

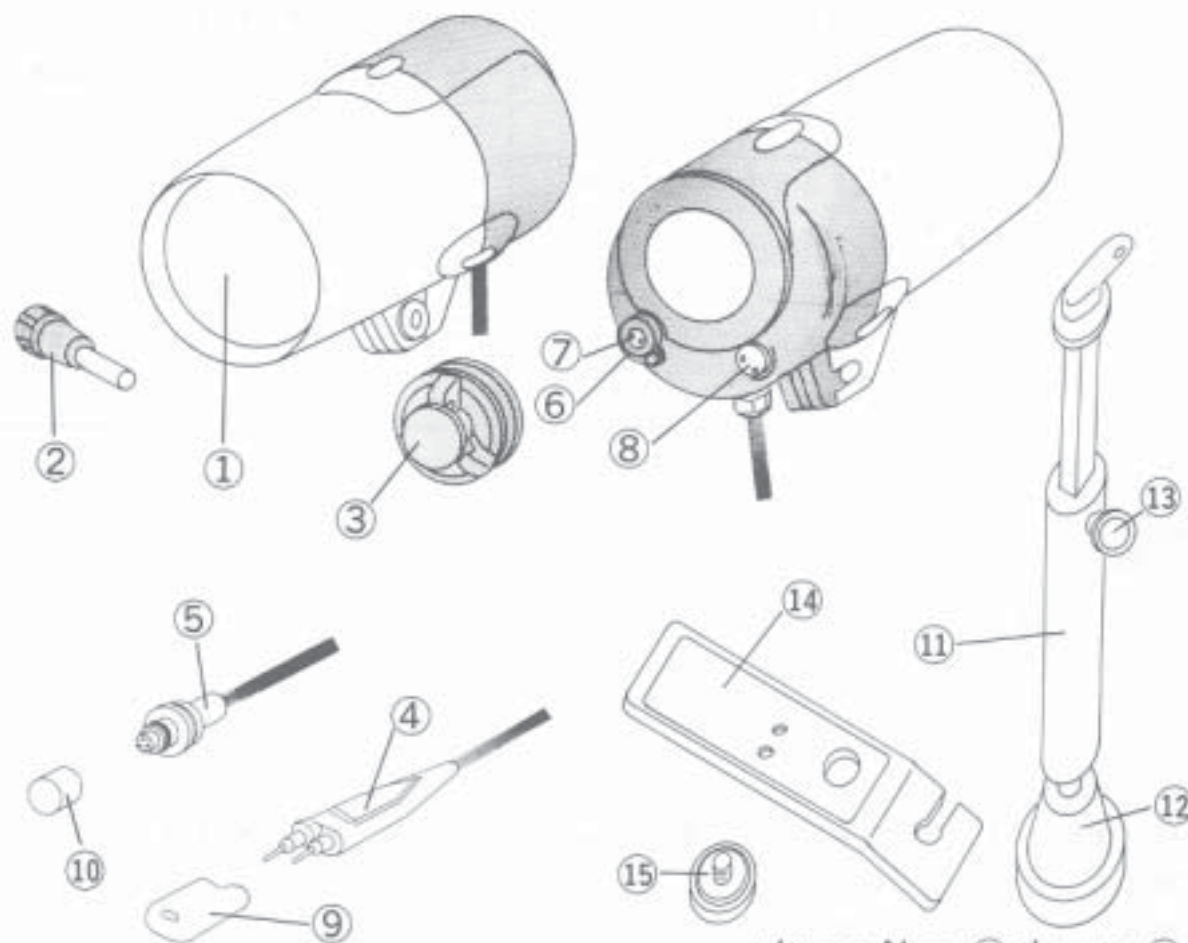
SEA&SEA

YS 50MS/50TTL

YELLOW SUB 50MS/50TTL

取扱説明書
INSTRUCTION

DESCRIPTIONS OF COMPONENTS



- ① ILLUMINATOR
- ② ARM FIXING BOLT
- ③ BATTERY CAP
- ④ SEALOC CORD N-I/
II OR N-III/IV/V
(YS50MS)
- ⑤ NIKONOS V CON-
NECTOR (YS50TTL)
- ⑥ SWITCH
- ⑦ NEON LAMP
- ⑧ TTL LAMP (YS50TTL)
- ⑨ SEALOC CORD CAP
(YS50MS)
- ⑩ CONNECTOR CAP
(YS50TTL)
- ⑪ SEA ARM IV
- ⑫ ARM FIXING KNOB
- ⑬ SLIDE ARM FIXING
SCREW (SEA ARM
IV)
- ⑭ STAY VII
- ⑮ CAMERA FIXING
SCREW

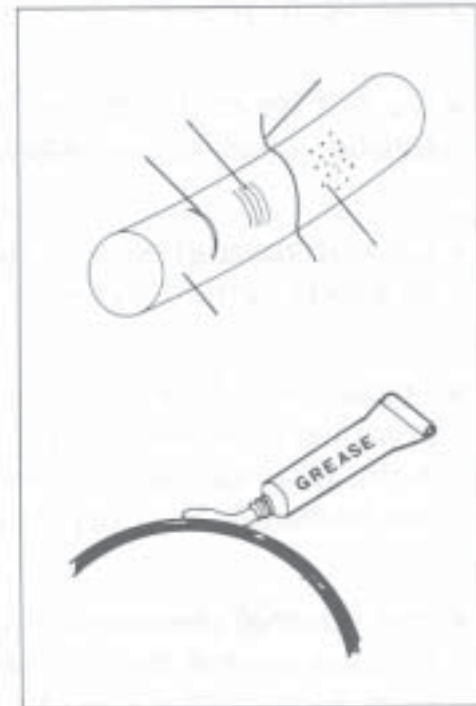
* Items Nos. ⑪ thru to ⑮ are optional accessories.

BEFORE PICTURE TAKING

1. O-RING

This strobe is designed to withstand the pressure of up to 60 meters (200ft) depth. One of the features is the unique design whereby this strobe has double safety measures, i.e., even if the battery chamber is flooded, the internal electronic mechanism is perfectly protected to prevent such flooding from entering into the mechanism compartment. However, if there is any mis-handling of the strobe, the O-ring may not effectively work as designed, and cause flooding. Some tip follows:

- * Check the O-ring and the O-ring seat and clean if any debris or sands.
- * Check the O-ring and replace if any scratch, damage, or deformation.
- * Clean the O-ring once in a while, by taking out the O-ring, wiping off the old silicone grease and slightly coat again with new silicone grease.
- * Be careful not to coat too much silicone grease, as thick grease tends to attract debris, sands, etc., causing flooding.
- * After use, or if not used for a long time, clean the O-ring and slightly coat with silicone grease, before storing it.



2. CAUTIONS BEFORE USE

Inside the totally waterproof structure, there is the high-efficiency internal electronic mechanism. Any mis-handling will result in less efficiency, or worse, may cause the equipment out of order. Some tip to prevent this:

