FCC STATEMENT

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.

Note:
This equipment has been tested and found to comply with the limits for Class B digital devices, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Use of shielded cable is required to comply with Class B limits in Subpart B of Part 15 of the FCC rules.

Do not make any changes or modifications to the equipment unless otherwise specified in the manual. If such changes or modifications should be made, you could be required to stop operation of the equipment.

READ THIS FIRST

Trademark Information

- Microsoft® and Windows® are U.S. registered trademarks of Microsoft Corporation.
- Pentium® is a registered trademark of Intel Corporation.
- Macintosh is a trademark of Apple Computer, Inc.
- SD™ is a trademark.
- Photo Explorer and Photo Express are trademarks.
- Other names and products may be trademarks or registered trademarks of their respective owners.
- SeaLife® and Land & Sea® are registered trademarks of Pioneer Research.

Product Information

- Product design and specifications are subject to change without notice. This includes primary product specifications, software, software drivers, and userís manual. This User Manual is a general reference guide for the product.
- The product and accessories that come with your digital still 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, AC power adapters, 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 still 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, www.sealife-cameras.com 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 and the AC power adapter.
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 and the AC power adapter.
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.

Use the supplied AC adapter only with the indicated power supply voltage.
Use with any other power supply voltage might cause fire or electric shock.

Do not use the camera in areas near water, unless sealed in its waterproof housing.
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 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 personís 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 inner camera in humid, steamy, smoky, or dusty places, unless sealed inside the water proof housing.
This might cause fire or electric shock.

Do not remove the battery immediately after 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.

Important Notes on Using Waterproof Housing

Before using the waterproof housing, carefully read and strictly observe the detailed instructions described in the manual. Not following the instructions for usage and maintenance will void your product warranty.

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.
- If you are using the new rechargeable battery or rechargeable battery that have not been used for an extended period of time (batteries that pass the expiry date are exceptions) might affect the number of pictures that can be taken. Therefore, to maximize their performance and lifetime, we recommend that 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.
- Always keep the terminals in a clean state.

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INTRODUCTION

Let the Land & Sea adventures begin with your new SeaLife DC500 digital camera. Equipped with the latest digital technology means the camera is automatic and easy to use. Here are some of the unique features that you will surely enjoy.

- **Land & Sea Exposure modes- special underwater modes for bright colorful underwater pictures**
- **QuickShoot mode-**preset cameras focus and exposure setting for super fast shutter response
- **Fully expandible system**
- **5.0 Megapixels**
  A high-resolution CCD sensor provides 5.0 megapixels for excellent quality of images.
- **2.0" LTPS color image LCD monitor**
- **Optical zoom**: 3x
- **Digital zoom**
  Preview mode: 4x / Playback mode: 8x
- **10MB internal (built-in) memory**
  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 1GB capacity) by using an external memory card.
- **Camcorder, PC Camera, and voice-recorder support**
- **USB connection (USB 2.0 compliant)**
  Still images, video clips, or voice 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).
- **DPOF functionality**
  DPOF can be used to print your images on a DPOF compatible printer by simply inserting the memory card.
- **PictBridge support**
  You can connect the camera directly to a printer that supports PictBridge and perform image selection and printing using the camera monitor screen and controls.
- **Provided editing software: Photo Explorer / Photo Express**
  You can enhance and retouch your images on your computer by using the provided editing software.

Package Contents

Carefully unpack the contents to 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 Still Camera
- Underwater Housing
- Instructions Manual
- USB Cable
- Software CD-ROM
- AV Cable
- AC Power Adapter
- Docking Cradle
- Camera Strap
- Camera Pouch
- 1 Lithium-ion Rechargeable Battery (650mAh)
- International plug adapters
- Adapter for Flash Link Optical Cable

Common (Optional) Accessories:

- SD Memory Card
- Battery Charger
- Spare battery
- SeaLife Digital Flash (SL960D)
- SeaLife Wide-Angle Lens (SL970)
- Moisture Muncher anti-fog capsules (SL970)
- Deluxe travel case
- Flash Link Optical Cable Connection (SL962)
- Flash Diffuser (SL968)

Note

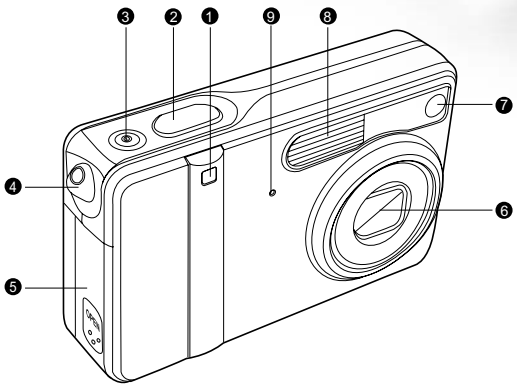
- Accessories and components may vary by retailer.
- Visit www.sealife-cameras.com for a complete list of available accessories.

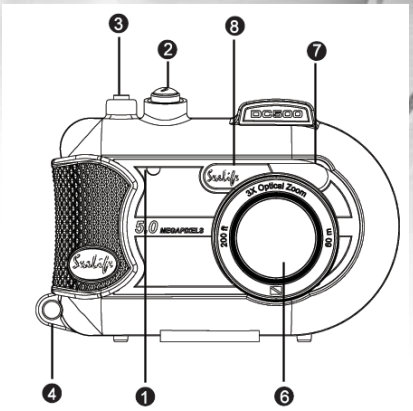
Limited Warranty

This product will be replaced or repaired free of charge within 1 year from the purchase date in the case of a manufacturing defect, if the complete defective product is sent freight prepaid at the at the sender's risk to: Pioneer Research, 97 Foster Road, Suite 5, Moorestown, NJ 08057 or to the importer in a different country. Contact your local authorized SeaLife dealer who can assist you with returning cameras to the SeaLife service center or make basic repairs. Contact the service center to obtain a return authorization # before shipping product. Include a letter describing the damage or defect, your return address (no PO Box), daytime phone # and a copy of the original purchase receipt or proof of purchase with the purchase date. Excluded are any consequential damages, cosmetic damages, damages to products which show abuse, non-conformance with the instructions, particularly water damage due to a damaged O-ring or removed O-ring or any particles wedged between the housing and the O-ring, or tampering and attempted repair of the product. Excluded are scratches on lenses or damaged lens coatings. Products used in rental operations are excluded from this warranty.

GETTING TO KNOW YOUR CAMERA AND HOUSING

Front View

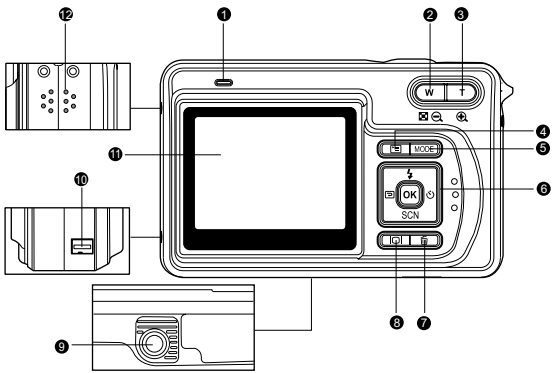




1. Self-timer LED
2. Shutter button
3. Power button
4. Strap eyelet
5. Battery/SD memory card cover
6. Lens
7. Auto-Focus auxiliary LED
8. Flash
9. Microphone

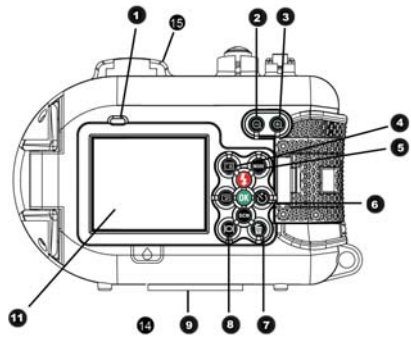
Rear View

Inner Camera



1. LED indicator
2. **W** / Zoom out (Wide-angle) button
   Thumbnail button
3. **T** / Zoom in (Telephoto)button
4. Menu button
5. **MODE** button
6. Control buttons
7. Delete button

Waterproof Housing

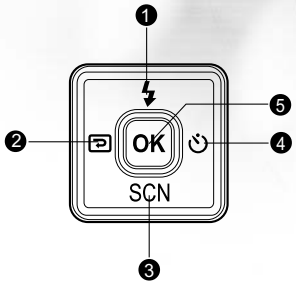


8. Display (LCD on/off) button
9. Tripod socket
10. Docking station terminal
    (DC IN 5V port/USB port)
11. LCD monitor
12. Speaker
13. Closing latch
14. Leak detection window
15. Sports viewfinder mount

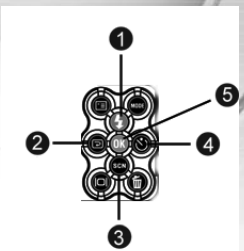
Control Buttons

1. ϟ (❑) Flash button
2. ⮌ (▼) Quick View button
3. **SCN** (▼) Scene Mode button
4. ⏲ (◆) Self-Timer button
5. **OK** button (enables QuickShoot)

Inner Camera

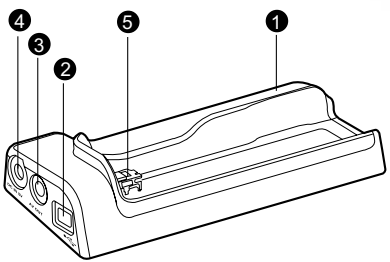


Waterproof Housing



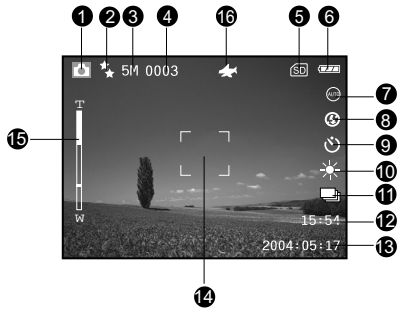
Top View of Docking Cradle

1. Cradle
2. USB port
3. AV-OUT port
4. DC IN 5V port
5. Cradle plug



LCD Monitor Information

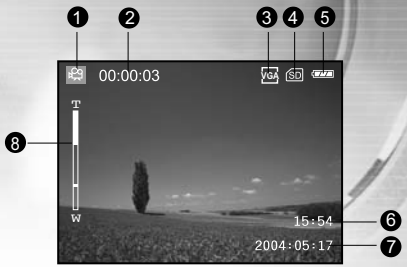
■ Camera Mode



1. Camera mode
2. Image quality
   - [★★★] Super Fine
   - [★★] Fine
   - [★] Normal
3. Image size
   - [5M] 2560 x 1920
   - [3M] 2048 x 1536
   - [1M] 1280 x 960
   - [VGA] 640 x 480
   - [TIFF] TIFF IMAGE
4. Possible number of shots
5. Memory card indicator
6. Remaining battery status
   - [▰▰▰] Full battery power
   - [▰▰▱] Medium battery power
   - [▰▱▱] Low battery power
   - [▱▱▱] No battery power
7. Scene mode
   - [AUTO] Auto Mode
   - [Backlight] Backlight Mode
   - [Landscape] Landscape Mode
   - [Macro] Macro Mode
   - [Night Scene] Night Scene Mode
   - [Portrait] Portrait Mode
   - [Sports] Sports Mode
   - [Sea] Sea Mode
   - [Ext Flash] Ext Flash Mode
8. Flash mode
   - [Red eye] Red eye
   - [No flash] No flash
   - [Auto flash] Auto flash
   - [Forced flash] Forced flash
   - [Normal flash] Normal flash
   - [Macro flash] Macro flash
   - [Far flash] Far flash
9. Self-timer mode
   - [3 sec.] 3 sec. delay
   - [10 sec.] 10 sec. Delay
   - Off
10. White balance
    - **[AUTO]** Auto
    - [Daylight] Daylight
    - [Cloudy] Cloudy
    - [Sunset] Sunset
    - [Tungsten] Tungsten
    - [Fluorescent] Fluorescent
11. Capture mode
    - [Single] Single
    - [Continuous] Continuous
    - [AEB] AEB
12. Time
13. Date
14. Focus area
15. Zoom state
16. [QuickShoot] QuickShoot mode activated

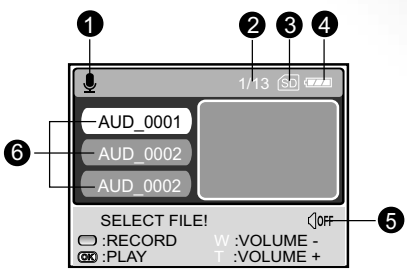
■ Movie Mode

1. Movie mode
2. Recordable movie time available
3. Resolution for video clips
4. SD memory card indicator (if present)
5. Battery power indicator
6. Time
7. Date
8. Zoom state



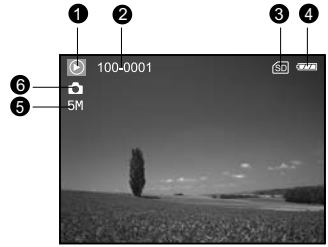
■ Audio Mode

1. Audio mode
2. Current file/ total number of audio files
3. SD memory card indicator (if present)
4. Battery power indicator
5. Sound level (speaker volume)
6. Audio file name



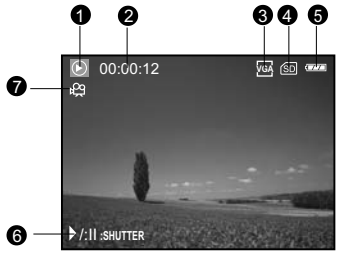
■ Image Playback

1. Play mode
2. Playback frame number
3. SD memory card indicator (if present)
4. Battery power indicator
5. Image size
6. Camera mode



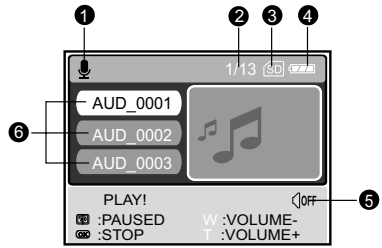
■ Video Playback

1. Play mode
2. Total of recorded time
3. Resolution for video clips
4. SD memory card indicator (if present)
5. Battery power indicator
6. Playback indicator
7. Movie mode



■ Audio Playback

1. Audio mode
2. Current file/ total number of audio files
3. SD memory card indicator (if present)
4. Battery power indicator
5. Sound level (speaker volume)
6. Audio file name



LED Indicators

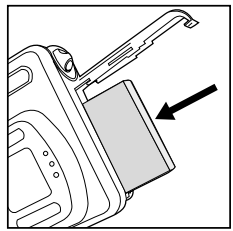
Indicator	State	Description/Activity
LED indicator	Solid red	1.The digital still camera is powering up. 2.The digital still camera is in the process of battery charge.
LED indicator	Blinking red	Processing image after capture.
LED indicator	Solid green	USB communication is in progress.
	Solid green	Camera in sleep mode.
	Blinking green	USB transfer is in progress.
Self-timer indicator	Blinking blue	The self-timer function is activated.

