

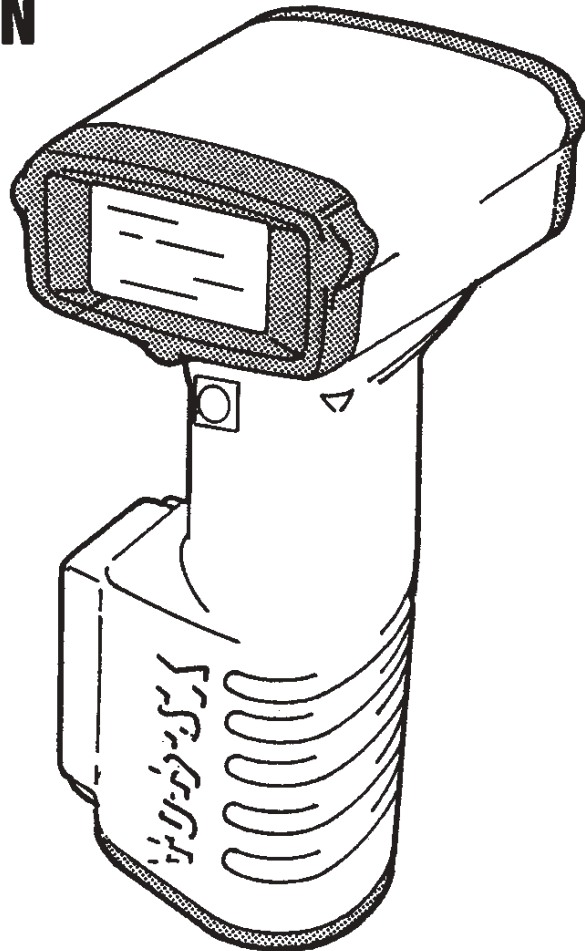
**SEA&SEA**

**UNDERWATER AUTO STROBE**

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**YS-40A**

**取扱説明書**  
**INSTRUCTION**



**Yellow Sub**

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# YS-40A Strobe Instruction Manual

Thank you and congratulations on your purchase of SEA & SEA ,s YS-40A Strobe, designed specifically for use with the Motor Marine 35 MX-10 Camera. For proficient operation of all strobe functions and to maximize performance, please read this manual thoroughly before use. Retain for future reference.

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# Safety Precautions

For proper operation of this housing, please read the following safety precautions before use. Improper use or handling could cause equipment malfunction.

Please read carefully those precautions designated "CAUTION!" Failure to heed can result in personal injury or property damage.

## Safety Precautions for Operation of the Strobe

### CAUTION!

- Use only Ni-cad batteries with a capacity less than 700 mAh, alkaline or manganese batteries. Other batteries may emit hydrogen gas which could possibly cause explosion.
- Always make sure that the strobe and accessories are securely assembled to prevent them from falling off, becoming lost, causing personal injury or equipment malfunction.
- Do not attempt to disassemble the strobe. Internal high voltage circuitry can cause personal injury.
- Do not alter or modify the strobe. User modifications can result in flooding.
- If you detect smoke or an acrid odor, discontinue use immediately. Remove the batteries from the strobe. Send to an authorized Sea & Sea dealer.
- In the event of flooding, turn off strobe and camera. Discontinue use immediately. Remove batteries from camera and strobe.
- ※ Beware of increased pressure inside the strobe. Handle with extreme care when opening.
- ※ Bring to your authorized Sea & Sea dealer as soon as possible.
- Never use abrasives, alcohol or paint thinner to clean the strobe; they will scratch, mar and damage the surface.
- During transportation or when not in use for a long time, remove batteries to avoid unwanted battery consumption due to accidental activation of the power switch.
- Sea & Sea Products Ltd. will not be responsible for costs incurred for film and/or processing should malfunction of the YS-40A strobe, camera, strobe or accessories result in unsatisfactory photographs.

## Safety Precautions for Storage of the Strobe

### CAUTION!

- When not in use for a long period of time, remove batteries; possible battery leakage will cause malfunction.
- When not in use for a long period of time, attach to the camera and trigger the shutter release (film and batteries are unnecessary). This will exercise the internal parts and keep the strobe in good working condition.
- Do not store in a damp or humid environment.
- Do not store this product in extremely warm environments with front and rear cases sealed. Pressure build up inside the housing may cause distortion or warping.
- Do not store in a chemically laden environment. Naphthalene, camphor or other harmful chemicals can cause mildew, rust, corrosion and other damage to the metal and rubber parts in this product.
- This product incorporates plastic parts. Do not subject this strobe to extreme heat, such as on a car dashboard, or in direct sunlight. Plastic parts are prone to warping.

