SeaLife DC800 Underwater Camera

Go to www.sealife-cameras.com/service/manuals.html for
**ENGLISH, FRANÇAIS, DEUTSCH, ITALIANO, ESPAÑOL, NEDERLANDS
and Türkçe versions**

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.
- SeaLife® is a registered trademark of Pioneer Research.

Product Information

- Product design and specifications are subject to change without notice. This includes primary product specifications, software, software drivers, and user's manual. This User Manual is a general reference guide for the product.
- The illustrations in this manual are for the purpose of explanation and may differ from the actual design of your camera.
- The manufacturer assumes no liability for any errors or discrepancies in this user manual.

SAFETY INSTRUCTIONS

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

Warnings

Continued use under the following conditions may cause fire or electric shock. Contact your local authorized SeaLife dealer for repair service if the product is damaged.

If foreign objects or water have entered the camera, turn the power off and remove the battery.

If the camera has fallen or its case has been damaged, turn the power off and remove the battery.

Do not disassemble, change or repair the camera.

Use the supplied AC adapter only with the indicated power supply voltage.

Do not use the camera in areas near water, rain, snow, high humidity, sand, dirt or combustible gas* unless it is properly sealed in the waterproof housing provided.

* Warning - the camera inside the waterproof housing IS NOT certified to be intrinsically safe. Using the camera in an environment containing combustible gases may result in explosion or fire.

Keep the battery out of the reach of children.
The battery might cause poisoning. If any part of 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

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

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

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

Do not 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.

Notes on Battery Usage

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

- Use only the specified battery (3.7V) provided with the camera.
- Extremely cold environments can shorten the battery life and reduce camera performance.
- When you are using a new rechargeable battery or a rechargeable battery that has not been used for an extended period of time, it may affect the number of images that can be captured. Therefore, to maximize its performance and lifetime, we recommend that you fully charge the battery and discharge it for at least one complete cycle before use.
- The battery may feel warm after a long period of continuous use of the camera or the flash. This is normal and not a malfunction.
- The camera may feel warm after a long period of continuous use. This is normal and not a malfunction.
- If the battery is not to be used for a long period of time, remove it from the camera to prevent leakage or corrosion and store it after no battery power is left. Stored for a long time in a fully charged condition, its performance may be impaired.
- Always keep the battery terminals clean.
- There is a risk of explosion if the battery is replaced by an incorrect type.
- Dispose of used battery according to your local recycling laws.
- Charge the battery fully before using for the first time.
- To prevent short-circuiting or fire, keep the battery away from other metal objects when carrying or storing.

Important Notes on Waterproof Function and Waterproof Housing

- Read and understand the instructions contained in this manual before using underwater.
- The inner camera is not waterproof or shock protected. Seal the camera inside the waterproof housing in areas of water, rain, snow, high humidity, sand, dirt or combustible gas*.
    - * Warning - the camera inside the waterproof housing IS NOT certified to be intrinsically safe. Using the camera in an environment containing combustible gases may result in explosion or fire.
- Make sure the rubber dust cover provided is completely inserted into the camera's USB and Power ports unless charging the camera's battery or connecting the camera to the computer.
- Follow these important O-ring care instructions or the waterproof housing may leak.
    - * Do not lubricate o-ring.
    - * Inspect and clean O-ring and O-ring contact su rfaces for sand, hair and other debris before every use. Clean O-ring and O-ring contact surfaces with cleaning brush provided.
    - * 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 become damaged.
    - * Do not use underwater housing if O-ring or O-ring contact surfaces are damaged.
    - * Make sure O-ring is completely seated into O-ring groove before sealing housing.
    - * Make sure the O-ring is not 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 DC800. Replacement O-rings are available at your local authorized SeaLife dealer.
- Carefully close lid and latch to seal housing and make sure there are no obstructions that prevent housing from closing or sealing properly.

- Soak and rinse waterproof housing in fresh water for about 2 minutes after underwater use or if the housing becomes dirty.
    * Push each button several times to clean out any saltwater, sand or dirt that may be trapped under the buttons.
    * Use clean,soft cloth to dry housing.
    * Store camera and housing only after careful cleaning and when totally dry.
- Do not let any moisture or dirt get inside housing when opening. This may result in damage to the inner camera.
- Make sure that you and the waterproof housing are completely dry before opening the waterproof door or changing the batteries or the SD memory card.
- Avoid opening housing wet, sandy or humid environments. It is recommended to open and load the housing in dry cool air, such as inside an air conditioned room. This will prevent water or humidity from being trapped inside the housing, which may cause fogging to occur or damage the inner camera.
- Avoid getting sunscreen or suntan oil on the camera as it may cause discoloration of the surface. If any oil gets on the camera, wash it off immediately with warm water.
- The waterproof function does not apply to the camera's accessories.
- Do not exceed the depth rating of 60m (200ft.) or the housing may become damage and leak.
- The camera will sink if dropped in water, so be sure to attach the strap to your wrist or buoyancy control device (BDC) when using the camera in or near water.
- 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.

CONTENTS

INTRODUCTION

Overview

Thank you for purchasing the SeaLife DC800 digital underwater camera. This is not your ordinary land camera in a waterproof housing. The SeaLife camera includes special onboard software and exposure programs have been developed through extensive underwater testing and research to ensure bright, colorful underwater pictures and video. It is equipped with the latest digital technology which means the camera is automatic and easy to use.

The SeaLife waterproof housing is constructed from the finest materials to ensure long-lasting and reliable performance. It's fully rubber armored body offers superior shock protection. The durable polycarbonate underbody can withstand underwater pressure down to 200ft/60m. It's large shutter button and wide-spreads controls ensures a sure-grip and easy handling, even with dive gloves on. All metallic parts are made of high-grade stainless steel to last the punishing saltwater and marine environment.

There are so many more features and benefits that you will surely enjoy. All of us at SeaLife hope to exceed your expectations with this new camera. Happy diving!

Package Contents

Carefully unpack your camera and ensure that you have the following items:

Common Product Components:

- Digital Camera
- Underwater Housing with lanyard
- Instruction manual and Quick Guide
- Software CD-ROM
- USB cable
- AV cable
- Camera strap
- Camera pouch
- AC power adapter
- International plug adapters
- Rechargeable lithium-ion battery
- Flash Link optical cable adapter
- Desiccant capsules
- Cleaning brush and lens cloth

Common (Optional) Accessories:

- SD/SDHC memory card
- Spare battery (Item # SL1814)
- Travel charger kit (spare battery, charging tray, 12V DC power adapter (SL1816)
- SeaLife Digital Pro Flash (SL961)
- Moisture Muncher desiccant capsules (SL911)

> **NOTE**
> - Accessories and components may vary by retailer.
> - Visit your local SeaLife dealer or www.sealife-cameras.com for a complete listing of accessories

GETTING TO KNOW YOUR CAMERA

Front View
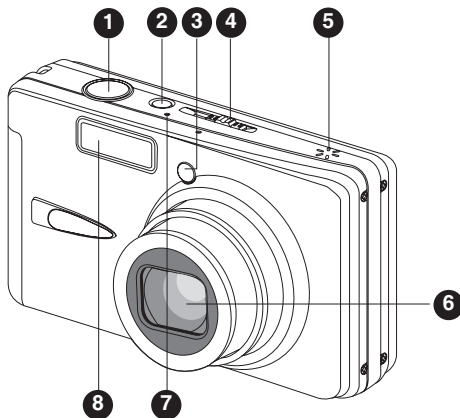
1. Shutter button
2. **ON/OFF** button
3. Self-timer LED
4. Mode switch
   - 📷 Capture mode
   - 🎥 Video mode
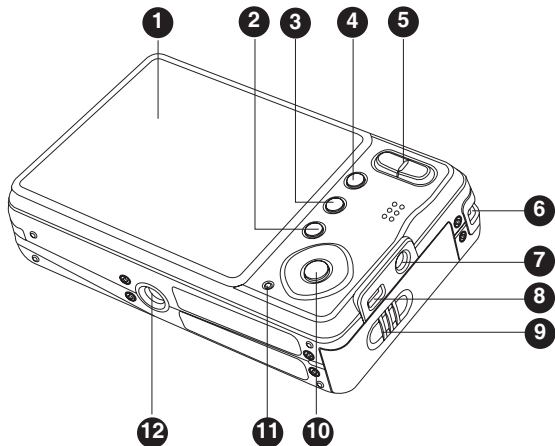   - ▶ Playback mode
5. Speaker
6. Lens
7. Microphone
8. Flash

NOTE

■ The waterproof housing has button controls for all camera functions except for the mode switch (#4). You can change the camera modes by pushing the Display button (#3 on the next page) when the camera is set to any of the underwater scene modes (Sea, ExtFlash Auto or ExtFlash MNL).

Rear View

1. LCD monitor
2. 🗑 Delete button
3. **DISP** Display button
4. **MENU** Menu button
5. ♦ Zoom in button
   ♦♦♦ Zoom out button
6. Strap holder
7. DC IN 5V terminal
8. USB or AV OUT terminal
9. Battery / Memory card cover

10. **SET** / Direction button
    ▲ button
    ♣◉ Focus button
    ▶ button
    ⚡◉ Flash button
    ▼ button
    ♻⚙ˢ Self-timer button
    ◀ button
    🔆🄑 Backlight/Exposure
       compensation button
    SET Set button
11. Status LED
12. Tripod socket

> **NOTE**
> ■ When the camera is set to any of the Underwater scene modes (Sea, ExtFlash Auto or ExtFlash MNL), the Display button(#3) will cycle from: Standard ⇨ Standard with histogram ⇨ No icons - Playback mode ⇨ Video mode ⇨ Standard [Repeat].