PREPARING THE CAMERA

Installing the Battery

Make sure that the power of the digital still camera is off before inserting or removing the battery.

1. Slide the battery cover in the direction of the [OPEN] arrow.
2. Insert the battery in the correct orientation as shown in the illustration.
3. Close the battery cover.



To remove the battery
Hold the camera with the battery cover facing upward, then open the battery cover and remove the battery.

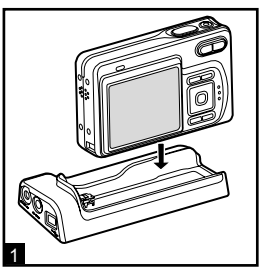
Note

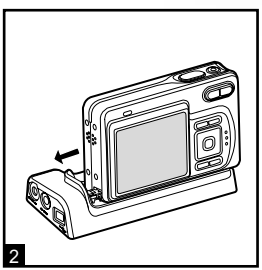
- Be careful not to drop the battery when opening or closing the battery cover.

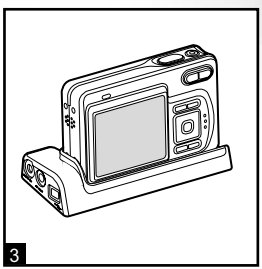
Docking Cradle

With the docking cradle, you can position your digital still camera and connect it to other media devices to play back your images, video clips, or voice recording files (output to a TV monitor or another recorder recording device, for example) on your desktop. The cradle will facilitate the battery charge of the camera in conjunction with an AC power adapter.

1. Position the camera on the cradle.
2. Match the docking connectors and carefully insert the camera until it fits in place.



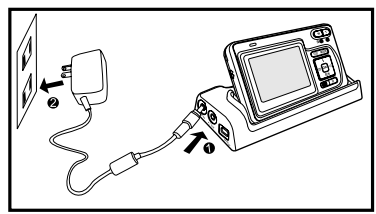




Charging the Battery

The state-of-charge of the battery will affect the performance of the digital still camera. To maximize battery performance and lifetime, it is recommended that you fully charge the battery using the optional AC power adapter and then fully discharge it (through normal use) at least one time. Please note that the digital still camera must be powered off before charging the battery. Otherwise, the power will be provided only to the digital still camera.

1. Place the camera on the cradle. Connect the AC power adapter to the jack on the cradle labeled "DC IN 5V".
2. Connect the other end of the AC power adapter to a wall outlet.
   - Charging time differs depending on the ambient temperature and the status of battery.

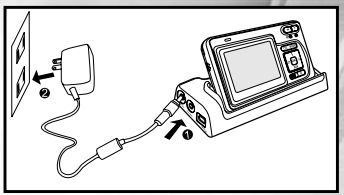


Note

- Use the appropriate international plug adapter (included) depending on the type of electrical outlet in your country.
- The digital still camera must be used with the specified AC power adapter. Damage caused by the use of an incorrect adapter is not covered under the warranty.
- Always make sure that the digital still camera is off before removing the battery.
- The battery may feel warm after it has been charged or immediately after being used. This is normal and not a malfunction.
- When using the digital still camera in cold environments, keep the digital still camera and its battery warm by holding it inside your jacket or other warm protective environment.
- The battery is not fully charged at shipment and must be fully charged before being used.

Using the AC Power Adapter

1. Make sure the camera is turned off.
2. Connect one end of the AC power adapter to the jack on the cradle labeled “DC IN 5V.”
3. Connect the other end to an electrical outlet.



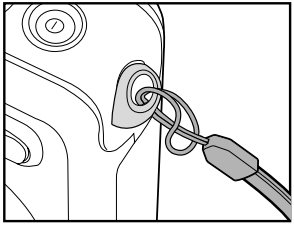
Note

- Use the appropriate international plug adapter (included) depending on the type of electrical outlet in your country.
- Make sure to use the specified AC power adapter or the camera. Damage caused by the use of an incorrect adapter is not covered under the warranty.
- To prevent unexpected auto power off resulting from no battery power left during the process of transferring your images to the computer, use the AC power adapter as a power supply.

Attaching the Camera Strap

Attach the strap as shown in the illustration.

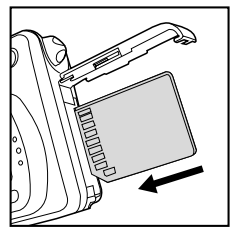
IMPORTANT: Always remove camera strap before inserting camera into waterproof housing. Not removing the strap may cause the housing to leak and void your warranty.



Inserting and Removing an SD Memory Card (Optional Accessory)

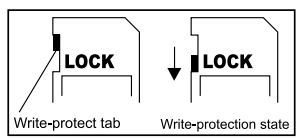
The digital still camera comes with 10MB of internal memory, allowing you to store video clips, captured images, or voice recording files in the digital still camera. However, you can also expand the memory capacity by using an optional SD (Secure Digital) memory card so that you can store more files.

1. Always make sure the digital still camera is turned off before inserting or removing a memory card.
2. Insert an SD memory card in the correct orientation as shown in the illustration.
3. Close the battery/SD memory card cover.
   - To remove the SD memory card, make sure the camera is turned off. Press lightly on the edge of the memory card and it will eject.



Note

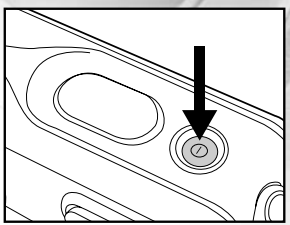
- Be sure to format an SD memory card with this digital still camera before using it. Refer to section in the manual titled **"Formatting an SD Memory Card or Internal Memory"** for further details.
- To prevent valuable data from being accidentally erased from an SD card, you can slide the write protect 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.
- Recommend SanDisk, Toashiba and Panasonic SD cards only.



GETTING STARTED

Turning the Power On/Off

- Press the ⏻ button until the digital still camera turns on.
- To turn the power off, press and hold the ⏻ button again.



Entering the Main Menu

After turning on the digital still camera, the Main Menu screen appears. Follow the steps below to select the desired mode:

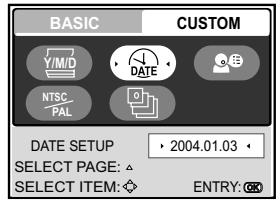
1. Press the ⏻ button to turn on the power.
2. Press the **MODE** button to access in Main Menu screen
3. Use ◀,▶,▼, or ▲ to choose the desired mode, then press the **OK** button.
4. For returning to Main Menu from each mode, press the **MODE** button again.

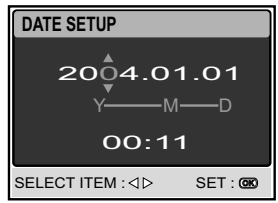
Setting the Date and Time

The date/time setting screen will automatically appear:

- When first turning the camera on.
- When turning the power on after leaving the camera without battery for an extended period of time.

1. Press the ⏻ button to turn on the camera.
2. Press the **MODE** button and select in [(SETUP)] mode with ◀, ▶,▼ or ▲, then press the **OK** button.
3. Press ▶ to select the [CUSTOM] menu.
4. Use ◀,▶,▼ or ▲ to select [DATE SETUP], then press the **OK** button.
5. Press ◀ or ▶ to select the Year, Month, Day and Time fields.
   - To increase a value, press the ▲ button.
   - To decrease a value, press the ▼ button.
   - The time is displayed in 24-hours format.
6. Press the **OK** button after all fields are set.

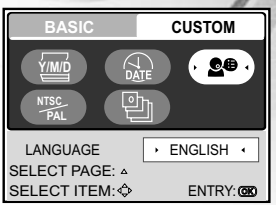




Choosing the Screen Language

Follow the steps below to specify in which language menus and messages are to be displayed on the LCD monitor from the following: 日本語, ENGLISH, 繁體中文, 簡体中文, FRANÇAIS, DEUTSCH, ITALIANO and ESPAÑOL.

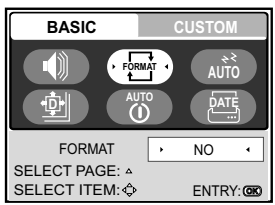
1. Press the ⏻ button to turn on the camera.
2. Press the **MODE** button to access in [(SETUP)] mode with ◀, ▶,▼ or ▲, then press the **OK** button.
3. Press ▶ to select the [CUSTOM] menu.
4. Use ◀, ▶,▼, or ▲ to select [LANGUAGE], then press the **OK** button.
5. Use ▲ or ▼ to select the language you want.
6. Press the **OK** button to confirm.

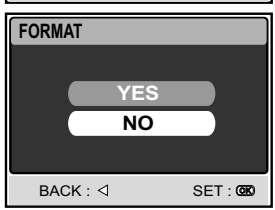


Formatting an SD Memory Card or Internal Memory

The term "Formatting" means preparing an "SD Memory Card" to record images; this process is also called "initialization". This utility formats the internal memory (or memory card) and erases all stored images and data.

1. Press the ⏻ button to turn on the camera.
2. Press the **MODE** button to access in [(SETUP)] mode with ▲, ▼, ◀ or ▶, then press the **OK** button.
   - The [BASIC] menu is displayed.
3. Use ▲,▼,◀, or ▶ to select [FORMAT], then press the **OK** button.
4. Use ▲ or ▼ to select [YES], then press the **OK** button to confirm.





Note

- When you format an SD memory card, be aware that all data of which will be permanently erased. Protected images are also erased.
- To format the internal memory, do not insert a memory card into the camera. Otherwise, you will format the memory card.
- 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.

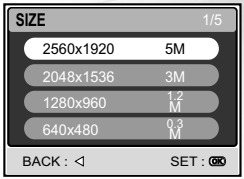
Setting Image Resolution and Quality

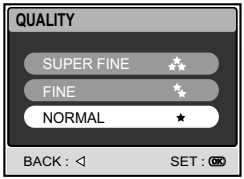
As you get to know the digital still camera, you can set the image resolution (number of vertical and horizontal pixels) and image quality (compression ratio) based on the types of images you want to shoot. These settings affect the number of images that can be stored in memory, or on a memory card.

Higher resolution and higher quality images provide finer detail but cause the images' file size to be larger.

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

1. Press the ⏻ button to turn on the camera.
2. Press the **MODE** button to access in [(CAMERA)] mode with ▲,▼,◀, or ▶, then press the **OK** button.
3. Press the ▤ button.
   - The [PICTURE] menu is displayed.
4. Use ▲,▼,◀, or ▶ to select [SIZE], then press the **OK** button.
5. Use ▲ or ▼ to select the desired setting, then press the **OK** button.
6. Follow the step 4 and 5 above to set the [QUALITY].





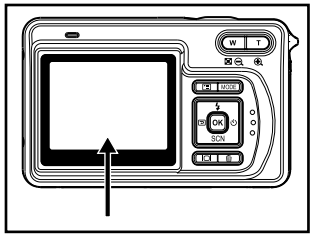
Note

- 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.
- You can resize the images later. (Please refer to section in this manual titled **"Resizing an Image"** for further detail.

Using the LCD Monitor

Your camera is equipped with a 2.0" full color TFT LCD monitor to help you compose images, replay recorded images/video clips or adjust menu settings. The mode icons, text and numbers displayed on the monitor may vary according to the current settings.

1. Press the ⏻ button to turn on the camera.
2. Compose your scene on the LCD monitor.
3. Press the shutter button.

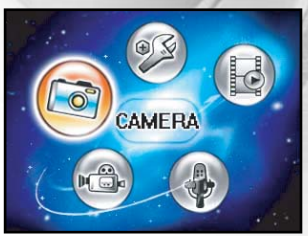


Note

- The LCD monitor darkens in strong sunlight or bright light. This is not a malfunction.
- To prevent your images from being blurred while pressing the shutter button, always hold it carefully. This is especially important when you are shooting under low lighting conditions, which your camera may decelerate the shutter speed to ensure your images are properly exposed.

