

UNDERWATER LIGHT LX-25 (#35100)

Instruction Manual

Thank you and congratulations on your purchase of SEA & SEA's LX-25. This product is an underwater light with a depth rating of 75m (250 feet). Please read this manual thoroughly before use and retain for future reference.

Safety Precautions

* Misuses listed under the following precautions could lead to serious consequences. Please observe the precautions as they contain highly important information related to personal and product safety.

Definitions:

- **▲ WARNING!**: Situations that could result in serious injury or death.
- **▲ CAUTION!**: Situations that could result in property damage or personal injury. Please read carefully since failure to heed these precautions could have serious consequences.

▲ WARNING!

- During transportation or when not in use for a long period of time, remove the battery. Accidental activation of the power switch could cause fire.

▲ CAUTION!

- Do not keep the light on for more than 10 seconds on land.
- Always make sure that this light is securely mounted to a compatible arm or clip to prevent it from falling off, becoming lost, causing personal injury or equipment malfunction.
- Do not open the light in a wet or sandy environment. Protect the interior from moisture and debris in order to prevent malfunction.
- Do not attempt to alter, modify or disassemble the light. User modifications can result in flooding. User modifications will void the warranty.
- In the event of flooding, turn off the light and discontinue use immediately.
- If flooding should occur, beware of increased pressure inside the light. When opening the light, handle with extreme care.

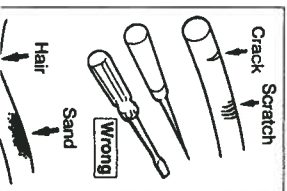
Handling the O-Ring

The O-ring used in this product provides an airtight waterproof seal. Improper handling and maintenance of the O-ring can cause flooding. Please observe the following precautions carefully.

- **Always inspect the O-ring for scratches, cracks or cuts.**

If the O-ring is damaged, it must be replaced. Never remove the O-ring with a sharp tool. To avoid damaging the O-ring, use the Sea & Sea O-ring Remover, a tool especially made for O-ring removal.

▲ *Remover for debris*



- Always rinse this product with fresh water after use. Rinse with latch securely closed to prevent water from penetrating the interior.
- Never use petroleum solvents, such as alcohol or paint thinner, to clean this product; such products might mar or otherwise damage the product's finish.
- This product has been constructed with an airtight seal. When packing this product for air travel, open the cases to alleviate pressure buildup due to atmospheric changes.
- SEA & SEA Products Ltd. will not be responsible for costs incurred should malfunction of this product or accessories result in unsatisfactory results.
- This product incorporates plastic parts. Do not subject this light to extreme heat, such as on a car dashboard, or to direct sunlight. Plastic parts are prone to warping.
- Do not store in a high temperature environment or with the cases sealed; internal pressure may cause warping and result in flooding or malfunction.
- Use this product in accordance with this instruction manual to prevent flooding, product damage or malfunction. User mishandling will void the warranty.

- **Do not crimp the O-Ring.**

Hold the O-ring straight and do not bend or twist it when fitting it into the O-ring groove.

- **O-ring storage.**

Always store your O-ring in an airtight container and in a cool environment. Keep out of direct sunlight. Take care that it is stored flat and not bent or twisted. Do not place any heavy objects on it; excessive weight will flatten it and impede its sealing capability.

- **The O-ring's life is one year.**

The life of the O-ring depends on the diligence of your maintenance, frequency of use and storing conditions, but on average, if you maintain your O-ring properly it will retain its watertight integrity for one year.

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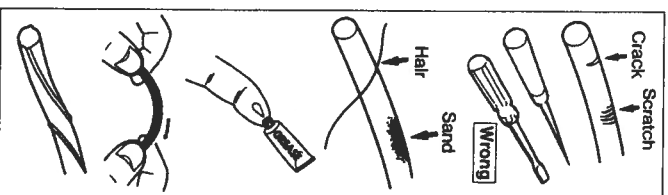
If the O-ring is damaged, it must be replaced. Never remove the O-ring with a sharp tool. To avoid damaging the O-ring, use the Sea & Sea O-ring Remover, a tool especially made for O-ring removal.

