

**SEA&SEA**

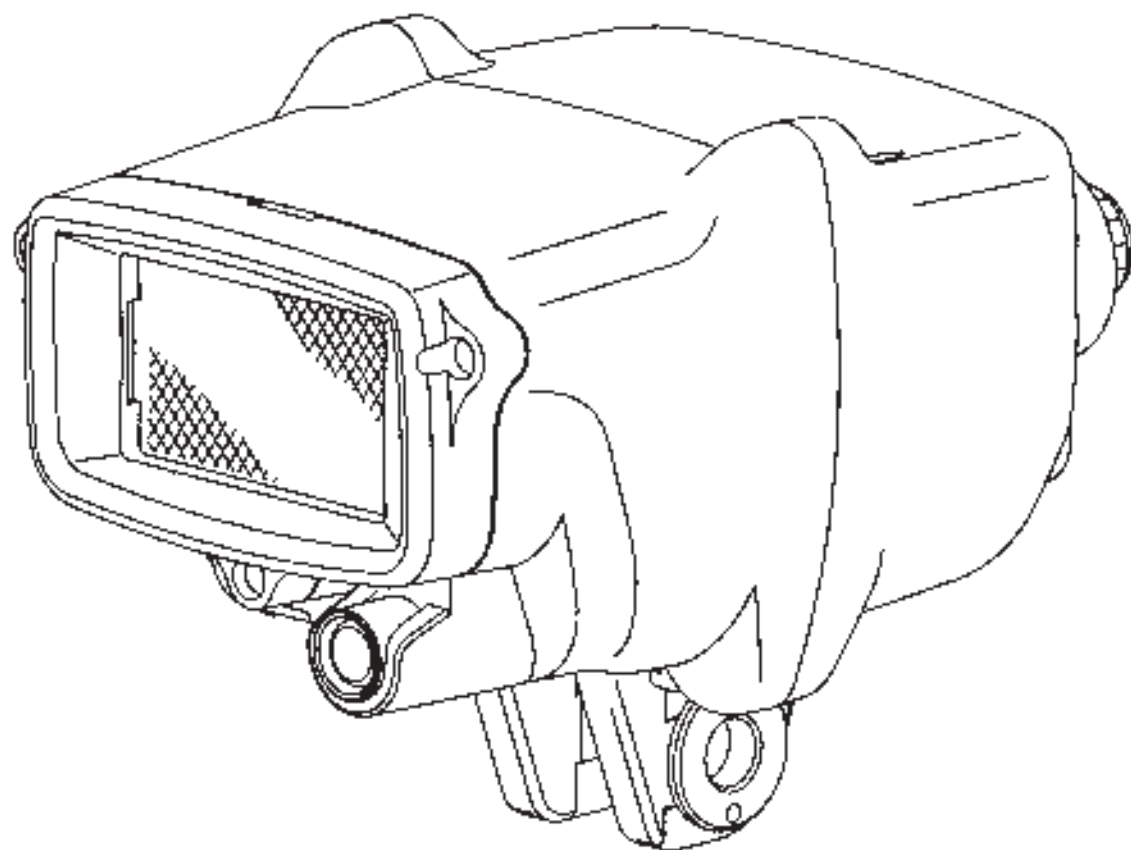


***UNDERWATER AUTO STROBE***

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# ***YS-25AUTO***

**Instruction Manual**



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***Yellow Sub***

# YS-25AUTO

## Instruction Manual

Thank you and congratulations on your purchase of Sea & Sea's YS-25AUTO Strobe. 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 safe and proper use of this product, please read the following precautions before use.

\* 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.

-  **WARNING!:** Situations that could result in serious injury or death.
-  **CAUTION!:** Situations that could result in property damage or personal injury.