CAMERA MODE

Shooting Images



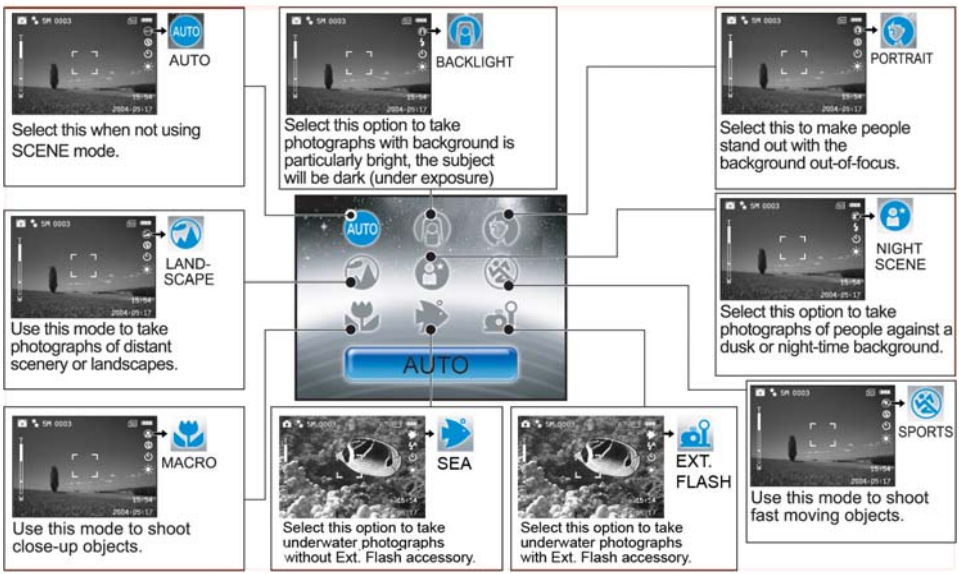
1. Press the ⏻ button to turn on the power.
2. Press the **MODE** button to access in [(CAMERA)] mode with ▲,▼,◀, or ▶, then press the **OK** button.
3. Compose the image on the monitor screen so that the main subject is within the focus frame.
4. Press the shutter button down half way to focus the image.
   - When you press the shutter button down half way, the camera's Auto Focus feature automatically focuses the image and exposure.
5. Press the shutter button the rest of the way down to capture the image.

Note

- The actual captured image appears to be larger than the one on LCD after image captured.
- Pressing the DISP button switches the LCD monitor display mode. Each time you press the DISP button, the display changes in the following order: Standard Display → Simplified Display.

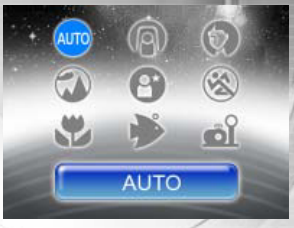
Useful Scene Modes Land & Sea Exposure Programs

Your digital still camera offers you nine types of scene modes to capture images easily in a situation that is programmed to handle all adjustments for you by selecting the following shooting conditions.



To use the SCENE mode, follow the steps below:

1. Press the ⏻ button to turn on the camera.
2. Press ▼/ **SCN** to access in [SCENE] mode.
3. Use ◀ or ▶ to select the desired scene mode, then press the **OK** button to confirm.
   - Press ▲ or ▼ to exit from the scene mode.
4. Compose the image and then press the shutter button.



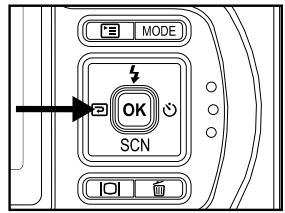
Note for the following functions according to the desired scene from a menu

AUTO	The camera will automatically adjust the focus and exposure depending on the settings of ISO sensitivity and White Balance.
BACKLIGHT	In this mode, Flash mode will be set to ϟ (Forced Flash) automatically.
LANDSCAPE	The Flash mode will be set to ⊗ (Flash Off).
SPORT	In this mode, the low limit of shutter speed is 1/125.
MACRO	The Flash mode will be set to ⊗ (Flash Off).
SEA	A proprietary exposure program developed by divers for best quality **underwater images** when **NOT** using External Flash.
EXT FLASH	A proprietary exposure program developed by divers for best quality **underwater images** when using External Flash.
NIGHT SCENE	Flash mode will be set to ϟ (Forced Flash) automatically.

Reviewing the Last Image

The camera is equipped with the ⊐ button, allowing the most recent image to be displayed on the LCD monitor in the 📷 /🎥 mode. Use the following procedure to preview the last image captured.

1. Press ⊐ to display the last image captured. The last image displays on the LCD monitor.
   - Press ⊐ again to return to the normal shooting mode.
   - You can only view the last image with this function. To view all your recorded images, press the **MODE** button to access in PLAY mode to playback the still images. Refer to the section in this manual titled “PLAYBACK MODE-THE BASICS” for further details.



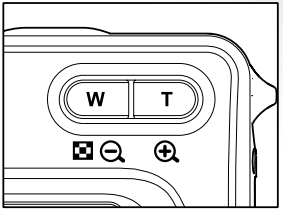
Using the Zoom Function

This camera is equipped with 3x optical zoom. The lens moves during the optical zoom photography, allowing you to capture telephoto and wide-angle shots. By using the optical zoom function; images appear closer by pressing the **T** button, or smaller away by pressing the **W** button.

You can further enlarge the subjects with 4x digital zoom by pressing continuously the **T** button. It is activated after your camera reaches its maximum optical zoom factor (3x). A useful feature as it is, however, the more the image is magnified, the grainer the image may become.

To capture a zoomed image, perform the following steps:

1. Adjust the magnification ratio by using the **T**/**W** button.
   - To access the optical zoom function, press the **T** button as far as it can go. Press it again to activate the digital zoom.
   - To exit the zoom photography, press continuously the **W** button.
2. Compose your scene and press the shutter button.



Note

- The digital magnification ranges from 1.5x to 4x (within 6 stages: 1.5x, 2x, 2.5x, 3x, 3.5x, 4x).
- While recording video clips, the zoom function cannot be activated.
- Hold camera very steady for telezoom pictures. Recommend using tripod or place camera on stable surface.

Using the Macro (Close-Up) Mode on Land

With this mode, the cameraís lens switches the auto focus system to focus on subjects that are much closer to the lens. This feature allows you to shoot close-up objects on land, such as small insects or flowers to get the smallest detail.

1. Press the ⏻ button to turn on the camera.
2. Press ▼/ **SCN** to access in [SCENE] mode.
3. Use ◀ or ▶ to choose [(MACRO)], then press the **OK** button.
   - The icon appears on the LCD monitor.
4. Compose your scene and press the shutter button.
   - When not using MACRO mode at any time, press ▼/ **SCN** again to choose with ◀ or ▶ and then press the **OK** button.

Note

- After a macro shot is taken **DO NOT FORGET** to reset the lens to the normal position.
- When the camera is set to Sea or Ext Flash mode, use the QuickShoot mode feature to focus on objects between 2.4" (6 cm) and 14" (35 cm)."

Using the Sea or Ext. Flash Modes

These two scene modes are special exposure programs developed for taking pictures underwater.

Sea Mode - Select this mode to take underwater photos without external flash accessory (optional). This exposure program was developed by scuba divers and will produce the best quality underwater images when NOT using the external flash (optional).

Ext Flash Mode - Select this mode to take underwater photos with external flash accessory (optional). This proprietary exposure program synchronizes the camera's flash and exposure controls with SeaLife External Flash (SL960) or Digital Flash (SL960D). It has taken over four years of underwater research and testing to develop this program.

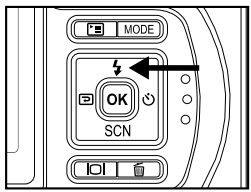
Note

- For bright and colorful underwater pictures, we highly recommend purchasing the optional SeaLife External Flash (SL960) or Digital Flash (SL960D).
- The Sea or Ext Flash mode setting will be preserved even after the cameras power is turned off, so don't forget to change back to the Auto scene mode after underwater use.
- The inner camera is not waterproof. Seal the camera inside the waterproof housing for use in and around water.

Using the Flash

The flash is designed to function automatically when lighting conditions warrant the use of flash. You can take an image using a desired flash mode to suit your circumstances.

1. Press the ⏻ button to turn on the camera.
2. Press the ▲/ϟ button to access in [FLASH] mode.
3. Use ▲,▼,◀ ,or ▶ to select the desired flash mode, then press the **OK** button.
   - The flash mode you set will be displayed on the LCD monitor.
4. Compose your scene and press the shutter button.



The camera has four flash modes: Red Eye, No Flash(default), Auto Flash and Forced Flash. The table below will help you to choose the appropriate flash mode:

Flash mode	Description
RED EYE	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 still camera or get as close to the digital still camera as possible.
NO FLASH	Use this mode in the environment that the flash use is prohibited or under the situation that the distance to the subject is too far away for the flash to have any effect.
AUTO FLASH	The flash fires automatically according to suit the photographic conditions.
FORCED FLASH	The flash will always fire regardless of the surrounding brightness. Select this mode for recording images with high contrast (backlighting) and deep shadows.

Using the Flash in External Flash Mode

When the camera is set to Ext Flash mode the camera's flash will always fire. This will trigger the SeaLife External Flash (SL960) or Digital Flash (SL960D) to fire.

In order to achieve proper image exposure, it may be necessary to select from one of the following three flash modes:

ϟᴺ NORMAL FLASH - This is the default setting ideal for proper exposure from 1 yd (1m) to 2 yd (2m).

ϟᴹ MACRO FLASH - This flash setting is ideal for shooting distances inside of 1 yd. (1m)

ϟᶠ FAR FLASH - Select this flash mode for best exposure beyond 2 yds (2m) shooting distance.

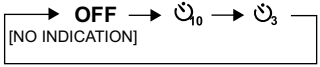
Note

- The above shooting distance may vary depending on water visibility and the reflectivity of the subject. Experiment with different flash modes and adjust accodingly.
- Press the ϟ flash button and select the appropriate flash mode using the ▲,▼,◀, or ▶ buttons.

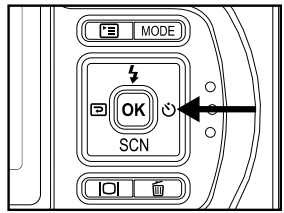
Using the Self-Timer

The self-timer can be set in [(CAMERA)] mode. This feature is used in situations such as group shots.

1. Secure the camera to a tripod or place it on a stable surface.
2. Press the ⏻ button to turn on the power.
3. Toggle ▶ /⏲to select the desired self-timer mode.



4. Compose your scene and press the shutter button.
   - The self-timer function is activated and the status of countdown will be displayed on the LCD monitor..
   - The photography is then taken after the preset time.
   - To cancel the self-timer at any time, press ⏲ to disrupt the sequence.



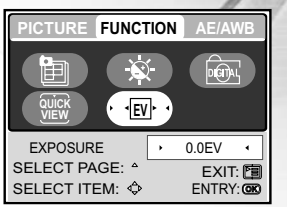
Note

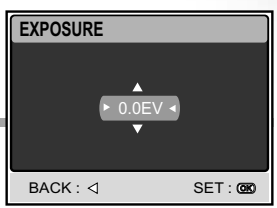
- After one shot is taken, the self-timer mode is turned off.
- If you wish to take another image using the self-timer, repeat these steps.

Adjusting the Exposure

You can manually adjust the exposure determined by the digital still camera. Use this mode when the proper exposure cannot be obtained, for example, when the contrast (different between light and dark) between the subject and the background is extremely large. The EV compensation value can be set in the range from -2.0EV to +2.0EV.

1. Press the **MODE** button to access in [(CAMERA)] mode with ▲,▼,◀ , or ▶ , then press the **OK** button.
2. Press , then use ▶ to select the [FUNCTION] menu.
3. Use ▲,▼,◀, or ▶ to select [EXPOSURE], then press the **OK** button.
4. You can use ▲ or ▼ to set the range of EV compensation value from -2.0EV to +2.0EV, then press the **OK** button.
   - To reactive auto exposure, select [0EV] in step 4.
5. To exit from the menu, press the button.





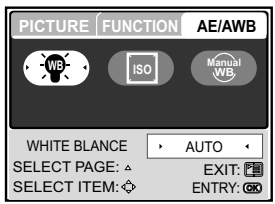
Note

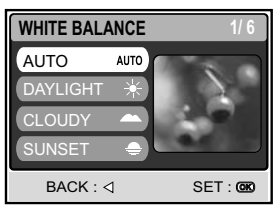
- Experiment with this feature to obtain the best possible exposure depending on the surrounding light conditions.

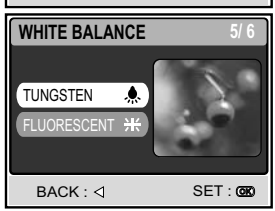
Setting White Balance

This feature lets you make adjustments to compensate for different lighting types according to your shooting conditions.

1. Press the **MODE** button to access in [(CAMERA)] mode with ▲,▼,◀, or ▶ , then press the **OK** button.
2. Press , then toggle ▶ to select the [AE/AWB] menu.
3. Use ▼ to select [WHITE BALANCE], then press the **OK** button.
4. Use ▲ or ▼ to select the desired setting.
5. To exit from the menu, press the button.







ADVANCED SHOOTING

Shark Mode [ ]

This feature will greatly reduce the camera's shutter lag time. Shutter lag is the time difference between pushing the shutter button and capturing the image. All cameras have some shutter lag the camera needs time to set autofocus and evaluate lighting conditions. Without Shark mode, the camera will have about 1 second shutter lag. When Shark mode is enabled, the shutter lag is virtually eliminated or about 0.17 seconds.

This feature is very useful when taking pictures of fast moving objects. For example, you see a beautiful reef scene with a fish that won't keep still.

