OPTIMUS®

16-3845

Digital Video Camera

Thank you for purchasing this Optimus Digital Video Camera from RadioShack.

WHAT'S IN THIS PACKAGE

Digital Video Camera • User's Guide

Please read this user's guide before installing, setting up and using your new product

The FCC Wants You to Know

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 your local RadioShack store or an experienced radio/TV technician for help. If you cannot eliminate the interference, the FCC requires that you stop using your product. Changes or modifications not expressly approved by RadioShack may cause interference and void the user's authority to operate the equipment.

FCC Declaration of Conformity

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.

Product	**Digital Camera**
Model	**16-3845**
Responsible Party	**RadioShack 300 RadioShack Circle Fort Worth, TX 76102**

READ THIS FIRST

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- Pentium® is a registered trademark of Intel Corporation.
- SD™ is a trademark.
- Other names and products may be trademarks or registered trademarks of their respective owners.

Product Information

- Product design and specifications are subject to change without notice. This includes primary product specifications, software, software drivers, and user's manual. This User Manual is a general reference guide for the product.
- The product and accessories that come with your digital video camera may be different from those described in this manual. This is due to the fact that different retailers often specify slightly different product inclusions and accessories to suit their market requirements, customer demographics, and geographical preferences. Products very often vary between retailers especially with accessories such as batteries, chargers, memory cards, cables, carrying cases/pouches, and language support. Occasionally a retailer will specify a unique product color, appearance, and internal memory capacity. Contact your dealer for precise product definition and included accessories.
- The illustrations in this manual are for the purpose of explanation and may differ from the actual design of your digital video camera.
- The manufacturer assumes no liability for any errors or discrepancies in this user manual.
- For user manual and driver updates, refer to our website or contact your dealer.

SAFETY INSTRUCTIONS

Read and understand all ***Warnings*** and ***Cautions*** before using this product.

Warnings

If foreign objects or water have entered the camera, turn the power OFF and remove the batteries.
Continued use in this state might cause fire or electric shock. Consult the store of purchase.

If the camera has fallen or its case has been damaged, turn the power OFF and remove the batteries.
Continued use in this state might cause fire or electric shock. Consult the store of purchase.

Do not disassemble, change or repair the camera.
This might cause fire or electric shock. For repair or internal inspection, ask the store of purchase.

Do not use the camera in areas near water.
This might cause fire or electric shock. Take special care during rain, snow, on the beach, or near the shore.

Do not place the camera on inclined or unstable surfaces.
This might cause the camera to fall or tilt over, causing injury.

Keep the batteries out of the reach of children.
Swallowing batteries might cause poisoning. If the battery is accidentally swallowed, immediately consult a physician.

Do not use the camera while you are walking, driving or riding a motorcycle.
This might cause you to fall over or result in a traffic accident.

Cautions

Insert the batteries paying careful attention to the polarity (+ or –) of the terminals.
Inserting the batteries with its polarities inverted might cause fire and injury, or damage to the surrounding areas due to the battery rupturing or leaking.

Do not fire the flash close to anyone's eyes.
This might cause damage to the person's eyesight.

Do not subject the LCD monitor to impact.
This might damage the glass on the screen or cause the internal fluid to leak. If the internal fluid enters your eyes or comes into contact with your body or clothes, rinse with fresh water. If the internal fluid has entered your eyes, consult a physician to receive treatment.

A camera is a precision instrument. Do not drop it, strike it or use excessive force when handling the camera.
This might cause damage to the camera.

Do not use the camera in humid, steamy, smoky, or dusty places.
This might cause fire or electric shock.

Do not remove the battery immediately after a long period of continuous use.
The battery becomes hot during use. Touching a hot battery might cause burns.

Do not wrap the camera or place it in cloth or blankets.
This might cause heat to build up and deform the case, resulting in fire. Use the camera in a well-ventilated place.

Do not leave the camera in places where the temperature may rise significantly, such as inside a car.
This might adversely affect the case or the parts inside, resulting in fire.

Before you move the camera, disconnect cords and cables.
Failure to do this might damage cords and cables, resulting in fire and electric shock.

Notes on Battery Usage

When you use the battery, carefully read and strictly observe the ***Safety Instructions*** and the notes described below:

- Different battery types and surrounding temperatures may affect the battery performance.
- Avoid using batteries in extremely cold environments as low temperatures can shorten the battery life and reduce camera performance. This low temperature will also influence Alkaline battery performance, therefore Ni-MH rechargeable battery is highly recommended.
- If you are using the new rechargeable batteries or rechargeable batteries that have not been used for an extended period of time (batteries that pass the expiration date are exceptions) might affect the number of pictures that can be taken. Therefore, to maximize their performance and lifetime, we recommend you fully charge the batteries and discharge them for at least one complete cycle before use.
- The battery may feel warm when using the camera for an extended period of time or using the flash continuously. This is normal and not a malfunction.
- The camera may feel warm when being used continuously or for an extended period of time. This is normal and not a malfunction.
- If you will not be using the batteries for an extended period of time, remove them from the camera to prevent leakage or corrosion.
- Never use batteries of different types (together) or mix old and new batteries.
- Always keep the terminals in a clean state.
- Never use manganese batteries.

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INTRODUCTION

Thank you for purchasing the new digital video camera!
This digital video camera is designed as an “entry-level” handy cam.
Equipped with a 3.0 Megapixels CMOS sensor, your camera delivers good quality, 2048 x 1536 resolution images.

Other features provided by the digital video camera include the following:

- **3.0 Megapixels**
  A high-resolution CMOS sensor provides 3.0 megapixels for good quality images.
- **Auto flash**
  An auto flash sensor automatically detects the shooting (lightening) conditions and determines whether the flash should be used.
- **2.0” LTPS color image LCD monitor**
- **Digital zoom: 1x~8x**
- **32MB internal (built-in) memory (24MB available for image storage)**
  Images can be captured without using a memory card.
- **Support for SD memory card for memory expansion**
  You may wish to expand the memory capacity (up to 512MB capacity) by using an external memory card.
- **USB connection (USB 2.0 compliant)**
  Still images, video clips, or audio recording files that you have recorded can be downloaded to your computer using the USB cable (A USB driver is required for Win 98 and Win98SE).
- **Multi functionality**
  In addition to still image and video, your digital video camera can act as a voice recorder, MP3 player and PC camera.
- **Provided editing software: VideoStudio**
  You can enhance and retouch your images on your computer by using the provided editing software.

Package Contents

Carefully unpack your kit box and ensure that you have the following items. In the event that any item is missing or if you find any mismatch or damage, promptly contact your dealer.

Common product components:

- Digital video camera
- User's Guide
- USB Cable
- Software CD-ROM
- Tripod
- AV Cable
- Earphone
- Camera Strap
- Camera Pouch

Common (optional) accessories:

- SD memory card
- Batteries

- Accessories and components may vary by retailer.

