



SeaLife®

SeaLife

Instruction Manual



**Sea Dragon 1500F, 2000F, 2100SF Dual Beam,
2300F Auto, 2500F and 3000F Auto.**

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I. Safety Warnings

Make sure you follow these important safety warnings to avoid the risk of fire or injury.

Avoid using the light above water for prolonged periods of time.

The light is designed for underwater use and water is needed to displace heat. The metal light head at full power will reach temperature of about 140F (60C) degrees within a few minutes, which may cause burning if touched. A thermal sensor will automatically dim the light if internal temperatures reaches 150F (65C) degrees. Immediately turn off light if any parts of the light become hot to the touch.

If water has entered the light, immediately turn off power and follow these instructions: Remove and dry the battery. DO NOT use the battery once it has become wet. Wet batteries must be replaced. Allow battery to dry and dispose it in accordance with local battery recycling regulations. The battery chamber is waterproof. If no water has entered the LED light head, the chamber may be cleaned without causing permanent damage to the electronics. Rinse the waterproof battery compartment with fresh water and allow the inside to dry. Replace the O-rings and apply lube. Install new, fully-charged battery and test light. If light does not operate properly, please contact your local SeaLife dealer or the SeaLife service center in your country.

Do not use battery if the outer casing is cracked, separated, damaged or has become wet. Dispose battery in accordance with local battery recycling regulations.

I. Safety Warnings

Never expose battery to fire or intense heat. Do not expose light to direct sunlight for prolonged periods of time.

Remove batteries from light before transporting, traveling or long periods of storage. Remember to use the protective battery cover included when the battery is not inside the light or charging tray to prevent accidental short-circuiting the battery contacts.

Airlines impose strict safety regulations for handling and shipping lithium ion batteries. Spare lithium batteries may not be packed in your checked baggage but may be packed in your carry-on baggage. It is important to pack spare batteries in such a way as to prevent metal objects from touching the contacts and potentially short-circuiting the battery. Always use protective battery cover included when the battery is not inside the light or charging tray to prevent accidental short-circuiting the battery contacts.

Only use the specified battery and battery charger approved by SeaLife. Using any other battery or charger may cause fire, injury and permanently damage the light.

Observe all SCUBA dive safety rules and control your buoyancy at all times. Consult your dive instructor for dive safety questions.

Visit www.sealife-cameras.com for updates to this manual and underwater photography tips.

II. In the Box (One of the following Sea Dragon Lights)



Sea Dragon 3000F Auto Light (SL678)
with Flex-Connect® Grip (SL9905) and
Single Tray (SL9903)



Sea Dragon 2000F Light (SL677)
with Flex-Connect® Grip (SL9905) and
Micro Tray (SL9902)



Sea Dragon 1500F Light (SL672)
with Flex-Connect® Grip (SL9905) and
Micro Tray (SL9902)



Sea Dragon 2300F Auto Light (SL674)
with Flex-Connect® Grip (SL9905) and
Single Tray (SL9903)



Sea Dragon 2100SF Light (SL670)
with Flex-Connect® Grip (SL9905) and
Single Tray (SL9903)



Sea Dragon 2500F Light (SL671)
with Flex-Connect® Grip (SL9905) and
Single Tray (SL9903)

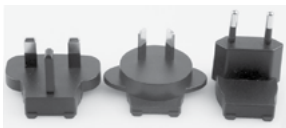
II. In the Box



Charging Tray (SL98311)



AC Power Adapter (SL98312)

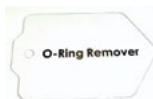


Int'l Plug Inserts (SL98306)



Adapter for GoPro Camera (SL98131)

(GoPro adapter NOT included with the Sea Dragon 2300 auto (SL674) or when light is part of a SeaLife camera set.)