12

LCD Monitor Display

Capture mode

1. Zoom status
2. Voice memo
3. Battery condition
   - [🔋] Full battery power
   - [🔋] Medium battery power
   - [🔋] Low battery power
   - [🔋] No battery power
   - * [🔌] AC adapter icon (if used)
4. Flash mode
   - [Blank] Auto Flash
   - [◉⚡] Red-eye Reduction
   - [⚡] Forced Flash
   - [⚡̸] Flash Off
5. [▓] Histogram
6. Main focus area (When the shutter button is pressed halfway)
7. Capture mode icon
   - [Blank] Single
   - [⎍] Continuous
   - [AEB] Auto Exposure Bracketing
   - [🕵] Spy
8. Image size resolution
   - [▢] 3264 x 2448
   - [▢] 2816 x 2112
   - [▢] 2272 x 1704
   - [▢] 1600 x 1200
   - [▢] 640 x 480
9. Available number of shots
10. Image quality
    - [✦✦✦] Super Fine
    - [★★★] Fine
    - [★★] Standard
    - [★] Economy
11. Date and time
12. Self-timer icon
    - [⏱ 10S] 10 sec.
    - [⏱ 2S] 2 sec.
    - [⏱ 10+2] 10+2 sec.
13. Slow shutter warning
14. [☒] Exposure compensation
    [☒] Backlight correction
    (Adjust exposure value with the ▲/▼ buttons)
15. Metering
    - [Blank] Center
    - [▪] Spot
16. White balance
    - [Blank] Auto
    - [🅑] Ocean Blue
    - [🅖] Ocean Green
    - [🏞] Lakes/Rivers
    - [💡] Incandescent
    - [🗔] Fluorescent 1
    - [🗔] Fluorescent 2
    - [☀] Daylight
    - [☁] Cloudy
    - [🖐] Manual
17. Focus setting
    - [Blank] Auto focus
    - [◉] Face detection
    - [🌷] Macro
    - [▲] Infinity
18. Scene mode
    - [🅟] Program AE
    - [🏖] Sea
    - [🎆] ExtFlash Auto
    - [🎆] ExtFlash MNL
    - [**Av**] Av
    - [**Tv**] Tv
    - [🎞] Panorama
    - [😊] Portrait
    - [⛰] Landscape
    - [🏃] Sports
    - [🌙] Night Portrait
    - [🌃] Night Scene
    - [🕯] Candlelight
    - [✳] Fireworks
    - [TEXT] Text
    - [🌅] Sunset
    - [🌄] Sunrise
    - [💦] Splash Water
    - [💧] Flow Water
    - [❄] Snow
    - [🏖] Beach
    - [🐾] Pets
    - [✋] Anti Shake
    - [📖] User Setting
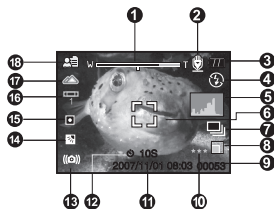
Video mode [🎥]

1. Mode icon
2. Zoom status
3. Battery condition
4. Video resolution
5. Available recording time/Elapsed time
6. Video quality
7. Recording indicator
8. Self-timer icon
9. Focus setting
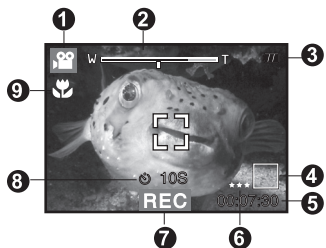
Playback mode [▶] -
Still image playback

1. Mode icon
2. File number
3. Folder number
4. Protect icon
5. Voice memo
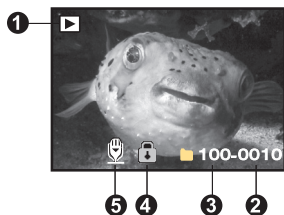
Playback mode [▶] -
Video playback

1. Video status bar
2. Elapsed time
3. File number
4. Folder number
5. Protect icon
6. Mode icon
7. Play mode
8. Sound off icon (When the ▲ button is pressed during video playback)
9. Total recorded time

14
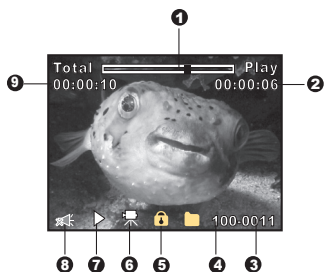
GETTING STARTED

Preparation

1. Attach the camera strap.
   [Important: Camera strap must be removed when using camera inside the waterproof housing]

2. Open the battery/memory card cover.
3. Insert the supplied battery with correct orientation as shown.

4. Insert an SD/SDHC memory card (Optional).
   - The camera has 32MB internal memory (29MB available for image storage), but you can load an SD/SDHC memory card to expand the camera's memory capacity.
   - Be sure to format the memory card with this camera before its initial usage.
5. Close the battery/memory card cover and make sure it is locked securely.
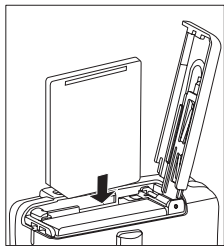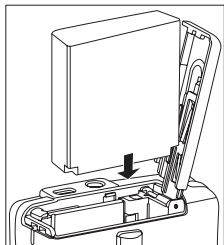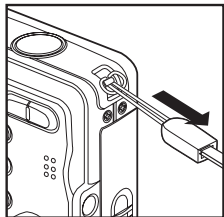
■ To prevent valuable data from
being accidentally erased from
an SD/SDHC memory card, you
can slide the write protect tab (on
the side of the SD/SDHC memory
card) to "LOCK".

LOCK   LOCK

Write-protect tab   Write-protection state

NOTE

■ To save, edit, or erase data on an
SD/SDHC memory card, you must unlock the card.
■ To prevent damaging of an SD/SDHC memory card, be sure to turn off
the power when inserting or removing the SD/SDHC memory card. If
inserting or removing the SD/SDHC memory card with the power on,
the camera will automatically turn off.
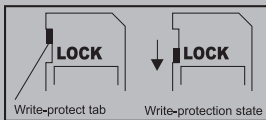
Charging the Battery

The AC power adapter will charge the battery or operate as the camera's power
supply. Make sure that the camera is turned off and the battery is inserted
before charging.

1. Insert one end of the AC power adapter into the DC IN 5V terminal of the
camera.
2. Insert the other end of the AC power
adapter into a wall outlet.

■ The status LED lights red when
charging has started and the
LED turns off when charging
is completed. The LED lights
green when a charging error has
occurred or no battery is inserted
inside the camera.
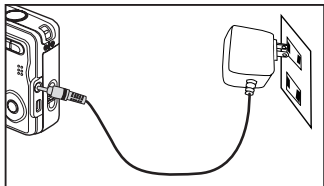
■ It is recommended that you fully discharge the battery through normal
use before recharging.
■ Charging time varies according to the ambient temperature and the
status of battery.

NOTE

■ This camera must use with the specified battery and AC power adapter
for battery charging. Damage caused by using of an incorrect adapter is
not covered under the warranty.
■ 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 camera in cold areas, keep the camera and battery
warm by holding them inside your outer clothing.

Initial Settings

Setting the Date and Time

The date/time needs to be set if and when:

■ The camera is turned on for the first time.

■ The camera is turned on after leaving the camera without the battery for an extended period of time.

When the date and time information is not displayed on the LCD monitor, follow these steps to set the correct date and time.

1. Slide the mode switch to [🔲] or [🎥], and press the **MENU** button.
2. Select [Setup] with the ▶ button.
3. Select [Date/Time] with the ▲ / ▼ buttons, and press the **SET** button.
    - Select the item's field with the ◀ / ▶ buttons and adjust the value for the date and time with the ▲ / ▼ buttons.
    - The time is displayed in 24-hour format.
    - After confirming all settings are correct, press the **SET** button.
4. To exit from the [Setup] menu, press the **MENU** button.

Capture	Function	Setup
Beep		Off
Fr. No. Reset		Next Menu
Auto Off		3 Min.
Date/Time		Next Menu
Sys. Reset		Next Menu
Language		English

MENU:Exit SET:Adj.

Capture	Function	Setup
Date/Time		

▲
2007 / 11 / 01
▼
20 : 00

MENU:Exit SET:Enter

17
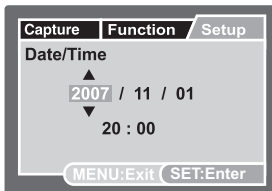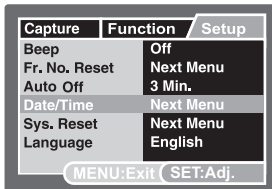
Choosing the Language

Specify in which language menus and messages are to be displayed on the LCD monitor.

1. Slide the mode switch to [📷], [🎥] or [▶], and press the **MENU** button.
2. Select [Setup] menu with the ▶ button.
3. Select [Language] with the ▲ / ▼ buttons and press the **SET** button.
4. Select the displayed language with the ▲ / ▼ buttons and press the **SET** button.
   - The setting will be stored.

Capture	Function	Setup
Beep		Off
Fr. No. Reset		Next Menu
Auto Off		3 Min.
Date/Time		Next Menu
Sys. Reset		Next Menu
Language		**English**

MENU:Exit SET:Adj.
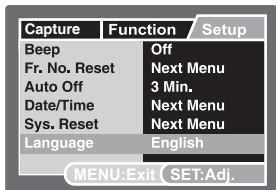
Formatting the Memory Card or Internal Memory

This utility formats the internal memory (or memory card) and erases all stored images and data.

1. Slide the mode switch to [▶], and press the **MENU** button.
2. Select [Setup] menu with ▶ button.
3. Select [Format] with the ▲ / ▼ buttons, then press the **SET** button.
4. Select [Execute] with the ▲ / ▼ buttons, and press the **SET** button.
   - To cancel formatting, select [Cancel] and press the **SET** button.

Play		Setup
Beep		Off
Format		**Next Menu**
Fr. No. Reset		Next Menu
Media Info.		Next Menu
System Info.		Next Menu
Language		English
Video Output		PAL

MENU:Exit SET:Adj.

Play		Setup
Format		

Cancel
Execute

MENU:Exit SET:Enter
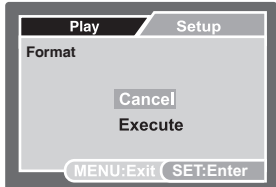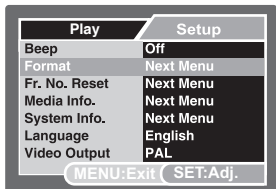
■ You should format the memory card before its initial usage or after the card has been used in another camera or SD card device.