GETTING TO KNOW YOUR DIGITAL VIDEO CAMERA

Front View

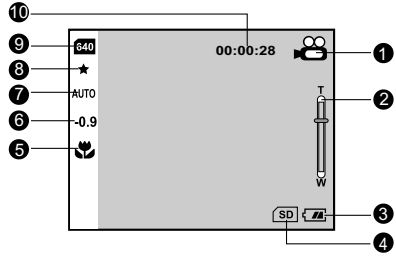
1. Lens
2. Microphone
3. Flash
4. Self-timer LED
5. Tripod socket
6. Focus switch
   - Macro mode
   - Normal mode
7. SD card cover
8. Battery cover

Rear View

1. ⏻ Power button
2. Ⓜ button
3. Zoom lever
   - ⊙ Record button
   - **T** / ▲ Zoom in
   - **W** / ▼ Zoom out
4. State LED indicator
5. 📷 Image button
6. ∩ Earphone connector
7. A/V terminal
8. USB connector
9. Strap holder
10. Speaker
11. LCD panel / monitor
12. MENU Menu button
13. ▶ Right / Fast forward button
    - ⏲ Self-timer button
14. ◀ Left / Rewind button
    - ϟ Flash button

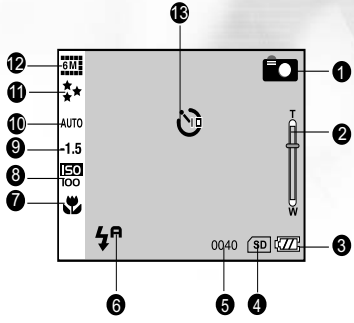
LCD Monitor Information

■ **Movie Mode:**



1. Movie mode icon
2. Zoom status
3. Battery power indicator
   - Full battery power
   - Medium battery power
   - Low battery power
   - Virtually no battery power
4. SD memory card indicator
   - An SD memory card is loaded
   - No SD memory card is loaded
   - Full SD memory card is full
5. Macro mode
6. EV compensation
7. White balance
   - **AUTO** AUTO
   - DAYLIGHT
   - LAMP
   - FLUORESCENT-1
   - FLUORESCENT-2
   - SHADE
8. Video quality
   - SUPER FINE
   - FINE
   - NORMAL
9. Video resolution
   - 640 x 480 pixels
   - 320 x 240 pixels
10. Available recording time
    (Before recording)/
    Elapsed time (While recording)

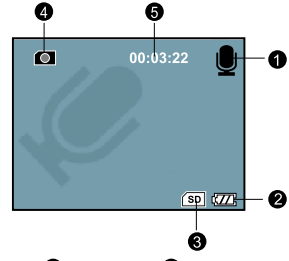
■ **Camera Mode:**



1. Still image mode icon
2. Zoom status
3. Battery power indicator
4. SD memory card indicator
5. Available number of shots
6. Flash mode
   - Flash off
   - Auto flash
   - Auto flash with red-eye reduction
7. Macro mode
8. ISO sensitivity
   - AUTO
   - 100
   - 200
   - 400
9. EV compensation
10. AWB (White balance)
11. Image quality
    - SUPER FINE
    - FINE
    - NORMAL
12. Image resolution
    - 6M 2880 x 2160
    - 5M 2592 x 1944
    - 3M 2048 x 1536
    - 1.2M 1280 x 960
    - 3M 640 x 480
13. Self-timer indicator (if used)
    - 3-second delay
    - 10-second delay

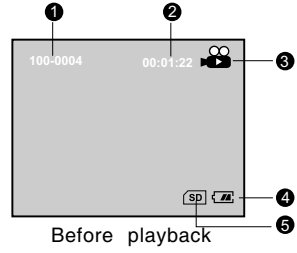
■ Audio Recording Mode

1. Audio recording mode
2. Remaining battery status
3. SD memory card indicator (if present)
4. Recording indicator
5. Available recording time (Before recording)/
   Elapsed time (While recording)

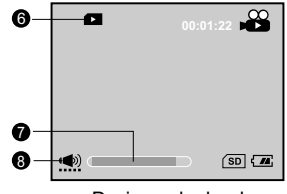


■ Video (Movie) Playback

1. Folder and file name
2. Duration of current video
   (Before playback)/
   Elapsed time (During playback)
3. Video playback mode icon
4. Battery power indicator
5. SD memory card indicator
6. Playback indicator
7. Video status bar
8. Sound level (speaker volume)
   - Low volume
   - Mild volume
   - Medium volume
   - High volume
   - Full volume
   - Mute (no sound)



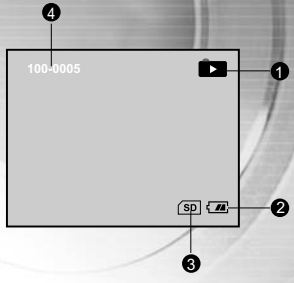
Before playback



During playback

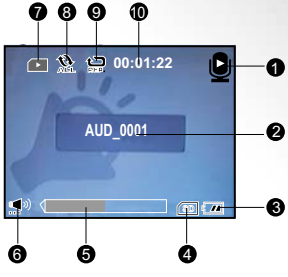
■ Still Image Playback

1. Still-image playback mode
2. Battery power indicator
3. SD memory card indicator
4. Folder and file name



■ Audio / MP3 Playback

1. Audio/MP3 playback mode icon
2. File name
3. Battery power indicator
4. SD memory card indicator
5. Audio/MP3 status bar
6. Sound level (speaker volume)
7. Playback indicator
8. Play mode indicator
   - Play one file
   - Play all files
   - Play the selected files
9. Repeat indicator
10. Elapsed time

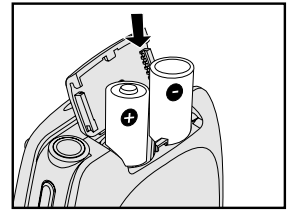


GETTING STARTED

Installing the Batteries (Optional Accessory)

You can use 2 AA size batteries to power the digital video camera.

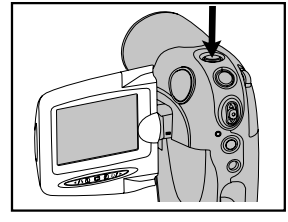
1. Slide the battery cover.
2. Insert the batteries, noting correct polarity (+ or -).
3. Close the battery cover firmly.



Turning the Power On/Off

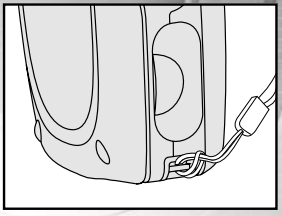
Press and hold the ⏻ button until the digital video camera turns on.

■ To turn the power off, press and hold the ⏻ button again.



Attaching the Hand Strap

Attach the strap as shown in the illustration.



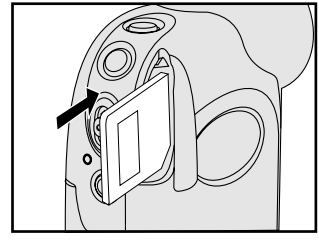
LED Indicators

Indicator	State	Description/Activity
LED indicator	Solid green	1. The digital video camera is powering up. 2. The digital video camera is ready to record images (or movies).
LED indicator	Blinking green	USB communication/transfer in progress.
LED indicator	Blinking red	Charging the flash.
Self-timer indicator	Blinking red	The self-timer function is activated.

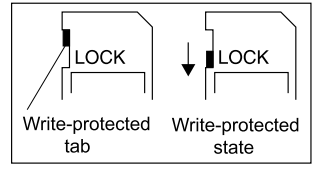
Loading an SD Memory Card (Optional Accessory)

The digital video camera comes with 32MB of internal memory (24MB available for image storage), allowing you to record video clips, captured still images, MP3 and audio files in the digital video camera. However, you can also expand the memory capacity by using an optional SD (Secure Digital) memory card so that you can store more files.