O-ring remover (SL9808)



Li-ion Battery (SL9831)

w/protective cover



Sea Dragon Case (SL942)

(Case NOT included with 1500F, or 2000F lights)



Spare O-rings (SL98303)



O-ring lube (SL9807)

III. Product View with Call-Outs



Major parts

- 1 – Light head
- 2 – Metal cooling bezel
- 3 – Release buttons
- 4 – Flex-Connect® grip
- 5 – Tray
- 6 – 1/4-20 Mounting screw
- 7 – Rubber friction pad
- 8 – Power button / Brightness adjust
- 9 – Battery status indicator
- 10 – Battery cap
- 11 – Pressure safety valve
- 12 – Flex-Connect® swivel connector

IV. Charging and Loading the Battery

- 1) Charge battery (green light = fully charged)
- 2) Unscrew the battery cap
- 3) Insert fully charged battery.
Important: Make sure O-rings and sealing surfaces are perfectly clean and undamaged.
- 4) Screw on battery cap. *(Do not overtighten or use tools.)*



V. Operating the Light

- 1) Push and hold the power button for 1 second to power ON the light.
- 2) Push the power button to change between the following light modes:

1500F, 2000F and 2500F lights:

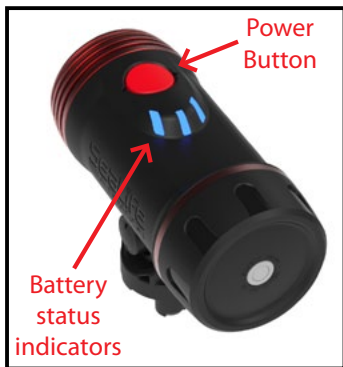
100% → 50% → 25% → repeat

2100SF light: 100% Flood → 50% Flood → 25% Flood → Spot → repeat

2300F Auto light: 100% → 50% → 25% → Auto → repeat

3000F Auto light: 100% white → 50% white → 25% white → Auto → Red → repeat

Red LEDs: Give off a 88° wide beam that won't scare away certain nighttime sea creatures that shy away from white light and preserves your eye's natural night vision. Ideal for wrecks, caves and night diving. Not intended for taking pictures or video. For photography, use with Sea Dragon strobe so you can view the shot on the camera's LCD and allow the camera to focus. When the flash fires, red LED's will turn off for 1 second.



- 3) Push and hold the mode button for 2 seconds to power OFF the light.

VI. Battery Status Indicator

3 Status lights indicate remaining battery power:

Status lights

3 solid
2 solid
1 solid
1 blinking

Battery power

100%
75%
50%
25%

VII. Maintaining a Waterproof Seal (Before your dive)

- 1) The light uses two O-rings to maintain a waterproof seal.
- 2) Every time you open the battery cap make sure the O-rings and sealing surfaces are clean, undamaged and lubricated.
- 3) Dampen a clean cotton cloth and wipe it around the O-ring and O-ring contact surfaces to remove any hair, sand or debris.
- 4) Carefully inspect the O-ring for cuts, tears or other damage. Replace O-rings if damaged.
- 5) Lube O-rings regularly. Apply a small amount of silicone lube on your finger tip and wipe it around the O-rings. Wipe off excess lubricant. The O-ring surface should have shiny, wet appearance.



Important:

Replace O-rings every year if damaged or not. Visit your local SeaLife dealer or www.sealife-cameras.com for information on ordering spare O-rings.

VIII. Care and Maintenance (After your dive)

- 1) After each dive, soak the sealed light in fresh water for about 20 minutes to remove any residual salt, sand and dirt. Never allow the saltwater to dry on the light.
- 2) Push the power button about 10 times to clean any saltwater or sand trapped under the button.
- 3) Let the water drain out of the small holes located at the bottom of Flex Arm. (If using Flex Arms - see page 14 for optional accessories).
- 4) Dry off the light with a towel. Make sure you and the light are dry before opening the waterproof battery cap.
- 5) Remove battery and allow light to thoroughly dry before storage.
- 6) Clean the gold-plated contacts on battery and inside battery compartment EVERYTIME before charging the battery. Use a clean cotton cloth moistened with isopropyl alcohol to thoroughly clean contacts. Not cleaning the contacts may permanently damage the gold plating and result in the device not powering on.
- 7) Never use any detergents, cleaners, solvents or chemicals to clean the light. Keep sunscreen lotions/sprays away from all plastic materials, which is known to cause chemical reaction and consequential damage.
- 8) Insert a fresh Moisture-Muncher capsule (SL911 - sold separately) inside the battery compartment during storage to help keep the inside dry and free of corrosion or mildew during storage.