- **Inspect for debris.**

Make sure that there are no foreign particles, such as dust, sand or hair on the O-ring, O-ring groove or O-ring contact surface. Such contamination will breach the seal and cause flooding.

- **Lubricate with silicone grease.**

Silicone grease protects the O-ring from drying and abrasion. Dab a small amount of grease onto your finger and draw the O-ring through your fingers until evenly coated. Use the silicone grease sparingly. Too much grease attracts debris.



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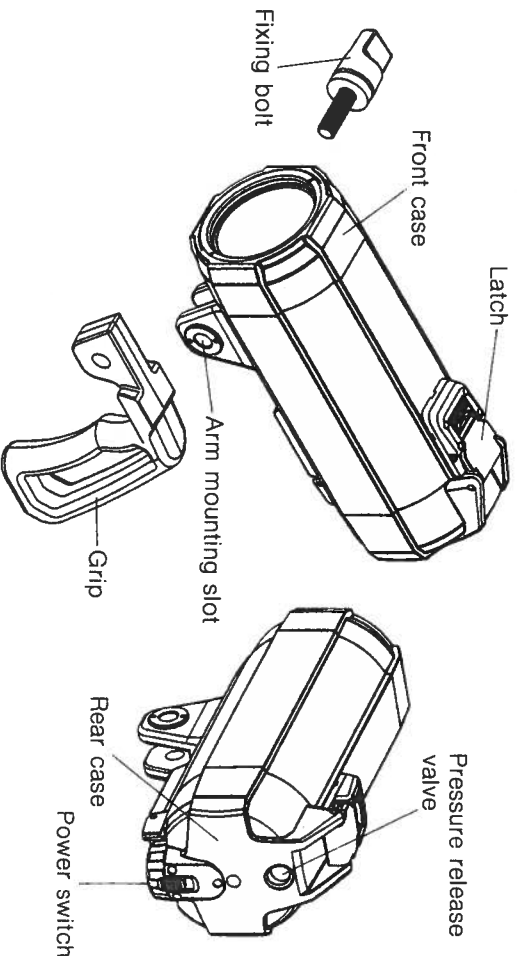
- **Remove the O-ring for inspection.**

Before use, remove the O-ring from its groove and carefully check the O-ring, the O-ring groove and the O-ring contact surface. A thorough examination of the O-ring and O-ring groove is not possible unless the O-ring has been removed.

⚠ CAUTION!

Use Sea & Sea brand silicone grease in the tube with a BLUE cap. Never use Sea & Sea silicone grease in the tube with a WHITE cap. Never use other brands of silicone grease to lubricate the O-ring of this product as they may adversely affect O-ring sealing capability.

Identification of Parts



⚠ CAUTION!

- When used under-water, the battery may generate gas inside the cases. The pressure release valve is a one-way safety valve to release gas buildup. 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 switch and discontinue use.
- (2) Ascend to the surface at a safe rate of ascent. (Water will not flood into the product even if bubbles are coming out.)
- (3) Contact a Sea & Sea authorized dealer for checkup.

- This light is equipped with an "auto shut-off circuit" to protect the battery. This circuitry automatically shuts off power when the battery voltage becomes lower than a preset value. The light will go off before the battery voltage has been completely exhausted. Please note: This is a precaution. This is not a malfunction.

SAFETY PRECAUTIONS

⚠ Nickel-Metal Hydride Battery

- Please read this sheet before use for safe and proper operation.
- Retain this sheet for future reference.

* Misuses listed under the following precautions could lead to serious consequences. Please observe the precautions as they contain highly important information related to personal and product safety.

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

< Safety Precautions for Use of the Ni-MH Battery >

⚠ DANGER!

