

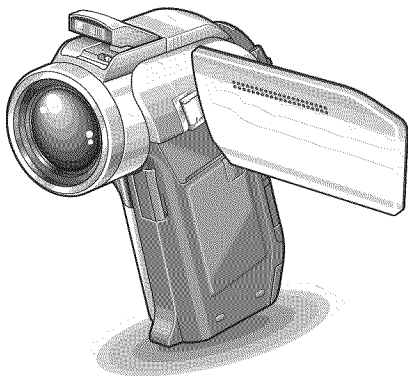
# SANYO

## INSTRUCTION MANUAL

## VPC-HD2000EX VPC-HD2000 VPC-HD2000GX

### Dual Camera

Xacti **HD**  
HIGH DEFINITION



**SD**  
**CG**  
**HDMI**  
HIGH-DEFINITION MULTIMEDIA INTERFACE

### Important note

This manual explains how to safely operate the VPC-HD2000EX, VPC-HD2000 and VPC-HD2000GX.

Any information regarding only one of these products will be labeled as such.

Please read these instructions carefully before using the camera.

Make sure to read and understand the separate booklet "SAFETY MANUAL".

Keep this manual in a safe place for later reference.

## Warning

TO PREVENT THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

## FOR AMERICAN USERS

The following advisory is included in accordance with the laws of the State of California (USA):

### WARNING:

This product contains chemicals, including lead, known to the State of California to cause cancer, birth defects or other reproductive harm. **Wash hands after handling.**

- This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
  - Reorient or relocate the receiving antenna.
  - Increase the separation between the equipment and receiver.
  - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
  - Consult the dealer or an experienced radio/TV technician for help.
- Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

### Declaration of Conformity

Model number: VPC-HD2000

Trade Name: SANYO

Responsible party: SANYO FISHER COMPANY

Address: 21605 Plummer Street, Chatsworth, California 91311

Telephone No.: (818) 998-7322

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

## FOR CANADIAN USERS

- This Class B digital apparatus complies with Canadian ICES-003.

## FOR EU USERS

The symbol mark and recycling systems described below apply to EU countries and do not apply to countries in other areas of the world.

Your SANYO product is designed and manufactured with high quality materials and components which can be recycled and/or reused.

The symbol mark means that electrical and electronic equipment, batteries and accumulators, at their end-of-life, should be disposed of separately from your household waste.

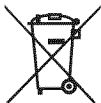
### Note:

If a chemical symbol is printed beneath the symbol mark, this chemical symbol means that the battery or accumulator contains a heavy metal at a certain concentration. This will be indicated as follows: Hg: mercury, Cd: cadmium, Pb: lead

In the European Union there are separate collection systems for used electrical and electronic equipment, batteries and accumulators.

Please, dispose of them correctly at your local community waste collection/recycling centre.

Please, help us to conserve the environment we live in!



### **SANYO FISHER Sales (Europe) GmbH**

Stahlgruberring 4, D-81829 München, Germany

### **SANYO Electric Co., Ltd.**

1-1, Sanyo-cho, Daito City, Osaka 574-8534, Japan

## FOR RUSSIAN USERS



AP46

This product is certified by an official certification company which is authorized by the Russian Federation.

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# HOW TO READ THIS MANUAL

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## **For first-time users**

Please read the sections on "SETUP" and "SIMPLE" in this manual, as well as the included "QUICK GUIDE" to familiarize yourself with your camera's operation.



## **To use the various camera features**

Please read the sections on "NORMAL" and "OPTION SETTINGS" in this manual. To view on a TV, please read the section on "OTHER DEVICES AND CONNECTIONS" in this manual. To connect to a computer, please see the "Xacti Software CD INSTRUCTION MANUAL".



## **To use additional features**

To use a computer to edit the recorded data or to save data to a DVD, please read the "Xacti Software CD INSTRUCTION MANUAL".

You may find the answers to questions or problems concerning camera operation in the sections "COMMONLY ASKED QUESTIONS" (page 168) and "TROUBLESHOOTING" (page 176).

## **Symbols used in this manual**

- |                  |   |
|------------------|---|
| <b>HINT</b>      | Points giving some extended instructions or special points to pay attention to. |
| <b>CAUTION</b>   | Points that require special attention.  |
| <b>(page xx)</b> | Refer to the page indicated for detailed information.                           |

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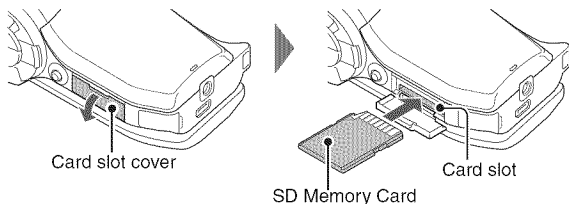
# SHOOT, PLAY BACK AND SAVE

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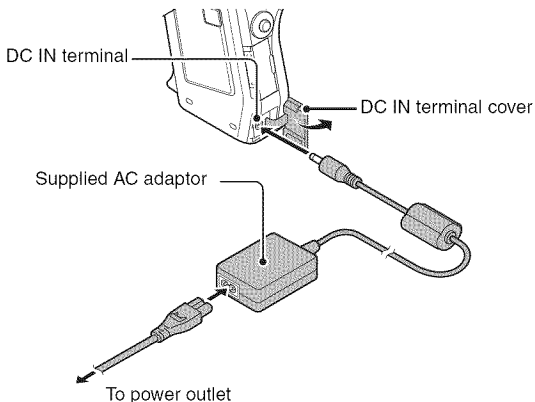
## Preparing the camera

### 1 Insert the SD Memory Card.

- An SD Memory Card is not included with your camera. Please purchase a commercially sold card.
- In this manual, the SD Memory Card is referred to as the "card".



### 2 Connect the AC adaptor to the camera.



# SHOOT, PLAY BACK AND SAVE

## Shooting

- 1 Set the REC/PLAY switch to REC.



- 2 Press the ON/OFF button for at least 1 second to turn the camera on.

- If the screen to set the date and time appears, press the MENU button 2 times to cancel it.


**For how to set the date and time, see page 43.**

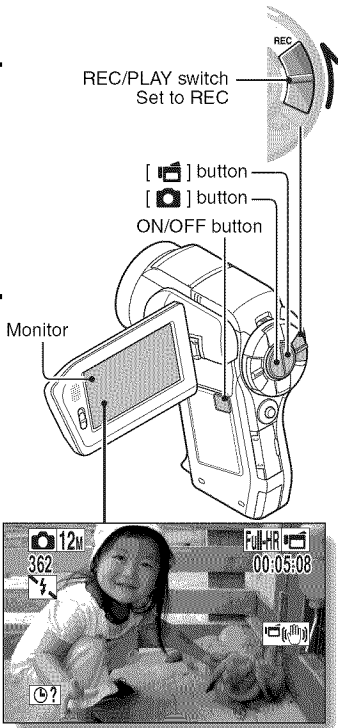
- 3 Record.

### To record a video clip:

- Press the [  ] button to begin recording a video clip.
- Press the [  ] button again to end the recording.

### To take a photo:

- Press the [  ] button.
- A still image is captured.



**Before capturing those important shots, be sure to first take a test shot to confirm that your camera is set up and ready to go**

- Sanyo declines any claim for compensation for recorded contents etc. in case of photographing or recording failure due to a chance camera or card flaw.

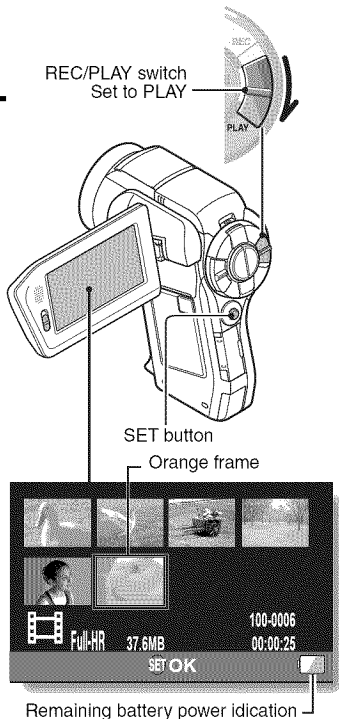
## Playback

### 1 Set the REC/PLAY switch to PLAY.

- The display changes to the Playback Screen.

### 2 Select the image to play back.

- Toggle the SET button left, right, up or down to move the orange frame to the image you wish to play back.
- The image information for the framed image is shown at the bottom of the screen.



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## SHOOT, PLAY BACK AND SAVE

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### **3** Press the SET button.

- Playback begins.
- <To return to the recording mode>**
- Set the REC/PLAY switch to REC.

### **When you are finished using the camera...**

Press the ON/OFF button for at least 1 second to turn the camera off.

### **To continue to the next operation...**

Please confirm that your computer is connected to the Internet.



## Burn your recorded video clips onto a DVD (Windows Vista)

Using the supplied CD-ROM (Xacti Software CD), you can store your captured images on a DVD. Detailed information about the Xacti Software CD can be found on page 4 in the Xacti Software CD INSTRUCTION MANUAL.

### Install application programs

---

- 1 Set the supplied CD-ROM in your computer's DVD drive.**
  - The installation window opens.
- 2 Click on [Nero 8 Essentials].**
  - After clicking on an application program, follow the instructions shown on the monitor to install the program.
  - Nero 8 Essentials works with both Windows XP and Windows Vista. For detailed information concerning the operating environment, please see page 5 in the Xacti Software CD INSTRUCTION MANUAL.
- 3 In the installation window, click on [Finish] and remove the CD-ROM from the computer's DVD drive.**

**<Using Blu-ray Disks/AVCHD>**

  - The supplied Nero 8 Essentials cannot be used to record Blu-ray Disks or AVCHD.
  - To record Blu-ray Disks or AVCHD, please upgrade the Nero 8 Essentials software (a paid-for service).
  - Note that your computer must be connected to the Internet in order to complete this procedure.
  - Please see the Sanyo support page (page 16 in the Xacti Software CD INSTRUCTION MANUAL) or visit the following website for more information.  
<http://www.sanyo-dsc.com/>

**<About the Kodak online service>**

  - When the installation window closes, a dialog box to connect to the website introducing Kodak's online service appears. Check the [No thanks!] option button, and then click on the [OK] button.

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# SHOOT, PLAY BACK AND SAVE

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## Connect your camera to a computer

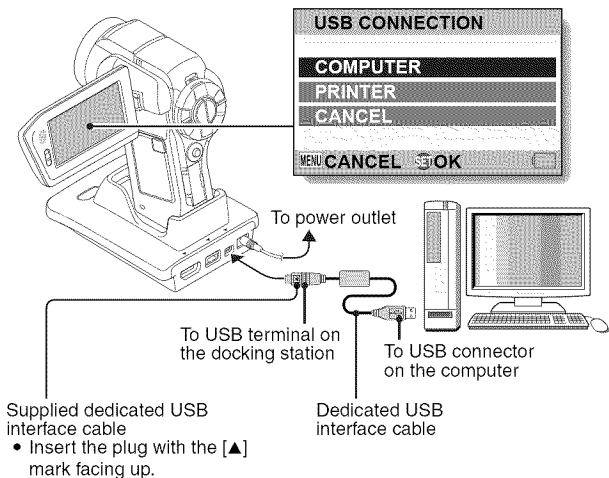
Connect your camera to a computer, and copy the desired files to the computer.

---

**1** Use the supplied dedicated USB interface cable to connect your camera to the computer.

---

**2** Turn on the camera.  
• The USB Connection Screen appears on the camera's monitor.



- 
- 3** Select “COMPUTER”, and press the SET button.
- The screen to select the computer connection mode appears.

- 
- 4** Select “CARD READER”, and press the SET button.
- The message [Found New Hardware] appears in the task tray, showing that the camera is recognized as a drive.
  - The card is recognized (mounted) as a disk, and the [XACTI (E:)] icon appears in the [My Computer] window.
    - The drive name (E:) may be different on your computer.

- 
- 5** Copy the files from the card to the computer’s hard disk.
- The data recorded with your camera are stored in the following folder. You can specify the folder on the hard disk to which to copy the files.  
XACTI (E:)\DCIM\\*\*\*SANYO  
(\* represents numbers [page 12 in the Xacti Software CD INSTRUCTION MANUAL]).
    - The drive name (E:) may be different on your computer.

---

**HINT**

- For information on how to copy all the camera’s still image and video clip files at once, please see the support pages at the website below:  
<http://www.sanyo-dsc.com/>

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## SHOOT, PLAY BACK AND SAVE

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### Burn video clips onto a DVD (For Windows Vista users)

Here's how to write your recorded data onto a DVD in the mpeg2 format. For information on other operations, please see the Help file for Nero Vision. To access the Nero Vision Help file, click the [?] button on the Nero Vision start screen.

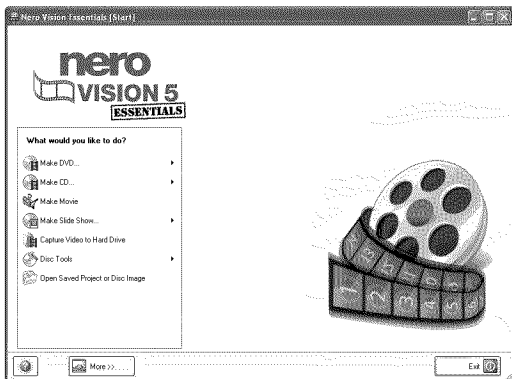
---

**1** Insert a blank DVD in your computer's DVD drive.

---

**2** Click the Start button, and point to [All Programs] → [Nero 8], and click on [Nero Vision Essentials].

- Nero Vision starts up, and the start screen appears.



- The specifications for the Nero 8 Essentials edition that is included with your camera are different from those of the commercially sold edition.

---

### **3 Under the “What would you like to do?” heading, point to [Make DVD] and click on [DVD-video].**

- The Hints window opens, in which you can find an explanation of each screen.

#### **<To disable the Hints window >**

- From the [Show hints when moving to page] menu in the Hints window select [Disable].

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### **4 Click on “Third party patent activation” on the tool bar.**

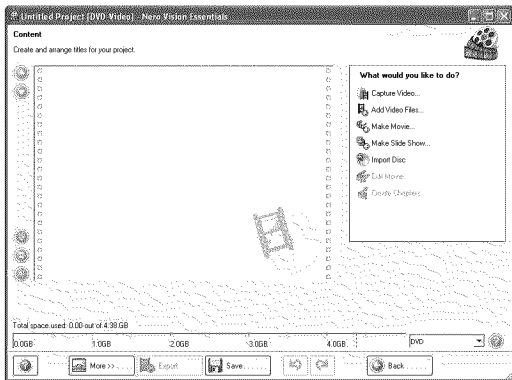
- The screen to activate third party patent activation (the certification process that enables you to use the functions) via the Internet or FAX appears.
- The activation process is necessary in order to create and play back DVDs, as well as to import and export MPEG-2 type files.
- Once the third party patent activation is completed, it will not be requested again.
- The number of times for third party patent activation is limited. When this limitation has been exceeded (by multiple installations, for example), please follow the instructions on the screen to contact Nero support.

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## SHOOT, PLAY BACK AND SAVE

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- 5** Click the [Close] button.
- The screen to make a DVD-video opens.
- <To return to the preceding step>
- Click the [Back] button.

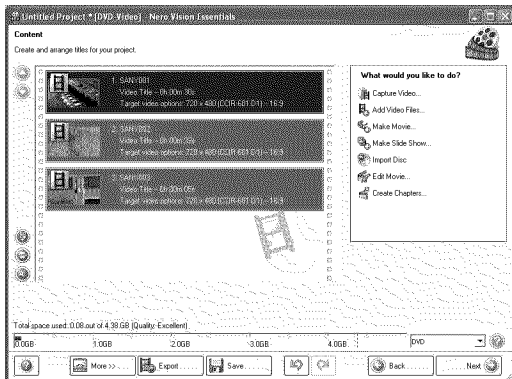


- 
- 6** Under the “What would you like to do?” heading, click [Add video files].
- The window to select files to burn to DVD opens.

- 
- 7** Click on a file to burn to DVD.
- <To select multiple files>
- Click on the files while holding down the [Ctrl] key.