IX. Replacing the O-Rings

Replace the two O-rings if damaged or at least once per year.

- 1) Use the O-ring Remover tool provided to lift and remove the O-rings.
- 2) Carefully clean O-ring grooves and O-rings before installation.
- 3) Install O-rings by stretching and lifting O-ring into the groove. Do not roll the O-ring or allow it to twist.



- 4) Apply a small amount of silicone lube on your finger tip and wipe it around the O-rings. Wipe off excess lubricant. The O-ring surface should have shiny, wet appearance.

X. Attaching Light to Underwater Camera

Important:

Only attach the light to cameras/housings with minimum thread depth of 0.31" and using standard 1/4-20 tripod type thread. Don't over-tighten screw or you may damage the housing and threads.



Align the underwater camera to the light's mounting screw and hand-tighten.

XI. Expanding your Flex-Connect® Lighting System

Get brighter, more colorful results by expanding your underwater camera system. The modular Flex-Connect® arms, grips and trays easily fit together to create popular configurations. The following camera sets are available complete, including camera and lighting.



**DC2000
Pro Flash**
w/ single flash



**DC2000
Pro Duo**
w/ light & flash



**Micro 2.0
Pro 4000**
w/ 2 lights



**Micro 2.0
Pro 2000**
w/ light



Flex Arm - Add the Flex Arm for more creative lighting and easy aiming. Reduces backscatter by positioning the flash or light farther away from the camera. Add up to two arms per side. Each arm features 100 degree bending motion and adds 7" length in addition to the 5" grip. Flex arms also attach to any tray and can be used as a grip. (SL9901)

Grip - Rubberized grip for a comfortable hold. Built-in channel to hide and secure optical cable. (SL9905)

Expanding your Flex-Connect® Lighting System (continued)

Select from three universal mounting trays:

Dual Tray – Add another flash or light with the dual tray to double the brightness, reduce shadowing and stabilize aiming control. Sold separately (SL9904).



Single Tray – The standard single tray is ideal for SeaLife DC-series, Olympus™ and other medium sized underwater cameras (SL9903).

Micro Tray – This tiny tray is the perfect fit for SeaLife Micro, GoPro™ and other compact cameras (SL9902).



Cold Shoe – Mount a light or flash on the SeaLife DC-series or other cameras with a cold shoe mount for the most compact lighting solution available, or use it to add a third light when using a dual tray (SL991).

Expanding your Flex-Connect® Lighting System (continued)



YS Adapter – Attach any underwater light or flash using the YS mount to the Flex-Connect® system. This includes the Sea Dragon Mini lights and many other brands of underwater lights and strobes (SL994).



Ball Joint Adapter – Connect Sea Dragon Lighting to any underwater camera using the 1" ball joint mounting system. Heavy duty machined anodized aluminum construction for maximum durability (SL995).



Adapter for Ball Joint Lights – Connect any UW light using 1" ball joint to Flex-Connect® system. Heavy duty machined anodized aluminum construction for maximum durability (SL999).

Expanding your Flex-Connect® Lighting System (continued)



Adapter for GoPro™ Camera w/ acorn nut – Attach GoPro™ cameras to the Flex-Connect® cold-shoe adapter, grip, tray or Flex Arm (SL996).



Flex-Connect® Handle – Use your Sea Dragon as a dive light with this compact, comfortable handle. Includes standard 1/4-20 tripod mount for attaching to the AquaPod Mini SL912 or other tripod screw accessories. Use as a GoPro™ handle when combined with GoPro™ Flex-Connect® Adapter (SL998).