1. Point the camera at the scene you want to photograph.
2. Push the **OK** button while holding the camera steady at the scene.
3. It will take about 1 second for the camera to evaluate and set the autofocus and exposure controls.
4. When the [ ] shark icon appears on the LCD, the Shark mode is set.
5. Now you are ready to take pictures of that particular scene with fast shutter resonse.
6. To disable the Shark mode, push the **OK** button again.

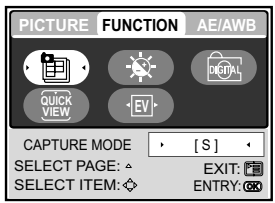
Note

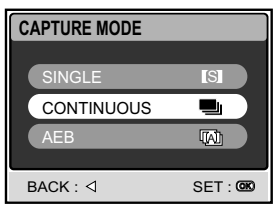
- Don't forget to reset the Shark mode for each new scenery where shooting distance and lighting conditions have changed.

Continuous Shooting

This mode is used for continuous shooting. Pictures are taken continuously while the shutter release button is pressed.

1. Press the **MODE** button to access in [(CAMERA)] mode with ▲,▼,◀, or ▶, then press the **OK** button.
2. Press , then use ▶ to select the [FUNCTION] menu.
3. Use ▼ to select [CAPTURE MODE], then press the **OK** button.
4. Use ▲ or ▼ to select [CONTINUOUS], then press the **OK** button.
5. To exit from the menu, press the button.
   - The indicator is displayed on the monitor screen.
6. Press the shutter button halfway to lock the focus.
7. Press the shutter button all the way to shoot.
   - Shooting will stop when the shutter button is released.





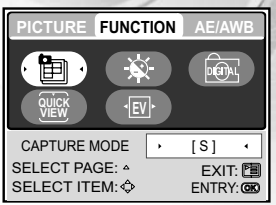
Note

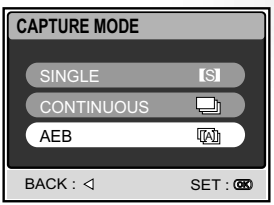
- Maximum number of continuous shots: 10
- In Continuous mode, the flash mode will be set to **OFF** automatically.
- This feature will not function when camera is set to External Flash.

Auto Exposure Bracketing (AEB)

In this mode, the camera automatically changes the exposure within a set range to take three shots after you press the shutter button once. AEB settings can be combined with exposure compensation settings to extend the adjustment range.

1. Press the **MODE** button to access in [(CAMERA)] mode with ▲,▼,◀, or ▶, then press the **OK** button.
2. Press , then use ▶ to select the [FUNCTION] menu.
3. Use ▼ to select [CAPTURE MODE], then press the **OK** button.
4. Use ▲ or ▼ to select [AEB], then press the **OK** button.
5. To exit from the menu, press the button.
   - The indicator is displayed on the monitor screen.
6. Press the shutter button to shoot.





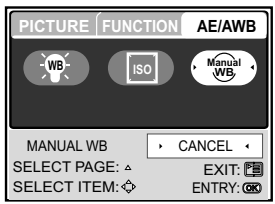
Note

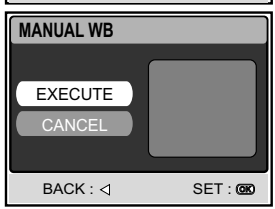
- In AEB mode, the flash mode will be set to **OFF** automatically.
- This feature will not function when camera is set to External Flash mode.

Adjust White Balance Manually

Manual white balance lets you configure the digital still camera for a particular light source and other conditions. Note that you must perform manual white balance under the same conditions you will be shooting under. You must also have a white piece of paper or other similar object on hand in order to perform this function.

1. Press the **MODE** button to access in [(CAMERA)] mode with ▲,▼,◀, or ▶, then press the **OK** button.
2. Press , then toggle ▶ to select the [AE/AWB] menu.
3. Use ▼ and ▶ to select [MANUAL WB], then press the **OK** button.
4. Point the camera at an enclosed gray card for which you can set the white balance.
   - This starts the white balance adjustment procedure.
5. Use ▲ or ▼ to select [EXECUTE], then press the **OK** button to confirm.
   - The procedure of manual white balance is complete.
   - If you with to cancel [MANUAL WB] setting, press ▲ or ▼ to select [CANCEL].
6. To exit from the menu, press the button.
7. Press the shutter button to shoot.





Note

- For underwater adjustment of white balance, point the camera at the open blue water or a white slate and press execute. Experiment with this feature to find the best white balance.

Instant Delete and Quickview Mode

When Quickview is turned on, the camera will display the actual picture taken after each shot. You also have the option to instantly delete the last picture taken if you press the shutter button while “DELETE?” message is displayed.

1. Press the MODE button and select [ ] camera mode, then press **OK** button.
2. Press [ ] menu button.
3. Press ▶ to access FUNCTION settings.
4. Use ▲,▼,◀ or ▶ the Quick option and press **OK** button.
5. Use ▲or ▼ to select ON to enable Quickview or OFF to disable Quickview.

PLAY MODE - THE BASICS

In the [⊙ (PLAY)] mode, you can view, magnify, delete images or play video clips back. This mode also provides thumbnail images display and slide show, allowing you to quickly search for the desired image.

Viewing Images

1. Press the ⏻ button to turn on the power.
2. Press the **MODE** button to access in [⊙ (PLAY)] mode with ▲,▼,◀, or ▶, then press the **OK** button.
3. In the [⊙ (PLAY)] mode, use ◀ or ▶ to select the desired images.
   - To view the previous image, press the ◀ button.
   - To view the next image, press the ▶ button.

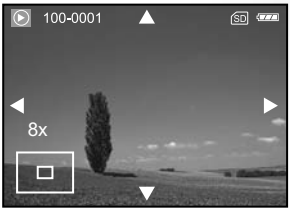
Note

- If there is no image stored in the internal memory or on the memory card. [NO PICTURE] message will appear on the monitor.
- Pressing DISP switches the LCD monitor display mode. Each time you press DISP, the display changes in the following order: Standard display → Detailed display → No information.

Magnifying Images

While reviewing your images, you may enlarge a selected portion of an image. This magnification allows you to view the details. The zoom factor is displayed on the screen, showing the current magnification ratio. Images that are being playback can be enlarged in 14 levels of 8 times enlargement.

1. Press the **MODE** button to access [(PLAY)] mode with ▲,▼,◀, or ▶, then press the **OK** button.
2. In the [(PLAY)] mode, use ◀ or ▶ to select the desired images.
   - To view the previous image, press the ◀ button.
   - To view the next image, press the ▶ button.
3. Adjust the zoom ration by using the **T**/**W** button.
   - To enlarge the selected image, press the **T** button.
   - To return to the normal image, press the **W** button.
   - The magnification factor is displayed on the LCD monitor.
4. To view different portion of the images, press ▲,▼,◀, or ▶ to adjust the display area.
   - The displayed image is enlarged; you will see a white frame with a pink box inside. The white frame indicates the entire image, while the pink box shows the location of the currently enlarged area.



Note

- The magnification factors range from 1.5x to 8x within 14 stages: 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 and 8.0x.

Thumbnail Display (Index Playback)

This function allows you to view four or nine thumbnail images on the LCD monitor simultaneously so you may search for a particular image.

1. Press the **MODE** button to access in [(PLAY)] mode with ▲,▼,◀, or ▶, then press the **OK** button.
2. In the [(PLAY)] mode, press to select [THUMBNAIL] with the ▲,▼,◀, or ▶ button, then press the **OK** button.
3. Use ▲ or ▼ to choose the desired number of thumbnail images to be displayed, then press the **OK** button.
   - Press the button to exit from the menu.
4. In the [(PLAY)] mode, press the **W** / button.
   - Four or nine thumbnail images are displayed simultaneously.
5. Use ▲,▼,◀, or ▶ to select the image to be displayed at regular size, then press the **OK** button to display the selected image on full screen.

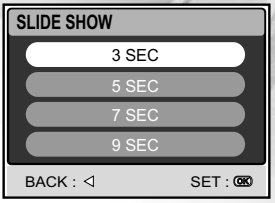
Note

- A [ ] or [ ] icon will be displayed in a thumbnail display.

Slideshow Display

The slide show function enables you to play your images back automatically in sequential order. This is very useful and entertaining feature for reviewing recorded images and for presentations.

1. Press the **MODE** button to access in [(PLAY)] mode with ▲,▼,◀ or ▶, then press the **OK** button.
2. In the [(PLAY)] mode, press to select [SLIDE SHOW] with ▲,▼,◀ or ▶, then press the **OK** button.
3. Use ▲ or ▼ to set the slideshow interval, then press the **OK** button.
   - The slide show starts.
   - The video clips are displayed the first frame image, and not played back.
   - To stop slide show, press the **OK** button.

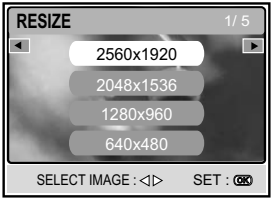


Resizing an Image

You can follow the steps below to an image to one of the four sizes.

You can change the image size of a captured image to one of the following sizes: 2560x1920 pixel, 2048x1536 pixel, 1280x960 pixel and 640x480 pixel. The original image is retained even after resizing.

1. Press the **MODE** button to access in [(PLAY)] mode with ▲,▼,◀ or ▶, then press the **OK** button.
2. In the [(PLAY)] mode, use ◀ or ▶ to select the desired image you want to resize.
3. Press to select [RESIZE] with the ▲,▼,◀ or ▶ button, then press the **OK** button.
4. Use ▲ or ▼ to select the desired setting, then press the **OK** button to confirm.



MOVIE MODE

Recording Video Clips

1. Press the ⏻ button to turn on the power.
2. Press the **MODE** button to access in [(MOVIE)] mode with ▲,▼,◀, or ▶, then press the **OK** button.
3. Press the shutter button to start recording.
4. Press the shutter button again to stop recording.

Note

- The function of optical zoom (3x) can be activated before you start to record video clips.
- Pressing the |◯| button switches the LCD monitor display mode. Each time you press the |◯| button, the display changes in the following order: Standard Display → Simplified Display.

Playing Back Video Clips

1. Press the **MODE** button to access in [(PLAY)] mode with ▲,▼,◀, or ▶, then press the **OK** button.
2. In the [(PLAY)] mode, use ◀ or ▶ to go through the images until the video clip you want to play back is displayed.
   - To view the previous image, press the ◀ button.
   - To view the next image, press the ▶ button.
3. Press the shutter button to start playing back the video clips.
   - To pause or resume video playback, press the shutter button.
   - To stop playback, press the **OK** button.
   - Use ϟ to start fast reverse playback.
   - Use **SCN** to start fast forward playback.

Note

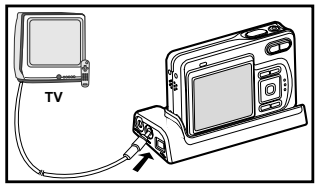
- The zoom function cannot be activated while playing the video clips back.
- To playback the video clips on the computer, we recommend you to use Windows Media Player 9.0 (WMP 9.0). You can download WMP version from the website at www.microsoft.com.

PLAY MODE - ADVANCED FUNCTIONS

Playing Back Images/Video Clips on TV

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

1. Position the camera on the cradle.
2. Match the docking connectors and carefully insert the camera until it fits in place.
3. Connect one end of the A/V cable to the A/V terminal of the cradle.
4. Connect the other end to the A/V input socket of the TV set.
5. Turn the TV and digital still camera on.
6. Playback the still images/video clips.
   - The method of operation is the same as playing back still images and video clips on the digital still camera.



Rotating Images in the Display

This function lets you rotate images so that the images are played back with the correct orientation. You can rotate an image 90 degree clockwise or counterclockwise.

1. Press the **MODE** button to access in [(PLAY)] mode with ▲,▼,◀, or ▶, then press the **OK** button.
2. In the [(PLAY)] mode, use ◀ or ▶ to display the image you want to rotate.
3. Press ▲ or ▼ to rotate the selected image +90^0 or -90^0.

90°Counterclockwise

0°(Original)

90°Clockwise

Note

- You cannot rotate video clips.
- Rotated images can be magnified.

Deleting Images/Video Clips

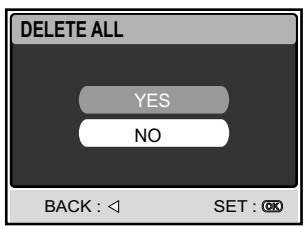
Use this function to delete one or all images/video clips stored in the internal memory or memory card. Please note that the deleted images or video clips cannot be recovered. Exercise caution before deleting a file.

To delete a single image/video clip

1. Press the **MODE** button to access in [(PLAY)] mode with ▲,▼,◀, or ▶, then press the **OK** button.
2. Use ◀ or ▶ to select the image you want to delete.
3. Press 🗑 to delete the file.
4. When the delete message appears, use ◀ or ▶ to select [YES], then press the **OK** button.
   - If you wish to cancel the deletion, select [NO].

To delete all images/video clips at once

1. Press the **MODE** button to access in [(PLAY)] mode with ▲,▼,◀, or ▶, then press the **OK** button.
2. In the [(PLAY)] mode, press ☰ to select [DELETE ALL] with ▲,▼,◀, or ▶, then press the **OK** button.
3. To confirm the deletion of all images, use ▲ or ▼ to select [YES], then press the **OK** button.
   - The message "NO PICTURE" appears on the LCD screen.



Note

- Note that you cannot delete protected images.
- Pressing the 🗑 button in the playback mode allows you to quickly delete the selected image, sparing you the requisites of accessing the menu mode.

Protecting Images/Video Clips

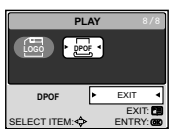
Set the data to read-only to prevent images from being erased by mistake.