## 8 Click the [Open] button.

- The selected files are shown in the “Content” field.



### <To check the contents of the selected files>

- When you double-click a file in the “Content” field, the window to play the file appears. Click the [Next] button when you want to return to the previous window.

### <To deselect a file>

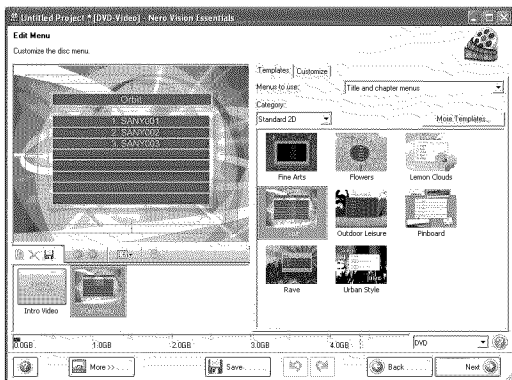
- ① Right-click on the file in the “Content” field that you wish to deselect.
  - A pulldown menu appears.
- ② Click [Remove].
  - The selected file is removed from the “Content” field.

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## SHOOT, PLAY BACK AND SAVE

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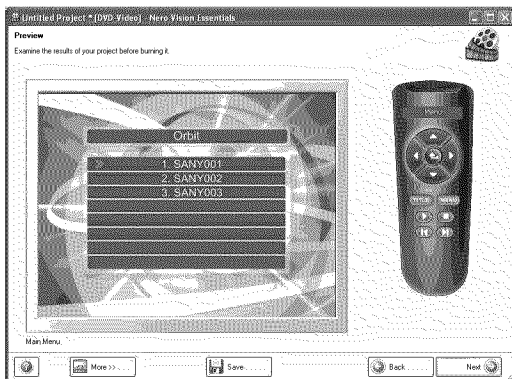
- 9** Click the [Next] button.
- The window to edit the disk menu appears.





**10** Click on one of the designs under “Templates”, and then click the [Next] button.

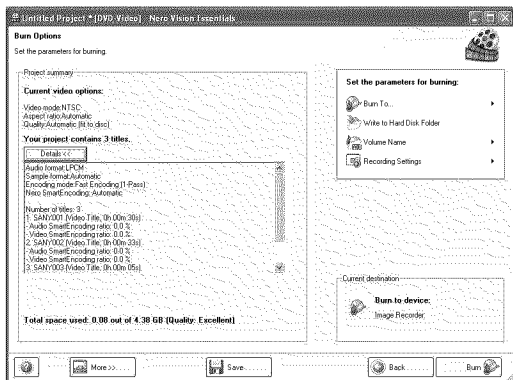
- A preview of the selected design is shown.



# SHOOT, PLAY BACK AND SAVE

## 11 Click the [Next] button.

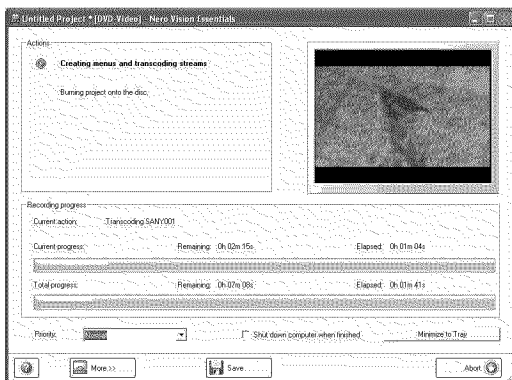
- The window to configure the DVD burn setup opens.



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## 12 Click the [Burn] button.

- Disk writing begins.
- The process status is shown in the “Recording progress” field.



- When the burn process is completed, a screen asking if you would like to save a log file of the burn process appears.

---

## 13 Click the [Yes] button.

- Enter a name for the log file.

---

## 14 Click the [Save] button.

- A screen for you to indicate the next operation appears.

---

## SHOOT, PLAY BACK AND SAVE

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- 15** Click the **[Finish]** button.
- A screen asking if you would like to save the project appears.

- 
- 16** Click the **[Yes]** button.
- Enter a name for the project file.

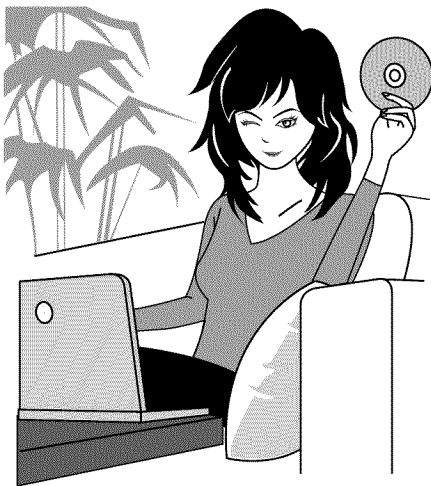
- 
- 17** Click the **[Save]** button.
- Nero Vision Essentials ends.

---

### CAUTION

- When burning full high-definition (HD) images to a DVD, it may take some time to convert the video format, depending on your computer's capability.
- Commercially sold DVD software cannot be played back.

How was that? The convenient accessories not only let you immediately view images captured with the camera, but you can also upload images to your computer and create your original DVDs. Read the following explanations to find out how you can fully enjoy your camera's digital video feature.




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# QUICK SEARCH BY OPERATION

Your camera has an abundance of convenient features and functions. From creating precisely the photo you want, to viewing images using various techniques, you can locate the exact operation for your purposes in the following table.

Shooting/recording		
Basic operation	Convenient functions	Additional functions
<b>Getting started shooting/recording</b> <ul style="list-style-type: none"> <li>• "VIDEO CLIP RECORDING" on page 74</li> <li>• "SHOOTING SINGLE SHOTS" on page 75</li> <li>• "Sequential shots" on page 100</li> <li>• "Audio recording" on page 97</li> </ul>	<b>Log the date and time of your photos</b> <ul style="list-style-type: none"> <li>• "DATE AND TIME SETTING" on page 43</li> </ul> <b>Zoom in on the subject</b> <ul style="list-style-type: none"> <li>• "MACRO-PHOTOGRAPHY (ZOOM)" on page 81</li> </ul> <b>Close-up photography</b> <ul style="list-style-type: none"> <li>• "Focus range" (super macro mode) on pages 56 and 62</li> <li>• "Select the focus setting" (super macro mode) on page 72</li> </ul>	<b>For more accurate focus</b> <ul style="list-style-type: none"> <li>• "How to use the manual focus" (manual focus) on page 104</li> </ul> <b>Set the focus to a narrow range</b> <ul style="list-style-type: none"> <li>• "Focus mode setting" on page 105</li> </ul> <b>Reduce noise when recording</b> <ul style="list-style-type: none"> <li>• "NOISE REDUCTION setting" on page 138</li> </ul>
<b>Optimize the photo quality</b> <ul style="list-style-type: none"> <li>• "Select the recording size" on pages 56 and 71.</li> <li>• "Video setting" on pages 60 and 96</li> <li>• "Still image setting" on pages 60 and 100</li> </ul>	<b>Set the camera's color/contrast characteristics</b> <ul style="list-style-type: none"> <li>• "Image quality setting" on page 138</li> </ul>	
<b>Capture fast-moving subjects</b> <ul style="list-style-type: none"> <li>• "Scene select setting" (sports mode) on pages 60 and 101</li> </ul> <b>Suppress camera shake effect</b> <ul style="list-style-type: none"> <li>• "Video stabilizer" and "Photo stabilizer" on page 62</li> <li>• "Motion compensation (image stabilizer) setting" on page 103</li> </ul>		

# QUICK SEARCH BY OPERATION

Shooting/recording		
Basic operation	Convenient functions	Additional functions
<b>Shoot in dark conditions</b> <ul style="list-style-type: none"> <li>• "Exposure compensation" on page 112</li> <li>• "Using the flash" on pages 60 and 77</li> <li>• "Scene select setting" (night view portrait mode/fireworks mode/lamp mode) on pages 60 and 101</li> </ul>		
		<b>Increase the camera's sensitivity</b> <ul style="list-style-type: none"> <li>• "ISO sensitivity setting" on pages 62 and 106</li> <li>• "High sensitivity mode setting" on pages 64 and 111</li> </ul>
<b>Photographing people</b> <ul style="list-style-type: none"> <li>• "Scene select setting" (portrait mode/night view portrait mode) on pages 60 and 101</li> <li>• "Filter setting" (cosmetic filter) on pages 60 and 101</li> <li>• "Using the flash" (red-eye reduction) on pages 60 and 77</li> </ul> <b>Sharp face shots</b> <ul style="list-style-type: none"> <li>• "Face chaser setting" on pages 64 and 109</li> </ul>		
<b>Simplified operation for shooting/playback</b> <ul style="list-style-type: none"> <li>• "SIMPLE MODE/NORMAL MODE" on page 47</li> </ul>		
<b>Photographing landscapes</b> <ul style="list-style-type: none"> <li>• "Scene select setting" (landscape mode) on pages 60 and 101</li> </ul>		
<b>Take a self-photo</b> <ul style="list-style-type: none"> <li>• "Self-timer setting" on page 102</li> </ul>		
	<b>Make images lighter or darker</b> <ul style="list-style-type: none"> <li>• "Exposure compensation" on page 112</li> <li>• "High sensitivity mode setting" pages 64 and 111</li> </ul>	<b>Measure the brightness of a specific area</b> <ul style="list-style-type: none"> <li>• "Light-measuring mode setting" on pages 62 and 105</li> </ul> <b>Adjust the camera's sensitivity</b> <ul style="list-style-type: none"> <li>• "ISO sensitivity setting" pages 62 and 106</li> </ul> <b>For a more precise exposure setting</b> <ul style="list-style-type: none"> <li>• "Exposure setting" (manual exposure control) on pages 64 and 108</li> </ul>
	<b>Change the color of the images</b> <ul style="list-style-type: none"> <li>• "Filter setting" (monochrome filter/sepia filter) on pages 60 and 101</li> </ul>	<b>Make white appear natural</b> <ul style="list-style-type: none"> <li>• "White balance setting" on pages 64 and 107</li> </ul>

## Playback

Basic operation	Convenient functions	Additional functions
<b>Getting started viewing images</b> <ul style="list-style-type: none"> <li>• "PLAYING BACK VIDEO CLIPS AND STILL IMAGES" on page 84</li> </ul>	<b>Adjust the speaker volume</b> <ul style="list-style-type: none"> <li>• "PLAYBACK VOLUME" pages 58, 65 and 89</li> </ul> <b>Search for image/ audio files</b> <ul style="list-style-type: none"> <li>• "21-image display playback" on page 93</li> <li>• "Selecting the playback folder" on pages 66 and 94</li> </ul> <b>Magnify an image</b> <ul style="list-style-type: none"> <li>• "Magnifying (zooming in) the image" on page 95</li> </ul>	<b>Change the angle of view</b> <ul style="list-style-type: none"> <li>• "Rotate" on pages 65 and 117</li> </ul> <b>Reduce the photo size</b> <ul style="list-style-type: none"> <li>• "Resize" on pages 65 and 117</li> </ul>
<ul style="list-style-type: none"> <li>• "Audio playback" on page 98</li> </ul>	<b>Adjust the speaker volume</b> <ul style="list-style-type: none"> <li>• "PLAYBACK VOLUME" on pages 58, 65 and 89</li> </ul>	
<b>Continuous playback</b> <ul style="list-style-type: none"> <li>• "SLIDESHOW PLAYBACK" on pages 58, 65, 88 and 114</li> </ul>		
<b>Adjust the monitor brightness</b> <ul style="list-style-type: none"> <li>• "Adjusting the monitor brightness" on page 76</li> <li>• "BRIGHTNESS setting" on page 138</li> </ul>		
<b>Playback on a TV</b> <ul style="list-style-type: none"> <li>• "PLAYING BACK ON A TV" on page 161</li> </ul> <b>Set the TV system</b> <ul style="list-style-type: none"> <li>• "TV output setting" on pages 140 and 145</li> </ul> <b>How to use Xacti Library</b> <ul style="list-style-type: none"> <li>• "Xacti Library" on page 162</li> </ul>		

## QUICK SEARCH BY OPERATION

File managing/processing		
Basic operation	Convenient functions	Additional functions
<b>Search for image/audio files</b> <ul style="list-style-type: none"><li>• "21-image display playback" on page 93</li><li>• "Selecting the playback folder" on pages 66 and 94</li></ul>		
<b>Delete files</b> <ul style="list-style-type: none"><li>• "DELETING FILES" on pages 58, 65 and 90</li></ul>	<b>Protect files from accidental erasure</b> <ul style="list-style-type: none"><li>• "File protect setting" on pages 65 and 115</li></ul> <b>Format a card</b> <ul style="list-style-type: none"><li>• "Formatting (initializing)" on pages 140 and 152</li></ul>	
<b>Delete a part of a video clip and join video clips</b> <ul style="list-style-type: none"><li>• "Editing video clips" on pages 66 and 119</li></ul>		
<b>Specify the number of prints, index print, and date imprint</b> <ul style="list-style-type: none"><li>• "Printing instructions" on pages 66 and 129</li></ul>		
<b>View the settings that were in effect when the image/audio files were recorded</b> <ul style="list-style-type: none"><li>• "FILE INFO DISPLAY" on page 133</li></ul>		

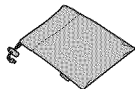
<b>Using with a computer</b>		
<b>Basic operation</b>	<b>Convenient functions</b>	<b>Additional functions</b>
<b>Use the camera as a card reader</b>		
<ul style="list-style-type: none"> <li>• "USING AS A CARD READER" on page 9 in the Xacti Software CD INSTRUCTION MANUAL</li> </ul>		
<b>Copy files from your camera to a computer</b>		
<ul style="list-style-type: none"> <li>• "Connect your camera to a computer" on page ix</li> </ul>		
<b>Burn files copied to the computer onto a DVD</b>		
<ul style="list-style-type: none"> <li>• "Burn video clips onto a DVD (For Windows Vista users)" on page xi</li> </ul>		
<b>Playback</b>		
<ul style="list-style-type: none"> <li>• "About video clip files recorded with this camera" on page 13 in the Xacti Software CD INSTRUCTION MANUAL</li> </ul>		
<b>Using as a webcam</b>		
<ul style="list-style-type: none"> <li>• "Using as a PC camera" on page 15 in the Xacti Software CD INSTRUCTION MANUAL</li> </ul>		
<b>Record an image of the computer screen</b>		
<ul style="list-style-type: none"> <li>• "SCREEN CAPTURE" on page 17 in the Xacti Software CD INSTRUCTION MANUAL</li> </ul>		

---

# CHECKING THE INCLUDED ACCESSORIES

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- Soft case (page 14): 1



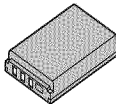
- Handstrap (page 13): 1



- Xacti Software CD (CD-ROM) (page 4 in the Xacti Software CD INSTRUCTION MANUAL): 1



- Li-ion battery pack (page 34): 1



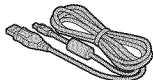
- Docking station (pages 25 and 29): 1



- Dedicated S-AV interface cable (pages 157 and 158): 1



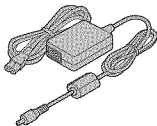
- Dedicated USB interface cable (page 7 in the Xacti Software CD INSTRUCTION MANUAL): 1



- Dedicated component cable (page 159): 1



- AC adaptor and power cord (pages 29, 37 and 38): 1



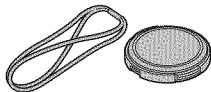


- Remote control unit  
(pages 26, 30 to 32 and 83): 1



**FOR CALIFORNIA, U.S.A. ONLY**  
 Perchlorate Material - special handling may apply.  
 The lithium battery used in this camera contains perchlorate material, which may require special handling. See [www.dtsc.ca.gov/hazardouswaste/perchlorate](http://www.dtsc.ca.gov/hazardouswaste/perchlorate).

- Lens cap (page 13): 1



- Microphone connection cable  
(page 166): 1



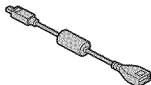
- “SAFETY MANUAL”  
(safety precautions booklet)  
Please read this booklet carefully before using the camera.



