



Pocket DV 4100M

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*USER'S MANUAL*

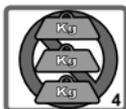
## | WELCOME |

*Dear user, thanks for purchasing this product. Much investment in time and effort has gone into its development, and it is our hope that it will give you many years of trouble-free service.*

---

### CAUTION

1. Do not drop, puncture or disassemble the camera; otherwise the warranty will be voided.
2. Avoid all contact with water and dry hands before using.
3. Do not expose the camera to high temperature or leave it in direct sunlight. Doing so may damage the camera.
4. Use the camera with care. Avoid pressing hard on the camera body.
5. For your own safety, avoid using the camera when there is a storm or lightning.
6. Avoid using batteries of different brands or types at the same time. There is potential of explosion from using incorrect batteries.
7. Remove batteries during long periods between usage, as deteriorated batteries may affect the functionality of the camera.
8. Remove batteries if they show signs of leaking or distortion.
9. We suggest using only the accessories supplied by the manufacturer.



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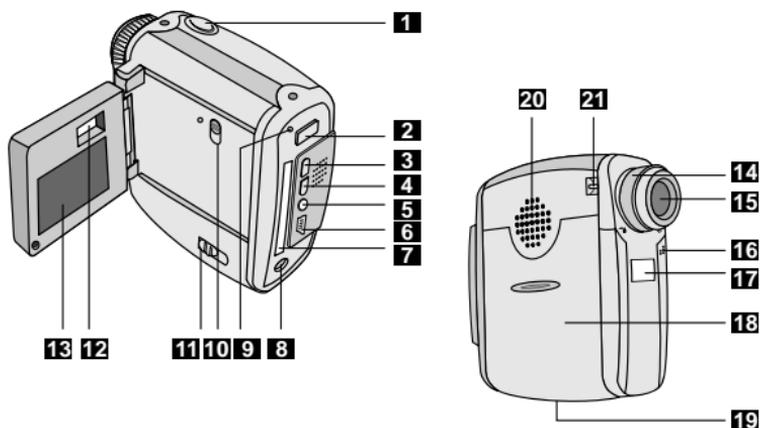
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# Getting Started

## 1. Your camera parts

Knowing your camera parts well before using it will help you operate it more easily.

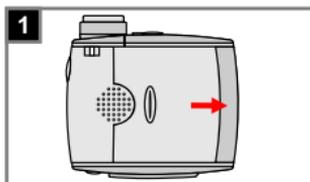


- |   |                                |
|---|--------------------------------|
| <b>1</b> Shutter button                   | <b>11</b> CF card eject switch |
| <b>2</b> Record button                    | <b>12</b> Viewfinder           |
| <b>3</b> Up button (Zoom in)              | <b>13</b> LCD display          |
| <b>4</b> Down button (Zoom out)           | <b>14</b> Focus switch         |
| <b>5</b> MENU/OK button<br>(Power button) | <b>15</b> Lens                 |
| <b>6</b> USB port                         | <b>16</b> Microphone           |
| <b>7</b> Card slot                        | <b>17</b> Self-portrait mirror |
| <b>8</b> A/V out connector                | <b>18</b> Battery cover        |
| <b>9</b> LED indicator                    | <b>19</b> Tripod port          |
| <b>10</b> LCD on/off switch               | <b>20</b> Speaker              |
|   | <b>21</b> Strap hook           |

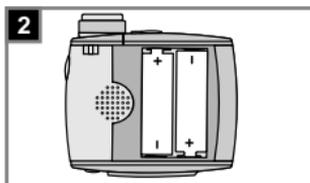
## 2. Loading the battery

Please use two AA batteries.

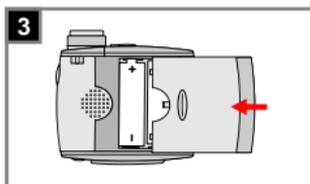
- 1 Slide the **battery cover** in the direction of the indication to open it.



- 2 Follow the indication to load batteries into the **battery section** with the correct + and - ends.



- 3 Slide the **battery cover** in the direction of the indication to lock it.



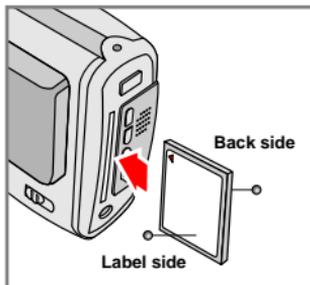
1. We recommend you to use rechargeable 1.2 V Ni-MH batteries as this will increase time of usage.
2. You can also use 1.5 V alkaline batteries.

✔ For details of the battery life, please see the "Battery life" section on page 42.

### 3. Inserting and removing the CF card (optional)

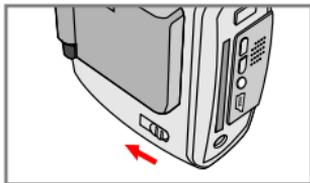
#### 1 Inserting the card

Insert the card in the direction of the indication and push it in till the end of the card plot.



#### 2 Removing the card

Push the **Eject switch** in the direction of the indication to remove the card.



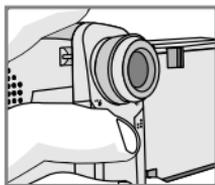
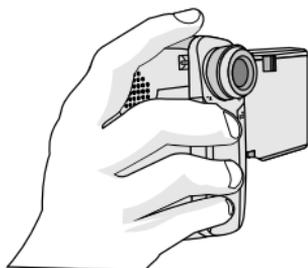
To confirm if the card is inserted firmly:

If inserting the card under the camera power-on status, when the card is inserted successfully, a beep will emit and a  icon will appear at the top right section on the LCD display.