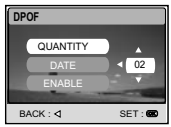
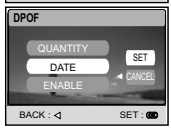
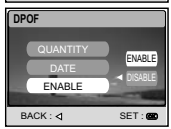
1. Press the **MODE** button to access in [(PLAY)] mode with ▲,▼,◀, or ▶, then press the **OK** button.
2. In the [(PLAY)] mode, press to select [PROTECT] with the ▲,▼,◀, or ▶ button, then press the **OK** button.
3. Use ▲ or ▼ to choose the desired setting, then press the **OK** button.
   - [ONE IMAGE]: Protect one image/movie.
   - [ALL IMAGES]: Protect all images/movies (at once).
   - [EXIT]: Exit from this menu.
4. Use ▲ or ▼ to select [LOCK], then press the **OK** button.
   - Press to return to the [PLAY] mode. The indicator appears on the selected image.
   - If you wish to cancel the protect function, select [UNLOCK].

Setting the DPOF

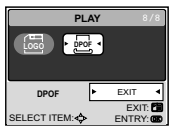
DPOF (Digital Print Order Format) allows you to embed printing information on your memory card. By using DPOF, you can select an image to be printed and then specify how many prints or which image you would like. Take your memory card to a DPOF enabled printer that accepts memory cards. The DPOF/card-compatible printer will read the embedded information on the memory card and print your images as specified.

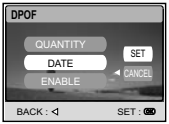
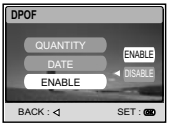
To configure print settings for a single image.

Step	Figure	Procedure
1		Press the **MODE** button to access in [(PLAY)] mode, then press the **OK** button.
2		In the [(PLAY)] mode, press to select [DPOF] with ▲,▼,◀, or ▶, then press the **OK** button.
3		Use ◀ or ▶ to select the desired image you want to mark .

Step	Figure	Procedure
4		Use ▲ or ▼ to select [ONE IMAGE], then press the **OK** button. [ONE IMAGE]: To configure print settings for a single image. [ALL IMAGES]: To configure print settings for all images. [RESET]: Returns all basic settings to the digital still cameraís default settings. [EXIT]: To exit the mark function, use ▲ or ▼ to select [EXIT].
5	  	Use ▲ or ▼ to select [QUANTITY], [DATE] and [ENABLE],then press the **OK** button to configure the settings. [QUANTITY]: Allows you to select image quantity (0~99). Use ▲ or ▼ to set the image quantity and press the **OK** button. [DATE]: The date of recording can be printed directly on the images. Press the **OK** button to choose [SET] or [CANCEL] with ▲ or ▼. [ENABLE]: Allows you to confirm your setting which will be saved in the SD card. Press the **OK** button to choose [ENABLE] or [DISABLE] with ▲ or ▼.
6		Press MENU to return to the image playback mode. * The 凸 is marked on the displayed image.
		To unmark the 凸 mark, go back to step 4 to select [RESET] with ▲ or ▼.

To configure print settings for all images.

Step	Figure	Procedure
1		Press the **MODE** button to access in [(PLAY)] mode, then press the **OK** button.
2		In the [(PLAY)] mode, press to select [DPOF] with ▲,▼,◀, or ▶, then press the **OK** button.
3		Use ◀ or ▶ to select the desired image you want to mark .
4		Use ▲ or ▼ to select [ALL IMAGES], then press the **OK** button. [ONE IMAGE]: To configure print settings for a single image. [ALL IMAGES]: To configure print settings for all images. [RESET]: Returns all basic settings to the digital still cameraís default settings. [EXIT]: To exit the mark function, use ▲ or ▼ to select [EXIT].

Step	Figure	Procedure
5	 	Use ▲ or ▼ to select [DATE] and [ENABLE], then press the **OK** button to configure the settings. [DATE]: The date of recording can be printed directly on the images. Press the **OK** button to choose [SET] or [CANCEL] with ▲ or ▼. [ENABLE]: Allows you to confirm your setting which will be saved in the SD card. Press the **OK** button to choose [ENABLE] or [DISABLE] with ▲ or ▼.
6		Press [MENU] to return to the image playback mode. * The 🖨 is marked on all the displayed images.
		To unmark the 🖨 mark, go back to step 4 to select [RESET] with ▲ or ▼.

Note

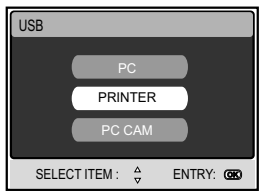
- Before you perform the DPOF settings on your camera, always remember to copy your images from the internal memory to an SD memory card first.
- The [🖨] print icon will appear on the monitor indicating images selected for printing.
- You cannot print movies.

Connecting to a PictBridge Compliant Printer

Even if you do not have a computer, you can connect the camera directly to a printer that supports PictBridge to perform image selection and printing using the camera monitor screen and controls. DPOF support also lets you specify which images you want to print and how many copies of each should be printed.

Connecting the camera to the printer

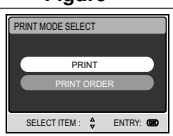
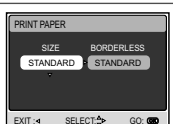
1. Connect the USB port on the cradle and the USB jack on the printer with the supplied USB cable, then turn on your camera and the printer.
   - The camera turns on automatically and the screen for selecting the USB mode is displayed.
2. Use ▲ or ▼ to select [PRINTER], then press the **OK** button.

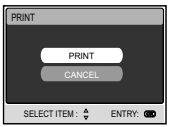


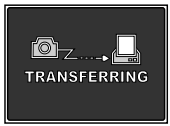
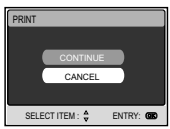
Printing images

When the camera is properly connected to a PictBridge compliant printer, the [PRINT MODE SELECT] screen is displayed on the monitor. Use ▲ or ▼ to select the print mode.

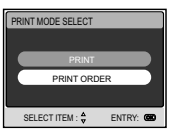
- **In [PRINT] Mode**: Lets you print the specified image with PictBridge.

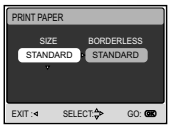
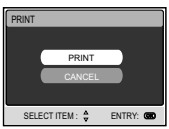
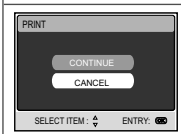
Step	Figure	Procedure
1		Use ▲ or ▼ to select the [PRINT] mode, then press the **OK** button. * The [PRINT PAPER] screen is displayed.
2		Use ▶ to access in the selection of paper setting, then press the **OK** button to confirm. [SIZE]: You may select the desired item depending on the type of printer being used. [BORDERLESS]: You may select the desired item depending on the type of printer being used.

Step	Figure	Procedure
3		Use ◀ or ▶ to select the image you want to print, then press ▼ to set **MORE** print reservations. * The [PRINT INFO] screen is displayed.
4		Use ▲ or ▼ to select the desired item, then press the **OK** button. * Use ▲ or ▼ to change the setting, then press the **OK** button to confirm. [QUANTITY] : Specifies the number of prints. You can select the number up to 10. [DATE]: If you select WITH, images are printed with the date. [FILE NAME]: If you select WITH, images are printed with the file name. [EXIT]: To cancel the print settings, use ▲ or ▼ to select [EXIT].
5		After the step 4 finished, you can still use ◀ or ▶ to change the image to print by your preference. Then, press the **OK** button to print.
6		Use ▲ or ▼ to select [PRINT], then press the **OK** button to confirm. * The TRANSFERRING screen is displayed.

Step	Figure	Procedure
7		This starts printing and displays the message "TRANSFERRING" on the monitor screen.The message will disappear after the printing finished.
		* To cancel printing: Pressing the **OK** button during print data transfer displays the screen for selecting whether to [CONTINUE] or [CANCEL] printing.

- **In [PRINT ORDER] Mode**: This function only lets you print the specified image based on the previous DPOF settings.

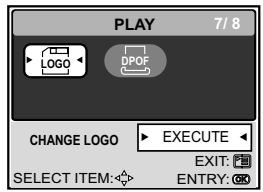
Step	Figure	Procedure
1		Use ▲ or ▼ to select the [PRINT ORDER] mode, then press the **OK** button. * The [PRINT PAPER] screen is displayed.

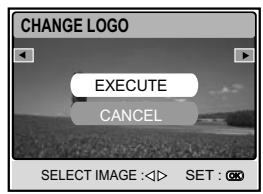
Step	Figure	Procedure
2		Use ▶ to access in the selection of paper setting, then press the **OK** button to print. [SIZE]: You may select the desired item depending on the type of printer being used. [BORDERLESS]: You may select the desired item depending on the type of printer being used.
3		Use ▲ or ▼ to select [PRINT], then press the **OK** button to confirm. * The TRANSFERRING screen is displayed.
4		This starts printing and displays the message "TRANSFERRING" on the monitor screen. The message will disappear after the printing finished.
		* To cancel printing: Pressing the **OK** button during print data transfer displays the screen for selecting whether to [CONTINUE] or [CANCEL] printing.

Changing the Camera Startup Logo

This feature lets you specify one of your recorded images as your setup screen image, which will be displayed on the monitor whenever you press the ⏻ button to turn on the camera.

1. Press the **MODE** button to access in [(PLAY)] mode with ▲,▼,◀, or ▶ , then press the **OK** button.
2. In the [(PLAY)] mode, press to access in [PLAY] menu.
3. Use ▲,▼,◀, or ▶ to select [CHANGE LOGO], then press the **OK** button.
4. Use ▲ or ▼ to select [EXECUTE], then press the **OK** button to confirm.
   - The new logo will be activated on the next time you turn on the camera.





Note

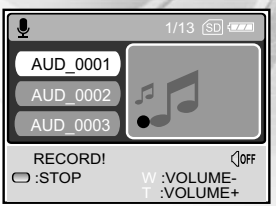
- To return startup logo to the original image, reset the camera to factory default settings. Press mode button, select set-up option, select reset and select YES.

AUDIO MODE

The digital still camera enables you to record and playback voice files anytime and anywhere.

Recording Voice Files

1. Press the ⏻ button to turn on the camera.
2. Press the **MODE** button to access in [(AUDIO)] mode with ▲,▼,◀, or ▶, then press the **OK** button.
3. In the [(AUDIO)] mode, use the shutter button to start voice recording.
   - A ● indicator is displayed on the screen.
   - Recording stops when you press the shutter button again.

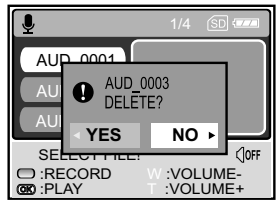


Playing Back a Voice Recording File

1. Press the **MODE** button to access in [(AUDIO)] mode with ▲,▼,◀, or ▶, then press the **OK** button.
   - Voice playlist appears on the screen.
2. In the [(AUDIO)] mode, use ▲ or ▼ to select the voice recording file you want to play.
3. Press the **OK** button to start playback of the voice-recording file through the cameraís speaker.
   - To pause playback, press the ⏎ button.
   - To resume playback, press the **OK** button.
   - To stop playback, press the **OK** button again.

Deleting a Voice Recording File

1. Press the **MODE** button to access in [(AUDIO)] mode with ▲,▼,◀, or ▶, then press the **OK** button.
2. In the [(AUDIO)] mode, use ▲ or ▼ to select the voice file you want to delete.
3. Press to delete the selected voice file.
4. When the delete message appears, use ◀ or ▶ to select [YES], and then press the **OK** button.
   - If you wish to cancel the deletion, select [NO].



- **Button operations**

To	Press	Functional Description
Power on/off	⏻	Press the ⏻ button to turn on/off the camera.
Start/stop voice recording	Shutter button	Press the shutter button to start or stop voice recording.
Choose previous/next voice recording file	▲ / ▼	Use ▲ or ▼ to choose previous or next voice-voice-recording filerecording file and then press the **OK** button to play.
Start/stop playback of a voice recording file	**OK**	Press the **OK** button to start or stop playback of a voice recording file
Adjust audio volume	**T**/**W**	Press **T** or **W** to increase or decrease audio volume.
Pause playback of a voice recording file	⏯	Press ⏯ to pause playback of a voice recording file.
Delete a voice recording file	🗑	Press the 🗑 button to delete voice-recording files.
Enter the Main Menu	**MODE**	Press the **MODE** button to return to one of the following modes: [SETUP], [CAMERA], [MOVIE], [AUDIO], or [PLAY].

Note

- Audio volume can be adjusted only when playback is being performed or is paused.
- Audio recording volume and quality will be greatly reduced when camera is inside waterproof housing.

TRANSFERRING FILES FROM YOUR DIGITAL STILL CAMERA TO COMPUTER

After using USB cable to establish a USB connection between the camera and your computer, you can use your computer to share recorded images/video clips/voice-recording files with your family or friends via a e-mail or post them on the Web. In order to do this, you must install the USB driver onto your computer first. Note that before you begin to install the software, you need to check your system according to the table as shown below.

	System Requirements (Windows)	**System Requirements (Macintosh)**
CPU	Pentium 166 MHz processor or higher	PowerPC G3/G4
OS	Windows 98/98SE/ME/2000/XP	OS 9.0 or higher
Memory	32MB (64MB RAM recommended)	32MB (64MB RAM recommended)
Free Space on Hard Disk	128MB hard disk space	128MB hard disk space
Required Devices	A CD-ROM drive An available USB port	A CD-ROM drive An available USB port
Display	Color Monitor (800x600, 24-bit or higher recommended)	Color Monitor (800x600, 24-bit or higher recommended)

Step 1: Install the USB driver

■ **Installation on Windows 98 & 98SE**

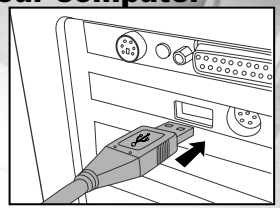
The USB driver on the supplied CD-ROM is exclusively for Windows 98 and 98SE. Windows 2000/ME/XP users need not install the USB driver.