- Use only the Sea & Sea Quick Charger manufactured exclusively for use with this Ni-MH (Nickel-Metal Hydride) battery. Use only as specified. Failure to heed instructions may cause harmful battery acid leakage, fire hazard, electrical shock, and explosion.
- Never place this battery near heat or fire. Never discard in a fire.
- Never short-circuit the terminals of this Ni-MH battery. Avoid contact with all metal objects.
- Never attempt to disassemble or modify the Ni-MH battery. There are no user serviceable parts. Tampering with this battery may expose you to dangerous voltage, battery acid, electrical shock.
- Never solder the terminals of this Ni-MH battery.
- This Ni-MH battery has a specific polarity. Never force the battery into the charger or light. Always check the + and - polarity before installation. Incorrect orientation may cause permanent battery damage.
- Never connect this Ni-MH battery directly to a power outlet or car cigarette lighter.
- This Sea & Sea Ni-MH battery is for use with Sea & Sea products only. Never use the battery with other manufacturer's products.
- Battery acid poses a serious risk to eyesight. In the event of an accident, immediately flush the eye with cool, fresh water and consult a physician.

⚠ WARNING!

- Do not expose this Ni-MH battery to water. Avoid wet terminals. It may cause corrosion.
- Do not charge this Ni-MH battery beyond the specified charging time; that may cause battery leakage, fire hazard or explosion.
- If the battery acid gets on your skin or clothes, there is a risk of skin irritation or other. Immediately rinse the affected area with cool, fresh water.
- Do not remove or damage the case of this Ni-MH battery. It may cause battery leakage or explosion.
- If you notice battery leakage, color change or warping, discontinue use immediately.
- Keep the battery out of reach of children.
- Do not use or leave this Ni-MH battery in direct sunlight, in the car on a hot surface, or in the proximity of a heater. Extreme heat may cause battery leakage, fire hazard, or rupture of the battery.

⚠ CAUTION!

- Do not throw, drop or subject to violent impact.
- Use or discharge this Ni-MH battery only in environments with a temperature range of 122°F (0° to 50°C).
- Charge this Ni-MH battery only in environments with a temperature range of 32°F (0° to 40°C).
- For recharging, refer to the instruction manual of the Quick Charger.
- Always recharge this Ni-MH battery before use after an extended time in storage.
- The terminals of this Ni-MH battery must be kept free from contamination. Always clean terminals with a clean, dry cloth before use. Contaminated terminals may cause poor connection or recharging failure.
- When not in use, remove this Ni-MH battery from the light. Turn the power off when it is not in use. Store in a dry area with temperatures ranging from -4°F (-20°C) to prevent battery leakage or corrosion.
- Do not recharge this Ni-MH battery in a cold environment (lower than 32°F/0°C). Cold may cause battery leakage, deterioration in performance, or shortened useful life.
- If you notice any abnormality with this Ni-MH battery, discontinue use and bring it to an Authorized Sea & Sea dealer.

< Safety Precautions for Disposal of the Ni-MH Battery >

- The used Ni-MH battery is also a precious resource. Seal the terminals or connect insulation tape or material and bring the used battery to a Sea & Sea dealer for recycling.

SEA & SEA PRODUCTS LTD.

3-2-20 Saiwai-cho, Kawaguchi-shi, Saitama 332-0016 Japan Tel: 048-256-2251
<http://www.seaandsea.co.jp>

Operating Instructions

Opening and Closing the Cases

How to Open

To open the rear case, slide the latch forward in the direction indicated by the arrow; the lock will release. Flip the latch up, as shown (Fig.1).

How to Close

Check that O-rings and cables are properly seated before closing. Press the latch down until you feel it click.

Battery Installation

- ① Remove the battery terminal cover (Fig.2)
- ② Open the rear case and insert the battery, as shown, making sure not to reverse polarities (Fig.3).

Turning the Light ON

Release the power switch safety lock and turn the power switch to the ON position as shown in Fig.4.

Turning the Light OFF

Turn the power switch to the OFF position. Lock to prevent accidental activation (Fig.4).

Mounting to the Light to an Arm or a Grip

This product can be mounted to a Sea & Sea arm or the grip included in the package.

- (1) Insert the arm grip into the mounting slot of the light. Align the holes.

- (2) Insert the fixing bolt through the holes and tighten. Loosen this bolt before changing the angle of the light mounted to an arm.