Sea Dragon Red-Fire Filter – Some fish and other ocean animals shy away from white light but not from red light, especially on night dives. The filter uses special formulated wavelength tested not to scare off sea creatures. Easily snaps on/off the front of the Sea Dragon 1200F, 1500F, 2000F, 2500F and 2100SF lights. Can be attached underwater (SL9832).

XII. Recommended Camera Settings

For SeaLife cameras, follow the Easy Set-up menu to correctly set the camera.

For other underwater camera brands:

- 1) Set the Scene mode to “Auto” or “Underwater” scene mode, as recommended by the camera manufacturer.
- 2) You may also need to change the White Balance setting to DAYLIGHT depending on the camera’s underwater color correction or if pictures/video turns out red.

Note: Do not use color correction white balance or filters when shooting pictures or videos with the Sea Dragon light. The light provides all the colors. Combining color correction white balance / filters with the light will result in too much red. It is recommended to only use color correction white balance or filters when shooting beyond the effective range of the light.

XIII. Great Pictures Made Easy



There are plenty of challenges that photographers face in the underwater world. Please take some time to review SeaLife's online guide called Great Pictures Made Easy by visiting www.sealife-cameras.com. The guide is located under the Technical Support menu. The following information summarizes the basic principles of underwater photography.

Crystal clear water

Clear water is essential for good underwater pictures. Low visibility, caused by fine particles suspended in the water, will diminish the picture and video quality. As a general rule, limit your shooting distance to 1/10 of the water visibility. For example, if the visibility is 20 ft, limit your shooting distance to 2 ft. Try to keep the light as far away from the camera lens as possible to minimize backscatter.

Great Pictures Made Easy (Continued)

Limit your shooting distance

Water is 800 times denser than air and quickly absorbs light. The effective range of your Sea Dragon light depends on the light's lumen power, water visibility and ambient light conditions. As a general rule, closer shooting distances result in better pictures and video.



Great Pictures Made Easy (Continued)

Control your buoyancy

Get your buoyancy under control and set yourself up in the ideal position before taking a picture or shooting video. This allows you to hold the camera steady and control your shooting distance. Good buoyancy control will help you avoid stirring up the sandy bottom which will cloud-up the water and cause backscatter. Controlling your buoyancy is very important for your diving safety so don't start shooting until your buoyancy is under control.



Practice makes perfect

There is no better way to learn than from your mistakes. Become familiar with your camera controls so you can make quick adjustments depending on the conditions. Take time to practice and experiment with different settings. Review your pictures and learn from your mistakes.

Great Pictures Made Easy (Continued)

Compose a good picture

Avoid shooting down on the subject from above. Shooting down usually results in a poor contrast because the subject blends into the background.

Try and shoot upwards from below the subject so you get a blue water background and better contrast. Get the entire subject into your picture frame. Don't cut off the hands, fins or head of your subject. You can always crop your image later on your computer if you want.



Shooting down usually results in poor contrast.

Video tips

Hold the camera as steady as possible and move (pan) very slowly. A jumpy, fast-moving video is hard for anyone to watch and can actually cause motion sickness. Avoid shooting video clips more than 1 minute. It is difficult to edit lengthy video clips because of the large file size. You can always patch together short video clips into a longer movie using video editing software, like Microsoft Movie Maker or Mac iMovie.

Always observe dive safety rules and Never Touch Marine Life

Do not let photography distract you from diving safely. Observe marine life - Never touch marine life. Be aware of your surroundings to avoid contacting anything. Keep your dive gear close to your body.

XIV. Advanced Settings

Auto Brightness and Flash Detect

(Only applies to Sea Dragon 2300F Auto (SL674) and 3000F Auto (SL678) lights)

The Sea Dragon Auto lights include a light sensor that automatically adjusts brightness and turns off the light for 2 seconds if it detects an external flash firing. The Auto Bright feature helps preserve your eye's natural night vision and extends battery life by dimming the brightness when aimed at close-up objects. The Flash Detect feature helps reduce backscatter and control image exposure. You may disable the auto flash detect as follows:

- 1) With the light in the OFF state, push and hold the power button 3 seconds for 2300F light and 6 seconds for the 3000F light.
- 2) Release the power button when the indicator lights begin blinking and light turns off.
- 3) Two quick blinks per second indicates Flash Detect is enabled. One blink per second means the Flash Detect is disabled.
- 4) Push and release power button to switch modes.
- 5) Push and hold the power button to save and exit the Flash Detect setting.

