

# Instruction Manual

Thank you for purchasing SEA&SEA products. Please read this instruction manual carefully prior to using this product. Only with a thorough understanding of this manual's content will you be able to use this product correctly. After reading the manual, please be sure to keep it in a place where you can easily come back to it at any time.

## Attention

**External strobes cannot be triggered when the batteries in the converter are spent. In order to avoid this, we strongly recommend freshly charged batteries are fitted to the converter prior to diving, after every one-day use.**

## Safety Precautions

For safe handling of the product, please read the following precautions carefully before use.

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.

### WARNING

- Use only batteries approved for use in this product. Do not mix old and new batteries or batteries of different types.
- Remove batteries before transport or storage, or when you are not going to use the product for an extended period of time, to prevent unexpected activation.
- When opening the housing, do not place your head directly over and close to the rear case. Due to a chance of accumulated gas from the batteries, the rear case may open quickly due to increased pressure, possibly causing injury.
- Do not let water and/or foreign material in this product. This may cause fire or electrical failure.
- Do not handle batteries wet hands to prevent shock hazards.
- Do not use the product in the presence of flammable gas, as this could result in explosion or fire.
- Keep out of reach of children to prevent accidental ingestion. If swallowed, seek medical advice immediately.

### CAUTION

- 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.
- 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 this 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.
- 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.
- 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 SUNPAK Co., Ltd. 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 SUNPAK Co., Ltd. will not be responsible for the replacement or compensation for cameras, lenses or those accessories damaged due to your invalid operation.
- SEA&SEA SUNPAK Co., Ltd. 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 userserviceable 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.

- 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.
- 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.
- 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.

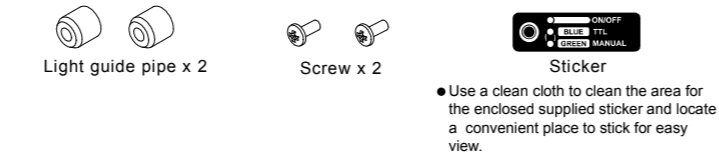
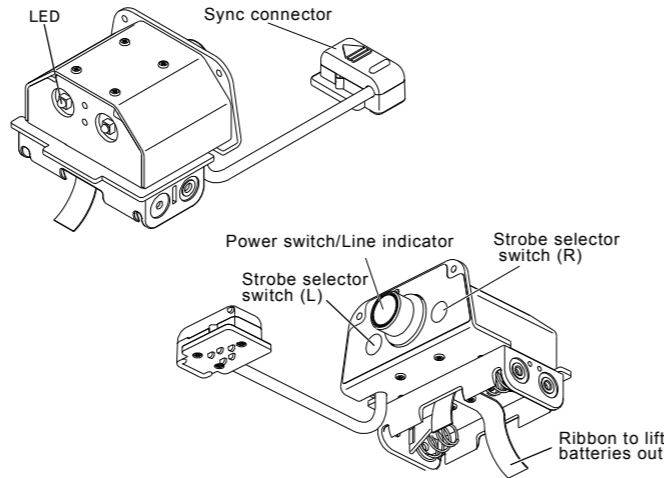
### CAUTION

- Avoid strong shocks/impacts or excess stress to batteries.
- 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. Remove batteries from the equipment when not in use. Store in dry area with temperatures ranging from -20°C to 30°C (-4°F to 86°F).
- In some cases when the external strobe(s) fire(s) continuously, the strobe(s) may not keep up with the camera's trigger signal resulting in inconsistent firing.

## 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.
- 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.
- Always remove batteries from the product after use.
- Clean the light receiving and emitting parts of the Fiber-optic Cable II, the housing and the strobe(s) with a soft cloth or similar being careful not to scratch the parts.

## Identification of Parts



## Preparation for shooting

### Battery installation

This product can only be used with AAA alkaline batteries or nickel hydride batteries. Do not use other kinds of batteries.

Place the ribbon at the bottom of battery box, then place the batteries in the box.

- Take care to insert the batteries in the correct direction.
- When removing the batteries, pull the ribbon.