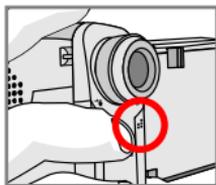
- ✓ The camera comes with flash memory built inside for storage. If you do not insert a CF card, the data will be saved in the built-in flash memory automatically.

## 4. How to hold your camera

Please hold the camera as illustrated. While taking pictures or recording video clips, avoid blocking the lens; and while recording audio or video clips, avoid hindering the microphone.



Avoid blocking the lens.

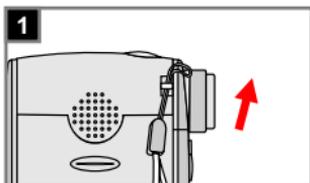


Avoid hindering the microphone.

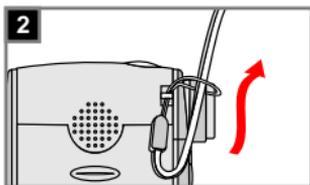
## 5. Attaching the strap

For convenience and safety, you may wish to attach the carrying strap.

- 1 Thread the strap loop through the hook in the direction indicated.



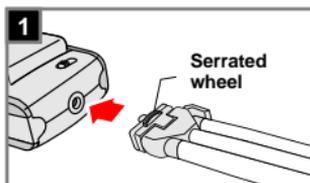
- 2 Fasten the strap loop as indicated.



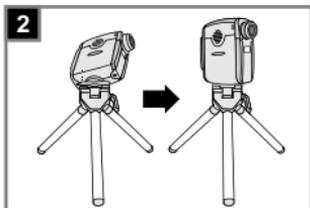
## 6. Using the tripod

Use the tripod to minimize camera movement and ensure optimal image quality, particularly while taking self-portraits, longer movies, video conferencing or in the macro mode.

- 1 Attach the tripod to the port on the bottom of the camera and rotate the serrated wheel to lock it.



- 2 Unfold the legs to set up. Then adjust the alignment to the desired position.

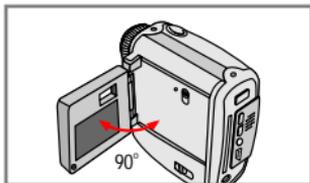


# Basic Operation

## 1. Switching on and off

### 1 Switching on

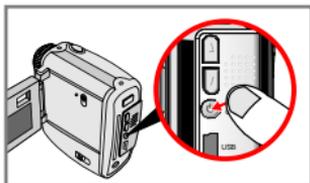
Open the LCD panel in the direction indicated or press the **MENU/OK button** for 3 seconds to switch the camera on.



OR

### 2 Switching off

Close the LCD panel in the direction indicated or press the **MENU/OK button** for 3 seconds to switch the camera off.



If the camera is idle for over 60 seconds, the LCD display will be turned off to conserve battery power, press any key to wake up the camera. If you do not operate this camera for over 3 minutes, the camera will shut down automatically.

- 1 If the LCD panel is closed during recording and playing video or audio clips, the camera will not stop working unless you finish the recording or playback manually.

## 2. Setting the language

When you switch the camera on for the first time, the LCD display may not be shown in your local language. You can set the LCD display language by using the method below.

### 1 Menu mode

Press the **MENU/OK** button to enter the **MENU**.



### 2 Settings mode

Use the **Up** or **Down** button to highlight the **Settings\_**  item. Then press the **MENU/OK** button to confirm.



### 3 Select language

Use the **Up** or **Down** button to highlight the **Language\_**  item. Then press the **MENU/OK** button to confirm.

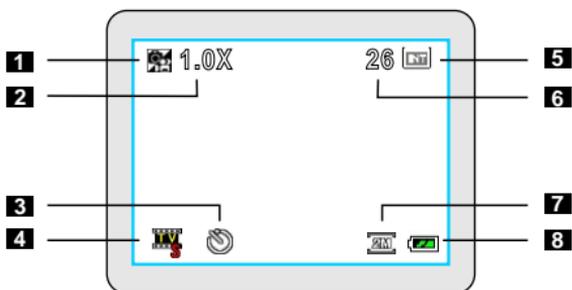


Use the **Up** or **Down** button to highlight the desired language. Then press the **MENU/OK** button to confirm.



Press the **Record** button to exit.

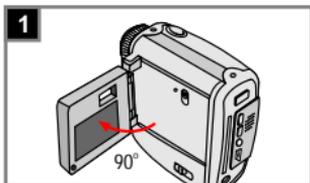
### 3. The LCD display information



- 1** Still picture/ video mode
- 2** Zoom ratio
- 3** Self-timer mode
- 4** Video resolution
- 5** Storage media
  - Internal memory: 
  - CF card: 
- 6** Number of pictures, video clips and audio clips
- 7** Picture resolution
- 8** Battery life

## 4. Recording movies

- 1 Switch on**  
Open the LCD panel to switch the camera on.

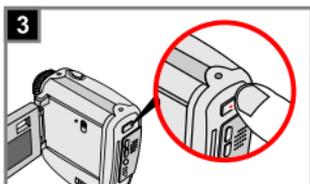


- 2 Focus**  
Adjust the **Focus switch** to set the focus as appropriate.

