

## Instruction Manual

Thank you for your purchase of a SEA&SEA product. For proper operation of the product and safe handling, please read the following instructions carefully before use. This manual should be retained for future reference.

### Safety Precautions

\* Failure to heed the precautions listed below could result in serious consequences. To prevent injury or damage to yourself and/or others, please observe the precautions as they contain highly important information related to personal and product safety.

- ⚠ **DANGER** : Situations that involve a high risk of severe injury or death.
- ⚠ **WARNING** : Situations that could result in severe injury or death.
- ⚠ **CAUTION** : Situations that could result in property damage or personal injury.

#### ⚠ DANGER

- Never attempt to disassemble, repair or alter the product yourself to prevent significant electrical hazard due to the high-voltage circuitry in the product. Do not heat the product or put it into a fire, this could result in explosion or fire. Unauthorized disassembling and/or modification could result in malfunction or flooding, and avoid product warranty. Take the product to a SEA&SEA authorized service center for repair or inspection.
- Never short-circuit the terminals of batteries installed in the product, as it could result in battery leakage, heat generation, fire, explosion, or product malfunction.
- Move leaking batteries away from fire or open flames immediately. The leaked fluid and its vapor are combustible.
- If the battery leakage contacts your skin or clothing, flush the affected area repeatedly with clean water. It may irritate your skin. Should it get into your eyes, immediately rinse them with plenty of water, avoid rubbing and seek medical advice.

#### ⚠ WARNING

- Pay particular attention to opening the battery cap to avoid injury. Heat from the batteries may cause pressure buildup inside the battery compartment, and could result in cap explosion with unexpected force.
- Avoid water or foreign objects inside the product. Discontinue use and turn it off immediately should you notice flooding or leakage. Continuous use could result in complete damage to the product.
- Do not use the product in the presence of flammable gas, as this could result in explosion or fire.
- Do not fire the strobe/light with the reflector touching a person or object to prevent heat generation. Touching the reflector immediately after firing could result in burns.
- Do not fire the strobe or illuminate the light towards a driver of a vehicle to avoid causing accidents.
- Do not operate the product while driving a vehicle. Inattention could result in accidents.
- For use on land, do not operate the product at precarious foothold. It may cause falling, injury or product damage.
- Do not leave the product on a slope or an unstable surface. It may be broken after falling or injure someone below it.
- Keep out of reach of children to prevent accidental ingestion. If swallowed, seek medical advice immediately.

#### ⚠ CAUTION

- Read the instruction manual and observe proper precautions before use of the product.
- Do not operate the product for more than 10 seconds on land.
- Should you notice smoke or an unusual smell coming from the product, turn it off and remove the batteries immediately, taking care to avoid burns. Continued operation could result in injury. After removing the battery, take the product to a SEA&SEA authorized service center for inspection.
- Discontinue use and turn the product off immediately should you notice flooding or leakage.
- When the product is flooding, interior pressure may build up. Please be careful when opening the product as water may spurt out or the cap may open explosively and cause injuries.
- Do not open the chassis or connector cap in the vicinity of open flames.
- The product has been constructed with an airtight seal. When packing the product for airplane travel, do not seal-up the product to alleviate pressure build up due to atmospheric changes.
- Do not open the product in a wet or sandy environment. Protect the interior from moisture and debris in order to prevent malfunction or flooding.
- Keep away from strong magnetic fields. Do not use or store the product in the vicinity of equipment that generates strong electro-magnetic radiation or magnetic fields. Strong static charges or the magnetic fields could cause malfunction, or affect the product's internal circuitry.
- Before using the product in an airplane or a hospital, check if it is allowed. Electromagnetic waves emitted by the product may interfere with the measuring instruments or medical equipment.
- Do not cover or wrap the product with a cloth. This could result in deformation of the product or in fire.
- Be careful when touching the product immediately after firing repeatedly or lighting for a long time. The product may get hot enough to burn you.
- Avoid strong shocks/impacts or excess stress to prevent malfunction, damage or breakdown. Make sure that the product has been securely mounted to other products in order to prevent injury, fall or missing.
- Do not carry the camera or housing by holding the accessories such as arm, cable, strobe, etc. Heavy components may fall and cause damage or injury.
- Do not rest heavy weight on the product. It might deform the outer casing, damage internal parts, make the waterproofing fail, or result in fire or electric shock.
- Rinse the product with fresh water, after underwater use. Ensure that the product is waterproofed before rinsing. Refer to [Maintenance and Storage] for details.