NOTE

18

CAPTURE MODE

Capturing Images

Your camera is equipped with a 2.7" full color TFT LCD monitor to help you compose images, playback recorded images/video clips or adjust menu settings.

1. Press the **ON/OFF** button to turn the power on.
    - The status LED lights green and the camera is initiated.
    - When the power is turned on, the camera will start in the mode that was last set.
    - If the power is turned on in [ ] or [ ] mode, the lens will extend forward and it is ready for shooting. In both modes, if the mode switch is set to [ ], the lens barrel will retract into the camera body after 30 seconds.
    - If the power is turned on in [ ] mode, the lens will remain closed.
2. Slide the mode switch to [ ].
3. Compose your image in the LCD monitor.
    - Pressing the button zooms in on the subject, and enlarges the subject on the LCD monitor.
    - Pressing the button provides a wider angle image.
4. Press the shutter button.
    - Pressing the shutter button down halfway automatically focuses and adjusts the exposure, and pressing the shutter button down fully captures the images.
    - The focus area frame turns green when the camera is in focus and the exposure is calculated.
    - When the focus or exposure is not suitable, the frame of the focus area turns red.

ⓐ Press down halfway
ⓑ Press down fully
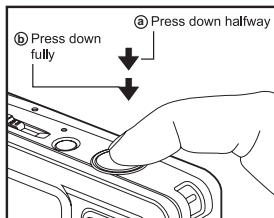
> **NOTE**
> ■ Avoid using zoom while underwater to take pictures of subjects at far away distances. For best underwater pictures, keep your subjects within 2 m / 6 ft shooting distance.
> ■ If the focus area frame is red, the light conditions or contrast may be too low. Try setting the focus to Infinity [landscape] and maintain at least 2ft (60cm) shooting distance.

Setting the Focus

Images can be captured with the distance to the subject set by auto focus, [♥] macro or [▲] infinity.

1. Slide the mode switch to [⚫] or [🎥].
2. Toggle the ♥ / ▲ button to select the desired focus mode.
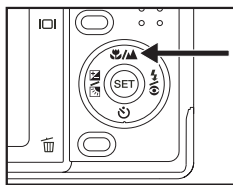
The table below will help you choose the appropriate focus mode:

Focus mode	Description
[Blank] Auto Focus	Select this setting and the camera will automatically focus from approximately 1 ft (30cm) to infinity. In Tele zoom the range is 1.5ft (45cm) to infinity.
[♥] Macro	Select this setting for close-up pictures between 2 inches (5cm) to 2 ft (60cm). In Tele zoom the range is 1 ft (35cm) to 2 ft (60cm)
[▲] Infinity	Select this setting to lock the camera to the infinity focus point (60cm to infinity). This setting also results in a very fast shutter response time and is ideal for action shots.

About External Flash Modes

When using one (or two) SeaLife external flashes (optional accessory), set the camera Scene mode to ExtFlash Auto or ExtFlash MNL mode.

In Ext Flash Auto mode, the camera automatically adjusts the exposure resulting in sharp, colorful underwater pictures. The camera is pre-programmed to account for the additional flash power and result in optimal image exposure and brightness

In Ext Flash MNL mode, the camera aperture and shutter speed setting must be manually set for the desired exposure effect. The Manual mode is intended for advanced photographers only who are familiar with effects of aperture and shutter speed settings.

In both Ext Flash modes, the camera's flash is set to Forced Flash and will always fire. When the camera's flash fires, it will automatically fire the optional External Flash accessory. For more information about the SeaLife External Flash accessory, please visit your local dive retailer or www.sealife-cameras.com. More detailed instructions on operating the external flash accessory are included with the external flash.

Exposure adjustment when the camera is in Ext Flash Mode:

Icon	Scene mode	Description
📷ⁱ	Auto	Automatic exposure control with external flash. In order to achieve proper image exposure, push the [⚡] flash button to switch between one of the following three exposure settings: [Blank] - This is the default setting ideal for most underwater pictures. [⚡🌷]- Macro Flash: This exposure setting is ideal for close-up shooting distances inside of 3ft (1m) or make the picture less bright. [⚡▲] - Far Flash: This exposure setting is ideal for shooting distances beyond 6ft (2m) shooting distance or to make the picture brighter.

Icon	Scene mode	Description
🔒	MNL	Manually set camera's aperture and shutter speed for desired exposure effect. To make manual adjustments: 1. Press the **SET** button once and the aperture value appears on the LCD monitor (blinking). 2. Use the ◄ / ► buttons to increase or decrease the aperture value. 3. Press the **SET** button again and the shutter speed value appears on the LCD monitor (Blinking - under the aperture value). 4. Use the ◄ / ► buttons to increase or decrease the shutter speed value. 5. Press the **SET** button again to exit the adjustment screen. The aperture and shutter speed value appear on the LCD monitor.

NOTE

- The above shooting distance may vary depending on water visibility and the reflectivity of the subject. Experiment with different flash modes and adjust accordingly.
- The Macro Flash and Far Flash exposure setting is only functional in Ext Flash Auto.

About Sea Mode

The Sea Mode is used to capture underwater pictures when NOT using the optional external flash accessory. In Sea mode, the camera will make color corrections to compensate for the loss of red colors typical in underwater photography.

In Sea mode, you can select the color correction you want depending on the type of water you are in. These color correction options are located in the White Balance Menu. Select "Blue Ocean" for warmer tropical waters; Select "Green Ocean" for colder waters containing more green algae: Select "Rivers/Lakes" for water containing more organic sediments.

To set SEA mode:

1. Press the **MENU** button.
2. Select [Scene mode] with the ▲ / ▼ buttons and press the **SET** button.
3. Select SEA mode with the ▲ / ▼ buttons and press **SET**.

To set the color correction (White Balance):

1. Press the **MENU** button.
2. Select [White Balance] with the ▲ / ▼ buttons and press the **SET** button.
3. Select between Blue Ocean, Green Ocean or Rivers/Lakes with the ▲ / ▼ buttons depending on your type of water conditions and press **SET**.

NOTE

- The default setting is "Blue Ocean".
- When the camera is in Sea mode, the scene displayed on the LCD display will appear red in color when you are on land. This is normal and will appear different when you are underwater.
- The Sea mode color correction feature will not work during night time diving or depths greater than 50ft / 15m depending on the amount of available light.
- For best UW pictures, keep the camera's flash OFF when in Sea mode. If light conditions are too dark, we recommend using the SeaLife Digital Pro Flash (item SL961 - optional accessory)

About Spy Mode

This mode is used to capture continuous images at a preselected time interval. This mode is useful for taking a sequence of images, like a sunrise or sunset, and later selecting the best image. It is also useful for taking a series of pictures without being discovered by the subject. For example, a bird' s nest with an egg hatching. A compact tripod accessory is helpful to keep the camera aimed at the subject.

1. Slide the mode switch to [ ].
2. Press the **MENU** button, and select the [Function] menu with the ▶ button.
3. Select [Capture mode] with the ▲ / ▼ buttons, and press the **SET** button.
4. Select [Spy] with the ▲ / ▼ buttons, and press the **SET** button.
5. Select the desired time interval with the ▲ / ▼ buttons and press the **SET** button.
6. Press the **MENU** button to exit the menu.
7. Aim the camera at the desired subject or scene. It is preferred to use a compact tripod, so the camera is steady and remains aimed at the subject.
8. Push the shutter button. The camera will countdown from 10 seconds and take the first picture.
9. The LCD display will now turn off to save battery power. The camera will continue to take images at the preselected time interval, until:
   a. You push the shutter button again.
   b. The memory is full.
   c. The battery is empty.

> ■ When using the SPY shooting mode underwater , it is helpful to have a waterproof tripod that can stabilized the camera. We recommend using the Gorillapod SLR. For more information, please visit: www.joby.com/products/gorillapod/slr/
>
> **NOTE**

Recording Shots using Face Detection Technology

Face Detection Technology can identify and focus on the human faces in the image. This advanced function simultaneously detects up to 5 human faces regardless of their position in the scene.

White frame	Green frame	Red frame
Face detection function is on	Focus lock	Out of focus
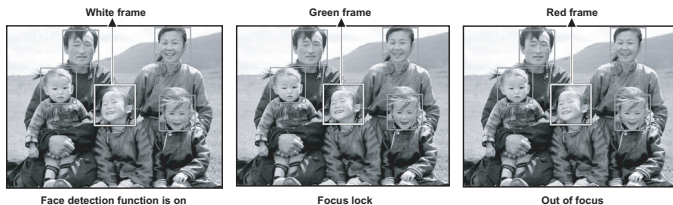
1. Slide the mode switch to [▢].
2. Toggle the ♥▢ button until [▣] icon appears on the LCD monitor.
   - The white frame is identified as the "top priority" face (main focus frame), and gray ones around the other faces.
3. Press the shutter button halfway down to lock the focus.
   - The main focus frame simultaneously turns green.
   - If the "top priority" face is out of focus, the main focus frame turns red.
4. Press the shutter button down fully to capture your image.

> **NOTE**
> - Subjects that are not suitable with this function:
>   a. A person is wearing glasses, sunglasses, or face is covered with hat or hair.
>   b. A person turned sideways.

Recording Voice Memos

A voice memo can be recorded once for 30 seconds in the still image mode immediately following a still image capture.

1. Slide the mode switch to [◘].
2. Press the **MENU** button, and select the [Function] menu with the ▶ button.
3. Select [Voice Memo] with the ▲ / ▼ buttons, and press the **SET** button.
4. Select [On] with the ▲ / ▼ buttons, and press the **SET** button.
5. Press the **MENU** button to exit from the menu.
   - An [ⓠ] icon is displayed on the screen.