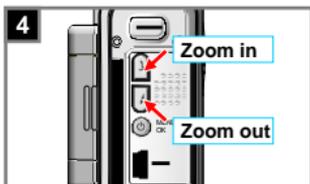
|   |       |                     |
|---|-------|---------------------|
|  | Macro | 12"~16" (30cm~40cm) |
|  | Micro | 16"~∞ (40cm~∞)      |



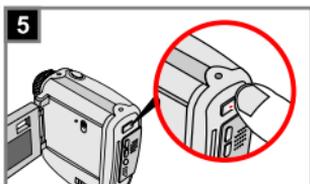
- 3 Start recording**  
Press the **Record button** to start recording. While recording in progress, the count indicator will start.



- 4 Zoom in or zoom out**  
Press the **Up button** to zoom in or the **Down button** to zoom out.

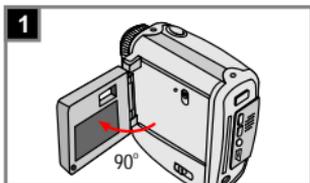


- 5 Stop recording**  
Press the **Record button** again to stop recording.



## 5. Taking still pictures

- 1 Switch on**  
Open the LCD panel to switch the camera on.

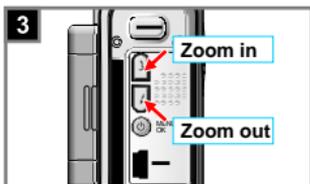


- 2 Focus**  
Push the **Focus switch** to set the mode best for your picture.

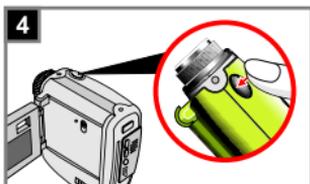
|   |       |                     |
|---|-------|---------------------|
|  | Macro | 12"~16" (30cm~40cm) |
|  | Micro | 16"~∞ (40cm~∞)      |



- 3 Zoom in or zoom out**  
Press the **Up button** to zoom in or the **Down button** to zoom out.

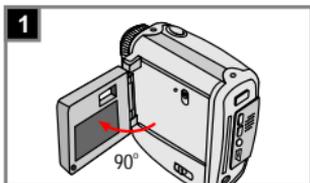


- 4 Take a still**  
Press the **Shutter button** to take a shot.



## 6. Recording audio clips

- 1 Switch on**  
Open the LCD panel to switch the camera on.



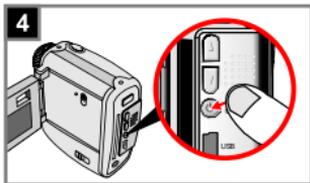
- 2 Record audio mode**  
Press the **MENU/OK** button to enter the **MENU**. Use the **Up** or **Down** button to highlight the **Record Audio\_**  item.



- 3 Start recording**  
Then press the **MENU/OK** button to start recording. While recording in progress, the count indicator will start.



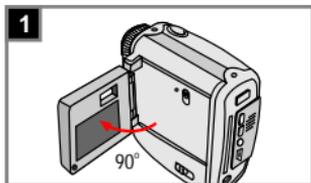
- 4 Stop recording**  
Press the **MENU/OK** button again to stop recording.



## 7. Playing your pictures, movies and audio clips

### 1 Playback mode

- 1 Switch on**  
Open the LCD panel to switch the camera on.



- 2 Playback mode**  
Press the **MENU/OK** button to enter the **MENU**. Use the **Up** or **Down** button to highlight the **Playback\_** (📷) item. Then press the **MENU/OK** button to enter the playback mode.



- 3 Select images**  
You are now in the thumbnail mode. Press the **Up** button to select the previous image or the **Down** button to select the next one. The selected file will be highlighted.



Thumbnail view



There are three file types that you can identify by the icons at the top left section on the thumbnails.

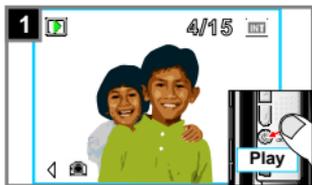
-  : pictures
-  : video clips
-  : audio clips



## 2 Viewing your pictures

### 1 View a picture

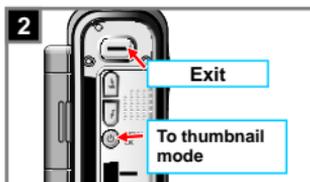
Continued from page 15, once you select the target file with a  icon, press the **MENU/OK** button to view the full-screen file.



Full-screen view

### 2 Exit

Press the **MENU/OK** button to return to the thumbnail view or the **Record** button to exit.



In the full-screen mode, the **Up** and **Down** buttons allow you to select the image.

### 3 Playing your movies and audio clips

#### 1 Play

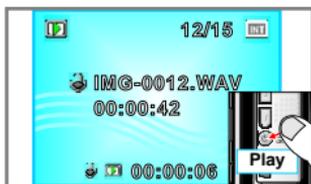
Continued from page 15, once you select the target file with a  (video) or  (audio) icon, press the **MENU/OK button** to play the file.



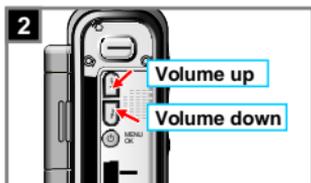
The video clip is played.

#### 2 Adjust the volume

While playing a recording, press the **Up button** to increase or the **Down button** to decrease the volume.



The audio clip is played.



The volume controller will appear at the right side while adjusting the volume.