1. Open the SD memory card cover.
2. Inset the SD memory card.
   - If the card cannot be inserted, check the orientation.
3. Close the SD card cover firmly.
   - To remove the SD memory card, make sure the camera is turned off. Open the SD card cover, then press lightly on the edge of the memory card and it will eject.

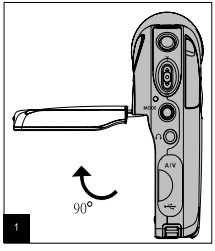


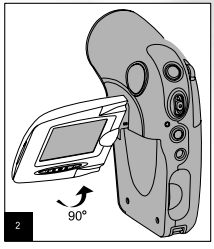
- Be sure to format an SD memory card with this digital video camera before using it. Refer to section in the manual titled “Formatting an SD memory card” for further details.
- To prevent valuable data from being accidentally erased from an SD card, you can slide the write protect tab (on the side of the SD memory card) to “LOCK”.
- To save, edit, or erase data on an SD memory card, you must unlock the card.

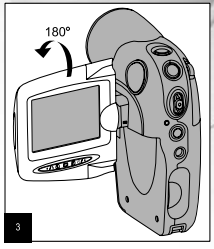


Using the LCD Panel

1. Open the panel by pulling it away from the digital video camera.
2. Choose the angle of the monitor that suits you best by rotating the panel.







- Make sure you open the LCD panel at 90 degrees before attempting to rotate it.
- Rotate the LCD panel carefully and with the correct direction, over rotation and rotation in the wrong direction may damage the hinge that connects the LCD monitor to the digital video camera.
- Avoid contact with the LCD monitor when moving the LCD panel.
- Do not hold the digital video camera by the LCD panel.

Choosing the OSD (On-Screen Display) Language

Specify in which language menus and messages are to be displayed on the LCD monitor for the first time. Select the displayed language with the zoom lever and press the ⊙ button. The setting will be stored. Refer to the section in this manual titled "LANGUAGE" in the System Menu for further details.

■ The OSD language setting screen appears and prompts you to choose a language for displayed information on the LCD monitor only when you first turn the digital video camera on. It will not appear again the next time when you power on it.

Setting the Date and Time

The date/time setting screen will automatically appear:

- When first turning the digital video camera on;
- When turning the power on after the digital video camera has not had batteries inserted for an extended period of time.

To adjust the date and time:

1. Select the year, month, day and time fields with the ◀/▶ buttons.
2. Press the ⊙ button after all fields are set.
   - To increase a value, slide the zoom lever to the ▲ / **T** side.
   - To decrease a value, slide the zoom lever to the ▼ / **W** side.
   - The time is displayed in 24-hours format.

Formatting an SD Memory Card

Format an SD memory card before its initial usage.

1. Turn on the power by pressing and holding the ⏻ button.
2. Toggle the Ⓜ button to select movie, camera or playback (SELECT MODE) mode. Then press the ⊜ button.
   - The MOVIE / CAPTURE / PLAYBACK / MP3 / AUDIO MENU is displayed.
3. Press ◀ to access the SYSTEM MENU.
4. Select [FORMAT] with the zoom lever, and press the ⊙ button.
5. Select [YES] with the zoom lever, and press the ⊙ button.

- Formatting an SD memory card erases all data and file types from the card, including photos, video and audio.
- Formatting is an irreversible action and data cannot be recovered at a later time.
- An SD memory card having any problem cannot be properly formatted.

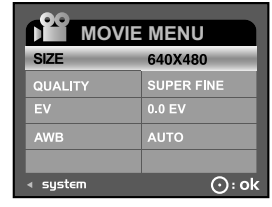
Setting Image Resolution and Quality

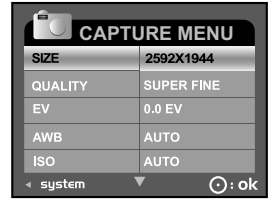
As you get to know the digital video camera, you can set the image resolution (number of vertical and horizontal pixels) and image quality (compression ratio) based on the types of images you want to shoot. These settings affect the number of images that can be stored in memory, or on a memory card.

Higher resolution and higher quality images provide finer detail but enlarges the file size of images.

To change the image resolution or image quality, perform these steps below:

1. Turn on the power by pressing and holding the ⏻ button.
2. Toggle the Ⓜ button to access in camera or movie mode. Then press the ⓜ button.
   - The CAPTURE / MOVIE MENU is displayed.
3. Select [SIZE] with the zoom lever, and press the ⊙ button.
4. Select the desired setting with the zoom lever, and press the ⊙ button.
5. Repeat steps 3 and 4 to set the [QUALITY].





- The possible number of shots and recording time depend on the storage size, resolution and quality settings and the subject of the image to be captured.

PHOTOGRAPHY MODES

Capturing Still Images

1. Turn on the power by pressing and holding the ⏻ button.
2. Compose the shot.
3. Press the 📷 button to capture a still image.
   - The actual captured image appears to be larger than the one on the LCD preview after it was captured.

Number of recordable images

The frame counter indicates the approximate number of images that can be stored on the internal memory or the SD memory card. The number of recordable images may vary depending on the recorded subject, the capacity of the memory card, the types of information stored (still, motion, audio), and how much information is stored before changing the picture quality or resolution.

Resolution	Quality	Compression ratio	32MB internal memory (24MB available for image storage)
2880 x 2160 pixels 6M	SUPER FINE	4:1	6
	FINE	8:1	12
	NORMAL	12:1	19
2592 x 1944 pixels 5M	SUPER FINE	4:1	7
	FINE	8:1	15
	NORMAL	12:1	23
2048 x 1536 pixels 3M	SUPER FINE	4:1	12
	FINE	8:1	25
	NORMAL	12:1	37
1280 x 960 pixels 1.2M	SUPER FINE	4:1	32
	FINE	8:1	63
	NORMAL	12:1	93
640 x 480 pixels VGA	SUPER FINE	4:1	122
	FINE	8:1	226
	NORMAL	12:1	264

- The above data show the standard testing results. The actual capacity varies according to the shooting conditions and settings.

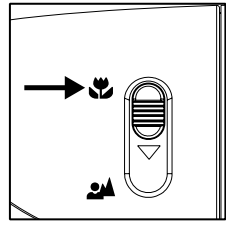
Recording Video Clips

1. Turn on the power by pressing and holding the ⏻ button.
2. Compose the shot.
3. Press the ⊙ button.
   - The recording of the video clip will start.
   - Pressing the ⊙ button again will pause the recording. Pressing the ⊙ button during pause will resume recording.
4. Press the 📷 button to stop recording.

Macro Mode

Select this when you want to take close-up photography.

1. Turn on the power by pressing and holding the ⏻ button.
2. Slide the focus switch to the 🌷 side.
3. Compose the shot.
4. Press the 📷 button to capture a still image.
   - To record video clips, press the ⊙ button to start recording, and then press the 📷 button to end the recording.

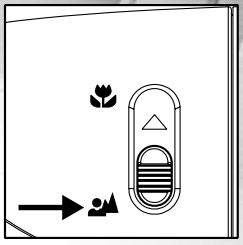


- After a macro shot is taken **DO NOT FORGET** to reset the lens to the normal position.
- Flash mode is automatically set to off once you switch to Macro mode.