### **WARNING!**

- Use only manganese, alkaline, nickel-cadmium, Ni-MH or lithium batteries rated 1000mA or less in this unit. Do not use any other type of battery. Doing so may generate a toxic gas.
- Do not fire this strobe with the reflector facing down on a table or the floor as that may cause overheating of the internal circuitry and/or fire.
- Do not trigger the strobe near combustible materials. It may cause fire.
- Heat from the batteries may cause pressure buildup inside the battery compartment. When opening the battery compartment, the battery cover may release with unexpected force. To avoid injury, open with extreme care.

### **CAUTION!**

- Do not open the battery compartment in a flammable environment.
- Always make sure that the strobes and accessories are securely mounted to prevent them from falling off, becoming lost, causing personal injury or equipment malfunction.
- Do not attempt to disassemble the strobe. Contact with internal high voltage circuitry can cause personal injury.
- Do not alter or modify the strobe. User modifications can result in flooding or malfunction. User modifications will void the product warranty.
- If you detect smoke or an acrid odor, discontinue use immediately. Remove the batteries from the strobe and send the strobe to an authorized Sea & Sea dealer.

- In the event of flooding, turn off the strobe and camera. Discontinue use immediately. Remove batteries from camera and strobe. Send to an authorized Sea & Sea repair center for evaluation and repair.
- If flooded, beware of increased pressure inside the strobe. Handle with extreme care when opening.
- Always disengage the battery from the strobe after use. Possible battery leakage will cause equipment malfunction.
- SEA & SEA Products Ltd. will not be responsible for costs incurred for film and/or processing should malfunction of the YS-25AUTO strobe, camera or accessories result in unsatisfactory photographs.
- The YS-25AUTO strobe incorporates plastic parts. Do not subject this strobe to extreme heat, such as on a car dashboard, or to direct sunlight. Plastic parts are prone to warping.
- Do not store in a damp or humid environment. It can cause mildew or malfunction.
- 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 components in this product.
- When storing the strobe for a long period of time, periodically attach to the camera and trigger the shutter release (with batteries and without film). This will exercise the internal parts and keep the strobe in good working condition.

## Handling the O-Ring

The O-ring on the front case of your YS-25AUTO provides an airtight waterproof seal. Improper handling and maintenance of the O-ring can cause flooding. Please observe the following precautions carefully.

### CAUTION!

A special silicone oil-impregnated blue O-ring is used in this product. For maintenance of this blue O-ring, use Sea & Sea silicone grease in a tube with BLUE cap and lettering. Never use Sea & Sea silicone grease in a tube with a BLACK cap or other manufacturers' brands. Incompatible silicone grease will cause the O-ring to lose its waterproofing ability. If you have applied incompatible grease on a blue O-ring, the O-ring must be replaced.

● **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 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.

● **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.**

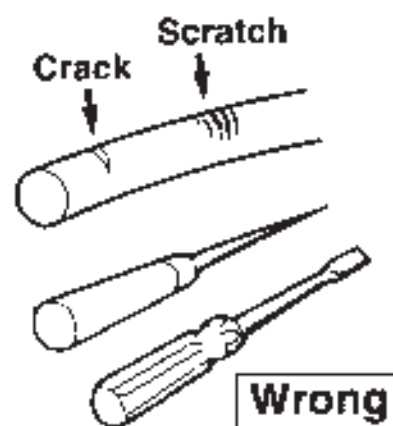
Always store your O-ring in an airtight container and in a cool environment. Keep out of direct sunlight. Take care that it is stored flat and not bent or twisted. Do not place any heavy objects on it; excessive weight will flatten it and impede its sealing capability.