- Never use chemicals, cosmetics, any petroleum solvents such as paint thinner, or neutral detergent on the product. They may deform and damage the product.
- Do not leave the product in places with hot temperatures such as inside of a car or in a car trunk in summer. The heat may deform plastic parts of the product, damaging internal parts and resulting in potential fire or electric shock. If the product is sealed tight in hot conditions, heated air expanding inside the product may deform the casing and ruin the waterproofing.
- Do not store the product in wet or high humidity place, to avoid mold, rust, corrosion or malfunction.
- Do not store the product with naphthalene or camphor mothballs, or in locations such as a laboratory where chemicals are used. This environment can cause mold, rust, corrosion or malfunction.
- SEA&SEA assumes no liability for compensation of loss of captured images or expenses caused by loss of images, even if you are unable to shoot due to a product defect or malfunction.
- SEA&SEA will not be responsible for the replacement or compensation for cameras, lenses or those accessories damaged due to your invalid operation.
- Carefully observe the O-ring maintenance manual for the handling of O-rings before use.
- SEA&SEA assumes no liability for errors or discrepancies in this manual.
- Specifications and appearance are subject to change without notice.

### 《Safety Precautions for Use of Battery》

#### ⚠ DANGER

- Never expose the battery to flame or fire, or to excessive heat.
- Never attempt to disassemble, alter or directly solder the battery. There are no user-serviceable parts. Tampering with battery may expose you to dangerous voltage, battery acid, or electrical shock.
- Never short-circuit the terminals of a battery, as it could result in battery leakage, heat generation, fire, or explosion. Avoid contact with all metal objects during transporting and storage.
- When recharging batteries such as nickel metal-hydride or lithium-ion batteries, use a charger designed specifically for them and follow the recharging instructions. Recharging in an inappropriate charger may cause battery leakage, overheating, and explosion.
- Move leaking batteries away from fire or open flames immediately. The leaked fluid and its vapor are combustible.
- If the battery leakage contacts your skin or clothing, flush the affected area repeatedly with clean water. It may irritate your skin. Should it get into your eyes, immediately rinse them with plenty of water, avoid rubbing and seek medical advice.
- Never attempt to insert the battery upside down or backward, as it could result in battery leakage or explosion. Always confirm the direction of plus and minus before installation.
- Never connect a battery directly to a plug outlet or car cigarette lighter.

#### ⚠ WARNING

- Keep dry. The battery is not waterproof, and may malfunction if immersed in water or exposed to high levels of humidity. Rusting of the internal mechanism can cause irreparable damage.
- Do not remove and/or damage the case of a battery. It may cause battery leakage, overheating or explosion.
- Do not charge a rechargeable battery beyond the specified charging time, it may cause battery leakage, fire hazard or explosion.
- Never use batteries should you notice any changes such as leakage, discoloration or deformation. When you notice the situation as abnormal, discontinue use immediately and take the product to a SEA&SEA authorized service center for inspection.
- Keep out of reach of children to prevent accidental ingestion. If swallowed, seek medical advice immediately.
- Do not leave or use batteries in an extreme hot environment. This may cause battery leakage, overheating or battery performance deterioration.

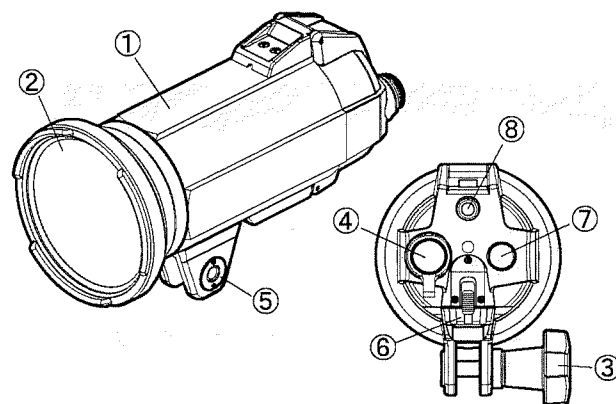
#### ⚠ CAUTION

- Avoid strong shocks/impacts or excess stress to batteries.
- For handling and recharging of a battery, refer to the instruction manual of the battery/dedicated charger.
- Do not use or discharge the battery at ambient temperatures below 0°C (32° F) or above 50°C (122° F).
- During recharging, the temperature should be in the vicinity from 0 to 40°C (32 to 104° F).
- Always recharge the rechargeable battery before use after an extended time of storage.
- Do not recharge battery in a cold environment below 0°C (32° F). Severe cold may cause battery leakage, deterioration in performance, or shortened life.
- Dirt on the battery terminals can prevent the product from functioning. Should the battery terminals become dirty, wipe them with a clean, dry cloth before use.
- Turn the equipment off after use.



This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, (2) this device must accept any interference received, including interference that cause undesired operation.

### Identification of Parts



- ① Body
- ② Head
- ③ Fixing bolt
- ④ Connector cap
- ⑤ Arm installation nut
- ⑥ Power switch / Light control dial
- ⑦ LED lamp window
- ⑧ Over-pressure relief valve

## How to Use

### 《Battery Requirements》

The product is equipped with a built-in rechargeable Li-ion battery.