Capture	Function	Setup
Capture Mode	Single	
Voice Memo	On	
LCD Bright.	Off	
Digital Zoom	Off	
Date Print	Off	

MENU:Exit **SET:Adj.**

6. Compose the image, press the shutter button down halfway, then press it down fully.
   - [VOICE RECORDING] is displayed on the screen immediately, and the voice memo recording starts.
7. Press the shutter button one more time during recording, or wait for 30 seconds.
   - [VOICE RECORD END] will be displayed and the recording will end.
   - An [ⓠ] icon is displayed with images that have been recorded with a voice memo.
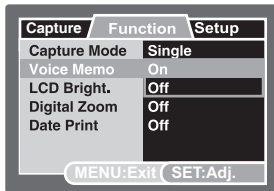
VIDEO MODE

Recording Video Clips

This mode allows you to record video clips at a resolution of 320 x 240 or 640 x 480 pixels.

1. Slide the mode switch to [🎦].
2. Compose the image.
3. Press the shutter button.
   - The recording of the video clip will start.
   - Pressing the shutter button one more time will end the recording of the video clip.
   - The recording time depends on the storage size and the subject of the image to be recorded.
   - The zoom function cannot be used during video recording.

NOTE
- When recording a video clip, the flash and "10+2 sec." self-timer function cannot be used.
- If the write speed of your SD/SDHC memory card is not fast enough for recording video clips in the currently selected quality, a warning icon [🖿] will appear, and the video recording will stop. In this case, select a video quality lower than the current one.
- When the camera is set to any of the Underwater scene modes (Sea, ExtFlash Auto or ExtFlash MNL), the Display button(#3) will cycle from: Standard ⇨ Standard with histogram ⇨ No icons Playback mode ⇨ Video mode ⇨ Standard [Repeat].

Playing Back Video Clips

You can play back recorded video clips on the camera. You can also play back sound if recorded with the video.

1. Slide the mode switch to [▶].
   - The last image appears on the screen.
2. Select the desired video clip with the ◀ / ▶ buttons.
3. Press the **SET** button.
   - A press of the ▶ / ◀ buttons during playback allows fast forward play / fast reverse play.
   - To stop video playback, press the ▼ button.
     This stops playback and returns to the start of the video clip.
   - To pause video playback, press the **SET** button.
     This pauses video playback.
     To cancel pause, press the **SET** button again.

NOTE

- Video clips cannot be displayed rotated or enlarged.
- The focus and zoom level can not be adjusted once the recording has started.
- Select the appropriate white balance setting when recording underwater videos.
- A video light accessory may be necessary in low light conditions.
- Windows Media player or QuickTime Player is recommended to play back the video clip on your computer.
- QuickTime Player is a free media player available at www.apple.com; and compatible with Mac and Windows computers.
- For more information about the operation of the media player, refer to its respective help documentation.
- When the camera is set to any of the Underwater scene modes (Sea, ExtFlash Auto or ExtFlash MNL), the Display button(#3) will cycle from: Standard ⇨ Standard with histogram ⇨ No icons Playback mode ⇨ Video mode ⇨ Standard [Repeat].

PLAYBACK MODE

Playing Back Still Images

You can play back the still images on the LCD monitor.

1. Slide the mode switch to [▶].
   - The last image appears on the screen.
2. The images can be displayed in forward or reverse sequence with the ◀ / ▶ buttons.
   - To view the previous image, press the ◀ button.
   - To view the next image, press the ▶ button.
   - Pressing the ▲ / ▼ buttons during image playback will result in a 90-degree rotated display.
   - The ▲ button rotates the image counterclockwise and displays it, whereas the ▼ button rotates the image clockwise and displays it. A

press of the button opposite to the direction in which the image was rotated will return the image to the normal display.
   - Pressing the ♦ button enlarges the image.
   - To return to normal magnification, press the ♦♦♦ button.
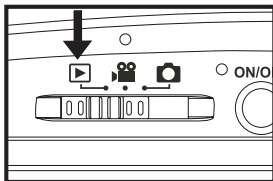
Entire image | Current position of enlargement

> **NOTE**
> - When the camera is set to any of the Underwater scene modes (Sea, ExtFlash Auto or ExtFlash MNL), the [**DISP**] display button will cycle from: Standard ⇨ Standard with histogram ⇨ No icons - Playback mode ⇨ Video mode ⇨ Standard [Repeat].
> - An [🎞] icon is displayed with the video data. Video clips cannot be rotated.
> - An [🔊] icon is displayed with images which have an audio memo recorded.
> - Press the **SET** button to playback the voice memo data.

Thumbnail Display

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

1. Slide the mode switch to [▶].
   - The last image appears on the screen.
2. Press the ♦♠♠ button.
   - The images are displayed in the thumbnail display.
   - Images that have been selected with the ◀ / ▶ / ▲ / ▼ buttons will be indicated by a yellow frame.

   100-0001

   - When there are ten or more images, scroll the screen with the ▲ / ▼ buttons.
3. Press the ◀ / ▶ / ▲ / ▼ buttons to select the image to be displayed at regular size.
4. Press the **SET** button.
   - The selected image is displayed at its regular size.

NOTE

- An [🖉], [🔒], [🖳] icon may be displayed in a thumbnail.

Removing Red-eye

You can use this function to remove the red-eye effect after an image is taken.

1. Slide the mode switch to [▶].
2. Select the image that you want to edit with the ◀ / ▶ buttons.
3. Press the **MENU** button.
4. Select [Fix Red Eyes] with the ▲ / ▼ buttons, and press the **SET** button.
5. Select [Execute] with the ▲ / ▼ buttons, and press the **SET** button.
6. View the changes on the corrected image.
7. To save your corrected image, select [Confirm] with the ▲ / ▼ buttons, and press the **SET** button.
   - When this process ends, this replaces the original image with the corrected image.

Play	Setup
Fix Red Eyes	Next Menu
Slide Show	3 sec.
Protect	Next Menu
LCD Bright.	0
Resize	Next Menu
Quality	Next Menu
Copy to Card	Next Menu

MENU:Exit SET:Adj.

Play	Setup
File Overwrite?	
	Cancel
	Confirm

MENU:Exit SET:Enter
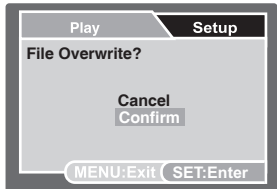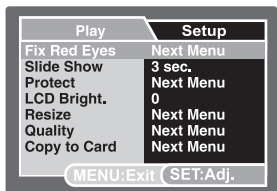
Attaching Voice Memos

A maximum of 30 seconds of audio can be recorded as a memo for captured still images. The voice memo can be recorded only once.

1. Slide the mode switch to [▶].
   - The last image appears on the screen.
2. Select the image to which you want to attach the voice memo with the ◀ / ▶ buttons.
3. Press the shutter button.
   - [VOICE RECORDING] is displayed on the screen and recording starts.
4. To stop recording a voice memo as it is being recorded, press the shutter button again.
   - [VOICE RECORD END] will be displayed and the recording will end. An [🎙] icon is displayed with images that have been recorded with a voice memo.
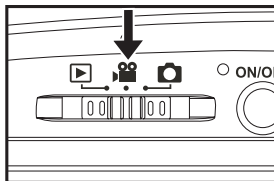
31

Playing back voice memo

A press of the **SET** button displays [VOICE PLAYBACK] and plays back the voice memo.

NOTE

■ Voice memo is only available for still images.

Protecting Images

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

1. Slide the mode switch to [▶].
2. Select the image that you want to protect with the ◀ / ▶ buttons.
3. Press the **MENU** button.
4. Select [Protect] with the ▲ / ▼ buttons, and press the **SET** button.
5. Select [Single] or [All] with the ▲ / ▼ buttons, and press the **SET** button.
6. Select [Set] with the ▲ / ▼ buttons, and press the **SET** button.
    ■ Protection is applied to the image and the camera returns to the playback mode.
    ■ The protect icon [🔒] is displayed with protected images.
      When [All] has been selected, [🔒] is displayed with all the images.

Play	Setup
Fix Red Eyes	Next Menu
Slide Show	3 sec.
Protect	Next Menu
LCD Bright.	0
Resize	Next Menu
Quality	Next Menu
Copy to Card	Next Menu

MENU:Exit SET:Adj.

Play	Setup
Protect	
Single	
All	
Select	

MENU:Exit SET:Enter
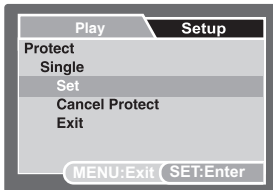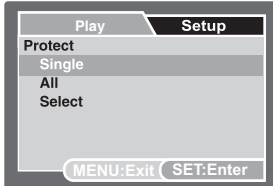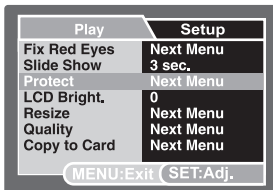
Canceling the Protection

To cancel protection for only one image, display the image on which you want to remove the image protection.

1. Select [Protect] with the ▲ / ▼ buttons from the playback menu, and press the **SET** button.

Play	Setup
Protect	
Single	
Set	
Cancel Protect	
Exit	

MENU:Exit SET:Enter

2. Select [Single] or [All] with the ▲ / ▼ buttons, and press the **SET** button.
3. Select [Cancel Protect] with the ▲ / ▼ buttons, and press the **SET** button.
    ■ The removal of image protection is executed and the camera returns to the playback mode.

Protecting multiple images simultaneously

1. Select [Protect] with the ▲ / ▼ buttons from the playback menu, and press the **SET** button.
2. Select [Select] with the ▲ / ▼ buttons, and press the **SET** button.
    ■ The images are displayed in the thumbnail display.
3. Select the image you want to protect with the ◀ / ▶ / ▲ / ▼ buttons, and press the **DISP** button.
    ■ The protect icon [🔒] is displayed with protected images. Selecting a protected image and pressing the **DISP** button again will cancel the protection. This procedure is repeated to select multiple images.
4. Press the **SET** button.
    ■ Protection and cancellation of the protectionare are executed and the camera returns to playback mode.