● **The O-ring's life is one year.**

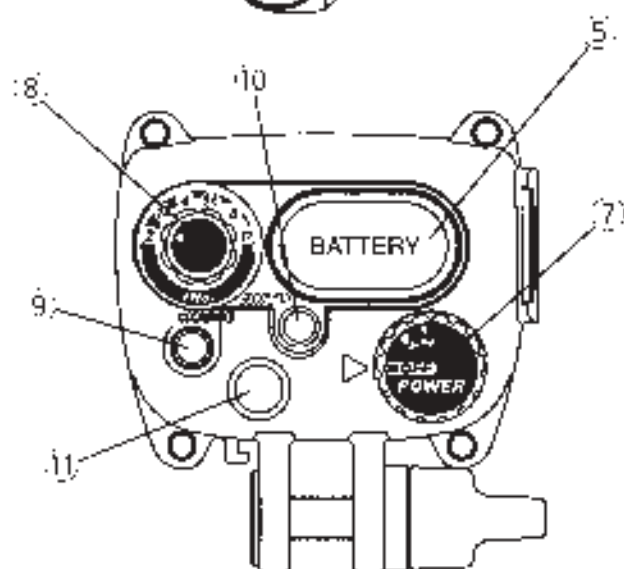
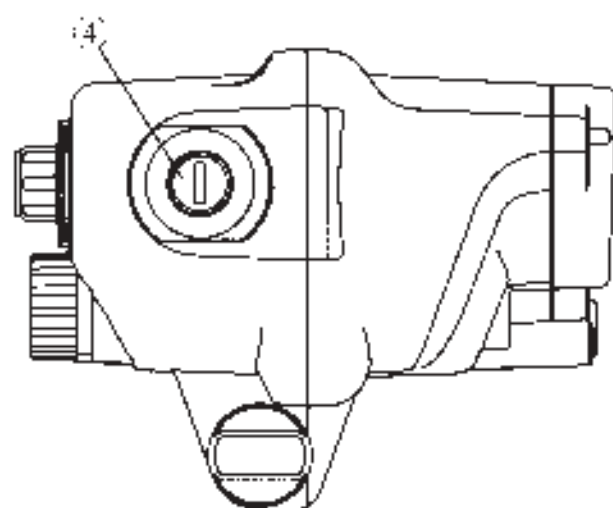
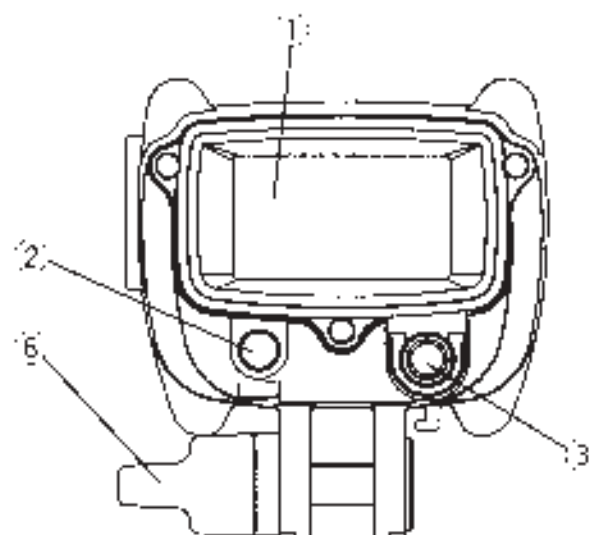
The life of the O-ring depends on the diligence of your maintenance, frequency of use, and storing conditions, but on average, if you maintain your O-ring properly, it will retain its watertight integrity for one year.

● **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.

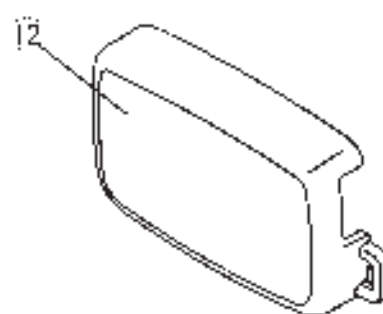


# Identification of Parts



- 1: Reflector
- 2: Slave Sensor
- 3: Auto Sensor
- 4: Battery Holder Release
- 5: Battery Case
- 6: Sea Arm fixing Bolt
- 7: Power Switch
- 8: Aperture Control Knob
- 9: Ready Light
- 10: Auto Confirmation Light
- 11: Pressure Release Valve
- 12: Diffuser