Normal Mode

This mode is suitable for scenery and portrait shooting.

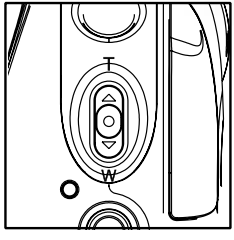
1. Turn on the power by pressing and holding the ⏻ button.
2. Slide the focus switch to the side.
3. Compose the shot.
4. Press the button to capture a still image.
   - To record video clips, press the ⊙ button to start recording, and then press the button to end the recording.



Zoom Photography

Zoom photography allows you to capture telephoto and wide-angle shots.

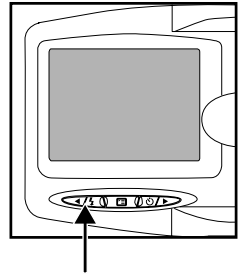
1. Turn on the power by pressing and holding the ⏻ button.
2. Compose the shot with the zoom lever.
   - The subject appears closer by sliding the zoom lever to the ▲ / **T** side.
   - The subject appears farther away by sliding the zoom lever to the ▼ / **W** side.
3. Press the button to capture a "zoomed" image.
   - To record video clips, press the ⊙ button to start recording, and then press the button to end the recording.
   - You can also use the zoom lever to zoom in on or zoom out from the subject while recording the video clips.



Setting the Flash

Set the flash to suit the photographic conditions.

1. Turn on the power by pressing and holding the ⏻ button.
2. Press the ◀ (ϟ) button to select the desired flash mode.



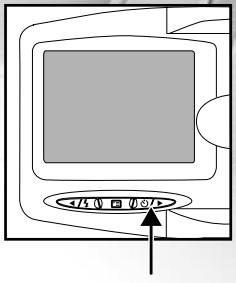
The table below will help you choose the appropriate flash mode:

Flash Mode	Description
Flash off	Use this mode when taking pictures using indoor lighting, for stages and indoor competitions, and when the subject is too far away for the flash to be effective.
Auto flash	The flash fires automatically to suit the photographic conditions.
Auto flash with red-eye reduction	Use this mode to reduce the red-eye phenomenon when you want to take natural-looking photographs of people and animals in low-light conditions. When taking photographs, the red-eye phenomenon can be reduced by asking the subject (person) to look at the digital video camera or get as close to the digital video camera as possible.

■ The flash cannot be set in the movie mode.

Setting the Self-Timer

This setting allows still images to be captured with the self-timer.



1. Turn on the power by pressing and holding the ⓘ button.
2. Press the ▶ (⏲) button to select the setting.
3. Compose the shot.
4. Press the 📷 button.
   - The self-timer LED and self-timer icon flash, and then the image is captured after the preset time has elapsed.
   - To cancel the self-timer during operation, press again the ▶ (⏲) button.
   - Once the self-timer has been activated and the 📷 button has been pressed, you can not slide the zoom lever.

The table below will help you choose the appropriate self-timer mode:

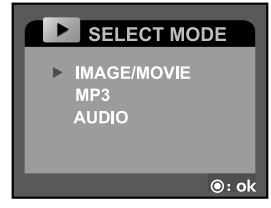
Self-timer mode	Description
⏲ 3 sec.	The picture is taken about 3 seconds after the 📷 button is pressed.
⏲ 10 sec.	The picture is taken about 10 seconds after the 📷 button is pressed.

- Self-timer cannot be set in the movie mode.
- The self-timer setting is automatically cancelled after an image is captured.

PLAYBACK MODE

Playing Back Still Images/ Video Clips

You can playback the still images on an LCD monitor.



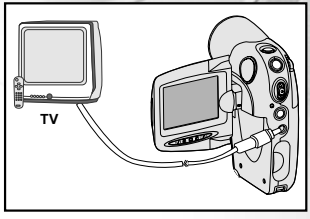
1. Turn on the power by pressing and holding the ⏻ button.
2. Toggle the Ⓜ button to go to [SELECT MODE].
3. Select [IMAGE/MOVIE] with the zoom lever and press the ⊙ button.
   - The last image/video clip appears on the LCD monitor.
4. Select the desired images with the zoom lever.
   - To view the previous image, slide the zoom lever to the ▲ / **T** side.
   - To view the next image, slide the zoom lever to the ▼ / **W** side.
   - To start playing back the video clips, follow steps 1-4 above, and then press the ⊙ button.
   - A press of the ▶ / ◀ buttons during playback allows fast forward play / fast reverse play.
   - To pause video playback, press the ⊙ button; to cancel pause, press the ⊙ button again.
   - To stop video playback, press the 📷 button. This stops playback and returns to the start of the video clip.

- To playback the video clips on the computer, we recommend you use Windows Media Player 9.0 (WMP 9.0) or the Software Application we offered. You can download the WMP version from the website at www.microsoft.com.
- To adjust the sound level, sliding the zoom lever to the **T** / ▲ side will increase the volume; sliding the zoom lever to the **W** / ▼ side will decrease the volume.

Playing Back Still Images/Video Clips on TV

You can also playback your images on a TV screen. Before connecting to any devices, make sure to select NTSC / PAL to match the video output system of the video equipment you are going to connect to the digital video camera. Then turn all connected devices off.

1. Connect one end of the A/V cable to the A/V terminal of the digital video camera.
2. Connect the other end to the A/V input socket of the TV set.
3. Turn the TV and digital video camera on.
4. Playback the still images / video clips.
   - The method of operation is the same as playing back still images and video clips on the digital video camera.



Zoom Playback

Images that are being played back can be enlarged. The zoom factor displayed on the screen shows the current magnification ratio.

1. Turn on the power by pressing and holding the ⏻ button.
2. Toggle the Ⓜ button to go to [SELECT MODE].
3. Select [IMAGE/MOVIE] with the zoom lever and press the ⊙ button.
4. Select the desired images with the zoom lever.
   - To view the previous image, slide the zoom lever to the ▲ / T side.
   - To view the next image, slide the zoom lever to the ▼ / W side.
5. The displayed image can be enlarged by each press of the 📷 button. The magnification factors range from 1x to 8x (within 16 stages: 1.0x, 1.5x, 2.0x, 2.5x, 3.0x, 3.5x, 4.0x, 4.5x, 5.0x, 5.5x, 6.0x, 6.5x, 7.0x, 7.5x, 8.0x and thumbnail display).
   - During zoom playback, the outer frame indicates the entire image; while the inner frame indicates the location of the currently enlarged area.
6. Slide the zoom lever upward or downward or press the ◀/▶ buttons to select the area to enlarge.

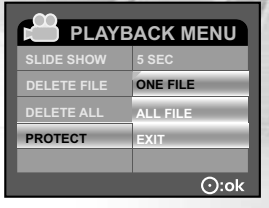
Thumbnail Display

This function allows you to view 9 thumbnail images on the LCD monitor at the same time, so you can quickly search for the image that you want.

1. Follow "Zoom Playback" section steps 1-5 until the thumbnail display appears on the screen.
2. Press the ◀ /▶ buttons to select the image/video clip to be displayed at regular size.
3. Press the 📷 button.
4. To see the next thumbnail page, highlight the last photo in the current thumbnail page and press ▶.

Protecting Still Images/Video Clips

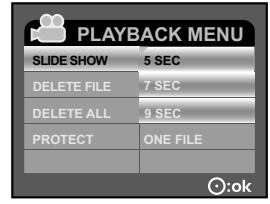
Set the data to read-only to prevent images from being erased by mistake.



1. Turn on the power by pressing and holding the ⏻ button.
2. Togge the Ⓜ button to go to [SELECT MODE].
3. Select [IMAGE/MOVIE] with the zoom lever and press the ⊙ button.
4. Select the still image/video clip that you want to protect with the zoom lever.
   - You may select the still image/ video clip that you want to protect from the thumbnail display.
5. Press the ▤ button.
   - The PLAYBACK MENU is displayed.
6. Select [PROTECT] with the zoom lever, and press the ⊙ button.
7. Select [ONE FILE] or [ALL FILE] with the zoom lever, and press the ⊙ button.
8. Select [LOCK] by pressing the ▶ / ◀ buttons, and pressing the ⊙ button.
   - Protect is executed and the digital video camera returns to the play mode.
   - The protect icon 🔒 is displayed with protected images. When [All FILE] are selected, 🔒 is displayed with all the images.
   - To cancel protection, repeat steps 5-8 to select [UNLOCK] by pressing the ▶ / ◀ buttons, and pressing the ⊙ button.
   - The removal of image protection is executed and the digital video camera returns to the play mode.

Slide Show Display

The slideshow function enables you to play back still images/video clips automatically in order one image at a time.

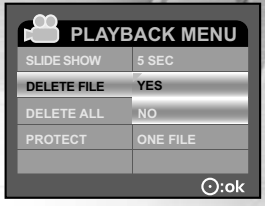


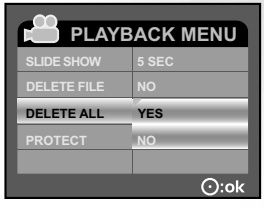
1. Turn on the power by pressing and holding the ⏻ button.
2. Toggle the Ⓜ button to go to [SELECT MODE].
3. Select [IMAGE/MOVIE] with the zoom lever and press the ⊙ button.
4. Press the ▶ button.
   - The PLAYBACK MENU is displayed.
5. Select [SLIDE SHOW] with the zoom lever, and press the ⊙ button.
6. Set the playback interval with the zoom lever, and press the ⊙ button.
   - The slide show starts.
   - The video clips display the first frame image, but are not played back.
   - To stop the slide show, press the ⊙ button.

- You can adjust the slide show display interval within the range of 5 SEC, 7 SEC, and 9 SEC.

Deleting Still Images/Video Clips

1. Turn on the power by pressing and holding the ⏻ button.
2. Toggle the Ⓜ button to go to [SELECT MODE].
3. Select [IMAGE/MOVIE] with the zoom lever and press the ⊙ button.
4. Select the still image/video clip that you want to erase with the zoom lever.
   - You may select the still image/ video clip that you want to erase from the thumbnail display.
5. Press the ▭ button.
   - The PLAYBACK MENU is displayed.
6. Select [DELETE FILE] or [DELETE ALL] with the zoom lever, and press the ⊙ button.
   - DELETE FILE: Delete the current still image/video clip.
   - DELETE ALL: Delete all still images/video clips.
7. Select [YES] with the zoom lever, and press the ⊙ button.
   - To not delete, select [NO], and press the ⊙ button.
   - If all video clips/images are deleted, [NO FILE!] pops up.
   - If you want to turn back to the photography mode, press the Ⓜ button.

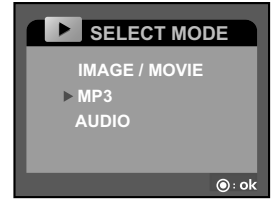




MP3 MODE

The digital video camera allows you to play back MP3 files. You may download MP3 files to your computer and then copy them into the digital video camera via the USB cable or insert an SD memory card with MP3 files recorded into the digital video camera.

1. Turn on the power by pressing and holding the ⏻ button.
2. Toggle the Ⓜ button to go to [SELECT MODE].
3. Select [MP3] with the zoom lever and press the ⊙ button.
   - The MP3 LIST appears on the screen.



Button operations

State / BUTTON	MP3	
	Playlist	During playback
⏻	Power off (press & hold)	Power off (press & hold)
T /▲	Scroll up	Volume +
W /▼	Scroll down	Volume -
◀	Previous page	N/A
▶	Next page	N/A
Ⓜ	Back to LCD preview	N/A
▤	Enter MP3 menu	N/A
📷	Select/Un-select	Stop playing MP3 music
⊙	Start to play MP3 music	Pause playing MP3 music

AUDIO RECORDING MODE

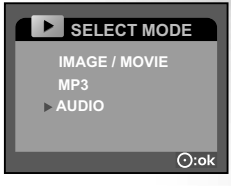
The digital video camera enables you to record and play back audio files anytime and anywhere.

Recording Audio Files

1. Turn on the power by pressing and holding the ⏻ button.
2. Toggle the Ⓜ button to select audio recording mode as the illustration.
3. Press the ⊙ button.
   - Voice starts recording.
   - To pause recording, press the ⊙ button again.
   - To stop recording, press the 📷 button.
   - The maximum recordable time for voice recording exceeds 1 hour.

Playing Back Audio Files

1. Turn on the power by pressing and holding the ⏻ button.
2. Toggle the Ⓜ button to go to [SELECT MODE].
3. Select [AUDIO] with the zoom lever and press the ⊙ button.
   - The AUDIO LIST appears on the screen.

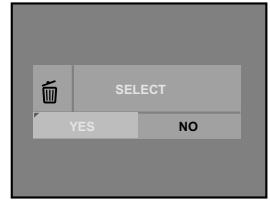


Button operations

State / Button	Audio	
	Playlist	During playback
⏻	Power off (press & hold)	Power off (press & hold)
T/▲	Scroll up	Volume +
W/▼	Scroll down	Volume -
◀	Previous page	N/A
▶	Next page	N/A
Ⓜ	Back to LCD preview	N/A
▤	Enter Voice menu	N/A
📷	Select/Un-select	Stop playing audio file
⊙	Start to play voice file	Pause playing audio file

Deleting MP3 / Audio Files

1. Turn on the power by pressing and holding the ⏻ button.
2. Toggle the Ⓜ button to go to [SELECT MODE].
3. Select [MP3] / [AUDIO] with the zoom lever and press the ⊙ button.
   - The MP3 / AUDIO LIST appears on the screen.
4. Press the ☰ button.
   - The MP3 / AUDIO MENU appears on the screen.
5. Select [DELETE] with the zoom lever and press the ⊙ button.
   - SELECT: Delete the selected audio or MP3 file.
   - ALL: Delete all audio or MP3 files in a single operation.
6. Use ▶ / ◀ to select [YES], and press the ⊙ button.
   - To not delete, select [NO], and press the ⊙ button.
   - If all files are deleted, [NO FILE!] pops up.
   - If you want to turn back to the photography mode, press the Ⓜ button.

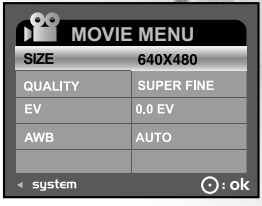


MENU OPTIONS

Movie Menu

This menu is for the basic settings to be used when capturing video clips in the photography mode.

1. Turn on the power by pressing and holding the ⏻ button.
2. Press the MENU button. The MOVIE MENU is displayed on the screen.
3. Select the desired option item with the zoom lever, and press the ⊙ button.
4. Select the desired setting with the zoom lever, and press the ⊙ button.
5. To exit from the menu, press the MENU button.



SIZE

This sets the size of the still image that will be captured.

640: 640 X 480

320: 320 X 240

QUALITY

This sets the quality (compression rate) at which the still image is captured.

★★: SUPER FINE

★★: FINE

★: NORMAL

EV

Your digital video camera adjusts the exposure of each scene automatically. However, if the subject is very dark, or very bright, you may override the digital video camera's automatic exposure determination to make the subject brighter or darker. This is called EV compensation. The EV compensation can be adjusted from -1.8EV to +1.8EV.

AWB

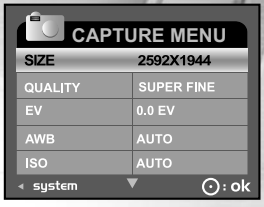
This sets the white balance under a variety of lighting conditions and permits photographs to be taken that approach the conditions that are seen by the human eye.

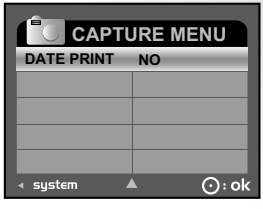
[**AUTO**] AUTO: Automatic adjustment
[☀] DAYLIGHT: For recording outdoors on a bright day
[] LAMP: For recording under lamp light
[] FLUORESCENT-1: Cool white fluorescent (W3900-4500K)
[] FLUORESCENT-2: Day white fluorescent (W4600-5400K)
[☁] SHADE: For recording outdoors on a cloudy day

Capture Menu

This menu is for the basic settings to be used when capturing still images in the photography mode.

1. Turn on the power by pressing and holding the ⏻ button.
2. Toggle the Ⓜ button to access in camera mode. Then press the ⊛ button.
   - The CAPTURE MENU is displayed on the screen.
3. Select the desired option item with the zoom lever, and press the ⊙ button.
4. Select the desired setting with the zoom lever, and press the ⊙ button.
5. To exit from the menu, press the ⊛ button.





SIZE

This sets the size of the still image that will be captured.

- 6M: 2880 x 2160
- 5M: 2592 x 1944
- 3M: 2048 x 1536
- 1.2M: 1280 x 960
- .3M: 640 x 480

QUALITY

This sets the quality (compression rate) at which the still image is captured.

- ★★: SUPER FINE
- ★: FINE
- ★: NORMAL

EV

Your digital video camera adjusts the exposure of each scene automatically. However, if the subject is very dark, or very bright, you may override the digital video camera's automatic exposure determination to make the subject brighter or darker. This is called EV compensation. The EV compensation can be adjusted from -1.8EV to +1.8EV.

Examples of Exposure Compensation -

- + (positive) compensation
  - Printed matter comprising black text on light-colored paper
  - Backlighting
  - Bright scenes or strong reflected light such as ski slopes
  - When the sky accounts for a large area on the screen
- - (negative) compensation
  - People illuminated by a spotlight, in particular, against dark background
  - Printed matter comprising white text on dark-colored paper
  - Weak reflecting surfaces such as evergreen trees or darkish leaves

AWB

This sets the white balance under a variety of lighting conditions and permits photographs to be taken that approach the conditions that are seen by the human eye.

[**AUTO**] AUTO: Automatic adjustment

[☀] DAYLIGHT: For recording outdoors on a bright day

[🏠] LAMP: For recording under lamp light

[FL1] FLUORESCENT-1: Cool white fluorescent (W3900-4500K)

[FL2] FLUORESCENT-2: Day white fluorescent (W4600-5400K)

[☁] SHADE: For recording outdoors on a cloudy day

ISO

This sets the sensitivity for photography. When the sensitivity is raised (and the ISO figure is increased), photography will become possible even in dark locations, but the more pixilated (grainer) the image will appear.

[AUTO]: Auto adjustment
[100]: Equivalent to ISO100
[200]: Equivalent to ISO200
[400]: Equivalent to ISO400

DATE PRINT

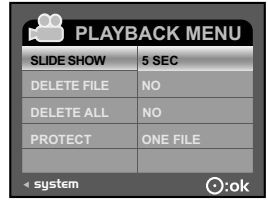
The capture date can be printed directly on your still images. This function must be activated before the image is captured.

[**YES**]: Imprints the date on the still images when capturing images.
[**NO**]: Does not imprint the date on the still images when capturing images.

Playback Menu

This menu sets which settings are to be used for playback.

1. Turn on the power by pressing and holding the ⏻ button.
2. Toggle the Ⓜ button to go to [SELECT MODE].
3. Select [IMAGE/MOVIE] with the zoom lever and press the ⊙ button.
4. Press the ▭ button.
   - The PLAYBACK MENU is displayed on the screen.
5. Select the desired option item with the zoom lever, and press the ⊙ button.
6. Select the desired setting with the zoom lever, and press the ⊙ button.
7. To exit from the menu, press the ▭ button.



SLIDE SHOW

Automatically displays one image at a time in sequence with a selected interval time.
Refer to section in this manual titled “Slide show display” for further details.
[5 SEC], [7 SEC], [9 SEC]

DELETE FILE

Delete the current file.
[YES]: Enable deletion.
[NO]: Disable deletion.

DELETE ALL

Delete all files.
[YES]: Enable deletion.
[NO]: Disable deletion.

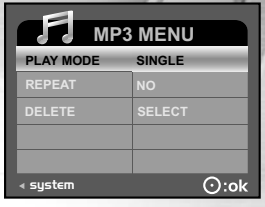
PROTECT

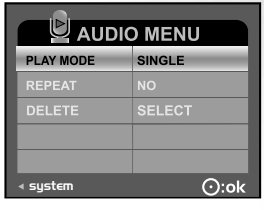
Set the data to read-only to prevent images from being erased by mistake.
Refer to section in this manual titled “Protecting Still Images/Video Clips” for further details.

MP3 / Audio Menu

This sets whether or not to play MP3 files repeatedly or delete MP3 files.

1. Turn on the power by pressing and holding the ⏻ button.
2. Toggle the Ⓜ button to go to [SELECT MODE].
3. Select [MP3] or [AUDIO] with the zoom lever, and press the ⊙ button.
   - The MP3 / AUDIO LIST is displayed.
4. Press the Ⓜ button.
   - The MP3 / AUDIO MENU is displayed on the screen.
5. Select the desired option item with the zoom lever, and press the ⊙ button.
6. Select the desired setting with the zoom lever, and press the ⊙ button.
7. To exit from the menu, press the Ⓜ button.





PLAY MODE

[**SINGLE**]: Play only one audio or MP3 file.
[**SELECT**]: Play the selected audio or MP3 files.
[**ALL**]: Play all audio or MP3 files.

REPEAT

This setting plays back the files repeatedly.
[**NO**]:Play the listed files only once.
[**YES**]: Repeatedly play your audio or MP3 files according to your preference.

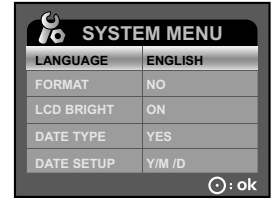
DELETE

Delete the current file.
[**SELECT**]: Delete the selected audio or MP3 file.
[**ALL**]: Delete all audio or MP3 files in a single operation.

System Menu

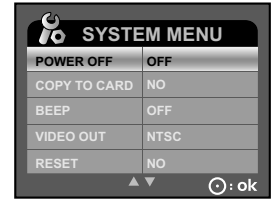
Sets your digital video camera's operating environment.

1. Turn on the power by pressing and holding the ⏻ button.
2. Toggle the Ⓜ button to access in movie, camera or playback (SELECT MODE) mode, then press the OK button.
3. Press ◀ to access in SYSTEM MENU.
4. Select the desired option item with the zoom lever, and press the ⊙ button.
5. Select the desired setting with the zoom lever, and press the ⊙ button.
6. To exit from the menu, press the OK button.



LANGUAGE

This sets the language that is displayed on the LCD monitor.
The provided languages are [ENGLISH], [FRANÇAIS], [DEUTSCH], [ESPAÑOL], [ITALIANO], [繁體中文], [简体中文] and [日本語].

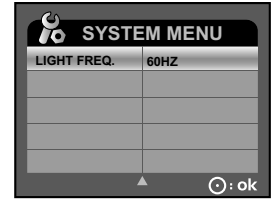


FORMAT

This function will delete all still images/video clips and other data recorded on the internal memory or external memory card. Memory card cannot be formatted if it is write-protected.

[YES]: Formats the internal memory (or memory card) and erase all still images/video clips and other data.

[NO]: Does not format the internal memory (or memory card).



LCD BRIGHT

This adjusts the brightness of the LCD monitor. The LCD becomes brighter by sliding the zoom lever to the **T** / ▲ side and darker to the **W** / ▼ side. The adjustment range is from -5 to +5.

DATE TYPE

This sets the displayed type of date and time on the screen.
[Y/M/D]: Year/Month/Day
[D/M/Y]: Day/Month/Year
[M/D/Y]: Month/Day/Year

DATE SETUP

This sets the date and the time.
Refer to section in this manual titled “Setting the Date and Time” for further details.

POWER OFF

If no operation is performed for a specific period of time, the power to the digital video camera automatically shuts off. This feature helps reduce battery wear.
[OFF](power-off is disabled) / [1 MIN.] / [3 MIN.] / [5 MIN.] / [10 MIN.]

COPY TO CARD

Allows you to copy your files from the digital video camera's internal memory to a memory card. Of course, you can only do this if you have a memory card installed and some files in internal memory.
[YES] / [NO]

BEEP

Enables or disables the sounds (beeps) associated with digital video camera button functions.
[**ON**]: Enables sounds/beep tones.
[**OFF**]: Disables sounds/beep tones.

VIDEO OUT

This sets video output system of the video equipment that you are going to connect to the digital video camera.
[NTSC]: NTSC system
[PAL]: PAL system

RESET

This returns all basic settings to the digital video camera's default settings.
[YES]: Return to the default settings.
[NO]: Do not return to the default settings.

LIGHT FREQ.

This digital video camera supports different lighting frequencies: 50Hz and 60Hz. Select the correct frequency setting depending on your local area's voltage.

TRANSFERRING RECORDED FILES TO YOUR COMPUTER

To transfer the recorded files from the digital video camera to your computer, follow these steps:

Step 1: Install the USB driver (Windows 98 users only).
Step 2: Connect the digital video camera to your computer.
Step 3: Download image, audio and video files.

System requirements (Windows)

- Pentium III 600 MHz or higher
- Windows 98/98SE/Me/2000/XP
- 64MB RAM
- 128MB hard disk space
- CD-ROM drive
- Available USB port

Step I: Install the USB driver (Windows 98 users only)

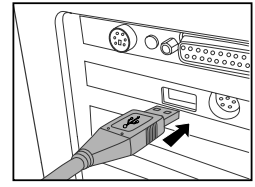
Windows 98 computers

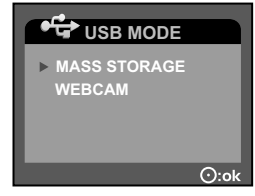
The USB driver on the CD-ROM is exclusively for Windows 98 computers. Installing the USB driver on computers running Windows 2000/ME/XP is not necessary.

1. Insert the CD-ROM that came with the digital video camera into your CD-ROM drive. The welcome screen appears.
2. Click "**Install USB/PC-Cam driver**". Follow the on-screen instructions to complete the installation. After the USB driver has been installed, restart your computer.

Step 2: Connect the digital video camera to your computer

1. Connect one end of the USB cable to the USB connector on the digital video camera.
2. Connect the other end of the USB cable to an available USB port on your computer.
3. Turn on the power.
   - The [USB MODE] screen appears on the screen.
4. Select [MASS STORAGE] with the zoom lever, and press the ⊙ button.
5. From the Windows desktop, double click on "My Computer".
6. Look for a new "Removable disk" icon. This "Removable disk" is actually the memory or memory card in your digital video camera.
7. Double click on the removable disk and locate the DCIM, MP3 and AUDIO folders.
8. Double click on the folders to open it to find more folders.
   - Your recorded images, video clips and audio files will be inside these folders.
   - Copy, Paste or Drag and Drop images, videos, or audio to a folder on your computer.





- While connected to a computer via a USB cable, your digital video camera does not require batteries for power.
- Whenever the USB power supply is used while transferring images to your computer, the other buttons on your digital video camera will not perform their functions.

Step 3: Download still images, video clips and audio files

When the digital video camera is turned on and connected to your computer, it is considered to be a disk drive, just like a floppy disk or CD. You can download (transfer) images by copying them from the "Removable disk" to your computer hard drive.

Windows

Open the "removable disk" and subsequent folders by double clicking on them. Your images, videos, and audio are inside these folder(s). Select the files that you want, and then choose "Copy" from the "Edit" menu. Open the destination location (folder) and choose "Paste" from the "Edit" menu. You may also drag and drop image files from the digital video camera to a desired location.

- The recorded audio files are stored in the "AUDIO" folder.
- To transfer MP3 files, simply copy the MP3 files from your computer hard drive to the "MP3" folder.
- Memory card users may prefer to use a memory card reader (highly recommended).
- Video playback application is not included with the package. Make sure that a video playback application has been installed in your computer.

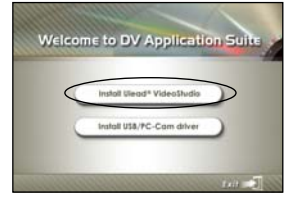
INSTALLING VIDEOSTUDIO

Ulead® VideoStudio is home video-editing software that makes editing movies as fun as shooting them. Users can make a video in three easy steps using the new Movie Wizard mode. VideoStudio features fully customizable filters and special effects and shares finished projects on diversified devices by supporting the latest formats.

To install VideoStudio:

1. Insert the CD-ROM that came with the camera into your CD-ROM drive. The welcome screen appears.

2. Click "**Install Ulead® VideoStudio**". Follow the on-screen instructions to complete the installation.



- For more information about the operation of VideoStudio application software, refer to its respective help documentation.
- For Windows 2000/XP users, please make sure to install and use the VideoStudio in "Administrator" mode.
- VideoStudio is not supported on the Mac.