## Handling the O-ring

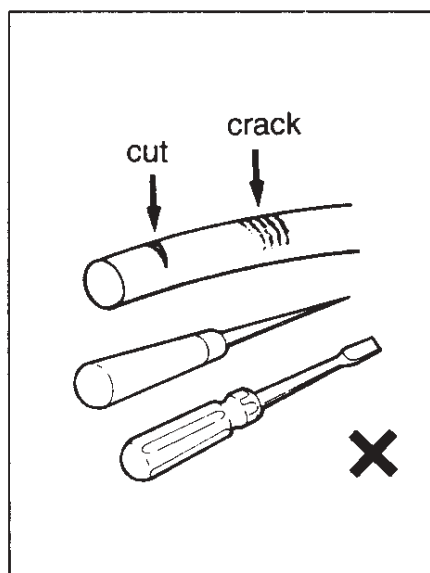
The O-ring in your YS-40A strobe provides an airtight, waterproof seal. Improper handling and maintenance of the O-ring can cause flooding. Please observe the following precautions carefully.

### •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 the O-ring groove is not possible unless the O-ring has been removed

### •Always inspect the O-ring for scratches or cracks.

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 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. If necessary, wash the O-ring thoroughly in fresh water and dry with a lint-free cloth. Use a cotton swab to clean the O-ring groove and contact surface.

- **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.

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

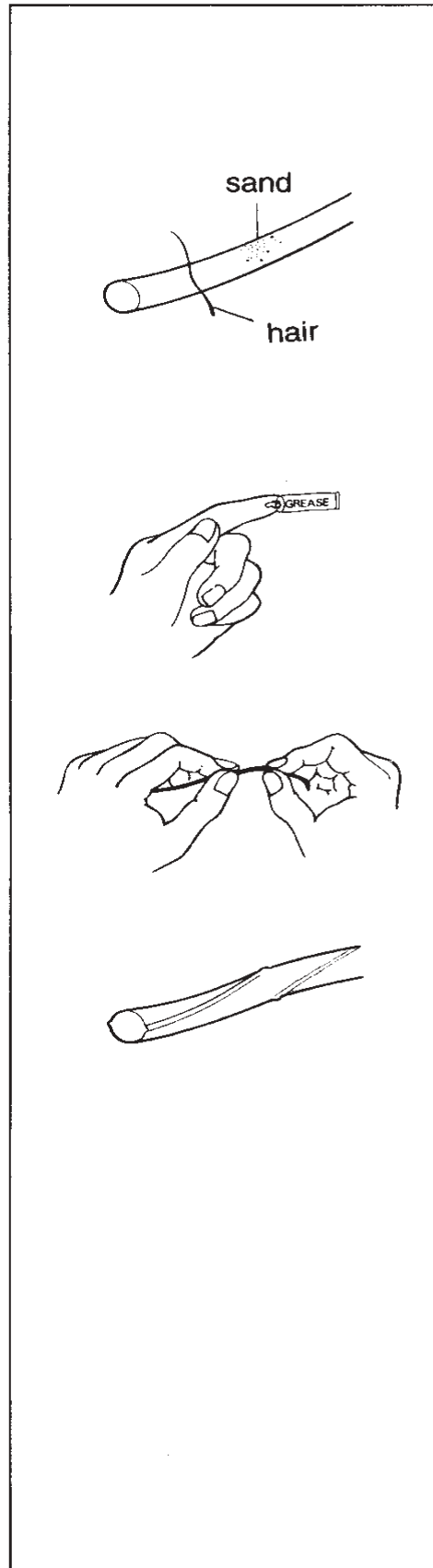
Hold the O-ring straight and do not bend or twist it when fitting it into the O-ring groove.

