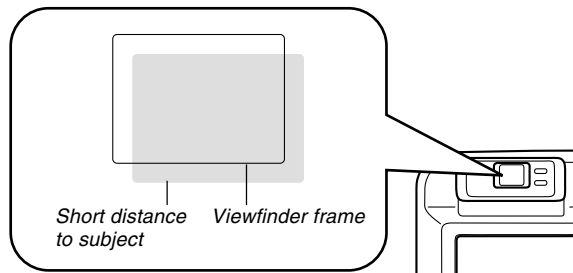
- Auto Focus tends not to work well if the camera is moved during recording, or when recording the types of subjects listed below.
 - Solid color walls or objects with little contrast
 - Strongly backlit objects
 - Polished metal or other brightly reflective objects
 - Venetian blinds or other horizontally repeating patterns
 - Multiple images that are varying distances from the camera
 - Subjects in poorly lit areas
 - Moving subjects
- Note that a green operation lamp and focus frame do not necessarily guarantee that an image is in focus.
- If Auto Focus does not produce the results you want for some reason, try using focus lock (page 69) or manual focus (page 68).

About the REC Mode Monitor Screen

- The image shown on the monitor screen in the REC mode is a simplified image for composing purposes. The actual image is recorded in accordance with the image quality setting currently selected on your camera. The image saved in file memory has much better resolution and detail than the REC mode monitor screen image.
- Certain levels of subject brightness can cause the response of the REC mode monitor screen to slow down, which causes some static noise in the monitor screen image.

Using the Optical Viewfinder

You can conserve battery power by turning off the camera's monitor screen (page 31) and using the optical viewfinder to compose images.



▶▶ IMPORTANT! ◀◀

- The frame that is visible inside of the viewfinder indicates the image recorded at a distance of about one meter (3.3'). When the subject is closer than one meter, the recorded image will be different from what you see inside the viewfinder frame.
- The monitor screen turns on automatically whenever you select the Macro mode or Manual Focus mode. Always use the monitor screen to compose images in these modes.

Using Zoom

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

Optical Zoom

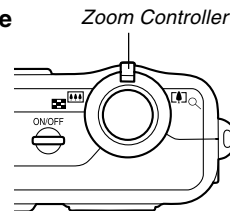
The range of the optical zoom factor is shown below.

Optical Zoom

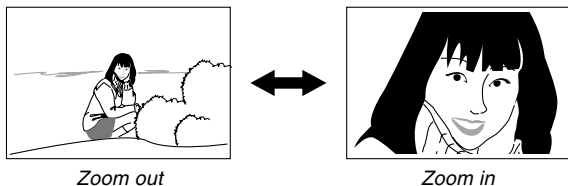
Factor Range: 1X to 3X

(1X to 1.2X in the Macro Mode)

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



To do this:	Slide the zoom controller in this direction:
Zoom out	(Wide Angle)
Zoom in	(Telephoto)



2. Compose the image, and then press the shutter release button.

»» 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

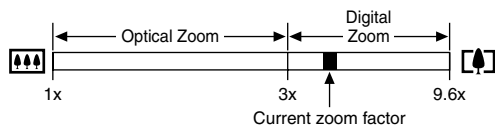
Digital zoom is activated after you reach the maximum optical zoom factor (3X). It enlarges the part of the image at the center of the image screen. The range of the digital zoom factor is shown below.

Digital Zoom Factor Range: 3X to 9.6X
(in combination with optical zoom)

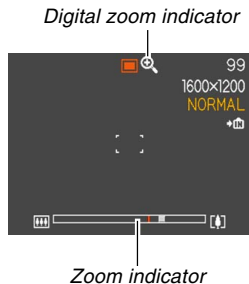
1. In the REC mode, press [MENU].
2. Use [◀] and [▶] to select the “REC” tab.
3. Use [▲] and [▼] to select “Digital Zoom”, and then press [▶].
4. Select “On”, and then press [SET].
 - Selecting “Off” disables digital zoom.