USING THE DIGITAL VIDEO CAMERA AS A PC CAMERA

Your digital video camera can act as a PC camera, which allows you to videoconference with business associates, or to have a real-time conversation with friends or family.

To use the digital video camera as a PC camera, follow these steps:
Step 1: Install the PC camera driver (same as USB driver).
Step 2: Connect the digital video camera to your computer.
Step 3: Run your application software (i.e. Windows NetMeeting)

- Video conferencing (or video editing) software is not included with this digital video camera.
- This mode is not supported for Mac.

General system requirements for videoconferencing

To use the digital video camera for a videoconference, your computer system must include:

- Microphone
- Sound card
- Speakers or headphones
- Network or Internet connection

Step I: Install the PC Camera Driver (same as USB driver)

The PC-camera driver included on the CD-ROM is exclusively for Windows. The PC camera function is not supported for Mac platforms.

1. Insert the CD-ROM that came with the camera into your CD-ROM drive. The welcome screen appears.
2. Click "**Install USB/PC-Cam driver**". Follow the on-screen instructions to complete the installation. After the driver installation is completed, restart your computer.

- The USB driver bundled inside the CD-ROM contains both the USB and PC camera driver.
  a) On Windows 98, the Windows OS will install both the USB & PC camera drivers.
  b) On Windows 2000/ME/XP, it will only install PC camera driver.

Step 2: Connect the Digital Video Camera to Your Computer

1. Connect one end of the USB cable to the USB connector on the digital video camera.
2. Connect the other end of the USB cable to an available USB port on your computer.
3. Turn on the power.
   - The [USB MODE] screen appears on the screen.
4. Select [WEBCAM] with the zoom lever, and press the ⊙ button.
5. Position the digital video camera steadily on top of your computer monitor or use a tripod.

- When using this digital video camera as a PC camera, there is no need to install any batteries into the digital video camera.

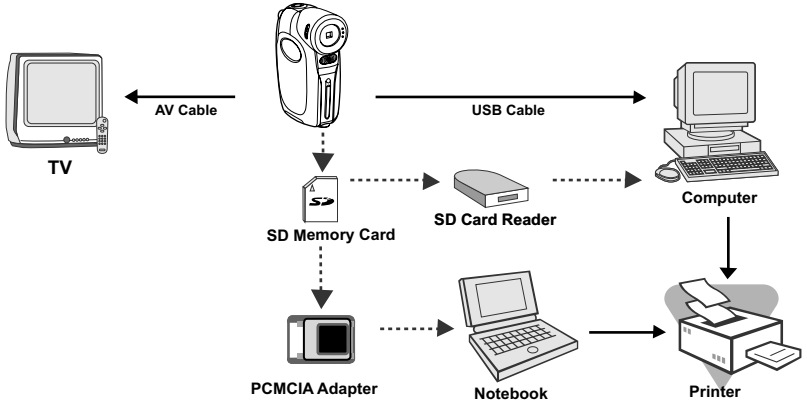
Step 3: Run Your Application Software(i.e. Windows NetMeeting)

To use Windows NetMeeting for a videoconference:

1. Go to **Start** => **Programs** => **Accessories** => **Communications** => **Net Meeting** to launch the NetMeeting program.
2. Click the Start Video button to view live video.
3. Click the Place Call button.
4. Type the e-mail address or the network address of the computer that you are calling.
5. Click Call. The person that you are calling must also have Windows NetMeeting running and be willing accept your call to start the videoconference.

- The video resolution for videoconferencing applications is generally 320 x 240.
- For more information about the operation of videoconference application software, refer to its respective help documentation
- When the PC cam function is activated (i.e. images are being transferred), the LED (green color) blinks. If the USB cable is unplugged at the time you transfer images, the screen would become blank the next time when you run the PC cam function. In this situation, you should restart the computer. The proper operating method should be: Close the PC cam application, then remove the USB cable.

CONNECTING THE DIGITAL VIDEO CAMERA TO OTHER DEVICES



SPECIFICATIONS

Item	Description
Image Sensor	1/2" CMOS sensor
Effective pixels	3.0 Mega pixels
Image size	Still image: 2880 x 2160, 2592 x 1944, 2048 x 1536, 1280 x 960, 640 x 480 Video clip: 640 x 480, 320 x 240
Image quality	Still image: SUPER FINE, FINE, NORMAL Video clip: SUPER FINE, FINE, NORMAL
Recording media	32MB internal memory (24MB available for image storage) SD memory card (optional, up to 512MB)
Compression format	MPEG 4 SP (Video), IMA-ADPCM (Audio)
File format	EXIF 2.1, DCF 1.0, JPEG, ASF (Video)
Lens	F-no. 3.0 Focal length:7.7mm
Focus range	Normal: 1.5m-infinity Macro: 0.4m-0.5m
LCD monitor	2.0" LTPS color LCD High-resolution 130K pixels display
Self-timer	3-sec delay, 10-sec delay
Exposure compensation	-1.8EV- +1.8EV (in 0.3EV increments)
White balance	AUTO, DAYLIGHT, LAMP, FLUORESCENT-1, FLUORESCENT-2, SHADE
ISO	Auto, 100, 200, 400
Interface	USB connector, A/V terminal, earphone jack
Power	2 x AA Alkaline/Ni-MH batteries (optional)
Dimension	Approx. 3 7/8 x 1 11/32 x 2 5/8 inches (98 x 34 x 66mm) (excluding protruding parts)
Weight	Approx. 5.5 Oz (156 g) (without batteries and the SD memory card)

* Design and specifications are subject to change without notice.

APPENDIX

■ Troubleshooting Guide

Symptom	Possible causes	Solutions / Corrective Actions
The power does not turn on.	* The battery has run out. * The battery is not oriented correctly. * The battery cover is not closed properly.	* Load new or fully charged battery. * Load the battery in the correct direction. * Close the battery cover correctly.
The digital video camera suddenly powers down.	* The function of POWER OFF in SYSTEM MENU has been activated. * The battery has run out.	* Set the option of POWER OFF to OFF. * Turn the power back on or charge the battery.
The image is not captured when the 📷 button is pressed.	* The digital video camera is in SELECT MODE (Playback Mode). * Memory is full. * The write-protect tab on the "SD Memory Card" is set to the LOCK position.	* Toggle the Ⓜ button to access in camera mode. * Transfer the desired files to your computer and then delete unnecessary files, or use a different memory card. * Slide the write-protect tab to UNLOCK.
The flash does not fire.	* (Flash Off) is selected in flash mode. * The digital video camera is in (Video) mode. * The digital video camera is in (macro mode).	* Select a different flash mode. * Toggle the Ⓜ button to access in camera mode. * Slide the focus switch to the (normal mode).
Cannot transfer files over a USB connection.	* USB cable is not connected securely. * USB driver is not installed. * The digital video camera is turned off.	* Check all connections. * Install the USB driver on your computer. * Turn on the digital video camera.

This product is warranted by RadioShack against manufacturing defects in material and workmanship under normal use for one (1) year from the date of purchase from RadioShack company-owned stores and authorized RadioShack franchisees and dealers. For complete warranty details and exclusions, check with your local RadioShack store.

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