- Xacti Library Instruction Manual



- Dedicated USB converter cable: 1
  - For use with the Xacti Library feature



- Cores: 3  
For HDMI cable



- For microphone connection cable



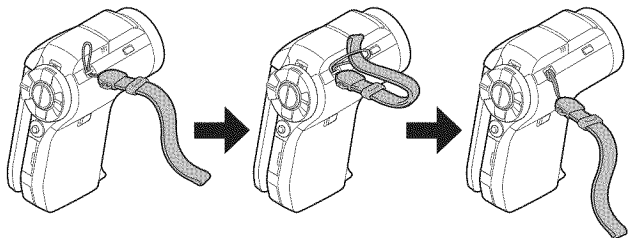
- Quick Guide  
Included with model VPC-HD2000GX. Not included with other models.



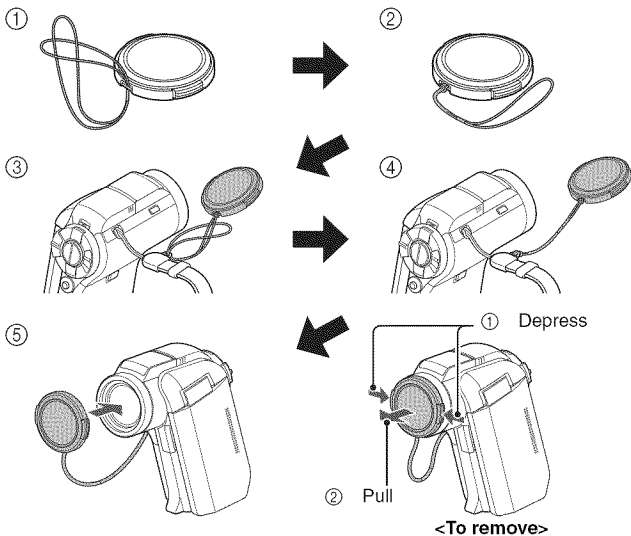
## CHECKING THE INCLUDED ACCESSORIES

### How to use the accessories

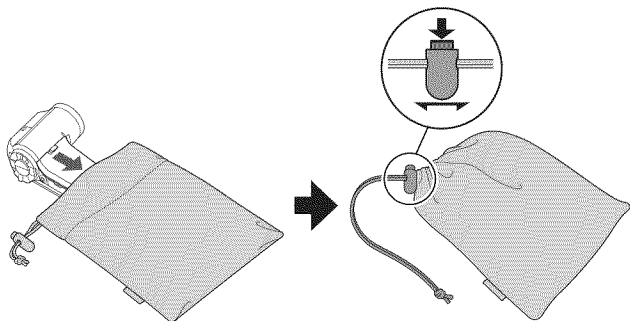
#### ■ Handstrap



#### ■ Lens cap



■ Soft case



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# ABOUT THE SEPARATELY SOLD ACCESSORIES AND THE CARD

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## Separately sold accessories

- **HDMI cable VCP-HDMI01**  
Cable for connecting to the HDMI terminal on the docking station.
- **Lithium-ion Battery Charger VAR-L50**  
Battery charger for the supplied or separately sold lithium-ion battery pack (DB-L50A).
- **Lithium-ion Battery DB-L50**  
Same model as the supplied lithium-ion battery pack.
- **Wide Conversion Lens VCP-L07W**  
Expand your camera's wide-angle range.
- **Tele Conversion Lens VCP-L16T**  
Make distant objects appear closer.
- **Semi Fish-eye Lens VCP-L04F**  
For wide-angle shots close to the fisheye lens.
- **Wireless microphone HM-W300**  
Record sound from the stereo microphone located at a distance from the camera.

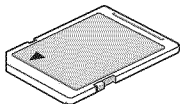
## Recommended accessory

- **External microphone (Product code: 645 056 9692)**  
The recommended stereo microphone for this camera.

## Media cards that can be used with this camera

The type of card that can be inserted into and used with this camera is:

- SD Memory Card
- SDHC Memory Card



## What “card” means in this manual

- In this manual, SD Memory Cards and SDHC Memory Cards that can be used in this digital camera are referred to as “card”.

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# GETTING THE MOST OUT OF YOUR CAMERA

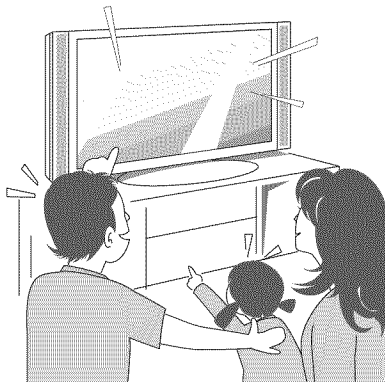
---

Your dual camera can record video clips in Full High Definition\*. It includes an operation mode that lets even novice shutterbugs record and play back without getting flustered, as well as software with which you can easily create your original DVDs. In addition, it comes with the "Xacti Library" feature for saving recorded data to hard disk and managing files without using a computer.

## High-quality images with "Full High Definition\*" (pages 60, 71 and 96)

Your camera can capture full high definition (full HD) 1920 × 1080-pixel video clips. Also, the H.264/MPEG-4 AVC standard is used for formatting video files. You get both compact file size and high picture quality in one high-performance camera.

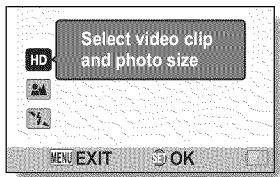
\* "Full High Definition" by SANYO Dual Camera signifies recording at a resolution of 1920 pixels horizontally × 1080 pixels vertically.



## Includes SIMPLE mode for quick-and-easy operation (page 47)

Select from two recording/playback modes: the “SIMPLE mode” for users new to the camera, and the “NORMAL mode” for full use of all the camera’s many features and functions.

**Example:**



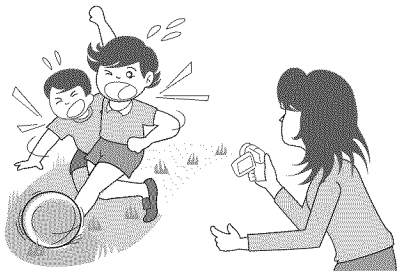
<SIMPLE Mode Recording Menu>



<NORMAL Mode Recording Menu>

## Image stabilizer for sharp pictures (pages 62 and 103)

Your camera can compensate for the camera shake that results in blurry images when you try to capture a fast-moving subject or zoom in on a subject. Image stabilizer functions for both video clip recording and still image shots are on board.



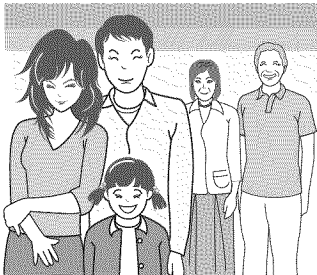
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## GETTING THE MOST OUT OF YOUR CAMERA

---

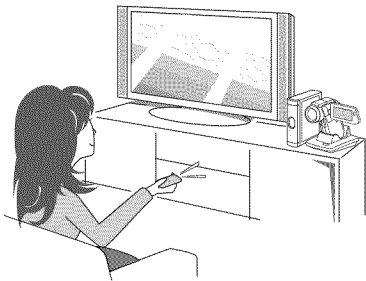
### Sharp face shots (pages 64 and 109)

Your camera is equipped with a face recognition feature which detects the subject's face even when slightly lit from behind or in dim surroundings and automatically adjusts the focus and brightness to compensate. Now those otherwise perfect photos that are marred by shadowed faces can be minimized.



### Xacti Library feature (page 162)

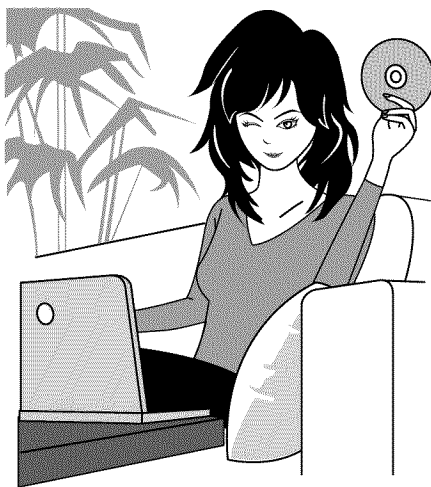
The Xacti Library feature allows you to save files recorded with your camera to a large-capacity hard disk without using a computer and play them back on your TV. No computer operation is involved. You can view full high-definition images right on your TV screen.





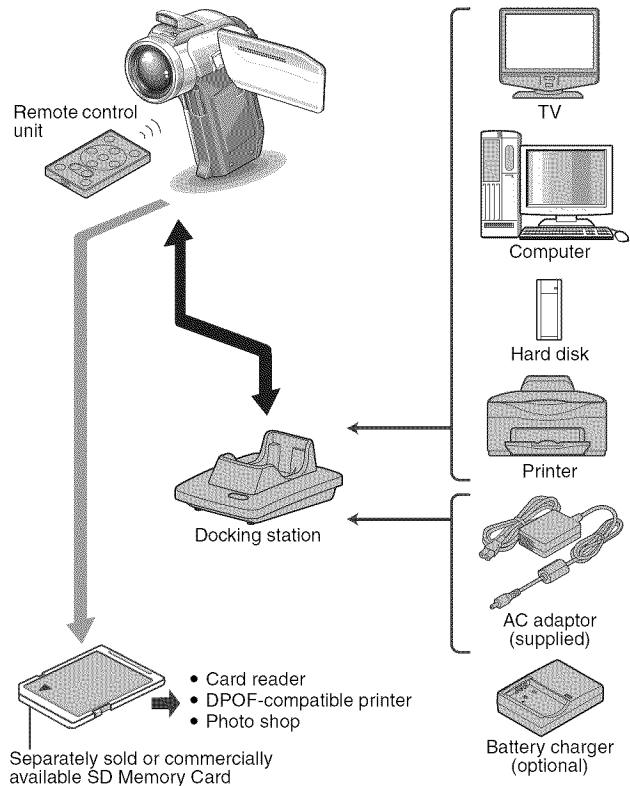
**Lots of accessories for optimal use of your captured images (page 21, and page 4 in the Xacti Software CD INSTRUCTION MANUAL)**

Use the accessory cables to view images on a TV or computer. Or connect the camera directly to a printer to make prints of your photos. And with the software in the supplied CD-ROM (Xacti Software CD), you can create your original DVDs and CDs.



# SYSTEM MAP

You can connect the camera to various devices to expand its capabilities.



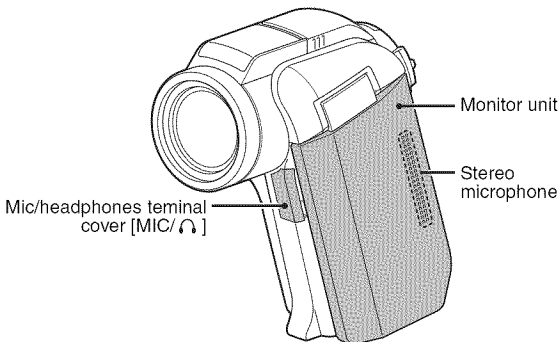
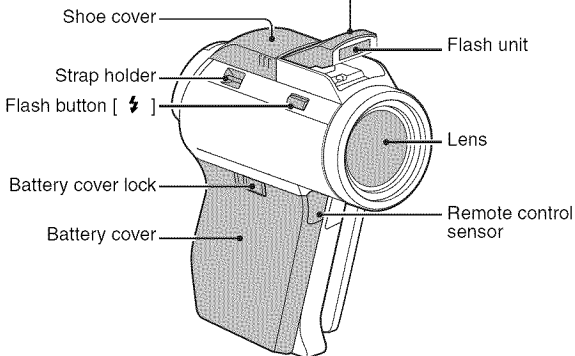
# PARTS NAMES

## Camera

### Front

Flash

- Extends when the flash button [ ⚡ ] is pressed.

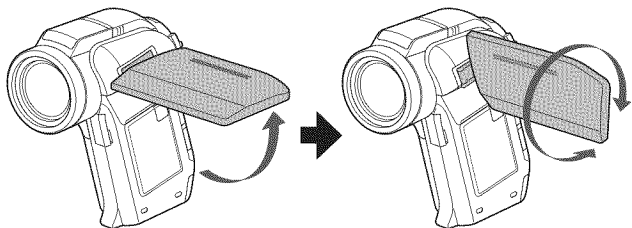


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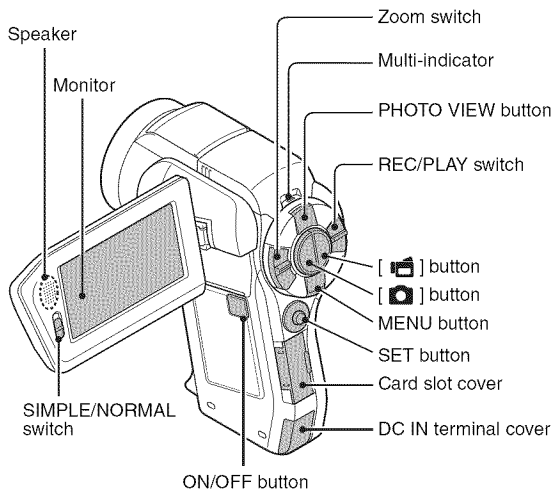
## PARTS NAMES

---

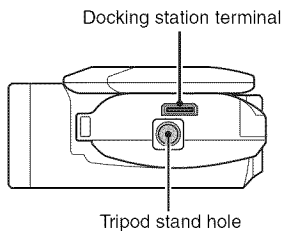
<To open the monitor unit>



## Rear



## Bottom



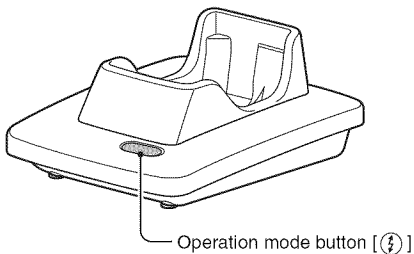
---

## PARTS NAMES

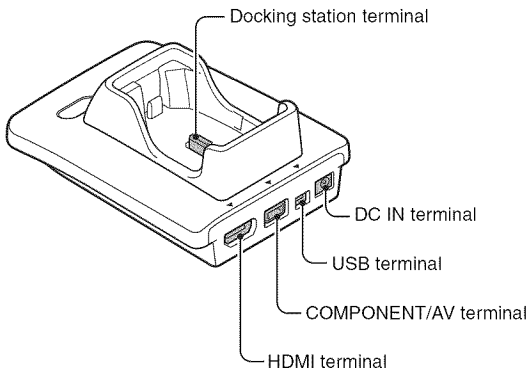
---

### Docking station

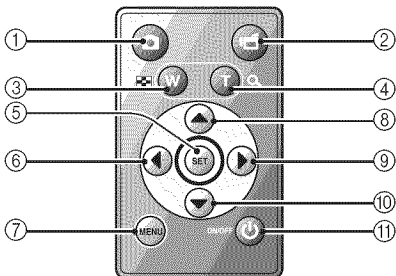
#### Front



#### Rear



## Remote control unit



### <In the recording mode>

- ① [ ] button
- ② [ ] button
- ③ Works the same as pushing zoom switch toward the [W] () side
- ④ Works the same as pushing zoom switch toward the [T] () side
- ⑤ SET button
- ⑥ Works the same as toggling SET button to the left
- ⑦ MENU button
- ⑧ Works the same as toggling SET button up
- ⑨ Works the same as toggling SET button to the right
- ⑩ Works the same as toggling SET button down
- ⑪ ON/OFF button
  - Works only when the camera is set in the docking station.

### <In the playback mode>

- ① [ ] button
- ② [ ] button
- ③ Works the same as pushing zoom switch toward the [W] () side
- ④ Works the same as pushing zoom switch toward the [T] () side
- ⑤ SET button
- ⑥ Works the same as toggling SET button to the left
- ⑦ MENU button
- ⑧ Works the same as toggling SET button up
- ⑨ Works the same as toggling SET button to the right
- ⑩ Works the same as toggling SET button down
- ⑪ ON/OFF button
  - Works only when the camera is set in the docking station.