> ■ Formatting an SD/SDHC memory card overrides protection, and erases all images regardless of their protected status.
>
> **NOTE**

Erasing Images

Erasing in Photography Mode (Quick Delete Function)

The quick delete function enables you to delete the last-captured image during capture.

1. Slide the mode switch to [📷] or [🎥].
2. Press the 🗑 button.
   - The last image and quick delete menu appear on the screen.
3. Select [Execute] with the ▲ / ▼ buttons.
4. Press the **SET** button to confirm the deletion.
   - To not delete, select [Cancel], and press the **SET** button.
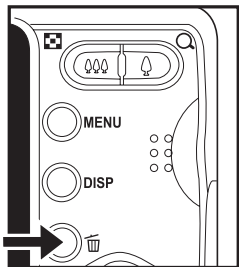
Erasing in Playback Mode

Erasing single image / Erasing all images

1. Slide the mode switch to [▶].
   - The last image will be displayed on the screen.
2. Select the image you want to erase with the ◀ / ▶ buttons.
3. Press the 🗑 button.
   - The deletion menu will be displayed.
4. Select [Single] or [All] with the ▲ / ▼ buttons, and press the **SET** button.
   - [Single]: Erases the selected image or the last image.
   - [All]: Erases all of the images except for the protected images.
   - [Select]: Erases a number of selected images.
5. Select [Execute] with the ▲ / ▼ buttons, and press the **SET** button.
   - To not erase, select [Cancel], and press the **SET** button.

Delete
Delete
  Single
  All
  Select

MENU:Exit SET:Enter

Delete
Delete
  Delete This Picture?

      Cancel
      Execute

MENU:Exit SET:Enter
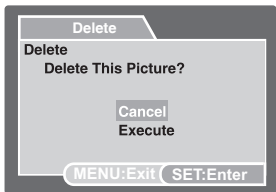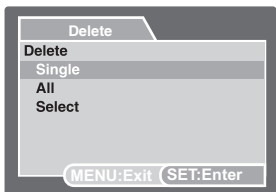
Erasing selected images

This erases a number of selected images.

1. Slide the mode switch to [▶].
2. Press the 🗑 button.
   - ■ The deletion menu will be displayed.
3. Select [Select] with the ▲ / ▼ buttons, and press the **SET** button.
   - ■ The images are displayed in the thumbnail display.
4. Select the image you want to erase with the ◀ / ▶ / ▲ / ▼ buttons, and press the 🗑 button.
   - ■ The [🗑] icon will be displayed. One more press of the 🗑 button will cancel the operation. Repeat this procedure and select all the images that you want to erase.
5. Press the **SET** button.

```
┌─────────────────────────┐
│  Delete                 │
│ Delete                  │
│  Single                 │
│  All                    │
│  Select                 │
│                         │
│                         │
│  MENU:Exit  SET:Enter   │
└─────────────────────────┘
```

🗑   📁 100-0002
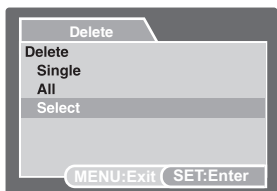
> ■ Deleting an image will not affect sequential image numbering. For example, if you delete image number 240, the next captured image will be numbered 241 even though 240 no longer exists. In other words, an image-number is retired when an image is deleted and will not be reused or reassigned to another subsequently captured image.

NOTE

MENU OPTIONS

Capture Menu

This menu is for the basic settings to be used when capturing still images.
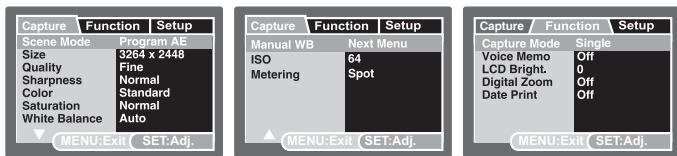
Capture	Function	Setup
Scene Mode	Program AE	
Size	3264 x 2448	
Quality	Fine	
Sharpness	Normal	
Color	Standard	
Saturation	Normal	
White Balance	Auto	
▼ MENU:Exit	SET:Adj.	

Capture	Function	Setup
Manual WB	Next Menu	
ISO	64	
Metering	Spot	
▲ MENU:Exit	SET:Adj.	

Capture	Function	Setup
Capture Mode	Single	
Voice Memo	Off	
LCD Bright.	0	
Digital Zoom	Off	
Date Print	Off	
MENU:Exit	SET:Adj.	

1. Slide the mode switch to [📷].
2. Press the **MENU** button, and select the [Capture] / [Function] / [Setup] menu with the ◄ / ► buttons.
3. Select the desired option item with the ▲ / ▼ buttons, and press the **SET** button to enter its respective menu.
4. Select the desired setting with the ▲ / ▼ buttons, and press the **SET** button.
5. To exit from the menu, press the **MENU** button.

Scene Mode

Select from 24 different scene modes in accordance with the shooting conditions.

* Program AE / Sea / ExtFlash Auto / ExtFlash MNL / Av / Tv / Panorama / Portrait Man / Portrait Lady / Landscape / Sports / Night Portrait / Night Scene / Candlelight / Fireworks / Text / Sunset / Sunrise / Splash Water / Flow Water / Snow / Beach / Pets / Anti Shake / User Setting

Size

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

* [☐] 3264 x 2448
* [☐] 2816 x 2112
* [☐] 2272 x 1704
* [☐] 1600 x 1200
* [☐] 640 x 480

Quality

This sets the quality (compression) at which the image is captured. A higher quality setting will result in less compression and larger image files.

* [⁂] Super Fine
* [✶✶✶] Fine
* [✶✶] Standard
* [✶] Economy

Sharpness

This sets the sharpness of the image that will be captured.

* Hard / Normal / Soft

Color

This sets the color of the image that will be captured.

* Standard / Vivid / Sepia / Monochrome

Saturation

This sets the saturation of the image that will be captured.

* High / Normal / Low

White Balance

This sets the white balance for a variety of lighting conditions and permits images to be captured that approach the conditions that are seen by the human eye.

* [Blank] Auto
* [▣] Ocean Blue - In Sea mode, select this for blue water conditions, typical in tropical waters
* [▣] Ocean Green - In Sea mode, select this for green water, typical in colder waters with algae
* [▨] Lakes/Rivers - In Sea mode, select this for lakes and rivers
* [☆] Incandescent
* [▭] Fluorescent 1
* [▭] Fluorescent 2
* [☀] Daylight
* [☁] Cloudy
* [◣] Manual

Manual WB

The surrounding light may affect the color balance of your picture. For example, if a halogen light illuminates a white wall, the wall will have a yellow cast, while in fact it should be white. Underwater pictures tend to be more blue, because the water filters out red colors. The camera's white balance menu includes settings that compensate for different lighting conditions found on land or underwater. You can also manually set the camera's white balance if the options found in the white balance menu are not suitable. A digital camera needs to find a reference point which represents white. It will then calculate all the other colors based on this white point.

To manually set the camera's white balance, select the "Manual WB" located in the Capture menu. Hold the white slate provided about 4in/10 cm in front of the camera lens, so it fills up the picture frame displayed on the LCD. Hold the white slate at a slight angle in the direction of the light source or sun.
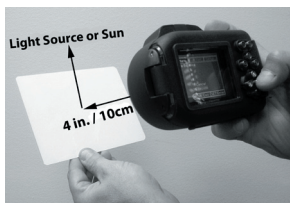
* Press the **SET** button to execute the Manual WB. Do not use Manual WB with flash photography. Reset Manual WB when changing depths or light conditions.

ISO

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

* Auto / 64 / 100 / 200 / 400 / 800 / 1600

Metering

This sets the metering method for calculating the exposure.

* [Blank] Center: Averages the light metered from the entire frame, but gives greater weight to the subject matter at the center.
* [▣] Spot: A very small portion of the center of the screen is measured to calculate the correct exposure.

Capture Mode

This sets the recording method at the time of capturing images.

* [Blank] Single: Captures one image at a time.
* [🗗] Continuous: Permits continuous capture of up to 3 images.
* [AEB] AEB: Permits 3 consecutive images in the order of standard exposure, underexposure and overexposure compensation.
* [🎥] SPY: For continuous pictures at set time intervals. (See page 24)

NOTE

■ In [Continuous] and [AEB] capture mode, the [Voice Memo] is automatically fixed at [Off].

Voice Memo

Refer to section in this manual titled "Recording Voice Memos" for further details.

* On / Off

LCD Bright.

Select a brightness level for the LCD monitor.
The LCD becomes brighter with the ▲ button and darker with the ▼ button.
The adjustment range is from -5 to +5.

Digital Zoom

This sets whether or not to use digital zoom at the time of photography.
* On / Off

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

Video Menu

This menu is for the basic settings to be used when recording video clips.
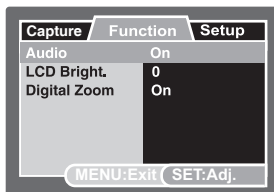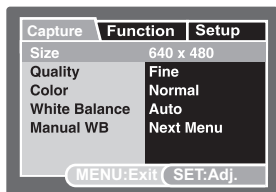
Capture	Function	Setup
Size	**640 x 480**	
Quality	Fine	
Color	Normal	
White Balance	Auto	
Manual WB	Next Menu	

MENU:Exit SET:Adj.

Capture	Function	Setup
Audio	**On**	
LCD Bright.	0	
Digital Zoom	On	

MENU:Exit SET:Adj.

1. Slide the mode switch to [🎥].
2. Press the **MENU** button, and select the [Capture] / [Function] / [Setup] menu with the ◀ / ▶ buttons.
3. Select the desired option item with the ▲ / ▼ buttons, and press the **SET** button to enter its respective menu.
4. Select the desired setting with the ▲ / ▼ buttons, and press the **SET** button.
5. To exit from the menu, press the **MENU** button.

> **NOTE**
> ■ When the camera is set to any of the Underwater scene modes (Sea, ExtFlash Auto or ExtFlash MNL), the Display button (#3) will cycle from: Standard ⇨ Standard with histogram ⇨ No icons Playback mode ⇨ Video mode ⇨ Standard [Repeat].