5. Slide the zoom controller towards [▲] (Telephoto)/ [◂] to change the zoom factor.

- When zoom reaches maximum optical zoom, it stops momentarily. Keep the zoom controller pressed to the [▲] (Telephoto)/ [◂] side and zoom will switch over to digital zoom.
- Switching to digital zoom causes the zoom indicator to appear on the monitor screen. The zoom indicator shows the current approximate zoom factor.



6. Compose the image, and then press the shutter release button.



IMPORTANT!

- Digital zoom is disabled whenever the monitor screen is turned off (page 31).
- Using digital zoom can cause degradation of the recorded image.

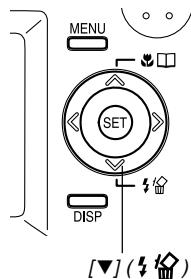
Using the Flash

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

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

2. Press [▼] (⚡🏠) to select the flash mode.

- Each press of [▼] (⚡🏠) cycles through the flash mode settings shown below on the monitor screen.



Flash mode indicator



To do this:	Select this setting:
Have the flash fire automatically when required (Auto Flash)	None
Turn off the flash (Flash Off)	
Always fire the flash (Flash On)	
Fire a pre-flash followed by image recording with flash, reducing the chance of red-eye in the image (Red-eye reduction) In this case, the flash fires automatically when required	

3. Record the image.

IMPORTANT!

- The flash unit of this camera fires a number of times when you record an image. The initial flashes are pre-flashes, which the camera uses to obtain information that it uses for exposure settings. The final flash is for recording. Make sure that you keep the camera still until the shutter releases.
- Image recording may not be performed if you press the shutter release button while the red operation lamp is flashing.

■ 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.

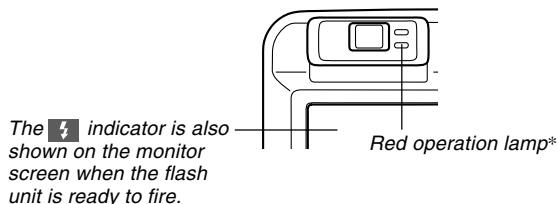
▶▶ IMPORTANT! ◀◀

Note the following important points when using red-eye reduction.

- Red-eye reduction does not work unless the people in the image are looking directly at the camera during the pre-flash. Before pressing the shutter release button, call out to the subjects so they all look at the camera while the pre-flash operation is performed.
- Red-eye reduction may not work very well if the subjects are located far away from the camera.

Flash Unit Status

You can find out the current flash unit status by pressing the shutter release button half way and checking the monitor screen and red operation lamp.



* Red operation lamp

When the red operation lamp is this:	It means this:
Flashing	Flash unit is charging
Lit	Flash unit is ready to fire

Changing the Flash Intensity Setting

Perform the following steps to change the flash intensity setting.

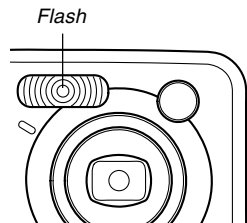
1. In the REC mode, press [MENU].
2. Use [◀] and [▶] to select the “REC” tab.
3. Use [▲] and [▼] to select “Flash Intensity”, and then press [▶].
4. Select the setting you want, and then press [SET].




To do this:	Select this setting:
Fire the flash with strong intensity	Strong
Fire the flash with normal intensity	Normal
Fire the flash with weak intensity	Weak

- Flash intensity may not change if the subject is too far or too close to the camera.

Flash Precautions

Take care that your fingers do not block the flash when you hold the camera. Covering the flash with your finger can greatly reduce its effectiveness.