---

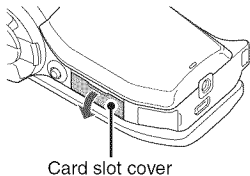
# INSTALLING THE CARD

---

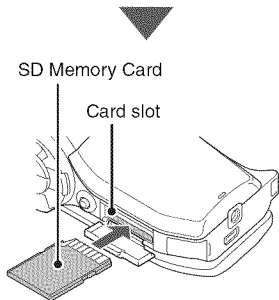
Be sure to format a newly purchased card or one that was used in another device before using it in your camera (pages 140 and 152). If an unformatted card is used, the card itself may become unusable.

---

- 1** Open the card slot cover, and insert the card in the card slot.



- 
- 2** Insert the card all the way in.
- Firmly insert the card until it clicks into place.

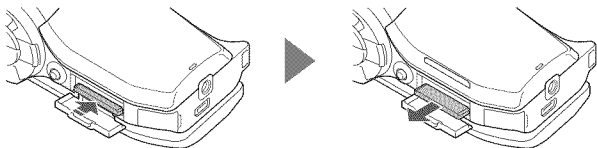


- 
- 3** Close the card slot cover.



**<To remove the card...>**

- To remove the card, press it in, and then release. The card will protrude slightly, and you can then pull it out.



---

**CAUTION**

**Do not attempt to forcibly remove the card**

- Doing so may damage the card or the stored files.

**If the multi-indicator is flashing red...**

- Never remove the card when the multi-indicator is flashing red, as doing so may result in loss of files stored in the card.

---

# PREPARING THE DOCKING STATION

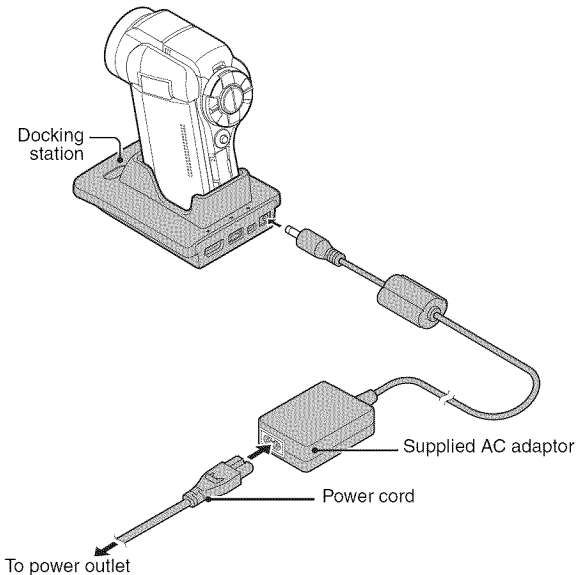
---

The supplied docking station is used to connect your camera to a computer, printer or TV, as well as to charge the battery pack installed in the camera.

---

## 1 Connect the docking station to a power outlet.

- Use the supplied AC adaptor and power cord.



# PREPARING THE REMOTE CONTROL UNIT

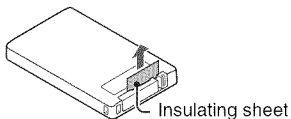
The remote control unit can be used to take pictures and play them back with the camera.

## Prepare the battery

A battery is already installed in the remote control unit at the time of purchase.

### 1 Pull out the battery insulating sheet.

- The remote control unit becomes operable when the insulating sheet is removed.

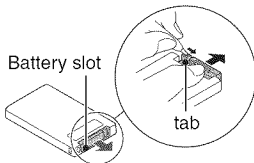


## Replacing the remote control unit battery

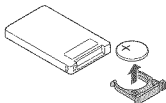
Follow the procedure below to replace the CR2025 battery used in the remote control unit approximately every year (differing depending on the amount of use).

### Remove the old battery

- ① **Pull out the battery slot.**
  - While pressing the tab, pull the battery slot out.

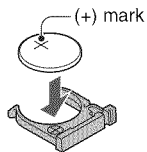


- ② **Remove the battery.**

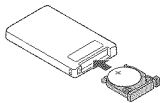


### Insert a new battery

- ① **Insert a new battery.**
  - First wipe the battery with a clean, dry cloth, and insert it with the (+) mark facing up.



- ② **Re-insert the battery slot.**



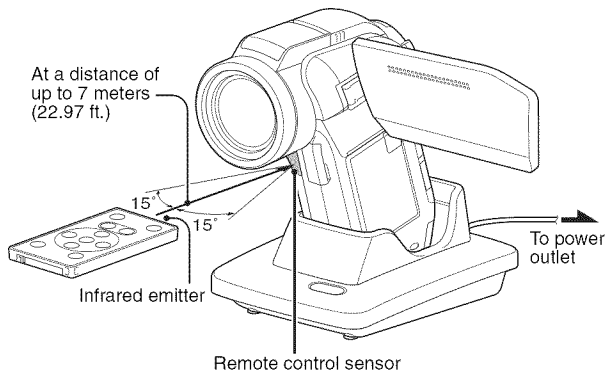
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## PREPARING THE REMOTE CONTROL UNIT

---

### How to use the remote control unit

The remote control unit can be used at an angle that is displaced 15 degrees horizontally from the remote control sensor on the front of the camera, at a distance of up to 7 meters (22.97 ft.). When operating the remote control unit, remove any object that may obstruct the path between it and the remote control sensor.



---


#### CAUTION

- If the remote control unit is operated in sunlight or under inverter lighting, the remote control receiving range may become shorter. This is a characteristic of the infrared remote control unit and is not a defect. To avoid this malfunction when operating the remote control unit, take care to shield the remote control sensor from strong light.


## Changing the remote control code

The remote control unit will also work with other Sanyo cameras that can be operated by infrared remote control. When more than one camera is present, it is recommended to change the remote control code to ensure that only the intended camera operates when the remote control unit is used. The remote control code is set to "RC CODE 1" at the time of purchase.

<Changing the remote control code from "RC CODE 1" to "RC CODE 2">

- 1** Aim the infrared emitter at the remote control sensor on the docking station.
- 2** Simultaneously press the MENU button and the [  ] button for at least 3 seconds.
- 3** Press a button on the remote control unit and check that the camera is receiving correctly.
  - The remote control codes are retained even if the batteries in the remote control unit or camera are replaced.
  - If the remote control codes for the remote control unit and the camera and do not match, the remote control unit cannot be used to operate the camera.

<Resetting the remote control code to "RC CODE 1">

- 1** Aim the infrared emitter at the remote control sensor on the docking station.
- 2** Simultaneously press the MENU button and the [  ] button for at least 3 seconds.

---

# PREPARING THE POWER

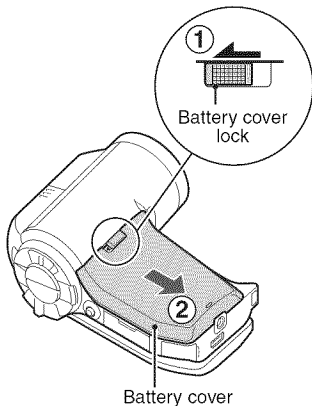
---

Please charge the supplied battery pack before using it. Power to the camera can also be supplied from a power outlet if the docking station or the AC adaptor is used.

## Charging the battery pack

---

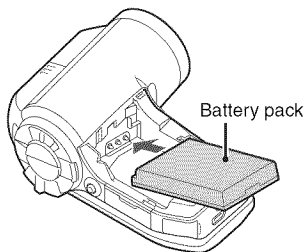
- 1** While pressing the battery cover lock, slide it (①), and pull out the battery cover toward the bottom of the camera (②).
- The battery cover comes off.



---

**2** Insert the battery pack.

- Take care that it is positioned correctly.

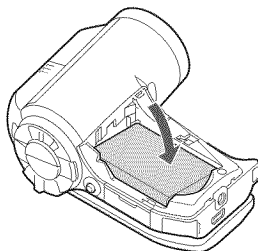


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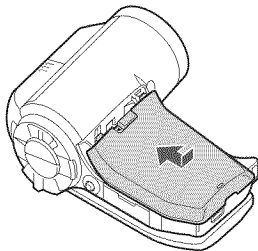
**3** Replace the battery cover.

<To remove the battery pack...>

- Raise the edge of the battery pack to remove it.



---

**4** Prepare the docking station (page 29).

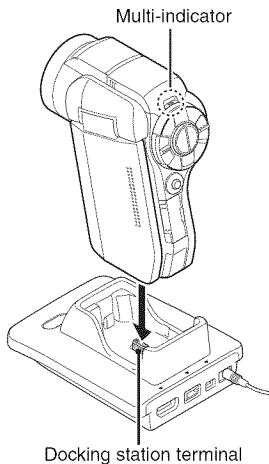
---

## PREPARING THE POWER

---

### 5 Close the camera's monitor unit, and set the camera in the docking station.

- Set the camera securely, making sure that the camera is correctly oriented in relation to the terminal contacts in the docking station.
- Charging begins when the camera is set in the docking station.
- During charging, the multi-indicator is lit red. When charging is completed, the indicator turns off.
- If the multi-indicator flashes red, it indicates that the battery pack is defective or the camera is not correctly set in the docking station. Reset the camera correctly in the docking station.
- The charging time is approx. 200 minutes.
- Charging is executed when the battery temperature is approximately 0 to 35 °C (32 to 95 °F). If the battery temperature exceeds 35 °C (95 °F), the safety mechanism will operate to automatically interrupt charging. The multi-indicator flashes red in this case also. After the battery cools down, charging begins again, and the multi-indicator lights red.
- The AC adaptor (supplied) can be connected to the camera's DC IN terminal to charge the battery.





---

**CAUTION****Using the camera when it is set in the docking station...**

- You can photograph and view images while the camera is set in the docking station.

**Do not charge the battery pack immediately after the camera has been in continuous use for a long time**

- The battery pack becomes hot when the camera is used continuously for a long time. If you attempt to charge the battery pack in this state, the multi-indicator may flash red and it may not be possible to charge the battery pack. Wait until the battery pack has cooled down before attempting to charge it.

**Does the battery pack appear swollen?**

- The lithium-ion battery used in this camera may expand slightly when stored in a hot environment or repeatedly used, but this is not a safety hazard.

---

**HINT****About the internal backup battery**

- This camera's internal battery serves to maintain the date and time settings, as well as the shooting settings. The backup battery will be fully charged when the battery pack is kept in the camera continuously for about 2 days. In the fully charged state, the backup battery will maintain the camera settings for about 7 days.

**When not using the camera for a long time, remove the battery pack**

- A small amount of power is still used even if the camera is turned off, and it is therefore recommended that the battery pack be removed from the camera if it is not going to be used for a long time. Note that when the battery pack is removed for a long period, the time and date settings may be cleared. Before using your camera again, be sure to confirm that the camera settings are correct.

**To prolong the life of the battery pack**

- Although the battery pack is an expendable item, you can maximize the life of the battery by heeding the following suggestions.
  - Do not leave the battery under the hot summer sun or exposed to other high-temperature environments.
  - Do not continually recharge the battery when it is already fully charged. After fully charging it once, for example, use it for a while to partially discharge it before recharging it again.
  - When the battery is not to be used for a long time, if possible store the partially charged (not fully charged) battery in a cool environment.

---

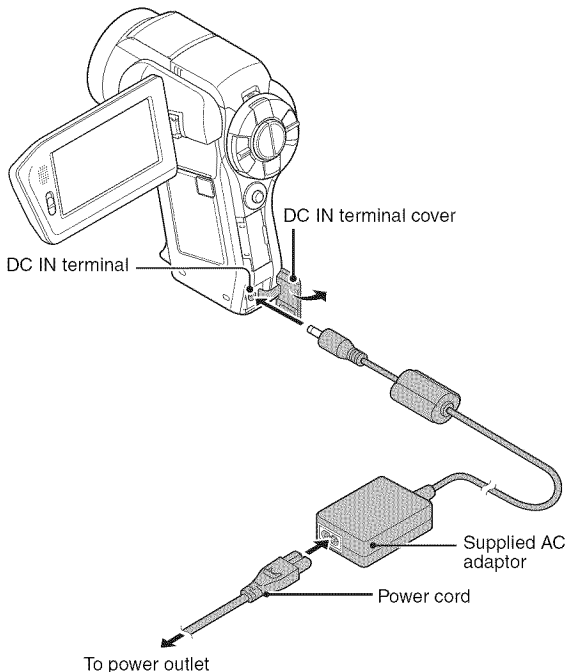
## PREPARING THE POWER

---

### When using a power outlet

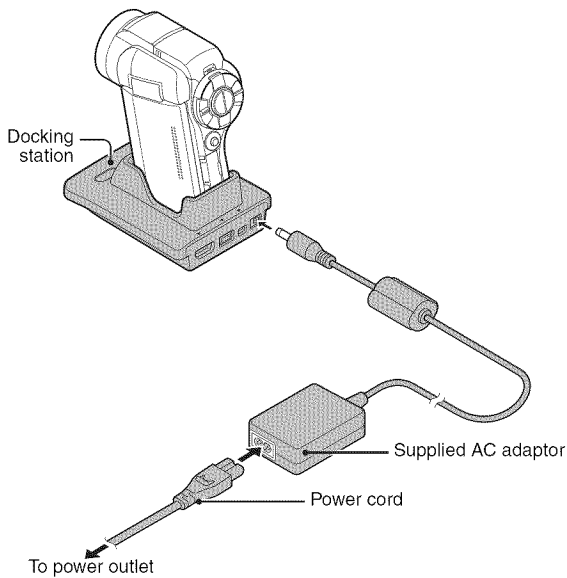
Power to the camera can be supplied from a power outlet if the docking station or the AC adaptor is used.

### Using the AC adaptor



## Using the docking station

Use the supplied AC adaptor and power cord to connect the docking station to a power outlet, and set the camera in the docking station.



---


## PREPARING THE POWER

---







### About recharging

Recharging takes place only when the camera is turned off, or when the power save function or the sleep function has been activated. Recharging does not take place when the camera is in the recording mode or playback mode.

### About the temperature alert icon

During camera use, if the temperature of the battery or inside the camera (excluding the battery) rises, a temperature alert icon  will appear as described below.

#### ■ When the battery or internal camera (excluding battery) temperature rises during use

- During camera use, if the temperature of the battery or inside the camera (excluding the battery) rises, a  icon lights on the monitor. It is still possible to record and play back even when the  icon is lit; however it is advised that you discontinue use as soon as possible and turn the camera off.
- If the temperature rises further, the  icon will start to flash, and the camera will turn off automatically.  
The camera cannot be turned on until the temperature has dropped (or as long as the  icon remains flashing). Please wait until the temperature has dropped before resuming use.
- During video recording, a countdown indicator will show the time starting about 15 seconds before shutdown. When the indicator shows 0 seconds, recording stops.
- If the camera is turned off while the temperature is high (that is, while the  icon is flashing), it cannot be turned on again until the temperature has dropped (or as long as the  icon remains flashing).

# TURNING THE CAMERA ON AND OFF

## Turning on the camera

### 1 Set the REC/PLAY switch.

To shoot pictures:

Set to REC.

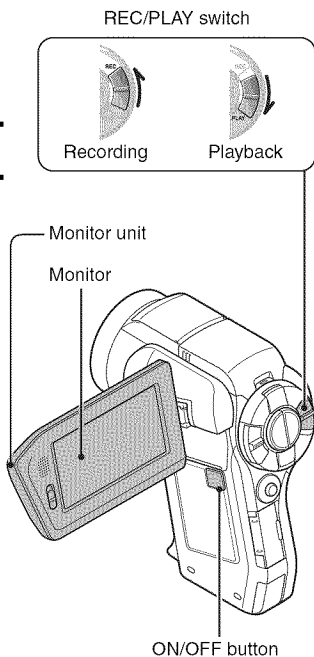
To play back images:

Set to PLAY.

### 2 Open the monitor unit.

### 3 Press the ON/OFF button for at least 1 second.

- The camera turns on.
- If the date and time have not been set, the screen to set the date and time is shown on the monitor.





---

## TURNING THE CAMERA ON AND OFF

---

### Turning on the camera when the power save (sleep) mode is active

In order to preserve battery pack power, the power save (sleep) function will automatically turn off the camera after about 1 minute of no use during shooting, or about 5 minutes of no use during playback (factory-preset setting).