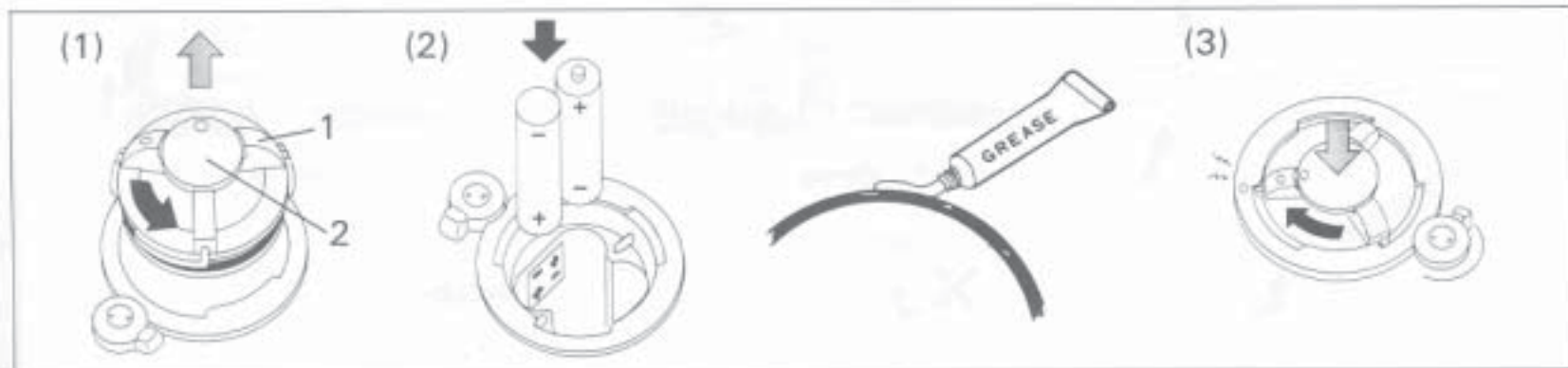
- * Do not leave the strobe under direct sunlight which may cause excessive heat inside the strobe, causing damages to the electronic parts.
- * Do not attempt to change the battery at places where the strobe is subject to water splash or sands carried by wind.
- * There should be no chance for water to get into inside the housing, except the battery chamber. However, it is recommended that you take the strobe to your dealer for a check if the chamber is flooded, at which time, wash the chamber with fresh water after taking out the batteries, and dry it before taking to your dealer.
- * The internal electronic mechanism is of a high-voltage electronic circuit type. Do not attempt to disassemble the strobe by yourself and instead, take it to your dealer at once. No warranty is applicable if the strobe is disassembled by an unauthorized party.
- * If to be stored for a long time, turn on the strobe until neon lamp comes on, and then turn the switch off and take out the batteries before storing.
- * Use detergent to clean. Do not use crude oil type solvent such as thinner, benzine, etc.

3. BATTERY

The battery for this strobe is of the pencil type 1.5V, such as AA battery or Ni-cad battery. Four of them are used.

How to load/replace

- 1) Dry your hands, hair, the cuff of your wet suits, etc. first, before opening the chamber. Be sure the inside of the chamber is dried before closing.
- 2) Turn 1 up to the "OPEN" position, and pull 2 straight out.
- 3) Be sure the switch is off, and then load the four batteries according to the \pm polarity marks.
- 4) Check the O-ring of the battery cap for debris or damages, slightly coat with silicone grease, and then align the circle mark (○) of 2 with the "LOCK" position, push 1 straight in, and turn it toward "LOCK" until it clicks.
- 5) Be sure the four batteries are the same type. Replace all four batteries altogether.