1. Insert the enclosed CD-ROM into your CD-ROM drive.
2. When the welcome screen appears, click **"Install USB/PC-Cam driver"**. Follow the on-screen instructions to complete the installation.
3. After the USB driver has been installed, restart your computer.

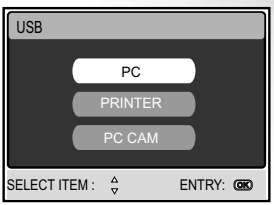
■ **Installation on MAC OS 9.0**

For Mac OS 9.0 or higher, the computer will automatically recognize the digital still camera and load its own USB drivers.

Step 2: Connect the digital still camera to your computer



1. Position the camera on the cradle.
2. Connect one end of the USB cable to the USB connector on the cradle.
3. Connect the other end of the USB cable to an available USB port on your computer.
4. Turn the camera on.
   - [USB Mode] screen is displayed.
5. Use ▲ or ▼ to select [PC], then press the **OK** button.
6. There will be a new "Removable Disk" icon detected in "My Computer", in which contains your recorded images/video clips/ audio files.
   (For **Mac users,** double-click [untitled] or [unlabeled] disk drive icon on our desktop.)



Note

- When connecting to the computer, it is necessary to install the battery into the digital still camera.
- While transferring images to your computer, the other buttons on your digital still camera will not perform the functions.

Step 3: Download images, video clips or voice-recording files

When the digital still 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" ("untitled" or "unlabeled" disk on a Macintosh) to your computer hard drive.

■ Windows

Open the "removable disk" and double click on the DCIM / CAMERA folder to open it to find more folders. Your images are inside these folder(s). Select the desired still images / video clips /audio files 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 still camera to a desired location.

■ Macintosh

Open the "untitled" disk icon, and the destination location on your hard disk. Drag and drop from the digital still camera to the desired destination.

Note

- 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 video playback application has been installed in your computer.

EDITING SOFTWARE INSTALLATION

Installing Photo Explorer

Ulead® Photo Explorer provides a simple and efficient way to transfer, browse, modify and distribute digital media. Acquire photos, video or sound clips from various digital device types and easily browse or add personal descriptions; make timely modifications; or distribute the media through the medium of your choice: E-mail, Print, Slideshow Presentations. It is an indispensable all-in-one tool for owners of digital cameras, WebCams, DV camcorders, scanners, or anyone who strives to effectively organize a large collection of digital media.

1. Insert the enclosed CD-ROM into your CD-ROM drive.
2. When the welcome screen appears, click **"Install Ulead® Photo Explorer"**. Follow the on-screen instructions to complete the installation.

Note

- For more information about the operation of Photo Explorer application software, refer to its respective help documentation.
- For Windows 2000/XP users, please make sure to install and use the Photo Explorer in "Administrator" mode.
- Photo Explorer is not supported on the Mac. iPhoto or iPhoto2is recommended.

Installing Photo Express

Ulead® Photo Express is complete photo project software for digital images. The step-by-step workflow, visual program interface, and in-program help assist users in creating exciting photo projects. Acquire digital photos effortlessly from digital cameras or scanners. Organize them conveniently with the Visual Browse mode. Use hundreds of ready-to-use templates such as albums, cards, posters, slideshows, and more. Edit and enhance images with photo editing tools, photographic filters, and special effects. Embellish projects by adding creative design elements such as frames, callouts, and stamp objects. Share results with family and friends via e-mail and multiple print options.

1. Insert the enclosed CD-ROM into your CD-ROM drive.
2. When the welcome screen appears,click "**Install Ulead® Photo Express**". Follow the on-screen instructions to complete the installation.

Note

- For information on how to use Photo Express to edit and retouch your recorded images, please refer to its online help.
- For Windows 2000/XP users, make sure to install and use the Photo Express while logged in as a user with an Administrator account.
- Photo Express is not supported on the Mac.

USING THE DIGITAL STILL CAMERA AS A PC CAMERA

Your digital still camera can act as a PC camera, which allows you to videoconference with business associates, or have a real-time conversation with friends or family. To use the digital still camera for videoconferencing, your computer system must include the items as below:

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

Note

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

Step 1: Install the PC camera driver (same as USB driver)

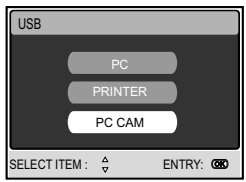
The PC-camera driver included in the CD-ROM is exclusively for Windows. The PC camera function is not supported for Mac platforms.

1. Insert the enclosed CD-ROM into your CD-ROM drive.
2. When the welcome screen appears, click " **Install USB/PC-Cam driver**". Follow the on-screen instructions to complete the installation.
3. After the driver installation is completed, restart your computer.

Note

- The USB driver that bundled inside the CD-ROM is designed in a form 2 in 1 (USB & PC camera driver).
  a) On Windows 98, the Windows OS will install both USB & PC camera drivers.
  b) On Windows 2000/ME/XP, it will only install PC camera driver.

Step 2: Connect the digital still camera to your computer.



1. Position the camera on the cradle.
2. Connect one end of the USB cable to the USB port on the cradle.
3. Connect the other end of the USB cable to an available USB port on your computer.
4. Turn on the power.
   - [USB Mode] screen is displayed.
5. Use ▲ or ▼ to select [PC CAM], then press the **OK** button.
6. Position the digital still camera steadily on top of your computer monitor or use a tripod.

Note

- When using this digital still camera as a PC camera, it is necessary to install the battery into the digital still camera.

Step 3: Run your application software (i.e. Windows NetMeeting)

To use Windows NetMeeting for videoconferencing:

1. Go to **Start** → **Programs** → **Accessories** → **Communications** → **NetMeeting** 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.

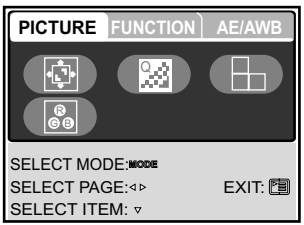
Note

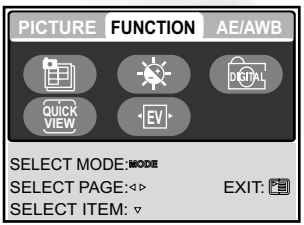
- The video resolution for videoconferencing applications is generally 320 x 240.
- For more information about the operation of videoconference application software, refer to its respective help documentation.

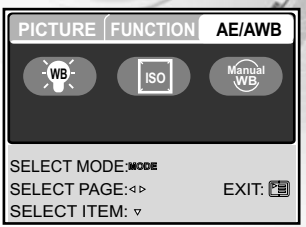
MENU OPTIONS

Camera Menu

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







1. Press the **MODE** button to access in [(CAMERA)] mode with ▲,▼,◀, or ▶, then press the **OK** button.
2. Press to access in [CAMERA] menu, then use ◀ or ▶ to select [PICTURE] / [FUNCTION] / [AE / AWB] menu.
3. Use ▲,▼,◀, or ▶ to select the desired option item in [PICTURE] / [FUNCTION] / [AE / AWB] menu, then press the **OK** button.
4. To exit from the menu, press the button.

■ **PICTURE Settings**

Option	Functional Description
SIZE	Sets the size of the image that will be captured. * 5M 2560 x 1920 * 3M 2048 x 1536 * M 1280 x 960 * VGA 640 x 480 * TIFF TIFF IMAGE
QUALITY	Sets the quality (compression rate) at which the image is captured. * SUPER FINE * FINE * NORMAL
SHARPNESS	Sets the level of image sharpness. * HIGH * NORMAL * LOW
COLOR	Sets the color of the image that will be captured. * NORMAL * B&W * SEPIA

■ **FUNCTION Settings**

Item	Functional Description
CAPTURE MODE	Sets the recording method at the time of taking pictures. * [S] SINGLE * CONTINUOUS * [AE] AEB
LCD BRIGHT	Increases or decreases the brightness of the LCD. The adjustment range is from -5 to +5.
DIGITAL ZOOM	Sets whether or not to use digital zoom at the time of photography. * ON/OFF
QUICK VIEW	Sets to display a captured image on LCD monitor immediately after you have taken the shot. * ON/OFF
EXPOSURE	Sets to obtain the correct exposure when the subject is much brighter or darker than the background. The EV compensation value can be set in the range from -2.0EV to +2.0EV.

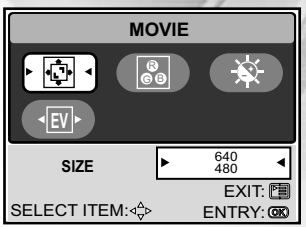
■ **AE/AWB Settings**

Item	Functional Description
WHITE BALANCE	Sets the white balance photographing 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 * DAYLIGHT * CLOUDY * SUNSET * TUNGSTEN * FLUORESCENT
ISO	Sets the sensitivity for taking pictures. 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/100/200
MANUAL WB	Manually sets the white balance and stores it. Use of this is convenient when the white balance does not offer a good match. Before select [EXECUTE] determine the subject (such as a white paper) that will be used to set the white balance. *EXECUTE/CANCEL

Movie Menu

This menu is for the basic settings to be used when recording video clips.

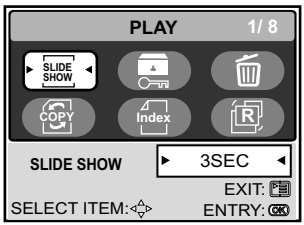
1. Press the **MODE** button to access in [(MOVIE)] mode with ▲,▼,◀, or ▶, then press the **OK** button.
2. Press to access in [MOVIE] menu.
3. Use ▲,▼,◀, or ▶ to select the desired setting, then press the **OK** button.
4. To exit from the menu, press the button.

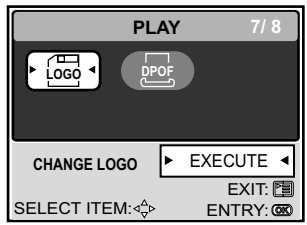


Item	Functional Description
SIZE	Sets the size of the image that will be recorded. * 640X480 * 320X240
COLOR	Refer to "Camera Menu - PICTURE Settings" in LIST OF MENU OPTIONS.
LCD BRIGHT	Refer to "Camera Menu - FUNCTION settings" in LIST OF MENU OPTIONS.
EXPOSURE	Refer to "Camera Menu - FUNCTION settings" in LIST OF MENU OPTIONS.

Play Menu

In the [PLAY] menu, set which settings are to be used for playback.





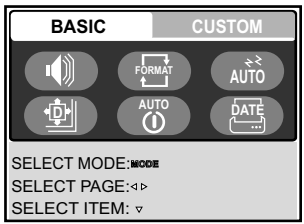
1. Press the **MODE** button to access in [(PLAY)] mode with ▲,▼,◀ or ▶, then press the **OK** button.
2. Press to access in [PLAY] menu.
3. Use ▲,▼,◀ or ▶ to select the desired setting, then press the **OK** button.
4. To exit from the playback menu, press the button.

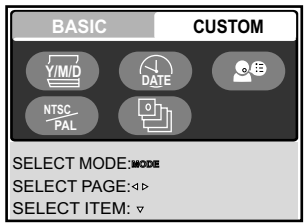
Item	Functional Description
SLIDE SHOW SLIDE SHOW	You can play back recorded images in order with a selected interval time. This function is useful for checking your images or for presentations, etc. Refer to section in this manual titled ìSlideshow Displayî for further details. * 3SEC/5SEC/7SEC/9SEC
PROTECT	Set the data to read-only to prevent images from being erased by mistake. Refer to section in this manual titled "Protecting Images/Video Clips" for further details.
DELETE ALL	Delete all files. * YES/NO

Item	Functional Description
COPY TO CARD	Allows you to copy your files from the digital still cameraís 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
THUMBNAIL	Allows you to view 4 or 9 thumbnail images on the LCD monitor at the same time, which can quickly search for the image that you want. * 4/9
RESIZE	Changes the size of a recorded image. *2560 x 1920 *2048 x 1536 *1280 x 960 *640 x 480 * EXIT
CHANGE LOGO	Allows you to specify one of your recorded images as your setup screen image, which will be displayed on the monitor whenever you press the ⏻ button to turn on the camera. *EXECUTE/CANCEL
DPOF	Allows you to select the desired pictures to be printed and set the number of prints and date displayed in DPOF format. You can print images easily just by inserting the memory card to a DPOF-compatible printer or a print shop.Refer to section in this manual titled "Setting the DPOF" for further details.

Setup Menu

You can select your preferences on the camera settings in the mode.





1. Press the **MODE** button to access in [(SETUP)] mode with ▲,▼,◀, or ▶, then press the **OK** button.
   - The [SETUP] menu is displayed.
2. Press ◀ or ▶ to select the [BASIC] / [CUSTOM] menu.
3. Use ▲,▼,◀, or ▶ to select the desired option item, then press the **OK** button.
4. Press the **MODE** button to return to Main Menu and select the desired mode.