## Accessories



O-ring



Silicone Grease



Batteries

## Controls

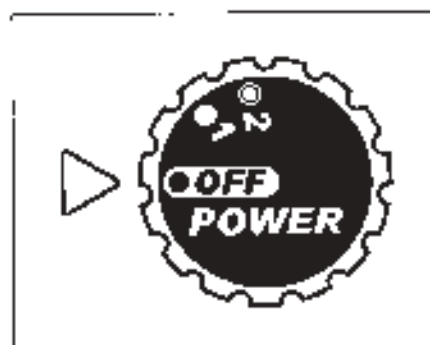
### <Power Switch>

[OFF] Turn the power switch to this position to turn off the power.

Keep the switch at this position while this strobe is not in use.

[1] Turn the power switch to this position when you use a digital camera without pre-flashing function (its built-in strobe flashes only once).

[2] Turn the power switch to this position when you take auto strobe shots with a digital camera with pre-flashing function.  
In other words, turn the switch to this position if the built-in strobe of your digital camera flashes twice when shooting under forced flashing mode.



### ⚠ CAUTION!

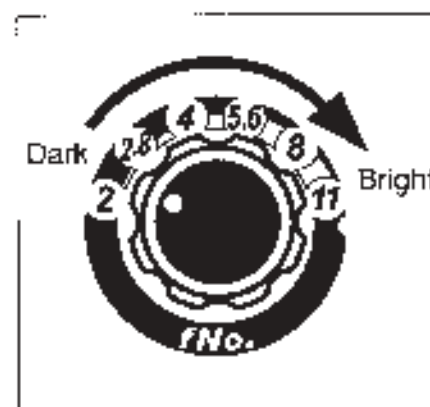
Remember to set the built-in strobe of your digital camera to forced flashing mode before use.

### <Aperture Control Knob>

By adjusting this aperture control knob to the value that is used for aperture control of your camera, YS-25AUTO automatically flashes at the optimum light level for the setting.

6 steps of aperture values are available.

At a certain distance from the subject, turning the aperture control knob clockwise increases the light level (resulting in a bright picture) and turning it counter-clockwise decreases the light level (resulting in a dark picture).  
(The greater the number you choose, the brighter gets the strobe.)



- \* You can set the knob to the position between the numbers when you do not find exactly the same "f" number as the one used for your camera.
- \* The indicated aperture values are references based on use on land.  
Adjustment will be required considering the effect of water opacity and quality, floating objects, etc.

## Installing the Batteries

The YS-25AUTO is powered by two AA alkaline batteries, nickel-cadmium, Ni-MH or lithium batteries rated up to 1000mA.

- ① Using a coin, turn the battery holder release counterclockwise by 90° (1/4 turn). Pull out the released battery holder from the battery chamber.

### <CAUTION!>

After use, hold the strobe with the battery chamber facing down in order to prevent water from penetrating the interior.