Size

This sets the size of the video clip that will be captured.

* [☐] 640 x 480
* [☐] 320 x 240

Quality

This sets the quality (compression) at which the video clip is captured.

* [⚹⚹] Super Fine
* [⋆⋆⋆] Fine
* [⋆⋆] Standard

41

Color

This sets the color of the video clip that will be captured.
* Normal / Vivid / Sepia / Monochrome

White Balance

Refer to section in this manual titled "White Balance" in Capture Menu for further details.

> ■ When the user has the camera set to Sea or Ext Flash (ExtFlash Auto / ExtFlash MNL) mode, the video White Balance setting will default to Ocean Blue.

NOTE

Manual WB

Refer to section in this manual titled "Manual WB" in Capture Menu for further details.

Audio

This sets whether or not to record audio at the time of video recording.
* On / Off

LCD Bright.

Refer to section in this manual titled "LCD Bright." in Capture Menu for further details.

Digital Zoom

Refer to section in this manual titled "Digital Zoom" in Capture Menu for further details.

Playback Menu

In the [▶] mode, choose which settings are to be used for playback.

Play	Setup
Fix Red Eyes	Next Menu
Slide Show	3 sec.
Protect	Next Menu
LCD Bright.	0
Resize	Next Menu
Quality	Next Menu
Copy to Card	Next Menu
MENU:Exit	**SET:Adj.**
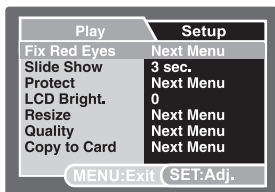
1. Slide the mode switch to [▶].
2. Press the **MENU** button.
3. Select the desired option item with the ▲ / ▼ buttons, and press the **SET** button to enter its respective menu.
4. Select the desired setting with the ▲ / ▼ buttons, and press the **SET** button.
5. To exit from the menu, press the **MENU** button.

NOTE

■ When the camera is set to any of the Underwater scene modes (Sea, ExtFlash Auto or ExtFlash MNL), the Display button (#3) will cycle from: Standard ⇨ Standard with histogram ⇨ No icons Playback mode ⇨ Video mode ⇨ Standard [Repeat].

Fix Red Eyes

Refer to section in this manual titled "Removing Red-eye" for further details.

Slide Show

This function enables you to playback your still images automatically in order one image at a time.

* 3 sec. / 5 sec. / 10 sec.

Protect

Refer to section in this manual titled "Protecting Images" for further details.

LCD Bright.

Refer to section in this manual titled "LCD Bright." in Capture Menu for further details.

Resize

Resizes a previously saved image. Resizing replaces the original image with the changed image. It is only possible to resize to a smaller size.

Quality

Changes the quality (compression) of a recorded image. Compresses images down to half of their size or less, overwrites old size images with newly compressed images. It is only possible to reduce the image quality/size, never to increase it.

Copy to Card

Allows you to copy your files from the camera's internal memory to an SD/SDHC memory card. Of course, you can only do this if you have a memory card installed and some files in internal memory.

* Cancel / Execute

Setup Menu

Set your camera's operating environment.

Capture	Function	Setup		
Beep	Off			
Fr. No. Reset	Next Menu			
Auto Off	Off			
Date/Time	Next Menu			
Sys. Reset	Next Menu			
Language	English			
MENU:Exit	SET:Adj.			

Play	Setup	
Beep	Off	
Format	Next Menu	
Fr. No. Reset	Next Menu	
Media Info.	Next Menu	
System Info.	Next Menu	
Language	English	
Video Output	PAL	
MENU:Exit	SET:Adj.	
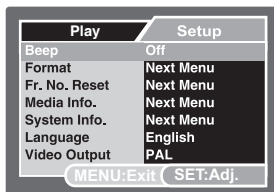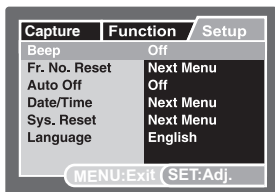
1. Slide the mode switch to [▢], [▢] or [▶].
2. Press the **MENU** button, and select the [Setup] menu with the ▶ button.
3. Select the desired option item with the ▲ / ▼ buttons, and press the **SET** button to enter its respective menu.
4. Select the desired setting with the ▲ / ▼ buttons, and press the **SET** button.
5. To exit from the menu, press the **MENU** button.

Beep

This sets whether or not to mute the camera sound each time you press the camera's buttons.

* On / Off

Fr. No. Reset

This creates a new folder. The captured images are recorded to the newly created folder from number 0001.

* Cancel / Execute

Auto 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 for reducing battery usage.

* 1 Min. / 2 Min. / 3 Min. / Off

Date/Time

Refer to section in this manual titled "Setting the Date and Time" for further details.

Sys. Reset

This returns all basic settings to the camera's default settings. The time setting will not be reset.

* Cancel / Execute

Language

Refer to section in this manual titled "Choosing the Language" for further details.

Format

Refer to section in this manual titled "Formatting the Memory Card or Internal Memory" for further details.

Media Info.

This displays the free capacity of the internal memory or the memory card.

System Info.

This displays the firmware version of the camera.

Video Output

This sets your camera to match the system of the equipment that you are going to connect to the camera.

* PAL/NTSC

TRANSFERRING FILES TO YOUR COMPUTER

System Requirement

Windows	Macintosh
■ Pentium III 600 MHz or higher	■ PowerPC G3/G4/G5
■ Windows 2000/XP/Vista	■ OS 9.0 or later
■ 128MB RAM	■ 128MB RAM
■ 128MB hard disk space	■ 128MB hard disk space
■ CD-ROM drive	■ CD-ROM drive
■ Available USB port	■ Available USB port

Downloading Your Files

1. Connect one end of the USB cable to an available USB port on your computer.
2. Connect the other end of the USB cable to the USB terminal on the camera.
3. Turn on your camera.
4. Select [PC] using the ▲ / ▼ buttons and press the **SET** button.
5. From the Windows desktop, double click on "My Computer".
6. Look for a new "removable disk" icon.
   ■ This "removable disk" is actually the memory (or memory card) in your camera. Typically, the camera will be assigned drive letter "e" or higher.
7. Double click on the removable disk and locate the DCIM folder.
8. Double click on the DCIM folder to open it to find more folders.
   ■ Your recorded images and video clips will be inside these folders.
9. Copy & Paste or Drag-N-Drop image and video files to a folder on your computer.
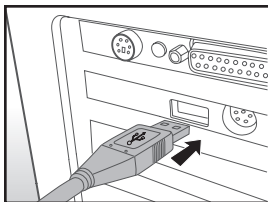
Mac users: Double-click the "untitled" or "unlabeled" disk drive icon on your desktop. iPhoto may automatically launch.

USING THE CAMERA AS A PC CAMERA

Your 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 camera for videoconferencing, your computer system must include the items as below:

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

1. After installing the PC camera driver (included on the CD-ROM) in your Windows operating system, restart your computer.
2. Connect one end of the USB cable to the USB terminal of the camera.
3. Connect the other end of the USB cable to an available USB port on your computer.
4. Turn on your camera.
5. Select [PC Camera] with the ▲ / ▼ buttons and press the **SET** button.
6. Position the camera steadily on top of your computer monitor or use a tripod.
7. Launch the videoconferencing application software.
   - Simply follow the instructions in the application software to start your camera.

NOTE
- This function is not supported by Mac.
- You are recommended to use MediaOne Gallery SE (included on the CD-ROM) or Windows Netmeeting (Windows Meeting Space on Windows Vista) as a videoconferencing application software.
- 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.

EDITING SOFTWARE INSTALLATION

There are 2 types of image editing software that are included on the CD-ROM. You may decide to download the image editing software if your computer does not already have one.

MediaOne Gallery SE - makes it the easiest way to manage and share your digital life with family & friends. The intuitive thumbnail library automatically organizes, updates and sorts files for the most natural way to browse your multimedia collection.

COOL 360 SE - combines ease-of-use, power and flexibility to allow even novice digital imaging enthusiasts to move beyond traditional photos into immersive imaging. Its intuitive interface and easy-to-use wizard deliver great-looking panoramas while advanced warping, blending and alignment tools ensure excellent results.

To install software:
1. Insert the CD-ROM that came with the camera into your CD-ROM drive. The welcome screen appears.
2. Click the respective software name. Follow the on-screen instructions to complete the installation.

NOTE

- It is not required to download the above mentioned software. It is provided free of charge for your convenience. The above mentioned software is developed by a 3rd party company. SeaLife makes no warranties or claims regarding its performance and will not offer any technical support.
- For more information about the operation of the software, refer to its respective help documentation.
- For Windows 2000/XP/Vista users, please make sure to install and use the software in "Administrator" mode.
- The software is not supported by Mac.
- COOL 360 SE is not supported by Windows Vista.

SPECIFICATIONS
(INNER CAMERA ONLY)

Item	Description
Image sensor	1/2.5" CCD sensor (8.0 megapixels)
Image resolution	<Still image> 3264 x 2448, 2816 x 2112, 2272 x 1704, 1600 x 1200, 640 x 480 <Video clip> 640 x 480 (25 fps), 320 x 240 (25 fps)
LCD monitor	2.7" full color TFT LCD (230K pixels)
Recording media	32MB internal memory (29MB available for image storage) Supports SD/SDHC memory card (up to 4GB) (optional)
File format	JPEG, DCF 1.1, EXIF 2.2, AVI
Lens	4x optical zoom lens Aperture range: 2.7(W) - 5.4(T) Focal length:4.6mm - 18.4mm (equivalent to 28mm - 112mm on a 35mm camera)
Focus Range	Standard 0.5m to infinity Macro Wide: 0.05m to infinity Tele: 0.35m to infinity
Shutter speed	1 - 1/1500 sec.
Digital zoom	5x (Capture mode) 4x (Playback mode)
Flash effective range	0.5m - 3.0m (Wide) 0.5m - 2.1m (Tele)
Terminals	DC IN 5V AV OUT USB 2.0 compliant
Power supply	Rechargeable Lithium-ion battery (3.7V) AC power adapter (5V/2A)
Dimensions	Approx. 94 x 55 x 24mm (without protruding parts)
Weight	Approx. 132g (without battery and memory card)

* Design and specifications are subject to change without notice.