Replacing the Light Bulb

⚠CAUTION!

- Allow the bulb to cool for at least 30 minutes after use.

- Do not touch the bulb or reflector. If you have touched it, wipe with an alcohol-dipped soft cloth.

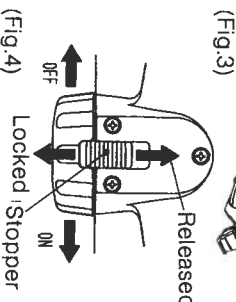
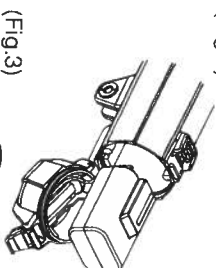
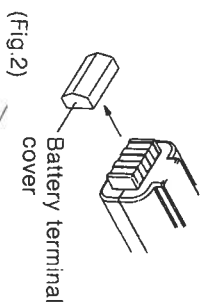
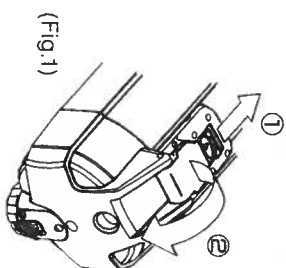
- (1) Release and remove the front case by turning it counterclockwise (Fig.5).

- (2) Gently pull the bulb with its reflector straight out.

- (3) Insert a new bulb.

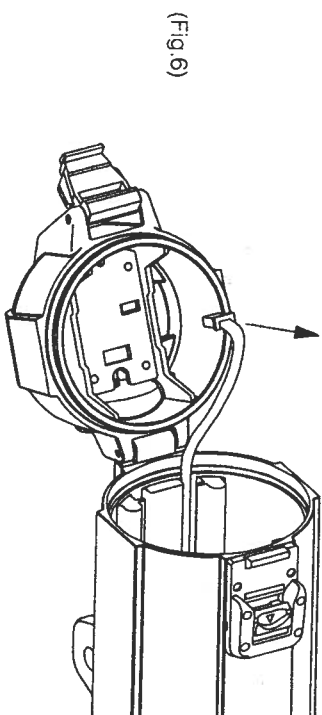
- (4) Replace the front case and tighten by turning it clockwise. Be sure the front and rear cases are properly aligned. If not, align by turning the front case slightly counterclockwise.

Releasing the case one turn will not impair its watertight integrity.



Replacing the O-ring

Before you replace the O-ring of the rear case, pull out the cord from the rear case as shown in Fig.6



About the Battery Pack

The battery included in the package has an excellent cycling characteristic that will allow more than 300 charges without major deterioration in capacity. However, please observe the following instructions, since the battery life will be noticeably shortened if mishandled.

⚠CAUTION!

Never short the battery contacts. For storage and transportation, make sure that no clips or pins are touching the battery contacts.

Ambient Temperature

The battery should be stored under normal temperature (around 20°C=68°F).

Storing the battery in extreme low or high temperature environments will reduce the life of the battery.

Natural Discharge

The battery will reduce its load through natural discharge even when not used.

This reduction of load is temporary and will be restored by recharging. Always fully recharge the battery before use.

Battery capacity may be diminished when not used for a long time, but the capacity will improve as you repeat recharging.

Charging the Battery

Use the Sea & Sea specified battery charger for the battery. Charge time with the dedicated Quick Charger is three hours. Refer to the manual included in the battery charger for recharging instructions.

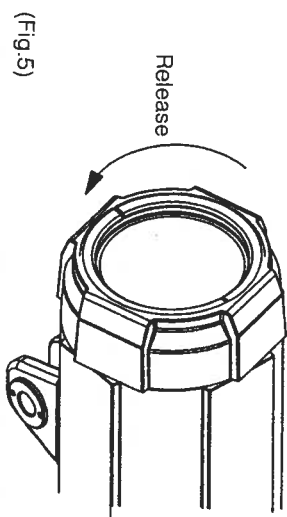


Before changing the angle of the light mounted to an arm.