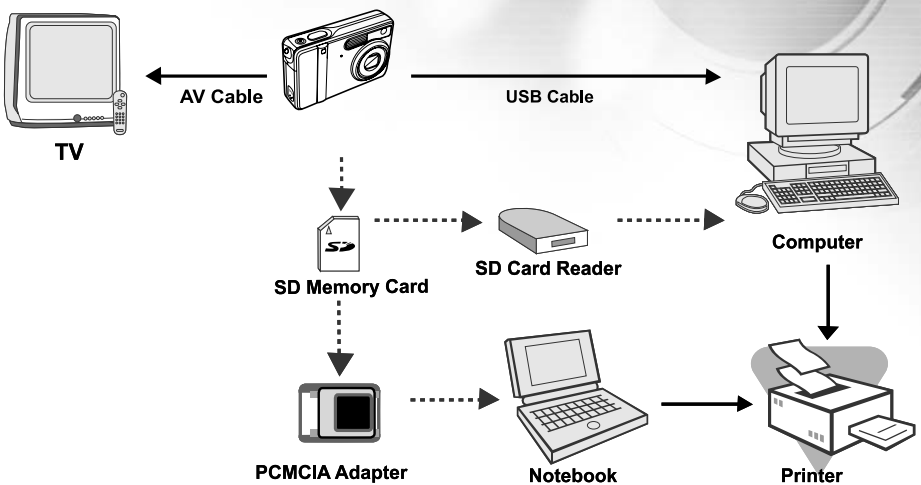
■ **BASIC Settings**

Item	Functional Description
SPEAKER	Sets whether or not to mute the startup sound, and the camera sound each time you press the camera button. * ON/OFF
FORMAT	Erases all images and reformats the SD card loaded in your camera. Protected images are also erased. SD card cannot be formatted if it is write-protected. Refer to section in this manual titled "Formatting an SD Memory Card or Internal Memory" for further details. * YES/NO
SLEEP	Allows you to adjust the time delay for power savings. If no operation performed for a specific period of time, the status of LCD monitor will turn into idle mode (also known as power save mode) and the LCD monitor will turn off. You can press any button to resume the operation. * OFF / 30SEC / 1MIN. / 2MIN.
RESET	Returns all basic settings to the digital still camera's default settings. The time setting will not be reset. * YES/NO
POWER OFF	If no operation is performed for a specific period of time, the power to the camera is automatically turned off. This feature is useful to reduce battery wear. * OFF / 3MIN. / 5MIN. / 10MIN.
DATE PRINT	The date of recording can be printed directly on the still images. This function must be activated before the image is captured. * ON/OFF

■ **CUSTOM Settings**

Item	Functional Description
DATE TYPE	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	Sets the date and the time. Refer to section in this manual titled "Setting the Date and Time" for further details.
LANGUAGE	Sets the language that is displayed on the LCD monitor. Refer to section in this manual titled "Choosing the Screen Language" for further details. * 日本語 / ENGLISH / 繁體中文 / 简体中文 / FRANÇAIS / DEUTSCH / ITALIANO / ESPAÑOL
VIDEO OUT	Sets video output system of the video equipment that you are going to connect to the camera. *PAL / NTSC
VERSION	Displays the firmware version of the camera.

CONNECTING YOUR CAMERA TO OTHER DEVICES



SPECIFICATIONS

Item	Description
Image Sensor	CCD
Effective pixels	5.0 Mega pixels
Image size	Still image: 2560 x 1920, 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
Recording media	10MB internal memory SD memory card (optional, up to 1GB)
Compression format	MPEG 4 SP (Video), IMA-ADPCM (Audio)
File format	JPEG, TIFF, ASF (Video)
Lens	F-no.: Wide: 2.8 / Tele: 4.9 Focal length: 5.4mm-16.2mm
Focus range	Normal: 0.5m-infinity Wide: 0.06m-0.4m Tele: 0.35m-0.5m
LCD monitor	2.0" LTPS color LCD
Self-timer	3 sec delay, 10sec delay
Exposure compensation	-2.0EV- +2.0EV (in 0.5EV increments)
White balance	Auto, Daylight, Cloudy, Sunset, Tungsten, Fluoresent
ISO	Auto, 100, 200
Interface	DC-IN jack, USB connector, A/V terminal
Power	Lithium-ion rechargeable battery (650mAh) One AC-DC Adapter
Dimension	Approx. 91 x 58 x 27 mm (* Max. 30mm / excluding protruding parts)
Weight	Approx. 120g (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
Power does not turn on	* The battery has run out. * The battery is not oriented correctly. * The battery cover is not closed properly. * The AC power adapter (optional) is disconnected.	* Load new or fully charged battery. * Load the battery in the correct direction. * Close the battery cover correctly. * Properly connect the AC power adapter.
Camera suddenly powers down.	* [SLEEP] in BASIC menu of SETUP mode activated. * The battery has run out.	* Turn the power back on. * Charge the battery.
Image is not captured when the shutter button is pressed.	* The camera is in PLAY mode. * Memory is full.	* Select the CAMERA mode in main menu screen. * Transfer the desired files to your computer and then delete unnecessary files, or use a different memory card.
Continuous shooting is not possible.	* NO FLASH is selected in flash mode. * The camera is in Continuous/AEB/ Movie mode.	* Select a different flash mode. * Select [SINGLE] in the capture mode of CAMERA menu.
Cannot use the flash to capture images.	* The capacity of the built-in memory or SD memory card is full.	* Insert a new SD memory card. * Check all connections.
Cannot transfer files over a USB connection.	* USB cable is not connected securely. * USB driver is not installed. * Camera is turned off.	* Install the USB driver on your computer. * Turn on the camera.

■ **Possible Number of Recordable Images**

The frame counter indicates the approximate number of images that can be stored on the SD memory card. The number of recordable images may vary depending on the recorded subject, the capacity of the memory card, there are files other than images or when the recording is made while switching the picture quality or resolution.

Resolution	Quality (Compression Ratio)	SD memory card						
		8MB	16MB	32MB	64MB	128MB	256MB	512MB
2560 x 1920 pixels 5M	⁂ Super fine (1/8)	1	4	9	19	40	79	161
	⁎ Fine (1/12)	3	8	19	39	79	158	320
	★ Normal (1/16)	5	13	28	59	120	239	483
2048 x 1536 pixels 3M	⁂ Super fine (1/8)	3	7	14	30	62	124	251
	⁎ Fine (1/12)	6	13	29	61	123	247	498
	★ Normal (1/16)	9	20	44	91	185	370	747
1280 x 960 pixels	⁂ Super fine (1/8)	7	17	38	78	159	317	641
	⁎ Fine (1/12)	15	35	74	153	312	623	1256
	★ Normal (1/16)	23	51	109	226	459	916	1847
640 x 480 pixels VGA	⁂ Super fine (1/8)	30	67	143	295	600	1198	2416
	⁎ Fine (1/12)	58	125	266	549	1114	2225	4487
	★ Normal (1/16)	84	175	373	769	1560	3115	6282
TIFF IMAGE TIFF		0	0	2	4	8	17	34

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

■ **Approximate Duration of Recording Time**

The table below indicates the approximate duration of recording time depending on the capacity of the SD memory card.

Image size	SD memory card						
	8MB	16MB	32MB	64MB	128MB	256MB	512MB
640 x 480	0:18	0:47	1:46	3:42	7:36	15:14	30:48
320 x 240	1:13	3:08	6:58	14:38	29:58	1:00:05	2:01:25

- The values for the recording time may vary depending on the shooting conditions and settings.

Underwater Housing Instructions

Important: Please carefully read and understand these instructions before using camera and housing underwater.

DC500

Front view of underwater housing

Backview of underwater housing

SeaLife DC500 Underwater Housing:

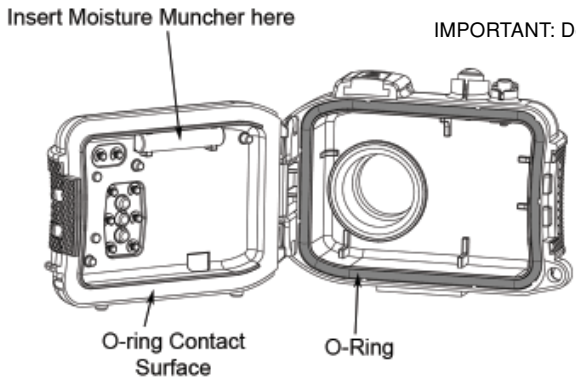
- Depth rated and tested to 200 ft. (60m)
- Fully rubbered armored for water and shock protection.
- Soft rubber grips
- Fully-multi coated optical glass lens port for high light transmission.
- Accessory mount for adding one (or two) external flash(es)
- Snap-on lens port to quickly attach SeaLife Wide Angle Lens
- Leak check window let's you see if housing leaks while underwater.
- Advanced control buttons to access all camera settings.

MUST DO for underwater housing:

1. Read and understand the instructions contained in this manual before using the underwater housing.
2. Do not exceed the depth rating of 60m (200ft.) or the housing may leak.
3. Follow these important O-ring care instructions or the waterproof housing may leak.
   - Inspect and clean O-ring and O-ring contact surfaces for sand, hair and other debris before every use. Clean O-ring and O-ring contact surfaces with cleaning brush provided in Care Kit.
   - Inspect O-ring and O-ring contact surfaces for damage (cuts, scratches, tears, cracks, dents and any other imperfections.) Replace O-ring or have waterproof housing serviced if the O-ring or O-ring contact surfaces are damaged. Do not use underwater housing if O-ring or O-ring contact surfaces are damaged. Replacement O-rings are available at your local authorized SeaLife dealer.
   - Make sure O-ring is completely seated into O-ring groove before sealing housing. O-ring must not be twisted when seated in the O-ring groove. Carefully follow O-ring removal and installation instructions contained in this manual.
   - Replace O-ring every year to ensure proper seal. Only use approved SeaLife O-ring designed for the DC500.
   - Soak and rinse waterproof housing in fresh water after each use. Use clean, soft cloth to dry housing. Store camera and housing only after careful cleaning and when totally dry.
4. Carefully close lid to seal housing.
   - Make sure O-ring does not slip out of the groove when sealing.
   - Make sure there are no obstructions that prevent housing from sealing properly.
   - Press lid firmly and tightly down into housing to ensure a waterproof seal.
5. Never let any moisture or dirt get inside housing when opening.
   - Only open and load the housing in dry cool air, such as inside an air-conditioned room.
6. For great underwater pictures you need:
   - Clear water conditions, control your buoyancy before taking pictures, get as close as possible to subject (ideal distance is 2' to 6')
   - Use SeaLife External Flash to enhance colors and reduce backscatter.
7. Store housing at room temperature in a clean and dry place.
   - Do not expose housing to direct sunlight for prolonged periods of time.
   - Do not store housing in extreme high temperatures, such as the trunk of your car.

Open view of waterproof housing

The housing door uses one O-ring to form a waterproof seal.



Important: Carefully clean and inspect O-ring and O-ring contact surfaces before each underwater use in accordance with instructions provided in this manual.

If O-ring needs to be replaced, contact your local authorized SeaLife dealer or the SeaLife Service Center at (856) 866-9191 or email - service@sealife-cameras.com

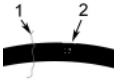
Maintaining a waterproof seal

Every SeaLife housing is tested for quality and a waterproof seal. It is your responsibility to properly care for the O-ring and O-ring contact surfaces to maintain a waterproof seal. Carefully follow these important O-ring care instructions. Not following these care instructions may cause the waterproof housing to leak and void your warranty.

1. Carefully inspect O-ring and O-ring contact surfaces for damage (cuts, scratches, tears, cracks, dents and any other imperfections.) before every use. Rub finger along O-ring and O-ring contact surfaces to inspect for damage. Replace O-ring or have waterproof housing serviced if the O-ring or O-ring contact surfaces are damaged. Do not use underwater housing if O-ring or O-ring contact surfaces are damaged. Replacement O-rings are available at your local authorized SeaLife dealer.

Inspect and replace O-ring if damaged: A=Cut, B=Tear, C=Dent

1. Carefully inspect and clean O-ring and O-ring contact surfaces for sand, hair and other debris before every use. Clean o-ring and o-ring contact surfaces with cleaning brush provided in Care Kit.2



2. Inspect and clean O-ring and O-ring contact surface for hair or fibers (#1) and Sand, Salt or debris (#2) Clean O-ring and O-ring contact surfaces with brush provided in Care Kit.

3. Make sure O-ring is completely seated into O-ring groove before sealing housing. O-ring must not be twisted when seated in the o-ring groove. See page 95 on instructions on how to install and remove O-ring.

4. Replace O-ring every year to ensure proper seal. Only use approved SeaLife O-ring designed for the DC500. Replacement O-rings are available at your local authorized SeaLife dealer.

5. After each use underwater:
   a. Soak sealed housing in fresh water for about 15 minutes. Most dive boats offer special fresh water buckets specifically for underwater photo equipment. DO NOT put camera housing in fresh water designed fro other dive equipment, like dive mask, because that water may contain detergents which are harmful to the housing.
   b. Push all the control buttons several times while waterproof housing is soaking to clean out any salt water, sand or dirt that has accumulated during usage.
   c. Use clean, soft cloth to dry housing. Store camera and housing only after careful cleaning and when totally dry.

Quick waterproof test

Wrap a small soft weight in a blue paper towel, place inside housing and close the lid to seal the housing. The blue paper towel makes it easier to see a leak. Make sure not to pinch the paper towel in the O-ring . Place the sealed housing in a tub of cold water for about one hour. No leaks should be present. If the housing shows signs of leaking, do not use the housing and contact your local authorized SeaLife Dealer of the SeaLife Service Center for repairs.

SeaLife Service Center, 97 Foster Road, Moorestown, NJ 08057
(856) 866-9191 or (800) 257-7742 - www.sealife-cameras.com/service

HOW TO INSTALL AND REMOVE O-RING

To Install O-ring:

Step 1: O-ring and O-ring groove must be completely clean before installing O-ring.