APPENDIX

Possible number of shots (still image)

The table shows the approximate shots that you can capture at each setting based on the capacity of the internal memory and the SD/SDHC memory card.

Size	Quality	Internal Memory	SD/SDHC memory card capacity		
			1GB	2GB	4GB SDHC
[▢] 3264 x 2448	[⚞] Super Fine	7	266	534	1069
	[✶✶✶] Fine	10	368	738	1478
	[✶✶] Standard	13	477	955	1913
	[✶] Economy	16	579	1160	2323
[▢] 2816 x 2112	[⚞] Super Fine	9	335	672	1346
	[✶✶✶] Fine	14	512	1025	2053
	[✶✶] Standard	18	642	1285	2573
	[✶] Economy	19	674	1349	2701
[▢] 2272 x 1704	[⚞] Super Fine	13	452	906	1815
	[✶✶✶] Fine	24	842	1686	3374
	[✶✶] Standard	27	939	1881	3765
	[✶] Economy	32	1111	2225	4454
[▢] 1600 x 1200	[⚞] Super Fine	20	709	1420	2843
	[✶✶✶] Fine	49	1669	3342	6688
	[✶✶] Standard	59	1990	3984	7974
	[✶] Economy	67	2255	4515	9037
[▢] 640 x 480	[⚞] Super Fine	89	2986	5976	11961
	[✶✶✶] Fine	152	5076	10160	20335
	[✶✶] Standard	184	6153	12316	24649
	[✶] Economy	229	7634	15279	30579

Possible recording time / sec (video clip)

Size	Quality	Internal Memory	SD/SDHC memory card capacity		
			1GB	2GB	4GB SDHC
[▢] 640 x 480	[★★★] Fine	00:00:12	00:07:12	00:14:25	00:28:51
	[★★] Standard	00:00:14	00:08:11	00:16:24	00:32:50
[▢] 320 x 240	[★★★] Fine	00:00:39	00:21:56	00:43:54	01:27:52
	[★★] Standard	00:00:45	00:25:26	00:50:55	01:41:55

* We recommend a memory card of at least 10MB/Sec write speed to prevent auto stop or unexpected results. If you experience an error using a slower SD/SDHC memory card, you can set your camera's video recording to QVGA (320 x 240) and standard quality.

Connecting to a PictBridge Compliant Printer

If a printer that supports PictBridge is available, images can be printed by connecting the digital still camera directly to the PictBridge-compatible printer without using a computer.

Connecting the camera to the printer

1. Connect one end of the USB cable to your camera.
2. Connect the other end of the USB cable to the USB port on the printer.
3. Turn on your camera.
4. The [USB] screen is displayed. Select [Printer] with the ▲ / ▼ buttons, and press the **SET** button.

USB	
PC	
Printer	Next Menu
PC Camera	
	SET:Enter
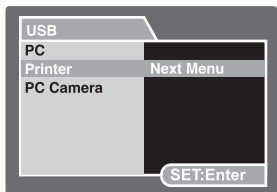
Printing images

When the camera is properly connected to a PictBridge compliant printer, the PictBridge menu is displayed on the monitor.

1. Select the item you want to configure with the ▲ / ▼ buttons, and press the **SET** button.
   - [Images]: Select whether you want to print specific image or all images. You may also select printing number for specific image.
   - [Date Print]: According to the printer type, select whether you want to print the image with date imprint or not.
   - [Paper Size]: Select the desired paper size according to the printer type.
   - [Layout]: Select the desired printing layout according to the printer type.
   - [Print]: After all settings are configured, select this item to start printing.

2. If you select [Images] in the previous step, the figure shown on the right hand side will appear. Select [Select] or [All] with the ▲ / ▼ buttons, and press the **SET** button.
   - [Select]: Select to print one specific image.
   - [All]: Select to print all images.
   - [Exit]: Exit from Images option.

```
PictBridge
Images        Next Menu
Date Print    Off
Paper Size    Default
Layout        Default
Print

              SET:Enter
```

```
Images
Select        Next Menu
All           Next Menu
Exit

              SET:Enter
```
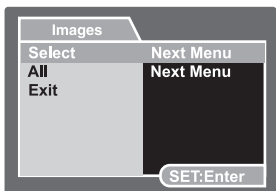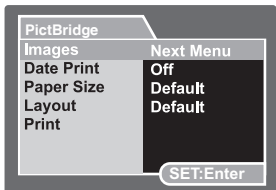
3. If you select [Select] in the previous step, the figure shown on the right hand side will appear.
   - Select the image that you want to print with the ◄ / ►buttons.
   - Select the [Print Num] (up to 99) with the ▲ / ▼ buttons.
   - After selecting the desired image and printing number, press the **SET** button to confirm.

Select	
Print Num	00
105-0003	SET:Enter

4. Select [Exit] with the ▲ / ▼ buttons, and press the **SET** button.

Images	
Select	Next Menu
All	Next Menu
Exit	
	SET:Enter

5. Select [Print] with the ▲ / ▼ buttons, and press the **SET** button to start printing.

PictBridge	
Images	Next Menu
Date Print	Off
Paper Size	Default
Layout	Default
Print	
	SET:Enter
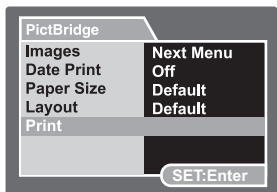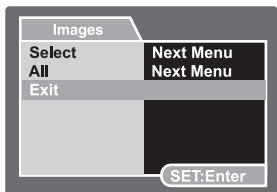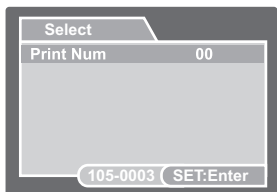
6. The printing starts and the figure shown on the right hand side appears.
   - [COMPLETE] will be displayed temporarily, reminding you that the printing procedure is finished.
   - If an error is detected during the connection (i.e. the printer hardware problem) between camera and printer, [PRINT ERROR] will be displayed.
   - If an error is detected during the communication (i.e. wrong setting on the camera) between camera and printer, [ERROR] will be displayed.

PictBridge
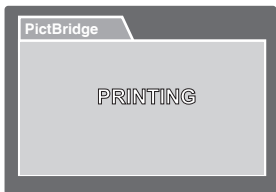
PRINTING

NOTE

- The image printing may fail if the power to the camera is cut off.
- We recommend that you use the AC power adapter when connecting the camera to the printer.

UNDERWATER HOUSING INSTRUCTIONS

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

DC800

Front view of underwater housing

Backview of underwater housing

SeaLife DC800 Underwater Housing:

- Depth rated and tested to 200 ft. (60m).
- Fully rubber armored for added 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).
- Large shutter button and wide spread buttons for easy control with dive gloves.

> **NOTE**
> - Metal parts made if high-grade stainless steel

MUST DO for underwater housing:

1. Read and understand the instructions contained in this manual before using underwater.
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.
4. Do not lubricate o-ring.
    - 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.
    - 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 become 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 DC800.
    - 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.
5. Carefully close lid and latch to seal housing.
    - Make sure O-ring is seated in its groove when sealing the housing.
    - Make sure there are no obstructions that prevent housing from sealing properly.
6. Never let any moisture or dirt get inside housing when opening.
    - Avoid opening housing wet or humid environments. Best is to open and load the housing in dry cool air, such as inside an air conditioned room. This will prevent water or humidity from veing trapped inside the housing, which may cause fogging to occur or damage the inner camera.

7. 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 2ft to 6ft/ 0.6m to 2m)
    - Use SeaLife External Flash accessory to enhance colors and reduce backscatter.
8. 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: Do NOT lubricate O-ring

Insert Moisture Muncher (Item # SL911)

O-ring contact surface

O-ring (item # SL15017)

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 for spare parts

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

2. 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.

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

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 61 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 (item #SL15017) designed for the DC800. 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 for 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
(before you depart on your dive trip)

Place the sealed housing without camera inside in a tub of cold water for about one hour. Place a soft weight on top of the housing to keep it submerged. Carefully dry housing before opening it to inspect for a leaks. If the housing leaks, carefully inspect O-ring or replace O-ring as described above. Repeat the above test. If housing still leaks contact your local authorized SeaLife Dealer for repair 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.
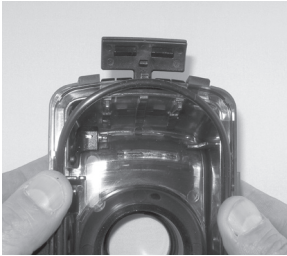
Step 2: Push O-ring into groove as shown being careful not to twist or roll O-ring.

Step 3: Use two fingers to push last part of O-ring into groove.
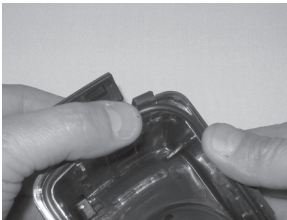
Step 4: Carefully close housing to firmly seat O-ring and open housing again to inspect that O-ring is completely seated into groove. Do NOT grease the O-ring.