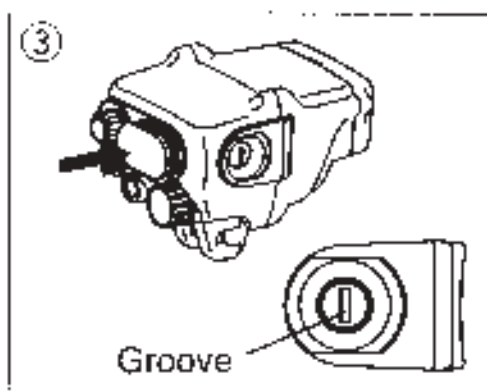
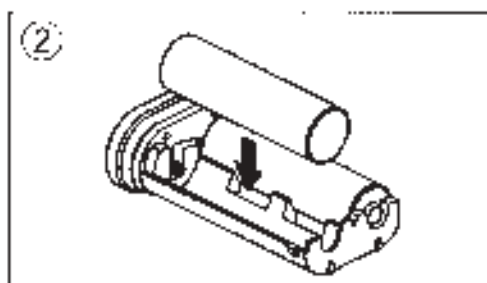
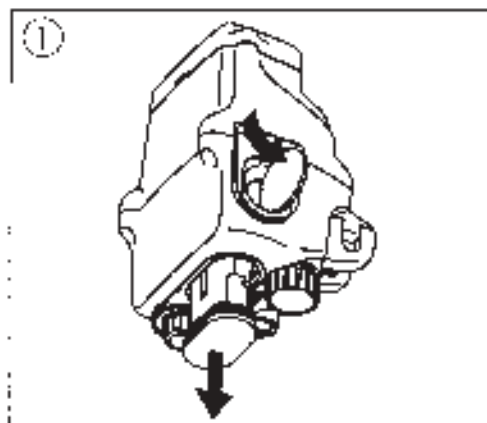
- ② Install the batteries according to the polarity shown on the battery holder.

### <CAUTION!>

Make sure that there are no foreign particles, such as dust, sand or hair, in the battery chamber, on the O-ring, and on the O-ring channel. Make sure that the O-ring is not crimped, twisted, scratched, and is securely in its channel.

※ See "Handling the O-Ring" on page 3.

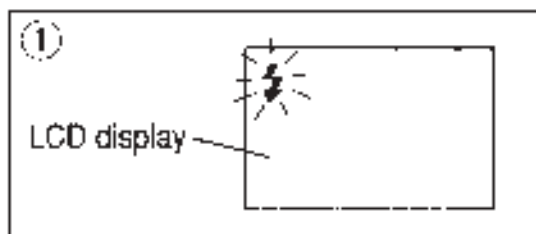
- ③ Insert the battery holder back into the chamber and push until the battery holder clicks into the "locked" position, with the coin groove vertical, as shown.



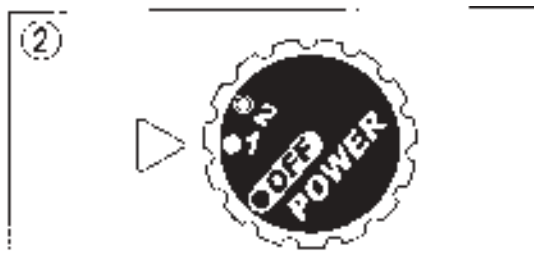
## Checking Synchronization

The YS-25AUTO flashes by sensing the light from the your digital camera's built-in flash. Before using the YS-25AUTO, be sure to set the built-in flash to "forced flash" mode or "On" (usually indicated by a lightning bolt symbol). In this mode the flash is set to fire regardless of the surrounding brightness. Then check the synchronization between the YS-25AUTO and the built-in flash by following the procedure described below.

**Note:** The preflash function is used by the camera to determine focus, proper exposure, and correct color balance. The number of flashes may vary depending on the make and model of the camera.



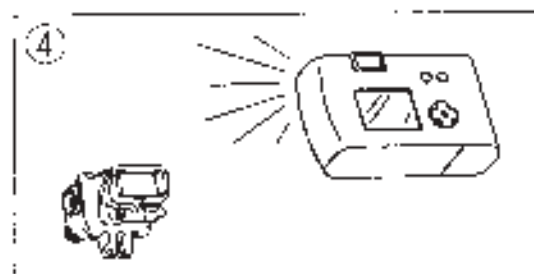
- ① Set your camera's built-in flash to forced flash mode.
- ② Set the power switch on the YS-25AUTO to [1].
- ③ Set the Aperture Control Knob on the YS-25AUTO to "11".



- ④ Hold the camera away from and facing the strobe as shown and release the shutter. (Appropriate distance between the YS-25AUTO and the camera should be 1m/40 inches or more.)

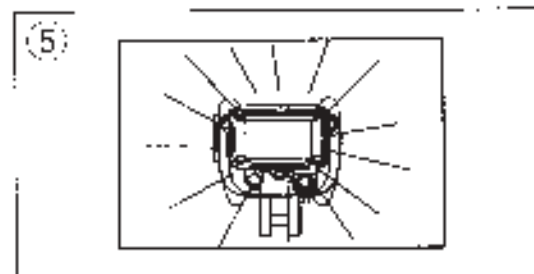


- ⑤ Review the image on the camera's LCD display. If the strobe is synchronizing properly, the image should be washed out from the flash.



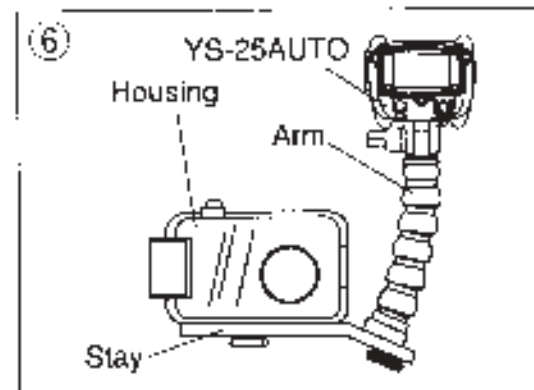
In this case, your camera will properly synchronize when the power switch is set to [1].

If the image is not washed out, then the strobe has not synchronized with the camera. Set the power switch at the [2] and repeat the above steps ③ and ④. Synchronization has been achieved when the image on the LCD is washed out.



Once you determine the correct number setting for synchronization, set the power switch to that number every time you use the camera.

- ⑥ Confirm the synchronization setting by repeating the test after you have assembled your underwater system, including the camera, housing, stay, arm and strobe.



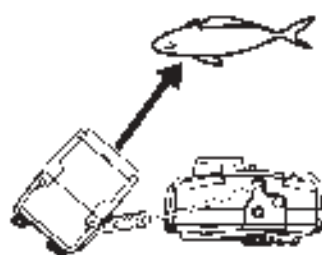
#### Note:

- The number of flashes during preflash may change when the camera is used in a different mode. Check the synchronization when you change the camera mode.
- Under certain water conditions and camera-to-strobe distance, the camera's built-in flash may not trigger the YS-25AUTO. In that case, use the Sea & Sea Fiber Optic Cable for the YS-25AUTO (sold separately).

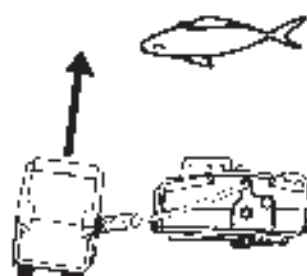
## Taking pictures

With its auto sensor (located below the bulb) sensing the brightness around the subject, YS-25AUTO automatically controls its light level according to the specified aperture value.

The flashing side of YS-25AUTO needs to face the subject. Otherwise, it may cause malfunction due to failure of auto-sensing.



**Right**



**Wrong**

Whenever the AUTO function has run successfully, the AUTO confirmation lamp (green) turns on for 5 seconds.

### <If your camera cannot be set to ISO 100 sensitivity>

- Set the aperture value of YS-25AUTO to "open" side (smaller value).

The aperture setting of YS-25AUTO changes depending on the ISO number as shown in the table below.

1 step (-1EV) for ISO 200 (Example: 4→2.8)

2 steps (-2EV) for ISO 400 (Example: 4→2)

- Set the aperture control knob to the position between the numbers when you do not find exactly the same number as the one used for your camera.

Aperture value of camera	Aperture Setting of YS-25AUTO			
	ISO 50	ISO 100	ISO 200	ISO 400
2	(2.0)	(2)		
2.8	(4)	(2.8)	(2)	
4	(5.6)	(4)	(2.8)	(2)
5.6	(8)	(5.6)	(4)	(2.8)
8	(11)	(8)	(5.6)	(4)
11		(11)	(8)	(5.6)

### <If your camera does not have aperture control>

- Check the aperture value that is indicated when shutter release is half-pressed and set the aperture control knob of YS-25AUTO to that value.
  - Set the aperture value of YS-25AUTO to the open side aperture value (smaller number) of the camera. (See the instruction manual or catalog of your camera.)
- ※Cameras with no aperture control automatically adjust the aperture depending on the shooting conditions. In the dark underwater environment, the aperture is automatically adjusted to the open side (smaller number).  
In the shallow and bright seawater or with backlight, it is set to the closed side (larger number). So user must adjust the aperture control knob accordingly.

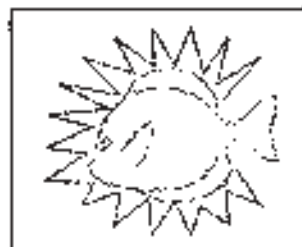
The aperture control of camera varies with the manufacturer, specifications and settings of the camera, so refer to the instruction manual and specifications of your camera for these details

**<If you experience overexposure (whiteouts) >**

Depending on the shooting conditions such as short distance, the resulting picture may have whiteouts due to overexposure.

To prevent this, try the following countermeasures.

- ☐ Set the aperture control knob of YS-25AUTO to open side (smaller value).
- ☐ Set the aperture value of the camera to closed side (larger value).
- ☐ Set the exposure correction control of the camera to "+ (positive)" side.
- ☐ Set the ISO sensitivity of the camera to a value lower than 100.
- ☐ Attach a light reduction filter / diffuser to YS-25AUTO.
- ☐ Using a long arm, move back the YS-25AUTO to provide a longer distance from the subject.



**<If you experience underexposure (dark picture) >**

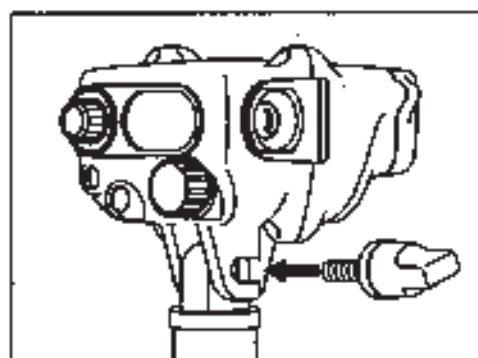
Depending on the shooting conditions such as a short distance, the resulting picture may look too dark due to underexposure. To prevent this, try the following countermeasures.

- ☐ Set the aperture control knob of YS-25AUTO to closed side (larger value).
- ☐ Set the aperture value of the camera to open side (smaller value).
- ☐ Set the exposure correction control of the camera to "- (negative)" side.
- ☐ Set the ISO sensitivity of the camera to a value higher than 100.
- \* Adjust the light level using an appropriate countermeasure or combination of them depending on the camera specification and shooting conditions.



## Sea Arm Fixing Bolt

To mount the YS-25AUTO to an arm, use the fixing bolt (included in this product package). Insert the bolt through the nonthreaded side, as shown.



## Diffuser

### <Attaching the diffuser to the strobe>

To attach the diffuser (included in the product package) to the YS-25AUTO, fit and press it to the front of the strobe so that the tabs on the diffuser snap into the grooves on the strobe, as shown (Figure 1).

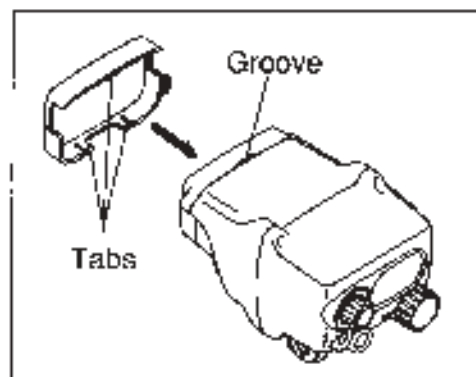


Figure 1

### ! CAUTION!

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

### <Detaching the diffuser from the strobe>

To detach the diffuser, push the large tabs on the bottom forward, as shown (Figure 2).

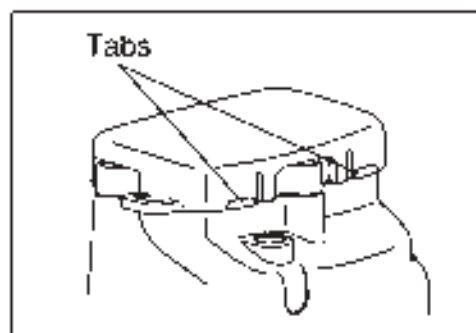


Figure 2

## Fiber Optic Cable

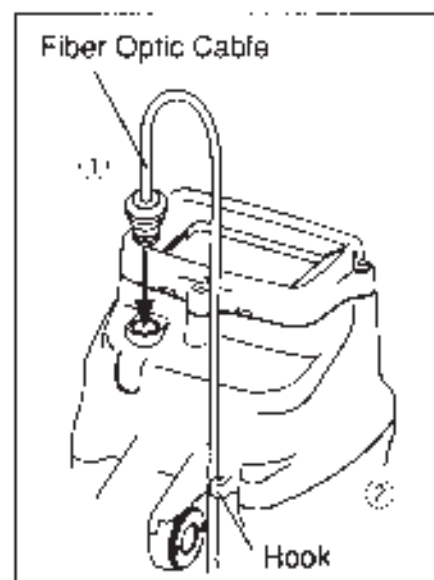
Use Sea & Sea's Fiber Optic Cable for the YS-25AUTO (sold separately) when the YS-25AUTO cannot make cordless synchronization with the camera's built-in flash.

### <Connection>



- 1) Insert one end of the fiber optic cable into the slave sensor socket of the YS-25AUTO, as shown.
- 2) Secure the cable by the hook, as shown.  
Connect the other end of the cable to the housing. Refer to the instruction manual for the fiber optic cable for instructions..

### ! CAUTION!

Read the instruction manual for the fiber optic cable before use.



# Specifications

Controls and Functions:	Power Switch: OFF,  , 
	Aperture Control Knob: 6 steps
Indicators:	Ready Light (Red LED lights up when charging is complete)
	AUTO confirmation Light (Green LED lights up for approximately 5 seconds to confirm a correct automatic expose)
Guide Number:	15 (land)
Aperture Control:	6 steps (2/2.8/4/5.6/8/11)
Beam Angle:	80° x 90° (full Power)
Color temperature:	5300° (full Power)/with Diffuser: 5000°K (full Power)
Battery life(full Power):	2AA alkaline batteries: Approximately 200 flashes 2AA Ni-MH batteries (1700 mA): Approximately 300 flashes 2AA Ni-Cd batteries: Approximately 100 flashes 2AA Lithium batteries: Approximately 350 flashes
Recycle time(full Power):	2AA alkaline batteries: Approximately 5 seconds 2AA Ni-MH batteries (1700 mA): Approximately 4 seconds 2AA Ni-Cd batteries: Approximately 5 seconds 2AA Lithium batteries: Approximately 5 seconds
Battery Requirements:	2AA alkaline batteries: (1.5V x 2 = 3V) , or 2AA Ni-MH batteries (1700 mA): (1.5V x 2 = 3V) , or 2AA Ni-Cd batteries: (1.2V x 2 = 2.4V) , or 2AA Lithium batteries: (1.5V x 2 = 3V)
Depth Rating:	50m (164ft)
Dimensions:	88 (H) x 81 (W) x 116mm (D)
Weight:	410g (land) /6g (underwater) *including batteries
Accessories:	2AA alkaline batteries, Sea Arm fixing bolt, silicone grease, O-ring, diffuser. Instruction

※Specifications and prices are subject to change without notice.