### 《Replacing the Built-in Battery》

We recommend replacing the built-in battery when there are signs of deterioration of the battery performance even when recharged properly.

- \* The battery is not user replaceable. Bring the product to an authorized SEA&SEA service center to replace the battery..

### ⚠ CAUTION

- Do not attempt to replace the battery yourself. Unauthorized disassembling may result in malfunction or flooding and void the product warranty.

### 《Replacing the Light Bulb》

1. Loosen and remove the Head by turning it counter-clockwise. (Fig.1)
2. Remove the used bulb, then insert the new bulb straight into the pinholes.

- \* Do not touch the bulb directly.

3. Firmly turn the Head clockwise until it stops and align the  $\Delta \nabla$  marks. (Fig.2)

- \* Use the  $\Delta \nabla$  marks as a guide to set the Head properly.

### ⚠ CAUTION

- Allow the bulb to cool for at least 30 minutes after use.
- Don't point the head toward yourself and anyone else when opening. Bulb heat inside may cause high pressure that pops the head off.
- Do not touch the bulb. If you have touched it, wipe with a dry soft cloth.

### 《Charging the Battery》

1. Face the connector cap downwards and remove the cap. (Fig. 3)

- \* Thoroughly wipe off any water remaining in the connector.

2. Plug the AC adapter into the connector. The LED lamp window lights up red when charging. (Fig. 4)
3. Charging is complete when the LED lamp window turns green.

### ⚠ CAUTION

- Use only the AC adapter included with this product package for charging.
- Be careful when touching the Body and AC adaptor during charging. They may get hot enough to burn you.
- Charging should be done on a flat surface free from vibration. Vibration during charging may cause malfunction.
- After use, be sure to disconnect the plug from the connector. Do not pull, bend or twist the cord; damage to the wiring may cause malfunction, electric shock or fire.
- Do not cover the Body and/or AC adapter with blankets, towels, etc. when charging; covering may cause malfunction, electric shock or fire. Use in a well-ventilated area.
- The battery will be very hot immediately after use. Wait until it cools down to normal temperature before recharging.

### 《Operation》

The Power switch turns the light ON/OFF, and controls the light intensity.

#### 【Turning the light ON, Light control】

Release the safety lock lever and turn the power switch to the right as shown in Fig. 5. You can adjust the light intensity from full brightness to a low glow by turning the power switch.

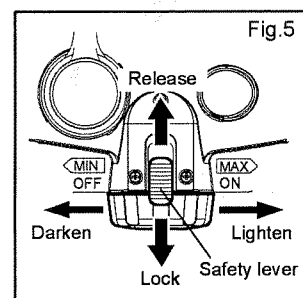
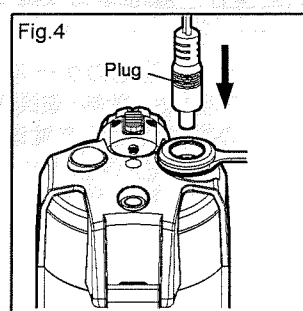
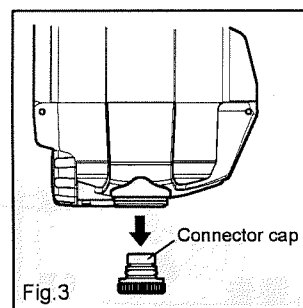
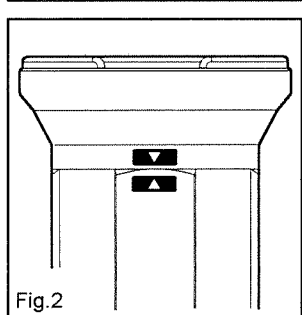
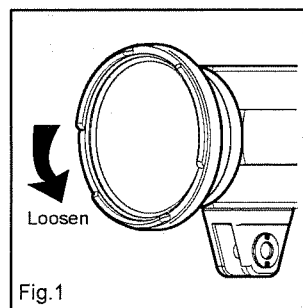
- \* The LED lamp window lights up red when the battery gets low during use. The power turns OFF after approx. 10 minutes.

#### 【Turning the light OFF】

Turn the power switch to the left until it stops. Lock the switch with the safety lever to prevent turning ON accidentally.

### ⚠ CAUTION

- Turn OFF the light and lock the power switch by sliding the safety lever. An unlocked power switch may cause accidental activation.



## Automatic Shut-OFF Circuit

The product is equipped with an "Automatic shut-off circuit" to protect the battery. This circuit automatically shuts off power when the battery voltage lowers to a preset value. The light will go off before the battery voltage has been completely exhausted, and it is not a malfunction.

### ⚠ CAUTION

- The battery may generate gas inside the case if you continue to use without being aware of flooding, repeated over discharge, or using weak battery.