- When the power save mode is active, you can restore the power by any of the following methods:
  - **Move the REC/PLAY switch.**
  - **Press the ON/OFF button.**
  - **Press the [  ] or [  ] button.**
  - **Press the SET or MENU button.**
  - **Push the zoom switch.**
  - **Move the SIMPLE/NORMAL switch.**
  - **Press the PHOTO VIEW button.**
    - When the MENU button is used to turn on the camera, the screen to set the operation sounds appears.
- After the power save mode has been active for about 1 hour, the camera will switch to the standby mode. In this case, you can restore the power by pressing the ON/OFF button, or by closing and then opening the monitor unit.
- When the AC adaptor is connected, the power save mode will become active about 5 minutes after the camera is turned on (factory-preset setting).
- The user can specify the time elapsed before the power save mode is activated (page 140).
- When the camera is connected to a computer or printer, the power save mode becomes active after about 12 hours.

## Turning off the camera

- 1 Press the ON/OFF button for at least 1 second.
  - The camera turns off.

### HINT

#### To immediately activate the power save mode


- Press the ON/OFF button briefly to activate the power save function.

#### About the standby mode

- To turn off the camera only briefly, you can close the monitor unit to put the camera in the standby mode. The standby mode uses almost no power. When the monitor unit is opened again, the camera turns on immediately and you are ready to shoot or view images without any delay.

### CAUTION

#### If the icon appears...

- When a picture is taken, the date and time it was captured are recorded with it. If the date and time settings have not been completed (page 43), the date and time cannot be recorded with the captured images. For this reason, immediately after the camera is turned on, the "Set date and time" reminder briefly appears, after which the  icon is shown on the Recording Screen. To have the date and time recorded with the images, please complete this setting before capturing images.

---

# DATE AND TIME SETTING

---

The camera will record the date and time an image or audio recording is taken so that you can display them during playback. Therefore, before capturing images, make sure the correct date and time are set.

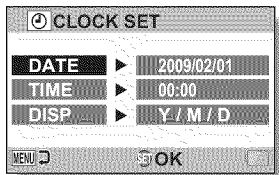
- To correct the date and time setting, please see under **HINT** on page 45.

Example: To set the clock to 7:30 p.m. on December 24, 2009

---

## 1 Turn on the camera (page 40), and press the SET button.

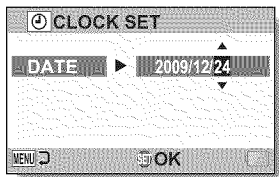
- The Clock Set Screen appears.
- Follow the procedures below to enable or disable the date display during playback, to set the display format for the date, and to set the date and time.
- To display the Recording or Playback Screen, press the MENU button 2 times.



---

## 2 Set the date.

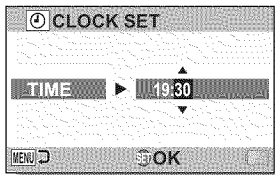
- ① Select "DATE".
- ② Press the SET button.
  - The Set Date Screen appears.
- ③ Set the date to "2009/12/24".
  - The date is set in the following order: Set the year → Set the month → Set the day.
  - Toggle the SET button left or right to select year, month or day. Toggle the SET button up or down to increase or decrease the number.
- ④ Press the SET button.





### 3 Set the clock.

- ① Select "TIME".
- ② Press the SET button.
  - The Set Time Screen appears.
- ③ Set the time to "19:30".
  - The time is set in the following order: Set the hour → Set the minute.
  - A 24-hour clock is used for the time display.
- ④ Press the SET button.



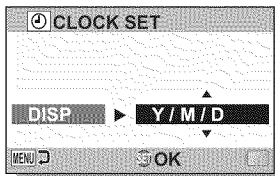
### 4 Set the order in which the date is displayed during playback.

- ① Select "DISP".
- ② Press the SET button.
  - The Set Date Format Screen appears.
- ③ Toggle the SET button up or down.
  - Toggle the SET button up to change the displayed date order as follows:

→ Y / M / D → M / D / Y → D / M / Y

Toggle the SET button down to change it in the reverse order.

- ④ Press the SET button.



---

## DATE AND TIME SETTING

---

### 5 Press the MENU button.

- The date and time setting is completed.
- To display the Recording or Playback Screen, press the MENU button.

---

#### HINT

- Under normal conditions, while the battery pack is being replaced, an internal battery will maintain the date and time settings. However, there is a small chance the settings may be lost (the backup will last for about 7 days). It is recommended to check that the date and time settings are still correct after replacing the battery pack and before shooting or recording of any type (follow step 1).

#### To correct the date and time settings

- ① Turn on the camera.
- ② Display the Option Setting Menu [1] (page 134).
- ③ Select "CLOCK SET" and press the SET button.
  - The screen to set the date and time appears.
  - The current date and time settings are shown.
- ④ Select the line you wish to change, and make the correction.

# SWITCHING BETWEEN THE RECORDING MODE AND PLAYBACK MODE

Switch between the recording mode (for recording) and the playback mode (for viewing your recorded images).

**1** Turn on the camera (page 40).

**2** Set the REC/PLAY switch to the desired mode.

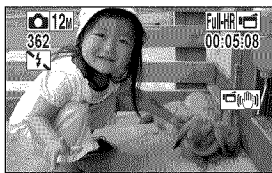
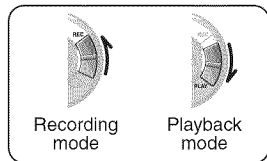
**For recording:**

Set it to REC.

**For playback:**

Set it to PLAY.

REC/PLAY button



<Example of the recording mode>



<Example of the playback mode>

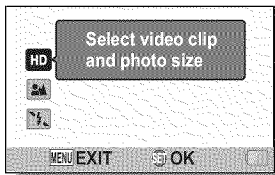
---

# SIMPLE MODE/NORMAL MODE

---

## About the SIMPLE mode and NORMAL mode

The “SIMPLE mode” comprises only those functions that are most often used and necessary to operate the camera, while the “NORMAL mode” enables full use of all the camera’s many functions. Select the mode that is suitable for your purposes.



<SIMPLE Mode Setting Screen>

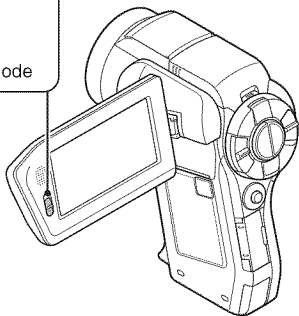
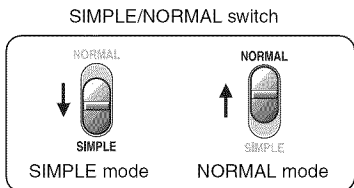


<NORMAL Mode Setting Screen>

## Switching between the SIMPLE and NORMAL modes

Use the SIMPLE/NORMAL switch, located next to the monitor, to switch between the SIMPLE and NORMAL modes.

- 1 Set the SIMPLE/NORMAL switch to the desired mode.  
**SIMPLE mode:** Set it to SIMPLE.  
**NORMAL mode:** Set it to NORMAL.



## SIMPLE MODE/NORMAL MODE

### Accessing/exiting the SIMPLE/NORMAL Mode Menu Screen

- 1** Set the camera to the recording or playback mode.
- Use the REC/PLAY switch to select the recording mode or playback mode.

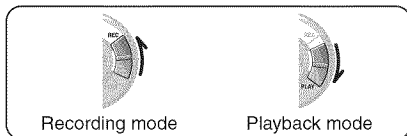
**To access the Recording Menu:**

Set the switch to REC.

**To access the Playback Menu:**

Set the switch to PLAY.

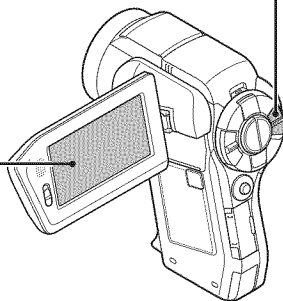
REC/PLAY switch



<Recording mode>



<Playback mode>



## 2

Set the camera to the **SIMPLE mode** or **NORMAL mode**.

- Use the SIMPLE/NORMAL switch to select the desired mode.

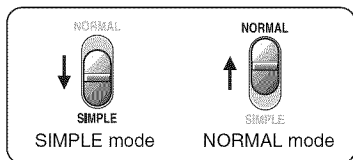
**To select the SIMPLE mode:**

Set the switch to SIMPLE.

**To select the NORMAL mode:**

Set the switch to NORMAL.

SIMPLE/NORMAL switch



<Example: NORMAL Mode  
Recording Screen>



<Example: SIMPLE Mode  
Recording Screen>

---

## SIMPLE MODE/NORMAL MODE

---

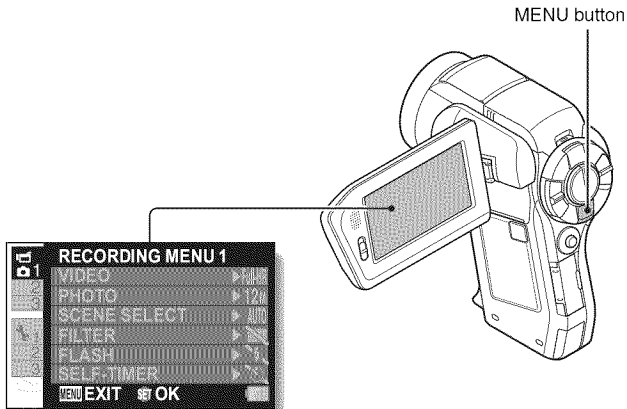
### 3 Press the MENU button.

- The Menu Screen for the mode you selected in steps 1 and 2 appears on the monitor.

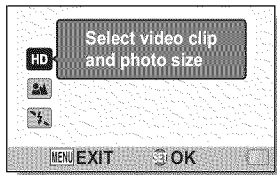
Display the SIMPLE Mode Setting Menu → go to page 52, step 4.

Display the NORMAL Mode Setting Menu → go to page 53, step 4.

- To cancel the Menu Screen, press the MENU button.



<Example: NORMAL Mode Recording Menu>

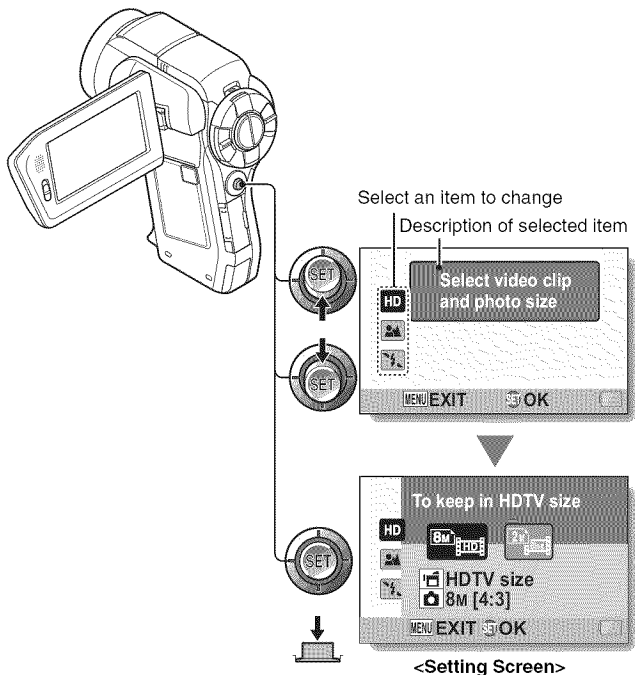


<Example: SIMPLE Mode Recording Menu>



## To access the SIMPLE Mode Setting Menu Screen

- 4** Toggle the SET button up or down to select the item you wish to change, and press the SET button.
- The Setting Screen for the selected item appears.



---

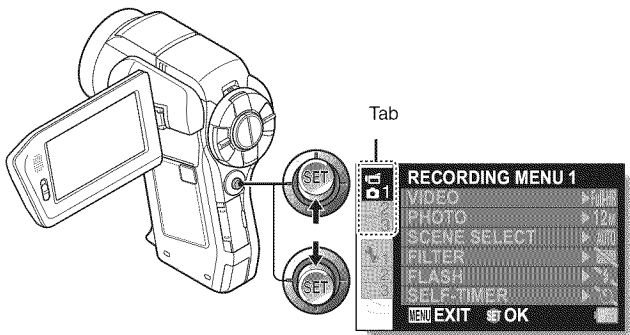
## SIMPLE MODE/NORMAL MODE

---

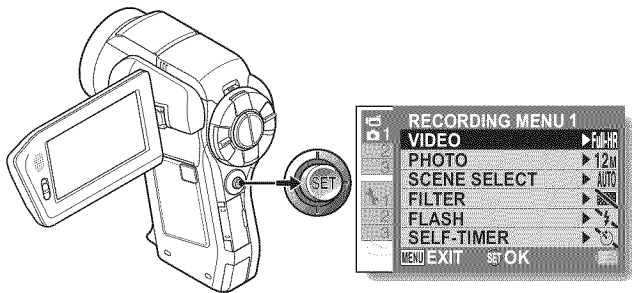
### To access a NORMAL Mode Setting Menu

---

- 4** Toggle the SET button up or down to select a tab.
- The Menu Screen for the selected tab appears.

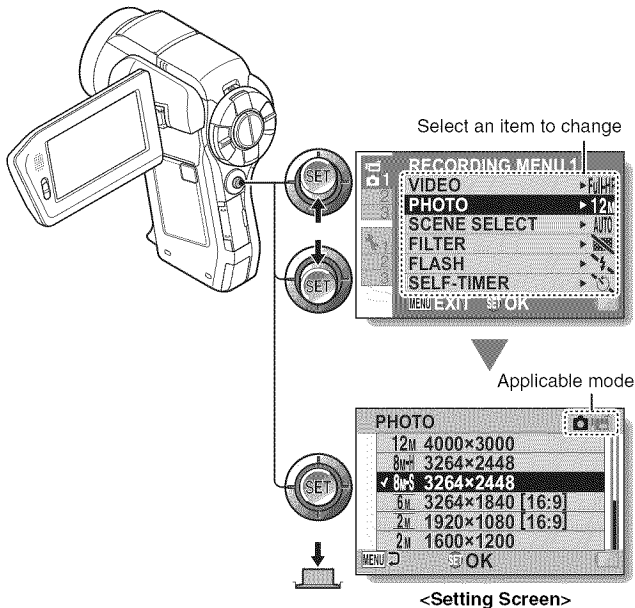


- 5** Toggle the SET button to the right.



## 6 Toggle the SET button up or down to select the item you wish to change, and press the SET button.

- The Setting Screen for the selected item appears.
- To return to the Menu Screen, press the MENU button.



### HINT

#### About the applicable mode indicator

- This indicator shows the shooting mode(s) for which the selected setting is effective.

: This setting is effective during still image shooting.

: This setting is effective during video clip recording.

: This setting is effective during still image shooting and video clip recording.

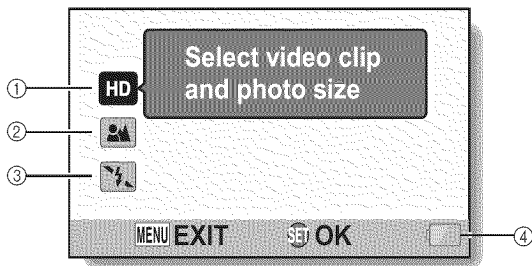
---

## SIMPLE MODE/NORMAL MODE

---

### Overview of the SIMPLE Mode Setting Screen


#### SIMPLE Mode Recording Menu



### ① Recording size (page 71)

- Select the video clip size to record.




: The video clip size is  $1920 \times 1080$  pixels, recorded at 60 fields/sec. The captured still image size is  $3264 \times 2448$  (4:3) pixels.




: The video clip size is  $640 \times 480$  pixels, recorded at 30 frames/sec. The captured still image size is  $1600 \times 1200$  (4:3) pixels.

### ② Focus range (page 72)


- Select the focus range that corresponds to the distance to the subject.


: The camera automatically focuses on the subject within a range of 50 cm (19.69 in.) to infinity (normal).


: The camera focuses on a subject within a range of 1 cm (0.39 in.) to 1 m (3.28 ft.) (super macro).


### ③ Flash (page 77)

- Specify how the flash will operate.