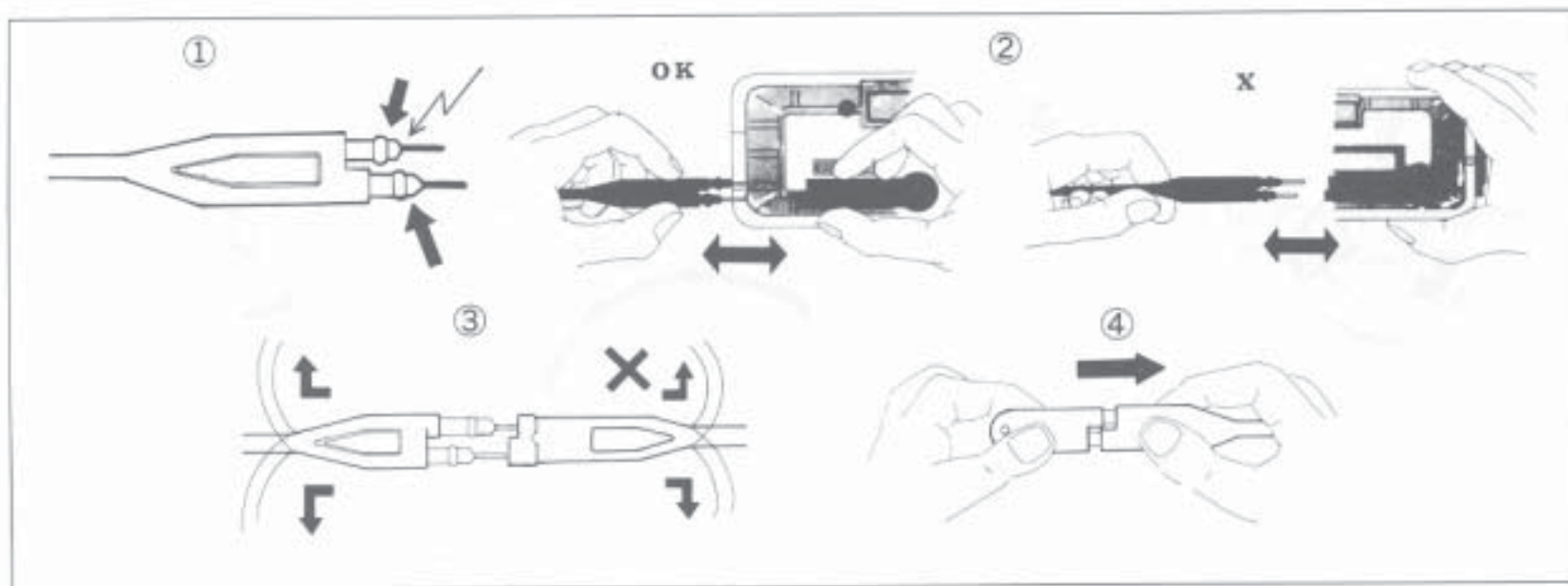
4. CONNECTORS

1) YS50MS

This strobe is compatible with any cameras or camera housings equipped with our SEA & SEA Bulkhead Connector without help of any adapters, or with Nikonos cameras via our SEA & SEA Sealoc Cord for Nikonos II or III/IV/V, and attachment with or removal from cameras can be easily done under water.

How to connect

- ① Slightly grease the portion as illustrated with arrow mark.
- ② Hold tight the connecting ends of both the camera and cord and push in straight.
- ③ When pulling off the connectors, hold the ends but not the cord, as otherwise it may cause a breakdown. Do not bend the cord, either.