Step 2: Push O-ring into groove as shown being careful not to twist or roll O-ring.

Step 3: Use two fingers to push last part of O-ring into groove.

Step 4: Carefully close housing to firmly seat O-ring and open housing again to inspect that O-ring is completely seated into groove. Do NOT grease the O-ring.

To Remove O-ring:

Step 1: Push O-ring along groove until it lifts.

Step 2: Gently lift and remove O-ring from its groove.

HOW TO OPEN AND CLOSE WATERPROOF HOUSING

Step 1: Push in locking tab to open latch.

Step 2: Open latch all the way to lift and release latch from housing.

Step 3: Open Housing as shown so inner camera does not fall out.

Step 4: Close housing and push down on latch as shown to firmly seat latch into housing.

Step 5: Push down latch until locking tab clicks into place.

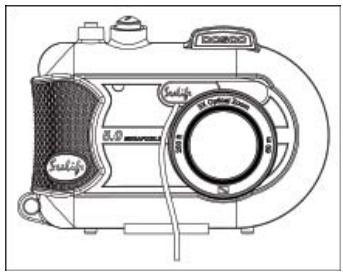
Installing the Flash Link optical cable adapter

The Flash Link adapter connects the SeaLife Flash Link optical cable (item # SL962 - optional accessory) to the DC500 camera. This adapter is only needed when using the SeaLife External Flash (item # SL960 – optional accessory) or Digital Flash (item # SL960D – optional accessory). It is strongly recommended to purchase the Flash Link optical cable accessory if you are using a SeaLife external Flash to ensure it fires all the time.

Step 1: Insert end of Flash Link optical cable into one of the adapter holes as shown. Push cable in all the way until it stops!

Step 2: Use small wrench provided to tighten set screw until you feel some resistance. Do not over tighten! Gently pull on cable to check that it is firmly attached.

Step 3:Attach adapter around housing lens port so that it is seated into the flash window recess.



Note

If using two Flash Links, attach other cable in second hole and follow above instructions.

How to set-up the Waterproof Housing

Set up camera

1. Insert charged battery (Lithium ion type 3.7V 650 mAh). Make sure you insert the batteries with the correct + and – polarity.
2. Clean camera lens with dry, clean cotton cloth.
3. Remove camera strap since this may prevent the camera from correctly seating itself inside the housing.
4. Set camera to Sea mode. If you are using an External Flash, set camera to External Flash mode. See page 37 for detailed instructions on how to set camera to Sea or External Flash modes.

Set up housing

Opening and loading of the housing should be done only in dry cool air, such as in an air-conditioned room to prevent trapping moist air in the housing which can cause the housing to fog while underwater.

1. Open the housing by pushing in small locking tab and lift latch up. Do not extend housing lid beyond its stop point or damage may occur to the hinge area.
2. Carefully inspect O-ring for damage and make sure O-ring is firmly seated in its groove. If O-ring is damaged and requires replacement, contact your local authorized SeaLife dealer or SeaLife Service Center.
3. Clean the housing glass lens port using clean, dry cotton cloth. It is recommended to apply anti-fog solution to the inside surface of the housing lens port.
4. Carefully insert camera into housing. Make sure camera is clean and dry.
5. Insert one Anti-Fog desicant capsules into special slot inside housing moist air, it turns from blue to light pink. Replace desicant capsule when color changes to light pink.
6. Carefully clean O-ring and O-ring contact surfaces with cleaning brush provided in Care Kit. O-ring must not be wet when sealing housing, allow these areas to dry.

O-ring must be absolutely clean of all hair, sand or other small particles.

7. Do not allow any water droplets to get inside housing. This will cause the inside of the housing to fog.
8. Close housing lid tightly. Make sure there are no obstructions that prevent the housing from closing. Make sure lid is tightly pressed into housing.
9. Close housing latch. Make sure the lid is pressed evenly against the housing body look for obvious gaps which indicates something is trapped. The housing may leak if the lid is not evenly against the housing when closed. It is normal to see a small even gap between the housing lid and body.

Test camera and housing

1. Press the small power button on the top of the housing to turn camera power on.
2. Press the large shutter button on the outside of the housing to take a test picture.
3. The power or shutter button should have a smooth action and return to its original resting position after pressing. It is normal to feel some resistance when pressing the power and shutter button.
4. Press and hold power button to turn camera power off. It is recommended to leave camera power off until you're ready to use camera to preserve battery power.
5. After 30 seconds the LCD and monitor will turn off, and the camera will in go into power save mode. To re-activate power, push any button.
6. After 3 minutes the camera power will shut down. To operate the camera, push the POWER BUTTON to turn on the camera.

Using and cleaning the underwater housing and camera

Entering the water with housing

1. Do not enter water with camera in your hand. Have someone hand you the camera after you have entered the water.
2. For tips on taking pictures, see “Great Pictures Made Easy” on page 104.
3. Inspect housing for any leaks right after submerging housing. check leak detection window.

After using housing underwater

1. Before entering dive boat, hand the housing to someone on the boat.
2. Make sure the sealed housing is placed in a fresh water tank available on most dive boats. This will clean the salt water from the camera housing and prevents the salt water from drying on the camera housing and O-ring. Never let water dry on the camera housing. Salt crystals can damage the O-ring, lens and attract moisture. Dry housing with clean soft towel after removing from fresh water tank.
3. Do not expose camera and housing to direct sunlight – keep in a shaded area or under a dry towel.
4. It is not recommended to remove camera from housing while on the dive boat. Allowing humid air to enter the housing may cause fogging.
5. If you must open the housing while on the dive boat, make sure you and the housing are perfectly dry before opening the housing. Do not allow the inside of the housing or the camera to get wet.

Cleaning housing after use

1. The sealed housing must be thoroughly cleaned with fresh water before opening. Never let salt water dry on housing. Salt crystals may damage the O-ring, lens and attract moisture.
2. Never let water drops dry on lens. Wipe lens dry with clean cotton cloth.
3. Before opening housing, everything, including your hands, head and surrounding area must be totally dry. Have a dry towel handy.
4. After opening the housing, clean the camera, O-ring area and all inside and outside parts with a clean, dry cotton cloth.

Prepare housing for storage

1. Before storing the housing and camera, remove batteries, SD card and keep in a clean dry area. Make sure the housing and any accessories are clean and dry before storage.
2. Never store camera or housing in direct sunlight or in a dark damp area. The airtight, unbreakable SeaLife ReefMaster Dry Case (Item # SL930) is highly recommended along with 1-oz bags of SeaLife Moisture Muncher Desiccant (Item # M101) for travel and storage.
3. It is recommended to leave the closing latch UNLATCHED during long term storage. This will help preserve the original shape of the O-ring and latch mechanism.

Great Pictures Made Easy

Taking underwater pictures is much different that taking land pictures. Here are the most important tips to taking great pictures underwater:

1. Crystal Clear water.

Crystal Clear water is essential for good underwater pictures. Remember the human eye can see more detail than a camera. In other words, your eyes see the water as being clearer than it actually is. Floating particles like algae, and silt cause low visibility. Avoid stirring up the sandy bottom with your fins. These floating particles cause small spots to appear in your picture, known as “backscatter.” Always remember to limit your shooting distance to 1/10 of the water visibility. For example, if the visibility is 60 feet (18 m), you should keep your shooting distance to within 6 feet (1.8m); in 30 feet (10 m) visibility you should be no further than 3 feet (90 cm) away from your subject.

2. Stay within the ideal shooting distance of 2 to 6 feet.

The ideal shooting distance is between 2 to 6 feet (0.6 to 1.8 meters). This distance will result in detailed, colorful pictures. Remember that light does not travel very far underwater, so the closer you are to your subject the more colorful the pictures will be. For best most colorful pictures, we advise using the optional SeaLife External (SL960) or Digital (SL960D) Flash.

3. Move calmly and control your buoyancy before taking a picture.
It is very hard to take good pictures when you are moving. Look around for great picture opportunities. First position yourself at the best angle, and neutralize your buoyancy. Second, use the LCD monitor to perfectly frame your subject, check your shooting distance and keep the camera steady. Third, be calm and patient: Sometimes you have to wait a little bit so the fish that were frightened away, come back. Don't chase the fish, let the fish come to you.

Always be in control of your buoyancy before taking pictures and observe all safe-diving rules.

4. Shoot many pictures of the same subject - If you don't like it, delete it - later.
One of the great advantages of digital cameras is that you can review and delete pictures later, so shoot several pictures of the same subject. One of the best ways to learn underwater photography is from your good pictures and bad pictures.
5. Use Wide Angle Lens for dramatic pictures.
The SeaLife Wide Angle lens allow you to get close to your subject for images full of colors and razor-sharp details.
With the 24mm wide-angle lens you fit a close group of 4 dive buddies or a 6-foot (180 cm) shark at a shooting distance of 6 feet (180 cm). Normally, you would have to be 10 feet away, too far for a sharp picture.
6. Use the SeaLife Flash Accessories to enhance color and brightness.
Water filters out light and red/yellow colors resulting in darker, bluer images. The only way to prevent this from occurring is by taking pictures at shallow depths (within 10-15' depth on a sunny day) or by using artificial light, like the SeaLife External (SL960) or Digital (SL960D) Flash. The Flash easily mounts to the bottom of the housing. The flexible arm allows you to direct the flash at the subject. Even two flashes can be mounted onto the housing for an evenly illuminated and shadow-free image. This system blocks the built-in flash and prevents backscatter. The flexible flash arms allow quick adjustments of the flash. An optional Flash Diffuser can be snapped onto the flash head and is highly recommended for close-up shots of bright, reflective subjects.

7. Use the QuickShoot Mode for fast moving objects.
Some fish move very fast and are difficult to photograph. Using the QuickShoot Mode allows you to set the focusing and exposure for a particular underwater scene. When the QuickShoot mode is enabled, the camera's shutter lag (shutter response time) is less than 1 second so you don't miss the fish. Inn SeaMode, shutter lag is 0.68 seconds when QuickShoot is enabled. In External Flash mode, shitter lag is 0.17 seconds when QuickShoot is enabled.

Visit the SeaLife website for more tips on underwater photography, www.sealife-cameras.com.

Trouble shooting guide

Problem	Possible cause	Corrective Action
No Power	Battery power low	
	Battery + and - not inserted correctly.	Check that the battery is inserted correctly
	Power save function activated..	Turn camera back on.
	Camera damaged	Contact service center.
Camera gets hot	Constant use of camera.	This is normal.
No PC connection	USB cable not connected to USB port.	Inspect connection ports.
	Slow PC connection time.	Allow a few minutes for some PC's to establish connection.
	Camera driver not installed	Install camera driver CD for Windows 98 only.
No Video Connection	Improper connection to TV	Connect video cable to video IN jack of TV or VCR and change TV/VCR to video in channel.

Problem	Possible cause	Corrective Action
Poor Video connection	Video cable not fully inserted into camera or TV	Make sure video cable is completely inserted into video jack of camera docking station. Also check that connection to TV/VCR is correct.
“Memory full” message	Memory storage is full.	Delete images or download to PC. Insert empty CF card.
Pictures out of focus	Dirty lens.	Clean lens with clean cotton cloth.
	Fogged housing lens.	Insert camera in dry, air-conditioned room. Use anti-fog desiccant inside housing. Do not let water drops get inside housing.
	Low water visibility	Shooting distance not to exceed 1/10 of visibility.
	Auto focus not set	Camera did not establish correct focus setting
Grainy picture	Dark light conditions.	Move closer to subject (2’ to 6’). Use SeaLife accessory Flash to illuminate subject and improve color and brightness.

Problem	**Possible cause**	**Corrective Action**
Overexposed image	To close to reflective object.	Move farther away from subject (4' to 6'). Turn flash head slightly away from subject. Use External Flash Diffuser (SL968) and set camera to macro flash.
Flash not firing	Flash on Auto and is not needed.	Turn fill-flash ON (see page 36)
	Finger over flash window	Grip camera correctly, not blocking flash.
	Improper operating mode	Check for proper operating mode (Land or Sea).
Lost images	Defective SD card.	Use only approved quality SD cards. Reformat SD card (will delete pictures).
	Defective internal memory.	Reformat memory (this will delete pictures in memory).
	Using camera with low battery power.	Recharge batteries
Housing leaks water	O-ring not clean or is damaged	Carefully follow O-ring care instructions provided in this manual.

Visit **http://www.sealife-cameras.com/service/firmware.html** for important camera firmware updates.

Housing Specifications

Underwater housing:

Depth:	Individual depth tested to 200’ (60m)
Controls:	Control buttons for power, Shutter, Zoom, LCD, Menu, Mode, 4 navigation buttons, OK and Delete buttons
O-ring:	Silicone
Lens port:	Optical glass lens port with snap-on ring to adapt accessory lenses.
LCD:	Optical grade polycarbonate window
Tripod Mount:	Standard 1/4-20 tripod threads to adapt accessories.
Lanyard:	Padded lanyard with swiveled attachment clip
Hardware:	316 Stainless Steel metal hardware
Material:	Rubber overmolded polycarbonate housing.
Weight:	333 grams (11.7 ounces) Housing only without inner camera 472 grams (16.6 ounces) Housing and inner camera
Size:	3.5”H x 5.5”W x 3.4”D inches 8.9cm x 14cm x 8.6cm
Operating Temp.:	33 degrees F to 110 degrees F
Storage Temp.:	-20 degrees F to + 140 degrees F
Warranty:	1 year limited warranty.

Specifications subject to change without notice.