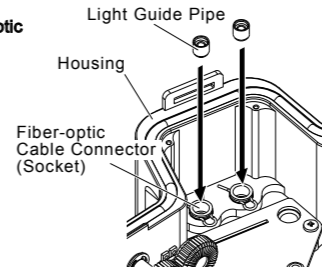
### CAUTION

- When installing or removing batteries, thoroughly wipe water off this product and dry your hands. Pay particular attention not to allow water from your hair or wetsuit to drip into the battery compartment. This is in order to prevent an electrical hazard, mold, malfunction or flooding.
- Remove the battery from the product when not in use for a long period of time.

## How to fit the converter to the housing

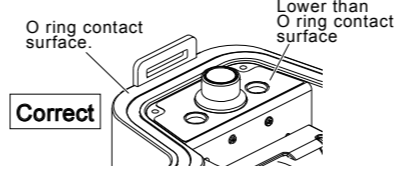
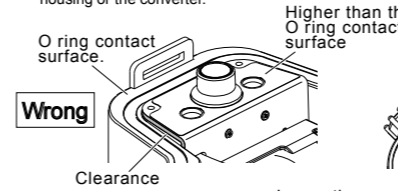
### 1 Insert the Light Guide Pipes in the Fiber-optic Cable Connectors (Sockets).

- In order to prevent the Light Guide Pipes from coming off, when fitting the converter to the housing or when removing the converter from the housing, place the housing front case facing downward.
- When the camera's built-in flash is used, remove the Light Guide Pipes
- When fitting the Light Guide Pipes, clean and dry your hands beforehand. Grease or fat may cause performance loss.



### 2 Fitting the Optical YS Converter to the housing.

- Fit the converter in the correct position. Failing to do so may cause water leakage or damage to the housing or the converter.



### 3 Fix the converter with the accessory screws.

- Do not over tighten the screws.

## How to set in accordance with the camera

Preset the Optical YS Converter/C in accordance with the camera before use.

### 1 Turn the power switch off.

### 2 Press and hold the power switch until the lamp lights up and then begins to flash.

### 3 Repeat the above procedure until the power switch lamp flashes the desired color.

- The lamp flashes green: such as EOS 70D
- The lamp flashes blue: such as EOS 5DMark III, EOS 80D

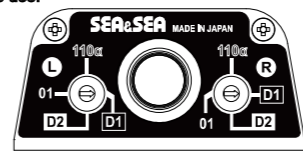
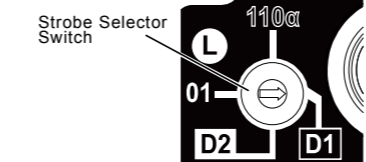
\* Please refer to our website (<http://www.seaandsea.jp>) [Compatibility list for the Optical YS converter].

\* Preset remembers the selected setting so you will not need to repeat the procedure again, even if the battery is removed.

## Strobe selector switch (L / R)

Set the switch to the strobe which you would like to use.

- Turn the switch by using a small flat-blade screwdriver.
- When 2 strobes are used, strobe selector Switch (L / R) must be set on each strobe.



[Setting example] When both strobes are the YS-D1

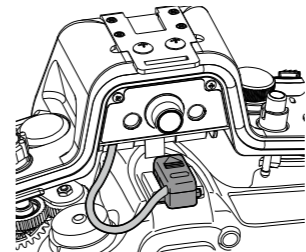
## Connecting the converter to the camera

### 1 Mount the camera in the housing. (See the housing instruction manual.)

### 2 Insert the Sync Connector into the camera's accessory shoe.

- When installing or removing the Sync Connector, be sure to hold the connector part, if you push or pull on the cord, it may damage the connector causing contact failure.

### 3 When closing the housing, please ensure the connector cord is safely secured inside the housing.



## Connecting strobe(s)

### 1 Remove the Fiber-optic Cable Connector (Socket) Caps

### 2 Insert the Fiber-optic Cable II in the Fiber-optic Cable Connector (Socket) till it stops.

- Only use the following Fiber-optic cables: Fiber-optic cable II S/2 (#50135), Fiber-optic cable II M/2 (#50138), Fiber-optic cable II L/2 (#50133) or Fiber-optic cable L-type (discontinued).
- Failing to do so may cause malfunction.