: The camera detects the subject brightness and uses the flash only when necessary.

: The flash operates with every image captured regardless of the conditions.

: The flash does not operate even in dark situations.

: The camera detects the subject brightness and uses the flash only when required. At this time the flash operates in a manner that reduces the red reflection ("red-eye") in the subject's eyes.

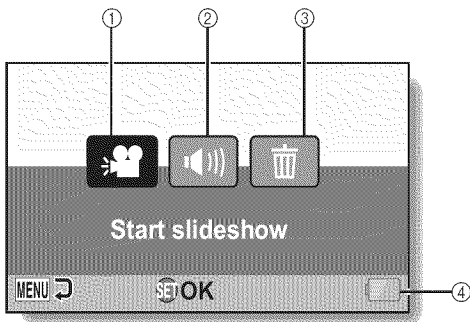
### ④ Remaining battery power indication (page 155)

---

## SIMPLE MODE/NORMAL MODE

---

### SIMPLE Mode Playback Menu



- ① **Slideshow (page 88)**
  - Specify the slideshow settings and play the slideshow.
- ② **Playback volume (page 89)**
  - Adjust the volume for video clip and audio file playback.
- ③ **Delete (page 90)**
  - Delete files.
- ④ **Remaining battery power indication (page 155)**

---

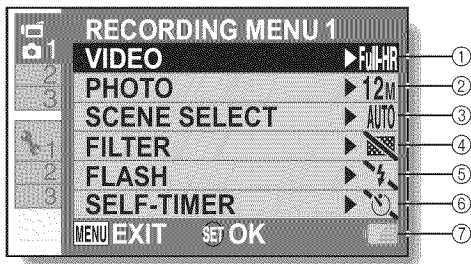
## SIMPLE MODE/NORMAL MODE

---

### Overview of the NORMAL Mode Setting Screen

#### NORMAL Mode Recording Menu

<Tab 1>





① **Video clip settings (page 96)**

**<HD mode>**

: Record at 1920 × 1080 pixels, 60 fps (60p).

: Record at 1920 × 1080 pixels, 60 fields/s (60i).

: Record at 1920 × 1080 pixels, 30 fps (30p).

: Record at 1280 × 720 pixels, 30 fps (30p).

**<SD mode>**

: Record at 640 × 480 pixels, 30 fps (30p).

: Record at 448 × 336 pixels, 240 fps (High-speed recording).

: Record at 192 × 108 pixels, 600 fps (High-speed recording).

: Make an audio recording.

② **Still image settings (page 100)**

: Image size is 4000 × 3000 pixels.

: Image size is 3264 × 2448 pixels (low compression).

: Image size is 3264 × 2448 pixels (normal compression).

: Image size is 3264 × 1840 pixels (16:9 aspect ratio).

: Image size is 1920 × 1080 pixels (16:9 aspect ratio).

: Image size is 1600 × 1200 pixels.

: Image size is 1280 × 720 pixels (16:9 aspect ratio).

: Image size is 640 × 480 pixels.

: 3264 × 2448-pixel sequential shots.

: 2288 × 1712-pixel sequential shots.

③ **Scene select (page 101)**

: Full auto setting

: Sports mode

: Portrait mode

: Landscape mode

: Night view portrait mode

: Snow & beach mode

: Fireworks mode

: Lamp mode

④ **Filter (page 101)**

: No filter

: Cosmetic filter

: Monochrome filter

: Sepia filter

⑤ **Flash**

: The camera will detect the subject brightness and use the flash only when necessary.

: The flash will operate with every image captured regardless of the conditions.

: The flash will not operate even in dark situations.

: The camera will detect the subject brightness and use the flash only when required. At this time the flash will operate in a manner that reduces the red reflection ("red-eye") in the subject's eyes.

⑥ **Self-timer (page 102)**

: Self-timer is off.

: Shooting begins 2 seconds after the [ ] or [ ] button is pressed.

: Shooting begins 10 seconds after the [ ] or [ ] button is pressed.

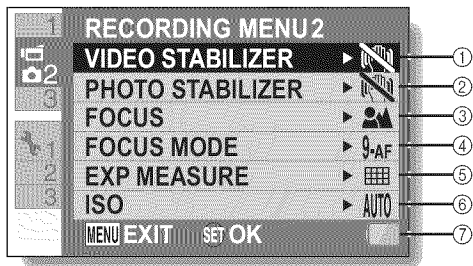
⑦ **Remaining battery power indication (page 155)**

---

## SIMPLE MODE/NORMAL MODE


---


<Tab 2>



① **Video stabilizer (page 103)**


- Compensate for camera shake during video clip recording.


: Record with image stabilizer on.

: Record without image stabilizer.

② **Photo stabilizer (page 103)**


- Compensate for camera shake during still image shooting.

: Shoot with image stabilizer on.


: Shoot without image stabilizer.

③ **Focus range (page 104)**


- Select the focus range that corresponds to the distance to the subject.

: The camera automatically focuses on the subject with a range of 50 cm (19.69 in.) to infinity (normal).

**MF**: The focus can be set manually.


: The camera focuses on the subject within a range of 1 cm (0.39 in.) to 1 m (3.28 ft.) (super macro).


④ **Focus area (page 105)**

: 9-point range finder focus

: Spot focus

⑤ **Light-measuring mode (page 105)**

: Multi-section light measuring

: Center-weighted light measuring

: Spot light-measuring

⑥ **ISO sensitivity (page 106)**

**AUTO**: Sensitivity is set automatically (video clip recording: ISO 50 to 800; still image shooting: ISO 50 to 200)

**50**: Sets sensitivity to ISO 50

**100**: Sets sensitivity to ISO 100

**200**: Sets sensitivity to ISO 200

**400**: Sets sensitivity to ISO 400

**800**: Sets sensitivity to ISO 800

**1600**: Sets sensitivity to ISO 1600

**3200**: Sets sensitivity to ISO 3200 (video clip recording: ISO 1600)

- The indicated ISO value is the standard output sensitivity.

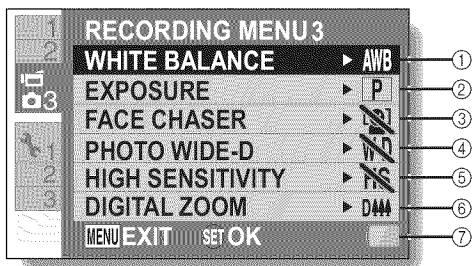
⑦ **Remaining battery power indication (page 155)**

---


## SIMPLE MODE/NORMAL MODE


---


<Tab 3>





① **White balance (page 107)**


 **AWB**: White balance is automatically adjusted depending on the ambient lighting (auto).

: For shooting in sunny conditions (fair).


: For shooting in overcast conditions (cloudy).


: For shooting under fluorescent lighting (fluorescent).

: For shooting under incandescent lighting (incandescent).


: For setting the most accurate white balance (one push).

② **Exposure (page 108)**


 **P**: The exposure is set automatically.

 **S**: Set the shutter speed manually.

 **A**: Set the aperture manually.


 **M**: Set the aperture and shutter speed manually.


③ **Face chaser (page 109)**

: Enable face chaser.


: Disable face chaser.


④ **Photo wide D-range (page 110)**

 **W-D**: Enable wide D-range shooting.


: Disable wide D-range shooting.

⑤ **High sensitivity mode (page 111)**

 **HS**: Increased sensitivity.

: Normal sensitivity.

⑥ **Digital zoom (page 111)**

: Enable the digital zoom.

: Disable the digital zoom.

⑦ **Remaining battery power indication (page 155)**

---

## SIMPLE MODE/NORMAL MODE

---

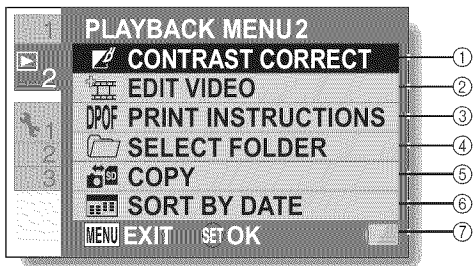
### NORMAL Mode Playback Menu

<Tab 1>



- ① **Slideshow (page 114)**
  - Specify the slideshow settings and play the slideshow.
- ② **Playback volume (page 89)**
  - Adjust the volume for video clip and audio file playback.
- ③ **Protect (page 115)**
  - File protect setting (delete prohibited)
- ④ **Delete (page 90)**
  - Delete files.
- ⑤ **Rotate (page 117)**
  - Rotate a still image.
- ⑥ **Resize (page 117)**
  - Reduce the resolution of a still image.
- ⑦ **Remaining battery power indication (page 155)**

<Tab 2>

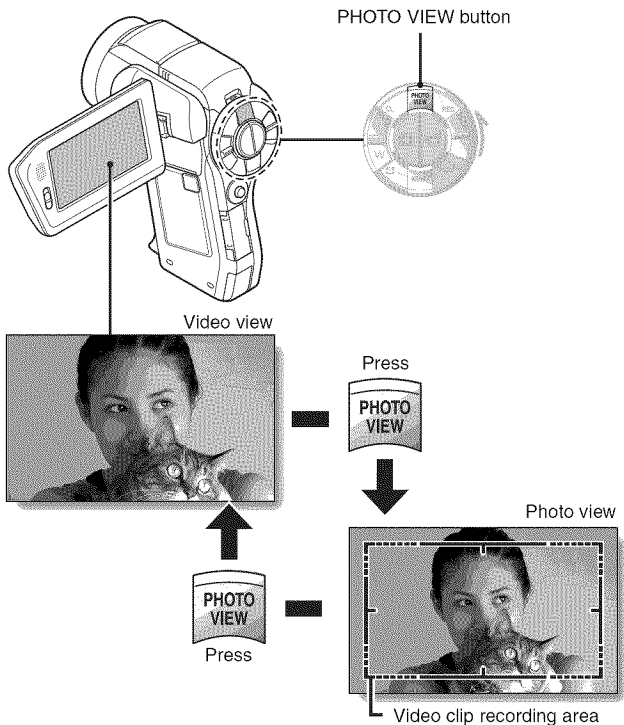


- ① **Contrast correction (page 118)**
  - Correct the contrast in the image.
- ② **Video clip edit (page 119)**
  - Edit video clips.
- ③ **Printing instructions (page 129)**
  - Specify the printing instructions (DPOF settings).
- ④ **Select folder (page 94)**
  - Select a folder to play back.
- ⑤ **Copy**
  - Copy files from/to the card to/from the Xacti Library (displayed only when Xacti Library is used).
- ⑥ **Sort by date**
  - Create dated folders and sort the files in one roll by date (displayed only when Xacti Library is used).
- ⑦ **Remaining battery power indication (page 155)**

# FIELD OF VIEW

You can select whether to display either the Photo View Recording Screen or the Video View Recording Screen. The field of view is easier to see when the Recording Screen for the specific recording mode is selected.

- The PHOTO VIEW button is disabled when the camera is connected to a TV.





# BEFORE TAKING PICTURES

## For best results

Hold the camera securely, keeping your elbows close to your body and making sure the camera is stable.

Correct hold

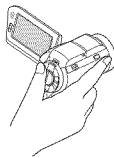


Incorrect hold

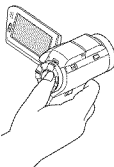


A finger is blocking the lens or flash.

<Holding the camera>



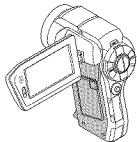
Example 1:  
Grip the camera by wrapping the fingers of the right hand, from the little finger to the middle finger, around the camera, and hook the index finger above the lens.



Example 2:  
Grip the camera by wrapping the fingers of the right hand, from the little finger to the index finger, around the camera.

Make sure that the lens and flash are not blocked by your fingers or the handstrap.

<When using the camera>



- Due to the characteristics of the camera, the outer surface may become warm during use, but this does not indicate a malfunction. (In particular, the area indicated by gray in the figure may become hot.)
- If the camera starts to feel uncomfortably hot during use, you might temporarily discontinue use until it cools down, or try holding it in your other hand for a while.  
Please use a tripod or other support when using the camera for a long time.

---

## BEFORE TAKING PICTURES

---

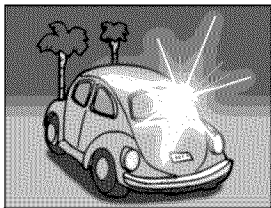
### Using the autofocus

The autofocus will work in almost all situations; however, there are certain conditions that may cause the autofocus function to not work properly. If the autofocus function is not working properly, set the focus range to capture images (page 72).

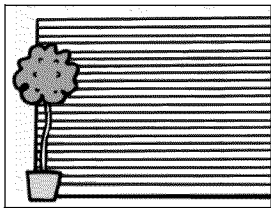
#### ■ Conditions that may cause incorrect focus

The following examples are some of the situations where the autofocus function may not work.

- **Subjects with low contrast, very bright subjects at the center of the image or dark subjects or locations**  
Use the focus-lock function to lock the focus on an object with contrast at the same distance as the desired subject.



- **Subjects without vertical lines**  
Use the focus-lock function to lock the focus while framing the subject vertically, then re-orient the camera to compose a horizontally framed image.



The following examples are some of the situations where the autofocus function may work, but not as desired.

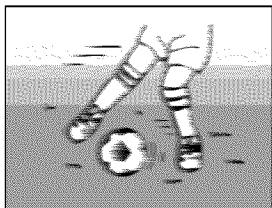
- **When both near and far objects are present**

Use the focus-lock function to lock the focus on an object at the same distance as the desired subject, then reposition the camera to compose the picture.




- **Fast-moving subjects**

Use the focus-lock function to lock the focus on an object at the same distance as the desired subject, then reposition the camera to compose the picture.



---

#### HINT

- Still images can be rotated when they are played back (pages 65 and 117).
- When the [  ] button is pressed halfway, the image in the monitor may waver vertically. This is the result of internal image processing and is not a malfunction. This wavering is not recorded and will not affect your images in any way.
- When the optical zoom is used or when the autofocus is operating, the image may appear to waver, but this is not a malfunction.

---

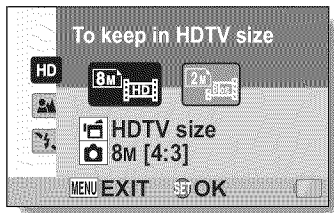
## BEFORE TAKING PICTURES



---

### Select the recording size

The larger the image size (number of pixels), the better the image quality will be, but the file size will also be larger. Select the image quality that is correct for the intended purpose.

- 1 Display the **SIMPLE Mode Recording Menu** (page 49), select the recording size setting, and press the **SET** button.



- : The video clip size is 1920 × 1080 pixels, recorded at 60 fields/sec. The captured still image size is 3264 × 2448 (4:3) pixels.
- : The video clip size is 640 × 480 pixels, recorded at 30 frames/sec. The captured still image size is 1600 × 1200 (4:3) pixels.

- 2 Select the desired video clip recording size, and press the **SET** button.

- This completes the recording size setting.

## Select the focus setting

Select the focus range corresponding to the distance between the camera and the subject.

- 1 Display the SIMPLE Mode Recording Menu (page 49), select the focus setting, and press the SET button.



- : The camera automatically focuses on the subject within a range of 50 cm (19.69 in.) to infinity (normal).
- : The camera focuses on a subject within a range of 1 cm (0.39 in.) to 1.0 m (3.28 ft.) (super macro).

- 2 Select the desired focus range, and press the SET button.
  - This completes the focus range setting.

---

## BEFORE TAKING PICTURES

---

### Hints for taking pictures

#### Muting the operation sounds

- The audio guidance that sounds when you operate the camera can be muted (page 136).

#### Where are the image and audio files saved?

- All the image and sound files are recorded on the card installed in the camera.

#### Taking pictures in backlight conditions...

- When taking pictures with the light coming from behind the subject, due to the characteristics of the lens, ghost patterns (flare phenomenon) may appear in the captured image. In this situation, it is recommended that you avoid taking pictures with the subject lit from behind.

#### While the image files are being recorded...

- While the multi-indicator is flashing red, the image files are being written to the memory, during which time it is not possible to capture another image. Another image can be captured after the flashing red indicator turns off. However, even when the multi-indicator is flashing red, depending on the camera's internal memory remaining capacity, in some cases the next image can be captured about 2 seconds after shooting.