- **O-ring storage.**

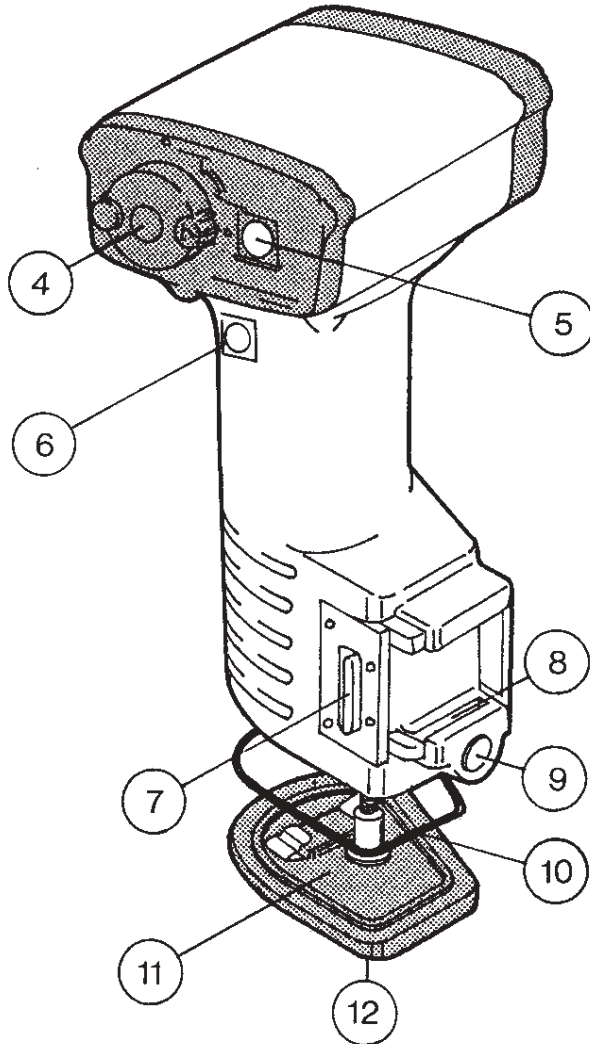
Always store your O-ring (and spare O-rings) in an airtight container and in a cool environment. Keep out of direct sunlight. Take care that it is stored flat and not bent or twisted. Do not place any heavy objects on it; excessive weight will flatten it and impede its sealing capability.

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

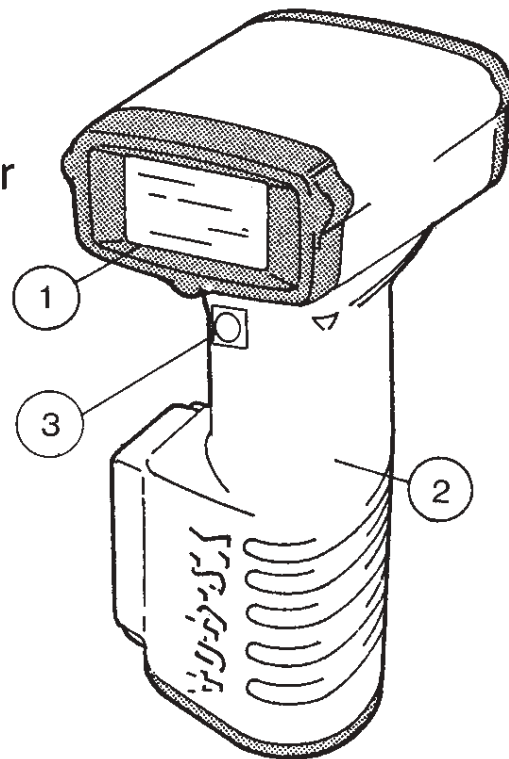
The life of the O-ring depends on the diligence of your maintenance, frequency of use, and storage conditions, but on average, if you maintain your O-ring properly, it will retain its watertight integrity for one year.



# Identification of Parts



1. Strobe Head and Reflector
2. Strobe Grip
3. Auto Sensor
4. ON/OFF Switch
5. Ready Light
6. Auto Confirmation Light
7. Lock Release-Lever
8. Connector Shoe
9. Infrared Window
10. Battery Cap O-ring
11. Battery Cap
12. Battery Cap Knob

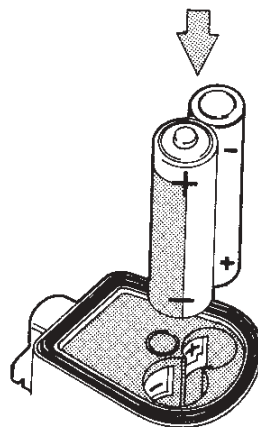
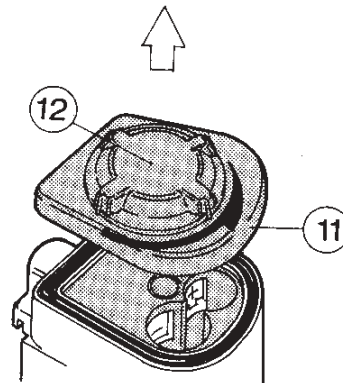


# Before Taking Pictures

## How to Install the Batteries

Use only AA alkaline or ni-cad batteries in this unit.