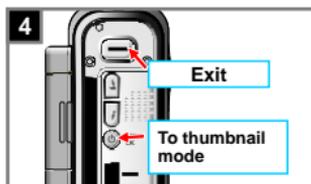
### 3 Stop playing

While playing a recording, you can press the **MENU/OK button** to stop playing.



### Pause and resume

While playing a recording, you can press the **Video button** to pause. Press the **Video button** again to resume.



### 4 Exit

When a recording is finished or stopped playing, press the **MENU/OK button** to return to the thumbnail view or the **Record button** to exit.

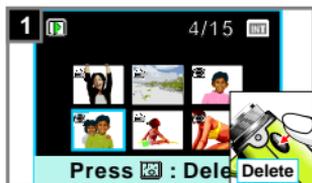


If the recording is finished or stopped playing, the **Up** and **Down buttons** allow you to select the image.

## 4 Deleting your files

### 1 Delete

Continued from page 15, once you select the target file, press the **Shutter button** to delete. Then press the **Shutter button** again to confirm the deletion.



### 2 Exit

Press the **Record button** to exit.



As the step 1. above, if you do not wish to delete the file, press any button except the **Shutter button** to cancel the deletion.

## 8. Using the self-timer

The self-timer allows a delay of ten seconds before the shutter fires when taking a self-portrait picture or a movie.

- 1 Menu mode**  
Press the **MENU/OK** button to enter the **MENU**.



- 2 Set self-timer on**  
Use the **Up** or **Down** button to highlight the **Self Timer\_ ON** item. Then press the **MENU/OK** button to set self-timer on. You will see a  icon at the bottom left section of the LCD display.



- 3 Use the self-timer**  
When the **Shutter** button is pressed (the **Record** button is available as well under the self-timer mode), the camera will have ten seconds delay with ten beeps emitting before taking a picture. After the shutter fires, the self-timer will be automatically disabled.



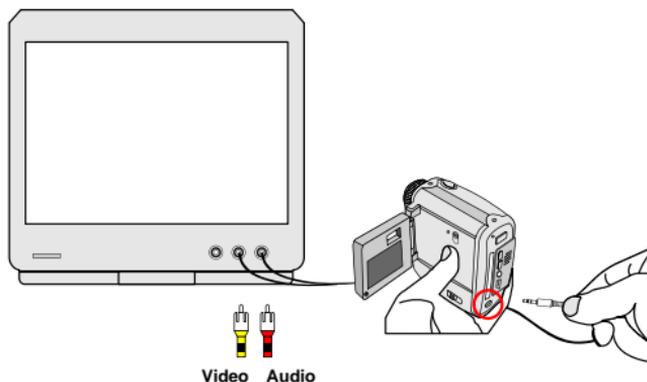
 As the step 2. above, if you wish to cancel the setting of self-timer on, press the **MENU/OK** button twice to disable.

## 9. Real-time display on TV

Connect your camera and TV via an AV cable for real-time display. You can preview the screen of the camera and display your video clips, still pictures and audio recordings directly on TV screen.

- 1 Set TV to AV mode**  
Turn on your TV and switch to the AV mode.

- 2 Connect your camera to TV**  
Insert the video and audio ends of the AV cable to the AV-in port on your TV.  
Insert the other end of the AV cable to the TV-out port on your camera.



# Advanced Settings

## 1. Settings menu access

The **Settings** menu provides more advanced features for you to fine-tune the camera. The following describes how to access the **Settings** menu.

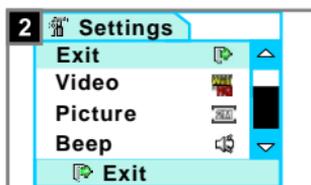
### 1 Menu mode

Press the **MENU/OK** button to enter the **MENU**.



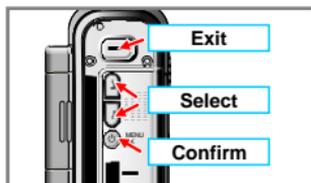
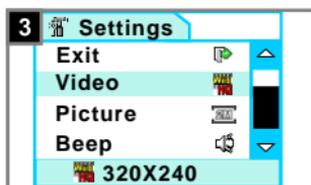
### 2 Settings mode

Use the **Up** or **Down** button to highlight the **Settings\_**  item. Then press the **MENU/OK** button to confirm.



### 3 Adjust the settings

Use the **Up** or **Down** button to highlight the desired item of settings. Then press the **MENU/OK** button to enter the sub-menu.



## 2. Settings menu events

**Settings** menu allows you to set some elemental functions of the camera. The following table is the description of the setting items.

| Settings       | Items   | Descriptions  |
|----------------|---|---|
| <b>Video</b>   |  640x480   | High quality for viewing on TV.   |
|                |  352x288   | Standard quality and suitable for viewing on TV.  |
|                |  320x240   | High quality for network transmission or email.   |
|                |  160x128   | Standard quality for network transmission or email.   |
| <b>Picture</b> |  2304x1728 | Ideal for developing 6x8 photos or smaller. The most memory-demanding option.   |
|                |  2048x1536 | Suitable for developing 5x7 photos or smaller.  |
|                |  1600x1200 | The default setting. Suitable for developing 4x6 photos or smaller.   |
|                |  640x480   | The most memory-saving option. Suitable for viewing on the computer or email.   |
| <b>Beep</b>    |  On        | This item determines whether the beep sounds when operating the camera.   |
|                |  Off       |   |
| <b>Flicker</b> |  50 Hz     | If you travel to another country, the flicker setting may not suit the place you are staying. This item allows you to set the flicker to prevent noise on your image. The default flicker value depends on your country. For details, please refer to the "More on flicker" section on page 44. |
|                |  60 Hz   |   |



|                   |   |     |  |
|-------------------|---|-----|--|
| <b>Display</b>    |  | On  | This item determines whether the small icons for illustration appears on the LCD display.  |
|                   |  | Off |  |
| <b>Default</b>    |  | Yes | This item allows you to override your current settings.  |
| <b>Delete All</b> |  | Yes | This item allows you to quick erase all files in the card or internal memory.  |
| <b>Format</b>     |  | Yes | <p>This item allows you to format the storage and thus erase all files in the card or internal memory. All files will not be recovered if you execute the format item.</p> <p>*The storage media illustration on the LCD display as below: Internal memory - <br/>CF card - </p> <p>The camera will use the card as the main storage media. To format the files in the card, please insert the card; to format the files in the internal memory, please remove the card.</p> |

# Enjoying your Images and Audio Clips on the Computer

## 1. Installing DV 4100M driver

You need to install **DV 4100M driver** before connecting your camera to your computer for the first time to ensure that video clips can be played back on your computer. Please follow the steps to complete the installation.

- 1 Turn on your computer.
  - Do not connect the USB cable to your computer at this stage.
  - Turn off other applications running on your computer.
- 2 Place the supplied CD into the CD-ROM drive.
- 3 Move the mouse to the  icon (**DV 4100M Driver**) and click it.



 If no title appears on the screen, please follow the steps.

1. Double click the "**My computer**" icon.
2. Double-click the CD-ROM drive icon (**DV 4100M driver (E:)\***). The name of CD-ROM drive changes depending on how your computer is set up.
3. Browse to the "**\\DV 4100M driver**" folder and start the **Setup.exe** program manually.

- 4 The "Install Shield Wizard" dialogue box is occurring and the automatic installation begins. When a window as Fig 1 appears, click "Next". Then follow the on-screen instructions to continue.

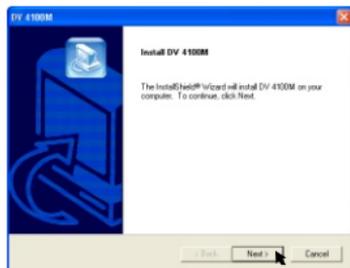


Fig 1

## Notice for Windows 2000 users

1. The "Digital Signature Not Found" dialogue box might show twice. Please simply click "Yes". The camera works well for Windows 2000.



2. Follow the on-screen instructions and click "Finish".



! Do not restart your computer at this step.

- 5 After the driver installation is completed, the program will prompt you to install **Windows Media Player Codecs**. If you are not sure if the codec has been installed in your computer, please click "**Yes**" and follow the on-screen instructions to complete the installation.

Fig 2



- 6 After the codec installation is completed, the program will prompt you to install **Direct X 8.0** or above. If you are not sure if this program has been installed in your computer, please click "**Yes**" to continue.

Fig 3



- 7 The driver will be available after restarting your computer.

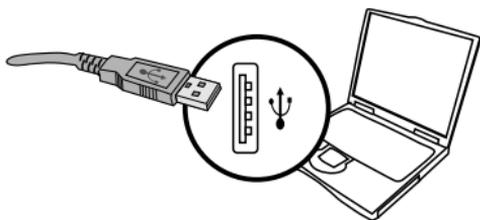


**Windows Media Player Codecs** and **Direct X 8.0** or above are necessary for viewing the video clips recorded by the camera.

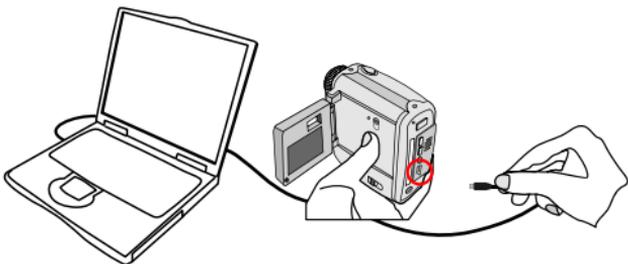
## 2. Connecting your camera to your computer

1 Turn on your computer.

2 Insert the USB cable to the USB port on your computer.



3 Insert the other end of the USB cable to the USB port on your camera.



4 Set your camera to the **Disk Mode**  item. Then press the **MENU/OK button** to confirm.



### 3. Copying images and audio clips to your computer

#### 1 ■ For Windows XP users

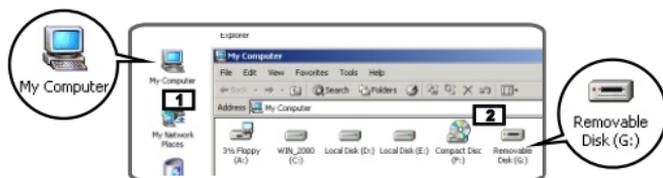
After connecting your camera with the computer, a window will automatically appear (as Fig 4). Select the **"Open folder to view files using Windows Explorer"** item and then click **"OK"**.



Fig 4

#### ■ For Windows 2000/ME/98SE users

Double-click **"My computer"**, then double-click the new **"Removable Disk"** icon.



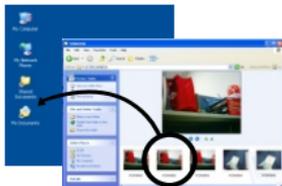
Some users may find two removable disks appear under **"My computer"**, that is because the OS detects two storage media in the camera (the internal memory and the CF card). If you can not find your files in one of the disks, please try to find them in the other disk.

2 Double-click the "DCIM" file folder.

3 Double-click the "100MEDIA" file folder.

4 Drag the file to the "My Documents" file folder to copy your image or audio clip to the computer.

■ For Windows XP users



■ For Windows 2000/ME/98SE users



## The storage position of the files

You can find the files of your pictures, movies and audio clips as Fig 5.

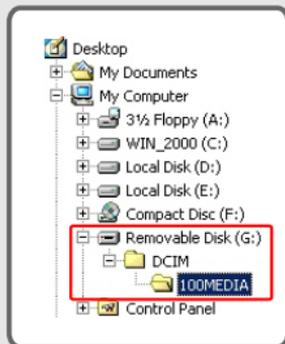


Fig 5

## 4. Playing on your computer

1 Double-click "My Documents".

■ For Windows XP users



■ For Windows 2000/ME/98SE users



2 Select the desired file and double-click it to view.

 Notice on disconnecting the camera from the computer for Windows 2000/ME users

To disconnect your camera from the computer, please follow these steps.

1. Double-click  on the task bar.
2. Click  (USB Disk), then click "Stop".
3. Select the camera (DV 4100M) on the confirmation screen and click "OK".
4. Follow the on-screen instruction to disconnect your camera from your computer correctly and safely.



# Using the PC Camera Function

## 1. Installing the DV 4100M driver

You need to install the **DV 4100M** driver before using PC Camera or video conferencing function.

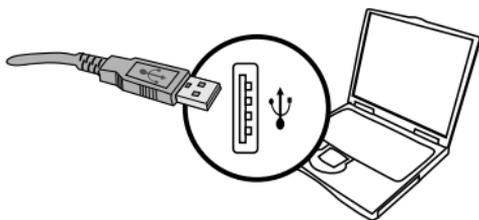


If you never install **DV 4100M** driver, please finish the installation first. For details, please see step 1. "Installing DV 4100M driver" on page 25.

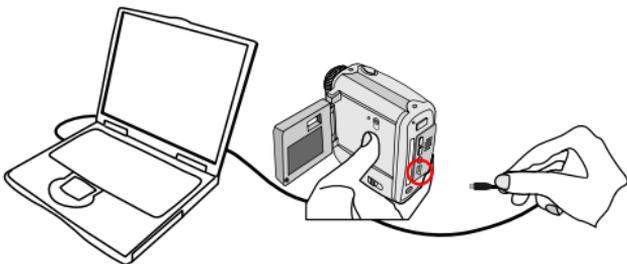
If you have already installed **DV 4100M** driver, please go to step 2. "Connecting your camera to your computer" on the next page.

## 2. Connecting your camera to your computer

- 1 Turn on your computer.
- 2 Insert the USB cable to the USB port on your computer.



- 3 Insert the other end of the USB cable to the USB port on your camera.



- 4 Set your camera to the **Live Mode**  item. Then press the **MENU/OK button** to confirm.



## Notice for Windows 2000/ME/98SE users

During the installation process for the first time, please follow the steps below.

### ■ For Windows 2000 users

The "**Digital Signature Not Found**" dialogue box might appear twice, please simply click "**Yes**". This camera works well for Windows 2000.



### ■ For Windows ME users

Please select "**Automatic search for a better driver**" when a window as Fig 6 appears.

### ■ For Windows 98SE users

Click "**Next**" when a window as Fig 7 appears.

- Select "**Search for a best driver for your device**" and click "**Next**" when a window as Fig 8 appears.
- Select the position where your Windows 98SE CD-ROM in your CD-ROM drive. Then follow the on-screen instructions to complete the installation.



Fig 6



Fig 7

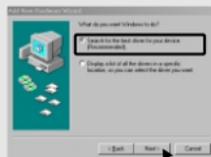


Fig 8

### 3. Capturing immediate images to your computer

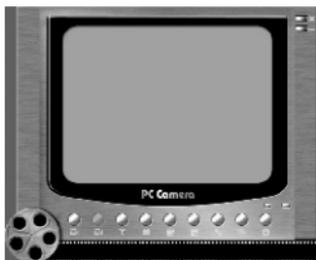
After the installation of driver and hardware, you can start to use the PC Camera function or run other video conferencing applications. (This manual provides information related to PC Camera function only.)

#### 1 Launch the software

Double-click the  icon on the desktop to execute the program. (If you cannot find the program shortcut on the desktop, please click the "Start" menu and go up to "Programs", then go to the folder named "DV 4100M" and click it to launch the program.)

#### 2 PC Camera interface

The windows below is interface of **DV 4100M**.



## 2 Capture immediate images

Press the buttons at the bottom on the PC Camera panel to use the functions.



- |  |  |
|--|--|
| <b>1</b>  Start recording | <b>6</b>  Start / Stop preview window |
| <b>2</b>  Stop recording  | <b>7</b>  Setting *                   |
| <b>3</b>  Snapshot        | <b>8</b>  Open album                  |
| <b>4</b>  Format *        | <b>9</b>  Select video source         |
| <b>5</b>  Source *      |  |

\* indicates that sub-menu is available.

### Viewing your pictures and movies with PC Camera interface

Click the  (**Open album**) button at the bottom on the PC Camera panel, or go to the follow path to find the files.

C:\Program Files\DV 4100M\Work Temp

## 4. Advanced settings

Click the  (**Format**),  (**Properties**) and  (**Setting**) buttons to bring up advanced settings.

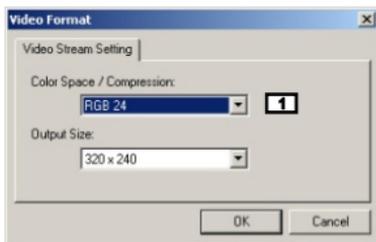
### Format settings

#### 1 Color Space/Compression

Set one of the following functions according to your needs.

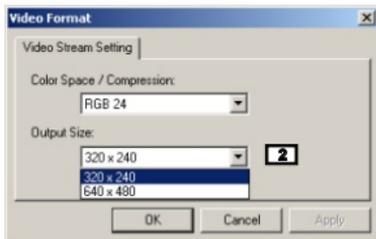
RGB 24: Better image quality.

I420: The file will be compressed to add advantage for faster-speed transformation.



#### 2 Output Size

Set output size to change the size of the preview window. The default size is 320x240. Select larger pixels when you need a larger preview window.



## Properties settings

### 1 Video Setting

#### 1 Banding Filter

If the screen of your computer flickers when using PC Camera function, change the "Banding Filter" item on the "Video Setting" tab to avoid noise. Select "50Hz" or "60Hz" until the screen stops flickering.

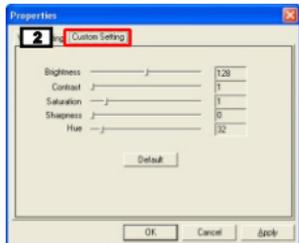


#### 2 Bandwidth

If the controller has no enough bandwidth available for the camera, set the "Bandwidth" item on the "Video Setting" tab. The smaller the bandwidth value is, the less the bandwidth is occupied. Then it will take more time to transmit images.

### 2 Custom Setting

You can use the default settings or change the settings of brightness, contrast, saturation, sharpness, and hue on your own.



## Flicker setting

If you take your camera abroad, and find the screen of your computer flickers when using PC Camera function, please select the "**Cancel Flicker**" check box to prevent noises from appearing on the screen. Or, you can refer to the **Flicker Settings Table** (p. 44) for proper flicker value that suits the country you are staying.



# Troubleshooting

| Question   | Answer    |
|--|--|
|  <b>When using the camera</b> |  |
| <b>The camera has no power.</b>  | The batteries may be out of power, please change the batteries.  |
| <b>Cannot power on my camera even though batteries are installed.</b>  | <ol style="list-style-type: none"><li>1 Make sure that the batteries are installed correctly.</li><li>2 If it is idle over 3 minutes, the camera will shut down automatically, please switch the camera on. (p. 9)</li></ol>   |
| <b>The camera is powered on, but the LCD display does not display.</b>   | <ol style="list-style-type: none"><li>1 Make sure that the <b>LCD on/off switch</b> is set to on.</li><li>2 If it is idle over 60 seconds, the LCD display will be turned off, please press any button to reactivate the display.</li></ol>  |
| <b>Cannot take pictures and movies when pressing the Record / Shutter button.</b>                              | <ol style="list-style-type: none"><li>1 The storage is full. Please free some space of the CF card or internal memory.</li><li>2 If the "<b>MEMORY ERROR</b>" or "<b>CARD ERROR</b>" message shows on the LCD display, please set the camera to the Setting mode and format the storage media.</li></ol> |
| <b>I did not delete the picture and movie, but cannot find the data in the CF card.</b>                        | Check if your files are stored in the camera's built-in memory. The camera will use the card as the main storage media, and files previously stored in the internal memory will become inaccessible until the card is removed.   |

|   |   |
|---|---|
| <p><b>The image is too blurred.</b></p>   | <ul style="list-style-type: none"> <li>❶ Adjust the focus.</li> <li>❷ Keep the camera steady while pressing the <b>Shutter button</b>.</li> </ul>   |
| <p><b>Noise occurs on my camera when viewing the image on the LCD display or on the computer.</b></p>                                       | <p>Set the filter matching the place you are staying. Please refer to the "More on flicker" section on page 44.</p>   |
| <p> <b>When connecting the camera to your computer</b></p> |   |
| <p><b>The driver installation failed.</b></p>   | <ul style="list-style-type: none"> <li>❶ Please remove the driver and other related programs. Follow the installation steps in this manual to reinstall.</li> <li>❷ Install the driver before inserting the USB cable.</li> </ul>                                       |
| <p><b>A conflict with other installed camera or capture device.</b></p>   | <p>If you have any other camera or capture device, completely remove the camera and its driver from the computer to avoid a driver conflict.</p>  |
| <p><b>The movie cannot be played on my computer.</b></p>  | <p>Please install <b>DirectX 8.0</b> or above and <b>Windows Media 9.0 Codecs</b> to solve this problem. (See the "Installing DV 4100M driver" section on page 25 or go to <a href="http://microsoft.com">http://microsoft.com</a> to download the required files.)</p> |
| <p><b>Noise occurs on my computer when using video conferencing.</b></p>  | <p>Set the filter matching the place you are staying. Please refer to the "Banding Filter" section on page 38.</p>  |

## Other Information

### 1. Battery life

#### Available shots and time when using batteries

| Continuous shooting | Number of still picture |           |           |         |
|---------------------|-------------------------|-----------|-----------|---------|
|                     | 2304x1728               | 2048x1536 | 1600x1200 | 640x480 |
| LCD panel on        | 400                     | 500       | 600       | 700     |

\*Data above is with pictures taken every four seconds.

| Recording video clips | Recording time |         |         |         |
|-----------------------|----------------|---------|---------|---------|
|                       | 640x480        | 352x288 | 320x240 | 160x128 |
| LCD panel on          | 60 mins        | 60 mins | 60 mins | 60 mins |

| Recording audio clips | Recording time |
|-----------------------|----------------|
|                       | 90 mins        |
| LCD panel on          |                |

\*Data of the three tables above is for using alkaline batteries fully charged and in 25°C without limiting for memory size.

- Notes:
1. The data above is for reference only.
  2. Life of battery will be shorten in the following conditions.
    - (1) Taking snapshot and recording at low temperature.
    - (2) Switching on/off power repeatedly.

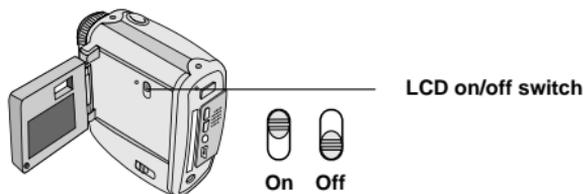
## 2 Battery indicator

| Icons   | Meanings               |
|---|------------------------|
|  | Full battery life.     |
|  | Adequate battery life. |
|  | Low battery life.      |
|  | Empty battery life.    |

\*Please replace the batteries immediately when the icon indicates that battery life is empty.

## 2. Conserving battery power

If the camera stays idle over 60 seconds, the LCD display will be turned off automatically to conserve the power. In addition, you can manually set the **LCD on/off switch** to off to conserve batteries power.



### 3. Storage capacity

| Memory              | Still picture |           |           |         | Video clip  | Audio clip |
|---------------------|---------------|-----------|-----------|---------|-------------|------------|
|                     | 2304x1728     | 2048x1536 | 1600x1200 | 640x480 | Maximum     | Maximum    |
| Flash memory (13MB) | 8             | 16        | 24        | 39      | 2-4 mins    | 45 mins    |
| CF card (32MB)      | 20            | 40        | 60        | 96      | 5-10 mins   | 2 hrs      |
| CF card (64MB)      | 40            | 80        | 120       | 192     | 10-20 mins  | 4 hrs      |
| CF card (128MB)     | 80            | 160       | 240       | 384     | 20-40 mins  | 8 hrs      |
| CF card (256MB)     | 160           | 320       | 480       | 768     | 40-80 mins  | 16 hrs     |
| CF card (512MB)     | 320           | 640       | 960       | 1536    | 80-160 mins | 32 hrs     |

Notes: 1. Actual number of pictures stored may vary (up to  $\pm 30\%$ ) depending on the resolution and color saturation.

2. The table above is for reference only.

### 4. More on flicker

The default flicker setting of your camera depends on your country. When using the camera abroad, please refer to the table below to match the flicker setting with the place you go.

|                |          |         |        |       |         |             |
|----------------|----------|---------|--------|-------|---------|-------------|
| <b>Country</b> | England  | Germany | France | Italy | Spain   | Netherlands |
| <b>Setting</b> | 50Hz     | 50Hz    | 60Hz   | 50Hz  | 50Hz    | 50Hz        |
| <b>Country</b> | Portugal | America | Taiwan | China | Japan   | Korea       |
| <b>Setting</b> | 50Hz     | 60Hz    | 60Hz   | 50Hz  | 50/60Hz | 60Hz        |

## 5. Specifications

|                               |   |
|-------------------------------|---|
| Hardware resolution           | 2304x1728 (4 Mega pixels)   |
| Sensor effective resolution   | 1600x1200 (2 Mega pixels)   |
| Internal memory               | Built-in 16 MB flash memory (13 MB flash memory for storage)  |
| External memory               | Built-in CF slot (maximum: 512 MB)  |
| Digital still camera          | JPEG (.JPG) Format.<br>2304x1728 (4 Mega pixels); 2048x1536 (3 Mega pixels);<br>1600x1200 (2 Mega pixels); 640x480 (VGA)  |
| Digital video camcorder       | MPEG4 (.ASF) Format.<br>TV-HQ: VGA (640x480 pixels) / up to 11 fps;<br>TV-S: CIF (352x288 pixels) / up to 30 fps;<br>Web-HQ: QVGA (320x240 pixels) / up to 30 fps;<br>Web-S: 160x128 pixels / up to 30 fps. |
| Digital voice recorder        | WAVE (.WAV) Format.   |
| Video conferencing            | VGA (640x480 pixels) / up to 10 fps<br>QVGA (320x240 pixels) / up to 20 fps   |
| LCD display                   | 1.5" Color TFT LCD  |
| Digital zoom                  | 4x  |
| Exposure                      | Auto  |
| White balance                 | Auto  |
| Lens                          | F=3.0 / 8.7mm   |
| Self Timer                    | 10 seconds  |
| Interface                     | USB 1.1 (USB 2.0 compatible)  |
| Power saving                  | Auto power-off if idle for over 3 minutes<br>Auto suspense if idle for over 1 minute  |
| Built-in microphone / speaker | Yes   |
| TV-out                        | Support NTSC TV system  |
| Battery                       | AAx2 (Alkaline or rechargeable Ni-MH batteries recommended)   |
| Dimension                     | 83x78x41 mm   |