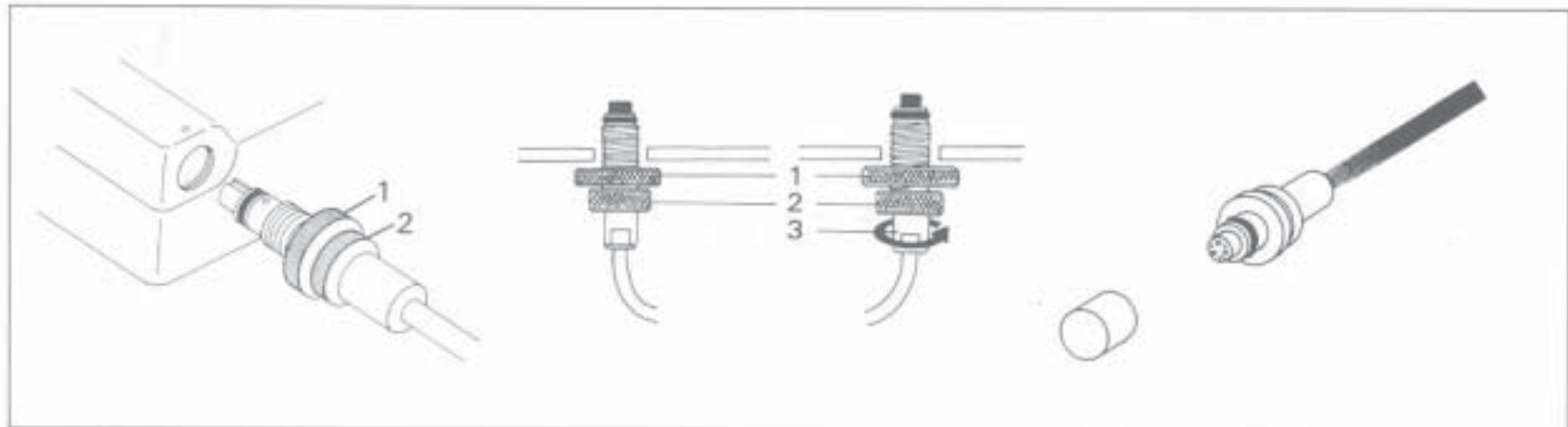


2) YS50TTL

The connector of this strobe is designed for use with Nikonos V model, and therefore, this can be attached to Nikonos III/IV directly without any help of adapters, to be used as manual strobe. For Nikonos V, either the TTL or manual function is your choice.

How to connect

- ① Check the O-ring for any debris, damages, etc., and slightly coat with silicone grease.
CAUTION: THE CONTACT POINTS OF CONNECTORS SHOULD BE KEPT FREE FROM GREASE TO AVOID ANY MALFUNCTION OF TTL.
- ② Align the circle marks found on both the camera and the strobe connectors and push straight in the strobe connector end to the camera connector.
- ③ Turn the nut 1 until it stops, to fix the connectors.
- ④ In the case of Nikonos III model, the stay has to be sandwiched in between the camera connector and the nut of strobe connector. Fix tightly with the nut 2 as illustrated.
- ⑤ Reverse the above steps to separate the camera and strobe. Be sure when you assemble or dismantle the camera/strobe, that the cord should not be twisted, bent, or pulled.
- ⑥ After use, clean the connector ends, slightly grease the O-ring, cap it, and screw 2 until it stops, before storing.



5. SWITCH

1) YS50MS

Two modes for your choice, "ON" for manual flashing and "SLAVE" for slave lighting.

* ON Mode

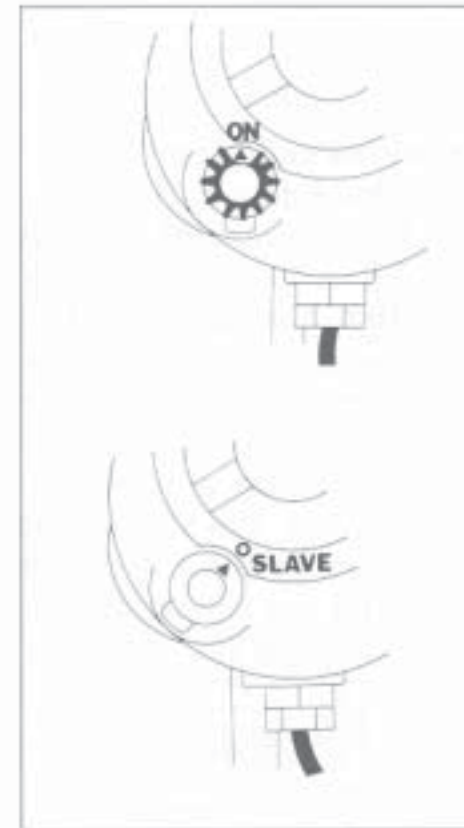
Synchronized with camera, it flashes at the GN value 20 (on land). The correct aperture must be determined according to the exposure table or the calculation based on the following formula:

$$\text{APERTURE} = \frac{\text{GN}}{\text{DISTANCE}}$$

Ready for flashing as soon as the neon lamp comes on. As the GN value reduces under water due to large absorption, the calculation should be based on 1/2-1/3 on-land GN value. The exposure table is based on 1/2 value or GN10.

ASA/ISO

25	50	100	200	400	m	ft
			2.8	4	5	16
		2.8	4	5.6	3.5	12
	2.8	4	5.6	8	2.5	8
2.8	4	5.6	8	11	1.8	6
4	5.6	8	11	16	1.2	4
5.6	8	11	16	22	0.9	3
8	11	16	22		0.6	2
11	16	22			0.45	1.5
16	22				0.3	1



* SLAVE Mode

Slave lighting functions by receiving other strobe's flashing. Setting this strobe on the Slave Mode, a multi-lighting system can be enjoyed so as to meet with your lighting image perfectly. The GN value for the multi-lighting is calculated as follows:

$$\text{MULTI GN} = \sqrt{\text{GN}^2 + \text{GN}^2 + \dots}$$

The master strobe should be set on manual operation, as, if operated on TTL or auto, the correct exposure is not obtainable.