Replacing the Light Bulb

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- Allow the bulb to cool for at least 30 minutes after use.
 - Do not touch the bulb or reflector. If you have touched it, wipe with an alcohol-dipped soft cloth.
 - (1) Release and remove the front case by turning it counterclockwise (Fig.5).
 - (2) Gently pull the bulb with its reflector straight out.
 - (3) Insert a new bulb.
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- Releasing the case one turn will not impair its watertight integrity.



(Fig.5)

Specifications

Power requirements: Specially-designed rechargeable nickel-metal hydride

7.2V-3700mAh battery

Light bulb: 25W special high color temperature bulb

Continuous burn time: Approx. 50 minutes (full power/full charge)

Color temperature: 4700°K

Effective lighting angle: Approx.60°

Weight: 910g (2 lbs.) on land, 150g (0.33lbs.) underwater

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Products that display this decal have passed pressure-test in accordance with Sea & Sea's standards.

Dimensions: 72mm X 193mm (D X L) (Body only)

Depth rating: 75mm (250 feet)

Accessories: Hand grip, fixing bolt, battery, spare O-ring, silicone grease

Options: LX-25 battery (#35110), LX-25 replacement bulb (#35140)

LX-25 battery quick charger (#35150),

LX-25 O-ring set (#35180)

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*Specifications and price are subject to change without notice.

TROUBLESHOOTING

Before requesting a repair service, check your unit once again using the table below for your reference. If you still believe that your unit needs a repair, contact Sea & Sea World Customer Service Center.

Problem	Possible Cause	Solution
No power supplied.	Batteries not placed correctly	Place battery correctly.
	Battery power too low	Recharge batteries.
Power turns off before lighting	Battery power below minimum requirement; AUTO POWER OFF shuts off power	Recharge batteries.
Battery life too short	Insufficient charging	Fully recharge batteries.
	Natural discharge consumes batteries.	Recharge batteries.
	Batteries became inactive from being left unused for a long time.	Repeat 2~3 cycles of battery recharging and discharging
	Batteries are too old	Replace with new batteries.
Battery cannot be recharged	Batteries are too hot because they were in use until a moment ago.	Leave the batteries for a while and then recharge them.
	Batteries are too old	Replace with new batteries.
Battery recharging ends too soon	Remaining power level was high before recharging start	(This is not a problem)
	Batteries became inactive from being left unused for a long time.	Repeat 2 – 3 cycles of battery recharging and discharging
CHARGE lamp on battery charger blinks red in color	Batteries are not placed properly into the charger.	Place batteries correctly.
	Battery contacts became dirty	Clean the battery contacts with a dry cloth
	Defective batteries	Consult Sea & Sea World Customer Service Center.
REFRESH mode of the battery charger lasts too long	Remaining power level was high before refreshing started	Leave the light ON in the water until it goes off due to low battery. Then start refreshing.

BATTERY STORAGE

- Remove batteries before storing the light.
- Keep the light in a place of low humidity within a temperature range between -20°C and $+30^{\circ}\text{C}$ (recommended temperature range: between $+10^{\circ}\text{C}$ and $+25^{\circ}\text{C}$).
- Even if you will not use the light for a long time, run a cycle of discharging (leave the light ON in the water until it goes off due to low battery and then refresh) and recharge once every six months in order to maintain the lighting function.

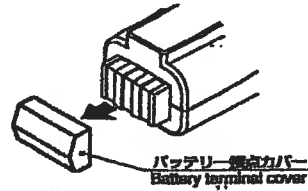
▲注意/CAUTION !

- バッテリーの過放電防止のため、使用中においてもライトが著しく暗くなる前に自動的に電源が切れます。

Light is automatically turned off before light dims in order to prevent battery from over-discharging.

- ご使用の際は、
バッテリー接点カバーを外してください。

When in use, remove the battery terminal cover.



- ご使用後は、バッテリー接点カバーを取付け保管してください。

After use, replace the battery terminal cover and store.

- 水温が低い場所で使用の際、フロントガラス内側に結露が発生する場合がありますが、使用上問題はありません。

When used in cold water, condensation may occur, such condensation will not affect performance.

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