- You may not be able to achieve the desired results using a flash if the subject is too close or too far away.
- The flash takes anywhere from a few seconds to as long as 10 seconds to attain full charge after being fired. The actual time required depends on the battery level, temperature, and other conditions.
- The flash does not fire in the Movie mode. This is indicated by  (Flash Off) on the monitor screen.
- The flash unit may not be able to charge when battery power is low. Low battery power is indicated by  (Flash Off) on the monitor screen, and when the flash fails to fire properly resulting in poor image exposure. When these symptoms occur, charge the camera's batteries as soon as possible.
- When the red-eye reduction mode  is selected, flash intensity is adjusted automatically in accordance with the exposure. The flash may not fire at all when the subject is brightly lit.

- White balance is fixed while the flash is being used, so sunlight, fluorescent lighting, or other sources of illumination in the immediate area may affect the coloring of the recorded 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 release button. A Triple Self-timer feature lets you perform three consecutive self-timer operations to record three images.

- 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 select the self-timer time you want to use, and then press [SET].**
 - Selecting “Off” in step 4 disables the self-timer.

BASIC IMAGE RECORDING

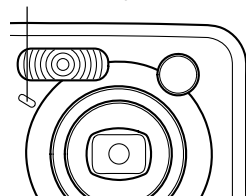
To do this:	Select this setting:
Specify a 10-second self-timer	10 sec
Specify a 2-second self-timer	2 sec
Specify Triple Self-timer	X3
Disable the self-timer	Off

- With the Triple Self-timer, the camera records a series of three images in the sequence described below.
 1. The camera performs a 10-second countdown and then records the first image.
 2. The camera prepares to record the next image. The amount of time required for preparation depends on the camera's current "Size" and "Quality" settings, the type of memory (built-in or card) you are using for image storage, and whether or not the flash is charging.
 3. After preparation is complete, the indicator "1sec" appears on the monitor screen, and another image is recorded one second later.
 4. Steps 2 and 3 are repeated once more to record the third image.

5. Record the image.

- When you press the shutter release button, the self-timer lamp flashes and the shutter releases after the self-timer reaches the end of its countdown.
- You can interrupt an ongoing self-timer countdown by pressing the shutter release button while the self-timer lamp is flashing.

Self-timer lamp



»» NOTES ««

- The "2 sec" self-timer setting is best when shooting with a slow shutter speed, because it helps to avoid blurring of images due to hand movement.
- In the case of the Triple Self-timer, the indicator "1sec" appears on the monitor screen between the recording of each image, indicating an interval of about one second between image recording. The actual amount of time required between images depends on the camera's current "Size" and "Quality" settings, as well as the type of memory being used and whether or not the flash is being used.

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 [▲] and [▼] to select “Size”, and then press [▶].
4. Use [▲] and [▼] to select the setting you want, and then press [SET].

2304 x 1712 : 2304 x1712 pixels

2240 x 1680 : 2240 x1680 pixels

1600 x 1200 : 1600 x1200 pixels

1280 x 960 : 1280 x 960 pixels

640 x 480 : 640 x 480 pixels

NOTES

- If you plan to make large prints of your images or otherwise use them in applications where high-resolution is your top priority, select the “2304 x 1712” image size.
- If you plan to send images as e-mail attachments or otherwise use them in applications where data economy is your top priority, select the “640 x 480” image size.

To specify image quality

1. In the REC mode, press [MENU].
2. Use [◀] and [▶] to select the “REC” tab.
3. Use [▲] and [▼] to select “Quality”, and then press [▶].
4. Use [▲] and [▼] to select the setting you want, and then press [SET].

To get this:	Select this setting:
Very high quality, but large file size	Fine
Normal quality	Normal
Small file size, but low quality	Economy

NOTE

- Use the “Fine” setting when image quality is your top priority and file size is secondary. Conversely, use the “Economy” setting when file size is your top priority and image quality is secondary.

IMPORTANT!

- Actual file size depends on the type of image you record. This means that the remaining image capacity noted on the monitor screen may not be exactly accurate (pages 28 and 172).