- * As the slave lighting is to function by receiving other strobe's light, there may be some instances whereby the light reception is poor and the slave does not respond, in particular if the ambient light is strong or depending on the light conditions underwater. Or, if there happens to be another photo taking going on nearby using strobes, the slave may respond to it.

2) YS50TTL

Likewise, there are two choices, "ON" for manual flashing and "TTL" for TTL lighting, according to the camera used such as Nikonos III-V.

* ON Mode (Manual Flashing)

This mode is used when Nikonos III or IV is the camera, or Nikonos V for manual flashing. Synchronized with camera, it flashes at the GN value 24 (on land). The correct aperture must be determined according to the exposure table or the calculation based on the following formula:

$$\text{APERTURE} = \frac{\text{GN}}{\text{DISTANCE}}$$

Once the neon lamp comes on, the strobe is ready to flash.

- * The GN value reduces greatly under water due to large absorption. The calculation should be based on one half or one third on-land GN value, the exposure table is based on one half value or GN 12.

*TTL Mode

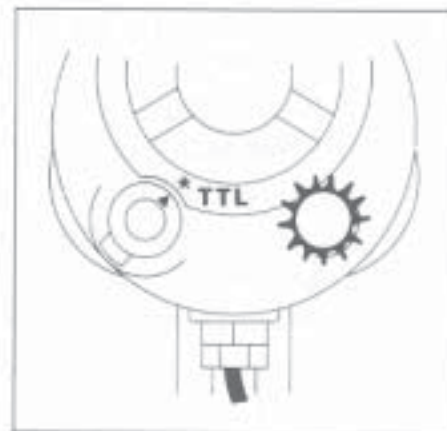
Exclusively used when assembled with Nikonos V, the camera determines the correct exposure and controls the strobe's light volume automatically depending on the object and distance, as follows:

ASA/ISO

25	50	100	200	400	m	FULL	ft	FULL
			2.8	4	1.4~	6	4.6~	20
		2.8	4	5.6	1~	4.3	3.3~	14
	2.8	4	5.6	8	0.7~	3	2.3~	10
2.8	4	5.6	8	11	0.5~	2.1	1.7~	7
4	5.6	8	11	16	0.4~	1.5	1.3~	5
5.6	8	11	16	22	0.3~	1.1	1~	3.6
8	11	16	22		0.3~	0.75	1~	2.5
11	16	22			0.3~	0.55	1~	1.8
16	22				0.3~	0.4	1~	1.3

Note: Figures are for reference only, as they vary depending on water clarity, floating particles, etc.

The TTL lamp comes on for about 3 seconds to assure you that the TTL has properly worked within the TTL range. Otherwise, the flashing was a full flashing and the lamp does not come on. If any possibility of under-exposure, check and adjust the distance-aperture position for correct setting.