To Remove O-ring:

Step 1: Push O-ring along groove until it lifts.
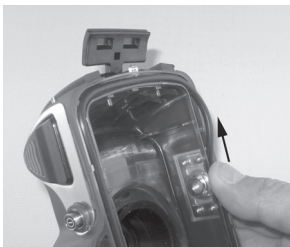
Step 2: Gently lift and remove O-ring from its groove.
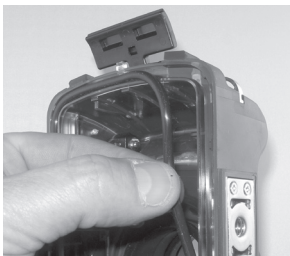
HOW TO OPEN AND CLOSE WATERPROOF HOUSING

Step 1: Push in locking tab to open latch.
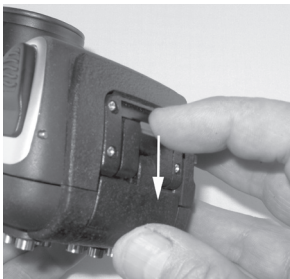
Step 2: Open latch all the way to lift and release latch from housing.
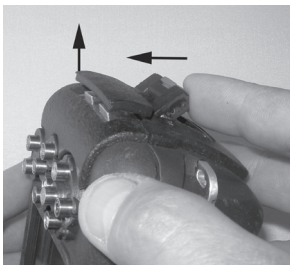
Step 3: Open Housing as shown so inner camera does not fall out.

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.

"Click"
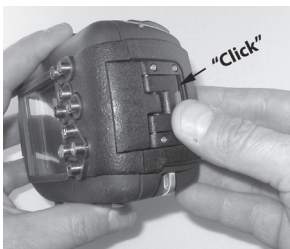
Installing the Flash Link optical cable adapter

The Flash Link adapter included with your camera connects the Flash Link optical cable to the DC800 camera housing. This adapter is only needed when using the SeaLife external flash accessory. Optical cables (item SL962)and external flash accessories (SL961, SL960D) are optional accessories sold separately. For more information about these accessories, please contact your local SeaLife dealer or visit www.sealife-cameras.com.

Step 1: Push the optical cable into one of the grooves so it's locked firmly into position. The end of the cable must be directed at the camera's flash but should not stick out beyond the adapter. The adapter has two grooves, so you can add another cable when using two flashes.

Step 2: Attach the Flash Link adapter around the lens and push down until it locks firmly into place. There are two small locking mechanisms located on the outer edge of the adapter that should lock in to the camera housing. Make sure the adapter is oriented so it is aligned with the recessed flash window.

Step 3: Once the cable and adapter is firmly attached, run the cables along the bottom of the flash base and up the flash arm. The cables should be secured to the flash arm using the Velcro ties provided with your flash accessory.

NOTE

- If using two Flash Links, attach other cable in second groove and follow above instructions.
- Secure optical cable to Flash arm using Velcro® ties (included External Flash accessory).
- Refer to Flash Link optical cable instruction manual for more details and troubleshooting tips.

How to set-up the Waterproof Housing

Set up camera

1. Insert fully charged lithium battery into camera.
2. Clean camera lens with dry, clean cotton swab.
3. Remove camera strap since this will prevent the camera from correctly seating itself inside the housing.
4. Set camera to Sea mode (when not using External Flash accessory) or External Flash mode (If using External Flash accessory). See page 21 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 in a dry environment 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.
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 Moisture Muncher anti-fog (item #SL911) desicant capsules into special slot inside housing. As the desiccant absorbs moist air, it turns from blue to light pink. Replace desiccant capsule when color changes to light pink.
6. Carefully clean O-ring and O-ring contact surfaces with cleaning brush provided. 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 may 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.
10. Avoid exposing housing to direct sunlight for prolonged periods of time. This may promote internal fogging.

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. If buttons do not return to their normal position, soak the sealed housing in fresh water for a few minutes and push the buttons several times.
4. Press the 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.

Before Entering Water

1. Most dive operations will have a water tub for underwater cameras. Use this tub to test the camera for leaks before entering the water.
2. Hold housing underwater for about 15 seconds with the lens pointing upwards. Lift the housing out of the water keeping the lens pointing up and look at LCD display window for any water drops.
3. If no leaks are detected, repeat step 2 but hold the camera underwater for about 2 minutes and inspect.
4. If you detect any leaks, carefully dry and open the housing and inspect the O-ring seal in accordance with the instructions on page 67.

> ■ If no water tub is available, perform the above test immediately after entering the water.
>
> **NOTE**

Using and cleaning the underwater housing and camera

Entering the water with waterproof housing

Important: Always obey dive safety rules as a priority.
1. Do not jump into the water with the housing in your hand. Have someone hand it to you after you have entered the water.
2. For tips on taking pictures, see **"Great Underwater Pictures Made Easy"** on page 71 or visit the SeaLife website www.sealife-cameras.com for an online guide to underwater photography.
3. Underwater for about 30 seconds

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 tub available on most dive boats. This will clean the salt water from the housing and prevents the salt water from drying on the 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 tub.
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 and dry before opening.
2. Before opening housing, everything, including your hands, head and surrounding area must be totally dry. Have a dry towel handy.
3. 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.

Great Underwater 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. Tiny particles floating in the water cause low visibility and poor picture quality. Avoid stirring up the sandy bottom with your fins. These floating particles cause small spots to appear in your picture, known as "backscatter." Try 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). Using the SeaLife Digital Pro Flash will reduce the "backscatter" effect. If you are not using the external flash accessory, Keep the camera's onboard flash turned OFF.

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 Digital Pro Flash (item # SL961).

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 the SeaLife Flash Accessories to enhance color and brightness.

Water filters out light and red/yellow colors resulting in darker, blue images. The SeaLife DC800 Sea mode setting will correct for lost colors, but is only effective to a depth of about 50ft/15m, depending available sunlight and water visibility, The most effective way to compensate for lost colors is by using artificial light, like the SeaLife Digital Pro 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.

6. Use the landscape focus to minimize shutter lag time.

Shutter lag is that annoying delay between pushing the shutter button and image capture. The camera uses this time to accurately measure the shooting distance for a sharp in-focus picture. For fast moving sealife, this can be a problem, but there is an easy solution. To minimize the shutter lag time we suggest keeping the camera set to landscape (infinity) focus [▲]. All underwater subjects beyond 1.5 feet (50cm) shooting distance will be in focus and the shutter lag time is practically elliminated.

7. Visit the SeaLife website for updated tips an advice.

Any updates to the manual or additional tips and advice can be found on the SeaLife website at www.sealife-cameras.com.

8. Ask your local SeaLife dive dealer about underwater photography courses

Most SeaLife dive dealers offer underwater photography courses which includes hands-on training as well as many helpful tips and techniques to underwater photography.

TROUBLESHOOTING GUIDE

Refer to the symptoms and solutions listed below before sending the camera for repairs. If the problem persists, contact your local SeaLife dealer for service.

Symptom	Cause	Solutions / Corrective Actions
The power does not come on.	The battery is not inserted correctly.	Insert the battery correctly.
	The battery is exhausted.	Recharge the battery.
The battery runs out quickly.	The battery is not fully charged. The battery is not used for an extended period of time after being charged.	Fully charge the battery and discharge it for at least one complete cycle before use to maximize its performance and lifetime.
The battery or camera feels warm	Long period of continuous use of the camera of the flash.	
Even if I press the shutter button, the camera does not take a picture.	The shutter button is not pressed all the way down.	Press the shutter button all the way down.
	The memory card does not have any free capacity.	Insert a new memory card, or delete unwanted files.
	The flash is charging.	Wait until the status LED is green.
	The memory card is write-protected.	Remove the write-protection.
Images do not appear on the LCD monitor.	LCD monitor is dark.	Adjust the brightness of the LCD monitor in the menu.

Symptom	Cause	Solutions / Corrective Actions
Although it is set to auto focus, it does not focus.	The lens is dirty.	Wipe clean with a soft, dry cloth or lens paper.
	The distance to the subject is smaller than the effective range.	Get your subject within the effective focus range.
The contents on the memory card cannot be played back.	You played back a memory card that was not formatted by this camera.	Insert a memory card that was formatted on this camera.
Files cannot be deleted.	The file is protected.	Cancel protection.
	The memory card is write-protected.	Remove the write-protection.
Even when the camera's buttons are pressed, it does not operate.	The battery is running low.	Recharge the battery.
The date and time are wrong.	The correct date and time is not set.	Set the correct date and time.
Cannot download images to computer.	The free space on the hard disk in your computer may be insufficient.	Check whether the hard disk has space for running Windows, and if the drive for loading image files has a capacity at least that of the memory card inserted in the camera.
	No power supply.	Use an AC power adapter.
		Recharge the battery.

Troubleshooting for underwater photography

Symptom	Cause	Solutions / Corrective Actions
Image not sharp	Focus setting not correct	See page 20 for information on correct focus setting
	Low water visibility	Minimize shooting distance in low visibility waters
	Too far away from subject	Minimize shooting distance to 6ft/2m while underwater
	dirty lens	Inspect and clean lens
Picture grainy (pixilated)	Low light conditions	Use SeaLife Digital Pro Flash Accessory in low light conditions or deeper depths
Blue or green pictures	Water absorbs red and yellow colors	Set camera to Sea Mode and select the appropriate white balance setting
		Use SeaLife Digital Pro Flash Accessory in low light conditions or deeper depths

Symptom	Cause	Solutions / Corrective Actions
Picture too bright (over exposed) when using external flash accessory.	Camera setting not optomized	Select Ext Flash Auto mode
		Select "macro Flash" [Push the flash button] to darken the picture exposure level.
		Reduce external flash accessory brightness by rotating brightness control knob clockwise
	Relflective subjects	Move farther away from highly reflective subjects that are white or silver in color.
Picture too dark (under exposed) when using external flash accessory.	Camera setting not optomized	Select Ext Flash Auto mode
		Select "Far Flash" [Push the flash button] to brighten the picture exposure level.
		Increase external flash accessory brightness by rotating brightness control knob counter-clockwise
Shutter response too slow	Auto focus engine can cause delays	Select Landscape/infinity focus for fastest possible shutter response time.
Other troubles?	Please refer to online troubleshooting guide for updates at www.sealife-cameras.com	

HOUSING SPECIFICATIONS

Underwater Housing:

Depth:	Individual depth tested to 200' (60m)
Controls:	Control buttons for power, Shutter, Zoom, LCD, Menu, 4 navigation buttons, SET and Delete buttons
O-ring:	Silicone
Lens port:	Fully multi-coated 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:	Marine Grade 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.

SL18024
April 2008
9HT39-4006-00