## Color Temperature Enhancer

The included Color temperature enhancer reduces the reddish cast of the light.

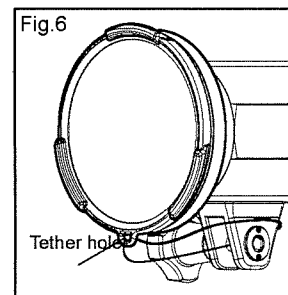
### 《Attaching》

Attach the Color temperature enhancer to the Head as shown in Fig. 6.

### ⚠ CAUTION

Always make sure that the color temperature enhancer is properly attached before use. If not properly attached, it may fall off.

- \* The color temperature enhancer has a tether hole in it. Attach the enhancer tether (including in this package) to the hole. (Fig. 6)

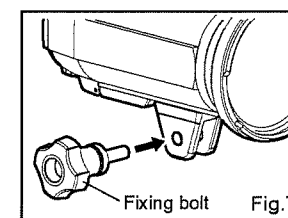


## Attaching the Fixing Bolt

### ⚠ CAUTION

To mount the product to an arm, use the fixing bolt (included in this product package).

Insert the bolt through the non-threaded side as shown in Fig. 7.



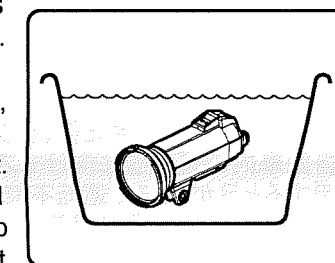
## About the PASSED Label



The Pressure Test Passed label on a product indicates that the product has passed the SEA&SEA pressure test and is waterproof at depth.

## Maintenance and Storage

- Never use chemicals, cosmetics, any petroleum solvents such as paint thinner, or neutral detergent on the product. They may deform and damage the product.
- After each use in salt water, make sure it's watertight, then soak it sufficiently in fresh water.
- Insufficient soaking causes damage by salt to the product. Salty residue may be left on the product where it will crystallize as it evaporates. Crystallized salt is hard to dissolve and difficult to be removed once formed, and it will result in water leakage.
- After rinsing, dry the product well with a soft dry cloth, then let the product dry in the shade, out of direct sunlight.
- Do not dry the product by heating (using a hair dryer, for example). Heating can deform and damage the product.
- If you will not use the product for an extended period of time, store it away from high temperatures, high humidity, direct sunlight, or extreme cold.
- Do not store the product with naphthalene or camphor mothballs, or in locations such as a laboratory where chemicals are used. This environment can cause mold, rust, corrosion or malfunction.
- After using the product, maintain the O-rings before storing. Examine the O-rings before and after each dive. We recommend early exchange of the O-rings, at least once a year.
- Every two years we recommend a complete overhaul of O-rings regardless of the frequency in use, for the best performance of the product.



## Specifications

|                         |                                                                                                                                      |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| 【Power source】          | Exclusive rechargeable Li-ion battery 7.4V 5000mAh (Built-in)                                                                        |
| 【Bulb】                  | 33W Halogen bulb                                                                                                                     |
| 【Color temperature】     | Approx. 3,600K                                                                                                                       |
| 【Beam angle】            | Approx. 80°                                                                                                                          |
| 【Bulb life】             | Approx. 50 hours                                                                                                                     |
| 【Burn time】             | Approx. 60 ~ 100 minutes                                                                                                             |
| 【Charging time】         | Approx. 4 hours (at full discharge)                                                                                                  |
| 【Depth rating】          | 60m / 200ft                                                                                                                          |
| 【Operating temperature】 | Charging: 0~40°C / 32~104° F<br>Using: 0~30°C / 32~86° F                                                                             |
| 【Construction】          | Head/Body: Corrosion-resistant aluminum alloy<br>Rear: ABS resin                                                                     |
| 【Weight】                | Approx. 960g / 33.6oz (Approx. +150g / +5.3oz underwater)                                                                            |
| 【Dimensions】            | 96x124x190mm / 3.8x5.0x7.6inch (WxHxD)                                                                                               |
| 【Accessories】           | Instruction manual, O-ring maintenance manual, Fixing bolt, Color temperature enhancer, AC adapter, Enhancer tether, Silicone grease |

\* Specifications and appearance are subject to change without notice.

## Over-pressure Relief Valve

When gas generates inside, the Over-pressure relief valve automatically vents the gas to reduce excess pressure. If you notice bubbles coming out through the valve during use, it may signal the presence of gas. Please proceed as follows.

1. Turn off the power and discontinue use.
2. Ascend to the surface at a safe of ascent. (Water will not flood into the product even if bubbles are coming out.)
3. Contact an authorized SEA&SEA dealer immediately for maintenance.

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