#### Checking the last image shot (instant review)

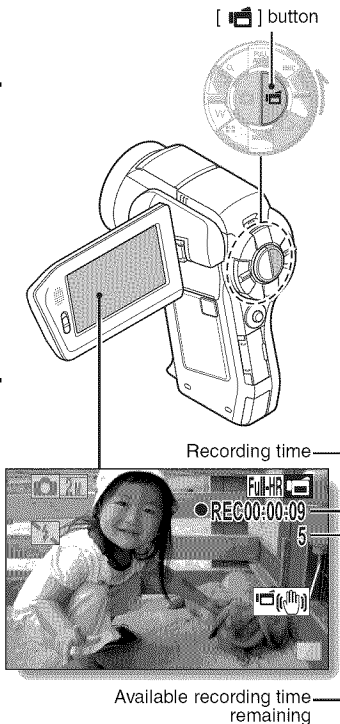
- After shooting a picture, you can immediately view it by pressing the SET button once.
- During instant review of a video clip, normal play, fast reverse play, reverse frame-by-frame play and pause are available (page 85).
- If you wish to delete the image (for a video clip, it must be in the pause or stop mode), toggle the SET button up to access the delete function.
- You can view other images while the instant review display is showing by toggling the SET button to the left or right.
- Cancel the instant review display by toggling the SET button down.

# VIDEO CLIP RECORDING

- 1 Turn on the camera** (page 40), and set it to the recording mode (page 46).

- 2 Press the [ ] button.**
  - Recording begins.
  - It is not necessary to keep the [ ] button pressed while recording.
  - When the remaining recording time available for the currently recording clip becomes little, a countdown of the remaining recording time appears on the display.





- 3 End the recording.**
  - Press the [ ] button again to stop recording.

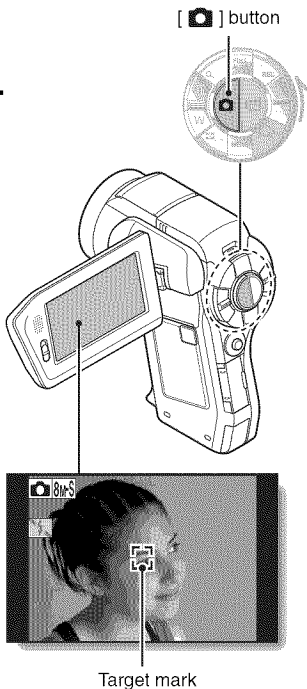
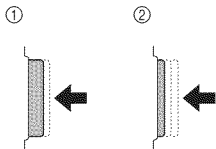


# SHOOTING SINGLE SHOTS

Capture a still image (single-shot).

- 1 Turn on the camera (page 40), and set it to the recording mode (page 46).

- 2 Press the [  ] button.
  - ① Press the [  ] button halfway.
    - The autofocus operates, and the image is focused (focus lock).
  - ② Continue to gently press the [  ] button all the way.
    - The shutter releases and the image is captured.
    - You can view the captured image on the monitor by keeping the [  ] button depressed when you capture the image.




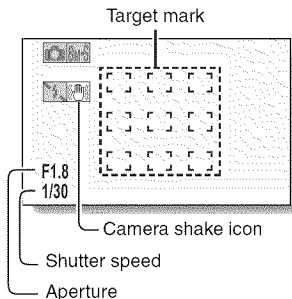




**HINT****Adjusting the monitor brightness**

- While the Recording Screen is active, you can quickly access the screen for adjusting the brightness of the monitor by pressing the MENU button for at least 1 second.

**What is the camera focusing on?**

- A target mark  on the monitor shows the area the camera is focusing on.
- The camera automatically determines the correct focus by measuring from 9 different focus points within the shooting area. If the target mark is at a position that is different from the point you wish to focus on, you can refocus, for example, by changing the shooting angle.
- The large target mark appears when the camera focuses on a wide area in the center of the screen.


**The focus and exposure can be locked (in the NORMAL mode)**

- By assigning an operation shortcut to the SET button (pages 138 and 142), you can set the autofocus or the exposure to a fixed setting. When the exposure setting is fixed, the  icon appears on the monitor; when the autofocus setting is fixed, the  icon appears on the monitor.
- When the focus range (pages 60 and 101) setting or scene select setting is changed, the focus lock is released.

**The shutter speed and aperture are displayed (in the NORMAL mode)**

- The shutter speed and aperture settings are shown on the Recording Screen. You can use them as a reference when shooting.

**If the camera shake icon  appears... (in the NORMAL mode)**

- During still image shooting, if the shutter speed is slow and the possibility that the image may be blurred due to camera shake becomes high, the camera shake icon may appear on the monitor. In this case, use a tripod to stabilize the camera when shooting, or set the flash operation mode to automatic (pages 60 and 77).
- When shooting with the scene select function set to the fireworks  mode, the camera shake icon always appears, but this is normal.


---

## SHOOTING SINGLE SHOTS

---

### Using the flash

The flash is not only used for photographing under dark conditions, but is also convenient for example when the subject is in shadow or lit from behind. Your camera is equipped with four flash modes: red-eye reduction, auto flash, forced flash, and no flash. Select the flash mode that is suitable for the shooting conditions. The flash is available only when shooting single-shot still images.

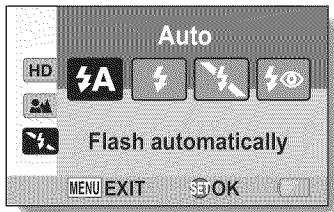
- 1 Press the  button to open the flash unit.





- The flash unit opens.



- 2 Display the SIMPLE Mode Recording Menu (page 49), select the flash setting, and press the SET button.

- The screen to select the flash operation appears.



- : The camera detects the subject brightness and uses the flash only when necessary.
- : The flash operates with every image captured regardless of the conditions.
- : The flash does not operate even in dark situations.
- : The camera detects the subject brightness and uses the flash only when required. At this time the flash operates in a manner that reduces the red reflection (“red-eye”) in the subject’s eyes.

- 
- 3** Select the desired flash operation, and press the SET button.
- This completes the flash operation setting.

- 
- 4** Press the [  ] button to take the picture.

---

**CAUTION**

**Do not touch the flash unit when shooting**

- The flash unit becomes very hot and may cause a burn. Avoid touching the flash unit when shooting.

---

**HINT**

- The flash cannot be used during video clip recording.
- By assigning an operation shortcut to the SET button (pages 138 and 142), you can change the flash mode from the Recording Screen (in the NORMAL mode).

---

# SHOOT A STILL IMAGE WHILE RECORDING A VIDEO CLIP


---


You can capture a still image (a single-shot) while recording a video clip.

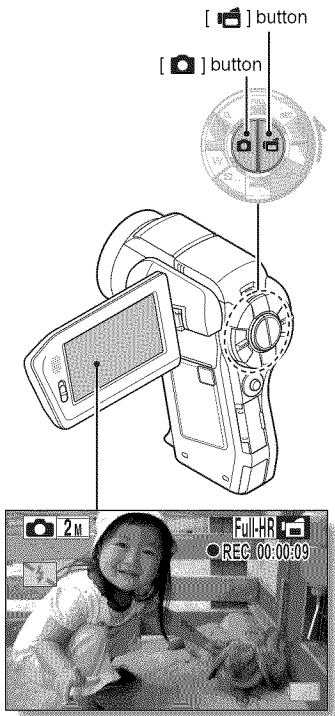
---

**1** Turn on the camera (page 40), and set it to the recording mode (page 46).

**2** Press the [  ] button.

**3** When you see a scene you'd like to capture as a still image, press the [  ] button.

**4** Press the [  ] button to end the video clip recording.



**HINT**

- When shooting a still image while recording a video clip, the flash does not operate.
- The photo stabilizer (pages 62 and 103) is inoperative.
- When the remaining video recording time becomes approximately 50 seconds, it will no longer be possible to capture a still image while recording a video clip. The exact remaining recording time at which this occurs will differ depending on the subject and on the recording size (page 71), as well as on the video clip recording mode (page 96). If you intend to capture a still image while recording a video clip, it is suggested that you take note of the remaining video recording time.

**About the recording size of still images**

- The size of a still image captured during video clip recording depends on the video clip recording size.

Video clip recording size setting	Still image recording size
[Full-HR] [Full-HD] [Full-SHQ]	[2M] (16:9)
[HD-SHQ]	[0.9M] (16:9)
[TV-SHQ]	[0.3M] (4:3)

- It is not possible to capture a still image while recording a video clip at a high recording speed ([60iSHR], [60iJHR]).
- It is not possible to capture sequential shots.

# MACRO-PHOTOGRAPHY (ZOOM)

Your camera has two zoom functions: optical zoom and digital zoom.

**1** Point the camera lens at the subject.

**2** Push the zoom switch toward [T/🔍] or [W/📐] to compose the desired image.

[T/🔍]: Zoom in on the subject.

[W/📐]: Zoom out.

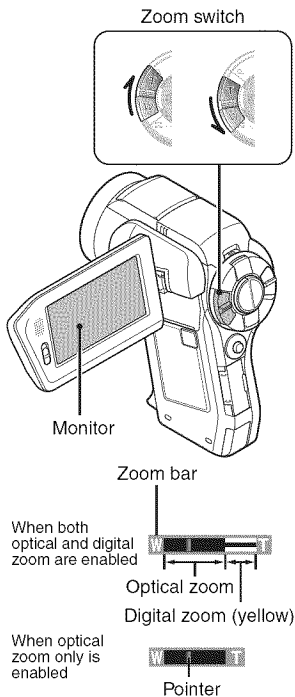
- When the zoom switch is pushed, the zoom bar appears on the monitor.
- When moving the optical zoom, push the zoom switch lightly to zoom slowly, and press more strongly to zoom quickly.
- When the optical zoom factor is at maximum, zooming stops temporarily. When the zoom switch is pushed toward the [T/🔍] side again, the mode changes to the digital zoom mode and zooming continues.

**3** Take the picture.

For video clip recording, see page 74.

For shooting single shots, see page 75.

For shooting sequential shots, see page 100.



---

**HINT****About the “16x Advanced Zoom”**

- During video clip recording, the “16x Advanced Zoom” function makes it possible to electronically magnify the image with no image degradation, and increase the magnification to a maximum 16x.

---

# SHOOTING AND PLAYBACK WITH THE REMOTE CONTROL UNIT

---

The remote control sensor on your camera makes it possible to capture images and play them back using the supplied remote control unit.

---

- 1 Prepare the remote control unit (page 30).**
  - 2 Turn the camera on, and set the REC/PLAY switch to REC or PLAY.**
    - Set the REC/PLAY switch to REC for shooting, or to PLAY for playback.
  - 3 Aim the remote control unit at the camera's remote control sensor.**
    - Open the monitor unit.
  - 4 Press the buttons on the remote control unit to operate the camera.**
-

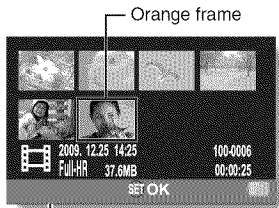


# PLAYING BACK VIDEO CLIPS AND STILL IMAGES

**1** Set the REC/PLAY switch to PLAY.

**2** Select the image to play back.

- Toggle the SET button left, right, up or down to move the orange frame to the file you wish to play back.
- The image information for the framed image is shown at the bottom of the screen.



**3** Press the SET button.

- Playback begins.

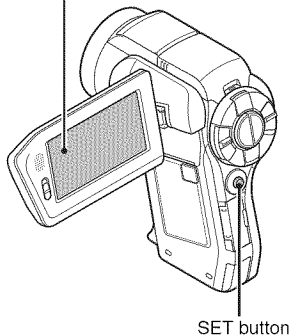
**<To return to the screen to select playback files>**

**During still image playback:**

Toggle the SET button down.

**During video clip playback:**

Toggle the SET button down once to stop video clip playback, and toggle the SET button down again.




## PLAYING BACK VIDEO CLIPS AND STILL IMAGES


### Video clip playback operation

To do this...		Do this
Normal forward playback		Press the SET button.
Stop playback		During playback, toggle the SET button down.
Pause		During playback, press the SET button or toggle the SET button up. During accelerated playback, toggle the SET button up.
To play back one image at a time (single-frame step)	During forward playback	After pausing playback, toggle the SET button to the right.
	During reverse playback	After pausing playback, toggle the SET button to the left.
Slow playback	During forward playback	After pausing playback, press and hold the SET button to the right.
	During reverse playback	After pausing playback, press and hold the SET button to the left.
To accelerate playback	Forward playback	During forward playback, toggle the SET button to the right. <ul style="list-style-type: none"> <li>The playback speed changes each time the SET button is toggled to the right, as follows: Normal playback → 2× → 5× → 10× → 15×</li> </ul> Toggle the SET button to the left to resume normal playback speed.
	Reverse playback	During forward playback, toggle the SET button to the left. <ul style="list-style-type: none"> <li>The playback speed changes each time the SET button is toggled to the left, as follows: 15× ← 10× ← 5×</li> </ul> Toggle the SET button to the right to resume normal playback speed.
Return to normal playback speed		Press the SET button.
Adjusting the volume		<b>Louder:</b> During playback, push the zoom switch toward the [T] side. <b>Softer:</b> During playback, push the zoom switch toward the [W] side.

---

**HINT**

If the  appears on the playback Screen...




- The  icon appears when playing back a file that was saved in segments (page 98). Although playback of these multiple files is continuous, there is a slight pause at the point where the files are joined.

---

## PLAYING BACK VIDEO CLIPS AND STILL IMAGES

---

### How to save one frame from a video clip as a still image

- 1** Play back the video clip. Pause the playback at the point you wish to “snap” a photo.
- 2** Press the [  ] button.
  - The screen to select the aspect ratio of the still image appears. Select the desired aspect ratio, and press the [  ] button. Note, however, that if the video clip aspect ratio is 4:3, you cannot select 16:9.
  - It is not possible to save a frame from a video clip that was recorded in the  mode.

---

#### HINT

##### The file for a video clip is very large

- Therefore, be aware that if the video clip is uploaded to a computer to be played back, the computer may not be able to play back the video fast enough, making it appear jerky. (The video will always be displayed properly on the camera monitor or a television.)
- Depending on the card, shooting may end even before the possible shooting time indicated.

##### Display the video clip playback point

- During video clip playback, press the MENU button for at least 1 second to display a bar showing the current playback point in the video clip.
- Press the MENU button for about 1 second to cancel the bar.

---

#### CAUTION

##### During video clip playback, the sound of a motor is audible...

- During recording, the sound of the optical zoom movement or autofocus movement was recorded. This is not a malfunction.




##### If no audio is heard...

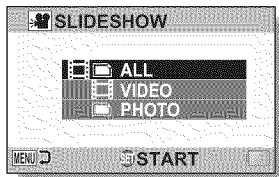
- The audio is not played back when the video clip is played back in the frame-by-frame, fast playback or reverse playback mode.

# SLIDESHOW PLAYBACK

You can play back files in succession with the “slideshow playback” feature.

- 1 Display the **SIMPLE Mode Playback Menu** (page 49), select the **slideshow setting**, and press the **SET** button.

- : Play back all files.
- : Play back video clips and audio files.
- : Play back still image files.



- 2 Select the type of file to play back, and press the **SET** button.
  - Slideshow playback begins.
  - To stop slideshow playback, press the **SET** button or **MENU** button.

## HINT

### About the slideshow settings

- The slideshow settings can be changed from the **NORMAL Mode Playback Menu** (page 114).

---

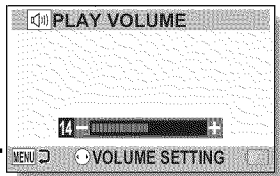
# PLAYBACK VOLUME

---

Adjust the playback volume for video clips and audio files.

---

- 1** Display the **SIMPLE Mode Playback Menu** (page 49), select the playback volume setting, and press the **SET** button.
  - The volume control bar appears.



- 2** Toggle the **SET** button to the left or right to set the volume, and press the **SET** button.
  - The playback volume is set, and the display returns to the **SIMPLE Mode Playback Menu**.