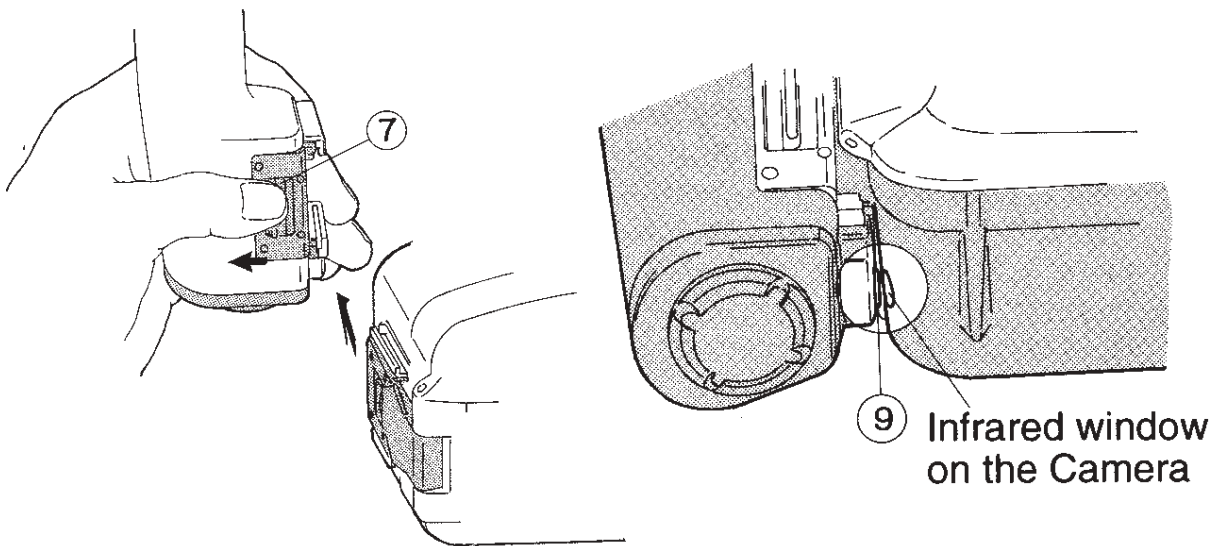
1. Before opening the battery chamber, make sure your hands and strobe are dry.
2. Check that the power switch (4) is in the OFF position.
3. Turn the knob (12) counterclockwise to remove the battery cap. If it does not open, pull the cap (11) straight off.
4. Insert four batteries according to the polarity illustration inside the battery chamber. Always use fresh batteries from the same manufacturer. Never mix alkalines and ni-cads.
5. Inspect the battery cap O-ring for dust or damage. Apply a light coating of silicone grease to the O-ring, then install it in its channel.
6. Place battery cap in position. Turn the knob (12) clockwise until fingertight.



## How to Mount the Strobe to the Camera

The YS-40A is an external strobe designed exclusively for use with the Motor Marine 35 MX-10 camera. The strobe is synchronized with the camera shutter by an infrared optical triggering system. This strobe is for underwater use only.

1. Check that the infrared window on the camera and the infrared window on the strobe (9) are clean to ensure that the infrared impulses can pass through unimpeded.
2. Pull the lock release lever (7) in the direction of the arrow. Slide the connector shoe (8) completely into the camera's strobe mount. It will click into place.



Note: The YS-40A and the Motor Marine 35MX-10 sync by means of an electrical signal exchange called infrared optical triggering. Do not contaminate or insert any object between the infrared windows since it will interfere with the necessary exchange of electric signals.

## How to Remove the Strobe from the Camera

Pull the lock release lever (7) in the direction of the arrow and slide the strobe off the mount.

- When storing, take care not to damage the infrared window.



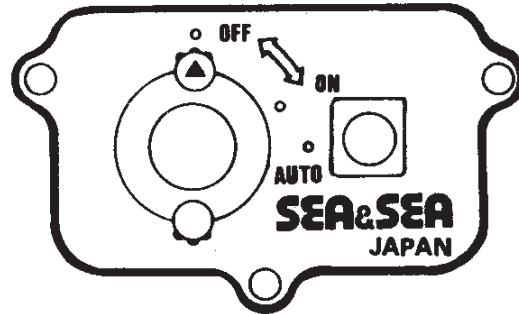
# Taking Pictures

## Operating Modes

The YS-40A has two modes of operation.

•(ON) position: Full power manual mode.