Advanced Settings (Continued)

Blinking and SOS Mode

(Only applies to Sea Dragon 1500F, 2000F, 2100SF, 2500F and 3000F Auto.)

The Sea Dragon 1500F, 2000F, 2100SF, 2500F and 3000F Auto lights include a blinking and SOS mode for emergency signal purposes.

- 1) With the light in the OFF state, push and hold the power button for 4 seconds.
- 2) Release the power button when the light starts blinking.
- 3) Push and release the power button to switch between 1 second interval blinking and SOS Morse code signal.
- 4) Push and hold power button for 2 seconds to turn off light.

XV. Troubleshooting Guide

Light does not power ON

Thoroughly clean gold contacts on battery and inside battery compartment with clean cotton cloth moistened with isopropyl alcohol. Make sure battery is fully charged. Replace battery if it becomes wet or damaged.

Blue or dark pictures/videos

Keep your shooting distance within the effective range of the light. Closer is better.

If you are using only one light, consider adding another light (dual lights) and/or external flash accessory. The ideal set-up is a combination of light plus flash.

For the DC2000 and other DC-series cameras, consider purchasing a SeaLife wide angle lens, which allows you to get closer to the subject (within effective range of the light) and still fit everything into the image frame.

Pictures or Videos too red

The camera's white balance setting may not be set correctly. Refer to page 18 of this manual for information on camera settings.

For updates information and advice, please refer to the SeaLife website at www.sealife-cameras.com or contact your local SeaLife dealer or service center for help.

XVI. Specifications

Sea Dragon 1500F (item SL672)

Light source/ Bulb type:	1 x COB LED (Flood)
Brightness:	1500 lumens
Beam Angle:	120 degrees
Color Temperature:	5700k
Color Rendering Index (CRI):	80
Weight:	12.9 ounces (365 grams) Light head w/ battery installed
Dimensions:	4.8" x 2.2" x 4.1 (12.2cm x 5.6cm x 10.4cm) Light head
Run (Burn) time:	70 minutes at 100% power/140 min at 50% power/ 280 min at 25% power

Sea Dragon 2500F (item SL671)

Light source/ Bulb type:	1 x COB LED (Flood)
Brightness:	2500 lumens
Beam Angle:	120 degrees
Color Temperature:	5000k
Color Rendering Index (CRI):	90
Weight:	13.1 ounces (371 grams) Light head w/ battery installed
Dimensions:	4.8" x 2.2" x 4.1 (12.2cm x 5.6cm x 10.4cm) Light head
Run (Burn) time:	60 minutes at 100% power/120 min at 50% power/ 240 min at 25% power

Sea Dragon 2100SF (item SL670)

Light source/ Bulb type:	6 x 3W LED Flood Light & 1 x 3M Spot (CREE XM-L2 LEDs)
Brightness:	2100 lumens flood and 800 lumen spot
Beam Angle:	100 degrees flood and 15 degree spot
Color Temperature:	5300 ~ 5700k
Color Rendering Index (CRI):	70
Weight:	14.7 ounces (417 grams) Light head w/battery installed
Dimensions:	5.1" x 2.2" x 4.1" (13.0cm x 5.6cm x 10.4cm) Light head
Run (Burn) time:	60 minutes at 100% power/120 min at 50% power/ 240 min at 25% power

Specifications (Continued)

Sea Dragon 2300F Auto (item SL674)

Light source/ Bulb type:	6 x 3W LED Light (CREE XP-L LEDs)
Brightness:	2300 lumens
Beam Angle:	100 degrees
Color Temperature:	5300 ~ 5700k
Color Rendering Index (CRI):	70
Weight:	13.1 ounces (372 grams) Light head w/battery installed
Dimensions:	4.8" x 2.2" 4.1" (12.2cm x 5.6cm x 10.4cm) Light head
Run (Burn) time:	60 minutes at 100% power/120 min at 50% power/ 240 min at 25% power