---

## HINT

### The volume can be adjusted during playback

- During video clip or audio file playback, if you push the zoom switch toward [T/🔍] or [W/📺], the volume control bar will appear, allowing you to adjust the volume.

### In the **NORMAL** mode

- When you select "PLAY VOLUME" from the **NORMAL** Mode Playback Menu and press the **SET** button, the volume control bar appears.

---

# DELETING FILES

---

You can delete files if you no longer need them. You can delete single files, selected files or all the files at one time.

## Delete single/delete all

- 1** Display the SIMPLE Mode Playback Menu (page 49), select the delete setting, and press the SET button.

**DELETE SINGLE:**

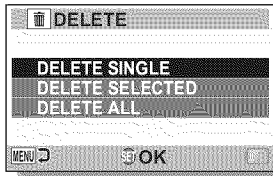
Deletes one file at a time.

**DELETE SELECTED:**

Deletes the selected files (page 91).

**DELETE ALL:**

Deletes all files.



- 2** Select the desired delete mode, and press the SET button.

- The Delete Confirmation Screen appears.

**<DELETE SINGLE>**

- Toggle the SET button to the left or right to select the file you wish to delete.
- There is no confirmation screen when deleting single files. Please make sure that the displayed image is one you wish to delete.

**<DELETE ALL>**

- Toggle the SET button to the left or right to confirm the files to delete.

---

## DELETING FILES

---

### 3 Select "DELETE", and press the SET button.

#### <DELETE SINGLE>

- The currently displayed file is deleted.
- To delete other files, select the files, select "DELETE" and press the SET button.

#### <DELETE ALL>

- The Delete Confirmation Screen again appears. To delete the files, select "YES", and press the SET button. When file delete is completed, "No image" is shown.

## Delete selected

Delete selected files.

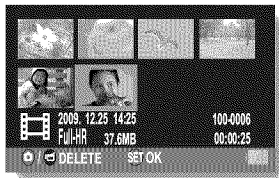
---

### 1 Display the SIMPLE Mode Playback Menu (page 49), select the delete setting, and press the SET button.

---

### 2 Select "DELETE SELECTED", and press the SET button.

- The screen to select files to delete appears.



---


### 3 Select an image you wish to delete.

- Toggle the SET button left, right, up or down to move the orange frame to the file you wish to delete.



---

**4** Press the **SET** button.

- The selected file is marked with the delete icon [  ].
- Up to 100 files can be selected.
- To cancel a delete selection and remove the delete icon from a file, move the orange frame to the marked file and press the SET button.

---

**5** Press the [  /  ] button.

- The Confirm Delete Screen appears.

---

**6** Select “YES”, and press the **SET** button.

- The selected files are deleted.

---

**HINT****In the NORMAL mode**

- When you select “DELETE” from the NORMAL Mode Playback Menu and press the SET button, the Delete Screen appears.

---

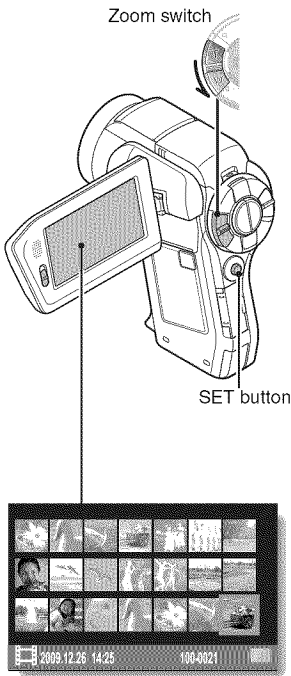
**CAUTION**

- Files that are protected from accidental delete cannot be deleted. To delete protected files, set the protect setting for the files to off (pages 65 and 115), and then follow the file delete procedure.

# PLAYBACK MODES

## 21-image display playback

- 1** Display the image you wish to play back.
- 2** Push the zoom switch toward the [W/☒] side.
  - The 21-image display appears.
- 3** Select the image to play back.
  - Toggle the SET button up, down, left or right to move the orange frame to the desired image, and press the SET button.
  - Instead of pressing the SET button, you can push the zoom switch toward the [T/☑] side to show the 8-image display.
  - If the zoom switch is pushed toward the [W/☒] side while the 21-image display is shown, the display changes to the screen to select the playback folder (page 94).
  - It is not possible to perform the file delete or file protect settings on the 21-image display.



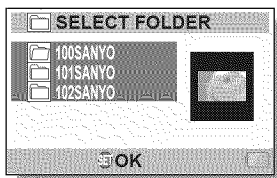
## Selecting the playback folder

If the card contains multiple folders, you can select from which folder you would like to play back.

### 1 Display the Playback Screen.

### 2 Push the zoom switch toward the [W/☒] side twice.

- The screen to select the playback folder appears.
- If the zoom switch is pushed toward the [T/🔍] side, the camera changes to the 21-image display (page 93).



### 3 Toggle the SET button up or down to move the orange frame to the desired folder, and press the SET button.

- The files in the selected folder are displayed in the Playback Screen.

#### HINT

##### In the NORMAL mode

- When you select "SELECT FOLDER" from the NORMAL Mode Playback Menu and press the SET button, the screen to select the playback folder appears.

---

## PLAYBACK MODES

---

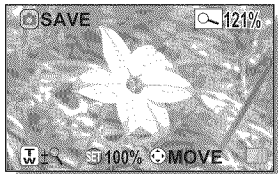
### Magnifying (zooming in) the image

---

- 1** Display the image that you want to magnify.
- For a video clip, pause playback at the place you want to magnify.

- 2** Push the zoom switch toward the [T/🔍] side once.

- Magnification is enabled.
- The image is magnified, and the central portion of image is displayed.
- Toggle the SET button to view different parts of the magnified image.



**To magnify:**

Magnification increases each time the zoom switch is pushed toward the [T/🔍] side.

**To return to normal size:**

Magnification decreases each time the zoom switch is pushed toward the [W/🔍] side.

- Press the SET button to return to the normal (100%) view.

---

#### HINT

**The magnified portion of the image can be saved as a separate image**

- Press the [📷] button. The magnified portion is saved as a new still image.

---

# RECORDING MENU 1

---

## Video setting

You can record video clips in either the HD mode (16:9 horizontal to vertical aspect ratio) or the SD mode (4:3 aspect ratio). In addition, the higher the frame rate number, the smoother playback will be. However, as with the recording size, the file size is also proportionately larger, using up more memory. This menu is also used when making audio recordings.






---

### CAUTION

#### When editing video clips...

- In order for video clips to be joined, they must have been photographed in the same mode.
- Video clips that were photographed in different modes cannot be joined.

#### Restrictions when or is set

- When the camera is connected to a TV, the image is shown on the camera monitor in the recording mode, and on the TV in the playback mode.
- When the [  ] button is pressed, a video clip is recorded for about 10 seconds. Recording is discontinued when the [  ] button is pressed again.
- The following recording functions are not available.
  - Capturing a still image during video clip recording
  - Zoom
  - Image stabilizer
  - Scene select (fixed at )
  - Manual exposure
  - Face chaser recording
  - High sensitivity mode recording
  - Photo wide-D range recording
  - Noise reduction
- You cannot record when the possible recording time is less than about 12 seconds.
- If the AE lock setting is active, it is canceled when the  or  setting is set.


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## RECORDING MENU 1

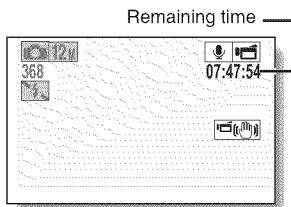
---

### Audio recording



#### ■ Audio recording

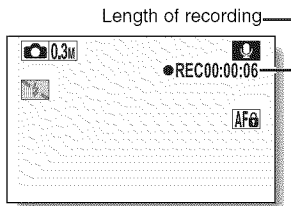
**1** Select , and press the SET button.

- The audio recording mode is enabled.
- The menu display is canceled if the MENU button is pressed.




**2** Press the [] button.

- Audio recording begins. During recording,  appears in the monitor. It is not necessary to continue pressing the [] button while recording.




**3** End the recording.

- Press the [] button again to stop recording.

---

## HINT

### You can capture a still image during an audio recording

- Press the [  ] button during audio recording to capture a **0.3M** still image.

### About files saved in segments

- If the continuous recording time of a voice memo exceeds about 13 hours, the recorded file is saved once, and the recording continues in a new file. When recording a video clip whose file size exceeds 4 GB, the recorded file is saved once, and the recording continues in a new file. (These 4 GB segments are automatically created. The recording session continues until you stop recording, but video clip or voice memo recording is temporarily interrupted while the file is being saved.)

## ■ Audio playback

---

- 1** Select an audio file, and press the SET button.
  - Playback begins.

## RECORDING MENU 1

To do this...		Do this
Normal playback	Start playback	Press the SET button.
	Pause	Press the SET button. Toggle the SET button up.
	Stop playback	Toggle the SET button down.
Fast forward/ fast reverse	Fast forward	During playback, toggle the SET button to the right. Each time the SET button is toggled to the right, the speed increases. If the SET button is toggled to the left during fast forward, the speed decreases.
	Fast reverse	During playback, toggle the SET button to the left. Each time the SET button is toggled to the left, the speed increases. If the SET button is toggled to the right during fast reverse, the speed decreases.
	Pause	Toggle the SET button up.
	Return to normal playback	Press the SET button.
Volume adjustment	Louder	During playback, push the zoom switch toward the [T/🔍] side.
	Softer	During playback, push the zoom switch toward the [W/🔊] side.

### CAUTION

#### If no audio is heard...



- The audio is not played back when the audio recording is played back in the fast playback or fast reverse mode.





## Still image setting

For still images, you can select either the 4:3 or 16:9 horizontal to vertical aspect ratio. This menu is also used for shooting sequential shots.


## Sequential shots


- 1 Select  or , and press the SET button.
  - The camera changes to the sequential shots mode.

- 2 Press the [  ] button.
  - Shooting begins. Shooting continues as long as the [  ] button is kept pressed.

### HINT


**What is the maximum number of images in a sequential shots sequence?**

: 9 images (6 fps)

: 15 images (12 fps)

- If you continue shooting even after the maximum number of images has been captured, recording does not stop.
- If you continue shooting after the maximum number of images has been captured, subsequent captured images will overwrite the sequence already captured, beginning from the first image in the sequence.


**About the focus when shooting sequential shots**

- When sequential shots are captured, the autofocus operates when the [  ] button is pressed halfway, fixing the focus.

**Can the flash be used?**

- The flash does not operate when shooting sequential shots.

**Did the angle of view change?**

- When shooting sequential shots, the angle of view relative to that of still image shooting may change.
- At the  setting, the images are captured with an enlarged angle of view in comparison to other recording modes.

**About the PHOTO NR (page 138) setting**

- During sequential shots shooting, the PHOTO NR setting automatically turns OFF.

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## RECORDING MENU 1







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### Scene select setting

You can select from various preset settings (aperture, shutter speed, etc.) for specific shooting conditions.

---

#### HINT



- To return to normal photography, select **AUTO** from the scene select menu, and press the SET button.
- When capturing images using the lamp , fireworks  or night view portrait  setting, use a tripod or other method to stabilize the camera.
- If the recording size is set to **65SHR** or **65LHR**, the scene select function will be fixed at **AUTO**.
- In the sequential shots mode, it is not possible to select night view portrait , fireworks , or lamp .
- A table showing the limitations for settings corresponding to scene select icons other than **AUTO** is on page 188.

### Filter setting

The filter feature changes image characteristics such as color tones, to apply unique effects to the photographed image.

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#### HINT







- To return to normal photography, select  from the filter menu, and press the SET button.
- A table showing the limitations for settings corresponding to filter icons other than  is on page 189.

## Self-timer setting



By assigning an operation shortcut to the SET button (pages 138 and 142), you can set the self-timer from the Recording Screen.

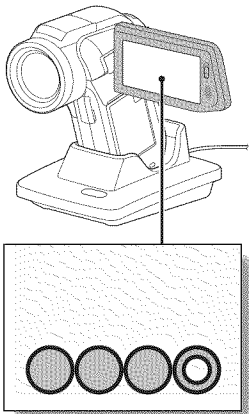
### HINT

#### To pause or cancel the self-timer function...

- If the [  ] button or [  ] button is pressed again before the shutter is released, the self-timer countdown temporarily stops. Press the [  ] button or [  ] button one more time to restart the self-timer.
- To cancel self-timer photography, select the  icon from the self-timer menu, and press the SET button.
- The self-timer is automatically reset to off  after the power save mode is activated and the camera turned off.

#### When is selected...

- When the [  ] button or [  ] button is pressed, the multi-indicator will blink for about 10 seconds, and then the image is captured. Also, 4 seconds before the shutter releases, the indication shown in the illustration appears on the monitor.



If you swivel the monitor unit to its farthest position, the image on the monitor will be inverted.



# RECORDING MENU 2

## Motion compensation (image stabilizer) setting






Your camera can minimize a jittery picture by compensating for unintentional hand motion.

### HINT

#### If the motion compensation does not seem to be working...

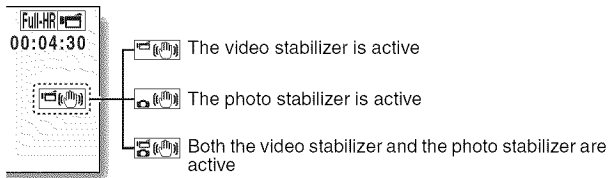
- Due to the mechanical characteristics of this function, it may not be possible for the camera to compensate for violent motion.
- If the digital zoom (page 81) is being used, the large magnification factor may make it difficult for the motion compensation function to work correctly.
- When the scene select function is set to night view portrait  or lamp , the motion compensation effect may be insignificant.

#### Can't set the "photo stabilizer" setting?



- The photo stabilizer is automatically turned off  after any of the following operations.
  - Pressing the flash button [  ] to open the flash unit.
  - Setting the exposure to [  ], [  ] or [  ] (pages 64 and 108).
  - Setting the photo wide D-range setting (pages 64 and 110) to "ON".
  - Setting the still image NR (noise reduction) setting (page 138) to "ON".
  - Starting video clip recording.
  - Setting the camera to the sequential shots mode (pages 60 and 100).

#### When motion compensation is enabled,

- The following icons are shown on the monitor:



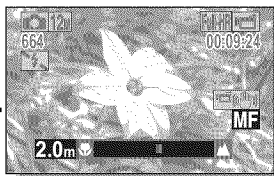
#### Did the scene select setting change?

- When the photo stabilizer is set to , if the scene select setting is , it will automatically change to **AUTO**.

## Focus range setting

### How to use the manual focus

- 1 Select **[MF]**, and press the SET button.
  - The focus distance adjustment bar appears.



- 2 Toggle the SET button to the left or right to adjust the focus distance, and press the SET button.
  - The focus distance is set, and you are returned to the Recording Screen.

#### HINT

##### About the focus range

- The focus distance indication shows the distance between the center of the lens and the subject.
- In some cases there may be a slight variance between the distance (numerical figure) you set in the manual focus mode and the actual distance.

##### About zoom movement when using the manual focus

- If the focus distance is set to 70 cm (27.56 in.) or less, the zoom changes to the largest setting that is suitable for that focus distance.
- When the focus distance is set to 70 cm (27.56 in.) or less, the zoom will function only within the range at which the image is focused.

##### About the super macro mode

- When the focus range is set to super macro **[M]**, the zoom is temporarily set to the wide end.
- By assigning an operation shortcut to the SET button (pages 138 and 142), you can change the focus range setting from the Recording Screen.

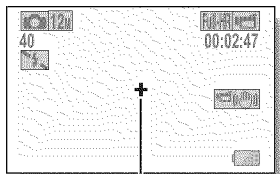
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## RECORDING MENU 2

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### Focus mode setting

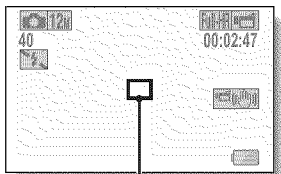
When the spot focus setting is selected, the focus mark + appears in the center of the monitor.



Focus mark

### Light-measuring mode setting

When spot light-measuring is selected, the light-measuring spot mark □ appears in the center of the monitor.



Light-measuring spot mark

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