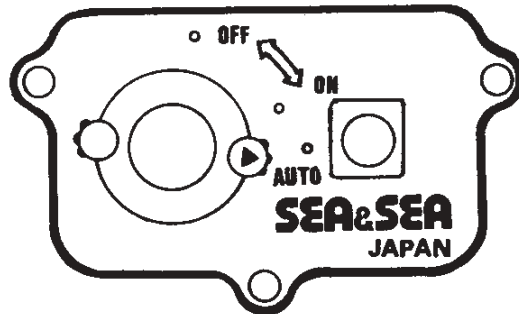
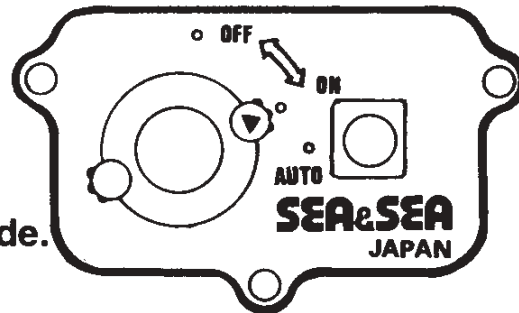
When in the ON position, the strobe operates in manual mode, Guide Number 15m/49 feet (land/ISO 100). Please refer to the exposure calculation table included in this manual for full power manual photography.



•(AUTO) position: Automatic mode.

Preset the aperture to f/4.6 for ISO 100 film and f/8 for ISO 400 film.

In Auto, the strobe will automatically adjust strobe output for subjects between 0.25 and 1.83 meters (0.83 - 6 feet).



## Auto Confirmation Light

When the subject is within the effective range, the confirmation light (8) will illuminate for about two seconds, indicating a correct exposure.

Note:

- Do not cover the auto sensor (3) with your finger when the strobe is in the auto flashing mode. Covering the auto sensor will disable the automatic function, and the strobe will fire at full power.
- The auto sensor will not function when using the diffuser (product #1481, sold separately).

## • Exposure Calculation Table

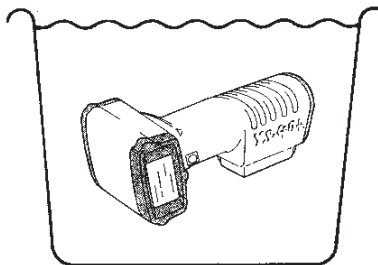
Underwater Exposure Table							
Manual	m	1.66	1.34	0.9	0.68	0.47	0.34
	ft	5.46	4.4	2.95	2.23	1.54	1.1
	ISO 100	4.5	5.6	8	11	16	22
	ISO 400	8	11	16	22		
Auto	100 F4.5	0.25 - 1.66 m			0.82 - 5.45 ft		
	400 F8						

※Example, if you use the YS-40A strobe with ISO 100 film at a distance of 1m (3.3 feet), the aperture should be set at f/8 according to the above table.

※The above exposure table is based on one-half the rated guide number. Use the table for reference only.

## Maintenance and Storage

1. Always rinse with fresh water. Be sure that the battery cap is securely closed.
2. After rinsing, wipe with a dry soft cloth. Store in a cool, dry environment. Caution: Do not use a hair dryer or any other high heat to dry this unit.
3. Before opening the battery cap, wipe off the water completely to prevent water from dripping into the battery compartment. If water penetrates the compartment, dry off immediately.
4. Remove the batteries after use.



## Specifications

<b>Product Name</b>	Auto Strobe YS-40 (exclusively for use with the MX-10)
<b>Guide Number</b>	15m/49 feet (land/ISO 100)
<b>Beam Angle</b>	70° x 80°
<b>Power Source</b>	Four AA alkaline or ni-cad batteries
<b>No. flashes</b>	100 flashes for alkaline, 50 flashes for ni-cad
<b>Recycle Time</b>	5 seconds alkalines, 3 seconds ni-cads
<b>Color Temperature</b>	5500°K
<b>Sync Method</b>	Optical triggering
<b>Function Indicators</b>	Flash ready light (orange), Auto confirmation (green)
<b>Auto Confirmation</b>	Built in; lights for approximately 2 seconds
<b>Controls</b>	ON/OFF, Manual and Auto
<b>Depth Rating</b>	45m (150 feet)
<b>Dimensions</b>	100 x 83 x 192mm/4 x 3.3 x 7.7"
<b>Weight (land)</b>	485g/17 oz (not including batteries)
<b>(u/w)</b>	20g/0.7 oz (not including batteries)
<b>Accessories</b>	O-ring set, exposure calculation table