Sea Dragon 3000F Auto (item SL678)

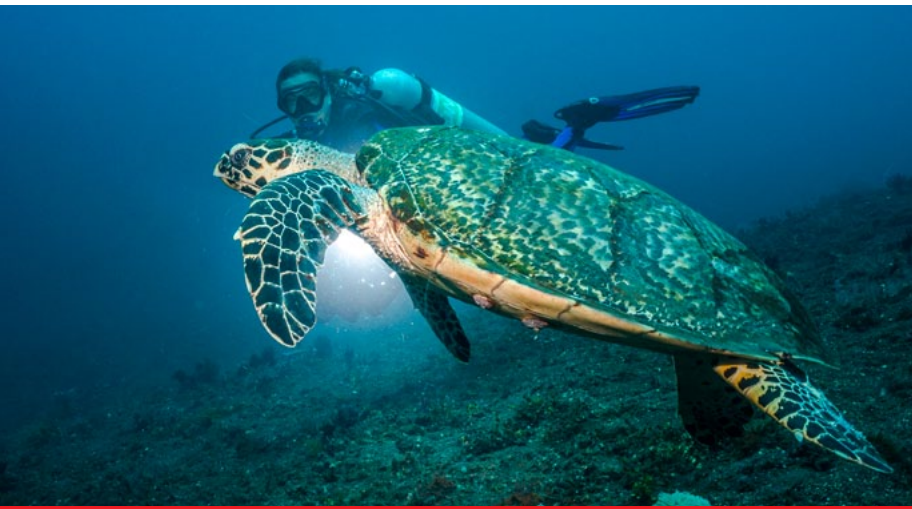
Light source/ Bulb type:	1 x COB LED (Flood), 2 x CREE XP-E red LEDs
Brightness:	3000 lumens
Beam Angle:	120 degrees
Color Temperature:	5000k
Color Rendering Index (CRI):	80
Weight:	14.4 ounces (408 grams) Light head w/battery installed
Dimensions:	5.1" x 2.2" 4.1" (13.0cm x 5.6cm x 10.4cm) Light head
Run (Burn) time:	60 minutes at 100% power/120 min at 50% power/ 240 min at 25% power
Red LEDs:	Two red LED 180 Lumen each, 88° beam angle

Sea Dragon 2000F (item SL677)

Light source/ Bulb type:	1 x COB LED (Flood)
Brightness:	2000 lumens
Beam Angle:	120 degrees
Color Temperature:	5000k
Color Rendering Index (CRI):	80
Weight:	13.0 ounces (370 grams) Light head w/ battery installed
Dimensions:	4.8" x 2.2" x 4.1 (12.2cm x 5.6cm x 10.4cm) Light head
Run (Burn) time:	60 minutes at 100% power/120 min at 50% power/ 240 min at 25% power

Shared Specifications

Body material:	Anodized aluminum light head with fiber-reinforced polycarbonate body
Brightness control:	(See page 9)
Battery:	Lithium Ion 7.4V, 3400 mAh, 25Wh (included)
Depth:	Tested to 330 ft (100m)
Light modes:	(See page 9)
Bulb life:	35,000 hours
O-ring:	Dual silicone O-rings (lube included)
Buoyancy:	Negative



XVII. Parts and Service

SeaLife guarantees the original purchaser of this product, for a period of one (1) year from the date of purchase, that the product is free from defects in workmanship and materials. For a detailed warranty statement, please refer to the warranty information included with the product. In the event the original purchaser believes there is a defect in a product, it is recommended that the purchaser first visit www.sealife-cameras.com for product updates and technical advice. The SeaLife website also includes detailed information on how to get repair service.



Happy Diving!

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www.sealife-cameras.com

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Photo by Tobias Friedrich with the SeaLife DC2000

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