6. ACCESSORIES

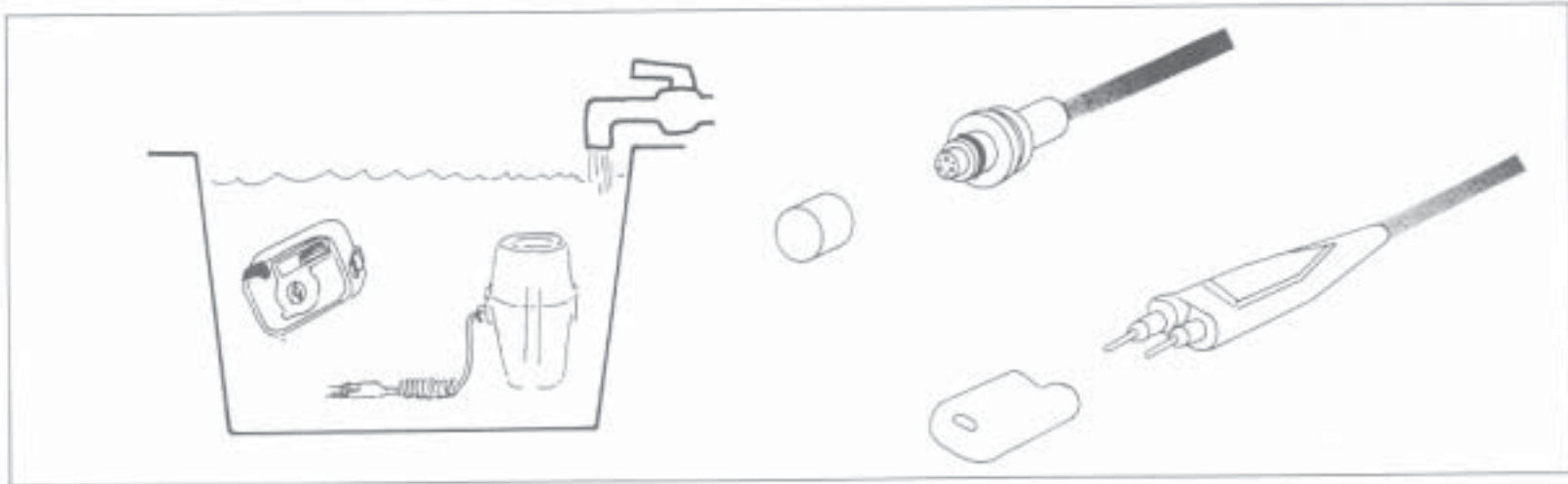
The best suited accessories for this strobe to make a standard set are Sea Arm IV and Stay VII. It is so designed that the combination of these accessories with SEA & SEA Strobes (except YS 150) enables the center of the strobe light aligns with the camera lens center, thus preventing any off-center lighting automatically. For details, refer the instructions of each accessory.

There are other accessories as below and recommend you ask your dealers for the details:

- 1) SEA ARM II (SHORT, MEDIUM AND LARGE IN LENGTH)
- 2) SEA ARM III (FLEXIBLE)
- 3) SEA GRIP V
- 4) STAY SGV
- 5) SEALOC CORDS NIKONOS I/II AND III/IV/V
- 6) DOUBLE STAY (FOR TWO LIGHTINGS)

AFTER PHOTO TAKING

1. Wash well with fresh water without removing any components.
2. Dry well.
3. Remove the connectors.
4. Take out the batteries.
5. Clean the connectors.
6. Lightly coat the O-ring and the tip of the cord with silicone grease and cap it.



SPECIFICATIONS

	YS 50MS	YS 50TTL
G.N. (ON-LAND)	NO. 20 ASA/ISO 100 (FULL)	NO. 24 ASA/ISO 100 (FULL)
COVERAGE (ON-LAND)	90° (20MM LENS UNDER WATER)	←
POWER SOURCE	4× PENCIL 1.5V AA OR NICAD BATTERY	←
RECYCLE TIME	AA BATTERY-5 SEC; NI-CAD-3.5 SEC	←
NO OF FLASHINGS	AA BATTERY-180; NI-CAD-90	AA BATTERY-140 (MORE IN TTL) NI-CAD-70
FLASH CONTROL	NIL	TTL W/NIKONOS V
FLASH CONTROL RANGE	NIL	0.3-6m (ASA/ISO 100)
SLAVE FUNCTION	"SLAVE MODE"	NIL
PRESSURE	TESTED TO 60 METERS (200 FT)	←
DIMENSIONS	163 × 88 × 113MM	←
WEIGHT	650G (- 150G UNDER WATER)	700G (- 50G UNDER WATER)
BODY COLOR	CANARYAN YELLOW	ORANGE/MOSS GREEN
ACCESSORY	O-RING SET	←

* Based on the ambient temperature of 25° C.

* Data on Ni-Cad battery are those based on the Ni-Cad battery of specified 500mAh recharged for 15 hours with 50mA.

* Specifications and appearance subject to change without notice.