### CAUTION

- This product is only compatible with certain SEA&SEA products. Use of other equipment will void the product warranty.

## Power switch

### 1 Push the Power switch for more than 2 seconds to activate the converter.

The converter is set to TTL mode as shown by Blue light.

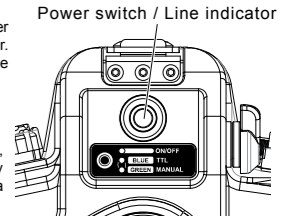
- The converter will automatically power off if the shutter lever or the mode switch is not activated for more than one hour. The converter can be re-activated by pressing the mode switch for more than 2 seconds.

Low battery level is indicated by flashing LED lamp. When the light starts flashing, replace the batteries.

- Under some circumstances and environmental conditions, where the batteries voltage can fluctuate, the low battery warning may not function. Use the low battery warning as a rough indication.

By pressing the Power switch for a short time, the mode is changed to Manual as shown by green light.

- Pressing the Power switch for a short time will change the Mode.



## TTL photography

Set the switches of the strobe for TTL photography

- Be sure to set the camera as below for TTL photography.
  - For better resolution, use ISO 400 and below is recommended.
  - Set the exposure compensation to  $\pm 0.5$ .
  - Set the shutter curtain sync timing to 1st curtain sync.
  - Select "1: Average" in custom functions menu "E-TTL II" when using with Canon cameras supporting E-TTL II.
- Refer to the camera's instruction manual for the setting.
- Turn ON the slave function of the strobe if you use the YS-110 $\alpha$ .
- Refer to the strobe's instruction manual for details.
- When used with the YS-D1, set the strobe to DS-TTL mode. In slave TTL mode, the YS-D1 may malfunction.
- In some cases when the external strobe(s) fire(s) continuously, the strobe(s) may not keep up with the camera's trigger signal resulting in inconsistent firing.
- Under some shooting conditions, part of the image may not be entirely illuminated (straight shadow may appear in images) due to the camera shutter closing before the strobe(s) stop(s) emitting light. When this phenomenon occurs, improve or rectify it by the following methods.
  - Shooting conditions
  - Shutter speed is higher than 1/160 when exposure compensation function is used.
  - When trigger light (light from Optical YS Converter) is emitted at full or almost full.
- [Solution]
  - Set the light level control dial of the YS-D1 to 0.
  - Lower the shutter speed (of the camera).
  - Widen the camera's aperture.
  - Shoot in manual mode.

- Optical YS converter is used to obtain proper light exposure based on a 18% gray card. Exposure compensation is sometimes required to be set on the camera or the strobe depending on the subject and environment.
- Picture may be over-exposed if the setting is out of TTL range. Strobe(s) adjusted is required.

## Manual photography

### 1 Set the switches of the strobe for manual photography

### 2 Adjust the amount of light for each strobe

- Be sure to set the camera as below for TTL photography.
  - For better resolution, use ISO 400 and below is recommended.
  - Set the shutter curtain sync timing to 1st curtain sync.
- Refer to the camera's instruction manual for the setting.

## Specifications

Battery Requirements	AAA Alkaline x 2 : 3V / AAA Ni-MH x 2 : 2.4V
Continuous operation time	Alkaline : 15hours / Ni-MH : 12hours (room temperature)
Dimensions (WxHxD)	54.4 x 39.5 x 53.3mm / 2.1 x 1.6 x 2.1inches (excl. cable)
Weight	Approx. 54g / 1.9oz (excl. Batteries)
Accessories	Light guide pipe x 2 - Screw x 2 - Sticker - Instruction Manual (this manual)
Operating temperatures limitation	1°C ~ 40°C

- Specifications and appearance are subject to change without notice.

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, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio TV technician for help.

"This Class B digital apparatus complies with Canadian ICES-003." "Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada."